CROWLEY, LOUISIANA 2020

112th Annual Research Report

H. ROUSE CAFFEY RICE RESEARCH STATION

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112th Annual Research Report

H. ROUSE CAFFEY
RICE RESEARCH STATION
Crowley, Louisiana

2020

Louisiana State University Agricultural Center
Louisiana Agricultural Experiment Station
Louisiana Cooperative Extension Service
Louisiana College of Agriculture
William B. Richardson, LSU Vice President of Agriculture

H. Rouse Caffey Rice Research Station
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INTRODUCTION

Research at the H. Rouse Caffey Rice Research Station (HRCRRS), Crowley, LA, is conducted by scientists with the LSU AgCenter's Louisiana Agricultural Experiment Station. The 2020 rice research program included breeding/variety development, biotechnology, variety testing, fertilization, soil and water management, cultural practices, weed control, insect control, disease investigations, rice economics, and agronomy extension programs. Crops grown in rotation with rice were evaluated relative to increasing the efficiency of land use. The aquaculture research program places emphasis upon production practices, forages, and multi-cropping of crawfish with agronomic crops. Another important area of work is the production and distribution of foundation seed. The HRCRRS also conducts research studies in improving species for coastal restoration. In addition, the statewide rice extension agronomist conducts numerous educational programs from the HRCRRS. Although most research work was performed by members of the Rice Station faculty, several faculty members from the Baton Rouge campus conducted research at this station as well.

The research activities of this station include both fundamental and applied research; although, the latter predominates because of the mission of the HRCRRS. Research accomplishments and general progress of the HRCRRS during 2020 are presented in this report representing the 112th Annual Research Report of the H. Rouse Caffey Rice Research Station, Louisiana Agricultural Experiment Station, and LSU Agricultural Center. It is significant that this research facility has been providing new technology to the Louisiana rice industry for more than 100 years.

In addition to research responsibilities of the HRCRRS faculty and cooperators, many farmers, extension personnel, and others were trained and otherwise contacted during 2020. Due to the COVID-19 pandemic the annual HRCRRS field day was held virtually to highlight research findings. The faculty also participated in industry meetings, both on and off station, and worked individually with farmers and others in solving immediate problems. Several thousand people received services from the HRCRRS during 2020.

Projects at this station are conducted under the supervision of research scientists from the HRCRRS and by cooperating personnel from certain departments of the Louisiana Agricultural Experiment Station. Following the reports, station personnel and cooperators in 2020 are listed.

MONTHLY RAINFALL DATA
H. ROUSE CAFFEY RICE RESEARCH STATION - CROWLEY, LA
2020

DATE	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	YEAR TOTAL
1								.10	.42				
2	.35							.11					
3	1.41		.02									.04	
4	.03					.10	.13					.15	
5		.02	.21	.10		.12							
6		.23			2.71		.03	.50				.12	
7		.03				.04	.08					.07	
8					1.39		.90				.15		
9						.52				.08	.41		
10		.29	.80	.27		.12		.25	.09	4.72			
11	.52	.19	.13										
12		.02							.34			.22	
13	.05	.61		.06					.03				
14	.05				.18							.35	
15					1.90	.12							
16		.70						.02		.02		.30	
17	.34	.02	1.83		.22								
18			.15	.09	.22		.13						
19	1.5	.04		.06								1.58	
20		.40							.22				
21		.51	.07				.78		.03			.04	
22			.02			.35	.13		.36				
23	.96			.11		.11	.02		.90	.03			
24					.04	.17			.30			.92	
25		.82				.45	.95						
26	.24			.09	.06	.21	.05	1.57			.37		
27	.06				.19		.04	5.30			.02		
28							.99				2.85		
29	.05			3.80	.30		1.62	.55	.87		.82		
30								.45			.23	.03	
31								.02				.02	
MONTHLY TOTALS													
2020	**5.56**	**3.88**	**3.23**	**4.58**	**7.21**	**2.31**	**5.85**	**8.87**	**3.56**	**4.85**	**4.85**	**3.84**	**58.59**
2019	4.85	3.27	1.47	10.53	12.15	10.14	8.23	3.50	1.74	6.40	2.39	1.62	66.31

RICE BREEDING

GENETIC IMPROVEMENT OF RICE FOR LOUISIANA PRODUCTION[1]

A.N. Famoso, B. Angira, K.F. Bearb, V.B. Dartez, G.J. Guidry, J.A. John II, and B.L. Williams

INTRODUCTION

The primary objective of the Rice Breeding Project is the development of superior varieties for the Louisiana rice industry. The Breeding Project is developing improved genotypes of both long- and medium-grain types, which are both important in the state and region. A major area of emphasis is the development of Clearfield and Provisia herbicide-resistant varieties. The project is also placing emphasis on the development of special purpose types.

In addition to the primary objective of varietal development, the Breeding Project also conducts other research that may have direct and/or indirect contributions for varietal development. Included here are studies on milling quality, mutation breeding, date of planting, and herbicide tolerance of new varieties and experimental lines.

The 2020 rice breeding nursery included more than 50,000 breeding rows. Over 400 new breeding crosses were made, and 50 populations were screened in the greenhouse through Marker-Assisted Selection (MAS) focusing primarily on key traits, such as amylose, gel temp, grain shape, aroma, plant height and blast resistance. On- and off-station testing included 10,000 yield plots. Preliminary Yield testing included over 2,900 new lines evaluated in 5,800 plots. In 2020, the Regional Yield Test (RYT) consisted of 165 entries in their second year of yield testing. The RYT was conducted over three locations and 990 plots. Advanced stages of testing included the Cooperative Uniform Regional Rice Nursery (URN), which contained 240 experimental lines and checks (51 Louisiana entries). The Commercial Advanced (CA) trial consisted of 80 entries and was tested across six locations.

[1] This research is supported in part by funding provided by rice producers through the Louisiana Rice Research Board.

COMMERCIAL ADVANCED TRIAL

The Commercial Advanced (CA) trial is a multi-location test conducted by the Rice Breeding Project in the major rice growing regions in Louisiana. The objective of this trial is to evaluate the adaptation and stability of commercial rice varieties and advanced experimental lines for a number of important agronomic and yield characteristics.

Test locations in 2020 included three at the H. Rouse Caffey Rice Research Station (HRCRRS) at Crowley and three on-farm test sites in Acadia, Evangeline and St. Landry parishes.

Eighty entries were tested in a randomized complete block design with two replications. Varieties and hybrids were seeded at 90 and 38 lb/A, respectively. Planting dates were: HRCRRS, March 9; HRCRRS-2, April 1; HRCRRS-SF, April 3; Acadia, April 2; Evangeline, April 2; and St. Landry, May 7. Harvest dates were: HRCRRS, July 30; HRCRRS-2, Aug. 20; HRCRRS-SF, Aug. 19; Acadia, Aug. 20; Evangeline, Aug. 21; and St. Landry, Sept. 16. Results from these trials are shown in Tables 1-7.

Table 1. Entry number, pedigree, grain type, and source information for entries in the Commercial Advanced trial, 2020.

Entry	Line	Pedigree	Grain Type†	Source‡
001	182L1337	CL131/CHNR/4/CPRS/KBNT//9502008A/3/CCDR/JEFF	LG	LAES
002	1902026	WLLS/CFX18//DREW/CFX18/3/CHNR//CCDR/JEFF	LG	LAES
003	1902034	9502008/DREW//CLR20/3/CPRS/KBNT//9502008/6/KATY/CPRS//NWBT/KATY/ 3/9502008/4/CLR9/5/9502008/TCRI//CLR5	LG	LAES
004	183L1170	CHNR//CCDR/JEFF/3/BASF2-22	LG	LAES
005	183L2066	PVL01/CTHL	LG	LAES
006	1902110	LGRU/CLR11/4/9302065/3/CFX29/AR1142/LA2031/4/CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A	LG	LAES
007	183L2069	PVL01/CTHL	LG	LAES
008	171M1867	LFTE/BNGL//CFFY	MG	LAES
009	1902126	CHNR/6/CPRS/KBNT//9502008/5/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR9	LG	LAES
010	181M1763	NPTN/JPTR	MG	LAES
011	181M1748	CFFY/3/BNGL/9502065//EARL	MG	LAES
012	182L1240	TRNS//TRNS/CL131	LG	LAES
013	182L1486	CL131/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9302065/3/CGX-29/AR1142/LA2031	LG	LAES
014	182L2137	CFX-18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/ 9602065/3/CFX-29/AR1142/LA2031	LG	LAES
015	1902142	9502008A/DREW//CLR20/4/9502008A//AR1188/CCDR/3/CPRS/KBNT//9502008A	LG	LAES
016	172L3323	CL131/CHNR//TRNS	LG	LAES
017	182L2180	CL153/LKST	LG	LAES
018	181L2018	MS4077/CHTL	HI	LAES
019	181L2027	MS4077/CHTL	HI	LAES
020	1902162	DREW//CHNR/LMNT/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	LG	LAES
021	182L2076	DREW/5/CPRS/3/9502008A//AR1188/CCDR/4/CPRS/9502008A/3/CFX29//AR1142/LA2031	LG	LAES
022	182L1584	CPRS/KBNT//WLLS/CFX18/3/MBLE/4/CPRS/KBNT//CFX29/CCDR/3/06CFP952	LG	LAES
023	1902170	1002146*4//JZMN/08CLR004	AL	LAES

Continued.

Table 1. Continued.

Entry	Line	Pedigree	Grain Type[†]	Source[‡]
024	1702183	TRNS//CCDR/JEFF/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	LG	LAES
025	182L1136	CCDR/JEFF//CFX26/9702128/3/CL151	LG	LAES
026	1702140	CHNR/MRMT	LG	LAES
027	182L2194	CL172/CL153	LG	LAES
028	181L1577	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	LG	LAES
029	181L2083	CHTL/CL153	LG	LAES
030	181L1654	CTHL/MRMT	LG	LAES
031	1902202	CPRS/KBNT//9502008/3/CCDR/JEFF/4/MRMT	LG	LAES
032	1902207	CTHL/4/CPRS/KBNT//9502008/3/CCDR	LG	LAES
033	1902212	TRNS//CCDR/JEFF/3/AR1188/CCDR//9502008/LGRU	LG	LAES
034	181L2015	JZMN2/CHTL	AL	LAES
035	1902174	NPTN//BNGL/CL161/3/NPTN	MG	LAES
036	173L2039	CHENIERE//CCDR/JEFF/3/BASF2-22	LG	LAES
037	183L2064	PVL01/CTHL	LG	LAES
038	183L2067	PVL01/CTHL	LG	LAES
039	181L1578	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	LG	LAES
040	1902227	NPTN/JPTR	MG	LAES
041	LAH169	LAH169	LG	LAES
042	181L1660	CTHL/MRMT	LG	LAES
043	181L2063	CPRS/LKST	LG	LAES
044	181L1576	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	LG	LAES
045	182M1792	NPTN//BNGL/CL161/3/NPTN	MG	LAES
046	181L1537	TGRT/3/TRNS//CCDR/JEFF	LG	LAES
047	181L1657	CTHL/MRMT	LG	LAES
048	181L1588	CCDR/3/TRNS//CCDR/JEFF	LG	LAES
049	181L1593	TRNS//CCDR/JEFF/4/9502008A//AR1188/CCDR/3/CCDR/JEFF	LG	LAES
050	CLH161	CLH161	LG	LAES
051	CL-Toro	JZMN/08CLR004//JZMN	LG	LAES
052	MRMT	MERMENTAU	LG	LAES
053	RT 7301	RT 7301	LG	RiceTec
054	CLXL745	CLXL745	LG	RiceTec
055	CLL17	CL131/TRNS	LG	LAES
056	TITN	TITAN	MG	AAES
057	CL111	CL111	LG	LAES
058	CL151	CL151	LG	LAES
059	CL153	CL153	LG	LAES
060	CHNR	CHENIERE	LG	LAES
061	PVL01	PVL01	LG	LAES
062	PVL02	PVL02	LG	LAES
063	JPTR	JUPITER	MG	LAES
064	CLJ01	CLJ01	AL	LAES
065	1801101	CL172/RU1102034	LG	AAES
066	1901137	CL271/JPTR	MG	AAES
067	CLL16	CLL16	LG	AAES

Continued.

Table 1. Continued.

Entry	Line	Pedigree	Grain Type[†]	Source[‡]
068	Jewel	19991516/19951166/7/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/ WLLS/6/RU9201179	LG	AAES
069	DLLA2	DELLA2	AI	LAES
070	JZMN	JAZZMAN	AL	LAES
071	CCDR	CPRS//L202/TBNT	LG	LAES
072	CLM04	CLM04	MG	LAES
073	1701084	RU0801076/5/KATY/NWBT//L201/7402003/3/WLLS/4/L201/7402003/ /KATY/NWBT/3/LGRU	LG	AAES
074	1801169	ROYJ/1501024	LG	AAES
075	CLL15	RU1302048/RU1302045	LG	AAES
076	Lynx	EARL/9902028//JPTR	MG	AAES
077	1604193	CHNR/BNKS	LG	MAES
078	1704077	Texmont/TeQing(BF7-46)/Trenasse	LG	MAES
079	DGL2065	DGL2065	LG	Nutrien
080	DGL263	DGL263	LG	Nutrien

[†] LG = Long grain, MG = Medium grain, AI = Long-grain aromatic-Della type, AL = Long-grain aromatic-Jazzman type, and HI = Long-grain high amylose-Dixiebelle type

[‡] LAES – H. Rouse Caffey Rice Research Station, Louisiana Agricultural Experiment Station, LSU AgCenter, Crowley; AAES – Arkansas Agricultural Experiment Station, Stuttgart, AR; MAES – Delta Research and Extension Center, Stoneville, MS; and TAES, USDA – Texas A&M Research and Education Center, Texas Agricultural Experiment Station, U.S. Department of Agriculture, Beaumont, Texas.

Table 2. Grain and agronomic performance of entries in the 2020 Commercial Advanced trial. Mowata, Acadia Parish, Louisiana.

ENT	NAME	PEDIGREE	HTE (cm)	YIELD (lb/A)
053	RT7301	RT7301	112.0	9716.1
076	Lynx	EARL/9902028//JPTR	100.5	9559.5
080	DGL263	DGL263	105.5	9225.2
054	CLXL745	CLXL745	116.0	8960.7
072	CLM04	CLM04	103.0	8582.2
050	CLH161	CLH161	119.0	8493.3
067	CLL16	CLL16	112.0	8314.8
041	LAH169	LAH169	121.0	8308.3
045	2002212	NPTN//BNGL/CL161/3/NPTN	99.0	8143.6
055	CLL17	CL131/TRNS	99.0	8030.6
075	CLL15	RU1302048/RU1302045	101.5	7943.6
035	1902174	NPTN//BNGL/CL161/3/NPTN	93.5	7882.2
066	1901137	CL271/JPTR	102.0	7876.1
052	MRMT	MERMENTAU	102.5	7870.7
058	CL151	CL151	106.0	7864.2
074	1801169	ROYJ/1501024	109.5	7827.7
046	2002217	TGRT/3/TRNS//CCDR/JEFF	102.5	7825.9
079	DGL2065	DGL2065	97.5	7685.2
044	2002194	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	104.5	7654.6
031	1902202	CPRS/KBNT//9502008/3/CCDR/JEFF/4/MRMT	107.0	7543.8
028	2002146	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	105.5	7506.0
026	1702140	CHNR/MRMT	107.5	7494.9
065	1801101	CL172/RU1102034	113.0	7484.1
032	1902207	CTHL/4/CPRS/KBNT//9502008/3/CCDR	110.0	7397.8
056	TITN	TITAN	95.5	7383.9
059	CL153	CL153	103.5	7357.7
033	1902212	TRNS//CCDR/JEFF/3/AR1188/CCDR//9502008/LGRU	103.5	7330.5
073	1701084	RU0801076/5/KATY/NWBT//L201/7402003/3/WLLS/4/L201/7402003//KATY/NWBT/3/LGRU	98.5	7309.7
040	1902227	NPTN/JPTR	98.5	7299.6
057	CL111	CL111	103.5	7258.0
024	1702183	TRNS//CCDR/JEFF/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	104.0	7249.2

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	HTE (cm)	YIELD (lb/A)
030	2002154	CTHL/MRMT	114.0	7236.1
015	1902142	9502008A/DREW//CLR20/4/9502008A//AR1188/CCDR/3/CPRS/KBNT//9502008A	99.5	7209.3
034	2002166	JZMN2/CHTL	110.5	7171.8
062	PVL02	PVL02	119.0	7161.2
025	2002138	CCDR/JEFF//CFX26/9702128/3/CL151	92.0	7145.1
021	2002130	DREW/5/CPRS/3/9502008A//AR1188/CCDR/4/CPRS/9502008A/3/CFX29//AR1142/LA2031	97.0	7122.8
068	Jewel	19991516/19951166/7/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/WLLS/6/RU9201179	117.0	7113.6
051	2002037	JZMN/08CLR004//JZMN	119.0	7077.1
049	2002232	TRNS//CCDR/JEFF/4/9502008A//AR1188/CCDR/3/CCDR/JEFF	93.5	7075.2
063	JPTR	JUPITER	90.5	7074.3
011	2002094	CFFY/3/BNGL/9502065//EARL	94.5	7047.2
039	2002182	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	103.0	7030.3
017	2002114	CL153/LKST	98.5	6985.3
009	1902126	CHNR/6/CPRS/KBNT//9502008/5/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR9	106.5	6946.1
001	2002034	CL131/CHNR/4/CPRS/KBNT//9502008A/3/CCDR/JEFF	101.0	6945.1
036	2002170	CHENIERE//CCDR/JEFF/3/BASF2-22	102.0	6761.7
020	1902162	DREW//CHNR/LMNT/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	102.0	6756.6
048	2002227	CCDR/3/TRNS//CCDR/JEFF	106.0	6729.0
047	2002222	CTHL/MRMT	110.0	6710.9
029	2002150	CHTL/CL153	108.5	6691.1
064	CLJ01	CLJ01	104.0	6656.1
016	2002110	CL131/CHNR//TRNS	96.0	6639.6
069	DLLA2	DELLA2	114.5	6551.7
003	1902034	9502008/DREW//CLR20/3/CPRS/KBNT//9502008/6/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR9/5/9502008/ TCRI//CLR5	100.5	6544.3
007	2002074	PVL01/CTHL	109.5	6378.4
038	2002178	PVL01/CTHL	111.0	6347.0
061	PVL01	PVL01	106.0	6343.0
013	2002102	CL131/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9302065/3/CGX-29/AR1142/LA2031	104.0	6261.4
023	1902170	1002146*4//JZMN/08CLR004	101.5	6215.2
019	2002126	MS4077/CHTL	106.0	6201.0
002	1902026	WLLS/CFX18//DREW/CFX18/3/CHNR//CCDR/JEFF	100.5	6145.8
014	2002106	CFX-18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9602065/3/CFX-29/AR1142/LA2031	100.5	6083.0

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	HTE (cm)	YIELD (lb/A)
012	2002098	TRNS//TRNS/CL131	91.0	6025.3
043	2002190	CPRS/LKST	108.5	5925.2
018	2002122	MS4077/CHTL	101.5	5897.5
071	CCDR	CPRS//L202/TBNT	113.0	5877.7
070	JZMN	JAZZMAN	103.0	5839.4
060	CHNR	CHENIERE	105.5	5826.4
010	2002090	NPTN/JPTR	99.0	5724.7
037	2002174	PVL01/CTHL	119.0	5648.4
078	1704077	Texmont/TeQing(BF7-46)/Trenasse	113.5	5549.0
008	2002086	LFTE/BNGL//CFFY	100.0	5219.8
027	2002142	CL172/CL153	108.5	5075.0
005	2002070	PVL01/CTHL	103.5	5030.2
004	2002066	CHNR//CCDR/JEFF/3/BASF2-22	98.5	4661.7
006	1902110	LGRU/CLR11/4/9302065/3/CFX29/AR1142/LA2031/4/CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A	110.0	4206.4
077	1604193	CHNR/BNKS	109.5	3312.1

Table 3. Grain and milling yields and agronomic performance of entries in the 2020 Commercial Advanced trial. Mamou, Evangeline Parish, Louisiana.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
053	RT7301	RT7301	3.0	189.0	113.0	11619.4	54.6	71.5	20.0
003	1902034	9502008/DREW//CLR20/3/CPRS/KBNT//9502008/6/KATY/CPRS//NWBT/ KATY/3/9502008/4/ CLR9/5/9502008/TCRI//CLR5	2.5	190.0	109.0	10107.7	59.5	69.7	17.3
080	DGL263	DGL263	3.0	190.0	110.0	10106.5	-	-	-
050	CLH161	CLH161	5.0	194.0	124.0	10053.9	61.3	70.6	14.5
002	1902026	WLLS/CFX18//DREW/CFX18/3/CHNR//CCDR/JEFF	3.7	193.0	102.7	9791.7	60.6	70.0	16.0
001	2002034	CL131/CHNR/4/CPRS/KBNT//9502008A/3/CCDR/JEFF	3.7	195.3	99.0	9751.9	62.8	71.0	7.0
076	Lynx	EARL/9902028//JPTR	3.0	197.5	103.0	9711.1	63.2	70.2	14.4
054	CLXL745	CLXL745	4.0	187.0	118.5	9693.8	56.7	71.0	18.1
024	1702183	TRNS//CCDR/JEFF/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	3.0	191.7	109.7	9685.5	62.6	70.6	14.3
065	1801101	CL172/RU1102034	3.7	196.3	105.7	9619.1	61.7	71.1	12.9
055	CLL17	CL131/TRNS	3.0	190.5	101.5	9600.8	57.3	68.4	10.4
021	2002130	DREW/5/CPRS/3/9502008A//AR1188/CCDR/4/CPRS/9502008A/3/CFX29// AR1142/LA2031	3.5	195.5	94.0	9486.1	63.3	71.9	9.1
032	1902207	CTHL/4/CPRS/KBNT//9502008/3/CCDR	3.0	196.0	104.0	9451.3	66.0	72.5	14.9
059	CL153	CL153	3.3	193.3	105.3	9445.7	63.0	70.6	11.8
067	CLL16	CLL16	2.7	196.7	105.7	9346.7	56.3	69.4	10.6
033	1902212	TRNS//CCDR/JEFF/3/AR1188/CCDR//9502008/LGRU	3.0	189.0	102.5	9331.9	63.0	70.8	13.5
057	CL111	CL111	3.0	189.0	106.5	9331.1	62.3	71.0	11.6
029	2002150	CHTL/CL153	3.0	196.0	109.3	9241.6	60.8	71.4	12.1
049	2002232	TRNS//CCDR/JEFF/4/9502008A//AR1188/CCDR/3/CCDR/JEFF	4.0	196.0	100.0	9226.3	62.3	70.6	6.5
008	2002086	LFTE/BNGL//CFFY	4.0	195.0	103.0	9211.0	56.9	70.2	8.4
010	2002090	NPTN/JPTR	2.7	197.3	103.7	9156.1	63.5	69.7	13.9
041	LAH169	LAH169	4.0	194.0	124.0	9154.6	60.7	70.3	14.3
027	2002142	CL172/CL153	3.5	193.0	100.5	9131.6	59.8	70.2	11.2
040	1902227	NPTN/JPTR	3.7	198.0	90.0	9121.1	62.6	70.6	10.6
005	2002070	PVL01/CTHL	3.0	194.0	108.0	9088.7	60.0	69.5	9.9
007	2002074	PVL01/CTHL	3.0	192.5	109.5	9029.2	60.8	70.2	5.5
035	1902174	NPTN//BNGL/CL161/3/NPTN	3.0	195.0	99.5	8997.6	66.0	70.6	12.3
071	CCDR	CPRS//L202/TBNT	3.0	197.0	94.0	8992.9	62.2	71.1	14.1
036	2002170	CHENIERE//CCDR/JEFF/3/BASF2-22	3.0	191.0	95.0	8985.0	61.5	69.8	4.7
074	1801169	ROYJ/1501024	2.5	197.0	109.0	8955.6	61.0	70.0	12.1

Continued.

Table 3. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
030	2002154	CTHL/MRMT	3.7	195.7	106.7	8949.7	62.1	70.3	11.6
009	1902126	CHNR/6/CPRS/KBNT//9502008/5/KATY/CPRS//NWBT/KATY/3/9502008/ 4/CLR9	3.3	193.7	101.3	8880.4	60.5	70.0	9.7
026	1702140	CHNR/MRMT	3.0	194.0	102.0	8845.6	59.3	70.2	10.4
056	TITN	TITAN	3.0	190.3	103.3	8839.3	57.7	70.4	7.9
019	2002126	MS4077/CHTL	3.0	196.5	101.0	8794.5	60.0	69.5	10.8
014	2002106	CFX-18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/LGRU/ CLR11/4/9602065/3/CFX-29/ AR1142/LA2031	4.0	191.0	102.0	8767.4	59.4	71.5	11.5
006	1902110	LGRU/CLR11/4/9302065/3/CFX29/AR1142/LA2031/4/CFX18//CCDR/ 9770532DH2/3/CPRS/ KBNT//9502008A	4.5	193.5	109.5	8754.7	60.7	70.4	6.6
079	DGL2065	DGL2065	4.0	194.0	92.5	8737.5	62.7	71.5	10.3
039	2002182	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	3.3	192.7	106.7	8724.1	62.2	70.3	14.0
051	2002037	JZMN/08CLR004//JZMN	3.0	196.0	121.0	8711.7	61.2	69.8	5.5
011	2002094	CFFY/3/BNGL/9502065//EARL	3.0	196.0	95.0	8659.4	62.8	70.0	14.5
052	MRMT	MERMENTAU	3.3	194.3	105.0	8644.3	62.7	70.8	13.6
075	CLL15	RU1302048/RU1302045	3.0	194.5	105.5	8637.5	60.3	68.0	10.4
048	2002227	CCDR/3/TRNS//CCDR/JEFF	4.0	194.0	100.0	8580.0	58.5	68.8	9.0
044	2002194	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	4.0	196.0	119.0	8513.7			
028	2002146	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	3.3	196.7	103.3	8486.5	63.0	70.4	12.8
025	2002138	CCDR/JEFF//CFX26/9702128/3/CL151	2.7	191.0	94.7	8447.9	59.9	70.5	10.8
068	Jewel	19991516/19951166/7/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/WLLS/ 6/RU9201179	3.5	196.0	109.5	8390.3	57.6	69.7	9.3
031	1902202	CPRS/KBNT//9502008/3/CCDR/JEFF/4/MRMT	4.0	196.5	105.5	8359.9	63.3	69.8	12.9
023	1902170	1002146*4//JZMN/08CLR004	2.7	187.0	100.3	8308.3	60.9	71.4	5.9
063	JPTR	JUPITER	3.0	198.5	94.0	8305.4	64.6	69.3	11.8
015	1902142	9502008A/DREW//CLR20/4/9502008A//AR1188/CCDR/3/CPRS/KBNT// 9502008A	4.5	197.0	97.5	8284.6	63.7	70.4	13.2
020	1902162	DREW//CHNR/LMNT/5/9502008A/DREW//CLR20/4/CPRS/KBNT// 9502008A	4.0	198.0	95.0	8143.3	60.5	70.4	10.9
013	2002102	CL131/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9302065/3/CGX-29/ AR1142/LA2031	5.0	198.0	109.5	8070.9	63.1	71.0	10.1
034	2002166	JZMN2/CHTL	3.0	195.0	99.0	8068.1	62.0	68.8	4.1
004	2002066	CHNR//CCDR/JEFF/3/BASF2-22	3.0	194.5	95.5	8050.0	60.5	68.9	6.6
078	1704077	Texmont/TeQing(BF7-46)/Trenasse	6.5	199.5	109.5	8020.6	58.3	68.8	10.3

Continued.

Table 3. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
038	2002178	PVL01/CTHL	3.7	196.0	109.3	7959.2	56.6	70.6	17.3
046	2002217	TGRT/3/TRNS//CCDR/JEFF	3.0	199.0	100.0	7925.1	60.0	70.9	10.6
064	CLJ01	CLJ01	3.0	195.0	100.5	7889.9	62.3	71.0	3.8
061	PVL01	PVL01	3.0	200.0	107.5	7830.7	58.1	69.2	5.8
060	CHNR	CHENIERE	4.5	197.0	108.5	7814.6	64.6	72.1	6.8
072	CLM04	CLM04	4.0	198.0	111.0	7774.2	66.0	70.8	8.1
016	2002110	CL131/CHNR//TRNS	4.0	193.0	100.0	7745.6	61.9	71.3	9.4
058	CL151	CL151	4.0	193.0	103.0	7712.3	59.2	70.5	14.4
070	JZMN	JAZZMAN	3.0	196.5	99.5	7659.2	63.6	70.9	2.7
022	2002134	CPRS/KBNT//WLLS/CFX18/3/MBLE/4/CPRS/KBNT//CFX29/CCDR/3/ 06CFP952	3.0	198.0	103.3	7596.4	61.5	69.5	7.1
047	2002222	CTHL/MRMT	5.0	196.0	105.0	7468.0	62.9	70.5	11.4
042	2002186	CTHL/MRMT	4.0	196.0	102.0	7126.6	63.2	70.8	11.7
043	2002190	CPRS/LKST	6.0	197.0	103.0	7075.1	60.8	70.8	9.6
062	PVL02	PVL02	3.0	190.0	114.3	6932.9	58.3	71.5	8.9
037	2002174	PVL01/CTHL	4.0	198.7	109.3	6786.0	59.7	69.9	8.1
012	2002098	TRNS//TRNS/CL131	4.0	195.0	100.0	6481.1	61.8	68.8	8.9
066	1901137	CL271/JPTR	3.7	197.7	96.3	6247.6	52.5	65.3	12.8
077	1604193	CHNR/BNKS	6.0	201.0	94.0	6201.7	62.4	69.9	8.1
069	DLLA2	DELLA2	4.7	197.7	106.0	6181.1	58.6	68.0	5.5
018	2002122	MS4077/CHTL	3.5	195.5	97.0	5140.9	49.6	67.7	9.4
017	2002114	CL153/LKST	-	-	-	-	-	-	-
045	2002212	NPTN//BNGL/CL161/3/NPTN	-	-	-	-	-	-	-
073	1701084	RU0801076/5/KATY/NWBT//L201/7402003/3/WLLS/4/L201/ 7402003// KATY/NWBT/3/LGRU	-	-	-	-	-	-	-

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 4. Grain and milling yields and agronomic performance of entries in the 2020 Commercial Advanced trial. H. Rouse Caffey Rice Research Station – Location 1, Crowley, Louisiana.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
053	RT7301	RT7301	2.0	162.7	92.7	12833.4	62.8	72.9	21.4
056	TITN	TITAN	3.0	168.7	101.3	11521.6	66.0	70.6	14.7
002	1902026	WLLS/CFX18//DREW/CFX18/3/CHNR//CCDR/JEFF	3.0	171.5	93.5	11369.0	66.2	72.3	26.5
080	DGL263	DGL263	3.0	167.7	94.3	11292.5	52.5	69.7	16.3
019	2002126	MS4077/CHTL	3.0	169.5	92.0	11268.0	61.0	71.5	22.6
003	1902034	9502008/DREW//CLR20/3/CPRS/KBNT//9502008/6/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR9/5/9502008/TCRI//CLR5	3.0	170.0	92.5	11232.1	61.0	70.7	25.9
039	2002182	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	2.7	169.0	96.7	11218.5	64.0	71.9	17.6
008	2002086	LFTE/BNGL//CFFY	3.0	171.3	93.0	11179.4	68.0	72.8	12.4
035	1902174	NPTN//BNGL/CL161/3/NPTN	4.3	176.3	91.7	11141.3	66.1	70.9	20.6
079	DGL2065	DGL2065	3.0	171.0	93.0	11044.3	61.9	72.1	13.1
047	2002222	CTHL/MRMT	2.7	165.0	95.0	11025.2	63.9	72.8	19.3
040	1902227	NPTN/JPTR	4.7	176.3	89.7	10978.3	60.4	69.6	14.9
017	2002114	CL153/LKST	3.3	172.3	98.0	10972.3	64.4	72.3	21.4
067	CLL16	CLL16	2.7	177.3	102.0	10971.8	60.9	71.0	22.4
032	1902207	CTHL/4/CPRS/KBNT//9502008/3/CCDR	3.3	170.0	97.3	10959.4	65.8	73.0	20.8
065	1801101	CL172/RU1102034	3.0	173.0	97.3	10938.1	60.0	70.5	18.2
028	2002146	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	3.0	171.7	96.3	10937.2	62.2	70.8	20.8
072	CLM04	CLM04	3.7	173.7	102.3	10927.4	66.3	70.8	16.7
029	2002150	CHTL/CL153	3.3	169.7	97.0	10927.0	60.4	71.9	24.8
044	2002194	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	2.3	168.7	95.0	10923.8	61.5	70.9	19.4
033	1902212	TRNS//CCDR/JEFF/3/AR1188/CCDR//9502008/LGRU	2.7	166.7	90.7	10883.6	62.8	71.5	17.8
059	CL153	CL153	3.0	173.0	94.3	10878.4	64.4	71.2	20.7
013	2002102	CL131/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9302065/3/CGX-29/AR1142/LA2031	3.7	174.0	95.0	10873.0	63.7	72.0	22.8
052	MRMT	MERMENTAU	2.7	168.7	91.0	10869.4	61.7	70.9	17.6
058	CL151	CL151	2.7	169.7	99.0	10859.8	58.1	71.1	25.5
042	2002186	CTHL/MRMT	3.3	169.7	94.7	10856.5	61.0	71.4	21.9
063	JPTR	JUPITER	3.7	175.7	96.7	10835.1	62.0	69.5	26.3
049	2002232	TRNS//CCDR/JEFF/4/9502008A//AR1188/CCDR/3/CCDR/JEFF	3.0	170.3	89.3	10834.2	61.3	72.0	14.7

Continued.

Table 4. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
011	2002094	CFFY/3/BNGL/9502065//EARL	3.0	173.7	95.3	10827.2	67.6	71.8	17.9
034	2002166	JZMN2/CHTL	3.7	169.3	91.7	10788.6	62.4	70.0	10.1
014	2002106	CFX-18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/ 9602065/3/CFX-29/AR1142/LA2031	3.0	170.7	95.3	10691.5	61.3	72.5	18.5
076	Lynx	EARL/9902028//JPTR	2.7	173.3	98.7	10662.5	67.9	71.3	21.3
068	Jewel	19991516/19951166/7/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/WLLS/6/ RU9201179	3.0	169.7	100.0	10650.1	60.5	71.0	19.1
015	1902142	9502008A/DREW//CLR20/4/9502008A//AR1188/CCDR/3/CPRS/KBNT//9502008A	2.3	171.7	90.3	10628.2	63.4	72.0	20.4
001	2002034	CL131/CHNR/4/CPRS/KBNT//9502008A/3/CCDR/JEFF	2.5	172.0	91.5	10557.7	62.2	72.2	14.6
046	2002217	TGRT/3/TRNS//CCDR/JEFF	3.0	171.3	93.0	10527.1	62.2	71.8	16.4
010	2002090	NPTN/JPTR	4.0	177.3	95.3	10506.3	65.1	70.5	22.5
006	1902110	LGRU/CLR11/4/9302065/3/CFX29/AR1142/LA2031/4/CFX18//CCDR/ 9770532DH2/3/CPRS/KBNT//9502008A	3.7	170.0	100.0	10504.7	61.9	72.7	18.8
031	1902202	CPRS/KBNT//9502008/3/CCDR/JEFF/4/MRMT	3.0	169.7	94.3	10502.0	61.5	70.5	19.5
043	2002190	CPRS/LKST	2.7	168.0	96.0	10470.6	65.8	74.0	18.4
041	LAH169	LAH169	2.3	161.3	111.0	10400.0	62.5	72.1	19.4
012	2002098	TRNS//TRNS/CL131	2.3	168.3	99.7	10326.1	62.8	69.9	18.1
022	2002134	CPRS/KBNT//WLLS/CFX18/3/MBLE/4/CPRS/KBNT//CFX29/CCDR/3/06CFP952	2.0	174.3	97.0	10318.8	63.6	70.5	18.2
074	1801169	ROYJ/1501024	3.3	175.7	100.3	10294.5	63.5	70.6	25.0
027	2002142	CL172/CL153	3.0	173.0	98.3	10228.9	59.7	71.0	20.1
024	1702183	TRNS//CCDR/JEFF/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	2.3	168.7	99.3	10223.2	65.7	71.2	19.3
016	2002110	CL131/CHNR//TRNS	3.0	167.7	91.7	10221.7	65.2	71.4	15.9
030	2002154	CTHL/MRMT	3.3	170.0	95.3	10211.2	64.6	72.0	20.8
020	1902162	DREW//CHNR/LMNT/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	3.0	175.3	95.3	10145.9	62.4	72.2	17.9
007	2002074	PVL01/CTHL	2.7	169.7	95.3	10112.4	65.3	72.9	15.7
071	CCDR	CPRS//L202/TBNT	3.3	170.3	97.7	10014.8	62.5	71.8	18.1
048	2002227	CCDR/3/TRNS//CCDR/JEFF	2.3	172.3	91.0	9995.8	60.6	71.1	13.3
077	1604193	CHNR/BNKS	7.0	178.7	118.7	9974.1	64.9	70.8	17.5
078	1704077	Texmont/TeQing(BF7-46)/Trenasse	6.5	173.0	108.7	9945.0	61.0	69.0	25.8
060	CHNR	CHENIERE	3.0	171.7	91.0	9904.0	63.9	72.4	13.0

Continued.

Table 4. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
026	1702140	CHNR/MRMT	2.3	169.3	96.3	9861.2	58.5	70.8	16.6
051	2002037	JZMN/08CLR004//JZMN	2.7	178.7	113.0	9858.2	60.2	70.4	25.2
045	2002212	NPTN//BNGL/CL161/3/NPTN	2.7	173.7	97.7	9807.2	62.6	69.8	16.8
023	1902170	1002146*4//JZMN/08CLR004	3.0	171.3	98.7	9726.5	64.2	72.2	6.0
069	DLLA2	DELLA2	2.0	171.7	97.7	9680.4	60.5	69.8	15.2
021	2002130	DREW/5/CPRS/3/9502008A//AR1188/CCDR/4/CPRS/9502008A/3/CFX29//AR1142/LA2031	3.3	176.7	86.3	9669.4	66.7	73.1	22.4
025	2002138	CCDR/JEFF//CFX26/9702128/3/CL151	2.7	172.0	95.3	9620.2	59.7	70.6	20.7
073	1701084	RU0801076/5/KATY/NWBT//L201/7402003/3/WLLS/4/L201/7402003//KATY/NWBT/3/LGRU	2.7	177.3	103.0	9518.1	59.5	70.2	33.5
075	CLL15	RU1302048/RU1302045	2.0	169.7	92.3	9515.2	65.3	71.2	21.7
057	CL111	CL111	2.3	166.7	99.3	9498.4	65.3	72.2	19.7
004	2002066	CHNR//CCDR/JEFF/3/BASF2-22	2.7	172.0	90.7	9464.5	64.2	70.7	18.2
009	1902126	CHNR/6/CPRS/KBNT//9502008/5/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR9	2.7	176.7	100.0	9439.8	62.8	71.7	16.6
054	CLXL745	CLXL745	2.0	160.3	102.3	9433.8	61.6	72.2	17.5
070	JZMN	JAZZMAN	2.0	174.7	106.3	9367.3	64.9	71.1	15.9
005	2002070	PVL01/CTHL	2.7	171.0	92.7	9348.1	66.0	72.8	20.7
050	CLH161	CLH161	3.3	165.0	115.0	9181.4	61.0	70.9	18.6
036	2002170	CHENIERE//CCDR/JEFF/3/BASF2-22	3.0	172.3	92.0	9153.4	65.8	70.9	16.4
064	CLJ01	CLJ01	2.7	174.3	94.3	9094.8	59.8	71.3	4.5
061	PVL01	PVL01	2.3	182.0	100.3	8985.0	62.4	70.3	16.1
037	2002174	PVL01/CTHL	3.3	175.7	98.7	8820.5	58.5	71.2	12.4
038	2002178	PVL01/CTHL	2.0	173.3	102.0	8583.4	61.5	72.6	29.2
062	PVL02	PVL02	2.3	169.3	106.7	8445.1	58.7	72.0	15.1
066	1901137	CL271/JPTR	4.0	180.3	96.3	8385.3	60.0	69.4	14.5
055	CLL17	CL131/TRNS	2.0	171.0	94.7	8119.7	58.0	69.0	21.0
018	2002122	MS4077/CHTL	3.0	168.0	95.5	7675.8	56.6	69.6	19.3

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 5. Grain and milling yields and agronomic performance of entries in the 2020 Commercial Advanced trial. H. Rouse Caffey Rice Research Station – Location 2, Crowley, Louisiana.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
053	RT7301	RT7301	3.7	187.0	114.7	13695.5	56.0	71.8	17.0
054	CLXL745	CLXL745	3.0	184.0	122.3	12073.7	56.6	72.3	12.5
041	LAH169	LAH169	4.0	184.3	122.0	11486.2	58.2	71.8	12.8
080	DGL263	DGL263	3.3	188.7	102.0	11224.0	46.6	69.9	9.4
050	CLH161	CLH161	5.3	188.0	128.0	10973.7	58.8	71.5	12.6
032	1902207	CTHL/4/CPRS/KBNT//9502008/3/CCDR	3.0	189.7	105.0	10870.7	65.5	73.0	11.8
067	CLL16	CLL16	2.3	195.0	112.7	10712.4	61.4	71.1	9.8
003	1902034	9502008/DREW//CLR20/3/CPRS/KBNT//9502008/6/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR9/5/9502008/TCRI//CLR5	3.0	189.0	103.0	10595.7	61.3	71.6	17.2
059	CL153	CL153	3.0	189.0	104.7	10585.6	64.4	71.7	13.5
008	2002086	LFTE/BNGL//CFFY	4.5	192.0	94.5	10439.9	64.2	72.1	9.2
063	JPTR	JUPITER	3.7	196.0	95.7	10418.8	67.8	70.6	7.9
009	1902126	CHNR/6/CPRS/KBNT//9502008/5/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR9	2.5	191.5	107.0	10290.9	62.4	71.2	8.7
075	CLL15	RU1302048/RU1302045	2.3	186.7	98.7	10267.7	58.8	71.5	12.1
002	1902026	WLLS/CFX18//DREW/CFX18/3/CHNR//CCDR/JEFF	3.0	189.5	99.5	10211.9	63.4	71.6	18.7
076	Lynx	EARL/9902028//JPTR	3.7	192.3	107.7	10157.4	65.1	71.8	13.3
019	2002126	MS4077/CHTL	3.5	194.0	102.0	10129.1	62.7	70.7	10.3
072	CLM04	CLM04	2.0	196.0	113.0	10080.3	68.7	71.9	9.5
065	1801101	CL172/RU1102034	2.7	190.0	105.7	10041.8	62.5	71.3	11.6
017	2002114	CL153/LKST	3.5	187.5	101.5	9984.8	58.6	70.7	12.9
055	CLL17	CL131/TRNS	2.3	188.7	107.0	9956.6	60.0	71.0	12.9
014	2002106	CFX-18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9602065/3/CFX-29/AR1142/LA2031	3.0	188.0	105.5	9950.5	60.9	72.0	8.1
027	2002142	CL172/CL153	3.3	190.0	104.3	9904.6	60.3	70.5	11.0
012	2002098	TRNS//TRNS/CL131	3.0	185.5	102.5	9888.3	61.0	69.7	9.7
013	2002102	CL131/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9302065/3/CGX-29/AR1142/LA2031	4.5	191.5	102.5	9852.6	61.9	70.8	13.0
024	1702183	TRNS//CCDR/JEFF/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	3.0	184.7	111.0	9842.4	59.2	71.4	11.1
074	1801169	ROYJ/1501024	3.0	192.3	105.3	9840.7	63.5	71.7	13.2

Continued.

Table 5. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
001	2002034	CL131/CHNR/4/CPRS/KBNT//9502008A/3/CCDR/JEFF	3.0	192.5	98.0	9813.2	64.0	72.0	5.8
079	DGL2065	DGL2065	4.0	190.7	97.7	9775.2	63.5	72.5	11.1
068	Jewel	19991516/19951166/7/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/WLLS/6/ RU9201179	3.0	188.7	116.7	9765.6	59.6	71.4	11.5
006	1902110	LGRU/CLR11/4/9302065/3/CFX29/AR1142/LA2031/4/CFX18//CCDR/ 9770532DH2/3/CPRS/KBNT//9502008A	4.5	189.0	109.0	9664.3	64.2	73.2	12.2
034	2002166	JZMN2/CHTL	3.7	189.7	99.7	9654.3	64.9	71.6	5.1
016	2002110	CL131/CHNR//TRNS	3.5	185.5	106.5	9610.1	62.0	70.8	6.0
043	2002190	CPRS/LKST	4.0	191.7	108.7	9584.8	62.2	73.3	10.9
011	2002094	CFFY/3/BNGL/9502065//EARL	3.0	195.0	95.5	9558.3	63.9	70.4	13.1
020	1902162	DREW//CHNR/LMNT/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	3.3	190.3	104.0	9524.9	60.5	71.9	6.1
026	1702140	CHNR/MRMT	3.0	189.7	104.3	9502.9	58.9	71.6	14.7
015	1902142	9502008A/DREW//CLR20/4/9502008A//AR1188/CCDR/3/CPRS/KBNT//9502008A	4.5	189.0	96.0	9492.0	61.5	70.8	13.8
073	1701084	RU0801076/5/KATY/NWBT//L201/7402003/3/WLLS/4/L201/7402003//KATY/ NWBT/3/ LGRU	3.3	193.0	102.3	9486.9	58.1	71.0	11.9
042	2002186	CTHL/MRMT	4.3	191.0	102.3	9429.7	62.3	71.5	11.2
028	2002146	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	3.3	189.7	101.3	9428.4	63.5	70.5	12.2
029	2002150	CHTL/CL153	3.3	191.0	107.3	9418.5	62.5	72.4	12.3
022	2002134	CPRS/KBNT//WLLS/CFX18/3/MBLE/4/CPRS/KBNT//CFX29/CCDR/3/06CFP952	3.3	192.3	107.0	9385.5	64.8	70.6	8.8
031	1902202	CPRS/KBNT//9502008/3/CCDR/JEFF/4/MRMT	3.0	189.3	102.0	9338.8	64.3	72.2	12.3
035	1902174	NPTN//BNGL/CL161/3/NPTN	3.3	194.7	98.3	9237.5	66.2	70.9	12.5
007	2002074	PVL01/CTHL	3.5	189.0	107.0	9183.6	61.1	71.4	6.8
071	CCDR	CPRS//L202/TBNT	4.0	190.3	106.3	9162.4	64.7	72.7	11.4
060	CHNR	CHENIERE	3.7	191.3	103.0	9126.9	64.1	73.0	6.7
039	2002182	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	3.0	189.0	102.3	9085.0	63.3	71.0	11.6
046	2002217	TGRT/3/TRNS//CCDR/JEFF	4.3	190.0	99.7	9083.6	58.8	72.2	7.7
056	TITN	TITAN	3.7	187.7	104.0	9070.7	59.7	70.5	10.6
004	2002066	CHNR//CCDR/JEFF/3/BASF2-22	3.0	189.5	98.5	9032.8	55.5	70.0	10.2
047	2002222	CTHL/MRMT	4.3	189.7	107.7	9023.7	62.6	72.5	11.5
069	DLLA2	DELLA2	2.7	192.7	104.7	9023.0	60.6	69.9	9.4

Continued.

Table 5. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
005	2002070	PVL01/CTHL	3.0	192.0	104.5	9002.8	63.5	71.7	10.7
052	MRMT	MERMENTAU	3.3	190.3	102.3	8885.9	63.4	71.5	9.7
044	2002194	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	3.3	189.7	100.3	8835.0	62.5	71.3	9.0
040	1902227	NPTN/JPTR	4.0	193.7	89.7	8793.8	65.9	71.0	10.7
030	2002154	CTHL/MRMT	3.7	191.7	105.7	8737.7	64.3	72.7	10.1
051	2002037	JZMN/08CLR004//JZMN	3.0	195.0	118.0	8600.9	63.7	71.0	4.3
064	CLJ01	CLJ01	3.0	191.7	103.3	8529.7	65.6	72.1	3.4
062	PVL02	PVL02	3.0	188.0	117.3	8469.3	57.8	72.5	7.6
036	2002170	CHENIERE//CCDR/JEFF/3/BASF2-22	3.3	192.3	94.0	8390.5	57.1	70.2	8.6
025	2002138	CCDR/JEFF//CFX26/9702128/3/CL151	3.0	189.7	98.0	8387.5	59.6	71.9	14.6
070	JZMN	JAZZMAN	3.0	193.3	103.3	8210.6	65.0	71.5	4.0
058	CL151	CL151	2.7	188.3	104.3	8198.2	58.1	71.9	15.2
057	CL111	CL111	2.3	183.3	109.0	8193.2	57.0	72.4	12.7
033	1902212	TRNS//CCDR/JEFF/3/AR1188/CCDR//9502008/LGRU	4.0	184.7	99.3	8158.1	62.1	71.7	8.7
021	2002130	DREW/5/CPRS/3/9502008A//AR1188/CCDR/4/CPRS/9502008A/3/CFX29//AR1142/ LA2031	3.7	192.0	94.7	8133.0	59.3	70.3	13.0
038	2002178	PVL01/CTHL	3.3	193.7	114.7	8126.6	58.0	71.7	13.3
023	1902170	1002146*4//JZMN/08CLR004	3.0	187.0	107.3	8049.8	62.9	72.3	3.3
049	2002232	TRNS//CCDR/JEFF/4/9502008A//AR1188/CCDR/3/CCDR/JEFF	4.0	189.3	94.7	8029.1	59.4	71.6	11.6
010	2002090	NPTN/JPTR	3.5	195.5	97.0	7895.8	63.5	69.6	16.9
078	1704077	Texmont/TeQing(BF7-46)/Trenasse	6.3	190.3	112.3	7632.5	53.4	67.8	13.4
061	PVL01	PVL01	3.0	197.7	103.0	7562.9	61.5	71.2	5.1
037	2002174	PVL01/CTHL	4.3	195.3	113.7	7456.7	58.4	70.7	5.2
048	2002227	CCDR/3/TRNS//CCDR/JEFF	3.7	190.0	97.7	7351.6	57.4	70.8	6.5
066	1901137	CL271/JPTR	3.3	197.0	95.7	7264.3	60.9	68.4	11.9
045	2002212	NPTN//BNGL/CL161/3/NPTN	2.7	195.3	101.0	6730.9	59.2	68.0	16.5
018	2002122	MS4077/CHTL	4.0	190.0	100.5	5150.4	50.3	68.0	10.1
077	1604193	CHNR/BNKS					58.635	70.11	4.45

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 6. Grain and milling performance of entries in the 2020 Commercial Advanced trial. H. Rouse Caffey Rice Research Station – South Farm, Crowley,

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
053	RT7301	RT7301	3.7	191.0	100.7	9387.7	37.7	71.6	21.9
045	2002212	NPTN//BNGL/CL161/3/NPTN	2.7	192.7	96.7	9384.6	64.2	71.7	19.1
076	Lynx	EARL/9902028//JPTR	3.7	192.7	92.7	9319.7	55.6	69.7	9.8
072	CLM04	CLM04	2.7	193.7	100.7	9029.4	63.3	70.5	10.6
050	CLH161	CLH161	5.0	190.3	111.3	9001.1	55.3	71.4	12.4
080	DGL263	DGL263	2.7	189.7	95.3	8943.8	40.8	68.9	11.7
066	1901137	CL271/JPTR	3.7	197.0	90.3	8906.2	57.8	70.4	12.0
008	2002086	LFTE/BNGL//CFFY	3.0	192.0	89.0	8839.0	52.2	71.4	9.6
009	1902126	CHNR/6/CPRS/KBNT//9502008/5/KATY/CPRS//NWBT/KATY/3/ 9502008/4/ CLR9	3.0	191.7	93.0	8833.9	60.5	71.9	11.0
054	CLXL745	CLXL745	3.0	185.3	107.0	8817.8	41.5	71.5	21.1
041	LAH169	LAH169	5.0	188.0	108.7	8653.0	47.0	71.4	13.9
011	2002094	CFFY/3/BNGL/9502065//EARL	2.3	192.7	91.7	8576.6	59.1	70.7	15.7
010	2002090	NPTN/JPTR	3.0	195.7	88.3	8530.7	59.3	69.9	19.0
056	TITN	TITAN	3.0	189.3	95.0	8485.6	49.5	69.5	11.1
039	2002182	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	2.0	189.3	95.3	8457.9	61.5	71.8	16.9
026	1702140	CHNR/MRMT	3.0	191.0	96.0	8397.9	60.9	72.3	12.0
067	CLL16	CLL16	2.3	194.7	102.0	8385.9	53.8	69.9	13.9
049	2002232	TRNS//CCDR/JEFF/4/9502008A//AR1188/CCDR/3/CCDR/JEFF	3.3	191.3	86.3	8356.7	54.0	72.3	9.7
073	1701084	RU0801076/5/KATY/NWBT//L201/7402003/3/WLLS/4/L201/7402003//KATY/ NWBT/3/LGRU	2.3	195.7	94.7	8331.7	56.3	70.5	15.4
063	JPTR	JUPITER	3.3	196.0	91.0	8233.8	62.9	68.0	15.9
052	MRMT	MERMENTAU	3.0	190.3	95.3	8231.3	62.6	71.8	13.1
044	2002194	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	3.0	190.0	96.0	8178.8	60.1	71.4	15.0
074	1801169	ROYJ/1501024	3.3	193.0	100.3	8120.3	61.0	70.9	12.7
059	CL153	CL153	2.7	191.3	96.3	8114.7	58.7	71.6	11.1
035	1902174	NPTN//BNGL/CL161/3/NPTN	4.0	193.3	84.3	8102.0	66.4	70.8	13.0
033	1902212	TRNS//CCDR/JEFF/3/AR1188/CCDR//9502008/LGRU	3.3	188.0	90.3	8053.1	58.5	72.3	11.6
022	2002134	CPRS/KBNT//WLLS/CFX18/3/MBLE/4/CPRS/KBNT//CFX29/CCDR/3/ 06CFP952	2.7	192.3	97.0	8032.9	59.7	71.3	6.6
001	2002034	CL131/CHNR/4/CPRS/KBNT//9502008A/3/CCDR/JEFF	3.0	192.0	90.3	8025.2	57.5	72.5	7.8
046	2002217	TGRT/3/TRNS//CCDR/JEFF	3.0	190.3	93.3	8014.6	42.8	71.9	10.0
062	PVL02	PVL02	2.7	190.7	104.3	8009.4	58.1	70.1	9.2

Continued.

Table 6. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
058	CL151	CL151	3.3	190.3	93.7	7947.4	54.8	71.6	16.3
031	1902202	CPRS/KBNT//9502008/3/CCDR/JEFF/4/MRMT	3.0	189.7	95.0	7929.1	60.9	72.1	16.8
065	1801101	CL172/RU1102034	3.3	193.0	99.0	7915.8	58.0	71.9	13.6
079	DGL2065	DGL2065	3.3	191.3	89.3	7910.9	59.7	73.1	9.8
040	1902227	NPTN/JPTR	3.3	193.0	82.0	7905.6	48.6	70.5	10.2
003	1902034	9502008/DREW//CLR20/3/CPRS/KBNT//9502008/6/KATY/CPRS//NWBT/ KATY/3/9502008/4/CLR9/5/9502008/TCRI//CLR5	3.0	189.0	92.7	7872.4	53.4	71.3	16.1
019	2002126	MS4077/CHTL	3.0	193.3	93.7	7840.6	60.0	71.0	10.9
047	2002222	CTHL/MRMT	3.3	188.7	98.0	7783.0	53.8	71.9	14.5
028	2002146	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	3.0	191.0	94.0	7731.7	62.3	71.8	11.5
025	2002138	CCDR/JEFF//CFX26/9702128/3/CL151	2.7	192.3	89.0	7705.6	49.6	72.0	13.0
055	CLL17	CL131/TRNS	3.0	189.3	95.0	7667.9	49.5	70.4	14.5
012	2002098	TRNS//TRNS/CL131	3.3	189.0	92.7	7647.5	50.7	69.5	10.2
068	Jewel	19991516/19951166/7/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/WLLS/6/ RU9201179	3.3	192.0	100.7	7643.9	56.8	70.8	10.0
017	2002114	CL153/LKST	3.0	189.3	92.7	7631.0	47.7	71.6	13.4
024	1702183	TRNS//CCDR/JEFF/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	3.7	189.3	96.7	7610.7	51.9	71.1	12.7
029	2002150	CHTL/CL153	3.7	192.3	98.0	7497.8	51.0	71.9	13.4
016	2002110	CL131/CHNR//TRNS	3.3	189.3	97.0	7496.0	50.3	71.4	6.6
006	1902110	LGRU/CLR11/4/9302065/3/CFX29/AR1142/LA2031/4/CFX18//CCDR/ 9770532DH2/3/CPRS/KBNT//9502008A	3.3	191.7	95.3	7485.7	54.1	72.2	8.6
057	CL111	CL111	3.0	189.0	99.0	7479.9	41.6	71.4	12.2
032	1902207	CTHL/4/CPRS/KBNT//9502008/3/CCDR	3.0	191.0	92.7	7465.1	55.1	72.7	9.5
002	1902026	WLLS/CFX18//DREW/CFX18/3/CHNR//CCDR/JEFF	3.3	190.0	87.7	7452.9	52.3	71.1	17.6
042	2002186	CTHL/MRMT	3.7	193.7	96.0	7449.6	57.5	71.6	11.8
027	2002142	CL172/CL153	3.0	190.7	99.0	7418.5	52.8	70.8	12.3
060	CHNR	CHENIERE	3.3	192.0	94.7	7379.9	62.7	73.2	6.8
051	2002037	JZMN/08CLR004//JZMN	3.3	194.7	104.3	7375.4	54.7	70.5	2.7
048	2002227	CCDR/3/TRNS//CCDR/JEFF	3.3	191.0	91.0	7344.2	40.8	70.3	11.8
007	2002074	PVL01/CTHL	2.7	191.0	98.7	7335.2	54.0	71.6	9.0
030	2002154	CTHL/MRMT	3.3	191.3	97.0	7317.5	55.8	72.5	12.4
043	2002190	CPRS/LKST	3.0	192.3	103.7	7301.0	47.1	71.9	8.7
018	2002122	MS4077/CHTL	3.3	192.0	94.0	7251.0	55.3	71.7	12.3

Continued.

Table 6. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
021	2002130	DREW/5/CPRS/3/9502008A//AR1188/CCDR/4/CPRS/9502008A/3/CFX29//AR1142/LA2031	3.0	192.7	88.3	7242.5	43.2	71.4	14.9
075	CLL15	RU1302048/RU1302045	3.3	191.3	90.7	7156.1	46.5	70.1	13.4
070	JZMN	JAZZMAN	2.7	194.7	100.3	7089.9	62.1	71.7	3.7
020	1902162	DREW//CHNR/LMNT/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	3.0	191.7	94.7	7073.9	40.1	70.9	8.2
004	2002066	CHNR//CCDR/JEFF/3/BASF2-22	2.7	191.3	93.3	7063.1	39.3	69.8	7.9
034	2002166	JZMN2/CHTL	3.3	191.7	95.0	7039.6	59.0	71.8	4.8
071	CCDR	CPRS//L202/TBNT	4.3	191.3	97.7	7019.5	62.1	72.6	8.7
015	1902142	9502008A/DREW//CLR20/4/9502008A//AR1188/CCDR/3/CPRS/KBNT//9502008A	4.7	191.0	87.0	6901.0	56.1	71.3	12.8
005	2002070	PVL01/CTHL	3.0	192.7	96.3	6849.5	58.0	71.5	11.4
064	CLJ01	CLJ01	3.0	192.3	92.3	6846.8	54.6	71.2	3.3
014	2002106	CFX-18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9602065/3/CFX-29/AR1142/LA2031	3.7	189.0	91.0	6846.5	48.7	71.5	12.7
078	1704077	Texmont/TeQing(BF7-46)/Trenasse	5.0	194.7	106.7	6795.3	50.7	69.0	10.9
036	2002170	CHENIERE//CCDR/JEFF/3/BASF2-22	3.0	191.3	90.0	6736.5	35.5	69.8	7.1
023	1902170	1002146*4//JZMN/08CLR004	3.0	188.7	96.0	6680.0	59.3	72.2	3.4
069	DLLA2	DELLA2	2.7	193.0	99.7	6558.6	51.0	68.4	7.2
038	2002178	PVL01/CTHL	3.7	192.7	101.7	6498.5	46.6	70.7	17.1
061	PVL01	PVL01	2.7	198.3	97.3	6489.1	57.5	70.4	5.8
037	2002174	PVL01/CTHL	3.7	195.3	105.3	6288.1	49.8	71.5	8.4
013	2002102	CL131/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9302065/3/CGX-29/AR1142/LA2031	5.0	193.3	91.7	6276.0	55.9	71.5	11.1
077	1604193	CHNR/BNKS	6.7	199.7	110.7	5745.4	62.7	70.9	7.1

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 7. Grain and milling performance of entries in the 2020 Commercial Advanced trial. Palmetto, St. Landry Parish, LA.

ENT	NAME	PEDIGREE	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
053	RT7301	RT7301	105.0	11211.7	52.2	69.6	14.4
054	CLXL745	CLXL745	102.4	9590.1	54.7	69.9	9.6
066	1901137	CL271/JPTR	104.1	9435.0	57.1	67.5	13.0
045	2002212	NPTN//BNGL/CL161/3/NPTN	111.8	9404.5	61.1	67.6	14.8
035	1902174	NPTN//BNGL/CL161/3/NPTN	100.8	9259.8	65.3	69.9	15.0
072	CLM04	CLM04	99.1	9061.5	61.2	68.6	11.6
073	1701084	RU0801076/5/KATY/NWBT//L201/7402003/3/WLLS/4/L201/7402003//KATY/NWBT/3/LGRU	102.4	8965.7	55.9	69.3	13.6
067	CLL16	CLL16	99.9	8889.7	54.4	66.9	13.4
063	JPTR	JUPITER	108.4	8888.9	60.5	66.4	18.1
008	2002086	LFTE/BNGL//CFFY	108.4	8879.4	54.9	68.4	10.2
076	Lynx	EARL/9902028//JPTR	106.7	8839.1	58.5	67.6	15.6
068	Jewel	19991516/19951166/7/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/WLLS/6/RU9201179	102.4	8838.9	58.8	68.3	7.3
011	2002094	CFFY/3/BNGL/9502065//EARL	101.6	8782.8	58.8	68.3	16.0
010	2002090	NPTN/JPTR	106.7	8777.1	58.3	67.1	20.7
056	TITN	TITAN	105.0	8751.5	59.2	67.4	13.8
077	1604193	CHNR/BNKS	104.1	8608.0	61.5	69.4	8.2
033	1902212	TRNS//CCDR/JEFF/3/AR1188/CCDR//9502008/LGRU	104.1	8453.6	57.0	69.6	9.2
055	CLL17	CL131/TRNS	105.8	8438.8	50.4	67.6	7.8
051	2002037	JZMN/08CLR004//JZMN	100.8	8311.2	58.6	67.6	5.0
046	2002217	TGRT/3/TRNS//CCDR/JEFF	103.3	8285.4	51.3	69.2	8.1
025	2002138	CCDR/JEFF//CFX26/9702128/3/CL151	104.1	8240.5	55.5	68.0	8.4
040	1902227	NPTN/JPTR	99.9	8204.3	53.9	68.8	9.9
009	1902126	CHNR/6/CPRS/KBNT//9502008/5/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR9	112.6	8190.3	59.5	69.1	6.9
012	2002098	TRNS//TRNS/CL131	110.9	8176.8	58.1	67.6	8.5
074	1801169	ROYJ/1501024	99.1	8081.8	53.5	67.7	10.0
039	2002182	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	109.2	8066.9	60.3	68.5	10.3
019	2002126	MS4077/CHTL	116.8	7992.1	60.2	68.7	8.3
065	1801101	CL172/RU1102034	102.4	7892.0	51.5	67.9	10.4
027	2002142	CL172/CL153	105.8	7881.1	54.8	67.4	7.9
050	CLH161	CLH161	99.9	7843.4	54.5	67.5	9.5
078	1704077	Texmont/TeQing(BF7-46)/Trenasse	103.3	7826.2	53.7	67.3	13.1

Continued.

Table 7. Continued.

ENT	NAME	PEDIGREE	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
079	DGL2065	DGL2065	100.8	7800.1	58.6	70.2	10.0
044	2002194	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	105.8	7798.7	59.7	68.9	9.6
002	1902026	WLLS/CFX18//DREW/CFX18/3/CHNR//CCDR/JEFF	98.2	7795.7	53.3	68.9	13.2
070	JZMN	JAZZMAN	100.8	7742.9	58.3	67.5	4.2
028	2002146	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	108.4	7733.7	55.1	67.8	7.7
017	2002114	CL153/LKST	113.0	7707.7	49.5	68.0	10.6
032	1902207	CTHL/4/CPRS/KBNT//9502008/3/CCDR	105.0	7692.6	55.4	69.5	5.9
080	DGL263	DGL263	100.8	7631.6	50.1	67.2	11.0
031	1902202	CPRS/KBNT//9502008/3/CCDR/JEFF/4/MRMT	110.1	7612.1	53.9	67.3	9.7
058	CL151	CL151	92.3	7611.3	50.1	68.2	11.8
052	MRMT	MERMENTAU	98.2	7589.3	58.0	67.8	8.2
016	2002110	CL131/CHNR//TRNS	105.0	7582.8	57.5	69.4	5.9
020	1902162	DREW//CHNR/LMNT/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	102.4	7542.0	52.5	69.0	3.5
060	CHNR	CHENIERE	112.6	7498.9	59.6	70.3	6.2
059	CL153	CL153	105.0	7494.9	53.2	68.0	6.7
049	2002232	TRNS//CCDR/JEFF/4/9502008A//AR1188/CCDR/3/CCDR/JEFF	102.4	7466.8	56.4	69.6	7.1
026	1702140	CHNR/MRMT	99.9	7410.7	56.0	68.7	6.6
042	2002186	CTHL/MRMT	109.2	7384.0	53.6	68.5	10.2
018	2002122	MS4077/CHTL	104.1	7300.5	53.6	68.8	6.8
041	LAH169	LAH169	110.1	7272.0	53.8	69.0	10.4
007	2002074	PVL01/CTHL	105.0	7271.1	48.5	67.2	9.5
029	2002150	CHTL/CL153	104.1	7262.3	51.5	69.1	12.1
013	2002102	CL131/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9302065/3/CGX-29/AR1142/LA2031	105.0	7257.6	56.9	69.1	7.2
015	1902142	9502008A/DREW//CLR20/4/9502008A//AR1188/CCDR/3/CPRS/KBNT//9502008A	103.3	7198.4	56.8	68.8	6.9
006	1902110	LGRU/CLR11/4/9302065/3/CFX29/AR1142/LA2031/4/CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A	108.4	7160.6	53.9	70.1	5.3
030	2002154	CTHL/MRMT	104.1	7156.4	57.6	70.2	8.1
022	2002134	CPRS/KBNT//WLLS/CFX18/3/MBLE/4/CPRS/KBNT//CFX29/CCDR/3/06CFP952	105.0	7143.4	58.4	67.7	3.7
001	2002034	CL131/CHNR/4/CPRS/KBNT//9502008A/3/CCDR/JEFF	103.3	7025.3	54.1	68.9	7.1
014	2002106	CFX-18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9602065/3/CFX-29/AR1142/LA2031	100.8	6942.6	50.2	68.1	8.3
043	2002190	CPRS/LKST	102.4	6941.1	50.7	70.4	8.3

Continued.

Table 7. Continued.

ENT	NAME	PEDIGREE	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
024	1702183	TRNS//CCDR/JEFF/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	99.1	6933.7	57.4	68.1	7.6
061	PVL01	PVL01	98.2	6908.9	54.5	65.9	9.3
004	2002066	CHNR//CCDR/JEFF/3/BASF2-22	102.4	6876.4	46.4	66.2	14.6
047	2002222	CTHL/MRMT	105.8	6800.7	55.0	68.6	9.2
075	CLL15	RU1302048/RU1302045	99.9	6744.0	50.5	66.0	10.2
005	2002070	PVL01/CTHL	106.7	6731.3	54.9	67.9	12.8
071	CCDR	CPRS//L202/TBNT	100.8	6728.9	57.4	68.8	10.1
037	2002174	PVL01/CTHL	104.1	6659.9	53.8	66.4	6.8
021	2002130	DREW/5/CPRS/3/9502008A//AR1188/CCDR/4/CPRS/9502008A/3/CFX29//AR1142/LA2031	103.3	6578.2	45.1	68.2	8.8
003	1902034	9502008/DREW//CLR20/3/CPRS/KBNT//9502008/6/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR9/5/9502008/TCRI//CLR5	113.5	6534.1	52.9	68.4	12.8
064	CLJ01	CLJ01	100.3	6486.8	58.6	68.5	2.3
036	2002170	CHENIERE//CCDR/JEFF/3/BASF2-22	107.5	6218.8	43.4	67.6	12.2
069	DLLA2	DELLA2	100.8	6103.2	48.6	65.5	7.7
057	CL111	CL111	98.2	5865.8	51.7	67.0	7.7
048	2002227	CCDR/3/TRNS//CCDR/JEFF	103.3	5825.1	47.8	65.8	12.3
023	1902170	1002146*4//JZMN/08CLR004	99.1	5636.3	52.7	68.6	6.6
034	2002166	JZMN2/CHTL	98.2	5463.1	57.0	68.5	3.2
038	2002178	PVL01/CTHL	105.8	5066.8	47.7	66.3	17.6
062	PVL02	PVL02	99.9	4455.1	55.4	69.1	6.2

REGIONAL YIELD TEST

Regional Yield test locations in 2020 included the H. Rouse Caffey Rice Research Station (HRCRRS) at Crowley and one on-farm test site in Franklin Parish.

One hundred fifty entries were tested in a randomized complete block design with two replications. Varieties were seeded at 90 lb/A. Planting dates were: HRCRRS, March 9; HRCRRS-South Farm, April 3; and Franklin Parish, April 17. Harvest dates were: HRCRRS, July 31 and Aug. 2; HRCRRS-South Farm, Aug. 18; and Franklin Parish, Sept. 8. Results from these tests are shown in Tables 1-3.

Table 1. Grain and agronomic performance of entries in the 2020 Regional Yield test. H. Rouse Caffey Rice Research Station, Crowley, Louisiana.

ENT	NAME	PEDIGREE	VIG[1]	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
115	191M1171	TITN/JPTR	3.5	101.0	13353.6	64.4	69.2	17.8
108	191M1068	TITN/JPTR	3.0	102.0	12901.1	63.1	68.4	21.6
110	191M1074	TITN/JPTR	3.0	103.5	12558.6	62.7	67.7	16.4
104	JN(x)	JPTR/NONA ADV BC	3.0	105.0	12546.7	61.7	67.9	25.2
076	191L2073	CHTL/CL153	3.0	100.0	12485.6	60.0	69.7	21.3
101	1902207	CTHL/4/CPRS/KBNT//9502008/3/CCDR	3.0	102.0	12378.3	60.9	71.2	22.0
082	191L2100	CTHL/LKST	4.0	91.5	12342.2	61.9	71.1	20.5
116	191M1192	CFFY/TITN	2.0	102.0	12315.6	65.0	69.7	9.9
036	192L1687	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/CTHL/5/CL172/6/CL172	2.5	93.0	12252.4	61.5	71.1	22.3
074	191L2066	RoyJ/CL153	3.5	99.5	12193.0	61.2	70.3	23.4
096	191L1123	CTHL/LKST	3.0	97.0	12148.8	60.9	70.6	20.1
111	191M1081	TITN/JPTR	4.0	103.0	12095.2	61.7	68.5	18.6
162	CLM04	CLM04	2.5	110.0	12082.5	64.1	68.8	19.4
106	191M1019	TITN/JPTR	3.5	102.5	12051.8	65.4	70.2	17.5
105	191M1017	TITN/JPTR	3.0	106.0	11950.4	62.4	68.5	20.8
030	192L1544	1502068//CL153/CL151	3.0	108.0	11902.9	64.5	69.8	12.4
085	191L2132	CTHL/LKST	3.0	91.5	11890.2	56.0	69.8	19.3
165	XP753	XP753	2.0	92.0	11885.8	61.1	71.3	15.8
098	191L1172	MRMT/CTHL	2.5	98.0	11831.3	58.1	70.6	19.9
081	191L2099	CTHL/LKST	3.0	95.5	11818.9	55.8	70.1	17.9
033	192L1596	1502068//CL153/CL151	2.5	108.0	11818.9	62.3	69.9	17.3
089	191L1067	CTHL/MRMT	3.0	97.5	11774.0	53.8	70.9	17.1
071	191L2051	RoyJ/CL153	2.5	100.5	11773.7	57.5	69.0	23.2
084	191L2126	CL153/LKST	2.5	94.0	11757.0	63.8	72.2	21.3
087	191L1040	CHNR/CTHL	2.5	101.0	11739.6	59.4	70.8	17.6
112	191M1113	TITN/JPTR	4.0	103.0	11733.0	64.8	68.8	19.0
032	192L1563	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	3.0	95.5	11716.6	62.3	70.9	15.8
097	191L1133	MRMT/CTHL	3.0	99.5	11705.8	61.5	70.0	17.3
015	192L1072	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	3.5	104.0	11701.4	63.2	70.4	18.1
069	191L2009	PSDO/CL153	2.0	94.5	11667.9	59.3	69.7	12.1
164	JPTR	Jupiter	3.5	98.5	11604.1	62.0	67.9	26.4
113	191M1131	TITN/1502083	2.5	109.0	11602.5	64.1	69.8	14.6

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
100	191L1184	CTHL/MRMT	2.5	99.0	11590.6	58.6	70.8	19.4
109	191M1073	CFFY/TITN	3.5	109.5	11585.2	63.1	70.4	17.4
042	191L1189	1402174/CL153	2.5	105.0	11581.4	64.2	69.8	9.7
066	191L1030	1104077/CTHL	3.0	92.5	11555.5	50.9	70.3	16.5
039	192L1727	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	2.5	101.5	11548.2	60.9	71.3	17.1
093	191L1108	1402174/CTHL	3.0	90.0	11512.1	64.6	72.0	17.7
010	192L2160	CL172/LKST	3.0	90.5	11487.7	64.9	70.8	15.6
092	191L1105	CTHL/MRMT	2.5	89.5	11469.3	59.6	70.4	23.1
155	DMND	Diamond	2.5	106.0	11468.5	52.5	69.6	21.4
140	193L1099	TRNS//CHNR/BASF1-2	3.0	95.5	11464.2	60.6	68.4	12.5
054	192M1065	CL111/CL272	4.0	102.0	11442.0	64.9	70.5	16.1
041	191L1131	1502085/CTHL	2.5	95.5	11431.4	57.2	71.7	15.7
073	191L2064	CTHL/LKST	4.5	89.0	11400.2	61.3	70.2	23.9
008	192L2142	CL111/CL153	2.5	105.5	11360.6	62.3	70.8	13.6
070	191L2025	PSDO/CL153	2.0	102.0	11341.4	58.0	69.7	9.8
072	191L2054	TRNS/CTHL	2.0	91.0	11338.9	60.3	70.6	17.3
128	193L2086	PVL01/CTHL	2.5	98.0	11314.5	59.3	70.3	19.4
063	191L1125	JZMN2/CTHL	3.0	95.5	11284.9	60.1	71.5	14.7
067	191L1033	1104077/CTHL	2.5	101.0	11283.8	64.0	71.1	14.3
163	TITN	Titan	2.5	99.5	11277.2	64.5	69.4	16.1
016	192L1081	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	3.5	100.5	11268.4	58.6	70.8	18.5
050	192L1166	CL163/CL153	3.0	96.0	11250.3	57.6	69.3	18.7
047	192L2112	1502115/THAD	3.0	103.0	11232.6	58.0	68.6	19.4
083	191L2103	CL111/MRMT	2.5	100.5	11232.5	59.5	70.7	20.0
023	192L1336	CL153/LKST	3.0	92.5	11211.9	59.2	69.3	15.3
107	191M1028	CFFY/JPTR	3.5	103.5	11195.9	62.9	67.7	24.5
078	191L2090	CHNR/CL111	2.5	97.0	11105.5	63.4	70.6	16.9
029	192L1486	CL172/1502115	2.0	93.0	11103.5	61.6	70.5	18.9
056	192M1070	CL261/JPTR	3.5	105.0	11084.0	53.9	67.8	16.8
019	192L1263	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/CTHL/5/CL172/6/CL172	3.0	94.5	11078.3	60.9	70.8	15.6
057	192M1095	CL153/CL261	3.0	100.5	11060.3	60.5	70.5	15.9
040	192L1738	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/9502008A/DREW//CLR20/3/CL111	2.5	100.5	11016.9	64.2	70.5	15.3

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
114	191M1162	CFFY/JPTR	3.0	104.5	11008.9	63.7	69.4	15.1
018	192L1219	1502068/CL153	3.5	97.5	10998.2	64.4	70.4	13.3
002	192L2050	LKST/1402174	3.5	90.5	10975.6	62.7	70.5	19.3
031	192L1550	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	3.5	89.5	10956.2	62.4	71.4	14.1
051	192M1025	BNGL/CL161//CFFY/3/NPTN//BNGL/CL161	3.0	95.5	10943.5	59.8	69.9	17.4
058	192M1111	NPTN//BNGL/CL161/3/BNGL/CL161//CFFY	2.5	98.0	10939.3	62.7	69.9	17.0
124	193L2065	1502115/PVL01	2.5	91.5	10914.4	63.6	71.7	27.8
079	191L2092	1602051/PSDO	2.5	95.0	10900.4	55.4	69.4	17.6
080	191L2093	CTHL/LKST	3.0	93.5	10888.9	62.4	70.5	20.5
025	192L1376	CL153/LKST	3.0	88.5	10888.2	60.7	69.5	22.6
027	192L1463	CL153/CL261	3.0	102.5	10857.3	60.4	70.2	19.3
158	MRMT	Mermentau	2.0	92.0	10856.1	60.1	70.4	19.3
013	192L1017	CL111/LKST	2.5	106.5	10832.0	64.8	70.9	18.2
077	191L2087	CL153/LKST	2.0	91.0	10831.9	59.1	69.6	14.0
061	192M1192	CL111/CL272	3.0	102.5	10821.8	64.3	70.1	20.6
102	1902212	TRNS//CCDR/JEFF/3/AR1188/CCDR//9502008/LGRU	2.5	90.0	10771.0	60.8	70.3	16.3
043	192L1092	CLJZMN/4/JZMN/08CLR004//RU0802146/3/JZMN2	3.0	95.5	10769.5	60.9	69.9	15.0
094	191L1111	1502085/CTHL	2.5	89.0	10743.1	59.1	71.3	17.7
026	192L1433	9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF/4/9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF	3.0	94.5	10731.3	61.5	70.3	19.9
049	192L1111	CL163/CL153	3.0	99.0	10726.9	61.3	69.6	17.7
119	193L2012	MRMTBCR048(5)/MRMT//MRMT	2.5	95.0	10722.4	61.5	70.9	17.5
014	192L1066	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	2.5	100.0	10703.4	61.1	70.3	16.1
151	CL153	CL153	2.5	100.5	10699.2	61.5	69.9	15.7
011	192L2171	1402174/CL153	2.5	101.0	10692.2	64.0	69.6	15.9
064	191L1122	JZMN2/CTHL	3.0	90.5	10622.8	61.6	71.0	9.2
062	192M1195	CL111/CL272	4.0	102.0	10617.3	63.3	70.2	14.2
048	192L1008	CL163/CL153	2.5	98.0	10611.4	58.3	69.6	20.5
006	192L2134	1602168/CL172	3.5	99.5	10558.4	63.1	70.5	19.1
001	192L2046	1602097/CL111	2.0	99.0	10538.8	61.1	71.1	19.2
117	Sweet Rice		2.5	129.0	10510.4	60.0	67.0	51.0
090	191L1094	CTHL/4/CPRS/KBNT//9502008A/3/CCDR	3.5	99.0	10501.2	62.8	71.4	19.6

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
022	192L1289	1402174/1502094	2.5	97.0	10494.3	60.3	69.3	15.6
120	193L2018	PVL01/CTHL	2.5	94.5	10436.6	58.9	70.2	18.3
053	192M1059	CL271/3/NPTN//BNGL/CL161	4.0	104.5	10395.2	64.5	70.5	18.5
095	191L1119	MRMT/CTHL	2.5	100.5	10378.6	60.8	71.0	15.9
017	192L1089	9502008A/DREW//CLR20/3/CL111/4/CTHL	2.5	99.0	10377.9	58.9	70.2	16.3
103	1702140	CHNR/MRMT	2.5	95.5	10369.6	60.4	71.0	16.8
035	192L1665	CL153/LKST	3.5	92.0	10362.8	61.3	69.8	17.5
091	191L1100	CHNR/PSDO	2.5	96.0	10355.9	62.6	71.2	12.7
156	THAD	Thad	4.5	91.0	10349.0	56.0	68.6	13.1
059	192M1128	CL153/CL261	4.0	99.0	10344.5	61.9	69.0	19.8
034	192L1662	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/9502008A/DREW//CLR20/3/CL111	3.0	103.0	10324.1	57.5	69.2	18.0
121	193L2030	PVL01/CTHL	2.0	100.0	10322.3	59.5	70.4	16.8
012	192L2190	CL111/CL153	2.0	89.0	10315.7	63.0	70.9	20.5
004	192L2092	CL111/1502068	2.5	99.5	10305.1	63.3	71.0	16.4
122	193L2048	PVL01/CTHL	2.5	99.5	10288.0	63.1	71.1	13.2
060	192M1167	CL153/CL261	3.0	104.5	10271.5	63.6	70.6	11.9
136	193L1064	PVL01/CTHL	2.0	102.5	10268.5	58.0	70.5	11.1
123	193L2052	PVL081/CL172	3.0	84.5	10266.0	60.0	69.8	15.6
126	193L2080	PSDO//PSDO/MRMTBCR048(5)	3.0	94.0	10244.5	57.5	69.5	12.3
028	192L1480	9502008A/DREW//CLR20/3/CL111/4/CCDR	2.0	95.5	10228.1	60.8	70.8	13.6
118	191M1160	SSKI/CL272	5.0	91.5	10216.0	52.4	69.8	12.8
075	191L2071	DREW/5/CPRS/3/9502008A//AR1188/CCDR/4/CPRS/9502008A/3/CFX29//AR1142/LA2031	2.0	93.0	10175.9	57.5	68.9	20.3
005	192L2095	CL111/1502068	2.5	98.0	10153.8	63.3	70.3	18.8
138	193L1084	PVL01/CTHL	3.0	100.0	10150.7	58.3	70.5	15.2
024	192L1338	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9502008/LGRU	3.0	100.5	10134.7	62.5	70.5	15.2
125	193L2068	PVL080/CL153	2.0	90.0	10089.2	57.9	70.5	9.5
157	CHNR	Cheniere	3.0	95.5	10065.2	62.8	71.5	10.3
099	191L1173	CTHL/MRMT	2.5	86.0	10041.2	61.1	71.3	16.1
052	192M1057	NPTN//BNGL/CL161/3/RICO	4.0	102.5	10030.7	61.4	68.5	13.2
003	192L2088	1402174/CL153	2.0	105.5	10007.3	59.5	69.8	14.7
009	192L2143	1602097/CL111	3.0	98.5	9999.4	61.2	69.1	21.8

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
135	193L1048	PVL01/CTHL	2.0	100.0	9958.6	63.3	70.9	12.1
068	191L1190	1104077/CTHL	3.0	99.0	9955.6	57.1	70.4	12.1
152	CL111	CL111	2.0	99.5	9955.6	62.2	70.8	18.4
150	193L1182	PVL01/CTHL	2.0	89.0	9951.3	57.5	69.9	13.0
145	193L1141	PVL01/CTHL	2.5	99.0	9871.3	62.6	70.8	12.9
141	193L1112	PVL01/CTHL	2.0	95.5	9790.2	63.7	71.6	13.9
021	192L1276	CPRS/5/9502008A/DREW/3/NWBT/KATY//9902207x2/4/CFX18//CCDR/977053DH2	2.5	108.0	9783.5	63.6	70.7	19.1
044	192L1096	CLJZMN/4/JZMN/08CLR004//RU0802146/3/JZMN2	3.0	94.5	9670.2	63.4	70.0	14.4
130	193L2095	CHTL/3/CHTL//TRNS/BASF1-10	3.0	100.0	9654.1	54.6	70.5	17.2
020	192L1268	9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	3.5	84.5	9643.6	61.6	69.7	13.6
142	193L1125	CTHL//CPRS/BASF1-13	2.5	101.5	9642.3	46.8	69.0	30.7
045	192L2008	CL111/THAD	2.5	93.5	9625.3	53.9	69.5	12.0
007	192L2138	1602097/CL111	2.5	94.5	9593.6	62.5	70.0	22.5
127	193L2083	CTHL//TRNS/BASF1-10	2.0	84.0	9593.3	50.8	67.4	11.4
088	191L1056	CL153/LKST	2.5	89.5	9590.3	58.5	69.9	18.2
046	192L2105	CL111/THAD	3.0	90.5	9584.0	60.1	70.3	14.2
133	193L1036	TRNS//CHNR/BASF1-2	2.5	96.5	9524.1	60.5	69.2	10.1
086	191L1031	CTHL/4/CPRS/KBNT//9502008A/3/CCDR	2.0	92.5	9495.5	62.5	71.1	17.4
153	CL151	CL151	2.0	97.0	9431.6	57.1	70.1	23.3
037	192L1708	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	2.0	93.5	9400.7	58.9	69.8	12.0
131	193L1010	CTHL/MRMTBCR048(5)	3.0	91.5	9395.9	51.5	70.1	20.3
055	192M1066	CL271/3/NPTN//BNGL/CL161	4.0	101.0	9385.5	61.3	69.2	16.9
065	191L1159	JZMN2/CTHL	3.0	86.0	9353.5	59.2	70.1	15.9
146	193L1157	MRMTBCR048-7/TRNS	2.5	89.5	9333.5	62.3	70.5	16.3
143	193L1132	MRMTBCR048-7/TRNS	2.5	98.0	9292.9	57.1	68.3	10.0
149	193L1178	PVL01/CTHL	2.5	94.5	9257.6	57.4	69.0	15.8
139	193L1093	PVL01/CTHL	2.0	95.0	9244.0	58.3	66.7	14.1
134	193L1047	CTHL//CPRS/BASF1-13	2.0	102.5	9079.4	51.1	70.4	14.9
159	PVL01	PVL01	2.0	100.0	8957.1	59.3	69.6	18.2
137	193L1081	CTHL//CPRS/BASF1-13	2.5	100.5	8918.2	57.3	69.2	13.6
129	193L2094	CHTL/3/CHTL//TRNS/BASF1-10	2.5	95.5	8882.1	51.3	69.6	19.2

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
147	193L1168	CTHL//CPRS/BASF1-13	2.0	93.0	8769.0	58.3	69.0	12.0
148	193L1174	TRNS//CHNR/BASF1-2	2.5	93.0	8111.6	52.3	68.9	9.4
160	PVL02	PVL02	2.0	107.5	8091.8	57.6	71.4	13.2
144	193L1135	CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21/5/CHNR/BASF1-2	2.5	98.0	8078.7	55.5	69.2	12.0
132	193L1030	CPRS/PVL24B	3.5	96.5	8058.5	59.1	69.0	17.3
154	CLL17	CLL17	2.0	103.0	7777.5	57.1	69.2	18.1
161	LAH169	LAH169	3.5	112.5	7337.0	57.1	70.0	16.3
038	192L1712	CPRS/KBNT//WELLS/CFX18/3/MBLE/6/KATY/CPRS//NWBT/KATY/3/9502008/4/ CLR9/5/ KATY/CPRS//KATY	3.5	105.5	7002.5	57.5	69.7	17.0

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 2. Grain and agronomic performance of entries in the 2020 Regional Yield test. H. Rouse Caffey Rice Research Station – South Farm, Crowley, Louisiana.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
162	CLM04	CLM04	3.0	194.5	97.0	8740.6	63.9	70.0	11.5
033	192L1596	1502068//CL153/CL151	3.0	192.5	98.5	8624.8	62.8	71.5	9.8
154	CLL17	CLL17	3.0	191.0	91.5	8604.3	55.5	70.9	14.0
110	191M1074	TITN/JPTR	3.0	191.0	92.0	8482.1	60.9	69.7	12.5
153	CL151	CL151	2.5	191.0	92.0	8460.6	58.8	71.9	18.2
006	192L2134	1602168/CL172	3.0	193.0	96.0	8428.7	60.6	71.9	14.6
108	191M1068	TITN/JPTR	3.0	191.5	87.0	8410.7	62.7	69.2	18.4
010	192L2160	CL172/LKST	3.0	191.0	89.5	8363.5	59.9	70.7	11.0
117	Sweet Rice		3.0	197.0	120.0	8341.1	51.2	67.6	56.7
151	CL153	CL153	2.5	192.0	95.0	8253.8	58.1	71.2	10.2
053	192M1059	CL271/3/NPTN//BNGL/CL161	3.0	196.0	90.0	8214.4	58.2	71.2	14.0
029	192L1486	CL172/1502115	3.0	189.5	92.5	8194.2	55.0	72.1	13.0
105	191M1017	TITN/JPTR	3.0	192.5	91.5	8159.8	60.2	68.9	12.1
011	192L2171	1402174/CL153	3.0	191.0	96.5	8147.0	58.7	71.3	9.7
036	192L1687	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/CTHL/5/CL172/6/CL172	3.5	190.0	84.5	8073.3	38.7	71.8	17.4
111	191M1081	TITN/JPTR	3.0	189.0	85.0	8071.2	60.7	70.0	15.1
165	XP753	XP753	3.0	188.5	94.5	8024.6	30.7	71.0	26.2
155	DMND	Diamond	3.0	192.5	95.0	7938.1	47.6	70.0	15.7
007	192L2138	1602097/CL111	3.0	190.5	86.0	7915.3	54.9	72.0	17.9
009	192L2143	1602097/CL111	3.0	190.0	83.5	7901.5	56.5	68.7	19.1
100	191L1184	CTHL/MRMT	3.0	192.0	94.0	7882.3	58.4	72.0	15.4
103	1702140	CHNR/MRMT	3.5	192.0	94.0	7880.1	62.7	72.3	11.9
161	LAH169	LAH169	4.5	189.0	106.5	7849.6	51.3	70.5	14.8
012	192L2190	CL111/CL153	3.5	195.5	93.5	7828.9	53.4	71.8	12.9
113	191M1131	TITN/1502083	3.0	192.0	95.5	7828.3	58.0	69.8	9.3
112	191M1113	TITN/JPTR	2.5	189.0	90.5	7811.7	56.8	69.2	13.8
092	191L1105	CTHL/MRMT	3.0	190.0	86.5	7809.4	51.4	71.3	16.3
051	192M1025	BNGL/CL161//CFFY/3/NPTN//BNGL/CL161	3.0	191.0	85.0	7800.5	43.5	71.3	13.2
106	191M1019	TITN/JPTR	3.0	192.0	80.0	7769.4	61.3	69.1	13.1
005	192L2095	CL111/1502068	3.0	189.5	92.5	7769.4	59.7	71.9	8.7
002	192L2050	LKST/1402174	4.0	191.5	80.5	7729.8	49.9	70.3	15.6

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
116	191M1192	CFFY/TITN	3.0	189.0	88.5	7719.4	37.5	70.0	9.9
152	CL111	CL111	2.0	189.0	89.0	7701.7	47.4	71.6	9.4
096	191L1123	CTHL/LKST	3.5	193.0	87.5	7696.3	44.2	70.6	13.6
128	193L2086	PVL01/CTHL	2.5	193.0	96.5	7696.1	59.2	70.7	9.3
055	192M1066	CL271/3/NPTN//BNGL/CL161	3.0	192.0	94.0	7693.5	52.1	70.4	13.5
109	191M1073	CFFY/TITN	3.0	192.0	87.5	7688.9	31.8	71.2	13.3
003	192L2088	1402174/CL153	3.0	193.0	100.5	7674.6	56.9	71.0	9.4
071	191L2051	RoyJ/CL153	3.0	193.5	94.5	7634.6	53.7	70.6	14.6
023	192L1336	CL153/LKST	3.0	191.5	93.0	7627.8	54.2	70.3	10.2
083	191L2103	CL111/MRMT	3.0	192.0	94.0	7624.9	59.2	72.9	17.6
015	192L1072	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	3.5	192.0	94.5	7545.2	57.5	71.3	13.5
078	191L2090	CHNR/CL111	3.0	193.0	96.5	7537.9	62.5	71.3	11.3
074	191L2066	RoyJ/CL153	4.0	195.0	90.5	7527.2	53.2	70.8	15.3
058	192M1111	NPTN//BNGL/CL161/3/BNGL/CL161//CFFY	3.0	193.0	90.0	7526.3	57.5	70.7	13.5
163	TITN	Titan	3.0	189.0	92.5	7520.4	53.4	70.0	13.0
025	192L1376	CL153/LKST	3.5	190.5	88.5	7512.4	51.6	70.8	16.0
016	192L1081	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	3.5	192.5	98.0	7488.6	52.3	71.6	15.0
140	193L1099	TRNS//CHNR/BASF1-2	4.0	189.0	90.0	7485.8	49.7	69.9	8.7
124	193L2065	1502115/PVL01	3.5	192.0	92.5	7473.8	49.4	70.0	20.8
038	192L1712	CPRS/KBNT//WELLS/CFX18/3/MBLE/6/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR9/5/KATY/CPRS//KATY	4.0	193.0	98.0	7462.1	60.3	72.1	9.3
115	191M1171	TITN/JPTR	3.5	190.5	88.5	7446.3	56.7	69.2	14.2
102	1902212	TRNS//CCDR/JEFF/3/AR1188/CCDR//9502008/LGRU	3.5	190.0	90.0	7437.3	60.1	71.7	13.2
160	PVL02	PVL02	3.0	191.5	100.0	7431.2	61.5	73.2	8.3
018	192L1219	1502068/CL153	3.0	193.0	96.5	7425.3	55.8	71.2	8.5
123	193L2052	PVL081/CL172	3.0	194.0	82.5	7410.4	51.7	70.0	13.6
104	JN(x)	JPTR/NONA ADV BC	3.0	197.0	87.0	7380.3	62.2	67.4	18.6
013	192L1017	CL111/LKST	3.5	193.5	97.0	7376.4	58.3	72.1	9.6
040	192L1738	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/9502008A/DREW//CLR20/3/CL111	3.0	190.5	95.0	7352.8	57.4	70.9	10.1
114	191M1162	CFFY/JPTR	3.0	193.5	89.5	7345.3	61.7	69.7	13.3
088	191L1056	CL153/LKST	3.5	192.0	87.5	7340.1	53.5	69.7	10.8
077	191L2087	CL153/LKST	3.5	194.5	85.5	7325.1	58.2	70.5	7.7

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
026	192L1433	9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF/4/9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF	3.5	190.5	89.0	7303.2	54.9	71.7	14.4
017	192L1089	9502008A/DREW//CLR20/3/CL111/4/CTHL	3.0	192.0	94.5	7270.6	45.4	71.2	12.8
049	192L1111	CL163/CL153	3.0	192.0	93.5	7269.4	60.9	71.3	7.9
014	192L1066	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	3.0	192.0	95.5	7267.3	58.0	71.9	13.7
072	191L2054	TRNS/CTHL	2.5	193.0	90.5	7256.5	57.2	71.5	8.6
022	192L1289	1402174/1502094	3.5	192.5	96.0	7246.9	58.9	71.1	10.2
019	192L1263	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/CTHL/5/CL172/6/CL172	3.0	190.5	85.5	7243.3	47.3	72.0	10.2
028	192L1480	9502008A/DREW//CLR20/3/CL111/4/CCDR	3.0	189.0	91.0	7237.2	54.8	72.1	12.2
043	192L1092	CLJZMN/4/JZMN/08CLR004//RU0802146/3/JZMN2	3.0	192.0	92.0	7236.4	59.2	69.8	5.0
039	192L1727	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	3.0	192.0	98.5	7211.7	57.3	71.7	10.4
048	192L1008	CL163/CL153	3.5	190.0	88.0	7202.2	62.7	72.0	15.2
056	192M1070	CL261/JPTR	3.5	192.5	92.0	7198.4	60.8	68.6	11.0
034	192L1662	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/9502008A/DREW//CLR20/3/CL111	3.0	191.0	93.0	7197.3	55.2	71.2	9.3
087	191L1040	CHNR/CTHL	3.5	193.0	94.0	7195.9	58.9	71.8	10.6
075	191L2071	DREW/5/CPRS/3/9502008A//AR1188/CCDR/4/CPRS/9502008A/3/CFX29//AR1142/LA2031	4.0	0.0	93.5	7175.1	57.0	70.5	13.7
001	192L2046	1602097/CL111	3.0	190.0	92.0	7171.8	52.0	71.3	13.8
158	MRMT	Mermentau	3.0	190.0	93.0	7167.4	61.6	68.1	16.6
041	191L1131	1502085/CTHL	4.0	192.0	91.0	7155.8	47.9	72.3	7.9
050	192L1166	CL163/CL153	3.0	191.5	94.5	7116.7	62.1	71.6	11.3
042	191L1189	1402174/CL153	3.0	192.5	98.5	7099.1	56.7	68.8	6.3
032	192L1563	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	3.0	192.0	90.5	7015.3	52.7	71.6	7.5
052	192M1057	NPTN//BNGL/CL161/3/RICO	4.0	193.0	93.5	7010.1	53.5	70.5	9.4
119	193L2012	MRMTBCR048(5)/MRMT//MRMT	3.0	192.0	93.0	6977.7	62.4	70.3	13.7
030	192L1544	1502068//CL153/CL151	3.0	189.5	98.5	6964.2	59.0	71.1	7.2
004	192L2092	CL111/1502068	3.5	192.5	91.5	6957.5	57.0	71.6	11.2
063	191L1125	JZMN2/CTHL	3.5	191.0	91.0	6953.5	47.7	73.1	12.3
079	191L2092	1602051/PSDO	4.0	194.0	92.0	6946.1	52.9	69.4	11.2
090	191L1094	CTHL/4/CPRS/KBNT//9502008A/3/CCDR	4.0	191.0	99.0	6943.8	54.3	72.2	12.8
107	191M1028	CFFY/JPTR	3.0	196.0	85.0	6938.1	64.1	68.9	17.9
133	193L1036	TRNS//CHNR/BASF1-2	3.5	186.0	94.0	6923.0	40.6	68.0	7.1

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
121	193L2030	PVL01/CTHL	2.5	196.0	96.0	6854.2	55.4	71.4	8.2
076	191L2073	CHTL/CL153	3.5	194.5	91.0	6852.3	54.3	70.3	17.0
164	JPTR	Jupiter	3.5	196.5	88.5	6847.8	64.4	68.4	16.2
066	191L1030	1104077/CTHL	3.0	193.5	97.5	6824.5	56.6	69.0	12.0
135	193L1048	PVL01/CTHL	2.0	193.0	95.0	6808.9	62.2	70.8	5.9
126	193L2080	PSDO//PSDO/MRMTBCR048(5)	3.5	193.0	88.5	6796.5	45.2	70.5	8.3
069	191L2009	PSDO/CL153	3.0	191.5	85.5	6790.1	49.5	71.0	5.9
021	192L1276	CPRS/5/9502008A/DREW/3/NWBT/KATY//9902207x2/4/CFX18//CCDR/977053DH2	3.0	195.0	101.0	6788.7	59.5	70.7	9.0
020	192L1268	9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF/6/TCRI/3/CPRS//82CAY21/TBNT/4/ CFX18/5/CHNR	4.0	192.5	82.0	6781.2	46.1	71.1	11.4
035	192L1665	CL153/LKST	3.5	192.0	85.0	6780.0	57.9	70.9	10.2
081	191L2099	CTHL/LKST	3.0	192.5	91.5	6761.4	40.4	70.5	11.6
031	192L1550	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	4.0	189.5	87.5	6755.2	39.3	71.7	11.3
008	192L2142	CL111/CL153	3.5	192.5	98.5	6741.0	54.3	69.9	8.5
046	192L2105	CL111/THAD	3.0	190.5	87.0	6738.8	50.1	70.0	11.0
073	191L2064	CTHL/LKST	5.0	195.5	86.5	6715.3	53.0	70.6	15.3
067	191L1033	1104077/CTHL	3.0	192.0	104.0	6707.6	47.8	71.9	8.9
101	1902207	CTHL/4/CPRS/KBNT//9502008/3/CCDR	3.5	192.5	88.0	6704.7	58.2	72.1	14.0
091	191L1100	CHNR/PSDO	3.0	191.0	88.5	6684.4	54.5	72.2	7.9
138	193L1084	PVL01/CTHL	3.0	191.0	97.5	6673.4	41.2	71.2	10.4
095	191L1119	MRMT/CTHL	3.5	192.0	91.5	6643.6	56.7	71.8	11.6
125	193L2068	PVL080/CL153	3.0	188.0	89.5	6579.5	33.3	70.0	6.0
157	CHNR	Cheniere	3.0	194.5	92.5	6576.6	62.3	72.7	5.9
061	192M1192	CL111/CL272	4.0	191.5	87.5	6572.9	58.9	71.7	12.9
047	192L2112	1502115/THAD	3.0	192.5	90.5	6562.8	61.1	70.6	8.8
064	191L1122	JZMN2/CTHL	2.5	191.5	91.0	6558.8	50.2	71.8	5.0
094	191L1111	1502085/CTHL	3.5	193.5	86.0	6545.5	52.4	72.8	10.0
027	192L1463	CL153/CL261	3.0	189.5	91.5	6517.3	49.9	70.1	12.1
070	191L2025	PSDO/CL153	2.5	192.0	96.0	6517.0	43.0	70.5	6.4
024	192L1338	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR// 9502008/LGRU	4.5	192.5	97.5	6505.9	43.2	71.5	8.1
148	193L1174	TRNS//CHNR/BASF1-2	4.0	188.5	92.5	6482.3	18.7	68.9	9.5
141	193L1112	PVL01/CTHL	3.0	193.0	92.0	6451.1	53.2	70.8	7.2

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
065	191L1159	JZMN2/CTHL	3.0	184.0	80.0	6450.6	43.5	70.0	15.8
045	192L2008	CL111/THAD	2.5	192.0	98.0	6450.2	55.0	70.1	7.5
139	193L1093	PVL01/CTHL	3.0	191.5	90.0	6446.2	46.0	70.5	9.4
136	193L1064	PVL01/CTHL	2.5	192.5	94.0	6428.8	45.1	70.1	5.2
145	193L1141	PVL01/CTHL	2.0	192.5	97.5	6410.9	63.2	71.2	8.5
054	192M1065	CL111/CL272	5.0	191.5	90.0	6392.8	44.5	71.4	15.0
150	193L1182	PVL01/CTHL	2.5	192.0	92.0	6369.8	54.9	71.3	7.2
132	193L1030	CPRS/PVL24B	3.5	189.0	93.5	6369.4	48.9	70.0	15.8
131	193L1010	CTHL/MRMTBCR048(5)	3.0	184.0	93.5	6360.2	29.8	70.4	21.3
142	193L1125	CTHL//CPRS/BASF1-13	3.0	184.0	96.0	6360.0	24.5	68.7	27.9
084	191L2126	CL153/LKST	3.5	195.0	87.5	6354.5	48.0	70.1	9.5
089	191L1067	CTHL/MRMT	3.0	188.0	92.5	6348.6	55.1	71.6	14.3
086	191L1031	CTHL/4/CPRS/KBNT//9502008A/3/CCDR	4.5	192.0	92.0	6318.4	53.6	71.5	9.9
097	191L1133	MRMT/CTHL	3.5	193.0	91.0	6258.4	56.2	71.2	12.4
098	191L1172	MRMT/CTHL	3.5	190.0	94.5	6241.9	58.0	71.5	13.4
137	193L1081	CTHL//CPRS/BASF1-13	2.5	188.0	85.0	6236.8	44.8	68.4	14.9
057	192M1095	CL153/CL261	3.5	192.0	88.0	6212.0	61.5	70.3	12.6
099	191L1173	CTHL/MRMT	4.0	188.5	85.5	6190.2	47.4	72.4	15.4
082	191L2100	CTHL/LKST	4.0	193.0	84.0	6177.9	42.7	70.9	13.9
037	192L1708	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	3.0	192.5	80.0	6175.1	45.7	70.3	10.8
146	193L1157	MRMTBCR048-7/TRNS	3.0	183.0	82.0	6161.0	33.7	68.7	13.3
149	193L1178	PVL01/CTHL	3.0	196.0	84.0	6076.6	57.8	70.4	8.8
068	191L1190	1104077/CTHL	3.5	190.5	97.5	6071.3	40.6	71.2	7.4
044	192L1096	CLJZMN/4/JZMN/08CLR004//RU0802146/3/JZMN2	3.5	192.5	94.0	6024.0	52.4	69.8	5.4
134	193L1047	CTHL//CPRS/BASF1-13	3.5	190.0	98.0	6014.2	35.6	70.6	10.5
080	191L2093	CTHL/LKST	4.0	195.0	90.0	6002.0	51.0	71.1	10.2
129	193L2094	CHTL/3/CHTL//TRNS/BASF1-10	4.0	187.0	89.5	6000.4	32.0	69.8	9.7
093	191L1108	1402174/CTHL	4.5	194.0	96.0	5982.9	57.5	71.6	9.1
127	193L2083	CTHL//TRNS/BASF1-10	2.5	183.5	89.0	5941.8	42.0	67.3	6.9
130	193L2095	CHTL/3/CHTL//TRNS/BASF1-10	4.0	190.5	100.0	5935.7	39.2	70.8	15.1
060	192M1167	CL153/CL261	3.5	190.5	93.0	5880.9	63.3	70.7	11.3
059	192M1128	CL153/CL261	4.5	190.5	88.5	5837.9	59.3	69.1	18.8

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
062	192M1195	CL111/CL272	3.5	191.5	88.0	5743.3	39.2	71.2	14.5
156	THAD	Thad	5.5	197.0	99.0	5683.0	50.9	68.9	7.8
159	PVL01	PVL01	2.5	0.0	93.5	5618.1	57.1	70.8	5.1
143	193L1132	MRMTBCR048-7/TRNS	3.0	184.5	90.5	5555.8	34.7	69.9	11.4
144	193L1135	CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21/5/CHNR/BASF1-2	3.5	186.5	93.0	5527.2	37.2	68.4	7.7
122	193L2048	PVL01/CTHL	3.0	195.0	96.5	5507.2	51.5	70.8	6.6
118	191M1160	SSKI/CL272	5.0	185.0	83.0	5416.7	32.2	68.6	12.7
085	191L2132	CTHL/LKST	4.5	196.5	85.5	5293.0	53.9	70.2	13.4
120	193L2018	PVL01/CTHL	3.5	194.0	91.0	5169.2	49.9	70.8	10.0
147	193L1168	CTHL//CPRS/BASF1-13	3.5	186.5	84.5	4383.5	31.7	68.6	10.7

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 3. Grain and agronomic performance of entries in the 2020 Regional Yield test. Winnsboro, Franklin Parish, Louisiana.

ENT	NAME	PEDIGREE	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
165	XP753	XP753	9339.0	45.8	72.0	13.4
102	1902212	TRNS//CCDR/JEFF/3/AR1188/CCDR//9502008/LGRU	8722.1	56.3	71.2	9.5
036	192L1687	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/CTHL/5/CL172/6/CL172	8686.3	53.1	73.2	10.0
107	191M1028	CFFY/JPTR	8683.9	62.1	70.3	10.0
111	191M1081	TITN/JPTR	8553.5	58.5	70.6	7.7
112	191M1113	TITN/JPTR	8475.6	54.9	71.0	10.8
110	191M1074	TITN/JPTR	8338.9	57.0	70.3	7.2
164	JPTR	Jupiter	8282.6	64.2	70.5	9.8
074	191L2066	RoyJ/CL153	8218.4	50.7	72.3	8.7
079	191L2092	1602051/PSDO	8181.0	53.9	71.8	7.8
055	192M1066	CL271/3/NPTN//BNGL/CL161	8161.6	46.3	71.9	12.7
045	192L2008	CL111/THAD	8131.3	45.8	71.1	7.3
078	191L2090	CHNR/CL111	8079.7	57.0	72.7	6.7
104	JN(x)	JPTR/NONA ADV BC	8024.8	57.3	70.4	8.6
071	191L2051	RoyJ/CL153	8018.5	54.6	71.9	7.3
084	191L2126	CL153/LKST	8003.4	46.3	71.7	7.4
009	192L2143	1602097/CL111	7917.5	57.6	72.1	11.4
096	191L1123	CTHL/LKST	7917.4	48.2	71.0	7.6
072	191L2054	TRNS/CTHL	7914.9	58.4	71.5	7.1
058	192M1111	NPTN//BNGL/CL161/3/BNGL/CL161//CFFY	7902.8	62.8	71.2	5.9
100	191L1184	CTHL/MRMT	7886.6	56.6	71.6	7.8
155	DMND	Diamond	7880.0	45.3	71.2	8.0
038	192L1712	CPRS/KBNT//WELLS/CFX18/3/MBLE/6/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR9/5/KATY/CPRS//KATY	7843.6	42.5	72.1	8.4
082	191L2100	CTHL/LKST	7838.1	39.3	72.4	10.0
162	CLM04	CLM04	7834.2	60.9	70.7	8.9
073	191L2064	CTHL/LKST	7823.7	55.5	72.4	4.7
114	191M1162	CFFY/JPTR	7820.4	52.1	70.0	6.9
012	192L2190	CL111/CL153	7812.2	60.0	72.3	6.1
060	192M1167	CL153/CL261	7800.8	55.9	71.5	10.1
081	191L2099	CTHL/LKST	7773.4	41.0	72.0	7.9
075	191L2071	DREW/5/CPRS/3/9502008A//AR1188/CCDR/4/CPRS/9502008A/3/CFX29//AR1142/LA2031	7764.6	58.9	72.0	4.5

Continued.

Table 3. Continued.

ENT	NAME	PEDIGREE	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
077	191L2087	CL153/LKST	7722.5	59.0	72.1	3.9
115	191M1171	TITN/JPTR	7710.8	49.8	71.1	6.4
066	191L1030	1104077/CTHL	7701.4	57.5	70.4	7.0
108	191M1068	TITN/JPTR	7693.7	63.0	71.1	7.4
029	192L1486	CL172/1502115	7680.5	46.6	72.2	12.0
023	192L1336	CL153/LKST	7678.3	54.6	71.0	5.6
002	192L2050	LKST/1402174	7672.3	53.0	72.4	10.3
052	192M1057	NPTN//BNGL/CL161/3/RICO	7663.3	56.3	71.3	8.3
069	191L2009	PSDO/CL153	7654.1	51.2	71.2	3.8
010	192L2160	CL172/LKST	7651.2	56.6	71.2	7.8
105	191M1017	TITN/JPTR	7632.2	59.4	70.5	6.9
085	191L2132	CTHL/LKST	7577.2	42.9	72.9	10.5
109	191M1073	CFFY/TITN	7575.8	45.3	71.5	7.6
091	191L1100	CHNR/PSDO	7561.8	43.1	70.5	11.0
017	192L1089	9502008A/DREW//CLR20/3/CL111/4/CTHL	7536.6	53.1	72.7	7.6
088	191L1056	CL153/LKST	7510.7	52.1	69.5	5.9
053	192M1059	CL271/3/NPTN//BNGL/CL161	7491.7	54.7	72.6	7.1
056	192M1070	CL261/JPTR	7461.0	57.2	70.9	7.2
113	191M1131	TITN/1502083	7454.4	49.8	71.0	9.7
049	192L1111	CL163/CL153	7450.6	58.8	70.2	3.7
025	192L1376	CL153/LKST	7418.6	44.1	72.4	14.9
128	193L2086	PVL01/CTHL	7361.6	59.8	71.6	5.9
099	191L1173	CTHL/MRMT	7361.3	53.8	73.6	6.8
083	191L2103	CL111/MRMT	7350.5	56.2	72.3	10.8
006	192L2134	1602168/CL172	7335.7	56.3	71.4	12.0
098	191L1172	MRMT/CTHL	7335.5	59.4	71.9	5.7
033	192L1596	1502068//CL153/CL151	7315.3	54.1	71.4	13.0
070	191L2025	PSDO/CL153	7306.5	52.0	71.3	4.5
047	192L2112	1502115/THAD	7248.2	53.0	71.2	5.5
044	192L1096	CLJZMN/4/JZMN/08CLR004//RU0802146/3/JZMN2	7239.3	55.2	72.1	9.1
019	192L1263	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/CTHL/5/CL172/6/CL172	7229.9	49.7	73.0	7.5
163	TITN	Titan	7207.0	55.8	71.7	5.7

Continued.

Table 3. Continued.

ENT	NAME	PEDIGREE	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
076	191L2073	CHTL/CL153	7200.0	46.3	71.7	10.1
016	192L1081	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	7187.4	51.7	71.5	8.4
022	192L1289	1402174/1502094	7177.1	54.6	71.6	6.3
136	193L1064	PVL01/CTHL	7132.5	55.3	70.8	4.9
020	192L1268	9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	7110.5	55.1	72.6	8.4
035	192L1665	CL153/LKST	7063.5	57.5	70.1	9.2
001	192L2046	1602097/CL111	7059.0	60.5	73.2	10.6
089	191L1067	CTHL/MRMT	7046.7	56.9	71.5	8.3
046	192L2105	CL111/THAD	7040.4	57.0	71.1	6.2
116	191M1192	CFFY/TITN	7032.4	37.5	71.1	8.9
018	192L1219	1502068/CL153	7023.2	62.5	71.3	3.9
140	193L1099	TRNS//CHNR/BASF1-2	7022.3	56.3	71.3	5.3
087	191L1040	CHNR/CTHL	7005.0	50.9	72.3	9.7
149	193L1178	PVL01/CTHL	6993.9	59.5	70.2	5.5
067	191L1033	1104077/CTHL	6990.9	46.3	70.6	4.7
068	191L1190	1104077/CTHL	6958.7	46.2	71.9	7.5
080	191L2093	CTHL/LKST	6932.6	52.2	72.3	6.8
051	192M1025	BNGL/CL161//CFFY/3/NPTN//BNGL/CL161	6874.9	52.1	69.7	6.6
129	193L2094	CHTL/3/CHTL//TRNS/BASF1-10	6839.3	40.0	71.6	7.0
043	192L1092	CLJZMN/4/JZMN/08CLR004//RU0802146/3/JZMN2	6835.0	59.8	71.6	2.2
158	MRMT	Mermentau	6816.8	58.4	71.8	9.5
097	191L1133	MRMT/CTHL	6810.1	54.7	72.3	6.2
031	192L1550	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	6791.3	63.3	70.7	4.6
121	193L2030	PVL01/CTHL	6789.1	56.2	70.4	7.1
159	PVL01	PVL01	6773.5	56.0	70.9	7.3
057	192M1095	CL153/CL261	6765.2	59.4	70.5	4.4
141	193L1112	PVL01/CTHL	6754.6	53.8	71.2	5.5
138	193L1084	PVL01/CTHL	6720.0	56.5	70.4	5.5
007	192L2138	1602097/CL111	6709.0	57.7	72.5	9.5
037	192L1708	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	6692.8	48.1	73.1	10.1
042	191L1189	1402174/CL153	6690.0	58.3	72.2	5.7
124	193L2065	1502115/PVL01	6675.0	59.7	71.1	9.8

Continued.

Table 3. Continued.

ENT	NAME	PEDIGREE	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
119	193L2012	MRMTBCR048(5)/MRMT//MRMT	6660.4	60.6	69.4	5.6
094	191L1111	1502085/CTHL	6643.5	57.9	72.3	6.3
101	1902207	CTHL/4/CPRS/KBNT//9502008/3/CCDR	6638.1	58.9	71.9	4.7
151	CL153	CL153	6638.1	58.2	69.9	5.5
123	193L2052	PVL081/CL172	6579.8	51.9	69.3	8.7
092	191L1105	CTHL/MRMT	6567.8	57.7	71.7	8.6
050	192L1166	CL163/CL153	6562.8	58.1	71.9	5.4
157	CHNR	Cheniere	6558.8	61.1	72.1	5.5
054	192M1065	CL111/CL272	6550.3	46.9	70.0	6.6
041	191L1131	1502085/CTHL	6529.9	55.8	71.2	8.2
048	192L1008	CL163/CL153	6510.9	56.8	70.3	3.1
154	CLL17	CLL17	6505.8	49.0	70.6	8.5
118	191M1160	SSKI/CL272	6490.4	24.1	67.2	11.5
153	CL151	CL151	6479.2	53.1	71.8	7.9
103	1702140	CHNR/MRMT	6478.7	57.6	71.8	5.0
130	193L2095	CHTL/3/CHTL//TRNS/BASF1-10	6473.6	42.2	71.1	13.0
026	192L1433	9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF/4/9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF	6437.7	51.0	72.5	11.9
005	192L2095	CL111/1502068	6428.4	55.8	72.7	8.7
061	192M1192	CL111/CL272	6423.0	55.5	72.3	10.1
063	191L1125	JZMN2/CTHL	6389.1	53.3	71.5	7.3
133	193L1036	TRNS//CHNR/BASF1-2	6389.0	50.6	68.8	3.6
139	193L1093	PVL01/CTHL	6388.4	50.6	73.0	4.7
120	193L2018	PVL01/CTHL	6386.1	58.2	69.8	4.8
126	193L2080	PSDO//PSDO/MRMTBCR048(5)	6373.3	44.3	70.8	7.1
011	192L2171	1402174/CL153	6368.5	60.3	71.6	4.9
095	191L1119	MRMT/CTHL	6354.8	58.0	71.3	6.6
150	193L1182	PVL01/CTHL	6346.1	58.4	70.7	4.8
034	192L1662	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/9502008A/DREW//CLR20/3/CL111	6342.8	53.6	71.4	11.1
032	192L1563	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	6342.8	56.6	70.3	13.3
106	191M1019	TITN/JPTR	6332.2	55.1	69.5	6.8
030	192L1544	1502068//CL153/CL151	6322.3	55.6	70.3	3.9
134	193L1047	CTHL//CPRS/BASF1-13	6317.9	36.7	70.6	9.8

Continued.

Table 3. Continued.

ENT	NAME	PEDIGREE	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
064	191L1122	JZMN2/CTHL	6301.1	59.3	70.6	2.0
065	191L1159	JZMN2/CTHL	6297.8	43.8	70.2	6.9
090	191L1094	CTHL/4/CPRS/KBNT//9502008A/3/CCDR	6259.2	62.0	72.3	8.4
039	192L1727	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	6245.1	45.1	72.2	7.5
003	192L2088	1402174/CL153	6244.5	58.5	71.0	8.4
014	192L1066	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	6241.0	55.7	70.9	7.3
127	193L2083	CTHL//TRNS/BASF1-10	6184.9	54.6	70.3	7.5
027	192L1463	CL153/CL261	6181.4	44.7	71.3	9.9
161	LAH169	LAH169	6097.3	54.8	71.5	12.9
015	192L1072	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	6093.1	57.2	71.6	6.7
156	THAD	Thad	6093.0	49.7	71.0	6.3
004	192L2092	CL111/1502068	6068.9	55.0	71.8	5.9
024	192L1338	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9502008/LGRU	6013.1	42.3	72.8	6.1
028	192L1480	9502008A/DREW//CLR20/3/CL111/4/CCDR	5901.2	45.0	71.7	6.2
122	193L2048	PVL01/CTHL	5832.4	57.0	69.9	4.0
021	192L1276	CPRS/5/9502008A/DREW/3/NWBT/KATY//9902207x2/4/CFX18//CCDR/977053DH2	5789.0	59.6	71.9	6.3
008	192L2142	CL111/CL153	5749.4	52.7	71.9	6.3
117	Sweet Rice		5739.3	38.9	67.5	76.8
059	192M1128	CL153/CL261	5739.0	53.9	70.5	5.8
062	192M1195	CL111/CL272	5723.4	47.4	70.5	10.3
040	192L1738	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/9502008A/DREW//CLR20/3/CL111	5686.5	44.9	70.5	8.2
132	193L1030	CPRS/PVL24B	5683.9	39.9	69.9	9.2
013	192L1017	CL111/LKST	5649.8	59.2	72.5	3.9
086	191L1031	CTHL/4/CPRS/KBNT//9502008A/3/CCDR	5622.0	49.9	72.8	8.7
131	193L1010	CTHL/MRMTBCR048(5)	5592.8	35.4	70.7	13.7
152	CL111	CL111	5513.5	51.5	70.8	7.2
146	193L1157	MRMTBCR048-7/TRNS	5490.4	36.7	70.1	15.4
137	193L1081	CTHL//CPRS/BASF1-13	5440.8	49.2	68.7	11.5
160	PVL02	PVL02	5421.1	52.8	73.3	9.8
148	193L1174	TRNS//CHNR/BASF1-2	5318.3	27.8	69.1	5.7
093	191L1108	1402174/CTHL	5242.3	58.8	71.9	5.3
125	193L2068	PVL080/CL153	5003.3	42.9	69.3	5.2

Continued.

Table 3. Continued.

ENT	NAME	PEDIGREE	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
142	193L1125	CTHL//CPRS/BASF1-13	4891.5	37.5	70.2	26.3
143	193L1132	MRMTBCR048-7/TRNS	4659.5	34.2	69.9	8.2
147	193L1168	CTHL//CPRS/BASF1-13	3550.4	31.5	67.9	7.1
135	193L1048	PVL01/CTHL	-	54.8	71.0	2.9
144	193L1135	CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21/5/CHNR/BASF1-2	-	33.5	69.3	6.8
145	193L1141	PVL01/CTHL	-	52.6	70.9	4.0

CLEARFIELD PRELIMINARY YIELD TRIALS

The Clearfield Preliminary Yield trials consist primarily of promising breeding nursery material that is ready to be tested in replicated yield trials. The material in these trials was screened for agronomic and grain characteristics in nurseries prior to this phase of testing. Promising experimental lines were evaluated for seedling vigor, maturity, plant height, lodging resistance, grain yield of main crop, and disease resistance.

Tests were conducted using standard agronomic practices (except that fungicides were not applied) at the H. Rouse Caffey Rice Research Station (HRCRRS) at Crowley, Louisiana. A randomized complete block design was applied to arrange test entries. The plot size was 4.66 x 16 ft. Seeding rate was 90 lb/A. The Clearfield Preliminary Yield Long-Grain trial was drill seeded on March 11-12 and harvested on Aug. 3-4. The Clearfield Preliminary Yield Medium-Grain trial was drill seeded on March 26 and harvested on Aug. 6. Data is presented for the long-grain test in Table 1 and for the medium-grain test in Table 2.

Table 1. Grain and milling yields and agronomic performance of entries in the 2020 Clearfield Preliminary Yield Long-Grain trial. H. Rouse Caffey Rice Research Station, Crowley, LA.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
669	202L1669	CL172/1502115	3	179	85	11781.1	68.0	73.6	21.0
294	202L1294	1402174/PSDO	3	173	94	11623.4	60.6	71.3	12.5
089	202L1089	172L1155/172L1137	2	174	105	11523.8	59.8	67.7	15.7
070	202L1070	1502068/CHNR	3	177	96	11478.7	63.5	71.3	9.5
312	202L1312	CL151/1702140	3	176	100	11387.2	66.6	72.1	9.5
349	202L1349	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/9502008-A/DREW//CLR20 /3/TRNS//CCDR/JEFF	4	176	94	11381.5	58.7	72.4	9.2
111	202L1111	1602168/CL172	3	182	101	11377.7	66.4	71.6	12.2
381	202L1381	CL153/CL172	4	177	87	11374.6	60.5	70.7	15.1
357	202L1357	CL172/1402091	3	176	89	11339.7	62.1	72.8	11.7
212	202L1212	1602168/CL172	4	173	97	11324.5	65.7	72.4	8.7
515	202L1515	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	4	180	100	11321.3	68.0	72.7	10.8
581	202L1581	1402174/MRMT	4	183	100	11315.1	65.5	71.4	12.6
240	202L1240	1602097/CL111	4	176	101	11303.5	65.0	71.0	8.7
508	202L1508	1502115/CL153	4	176	91	11284.7	65.0	71.0	13.8
032	202L1032	CL153/CL172	2	176	94	11277.3	61.0	69.3	12.9
568	202L1568	CL153/CL172	3	176	94	11230.0	65.9	71.1	9.0
120	202L1120	CL172/CHTL	3	177	92	11219.0	62.4	72.0	13.0
421	202L1421	CL153/172L1155	3	176	92	11210.4	66.4	71.7	13.2
328	202L1328	CL151/MRMT	3	176	96	11209.2	59.9	72.5	11.9
336	202L1336	CL153/CL172	3	178	94	11209.0	63.3	71.1	7.1
708	202L1708	CL261/CHTL	4	177	95	11208.1	66.0	72.7	14.1
125	202L1125	9502008-A/DREW//CLR20/3/TRNS//CCDR/JEFF/6/TACAURI/3/CPRS//82CAY21/ TBNT/4/CFX 18/5/CHENIERE	3	178	92	11189.9	63.0	72.6	10.1
268	202L1268	1402174/MRMT	3	177	92	11188.2	61.5	71.3	9.9
384	202L1384	CL153/1602097	3	176	102	11177.7	63.2	71.9	13.1
292	202L1292	LKST/CL151	3	177	95	11157.1	64.6	72.3	9.2
413	202L1413	CL153/CL172	2	176	88	11149.0	64.4	70.5	14.8

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
534	202L1534	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/6/TACAURI/3/CPRS//82CAY21/ TBNT/4/CFX 18/5/CHENIERE	3	180	85	11148.1	67.6	71.8	13.4
480	202L1480	CL153/CL172	3	173	98	11137.4	66.0	71.1	13.8
479	202L1479	CL151/1402174	3	174	100	11124.4	62.9	69.4	19.1
699	202L1699	CL151/CL111	3	177	100	11124.3	65.0	70.3	19.6
622	202L1622	CL153/1602195	3	180	97	11123.2	66.2	71.2	11.6
171	202L1171	CL151/1402174	2	173	92	11115.0	63.7	71.9	13.8
405	202L1405	1602168/CHNR	3	171	100	11103.5	67.5	73.4	12.3
144	202L1144	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/CL111/CHNR	3	179	102	11099.7	62.2	71.2	11.6
207	202L1207	CL153/1602195	3	176	96	11092.1	68.9	74.0	11.9
064	202L1064	KATY/CPRS//NWBT/KATY/3/9502008/4/CLR 9/5/KATY/CPRS//NWBT/KATY/6/ CL111/4/CPRS/9502008-A//AR 1188/CCDR	4	183	103	11090.4	63.9	70.6	11.3
361	202L1361	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	2	171	92	11088.6	65.9	72.4	13.4
541	202L1541	LKST/CL151	4	180	98	11060.5	66.2	71.2	16.0
115	202L1115	1602189/LKST	3	174	100	11044.8	66.7	71.8	9.7
387	202L1387	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS// 82CAY21/TBNT/4/WELLS/CFX18	2	177	91	11043.3	61.2	72.5	10.0
102	202L1102	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/ AR1188/CCDR// 9502008/LGRU	3	175	96	11041.0	64.3	72.0	13.9
448	202L1448	CL153/1602097	4	178	94	11026.7	64.1	70.3	14.2
012	202L1012	172L1137/CL153	3	176	99	11019.9	63.4	70.2	16.2
748	CLL17	CLL17	2	173	103	11016.9	61.3	69.3	14.9
662	202L1662	172L1155/172L1074	4	179	98	11009.5	65.3	70.9	17.9
674	202L1674	CL151/CL111	3	176	93	10999.7	66.0	72.4	17.6
647	202L1647	CL172/1402091	3	179	83	10999.1	67.5	72.8	13.8
133	202L1133	1602168/CHNR	3	173	98	10997.9	66.2	72.0	7.9
542	202L1542	172L1205/171L1786	3	179	96	10997.8	66.6	71.6	10.5
548	202L1548	CL153/172L1155	3	176	95	10974.4	65.7	70.9	12.7
137	202L1137	1602195/CL172	3	174	93	10968.8	64.5	71.7	13.8
513	202L1513	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	4	177	100	10964.5	67.3	72.6	14.5
129	202L1129	CL151/RoyJ	2	173	91	10958.7	63.8	72.3	14.0

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
223	202L1223	172L1137/CHNR	4	179	93	10951.0	64.5	71.6	10.3
546	202L1546	KBNT/CL151	4	177	97	10945.7	62.3	70.5	15.0
190	202L1190	1502068/CL153	4	179	95	10945.2	67.0	71.7	6.6
477	202L1477	CL151/1402174	4	171	97	10934.8	62.9	69.4	21.9
746	CL153	CL153	3	179	99	10924.5	65.3	71.0	8.6
117	202L1117	CL151/1402174	2	176	95	10923.4	62.2	72.6	16.1
388	202L1388	CL153/1602097	3	176	90	10916.7	63.6	72.1	13.2
280	202L1280	172L1205/172L2058	4	176	97	10916.5	58.8	71.1	13.6
156	202L1156	1502068/CL153	6	178	100	10912.4	59.7	71.2	9.9
617	202L1617	CL153/172L1155	3	177	105	10907.8	67.2	71.8	12.2
583	202L1583	TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR/6/PSDO	3	177	96	10897.7	65.9	71.3	8.2
182	202L1182	KATY/CPRS//NWBT/KATY/3/9502008/4/CLR 9/5/KATY/CPRS// NWBT/KATY/6/CL111/4/CPRS/9502008-A//AR 1188/CCDR	3	179	92	10895.2	66.6	72.3	8.3
048	202L1048	CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/TBNT/4/WELLS/ CFX18/6/9502008-A/DREW// CLR 20/3/CL111	3	174	92	10893.1	58.9	70.3	11.7
208	202L1208	CL151/MRMT	2	176	94	10889.4	63.1	73.4	11.9
658	202L1658	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR// 9502008/LGRU	2	174	94	10885.0	65.1	71.7	15.6
081	202L1081	CL172/1502115	2	173	98	10884.2	60.8	70.4	15.8
437	202L1437	CL111/CHNR/4/CPRS/KBNT//CFX29/CCDR/3/06CFP952	2	176	94	10884.1	67.1	71.9	13.0
511	202L1511	1602168/CHNR	3	172	100	10882.0	66.2	71.9	14.8
726	202L1726	CL163/CL153	3	174	103	10867.1	64.3	69.1	11.5
621	202L1621	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	3	176	92	10861.2	66.5	71.5	11.8
749	CLL16	CLL16	2	179	108	10857.3	60.8	68.8	16.3
521	202L1521	172L1155/172L1074	3	176	90	10856.1	66.2	71.5	14.7
074	202L1074	CTHL/3/TRNS//9502008A/DREW/5/MRMT/4/CPRS/KBNT//9502008A/3/TRNS	4	176	97	10836.0	54.5	69.6	13.6
682	202L1682	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	4	179	98	10832.5	64.7	72.1	13.3
447	202L1447	1602189/LKST	4	179	94	10831.3	64.2	70.7	15.7
520	202L1520	CL153/1602097	3	173	94	10826.4	62.7	69.4	10.5
282	202L1282	9502008/DREW//CLR20/3/TRNS//CCDR/JEFF/4/CCDR	4	176	97	10815.3	62.4	73.0	12.4

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
429	202L1429	PSDO/4/9502008A//AR1188/CCDR/3/CFX-26/9702128/5/MRMT	3	173	93	10812.3	64.1	72.4	19.8
186	202L1186	CPRS/KBNT//9502008A/5/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR9/6/CHNR//CCDR/JEFF	3	176	95	10810.3	64.6	72.2	10.5
406	202L1406	LKST/CL151	3	177	95	10808.9	67.2	71.4	13.0
305	202L1305	CL172/LKST	4	179	86	10808.2	63.3	71.5	12.0
313	202L1313	1502115/CPRS	3	176	97	10803.1	60.9	72.3	14.6
391	202L1391	CPRS/KBNT//WELLS CFX 18/3/MBLE/5/CPRS/3/9502008-A//AR 1188/CCDR/4/CPRS/9502008-A/3/CFX 29//AR 1142/LA 2031	3	175	95	10801.4	65.8	72.0	14.5
586	202L1586	CHTL/CL153	4	179	95	10787.7	66.6	72.3	12.1
614	202L1614	PSDO/4/9502008A//AR1188/CCDR/3/CFX-26/9702128/5/MRMT	3	181	90	10785.8	66.6	71.8	9.4
333	202L1333	1402174/CTHL	4	179	99	10774.1	61.1	72.4	10.9
389	202L1389	CHNR/CL111	3	173	100	10772.3	62.7	72.1	14.2
747	CL151	CL151	3	177	106	10771.3	64.4	72.1	21.9
626	202L1626	DMND/CL153	3	180	87	10769.5	62.5	70.9	15.9
665	202L1665	PSDO/CL151	3	179	100	10767.5	67.4	72.1	9.0
270	202L1270	1502068/CHNR	4	176	95	10761.4	63.9	72.0	7.1
653	202L1653	1502115/CL151	3	179	86	10760.6	67.5	72.4	11.5
409	202L1409	CL151/1402174	3	175	95	10756.8	66.8	71.7	14.8
723	202L1723	CL111/THAD	5	176	97	10752.6	62.1	69.7	12.5
139	202L1139	1602097/CL151	2	173	98	10751.8	61.7	72.0	20.5
720	202L1720	1502115/THAD	4	180	90	10749.7	64.8	71.2	11.2
573	202L1573	RoyJ/CL153	3	179	92	10748.9	68.2	72.0	7.0
108	202L1108	RoyJ/CL153	3	177	84	10736.0	62.2	72.4	8.9
485	202L1485	RoyJ/1502094	4	174	95	10736.0	66.2	72.5	14.4
009	202L1009	RoyJ/CL153	3	176	92	10735.7	63.9	70.6	8.8
015	202L1015	1502115/CL153	3	177	101	10732.3	60.0	71.3	17.1
088	202L1088	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	2	173	97	10730.0	56.6	68.9	8.7
147	202L1147	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/CL111/4/CPRS/9502008A//AR1188/CCDR	3	176	100	10727.4	65.7	70.0	13.2
086	202L1086	172L1074/172L1137	4	179	101	10726.7	60.0	67.7	12.7

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
655	202L1655	CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/TBNT/4/ WELLS/CFX18/6/9502008-A/DREW//CLR 20/3/CL111	3	176	90	10722.4	64.8	71.6	15.9
214	202L1214	1602195/CL172	3	174	90	10720.6	64.5	72.1	9.4
257	202L1257	CPRS/KBNT//WELLS/CFX18/3/MBLE/4/CPRS/KBNT//CFX29/CCDR/3/ 06CFP952	2	176	98	10720.1	58.3	72.0	11.8
417	202L1417	CL172/PSDO	3	174	96	10718.6	64.9	71.3	4.2
130	202L1130	1502115/CL153	3	176	92	10714.3	62.9	71.6	13.5
486	202L1486	CPRS/KBNT//WELLS CFX 18/3/MBLE/5/CPRS/3/9502008-A//AR 1188/ CCDR/4/CPRS/9502008-A/3/CFX 29//AR 1142/LA 2031	3	176	98	10712.4	67.8	72.6	15.0
321	202L1321	172L1205/172L2058	3	177	97	10708.8	62.8	71.8	9.2
278	202L1278	1502115/CL151	3	180	94	10708.3	60.7	71.9	8.7
365	202L1365	CL153/1602195	3	178	98	10707.7	64.6	72.1	12.7
714	202L1714	1502115/THAD	4	179	98	10707.5	63.4	70.8	15.8
062	202L1062	CL151/1402174	3	178	97	10707.4	61.2	70.8	17.5
334	202L1334	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/CL111/CHNR	4	180	96	10707.3	57.1	72.7	13.4
427	202L1427	MRMT/3/FRAN/CLR13//9502008A/DREW	3	176	86	10700.5	64.8	70.8	11.0
112	202L1112	172L1205/172L2058	2	178	93	10696.0	61.8	72.3	10.3
165	202L1165	CL172/CHTL	3	177	89	10692.2	64.3	73.2	10.1
020	202L1020	1502085/CHTL	2	176	95	10687.7	63.6	71.9	13.7
672	202L1672	CFX-18//CCDR/9770532 DH2/3/CPRS/KBNT//9502008-A/4/CATAHOULA /5/CL172/6/CL172	3	179	96	10686.9	65.5	72.4	11.3
245	202L1245	CL151/RoyJ	4	176	92	10681.0	61.7	72.5	21.7
231	202L1231	CL151/1402174	3	175	100	10678.3	56.8	72.0	22.7
503	202L1503	CL111/MRMT	3	175	90	10678.0	62.7	69.1	15.6
613	202L1613	CPRS/KBNT//WELLS CFX 18/3/MBLE/5/CPRS/3/9502008-A//AR 1188/ CCDR/4/CPRS/9502008-A/3/CFX 29//AR 1142/LA 2031	3	178	95	10676.5	67.8	72.0	15.3
043	202L1043	CL151/1702140	4	179	96	10676.3	63.4	69.9	9.7
013	202L1013	CL153/CL172	2	176	84	10672.2	57.0	69.5	9.3
103	202L1103	1502068/CHNR	3	177	94	10672.0	63.7	70.9	13.6
543	202L1543	CL151/1402174	4	176	95	10670.2	63.9	70.6	16.5
402	202L1402	1602112/DMND	4	176	89	10668.5	62.1	70.1	15.2

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
567	202L1567	PSDO/CL151	3	174	95	10666.0	66.5	71.3	9.3
500	202L1500	CL172/LKST	5	177	89	10663.1	65.9	71.4	17.3
154	202L1154	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	3	173	92	10662.5	65.4	71.8	10.8
011	202L1011	172L1137/CL153	3	181	104	10660.8	63.0	70.2	9.9
118	202L1118	172L1155/172L1074	3	176	98	10659.9	63.6	72.4	7.9
458	202L1458	172L1107/172L2058	3	178	87	10657.4	66.9	71.7	14.0
371	202L1371	RoyJ/CL153	4	176	90	10649.9	56.5	70.4	10.3
558	202L1558	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/CL111/4/CPRS/9502008A//AR1188/CCDR	3	175	101	10649.5	65.9	70.6	18.4
572	202L1572	172L1155/172L1137	3	179	98	10643.8	65.0	70.8	13.0
565	202L1565	LKST/CL151	4	179	94	10641.2	66.6	71.6	12.6
238	202L1238	CL153/172L1155	3	176	97	10640.4	63.9	72.5	7.3
176	202L1176	CL111/MRMT	3	173	95	10639.7	64.7	71.8	11.6
549	202L1549	1602097/CL151	4	175	96	10634.8	64.4	69.7	17.3
569	202L1569	172L1137/CL153	4	176	97	10634.6	64.6	71.6	17.3
415	202L1415	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/CL111/4/CPRS/9502008A//AR1188/CCDR	2	174	95	10632.9	66.6	72.0	12.4
160	202L1160	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/CL111/4/CPRS/9502008A//AR1188/CCDR	3	174	94	10631.6	64.7	71.8	13.6
685	202L1685	CL172/1502115	4	173	97	10630.6	67.5	72.3	12.4
071	202L1071	CL151/1702140	3	176	95	10628.9	62.7	70.7	6.2
364	202L1364	CL151/1402174	2	177	94	10627.6	60.1	72.4	10.8
591	202L1591	CL111/1502068	4	179	96	10626.8	65.6	70.6	12.1
430	202L1430	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/CPRS/KBNT//WELLS CFX 18/3/AR 1188/CCDR//9502008/LGRU	3	177	85	10625.8	65.8	72.2	11.4
267	202L1267	CHNR/4/CPRS/KBNT//WELLS/CFX18/3/CHNR	3	176	96	10623.8	59.9	72.2	10.4
397	202L1397	CL172/LKST	5	178	92	10617.3	66.4	72.0	13.5
215	202L1215	CTHL/3/TRNS//9502008A/DREW/5/MRMT/4/CPRS/KBNT//9502008A/3/TRNS	3	176	97	10614.2	61.4	72.8	11.6
110	202L1110	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9502008/LGRU	3	176	91	10610.0	65.8	72.1	10.8
606	202L1606	1502115/CL111	3	180	96	10601.0	67.4	72.0	12.9

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
472	202L1472	CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/TBNT/4/WELLS/ CFX18/6/9502008-A/DREW//CLR 20/3/CL111	3	175	95	10599.7	64.9	71.4	11.2
680	202L1680	CL172/1502115	3	176	85	10598.6	65.0	73.1	13.2
164	202L1164	172L1074/172L1137	3	177	92	10597.1	62.2	72.8	11.1
030	202L1030	172L1137/CHNR	3	178	87	10596.1	61.0	71.2	7.3
715	202L1715	CL111/THAD	3	176	98	10592.9	64.0	71.2	13.1
644	202L1644	1602168/CL172	4	179	89	10589.1	66.3	71.3	15.5
234	202L1234	1402174/CTHL	3	177	98	10586.9	66.4	73.2	7.9
484	202L1484	CPRS/KBNT//WELLS/CFX18/3/MBLE/4/CPRS/KBNT//CFX29/CCDR/3/06CFP952	3	180	97	10581.1	64.8	71.2	16.1
180	202L1180	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS// 82CAY21/TBNT/4/WELLS/CFX18	3	171	82	10578.5	66.0	71.8	8.5
262	202L1262	CL153/1602195	2	176	100	10578.1	63.6	71.9	11.8
609	202L1609	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	3	176	95	10575.8	63.0	71.5	15.1
187	202L1187	CL153/1602195	3	176	95	10575.3	65.7	72.0	10.2
423	202L1423	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR// 9502008/LGRU	4	179	90	10574.5	64.8	71.2	10.5
559	202L1559	CL153/CL172	3	175	96	10574.5	66.5	70.5	10.4
481	202L1481	LKST/1402174	4	180	92	10574.2	64.9	71.5	11.8
703	202L1703	CL172/LKST	4	179	90	10567.3	66.4	71.5	14.0
072	202L1072	CL172/CL153	5	180	96	10566.6	59.5	69.6	10.5
538	202L1538	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	4	179	93	10558.1	68.9	72.9	10.9
432	202L1432	DMND/CL151	4	175	90	10550.8	64.9	70.8	15.4
095	202L1095	CL153/1602195	3	177	102	10548.8	63.0	70.8	12.3
079	202L1079	CL172/CL153	3	175	90	10545.5	55.3	68.9	12.0
174	202L1174	CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/TBNT/4/WELLS/ CFX18/6/9502008-A/DREW// CLR 20/3/CL111	3	175	90	10542.3	63.8	71.6	10.2
243	202L1243	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/9502008-A/DREW//CLR 20/3/ TRNS//CCDR/JEFF	3	179	85	10540.9	59.2	72.8	12.4
121	202L1121	TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR/6/PSDO	3	177	94	10540.6	63.2	72.0	11.4
736	202A1736	CLJ01/CPRS	3	176	103	10539.2	64.5	70.0	8.9
232	202L1232	CL172/CL153	5	180	84	10535.3	61.3	71.4	8.0

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
550	202L1550	1602168/CHNR	3	171	93	10532.5	66.9	71.5	12.0
090	202L1090	CL111/MRMT	3	178	90	10529.6	61.1	68.4	12.7
219	202L1219	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	3	171	90	10527.1	64.6	71.9	9.4
221	202L1221	172L1107/172L2058	3	176	92	10526.0	60.7	71.7	8.5
016	202L1016	CL172/CPRS	4	177	105	10523.4	63.5	70.5	5.1
438	202L1438	1502068/CL153	3	177	96	10519.3	63.6	71.0	14.4
303	202L1303	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9502008/LGRU	4	179	85	10518.3	62.5	72.7	13.9
435	202L1435	TRNS//CL111/CHNR	4	173	97	10515.1	64.9	71.5	15.1
366	202L1366	CL172/LKST	5	183	90	10514.3	62.9	71.3	14.3
210	202L1210	1602168/CHNR	4	174	95	10512.3	64.8	73.4	9.0
676	202L1676	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/TBNT/4/WELLS/CFX18	2	172	87	10511.6	66.1	71.7	15.5
646	202L1646	CL111/1502068	4	176	97	10509.8	67.1	72.4	11.7
170	202L1170	172L1205/171L1786	3	176	94	10509.8	59.1	72.8	10.2
575	202L1575	172L1155/172L1137	3	178	98	10507.8	63.8	70.3	9.8
466	202L1466	CL172/1402091	4	178	94	10503.2	66.9	72.5	14.5
352	202L1352	172L1137/CL153	4	180	100	10499.8	61.8	72.0	9.1
476	202L1476	1502115/CL153	3	176	95	10489.7	65.1	70.6	16.7
054	202L1054	CL153/CL172	2	176	93	10488.8	64.4	71.0	9.2
404	202L1404	172L1107/172L2058	3	177	89	10485.6	68.2	72.2	9.4
560	202L1560	1602168/CHNR	4	174	97	10484.0	66.1	72.0	9.5
052	202L1052	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/CL111/4/CPRS/9502008A//AR1188/CCDR	3	174	95	10483.7	61.6	69.0	14.8
679	202L1679	1602168/CHNR	4	173	92	10482.6	66.1	72.2	12.6
557	202L1557	1502115/CL153	3	176	97	10479.7	67.0	71.7	13.5
444	202L1444	CL153/LKST	3	176	90	10475.5	66.8	71.1	11.9
132	202L1132	CL151/1402174	3	176	98	10474.2	59.0	71.1	19.9
667	202L1667	TRNS/4/9502008A/DREW//CLR20/3/CPRS/KBNT//WELLS/CFX18/5/TRNS	3	176	98	10473.9	64.3	70.2	12.1
411	202L1411	CL131/CL153	4	175	90	10472.0	66.4	71.2	11.8

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
049	202L1049	CPRS/KBNT//WELLS CFX 18/3/MBLE/6/KATY/CPRS//NWBT/KATY/3/9502008 /4/CLR 9/5/KATY/CPRS//NWBT/KATY	4	181	99	10470.6	60.0	69.7	14.8
619	202L1619	1402174/MRMT	4	179	92	10464.9	66.6	71.6	12.7
580	202L1580	CL153/1602097	3	175	92	10461.2	65.1	70.3	11.5
729	202A1729	DLLA2/1602097	3	174	98	10458.2	60.7	67.4	9.9
574	202L1574	1502068/CL153	3	178	94	10456.1	67.4	71.5	10.8
034	202L1034	1502115/CL111	3	179	96	10455.7	60.9	69.6	12.9
461	202L1461	1602195/CL172	4	176	100	10454.3	65.6	71.1	13.2
571	202L1571	CL151/1702140	3	179	101	10453.0	65.4	71.1	10.9
612	202L1612	RoyJ/CL153	3	178	94	10452.4	67.6	71.7	9.1
433	202L1433	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	3	173	92	10450.5	67.7	72.9	12.0
469	202L1469	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	4	176	94	10450.4	65.2	71.5	12.0
324	202L1324	CFX-18//CCDR/9770532 DH2/3/CPRS/KBNT//9502008-A/4/CATAHOULA /5/CL172/6/CL172	4	177	89	10449.0	64.1	72.1	19.1
320	202L1320	CL111/MRMT	3	177	87	10448.3	62.9	70.7	17.0
611	202L1611	1602097/CL111	3	175	95	10446.5	65.1	70.7	10.9
237	202L1237	1402174/CTHL	3	176	95	10444.8	64.1	73.3	10.8
687	202L1687	CL172/CL153	4	180	94	10443.0	65.4	70.4	16.4
185	202L1185	1602195/CL172	4	173	97	10441.6	64.3	72.7	8.0
341	202L1341	172L1205/172L2058	3	179	98	10438.4	61.8	71.9	7.3
450	202L1450	MRMT/PSDO	3	177	92	10437.7	64.2	71.0	12.9
075	202L1075	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	2	173	100	10436.8	58.2	69.9	7.4
124	202L1124	CPRS/KBNT//WELLS CFX18/5/TACAURI/3/CPRS//82CAY21/TBNT/4/WELLS/CFX18 /6/9502008-A/DREW//CLR 20/3/CL111	3	176	90	10434.9	62.6	71.1	12.0
627	202L1627	CL151/MRMT	3	172	98	10434.5	64.7	71.1	11.9
377	202L1377	1502068/CL153	4	179	96	10434.4	64.2	71.6	10.5
100	202L1100	RoyJ/1502094	3	178	110	10433.1	59.9	68.4	13.8
310	202L1310	172L1205/172L2058	4	180	103	10430.4	65.1	73.2	12.0
097	202L1097	CHTL/CLJ01	4	179	112	10428.6	64.7	71.5	16.7
316	202L1316	CL153/LKST	5	183	95	10427.5	64.4	70.0	11.6

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
590	202L1590	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9502008/LGRU	4	179	93	10426.8	65.3	71.4	14.0
663	202L1663	CL172/CL153	4	180	86	10425.1	64.6	70.7	12.3
502	202L1502	CL111/CHNR//CL151	4	176	99	10422.1	65.1	70.5	17.1
319	202L1319	1402174/CTHL	3	178	95	10421.8	64.3	73.0	13.3
205	202L1205	RoyJ/CL153	4	176	94	10421.6	67.3	73.1	10.2
530	202L1530	CL153/LKST	4	180	95	10420.6	65.1	71.5	16.8
412	202L1412	CL172/1502115	2	173	86	10415.7	67.3	72.8	19.1
498	202L1498	CL151/CL111	4	179	101	10412.7	65.3	70.9	19.9
722	202L1722	CL163/CL153	4	180	98	10411.2	66.2	72.8	9.4
562	202L1562	CL153/172L1155	3	179	100	10411.1	66.2	71.1	9.2
693	202L1693	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	2	175	98	10409.3	64.2	71.2	13.8
640	202L1640	1602168/CHNR	3	173	98	10409.2	65.5	71.0	15.3
670	202L1670	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	4	179	96	10404.1	64.3	70.5	10.6
188	202L1188	KATY/CPRS//NWBT/KATY/3/9502008/4/CLR 9/5/KATY/CPRS//NWBT/KATY/6/CL111/4/CPRS/9502008-A//AR 1188/CCDR	4	176	90	10404.0	62.0	73.3	12.2
578	202L1578	CL172/CPRS	3	179	97	10401.9	66.1	70.3	12.2
318	202L1318	CL151/RoyJ	4	176	86	10400.7	61.1	70.8	15.4
605	202L1605	1502085/CHTL	3	173	98	10396.4	65.1	72.0	16.1
105	202L1105	PSDO/CL151	3	176	96	10394.6	63.7	71.0	9.1
465	202L1465	CFX-18//CCDR/9770532 DH2/3/CPRS/KBNT//9502008-A/4/CATAHOULA/5/CL172/6/CL172	3	173	91	10394.3	64.5	71.3	27.7
489	202L1489	CL172/CL153	3	176	96	10393.8	64.8	71.3	13.3
436	202L1436	LKST/1402174	5	181	90	10389.6	63.5	70.0	18.2
290	202L1290	CL153/CL172	4	177	90	10388.1	63.3	71.0	10.5
068	202L1068	CL172/PSDO	3	176	99	10384.3	60.5	70.6	5.8
455	202L1455	CL151/RoyJ	4	182	97	10380.4	64.6	70.3	15.3
201	202L1201	9502008/DREW//CLR20/3/TRNS//CCDR/JEFF/4/CCDR	3	177	97	10372.3	66.7	74.3	13.4
078	202L1078	CL153/1602195	3	175	94	10371.4	62.8	70.2	8.9
671	202L1671	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF	3	177	92	10369.8	66.5	71.5	10.3

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
157	202L1157	RoyJ/CL153	3	179	93	10368.1	59.4	71.5	9.2
702	202L1702	CL172/CL153	4	174	94	10367.9	65.4	71.4	14.7
527	202L1527	CL151/CL111	4	179	90	10366.4	67.4	72.2	16.3
712	202L1712	1502115/THAD	3	179	96	10363.9	65.9	70.9	7.6
482	202L1482	CHTL/CL153	3	176	98	10363.5	65.8	72.2	17.8
681	202L1681	TRNS/4/9502008A/DREW//CLR20/3/CPRS/KBNT//WELLS/CFX18/5/TRNS	3	176	96	10362.8	63.9	70.4	11.4
345	202L1345	CL172/LKST	4	177	90	10361.1	63.3	71.8	13.3
462	202L1462	CL172/PSDO	3	176	98	10359.0	64.1	71.7	11.8
724	202L1724	1502115/THAD	4	176	102	10358.6	60.7	68.6	10.8
517	202L1517	TRNS/4/9502008A/DREW//CLR20/3/CPRS/KBNT//WELLS/CFX18/5/TRNS	3	176	95	10355.3	63.9	70.3	14.7
577	202L1577	1502085/PSDO	3	176	89	10346.2	66.4	71.0	10.6
220	202L1220	CFX-18//CCDR/9770532 DH2/3/CPRS/KBNT//9502008-A/4/CATAHOULA /5/CL172/6/CL172	2	178	94	10346.0	60.9	72.9	23.8
031	202L1031	CL172/CL153	3	177	96	10336.9	62.3	70.2	17.8
524	202L1524	CHNR/CL111	4	173	100	10335.4	64.4	71.3	12.3
418	202L1418	172L1205/171L1786	3	176	96	10334.1	65.8	71.5	9.0
554	202L1554	RoyJ/1502094	3	179	90	10327.9	63.7	69.3	13.7
471	202L1471	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS// 82CAY21/TBNT/4/WELLS/CFX18	3	172	85	10327.2	67.3	70.7	12.7
224	202L1224	CL153/CL172	3	173	90	10322.5	62.7	70.8	10.7
451	202L1451	172L1137/CL153	4	176	102	10318.5	65.2	71.3	17.3
289	202L1289	CL153/CL172	3	176	85	10315.8	63.5	71.0	14.7
126	202L1126	1602097/CL151	3	174	97	10314.2	60.3	70.3	17.8
347	202L1347	CHNR/CL111	2	169	97	10302.3	62.1	71.9	9.7
193	202L1193	1502085/PSDO	2	169	94	10301.2	59.1	72.2	12.7
143	202L1143	LKST/1402174	3	176	91	10297.9	63.2	71.1	11.6
464	202L1464	PSDO/4/9502008A//AR1188/CCDR/3/CFX-26/9702128/5/MRMT	3	177	92	10295.6	66.4	71.0	10.7
594	202L1594	CHNR/CL111	3	174	95	10292.6	65.3	71.2	14.1
700	202L1700	TRNS/4/9502008A/DREW//CLR20/3/CPRS/KBNT//WELLS/CFX18/5/TRNS	4	175	95	10289.3	63.5	70.5	12.6
021	202L1021	CL153/CL172	3	178	103	10287.6	61.1	70.1	10.6

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
607	202L1607	1502115/CL151	3	177	93	10285.0	67.1	71.8	11.4
740	202A1740	CLJZMN/4/JZMN/08CLR004//RU0802146/3/JZMN2	4	181	94	10282.1	65.8	70.5	11.7
248	202L1248	CHNR/4/CPRS/KBNT//WELLS/CFX18/3/CHNR	3	179	84	10278.5	66.6	73.2	7.5
264	202L1264	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9502008/LGRU	2	177	100	10278.1	61.5	72.8	7.8
040	202L1040	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	6	177	95	10276.5	62.3	70.3	13.7
250	202L1250	MRMT/4/9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF	4	177	89	10275.5	64.2	72.0	10.4
518	202L1518	CL151/MRMT	3	179	96	10275.0	66.3	72.1	14.3
127	202L1127	CL172/1502115	3	176	88	10275.0	64.9	70.2	12.3
327	202L1327	1402174/CL153	3	177	91	10274.2	64.1	71.0	12.1
368	202L1368	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	4	179	102	10273.2	63.0	72.6	13.0
441	202L1441	172L1205/171L1786	4	179	95	10272.9	66.6	72.3	12.6
395	202L1395	1602168/CHNR	3	174	100	10270.7	64.7	72.8	10.4
637	202L1637	172L1155/172L1074	3	180	99	10269.5	64.4	70.7	10.0
061	202L1061	CL151/1402174	5	181	103	10269.2	62.7	69.0	13.3
315	202L1315	1502085/CHTL	4	176	97	10267.3	65.3	72.8	10.9
414	202L1414	RoyJ/CL153	4	179	90	10262.8	66.6	71.7	5.9
265	202L1265	1502085/CL153	4	179	106	10259.8	51.9	71.6	15.3
189	202L1189	172L1137/CHNR	3	179	100	10255.3	62.6	71.6	10.2
291	202L1291	1502115/CL153	4	178	91	10255.0	64.4	71.5	10.4
532	202L1532	1402174/CTHL	3	182	91	10253.9	64.0	71.3	13.8
036	202L1036	CHTL/CL153	4	179	93	10252.6	60.2	70.6	17.5
010	202L1010	1602189/LKST	4	173	100	10250.8	57.8	71.5	13.3
230	202L1230	CHNR/4/CPRS/KBNT//WELLS/CFX18/3/CHNR	4	177	94	10250.4	56.7	71.6	8.5
229	202L1229	1402174/PSDO	3	174	94	10247.8	62.7	71.3	6.7
228	202L1228	CL172/CL153	5	179	92	10246.0	63.0	71.3	9.3
059	202L1059	1602168/CHNR	3	177	103	10243.8	62.7	71.0	11.4
684	202L1684	PSDO/CL151	3	176	95	10242.1	64.6	71.1	7.2
191	202L1191	172L1205/171L1786	3	179	91	10239.1	62.4	72.9	9.8

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
443	202L1443	CL131/CL153	3	176	86	10235.7	66.0	70.7	10.7
456	202L1456	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	3	179	98	10234.7	65.5	70.5	8.9
084	202L1084	1502115/CL111	3	179	98	10231.5	62.9	69.7	12.2
593	202L1593	1602195/CL172	3	177	96	10230.5	67.5	71.3	10.9
093	202L1093	172L1107/172L2058	3	179	95	10227.7	62.8	71.0	8.7
719	202L1719	CL163/CL153	3	178	102	10225.9	65.0	70.4	10.7
383	202L1383	CL172/CHTL	3	179	95	10223.9	65.0	72.3	9.3
173	202L1173	TRNS/4/9502008A/DREW//CLR20/3/CPRS/KBNT//WELLS/CFX18/5/TRNS	4	173	97	10221.4	62.5	71.8	9.3
038	202L1038	PSDO/CL151	5	177	102	10220.0	61.8	70.2	8.7
588	202L1588	1602168/CHNR	3	173	100	10217.9	67.4	72.9	14.1
246	202L1246	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9502008/LGRU	5	177	88	10215.9	60.4	71.2	14.2
582	202L1582	1502094/CHTL	4	184	95	10214.5	65.8	71.4	13.9
293	202L1293	1502085/CHTL	3	173	92	10214.3	64.1	72.4	13.5
025	202L1025	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/TBNT/4/WELLS/CFX18	3	176	96	10213.6	62.9	70.2	11.2
742	202A1742	CLJ01/CPRS	4	176	96	10213.0	65.3	70.8	7.4
631	202L1631	CL151/CL111	3	179	96	10204.6	66.6	72.1	14.6
166	202L1166	KATY/CPRS/4/CL131/3/CPRS/KBNT//9502008	4	178	91	10202.0	62.9	70.7	7.7
487	202L1487	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	3	179	100	10199.9	65.5	71.4	8.2
526	202L1526	1402174/PSDO	3	176	88	10196.4	64.0	69.7	8.3
058	202L1058	1502115/CL151	2	176	97	10195.9	65.5	71.3	7.8
066	202L1066	1402174/CTHL	3	178	97	10194.7	59.0	70.4	13.1
705	202L1705	CHTL/CLJ01	3	180	100	10194.5	66.0	71.4	16.2
094	202L1094	172L1137/CL153	3	176	94	10191.2	56.7	70.3	13.0
104	202L1104	172L1155/172L1074	3	177	99	10188.6	64.9	71.8	8.6
654	202L1654	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/CL111/CHNR	3	180	101	10187.5	64.2	70.7	16.4
252	202L1252	CFX-18//CCDR/9770532 DH2/3/CPRS/KBNT//9502008-A/4/CATAHOULA/5/CL172/6/CL172	3	176	94	10176.6	65.0	73.5	11.7
299	202L1299	1502115/CL151	3	176	100	10173.5	65.8	72.1	9.3

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
711	202L1711	CL111/THAD	3	179	98	10169.0	67.1	72.2	14.0
204	202L1204	CL153/172L1155	3	176	91	10168.8	67.7	73.2	10.4
300	202L1300	CL153/LKST	3	173	92	10165.8	63.1	71.8	14.2
073	202L1073	LKST/CLJ01	4	177	103	10165.8	56.9	69.2	10.9
519	202L1519	172L1137/CHNR	4	179	97	10163.6	65.1	71.4	9.6
179	202L1179	172L1155/172L1137	3	176	97	10163.4	63.9	72.7	9.9
302	202L1302	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9502008/LGRU	4	180	92	10163.2	63.6	72.4	12.4
098	202L1098	CL153/LKST	4	180	103	10158.7	63.7	70.8	12.1
454	202L1454	RoyJ/1502094	3	179	101	10156.3	61.3	70.3	12.5
728	202A1728	DLLA2/1602097	3	175	95	10147.8	60.7	68.8	14.1
244	202L1244	1602168/CHNR	4	170	100	10146.3	64.0	73.1	11.4
358	202L1358	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF	2	170	94	10145.7	60.1	71.8	11.0
385	202L1385	CHTL/CLJ01	4	177	96	10144.1	64.0	73.0	13.2
420	202L1420	1602195/CL172	4	177	87	10143.2	67.1	71.9	8.6
116	202L1116	172L1107/172L2058	3	179	95	10139.2	64.5	72.0	7.2
463	202L1463	CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/TBNT/4/WELLS/CFX18/6/9502008-A/DREW//CLR 20/3/CL111	3	176	90	10138.0	64.5	70.5	10.4
017	202L1017	KATY/CPRS/5/TRNS/4/9502008/DREW//CLR20/3CPRS//KBNT//WELLS/CFX18	4	180	91	10134.5	61.5	69.9	11.0
285	202L1285	CL172/LKST	6	179	81	10128.9	63.4	71.7	14.0
563	202L1563	CL172/CHTL	4	179	94	10128.8	69.2	73.1	9.5
510	202L1510	CL153/LKST	4	182	95	10128.6	65.8	71.7	10.6
149	202L1149	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/6/TACAURI/3/CPRS//82CAY21/TBNT/4/CFX 18/5/CHENIERE	5	179	94	10125.4	62.6	71.0	9.5
200	202L1200	RoyJ/CL153	4	179	94	10124.0	64.9	71.4	7.7
277	202L1277	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/TBNT/4/WELLS/CFX18	3	174	92	10121.1	65.1	72.9	12.4
540	202L1540	RoyJ/1502094	4	178	96	10120.6	65.8	71.6	14.2
046	202L1046	172L1155/172L1137	3	178	92	10118.9	59.3	70.5	6.7
004	202L1004	1502094/CHTL	4	179	95	10118.3	62.3	69.7	8.5

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
256	202L1256	CL151/CL111	3	173	94	10116.5	63.6	72.4	13.1
027	202L1027	1402174/CTHL	4	179	97	10115.0	61.9	70.6	12.8
348	202L1348	CHNR/4/CPRS/KBNT//WELLS/CFX18/3/CHNR	5	179	90	10113.6	53.2	71.6	11.8
356	202L1356	1502115/CL151	2	176	92	10113.0	65.5	72.6	7.4
453	202L1453	CL151/MRMT	3	179	103	10112.3	65.5	71.3	9.4
069	202L1069	MRMT/PSDO	2	174	95	10106.7	62.3	70.8	8.6
694	202L1694	KATY/CPRS//NWBT/KATY/3/9502008/4/CLR 9/5/KATY/CPRS//NWBT/KATY/6/ CL111/4/CPRS/9502008-A//AR 1188/CCDR	2	178	96	10106.6	66.5	70.8	10.5
168	202L1168	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR// 9502008/LGRU	3	179	85	10103.7	63.8	71.8	7.1
478	202L1478	1502068/CL153	4	176	99	10101.6	63.5	67.6	7.5
085	202L1085	CL111/MRMT	4	175	87	10100.5	60.1	67.5	11.7
247	202L1247	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/ TBNT/4/WELLS/CFX18	2	178	96	10099.5	64.6	72.2	13.2
044	202L1044	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	4	178	89	10096.2	62.7	71.0	12.7
128	202L1128	CL153/CL172	3	174	90	10091.3	63.3	70.9	11.6
531	202L1531	LKST/CLJ01	4	179	87	10091.3	61.8	69.2	21.4
096	202L1096	RoyJ/CL153	4	179	95	10086.4	61.0	71.0	9.3
657	202L1657	1602168/CHNR	3	173	95	10084.3	67.5	72.9	13.8
107	202L1107	RoyJ/CL153	2	177	85	10084.0	62.6	71.5	9.2
467	202L1467	RoyJ/CL153	4	184	92	10081.6	66.4	71.5	8.2
692	202L1692	KATY/CPRS//NWBT/KATY/3/9502008/4/CLR 9/5/KATY/CPRS//NWBT/KATY/6/ CL111/4/CPRS/9502008-A//AR 1188/CCDR	3	180	100	10081.5	66.0	70.7	15.9
553	202L1553	172L1155/172L1137	3	179	90	10079.9	64.6	70.3	11.2
733	202A1733	CL172/DLLA2	4	176	101	10078.3	63.6	69.1	10.6
055	202L1055	CL172/1402091	3	173	97	10076.5	63.2	71.2	16.9
718	202L1718	1502115/THAD	4	180	93	10076.4	62.9	70.2	12.7
604	202L1604	CL172/LKST	4	179	97	10075.6	64.8	71.1	15.0
163	202L1163	CL153/LKST	4	177	90	10073.9	63.0	71.3	11.2
135	202L1135	PSDO/4/9502008A//AR1188/CCDR/3/CFX-26/9702128/5/MRMT	3	178	92	10068.7	66.1	70.6	5.5
203	202L1203	CL151/1402174	3	175	95	10061.3	65.2	74.5	16.1

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
351	202L1351	KATY/CPRS/4/CL131/3/CPRS/KBNT//9502008	3	176	97	10059.8	59.9	72.2	7.3
304	202L1304	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/CPRS/KBNT//WELLS CFX 18/3/ AR 1188/CCDR//9502008/LGRU	3	177	85	10059.5	60.6	72.2	13.3
721	202L1721	CL163/CL153	3	176	95	10056.1	64.7	71.0	9.5
701	202L1701	1502115/CL153	3	176	98	10052.8	66.0	71.6	13.6
618	202L1618	CL172/1502115	3	173	93	10049.7	66.6	72.1	18.6
584	202L1584	172L1137/CL153	4	180	94	10048.6	67.4	72.4	12.1
329	202L1329	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR// 9502008/LGRU	3	177	90	10045.2	64.5	72.1	8.0
678	202L1678	DMND/CL153	4	179	89	10044.3	66.0	72.1	12.5
474	202L1474	TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR/6/PSDO	4	177	88	10044.1	64.9	70.7	9.4
335	202L1335	1502068/CL153	4	179	105	10041.3	66.2	72.9	7.8
199	202L1199	CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/TBNT/4/WELLS/ CFX18/6/9502008-A/DREW//CLR 20/3/CL111	3	176	97	10040.1	64.5	72.4	9.5
696	202L1696	KATY/CPRS//NWBT/KATY/3/9502008/4/CLR 9/5/KATY/CPRS//NWBT/KATY/3/ 9502008/4/CLR9/6/CL 131/3/CPRS/KBNT//9502008-A	3	177	97	10035.1	62.2	69.8	20.1
407	202L1407	CHTL/CLJ01	3	179	95	10029.9	66.4	71.5	13.3
057	202L1057	MRMT/4/9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF	3	177	87	10027.1	62.1	71.0	11.7
536	202L1536	CL151/1402174	4	179	103	10020.4	66.5	71.4	11.9
218	202L1218	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/CPRS/KBNT//WELLS/CFX 18/3/ AR 1188/CCDR//9502008/LGRU	2	178	84	10019.5	62.2	73.2	11.1
686	202L1686	MRMT/PSDO	3	176	92	10019.4	66.9	72.1	9.7
113	202L1113	CHNR/CL111	5	179	105	10011.0	62.5	71.8	8.7
522	202L1522	1402174/PSDO	3	176	96	10007.1	65.5	70.2	7.0
360	202L1360	1502085/CL153	3	177	97	10000.4	62.0	72.5	7.2
727	202L1727	CL163/CL153	3	183	100	10000.0	63.0	68.2	8.1
533	202L1533	CHNR/4/CPRS/KBNT//WELLS/CFX18/3/CHNR	4	177	96	9997.2	62.4	70.4	14.1
512	202L1512	1602112/DMND	3	176	92	9995.8	64.6	70.6	13.3
382	202L1382	PSDO/CL151	4	183	95	9995.6	59.1	69.9	5.0
274	202L1274	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9 502008/LGRU	3	176	95	9992.9	60.7	72.0	15.5
134	202L1134	RoyJ/CL153	3	174	89	9992.0	59.5	70.8	10.9

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
222	202L1222	CL153/1602195	3	176	93	9991.2	63.6	71.5	7.5
092	202L1092	CL111/MRMT	3	173	97	9983.9	62.2	70.2	15.0
183	202L1183	CL111/MBLE	2	169	80	9983.0	59.1	72.4	10.0
150	202L1150	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	3	177	92	9977.1	61.4	70.6	12.8
651	202L1651	1602097/CL111	3	179	92	9968.4	64.7	70.8	13.0
067	202L1067	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/9502008-A/DREW//CLR 20/3/ TRNS//CCDR/JEFF	3	179	86	9967.9	61.3	70.0	12.4
042	202L1042	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS// 82CAY21/TBNT/4/WELLS/CFX18	6	183	95	9957.4	61.0	69.7	7.9
209	202L1209	CHTL/CLJ01	3	179	98	9956.6	66.1	73.3	12.1
629	202L1629	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/CL111/4/CPRS/9502008A// AR1188/CCDR	3	179	93	9954.9	65.9	70.9	12.5
730	202A1730	CL153/DLLA2	3	173	100	9952.4	60.9	70.1	15.8
710	202L1710	CL261/CHTL	3	179	102	9948.8	66.8	72.0	9.6
370	202L1370	PSDO/CL151	3	174	99	9947.9	61.7	70.4	10.9
624	202L1624	KATY/CPRS//NWBT/KATY/3/9502008/4/CLR 9/5/KATY/CPRS//NWBT/KATY /6/CL111/4/CPRS/9502008-A//AR 1188/CCDR	4	182	90	9947.7	65.6	70.5	14.2
683	202L1683	CL153/LKST	4	178	85	9946.8	63.4	71.2	13.9
691	202L1691	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/CPRS/KBNT//WELLS/CFX 18/3/ AR 1188/CCDR//9502008/LGRU	4	180	90	9938.5	65.1	70.7	10.6
198	202L1198	FRAN/5/LGRU/CLR22/4/96020653CFX29/AR1142/LA2031	3	176	85	9938.2	67.1	73.0	10.2
709	202L1709	CL261/CHTL	4	176	107	9937.9	66.3	72.1	10.4
216	202L1216	1502085/PSDO	3	176	93	9933.9	56.8	71.2	9.9
564	202L1564	CL111/MRMT	4	182	98	9930.5	65.7	70.3	12.8
739	202A1739	CLJ01/CPRS	4	178	101	9924.2	65.6	70.9	14.4
260	202L1260	CL153/LKST	3	178	95	9924.1	58.8	71.1	13.6
585	202L1585	PSDO/CL151	4	178	94	9921.5	63.1	70.7	11.4
483	202L1483	CHTL/CLJ01	3	179	98	9917.8	67.1	72.6	12.4
419	202L1419	1602112/DMND	4	181	90	9917.5	62.3	69.8	7.4
287	202L1287	172L1107/172L2058	3	178	95	9913.8	63.1	71.7	6.4
177	202L1177	CL131/CHNR//CTHL/CL111	3	178	84	9909.0	64.4	70.6	12.8

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
496	202L1496	1502068/CL153	3	174	96	9898.2	62.0	72.3	12.6
745	CL111	CL111	3	175	97	9896.0	65.9	70.6	14.5
344	202L1344	CL153/1602195	2	174	99	9895.6	61.0	72.3	11.7
279	202L1279	CL111/MBLE	3	168	91	9891.8	59.1	70.8	10.8
659	202L1659	CL153/LKST	4	179	93	9891.0	65.9	72.0	14.0
014	202L1014	CL111/MRMT	2	178	93	9888.3	63.1	70.1	9.8
023	202L1023	CL153/172L1155	3	174	91	9888.1	61.2	69.7	15.8
206	202L1206	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/CL111/4/CPRS/9502008A//AR1188/CCDR	3	177	96	9885.5	67.8	73.4	14.0
114	202L1114	LKST/1502115	2	175	101	9885.1	61.3	70.6	11.5
422	202L1422	CPRS/KBNT//WELLS CFX 18/3/MBLE/5/CPRS/3/9502008-A//AR 1188/CCDR/4/CPRS/9502008-A/3/CFX 29//AR 1142/LA 2031	3	176	93	9881.5	67.6	72.1	14.3
516	202L1516	CHNR/CL111	3	179	95	9880.7	67.0	72.0	10.6
717	202L1717	1502115/THAD	4	179	89	9876.6	64.6	71.2	12.0
369	202L1369	MRMT/PSDO	4	176	95	9873.1	59.2	71.6	11.0
636	202L1636	PSDO/4/CPRS/KBNT//WELLS/CFX18/3/CHNR	3	176	86	9872.1	66.7	72.1	7.7
638	202L1638	PSDO/4/9502008A//AR1188/CCDR/3/CFX-26/9702128/5/MRMT	3	178	91	9871.9	67.2	72.0	10.1
008	202L1008	MRMT/4/9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF	3	175	90	9870.0	63.0	71.2	12.7
255	202L1255	RoyJ/1502094	2	179	100	9865.8	57.6	71.5	15.1
408	202L1408	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	3	178	90	9856.3	65.7	70.7	7.7
689	202L1689	1502085/PSDO	4	180	90	9850.8	65.6	71.1	6.7
599	202L1599	CPRS/KBNT//WELLS CFX 18/3/MBLE/5/CPRS/3/9502008-A//AR 1188/CCDR/4/CPRS/9502008-A/3/CFX 29//AR 1142/LA 2031	3	175	96	9849.3	66.2	70.7	14.2
661	202L1661	CPRS/KBNT//WELLS CFX 18/3/MBLE/5/CPRS/3/9502008-A//AR 1188/CCDR/4/CPRS/9502008-A/3/CFX 29//AR 1142/LA 2031	3	177	96	9848.3	67.5	71.4	16.3
337	202L1337	MBLE/4/9502008A//AR1188/CCDR/3/CFX26/9702128	3	166	93	9848.2	59.3	72.7	13.3
392	202L1392	MRMT/PSDO	3	174	95	9847.8	60.5	71.6	15.1
589	202L1589	1602195/172L1264	3	176	95	9841.7	66.2	71.3	18.0
354	202L1354	172L1155/172L1074	2	173	95	9838.2	63.2	72.3	13.2
197	202L1197	CL172/CHTL	4	176	92	9837.1	65.4	72.4	13.9

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
439	202L1439	CPRS/KBNT//WELLS CFX 18/3/MBLE/5/CPRS/3/9502008-A//AR 1188/CCDR/4/ CPRS/9502008-A/3/CFX 29//AR 1142/LA 2031	3	176	92	9834.2	67.5	71.7	14.8
284	202L1284	CL172/1402091	3	174	86	9832.6	65.8	72.9	10.8
029	202L1029	CL172/CPRS	2	176	95	9831.0	63.8	70.6	7.4
426	202L1426	CFX-18//CCDR/9770532 DH2/3/CPRS/KBNT//9502008-A/4/CATAHOULA /5/CL172/6/CL172	3	176	85	9824.5	64.8	71.9	20.5
635	202L1635	PSDO/4/9502008A//AR1188/CCDR/3/CFX-26/9702128/5/MRMT	3	175	92	9821.2	68.4	73.6	14.6
295	202L1295	1602051/CL172	4	179	99	9814.4	62.3	72.0	13.2
639	202L1639	172L1155/172L1074	3	176	94	9814.1	65.5	71.3	18.7
028	202L1028	172L1205/171L1786	3	176	100	9808.6	61.6	71.0	8.9
087	202L1087	CL172/PSDO	3	176	105	9808.4	59.2	67.7	5.8
688	202L1688	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	5	179	100	9806.6	66.1	71.2	10.2
509	202L1509	CL172/PSDO	4	180	110	9806.2	64.5	70.2	13.1
697	202L1697	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/CPRS/KBNT//WELLS CFX 18/3/ AR 1188/CCDR//9502008/LGRU	3	177	93	9805.1	66.0	72.5	14.1
539	202L1539	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/CL111/4/CPRS/9502008A// AR1188/CCDR	3	179	95	9796.2	66.6	70.3	12.1
194	202L1194	CL172/CPRS	4	177	90	9792.9	66.5	71.4	3.9
706	202L1706	CL261/CHTL	4	178	100	9785.1	67.2	72.7	12.4
400	202L1400	CL153/1602195	4	176	96	9780.3	64.7	71.6	13.4
323	202L1323	1502085/PSDO	4	178	91	9770.6	64.0	71.4	3.9
632	202L1632	CL111/CHNR//CL151	4	179	98	9769.5	66.0	71.0	18.1
330	202L1330	CL111/MRMT	4	176	84	9765.4	63.1	71.7	17.8
153	202L1153	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	4	179	90	9765.1	60.8	68.9	11.6
175	202L1175	1402174/CTHL	3	179	94	9763.1	64.5	71.8	8.7
123	202L1123	PSDO/4/CPRS/KBNT//WELLS/CFX18/3/CHNR	2	176	90	9763.1	62.7	71.9	7.7
080	202L1080	1602195/172L1264	3	178	97	9762.4	62.3	70.2	11.4
363	202L1363	CL151/CL111	2	173	90	9762.0	62.0	72.1	10.6
535	202L1535	CL172/CL153	5	182	97	9757.8	67.3	72.0	13.5
737	202A1737	CLJZMN/4/JZMN/08CLR004//RU0802146/3/JZMN2	4	180	94	9754.3	65.1	70.5	9.7
077	202L1077	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	3	176	90	9751.1	57.6	71.3	10.7

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
253	202L1253	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/TBNT/4/WELLS/CFX18	3	177	88	9747.1	65.5	72.0	9.0
018	202L1018	CPRS/KBNT//WELLS CFX 18/3/MBLE/6/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR 9/5/KATY/CPRS//NWBT/KATY	3	176	96	9746.8	64.8	71.2	12.9
024	202L1024	RoyJ/1502094	3	181	111	9745.4	54.9	69.5	10.8
596	202L1596	1502068/CHNR	4	177	90	9744.8	67.3	72.8	8.6
690	202L1690	CL111/MRMT	4	181	92	9742.6	66.4	71.7	13.9
428	202L1428	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	4	179	94	9741.7	67.4	72.4	11.1
615	202L1615	CL153/CL172	2	174	98	9740.5	66.7	71.6	9.3
306	202L1306	9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF/4/CCDR	3	176	89	9740.3	60.2	71.3	12.3
227	202L1227	1602195/CL172	3	176	90	9737.8	64.7	72.8	11.8
146	202L1146	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9502008/LGRU	5	177	102	9736.0	65.8	71.4	12.2
158	202L1158	TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR/6/PSDO	3	179	90	9733.8	63.2	71.0	6.5
184	202L1184	1602097/CL111	4	176	100	9732.4	65.2	72.3	13.6
217	202L1217	KATY/CPRS//NWBT/KATY/3/9502008/4/CLR 9/5/KATY/CPRS//NWBT/KATY/6/CL111/4/CPRS/9502008-A//AR 1188/CCDR	3	177	95	9730.5	66.3	72.8	14.4
056	202L1056	PSDO/4/9502008A//AR1188/CCDR/3/CFX26/9702128/5/CTHL/3/TRNS//9502008A/DREW	3	174	105	9726.5	59.8	71.0	21.1
202	202L1202	1602097/CL111	2	176	87	9721.9	62.1	73.1	14.4
308	202L1308	CL153/1602195	3	176	99	9719.5	65.2	71.9	12.0
492	202L1492	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/CPRS/KBNT//WELLS CFX 18/3/AR 1188/CCDR//9502008/LGRU	3	178	87	9719.3	66.6	72.7	13.2
083	202L1083	CL153/172L1155	3	178	100	9717.4	62.7	68.5	10.5
037	202L1037	172L1155/172L1074	4	178	92	9714.0	61.9	70.4	16.8
311	202L1311	CL172/CPRS	3	179	90	9713.1	66.6	71.4	4.5
376	202L1376	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	3	177	97	9711.8	58.8	71.2	12.1
457	202L1457	1502085/PSDO	3	176	94	9711.4	64.0	70.8	12.3
633	202L1633	CL153/LKST	3	180	90	9707.3	65.7	71.0	15.2
537	202L1537	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/TBNT/4/WELLS/CFX18	5	183	90	9706.9	64.7	70.1	14.3
744	202A1744	JZMN/08CLR004//RU0802146/3/JZM2/4/JZMN/08CLR004//RU0802146/3/JZM2	3	177	95	9706.1	65.9	70.1	4.4

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
099	202L1099	KATY/CPRS//NWBT/KATY/3/9502008/4/CLR 9/5/KATY/CPRS//NWBT/KATY/6/ CL111/4/CPRS/9502008-A//AR 1188/CCDR	4	179	90	9705.8	66.0	71.4	15.6
259	202L1259	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR// 9502008/LGRU	3	177	90	9701.8	61.8	72.6	9.7
169	202L1169	MRMT/4/9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF	4	179	87	9701.5	62.8	71.7	9.6
403	202L1403	172L1205/171L1786	3	176	100	9700.9	66.0	71.9	10.8
731	202A1731	CL151/DLLA2	3	174	97	9698.9	58.8	68.9	15.2
442	202L1442	172L1155/172L1137	3	180	98	9696.9	66.2	71.3	9.2
666	202L1666	KATY/CPRS/4/CL131/3/CPRS/KBNT//9502008	3	179	97	9695.6	67.3	71.8	12.5
431	202L1431	1602195/CL172	3	179	86	9694.6	66.5	71.3	8.1
332	202L1332	RoyJ/1502094	4	183	93	9689.6	61.4	72.4	9.2
039	202L1039	CL172/LKST	6	176	95	9684.9	59.8	69.4	16.9
141	202L1141	CL153/172L1155	3	177	90	9680.5	65.6	71.6	11.6
597	202L1597	CL131/CHNR//CTHL/CL111	3	175	96	9679.4	66.7	71.6	15.6
620	202L1620	CHTL/CL153	3	181	90	9679.3	66.0	72.2	12.9
523	202L1523	172L1107/172L2058	3	177	92	9673.0	68.4	72.0	11.8
178	202L1178	CL153/1602195	4	179	90	9671.5	66.1	72.1	7.4
488	202L1488	LKST/1502115	4	179	98	9666.1	66.5	72.1	10.7
271	202L1271	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	3	176	82	9662.5	54.7	70.7	6.3
275	202L1275	CL131/CL153	3	176	90	9659.9	57.8	72.5	8.6
272	202L1272	CL151/CL111	3	176	91	9655.8	64.7	72.4	11.4
239	202L1239	TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR/6/PSDO	3	179	100	9654.3	62.5	71.9	7.4
645	202L1645	9502008A/DREW//CLR20/4/9502008/LGRU/3/CPRS//82CAY21/TBNT/5/MBLE	3	177	99	9645.8	65.7	71.7	12.3
060	202L1060	CL111/MRMT	4	177	92	9642.7	59.0	69.0	13.1
339	202L1339	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/CPRS/KBNT//WELLS CFX 18/3/ AR 1188/CCDR//9502008/LGRU	3	176	90	9640.2	58.8	72.7	10.4
140	202L1140	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	2	173	95	9638.9	59.2	70.2	9.3
547	202L1547	CL151/1402174	3	179	91	9633.9	65.9	71.5	19.5
528	202L1528	CL151/1402174	3	178	99	9633.4	66.9	71.8	9.7
416	202L1416	CPRS/KBNT//WELLS/CFX18/3/CHNR/4/CPRS	3	175	93	9632.1	68.5	72.5	5.8

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
634	202L1634	RoyJ/CL153	4	182	88	9632.0	66.0	72.5	10.7
677	202L1677	PSDO/4/9502008A//AR1188/CCDR/3/CFX-26/9702128/5/MRMT	3	173	92	9631.0	65.8	71.6	12.8
566	202L1566	CL172/CL153	3	180	92	9629.5	66.3	70.3	13.2
065	202L1065	CL151/MRMT	3	174	95	9628.2	59.6	69.3	15.0
367	202L1367	TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR/6/PSDO	3	180	98	9627.1	62.9	72.1	10.0
393	202L1393	CL131/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9602065/3/CFX29/AR1142/ LA2031	2	172	89	9624.1	64.7	71.8	13.6
713	202L1713	CL111/THAD	3	180	100	9623.5	65.9	71.8	14.9
346	202L1346	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/CPRS/KBNT//WELLS CFX 18/3/ AR 1188/CCDR//9502008/LGRU	3	176	86	9618.9	52.4	72.0	13.0
242	202L1242	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/6/TACAURI/3/CPRS//82CAY21/ TBNT/4/CFX 18/5/CHENIERE	4	176	89	9618.7	63.2	74.0	9.2
235	202L1235	CL172/CPRS	3	175	90	9613.2	63.6	71.9	12.0
007	202L1007	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	4	175	100	9609.7	63.0	71.5	11.6
704	202L1704	CL172/LKST	4	180	87	9609.3	68.5	72.4	13.3
195	202L1195	1502115/CL151	4	179	94	9605.3	68.8	72.6	7.1
544	202L1544	CL153/LKST	3	180	96	9604.6	64.2	71.5	7.5
660	202L1660	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	4	179	87	9603.9	64.9	69.2	6.5
142	202L1142	1502094/CHTL	3	177	95	9598.5	65.7	71.3	8.8
109	202L1109	PSDO/4/CPRS/KBNT//WELLS/CFX18/3/CHNR	3	179	94	9596.1	60.3	70.3	8.3
022	202L1022	172L1205/172L2058	3	173	93	9594.6	59.0	69.8	15.3
325	202L1325	CL172/1402091	4	179	85	9593.9	62.5	72.1	3.5
493	202L1493	KATY/CPRS//NWBT/KATY/3/9502008/4/CLR 9/5/KATY/CPRS//NWBT/KATY/6/ CL111/4/CPRS/9502008-A//AR 1188/CCDR	2	179	94	9589.5	67.3	71.2	16.1
063	202L1063	CL172/1502115	4	178	81	9588.5	62.1	71.4	17.4
398	202L1398	CPRS/KBNT//WELLS CFX 18/3/MBLE/5/CPRS/3/9502008-A//AR 1188/CCDR/4/CPRS/ 9502008-A/3/CFX 29//AR 1142/LA 2031	4	178	93	9588.4	64.3	72.0	17.0
226	202L1226	MRMT/PSDO	3	176	95	9581.6	63.2	71.5	6.4
213	202L1213	TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR/6/PSDO	3	173	98	9575.0	52.3	71.2	9.2
734	202A1734	CLJZMN/4/JZMN/08CLR004//RU0802146/3/JZMN2	3	180	89	9572.0	64.7	69.6	5.3
006	202L1006	1502068/CL153	3	178	102	9566.4	64.1	71.0	10.5

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
470	202L1470	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	2	176	100	9565.7	61.8	70.3	12.5
281	202L1281	CL151/MRMT	3	173	95	9555.5	60.2	69.7	15.0
545	202L1545	9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF/4/CCDR	3	174	90	9551.3	62.3	70.4	12.2
167	202L1167	CFX-18//CCDR/9770532 DH2/3/CPRS/KBNT//9502008-A/4/CATAHOULA /5/CL172/6/CL172	4	177	90	9549.4	63.4	72.8	15.7
326	202L1326	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	3	173	90	9547.4	61.2	73.1	13.4
331	202L1331	CPRS/KBNT//WELLS/CFX18/3/MBLE/4/CPRS/KBNT//CFX29/CCDR/3/06CFP952	3	180	91	9536.4	62.0	71.2	17.3
641	202L1641	LKST/1502115	3	179	102	9528.1	65.2	69.6	11.2
628	202L1628	CHNR/CL111	4	179	95	9526.5	67.8	72.3	10.7
236	202L1236	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/CPRS/KBNT//WELLS CFX 18/3/ AR 1188/CCDR//9502008/LGRU	3	176	84	9524.6	69.4	73.1	9.2
026	202L1026	CCDR/JEFF//CFX26/9702128/3/CL151	4	177	87	9523.2	60.1	70.5	8.3
507	202L1507	1402174/PSDO	3	176	95	9523.1	64.4	71.0	15.2
506	202L1506	1602112/DMND	4	179	95	9522.4	65.5	70.7	6.6
152	202L1152	LKST/1502115	2	177	92	9520.2	62.9	71.5	13.2
266	202L1266	CL111/MRMT	4	176	92	9512.1	65.0	72.5	16.7
258	202L1258	DMND/CL153	3	179	88	9510.4	60.1	72.2	11.0
449	202L1449	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/6/TACAURI/3/CPRS//82CAY21/ TBNT/4/CFX 18/5/CHENIERE	4	179	90	9504.8	66.6	71.5	8.4
616	202L1616	CL151/RoyJ	5	177	94	9503.7	61.9	72.1	13.8
610	202L1610	9502008/DREW//CLR20/3/TRNS//CCDR/JEFF/4/CCDR	3	175	99	9500.3	67.0	71.5	12.5
587	202L1587	TRNS//CL111/CHNR	4	177	99	9485.2	65.3	71.0	12.4
159	202L1159	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	3	175	95	9483.5	61.7	71.7	11.0
514	202L1514	CL153/LKST	4	184	95	9479.4	64.5	70.7	8.2
505	202L1505	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/ TBNT/4/WELLS/CFX18	3	176	95	9472.4	64.3	70.6	15.9
390	202L1390	LKST/CLJ01	4	176	91	9467.3	65.1	72.1	13.6
192	202L1192	LGRU/CLR11/4/9302065/3/CFX29/AR1142/LA2031/5/9502008A/DREW//CLR20/3/ CPRS/KBNT//WELLS/CFX18	3	175	90	9462.0	59.6	72.1	8.8
211	202L1211	1602195/CL172	3	177	92	9458.3	67.0	72.7	5.9
051	202L1051	PSDO/4/9502008A//AR1188/CCDR/3/CFX-26/9702128/5/MRMT	2	176	101	9454.9	63.9	69.8	9.8

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
136	202L1136	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/ TBNT/4/WELLS/CFX18	4	179	92	9450.0	63.5	70.9	9.2
309	202L1309	CL111/MRMT	3	175	85	9449.8	65.8	72.8	14.5
286	202L1286	KATY/CPRS//NWBT/KATY/3/9502008/4/CLR 9/5/KATY/CPRS//NWBT/KATY/3/ 9502008/4/CLR9/6/CL 131/3/CPRS/KBNT//9502008-A	4	180	89	9445.7	56.2	69.4	15.8
642	202L1642	RoyJ/CL153	4	182	97	9443.4	65.1	70.5	13.8
495	202L1495	1402174/CTHL	3	176	101	9435.4	68.5	72.2	8.8
603	202L1603	CL151/1402174	3	176	95	9433.5	66.6	71.3	12.1
394	202L1394	1602195/CL172	2	174	96	9430.9	63.5	72.3	12.0
707	202L1707	CL153/CL261	2	173	105	9424.9	67.9	71.5	10.9
460	202L1460	CHTL/CL153	3	176	100	9424.0	66.6	72.6	15.6
625	202L1625	1502115/CL153	4	177	95	9423.3	64.1	71.6	12.4
525	202L1525	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	3	171	98	9420.1	65.7	71.5	14.2
283	202L1283	FRAN/CLR13//9502008A/DREW/3/MRMT	3	173	92	9414.1	60.7	72.1	15.2
595	202L1595	CL172/1402091	3	177	93	9410.4	68.2	72.7	14.9
750	CLJ01	CLJ01	2	176	93	9409.8	64.8	69.7	4.6
664	202L1664	PSDO/CL151	4	182	91	9409.2	64.8	71.1	9.1
019	202L1019	CL151/CL111	3	176	97	9402.9	62.9	71.3	14.7
162	202L1162	1402174/CTHL	3	176	97	9399.1	65.7	72.6	10.3
552	202L1552	RoyJ/CL153	5	179	90	9396.1	66.5	71.5	10.2
673	202L1673	CL111/CHNR//CL151	3	176	94	9395.9	67.0	71.7	15.1
181	202L1181	LKST/1502115	2	177	86	9392.8	61.7	71.4	13.8
288	202L1288	CPRS/KBNT//WELLS/CFX18/3/MBLE/4/CPRS/KBNT//CFX29/CCDR/3/06CFP952	4	179	96	9391.6	55.1	70.8	14.8
579	202L1579	CL153/172L1155	3	177	94	9387.9	66.7	71.2	9.8
263	202L1263	LKST/CL151	3	176	91	9384.2	61.0	71.3	21.0
359	202L1359	172L1107/172L2058	3	177	96	9379.7	63.8	72.3	6.3
475	202L1475	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/ TBNT/4/WELLS/CFX18	4	177	85	9378.9	65.4	71.0	13.7
410	202L1410	RoyJ/1502094	4	175	96	9377.2	66.1	71.6	8.6

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
106	202L1106	CL111/CHENIERE/6/CPRS/KBNT//WELLS CFX 18/5/TACAURI/3/CPRS//82CAY21/ TBNT/4/WELLS/CFX18	3	177	85	9373.1	66.0	73.2	9.2
355	202L1355	CL172/LKST	3	178	96	9370.8	59.1	71.5	11.4
623	202L1623	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/CL111/CHNR	4	181	99	9362.8	65.3	71.3	15.0
576	202L1576	172L1137/CL153	3	173	98	9361.0	61.7	70.8	18.7
675	202L1675	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR// 9502008/LGRU	3	177	93	9355.5	65.2	72.1	14.3
473	202L1473	MRMT/4/9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF	4	179	87	9341.4	64.8	71.3	9.9
424	202L1424	CL131/CL153	3	176	94	9336.4	64.9	70.9	12.9
648	202L1648	LKST/1602168	4	179	95	9336.3	65.1	71.7	13.0
273	202L1273	CL153/CL172	4	179	90	9336.1	65.2	72.0	9.3
490	202L1490	MRMT/4/9502008A/DREW//CLR20/3/TRNS//CCDR/JEFF	3	182	88	9335.6	66.5	72.2	9.0
131	202L1131	LKST/CL151	4	177	91	9334.2	63.9	72.6	12.5
592	202L1592	1502115/CPRS	4	178	95	9332.2	66.1	70.6	12.5
314	202L1314	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	2	176	100	9327.4	59.7	70.3	10.7
630	202L1630	CL153/LKST	4	182	87	9323.9	65.8	70.8	13.8
233	202L1233	CL131/CHNR//CTHL/CL111	3	176	84	9321.0	63.8	71.1	9.8
338	202L1338	RoyJ/CL153	3	179	90	9317.3	62.6	71.7	7.4
608	202L1608	CL153/172L1155	3	176	97	9315.3	66.1	70.2	12.1
378	202L1378	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	3	176	94	9296.7	54.7	71.4	11.6
172	202L1172	1602195/CL172	2	176	90	9289.4	65.6	72.3	8.6
005	202L1005	CHNR/CL111	3	176	101	9285.2	63.1	71.3	15.2
468	202L1468	DREW/4/9502008A//AR1188/CCDR/3/CFX26/9702128	3	172	87	9276.6	67.9	71.9	15.6
501	202L1501	PSDO/4/9502008A//AR1188/CCDR/3/CFX26/9702128/5/CTHL/3/TRNS//9502008A/ DREW	3	173	98	9257.6	65.9	71.8	17.7
151	202L1151	CL151/1702140	3	176	85	9247.4	65.0	71.0	12.2
053	202L1053	CL172/1402091	2	171	90	9244.5	63.2	71.5	11.7
459	202L1459	RoyJ/CL153	4	181	95	9243.3	65.2	71.8	8.4
374	202L1374	TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR/6/PSDO	4	178	91	9235.7	62.9	70.0	9.9
716	202L1716	CL163/CL153	4	178	98	9232.1	66.1	71.5	8.4

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
373	202L1373	TRNS/4/9502008A/DREW//CLR20/3/CPRS/KBNT//WELLS/CFX18/5/TRNS	4	173	97	9213.6	59.3	70.6	13.5
446	202L1446	KATY/CPRS//NWBT/KATY/3/9502008/4/CLR 9/5/KATY/CPRS//NWBT/KATY/3/ 9502008/4/CLR9/6/CL 131/3/CPRS/KBNT//9502008-A	3	179	96	9209.8	66.5	71.5	12.5
643	202L1643	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	3	177	98	9204.7	67.7	72.6	9.6
649	202L1649	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR// 9502008/LGRU	3	176	100	9198.7	63.5	71.9	14.5
735	202A1735	CLJZMN/4/JZMN/08CLR004//RU0802146/3/JZMN2	5	180	92	9198.0	64.3	69.1	16.2
425	202L1425	172L1205/172L2058	3	176	97	9189.5	63.5	71.2	16.5
122	202L1122	1502115/CL111	3	179	94	9183.6	63.5	71.5	10.2
556	202L1556	172L1205/171L1786	4	180	98	9183.0	67.8	72.7	10.3
041	202L1041	LKST/CL151	5	180	93	9182.8	62.8	70.2	13.0
741	202A1741	JZMN/08CLR004//RU0802146/3/JZM2/4/JZMN/08CLR004//RU0802146/3/JZM2	3	174	95	9180.9	65.3	69.8	3.4
342	202L1342	1502115/CL153	4	177	90	9180.6	60.5	72.0	12.2
033	202L1033	CL111/1502068	3	176	100	9172.4	65.1	70.7	7.2
145	202L1145	CL172/LKST	4	179	85	9166.4	63.0	70.1	16.2
261	202L1261	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	3	176	93	9165.5	64.3	72.6	12.4
155	202L1155	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	5	175	87	9161.8	62.1	72.1	8.5
452	202L1452	CL111/MBLE	5	168	89	9161.3	62.7	70.2	11.5
340	202L1340	CL153/LKST	3	176	95	9147.7	65.0	71.9	18.7
317	202L1317	172L1074/172L1137	3	175	92	9144.4	58.6	72.4	13.4
047	202L1047	CL153/LKST	5	179	93	9143.9	59.5	69.6	9.6
602	202L1602	CL153/LKST	3	176	91	9140.5	64.0	70.3	14.4
161	202L1161	CL151/1702140	2	178	96	9129.1	64.8	70.8	8.2
372	202L1372	RoyJ/CL153	4	179	86	9119.3	61.0	71.1	10.5
241	202L1241	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/9502008-A/DREW//CLR 20/3/ TRNS//CCDR/JEFF	4	176	86	9116.7	62.8	72.9	14.0
322	202L1322	1402174/PSDO	3	177	100	9109.8	60.1	71.2	11.3
375	202L1375	CL153/LKST	3	177	87	9103.2	60.5	72.1	16.4
698	202L1698	PSDO/4/CPRS/KBNT//WELLS/CFX18/3/CHNR	3	176	98	9100.1	67.7	73.0	7.4
555	202L1555	172L1107/172L2058	4	178	92	9091.4	66.5	71.7	11.3

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
380	202L1380	CHTL/CL153	3	176	95	9081.1	49.8	71.5	16.8
082	202L1082	172L1155/172L1074	2	177	98	9073.9	61.6	69.4	9.9
491	202L1491	CL151/CL111	4	177	93	9071.4	68.3	72.0	11.9
045	202L1045	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/6/TACAURI/3/CPRS//82CAY21/ TBNT/4/CFX 18/5/CHENIERE	3	179	82	9067.1	58.9	71.4	14.3
600	202L1600	1402174/PSDO	3	177	92	9030.6	65.8	71.2	6.0
732	202A1732	CL151/DLLA2	3	176	100	9027.4	58.5	70.8	9.7
002	202L1002	LKST/CLJ01	4	182	104	9024.7	63.6	69.7	9.5
598	202L1598	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	3	174	91	9013.3	66.5	72.3	10.7
251	202L1251	TRNS/4/9502008A/DREW//CLR20/3/CPRS/KBNT//WELLS/CFX18/5/TRNS	3	171	98	9002.9	63.5	71.9	10.2
350	202L1350	1502115/CL151	4	176	91	8997.5	67.9	73.5	4.9
298	202L1298	CL172/CL153	4	176	88	8996.8	61.4	73.1	15.8
396	202L1396	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/4/CPRS/KBNT//WELLS CFX 18/3/ AR 1188/CCDR//9502008/LGRU	3	176	86	8995.7	60.4	72.1	14.7
434	202L1434	CL172/CL153	3	180	100	8995.5	66.7	71.0	13.9
276	202L1276	CHNR/CL111	3	177	95	8994.6	60.3	71.7	14.4
401	202L1401	172L1205/171L1786	3	174	93	8992.2	68.2	72.6	11.5
570	202L1570	CL153/LKST	3	179	104	8960.0	63.7	69.8	14.6
440	202L1440	MBLE//CL111/CHNR	4	170	95	8956.9	60.5	70.6	20.4
738	202A1738	CLJZMN/4/JZMN/08CLR004//RU0802146/3/JZMN2	3	180	100	8954.8	60.8	69.3	5.0
001	202L1001	MRMT/PSDO	3	172	98	8947.1	60.3	70.5	13.2
379	202L1379	1502085/PSDO	3	179	90	8927.8	63.9	71.3	8.3
343	202L1343	1602195/CL172	3	175	90	8918.3	63.1	72.5	9.2
254	202L1254	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR// 9502008/LGRU	3	177	89	8915.9	62.1	72.7	12.0
499	202L1499	1402174/PSDO	3	177	92	8909.2	65.6	71.0	10.1
307	202L1307	CL151/RoyJ	3	172	98	8905.6	53.5	70.2	13.2
743	202A1743	CLJZMN/4/JZMN/08CLR004//RU0802146/3/JZMN2	3	178	95	8895.4	55.5	70.6	8.9
601	202L1601	CL131/3/CPRS/KBNT//9502008A/5/9502008A/DREW//CFX26/WELLS/4/CPRS/3/ CFX29//AR1142/LA2031	3	174	90	8873.9	65.7	71.0	15.0
529	202L1529	CL172/PSDO	3	177	100	8860.6	65.4	70.8	3.3

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
650	202L1650	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9502008/LGRU	4	176	98	8846.8	66.5	71.0	15.5
076	202L1076	CL172/CL153	4	182	86	8845.3	58.8	69.1	8.1
656	202L1656	1502094/CHTL	4	179	105	8840.3	68.8	72.1	9.5
196	202L1196	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	3	169	91	8837.0	61.4	71.5	7.2
050	202L1050	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9502008/LGRU	4	180	102	8827.7	61.6	70.0	13.7
101	202L1101	1602051/CL172	4	178	112	8800.0	60.8	70.6	12.1
353	202L1353	PSDO/4/9502008A//AR1188/CCDR/3/CFX-26/9702128/5/MRMT	3	174	92	8785.5	56.3	72.8	12.6
561	202L1561	DMND/CL151	3	176	94	8773.5	65.3	70.9	15.4
445	202L1445	CL111/CHNR/4/CPRS/KBNT//CFX29/CCDR/3/06CFP952	2	176	94	8762.8	67.0	71.2	14.0
652	202L1652	CL172/PSDO	3	180	101	8762.5	63.1	70.0	9.1
301	202L1301	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	4	180	97	8753.0	66.1	73.1	11.3
695	202L1695	CL172/LKST	6	180	91	8685.2	66.5	71.5	10.5
119	202L1119	9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A/5/CL111/4/CPRS/9502008A//AR1188/CCDR	3	178	95	8657.8	63.3	71.1	13.7
003	202L1003	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9602065/3/CFX29/AR1142/LA2031	4	176	97	8644.6	61.4	70.4	8.4
297	202L1297	RoyJ/CL153	5	179	92	8634.8	63.8	72.1	11.1
504	202L1504	RoyJ/CL153	4	179	85	8630.2	66.4	71.1	10.5
386	202L1386	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	3	176	95	8600.1	61.8	72.0	8.9
138	202L1138	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9502008/LGRU	4	174	93	8559.0	62.6	71.9	11.2
148	202L1148	LKST/1502115	4	180	99	8517.6	62.9	71.3	15.1
497	202L1497	MBLE//CL111/CHNR	3	169	94	8494.0	62.3	71.4	19.0
296	202L1296	LKST/CL151	6	178	86	8474.8	58.6	71.6	13.7
249	202L1249	RoyJ/1502094	3	179	81	8450.3	57.4	71.3	20.8
035	202L1035	1502085/PSDO	3	175	90	8397.4	56.7	70.1	9.2
362	202L1362	1402174/PSDO	2	170	95	8366.5	59.1	71.6	13.8
225	202L1225	9502008-A/DREW//CLR 20/3/TRNS//CCDR/JEFF/6/TACAURI/3/CPRS//82CAY21/TBNT/4/CFX 18/5/CHENIERE	3	179	78	8302.6	61.5	70.9	12.5

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
668	202L1668	CTHL/3/TRNS//9502008A/DREW/4/CPRS/KBNT//WELLS/CFX18/3/AR1188/CCDR//9502008/LGRU	3	176	90	8235.1	67.4	72.6	15.6
551	202L1551	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	3	176	97	8225.4	65.8	71.3	12.8
091	202L1091	MBLE//CL111/CHNR	4	170	90	7969.6	54.8	68.5	11.8
269	202L1269	CL172/CL153	4	179	91	7906.1	60.6	72.2	14.7
399	202L1399	1502115/CL111	4	177	94	-	62.0	71.5	14.3
494	202L1494	PSDO/4/CPRS/KBNT//WELLS/CFX18/3/CHNR	4	173	82	-	61.4	71.9	11.4
725	202L1725	CL163/CL153	3	176	94	-	63.0	69.9	11.5

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 2. Grain and milling yields and agronomic performance of entries in the 2020 Clearfield Preliminary Yield Medium-Grain trial. H. Rouse Caffey Rice Research Station, Crowley, Louisiana.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
033	202M1033	JPTR/CL272	4.0	179.0	108.0	10877.3	62.2	69.5	7.4
123	202M1123	172M1646/TITN	4.0	174.0	107.0	10651.5	58.8	68.1	9.2
133	202M1133	172M1646/TITN	4.5	175.5	105.5	10537.4	61.7	71.2	8.7
148	CLM04	CLM04	3.5	175.0	109.5	10518.8	63.7	70.8	7.0
107	202M1107	JPTR/1702162	4.5	174.0	103.0	10473.2	57.5	69.5	5.1
046	202M1046	JPTR/CL272	4.5	174.5	103.0	10412.9	58.9	69.8	5.2
116	202M1116	JPTR/CL272	4.5	179.5	99.0	10363.9	61.2	69.0	13.9
057	202M1057	JPTR/CL272	4.5	177.0	110.5	10289.2	58.6	68.0	9.7
074	202M1074	CL261/JPTR	4.0	176.0	103.5	10287.7	55.7	68.1	4.0
135	202M1135	JPTR/1702162	4.0	172.0	106.0	10284.7	58.5	68.4	9.7
143	202M1143	JPTR/CL272	4.5	180.0	96.5	10101.0	63.7	70.0	7.2
128	202M1128	TITN/1702165	4.0	172.0	110.0	10090.6	55.6	68.6	5.9
082	202M1082	JPTR/CL272	5.0	181.5	101.0	10065.4	57.6	69.5	8.0
131	202M1131	CL261/JPTR	4.5	175.5	97.5	10040.6	61.3	69.7	10.1
099	202M1099	JPTR/CL272	4.5	177.5	101.5	10039.0	55.6	67.9	7.4
054	202M1054	JPTR/1702162	5.0	176.0	94.0	10020.0	56.6	69.1	7.7
063	202M1063	JPTR/CL272	5.0	176.5	110.0	9975.7	50.2	65.9	12.2
138	202M1138	CL261/JPTR	4.5	175.0	104.5	9848.5	60.8	68.3	5.7
097	202M1097	172M1646/TITN	3.5	175.5	104.5	9800.6	50.5	68.2	5.1
051	202M1051	172M1646/TITN	4.0	176.5	108.0	9785.2	57.5	69.5	5.9
111	202M1111	JPTR/1702162	4.0	173.0	106.5	9742.9	58.7	68.3	9.6
146	202M1146	RICO/3/NPTN//BNGL/CL161	4.5	176.0	101.0	9707.1	56.1	67.6	6.2
112	202M1112	TITN/1702165	3.5	173.0	100.0	9703.7	54.7	69.3	6.4
134	202M1134	172M1646/TITN	3.0	176.0	94.0	9668.6	59.9	69.9	8.1
038	202M1038	JPTR/CL272	4.5	176.0	102.0	9668.1	51.2	67.8	7.6
114	202M1114	JPTR/CL272	4.0	181.0	103.0	9668.0	59.4	68.5	7.2
108	202M1108	JPTR/1702162	4.5	174.0	98.0	9667.4	61.3	69.2	10.9
130	202M1130	CL271/3/NPTN//BNGL/CL161	3.5	178.5	99.5	9585.6	62.8	70.6	7.4

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
081	202M1081	CL271/3/NPTN//BNGL/CL161	4.0	179.5	103.5	9489.2	59.0	68.3	4.8
034	202M1034	NPTN//BNGL/CL161/5/BNGL//MERC/RICO/3/MERC/RICO/BNGL/4/ BNGL/CFX18	4.0	176.5	94.5	9485.8	45.2	68.1	6.7
011	202M1011	JPTR/1702162	5.5	175.5	102.5	9453.3	59.4	70.2	7.6
115	202M1115	RICO/3/NPTN//BNGL/CL161	3.5	178.0	95.5	9442.4	53.8	68.1	12.8
068	202M1068	CL272/CL261	3.5	174.0	102.0	9399.3	54.5	69.3	7.7
055	202M1055	RICO/3/NPTN//BNGL/CL161	4.5	176.0	101.5	9389.1	54.1	68.4	6.5
049	202M1049	TITN/1702165	4.5	172.0	104.5	9326.9	49.0	67.2	7.3
043	202M1043	TITN/1702165	4.0	172.5	104.0	9280.0	48.0	66.5	8.4
150	1901137	CL271/JPTR	4.0	180.5	101.5	9258.0	57.1	70.1	5.6
096	202M1096	CL153/CL261	4.0	176.0	107.5	9256.5	62.0	69.9	9.8
105	202M1105	CL153/CL261	3.5	170.0	98.0	9248.2	62.6	69.9	9.4
120	202M1120	CL271/3/NPTN//BNGL/CL161	3.0	178.5	104.0	9218.1	61.5	68.6	8.1
045	202M1045	JPTR/CL272	4.5	181.0	105.0	9199.9	54.4	66.2	12.2
012	202M1012	NPTN//BNGL/CL161/3/BNGL/CL161//CFFY	4.0	179.0	100.5	9187.4	61.9	70.5	11.7
079	202M1079	172M1646/TITN	4.0	176.5	99.5	9185.8	59.6	69.7	5.6
139	202M1139	NPTN//BNGL/CL161/3/BNGL/CL161//CFFY	3.5	175.5	94.0	9178.2	60.0	69.8	7.8
025	202M1025	NPTN//BNGL/CL161/3/BNGL/CL161//CFFY	3.0	178.0	93.0	9175.5	62.0	71.2	5.8
014	202M1014	CL271/3/NPTN//BNGL/CL161	3.5	179.5	108.0	9162.4	62.9	70.3	10.6
058	202M1058	172M1646/TITN	4.0	176.5	98.0	9154.5	53.7	67.1	6.0
144	202M1144	RICO/3/NPTN//BNGL/CL161	4.0	173.5	111.5	9131.9	50.1	70.0	5.1
066	202M1066	RICO/3/NPTN//BNGL/CL161	4.0	176.5	98.0	9116.6	58.0	69.5	6.5
053	202M1053	NPTN//BNGL/CL161/3/BNGL/CL161//CFFY	4.0	176.0	101.0	9114.4	60.1	69.8	6.4
044	202M1044	CL261/JPTR	5.0	176.0	104.0	9109.6	58.7	68.7	6.5
007	202M1007	JPTR/CL272	4.5	176.0	103.0	9095.6	56.1	68.1	10.5
070	202M1070	TITN/1702165	5.0	172.5	108.0	9094.6	56.7	67.5	6.1
122	202M1122	RICO/3/NPTN//BNGL/CL161	3.5	176.0	96.5	9089.7	55.3	67.5	7.8
009	202M1009	CL271/3/NPTN//BNGL/CL161	4.0	177.5	95.5	9038.4	60.4	69.9	10.2
047	202M1047	CL271/3/NPTN//BNGL/CL161	3.0	179.0	96.0	9034.7	62.8	71.3	10.1

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
118	202M1118	SSKI/CL272	5.0	174.0	104.0	9029.9	56.3	68.9	8.0
125	202M1125	JPTR/1702162	4.5	174.0	101.0	9025.0	60.9	69.0	8.4
050	202M1050	JPTR/CL272	5.5	178.5	100.0	9014.4	54.9	68.4	5.9
008	202M1008	CL261/JPTR	4.5	177.5	97.0	9011.1	61.5	69.2	10.7
076	202M1076	CL271/CL261	4.0	178.0	100.0	9003.3	65.0	71.0	3.4
088	202M1088	JPTR/CL272	3.5	174.5	107.5	8991.3	53.4	68.3	6.2
085	202M1085	1702165/NPTN	3.5	170.5	103.5	8978.1	57.8	69.0	6.0
136	202M1136	NPTN/3/BNGL/CL161//CFFY	3.5	176.5	91.5	8951.7	59.8	69.0	6.2
016	202M1016	CL271/CL261	4.5	176.5	101.0	8942.8	60.6	69.7	6.9
018	202M1018	CL271/3/NPTN//BNGL/CL161	3.5	179.5	109.0	8936.8	52.7	67.0	8.8
003	202M1003	CL271/CL261	4.0	176.5	96.5	8933.5	60.4	69.7	7.3
023	202M1023	NPTN//BNGL/CL161/3/BNGL/CL161//CFFY	3.5	175.0	100.0	8906.2	56.4	68.5	10.1
013	202M1013	CL261/JPTR	4.0	172.5	107.5	8902.6	49.9	68.3	13.3
140	202M1140	CL271/3/NPTN//BNGL/CL161	3.0	177.5	104.5	8899.7	62.6	69.8	6.8
117	202M1117	CL271/3/NPTN//BNGL/CL161	4.0	179.5	98.5	8898.4	63.1	69.9	7.2
061	202M1061	RICO/3/NPTN//BNGL/CL161	4.5	180.0	93.5	8894.9	62.3	70.3	11.0
065	202M1065	1702165/NPTN	4.0	175.5	99.5	8881.0	58.4	69.4	8.0
103	202M1103	CL271/3/NPTN//BNGL/CL161	3.5	179.0	102.5	8879.8	57.9	68.0	5.2
093	202M1093	CL271/3/NPTN//BNGL/CL161	3.5	179.5	92.0	8879.2	61.4	69.8	6.6
121	202M1121	CL261/JPTR	5.0	174.5	93.0	8811.5	58.8	68.0	7.8
145	202M1145	1702165/NPTN	4.5	179.0	97.5	8802.5	57.6	68.5	3.9
071	202M1071	CL271/3/NPTN//BNGL/CL161	4.5	180.0	110.0	8777.6	58.3	68.7	6.7
036	202M1036	SSKI/CL272	5.0	168.5	95.5	8767.1	47.4	68.7	5.2
037	202M1037	SSKI/CL272	5.0	171.0	94.5	8750.3	42.7	67.7	11.5
056	202M1056	CL271/3/NPTN//BNGL/CL161	4.0	179.0	104.0	8720.8	58.8	69.4	7.3
029	202M1029	CL111/CL272	4.0	171.5	100.0	8713.2	54.0	66.9	13.8
137	202M1137	JPTR/CL272	4.5	176.0	98.0	8710.5	59.5	69.7	11.5
101	202M1101	CL271/CL261	3.5	175.5	102.0	8699.2	60.1	68.7	4.4
087	202M1087	CL271/CL261	3.0	175.5	101.5	8680.3	62.2	70.0	4.9

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
086	202M1086	CL271/3/NPTN//BNGL/CL161	4.0	180.0	101.0	8672.6	56.0	67.9	6.5
129	202M1129	CL261/JPTR	4.0	176.5	98.0	8653.1	55.4	68.6	6.7
022	202M1022	RICO/3/NPTN//BNGL/CL161	5.0	179.5	93.0	8650.2	54.9	68.3	8.6
002	202M1002	NPTN//BNGL/CL161/3/BNGL/CL161//CFFY	4.0	174.0	98.5	8646.6	56.9	70.5	6.5
005	202M1005	CL271/3/NPTN//BNGL/CL161	4.5	177.5	105.0	8644.0	57.9	68.0	7.3
126	202M1126	NPTN//BNGL/CL161/3/BNGL/CL161//CFFY	3.0	177.5	99.0	8641.9	59.0	70.1	7.8
141	202M1141	JPTR/CL272	4.0	179.0	104.0	8620.8	56.1	69.5	8.0
098	202M1098	TITN/1702165	3.5	172.0	98.5	8577.5	52.6	66.7	7.7
027	202M1027	RICO/3/NPTN//BNGL/CL161	4.5	175.5	95.5	8573.3	45.2	66.4	6.9
149	CL272	CL272	3.0	174.5	95.5	8571.3	56.6	69.6	7.2
021	202M1021	1702165/NPTN	4.0	175.5	99.5	8525.1	48.1	59.2	11.7
100	202M1100	CL271/CL261	4.0	174.0	97.5	8522.9	59.0	70.4	7.5
094	202M1094	CL271/3/NPTN//BNGL/CL161	3.5	177.0	96.5	8521.0	57.9	69.1	5.6
019	202M1019	1702165/NPTN	3.0	176.0	102.0	8510.2	50.0	66.4	10.8
132	202M1132	JPTR/CL272	4.5	179.5	101.5	8502.1	59.6	69.1	6.1
035	202M1035	CL271/CL261	3.5	176.0	97.5	8481.9	58.3	69.9	6.4
102	202M1102	CL272/1502183	2.5	173.5	97.0	8468.2	50.9	68.5	6.3
041	202M1041	NPTN//BNGL/CL161/3/BNGL/CL161//CFFY	3.5	177.0	101.0	8459.7	58.2	68.7	8.8
124	202M1124	1702165/NPTN	4.0	174.0	94.5	8429.7	52.6	68.1	7.6
092	202M1092	1702165/NPTN	4.0	177.0	99.5	8402.1	55.4	67.4	6.3
147	202M1147	CL153/CL261	4.0	174.0	97.0	8382.9	59.4	70.7	13.4
042	202M1042	CL271/3/NPTN//BNGL/CL161	3.5	177.5	102.5	8305.8	52.7	66.1	8.2
030	202M1030	SSKI/CL272	5.5	172.5	102.5	8274.5	49.7	65.7	15.4
127	202M1127	SSKI/CL272	4.5	172.0	94.5	8264.3	43.2	67.3	6.3
060	202M1060	SSKI/CL272	5.0	175.0	100.5	8258.4	45.9	66.2	7.4
078	202M1078	CL271/3/NPTN//BNGL/CL161	4.0	177.5	95.5	8241.4	54.3	67.2	8.1
040	202M1040	CL271/3/NPTN//BNGL/CL161	4.5	178.5	108.5	8191.0	54.4	67.1	4.7
075	202M1075	CL153/CL261	4.0	176.0	101.5	8140.5	61.4	69.3	13.1
077	202M1077	1702165/NPTN	4.5	176.0	92.5	8128.2	50.5	67.3	6.7

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
024	202M1024	CL271/3/NPTN//BNGL/CL161	3.5	178.0	103.0	8114.1	57.1	68.2	6.6
104	202M1104	CL271/3/NPTN//BNGL/CL161	3.5	178.0	106.0	8078.7	59.4	68.6	6.7
026	202M1026	NPTN//BNGL/CL161/3/BNGL/CL161//CFFY	3.0	173.0	97.0	8053.6	55.9	67.6	11.8
080	202M1080	CL272/CL261	4.0	176.0	103.0	8035.4	55.3	70.4	4.8
119	202M1119	NPTN/3/BNGL/CL161//CFFY	3.5	177.5	100.5	7963.0	58.9	68.1	7.5
090	202M1090	SSKI/CL272	5.0	174.5	89.0	7945.2	50.5	67.6	7.9
039	202M1039	CL271/3/NPTN//BNGL/CL161	3.5	177.0	98.0	7939.3	56.0	67.9	7.3
067	202M1067	CL272/1502183	3.0	175.0	95.0	7925.2	48.9	66.3	6.4
006	202M1006	BNGL/CL161//CFFY/3/NPTN//BNGL/CL161	3.0	174.0	99.0	7922.9	50.7	67.1	10.2
048	202M1048	CL272/1502183	4.5	176.0	102.5	7907.8	54.7	68.3	9.5
095	202M1095	NPTN//BNGL/CL161/3/CL272	4.0	174.5	101.0	7889.5	50.4	66.7	6.2
052	202M1052	SSKI/CL272	7.0	177.0	94.0	7852.1	49.6	67.1	7.0
001	202M1001	SSKI/CL272	7.0	173.0	92.0	7837.5	47.4	65.6	13.3
073	202M1073	SSKI/CL272	5.5	175.0	95.5	7835.0	47.3	69.2	7.9
004	202M1004	CL271/3/NPTN//BNGL/CL161	3.5	177.5	96.0	7824.0	54.5	67.6	9.4
017	202M1017	RICO/3/NPTN//BNGL/CL161	4.0	175.0	100.0	7797.0	53.8	69.1	9.4
109	202M1109	CL271/CL261	3.5	175.5	94.0	7796.8	63.8	70.8	3.9
028	202M1028	1702165/NPTN	4.0	175.0	100.0	7738.5	49.1	65.9	9.3
032	202M1032	CL271/CL261	2.5	173.5	99.0	7733.4	57.5	68.1	5.3
059	202M1059	NPTN//BNGL/CL161/3/BNGL/CL161//CFFY	4.5	175.0	108.5	7711.8	52.7	67.3	10.4
072	202M1072	CL271/3/NPTN//BNGL/CL161	4.0	178.0	106.0	7617.6	56.2	67.3	9.7
062	202M1062	NPTN/3/BNGL/CL161//CFFY	4.5	182.0	100.5	7593.6	48.4	64.4	10.1
069	202M1069	NPTN/3/BNGL/CL161//CFFY	4.0	181.5	106.5	7565.8	51.3	65.6	10.9
089	202M1089	SSKI/CL272	5.5	173.0	94.5	7498.6	33.4	67.0	9.8
031	202M1031	CL271/CL261	3.5	172.5	99.0	7376.5	54.3	67.6	5.4
113	202M1113	CL271/3/NPTN//BNGL/CL161	3.5	179.0	110.5	7338.2	54.8	68.1	8.7
083	202M1083	1702165/NPTN	4.0	175.5	96.5	7265.1	49.3	66.6	6.7
142	202M1142	NPTN//BNGL/CL161/3/NPTN//BNGL/CL161	4.0	175.0	97.0	7223.5	47.9	65.7	6.0
084	202M1084	SSKI/CL272	6.0	176.0	88.0	7214.3	27.9	69.6	5.7

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
015	202M1015	SSKI/CL272	6.5	175.5	92.5	7183.0	51.1	68.1	5.6
091	202M1091	SSKI/CL272	7.0	176.0	93.0	7031.1	47.7	68.2	5.2
064	202M1064	NPTN/3/BNGL/CL161//CFFY	4.5	181.0	102.0	6967.2	47.5	63.9	12.9
106	202M1106	CL271/CL261	4.0	174.0	108.0	6500.4	52.1	67.6	5.1
020	202M1020	NPTN//BNGL/CL161/3/CL272	4.5	176.0	96.0	6445.3	46.5	65.1	6.0
110	202M1110	NPTN/3/BNGL/CL161//CFFY	4.0	180.0	98.0	5978.0	41.7	61.3	14.0
010	202M1010	CL261/JPTR	5.0	173.0	109.0	5227.8	47.7	67.0	9.7

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

PRELIMINARY YIELD TRIALS

Preliminary Yield trials consist primarily of promising breeding nursery material that is ready to be tested in replicated yield trials. The material in these trials was screened for agronomic and grain characteristics in nurseries prior to this phase of testing. Promising experimental lines were evaluated for seedling vigor, maturity, plant height, lodging resistance, grain yield of main crop, and disease resistance.

Trials were conducted using standard agronomic practices (except that fungicides were not applied) at the H. Rouse Caffey Rice Research Station (HRCRRS) at Crowley, Louisiana. A randomized complete block design was applied to arrange test entries. The plot size was 4.66 x 16 ft. Seeding rate was 90 lb/A. The Preliminary Yield Long-Grain trial was drill seeded on March 30 and harvested on Aug. 18-19. The Preliminary Yield Medium-Grain trial was drill seeded on March 13 and harvested on Aug. 5. Data is presented for the long-grain trial in Table 1 and for the medium-grain trial in Table 2.

Table 1. Grain and milling yields and agronomic performance of entries in the 2020 Preliminary Yield Long-Grain trial. H. Rouse Caffey Rice Research Station, Crowley, LA.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
334	RT7301	RT7301 (hybrid)	187.5	101.0	11723.7	56.89	70.36	18.0
065	201L1065	RoyJ/CL153	193.0	97.5	10446.9	59.54	70.47	16.1
124	201L1124	172L1137/171L1629	194.0	94.0	9470.9	60.46	70.76	10.5
082	201L1082	TRNS/CTHL	190.0	97.0	9200.8	63.83	72.27	16.5
027	201L1027	MRMT/CHNR	190.0	99.0	9139.7	63.99	72.41	9.8
148	201L1148	172L1137/171L1629	194.0	90.0	9087.5	61.85	70.7	13.6
230	201L1230	9502008/3/MBLE//LMNT/20001-5/4/WELLS/CFX18/5/TGRT	189.0	104.0	9050.3	56.13	69.36	9.1
256	201L1256	CTHL/CHNR	187.0	94.0	9007.5	59.56	73.03	12.8
004	201L1004	CL153/LKST	193.0	91.0	8990.2	63.7	71.85	16.7
290	201L1290	CHTL/CL153	190.5	103.0	8949.6	57.82	70.48	10.0
009	201L1009	CTHL/CHNR	190.5	98.5	8934.5	61.92	72.47	16.4
324	201L1324	KATY/CPRS/4/CTHL/3/TRNS//9502008A/DREW	191.0	92.5	8910.8	61.14	70.56	16.2
002	201L1002	CL153/LKST	192.5	91.0	8887.8	63.39	70.74	15.2
238	201L1238	CL153/LKST	194.0	95.0	8872.6	62.82	70.92	9.2
096	201L1096	171L1629/1602195	189.0	97.0	8803.8	58.18	70.3	16.3
216	201L1216	CTHL/CL153	193.5	99.0	8772.7	62.16	70.77	8.8
190	201L1190	9502008/DREW//CLR20/4/CPRS/KBNT//9502008	190.0	95.0	8758.3	55.99	69.71	19.4
232	201L1232	172L1137/171L1629	195.0	95.0	8673.4	61.79	71.29	8.6
033	201L1033	MRMT/CTHL	188.5	99.0	8655.6	63.78	72.3	15.5
145	201L1145	172L1155/171L1629	189.5	96.5	8613.7	63.95	71.82	10.2
304	201L1304	CL153/LKST	192.5	96.0	8546.4	58.46	69.4	11.2
151	201L1151	RoyJ/CL153	194.0	89.5	8534.2	63.39	73.13	13.7
286	201L1286	MRMT/CTHL	192.0	92.0	8509.3	60	69.86	13.3
093	201L1093	CHNR/1502115	190.5	91.5	8509.0	62.66	71.89	9.9
127	201L1127	FRAN/LKST	192.5	109.5	8501.1	55.65	69.09	9.7
011	201L1011	DREW/5/CPRS/3/9502008-A//AR 1188/CCDR/4/CPRS/9502008-A/3/ CFX 29//AR 1142/LA 2031	194.0	92.5	8490.7	60.29	72.41	16.5
075	201L1075	CHNR/PSDO	191.0	88.5	8479.1	62.81	70.85	5.8

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
311	201L1311	CHTL/CL153	190.5	96.0	8471.8	58.29	70.7	10.9
156	201L1156	1402174/CL153	193.5	102.5	8470.1	57.4	68.39	7.2
298	201L1298	172L1155/171L1629	190.0	94.0	8453.3	60.75	70.01	11.0
062	201L1062	CTHL/CL153	193.0	96.5	8450.6	63.84	72.1	15.1
278	201L1278	CPRS/1602189	190.0	89.5	8418.1	57.83	70.92	13.3
080	201L1080	TRNS/MBLE	182.5	100.0	8403.1	45.63	69.08	13.0
119	201L1119	MRMT/CHNR	193.0	98.5	8394.3	58.3	70.35	8.4
300	201L1300	TRNS/CTHL	188.5	88.5	8385.9	45.68	68.75	20.1
116	201L1116	MRMT/CHNR	192.5	97.5	8378.7	62.71	71.37	9.3
159	201L1159	171L1772/172L1137	191.0	84.5	8362.5	56.81	68.95	4.0
224	201L1224	172L1155/171L1629	187.0	90.5	8344.0	60.39	70.02	10.9
073	201L1073	CTHL/CL153	193.0	98.0	8306.0	62.1	71.47	9.9
008	201L1008	THAD/1402174	193.5	105.0	8299.7	58.71	69.91	9.7
150	201L1150	RoyJ/CL153	193.5	88.5	8287.9	62.08	69.48	8.1
031	201L1031	CPRS/1602189	188.5	95.0	8279.4	61.56	70.75	11.2
332	LAH169	LAH169 (hybrid)	188.5	107.5	8267.9	53.5	69.14	11.8
067	201L1067	CL172/CPRS	194.0	94.5	8263.2	58.83	69.18	11.7
046	201L1046	CPRS/1602189	191.5	92.0	8261.3	63.33	72.5	14.2
021	201L1021	171L1629/1602195	192.0	96.0	8250.3	62.63	71.65	12.6
207	201L1207	CPRS/1602189	190.0	95.5	8230.6	55.89	69.74	6.2
172	201L1172	MRMT/CHNR	193.0	100.0	8225.7	61.04	71.45	10.2
271	201L1271	9502008/DREW//CLR20/4/CPRS/KBNT//9502008	191.0	99.0	8208.2	60.48	70.25	12.6
167	201L1167	CL111/MRMT	190.5	93.0	8203.1	59.75	69.57	7.5
221	201L1221	1502085/CTHL	193.5	93.0	8196.8	57.07	69.95	6.6
161	201L1161	1502094/CTHL	195.0	99.5	8195.8	56.96	71.02	9.8
164	201L1164	MRMT/MBLE	192.0	93.0	8171.8	58.46	70.23	11.6
223	201L1223	CTHL/CHNR	187.5	91.0	8159.1	56.48	71.5	8.5
264	201L1264	CTHL/LKST	194.0	95.5	8149.0	56.39	69.39	10.6
005	201L1005	KATY/CPRS/4/CTHL/3/TRNS//9502008A/DREW	192.0	92.0	8140.9	62.43	72.35	16.7

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
049	201L1049	CTHL/CHNR	192.0	99.0	8126.6	63.56	72.4	6.4
166	201L1166	CTHL/CL153	194.5	95.5	8117.0	57.19	69.77	10.2
146	201L1146	CTHL/LKST	192.0	91.5	8092.2	61.88	71.76	15.5
269	201L1269	171L1629/1602195	191.5	95.0	8076.4	57.45	68.89	11.3
109	201L1109	TRNS/CTHL	191.0	93.0	8075.9	61.33	71.04	13.3
137	201L1137	171L1772/172L1137	194.0	91.0	8065.6	62.04	70.76	5.0
095	201L1095	M401/4/9502008A//AR1188/CCDR/3/RU0602128	192.0	91.5	8061.1	56.05	69.32	10.1
045	201L1045	171L1772/172L1137	194.5	94.0	8058.7	60.5	70.68	5.9
147	201L1147	FRAN/LKST	193.0	101.5	8050.1	53.31	68.27	12.3
043	201L1043	1502085/CTHL	192.5	91.5	8048.0	60.17	71.17	11.7
044	201L1044	RoyJ/CL153	193.5	90.5	8038.7	59.18	70.9	11.9
097	201L1097	1402174/CHNR	190.5	96.5	8035.9	61.97	72.75	11.7
197	201L1197	172L1155/171L1629	192.0	92.5	8035.2	62.07	70.73	8.1
204	201L1204	1402174/CHNR	191.5	95.0	8021.4	57.96	69.19	6.9
176	201L1176	9502008/DREW//CLR20/4/CPRS/KBNT//9502008	191.0	90.0	8016.7	65.5	72.32	17.9
037	201L1037	PSDO/CHNR	193.0	90.5	8005.5	62.27	71.3	5.9
169	201L1169	CTHL/CL153	195.5	94.0	8000.1	59.86	69.28	9.7
333	MRMT	MERMANTAU	191.5	95.5	7992.7	62.3	70.57	14.3
222	201L1222	CTHL/CHNR	193.0	91.5	7990.3	61.44	71.36	5.9
325	201L1325	171L1772/172L1137	194.5	91.0	7976.8	61.33	70.01	8.7
006	201L1006	CL153/LKST	194.5	87.0	7970.3	61.9	70.31	13.6
036	201L1036	CTHL/CL153	193.5	100.0	7957.4	60.96	71.07	9.6
132	201L1132	TRNS/CTHL	190.0	93.5	7951.4	58.82	71.2	15.9
185	201L1185	CL111/MRMT	193.0	96.5	7941.7	57.61	70.58	10.9
085	201L1085	CL153/LKST	193.0	97.0	7931.5	56.9	70.12	12.9
251	201L1251	CTHL/LKST	193.0	92.0	7929.4	58.18	70.75	13.9
074	201L1074	CHTL/CL153	193.5	98.5	7917.1	62.55	71.79	12.4
280	201L1280	171L1629/1602195	194.0	98.0	7912.3	58.05	68.69	12.9
307	201L1307	CL172/PSDO	195.0	94.0	7898.7	60.02	69.14	11.5

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
235	201L1235	CTHL/CHNR	191.5	97.5	7858.2	57.85	70.37	8.0
086	201L1086	CL111/MRMT	189.5	100.0	7847.4	62.78	70.57	11.6
288	201L1288	CTHL/LKST	190.0	98.0	7842.3	52.48	67.97	15.1
202	201L1202	TRNS/MBLE	183.0	101.5	7842.1	54.26	70.56	11.4
034	201L1034	1502085/CTHL	192.5	94.5	7834.9	59.76	72.67	17.9
014	201L1014	CL153/LKST	194.5	99.5	7823.0	62.03	71.74	10.5
319	201L1319	CHNR/1502115	190.0	89.5	7821.3	62.63	71.37	12.3
225	201L1225	LKST/171L1786	193.5	90.5	7800.4	72.15	78.29	9.9
040	201L1040	9502008/DREW//CLR20/4/CPRS/KBNT//9502008	191.0	97.5	7794.2	53.15	70.12	13.2
174	201L1174	CTHL/LKST	193.0	94.0	7776.7	59.88	70.84	17.3
050	201L1050	CHNR/1502115	194.5	86.0	7776.5	62.7	72.61	7.0
125	201L1125	CTHL/CL153	193.5	90.0	7751.5	62.2	71.4	9.5
039	201L1039	CL172/CPRS	194.5	94.0	7749.0	62.04	70.09	8.9
019	201L1019	CL153/LKST	197.0	91.5	7741.5	59.62	69.32	10.9
255	201L1255	CHNR/1502115	191.0	98.5	7731.9	62.88	71.6	13.6
259	201L1259	CTHL/CHNR	188.0	98.0	7723.2	61.63	72.44	8.7
258	201L1258	CL153/LKST	193.5	91.5	7715.4	59.93	69.7	10.5
155	201L1155	DREW/5/CPRS/3/9502008-A//AR 1188/CCDR/4/CPRS/9502008-A/3/ CFX 29//AR 1142/LA 2031	191.5	90.0	7712.5	61.36	70.99	8.3
061	201L1061	CPRS/1602189	190.5	90.0	7710.3	61.23	71.94	8.1
310	201L1310	MRMT/CTHL	194.0	93.0	7702.1	61.65	70.37	15.9
084	201L1084	1502094/CTHL	197.0	92.5	7682.2	57.89	70.13	8.0
215	201L1215	CTHL/CHNR	191.0	98.0	7678.4	63.47	73.64	6.9
196	201L1196	FRAN/LKST	189.5	100.5	7675.1	51.59	69.28	17.7
038	201L1038	FRAN/LKST	193.0	98.5	7673.6	56.06	69.5	14.1
032	201L1032	RoyJ/CL153	191.5	91.5	7638.6	59.49	70.46	14.0
071	201L1071	172L1155/171L1629	193.0	90.5	7632.3			
017	201L1017	1502094/CTHL	194.0	94.0	7628.8	62.46	71.66	5.8
029	201L1029	PSDO/CHNR	191.5	100.5	7619.0	62.07	72.38	7.5

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
273	201L1273	CPRS/1602189	191.0	96.5	7615.1	59.65	69.42	7.4
331	LA2140	CHNR/MRMT	190.0	95.5	7604.8	59.19	70.18	8.6
131	201L1131	CPRS/1602189	189.5	95.5	7594.5	60.42	70.07	5.0
206	201L1206	CPRS/1602195	192.5	101.0	7573.6	60.51	68.44	8.0
173	201L1173	CTHL/CL153	196.0	98.5	7549.9	64.12	70.72	3.5
275	201L1275	CL153/LKST	198.0	87.0	7546.0	54.66	68.46	10.4
266	201L1266	1502085/CTHL	190.0	92.5	7544.3	52.36	69.39	9.3
053	201L1053	CHNR/1502115	194.5	97.5	7542.4	61.74	70.28	7.8
003	201L1003	CL153/LKST	194.0	92.0	7528.2	61.66	71.11	10.9
198	201L1198	CTHL/3/TRNS//9502008A/DREW/4/CTHL	190.5	93.5	7528.2	60.57	72.12	12.6
177	201L1177	CL153/LKST	193.5	91.0	7520.0	61.56	71.12	10.0
205	201L1205	CL153/LKST	191.5	89.0	7499.0	57.6	69.02	11.8
183	201L1183	MRMT/CHNR	192.0	92.0	7487.4	58.82	69.83	13.9
292	201L1292	171L1629/1602195	193.0	101.0	7486.1	57.46	68.3	14.6
153	201L1153	1402174/CTHL	193.5	94.0	7482.9	56.56	69.01	7.5
209	201L1209	171L1772/172L1137	194.5	94.5	7469.5	61.53	69.91	6.1
178	201L1178	CHNR/ROYJ	190.0	90.5	7462.2	55.99	70.23	11.5
295	201L1295	CHTL/CL153	195.5	97.5	7447.5	60.42	70.11	6.1
139	201A1139	JZMN2/CTHL	192.0	92.0	7447.0	60.77	70.75	5.2
028	201L1028	FRAN/LKST	192.0	97.0	7437.4	61.17	72.31	12.6
257	201L1257	MRMT/CTHL	185.0	95.0	7434.5	59.7	71.19	17.0
262	201L1262	CL153/3/CL272//CL272/IR9660	191.5	97.5	7422.5	48.72	68.99	11.0
160	201L1160	CL153/3/CL272//CL272/IR9660	187.5	98.0	7417.5	49.2	68.27	9.5
158	201L1158	CTHL/LKST	194.5	94.0	7398.6	49.87	68.46	14.9
079	201L1079	CTHL/CL153	193.0	95.5	7395.9	63.35	71.75	11.8
157	201L1157	CTHL/CL153	197.0	98.0	7379.6	58.46	69.5	11.3
152	201L1152	PSDO/CHNR	194.0	87.0	7362.8	61.25	69.72	11.2
048	201L1048	MS4077/CTHL	193.0	99.0	7361.1	64.71	73.04	10.2
242	201L1242	CTHL/3/TRNS//9502008A/DREW/4/CTHL	191.5	94.0	7360.5	61.1	71.68	8.4

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
291	201L1291	CL111/MRMT	193.5	97.5	7351.5	53.6	66.57	10.5
129	201L1129	CHNR/ROYJ	190.0	88.0	7349.2	62.14	70.96	8.3
219	201L1219	1402174/CHNR	193.5	94.5	7335.7	58.78	68.75	3.0
016	201L1016	TRNS/CTHL	189.5	92.5	7334.7	62.16	72.57	11.4
326	201L1326	MRMT/CTHL	193.0	90.0	7331.3	59.8	70.79	15.9
041	201L1041	RoyJ/CL153	193.5	91.0	7327.5	55.56	69.04	17.4
024	201L1024	CTHL/CL153	195.0	99.0	7313.0	64.8	72.19	10.8
117	201A1117	JZMN2/CTHL	192.5	96.5	7308.2	59.54	70.72	7.2
098	201L1098	CTHL/CHNR	189.0	93.5	7303.1	58.29	71.33	10.8
090	201L1090	CTHL/4/CPRS/KBNT//9502008A/3/CCDR	190.5	89.5	7298.4	57.34	70.88	17.2
107	201L1107	CHTL/CL153	195.0	95.0	7291.7	62.03	70.85	5.6
213	201L1213	9502008/DREW//CLR20/4/CPRS/KBNT//9502008	195.5	95.0	7283.8	56.35	69.38	6.8
247	201L1247	CHNR/CL111	195.5	84.5	7281.8	53.18	65.79	9.5
254	201L1254	PSDO/CHNR	194.0	88.5	7276.8	59.85	69.59	8.6
193	201L1193	1402174/171L1786	195.0	85.5	7269.8	55.6	69.48	14.8
055	201L1055	CL153/LKST	195.0	91.5	7267.0	58.51	68.49	8.5
276	201L1276	CL153/LKST	193.5	96.5	7255.0	60.88	70.46	9.9
068	201L1068	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	191.5	92.0	7254.4	59.76	69.68	9.8
315	201L1315	CTHL/3/TRNS//9502008A/DREW/4/CTHL	191.5	95.0	7239.0	60.26	70.43	7.0
244	201L1244	TRNS/MBLE	185.0	97.5	7224.1	40.13	68.8	9.6
282	201L1282	CHNR/PSDO	190.5	94.5	7219.1	58.02	69.95	8.0
201	201L1201	PSDO/CHNR	192.5	90.0	7208.5	52.88	67.44	6.4
218	201L1218	CTHL/3/TRNS//9502008A/DREW/4/CTHL	194.5	96.5	7206.2	59.67	70.36	6.2
265	201L1265	TRNS/MBLE	184.5	99.5	7204.9	53.08	69.72	10.6
054	201L1054	PSDO/CHNR	193.0	90.5	7197.7	58.89	70.9	11.1
200	201L1200	CL153/LKST	194.0	92.0	7138.3	54.34	67.57	13.6
289	201L1289	MS4077/CTHL	189.0	98.5	7133.9	36.53	69.25	12.0
229	201L1229	DREW/5/CPRS/3/9502008-A//AR 1188/CCDR/4/CPRS/9502008-A/3/ CFX 29//AR 1142/LA 2031	198.0	93.5	7124.9	57.18	69.81	9.4

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
320	201L1320	CTHL/LKST	189.5	92.0	7095.0	54.59	70.23	11.4
081	201L1081	CTHL/MBLE	187.0	95.5	7090.6	57.44	71.38	10.9
126	201L1126	M401/4/9502008A//AR1188/CCDR/3/RU0602128	195.0	98.0	7077.1	59.5	69.78	13.2
233	201L1233	TRNS/CTHL	195.0	90.5	7057.4	59.93	70.13	11.7
335	CHNR	CHENIERE	193.5	90.5	7054.2	63.8	71.83	6.8
154	201L1154	MRMT/MBLE	182.5	83.0	7044.8	49.48	70.42	10.0
142	201L1142	CHNR/ROYJ	0.0	80.0	7040.0	60.59	70.82	8.2
118	201A1118	JZMN2/CTHL	194.0	90.0	7035.5	55.97	71.31	8.1
323	201L1323	PSDO/CHNR	191.5	91.5	7031.5	53.26	69.64	11.8
115	201L1115	CL153/4/CL153/3/ZHE733/MRMT//MRMT	188.0	86.5	7028.3	60.67	69.18	7.1
302	201L1302	CPRS/1602195	193.5	99.5	7026.4	60.08	68.31	10.0
056	201L1056	PSDO/CHNR	194.0	91.0	7017.3	57.36	70.03	9.9
240	201L1240	CL153/LKST	193.0	92.5	7017.2	59.44	69.51	8.9
058	201L1058	MRMT/CTHL	192.0	86.0	7000.8	57.46	70.18	14.2
138	201L1138	CL153/LKST	197.5	93.0	6986.4	60.98	69.92	10.1
199	201L1199	CL153/LKST	196.0	94.0	6985.7	60.74	69.91	10.5
220	201L1220	CTHL/4/CCDR/3/CPRS/KBNT//WELLS/CFX18	191.5	92.0	6983.5	59.2	70.38	11.5
060	201L1060	LKST/171L1786	191.5	91.0	6979.8	57.8	69.3	11.5
064	201L1064	MBLE/CTHL	177.0	86.0	6973.4	47.6	69.44	17.4
239	201L1239	CHNR/ROYJ	197.0	88.5	6944.2	61.06	71.04	6.1
212	201L1212	MRMT/LKST	194.5	88.5	6935.9	60.34	69.9	7.8
279	201L1279	PSDO/CHNR	193.5	88.0	6925.6	55.97	69.18	10.1
314	201A1314	JZMN2/CTHL	193.0	92.0	6923.0	57.95	69.56	12.0
253	201L1253	CTHL/LKST	195.5	92.0	6916.2	57.48	69.46	12.0
047	201L1047	MBLE/CTHL	191.0	84.0	6894.6	59.5	72.64	6.7
250	201L1250	CTHL/CHNR	190.0	93.5	6890.8	54.63	68.85	5.3
001	201L1001	MRMT/LKST	194.0	103.0	6888.7	58.45	70.02	10.2
316	201L1316	RoyJ/CL153	195.0	86.0	6856.2	61.73	69.17	11.8
013	201L1013	CPRS/1602195	195.5	102.5	6854.9	62.88	70.56	6.3

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
144	201L1144	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	194.0	88.5	6853.6	59.17	69.52	9.0
143	201L1143	CL153/LKST	195.5	83.5	6836.1	58.35	68.95	7.9
210	201L1210	CL153/LKST	194.0	88.0	6828.2	61.64	71.44	5.4
083	201L1083	CPRS/1602195	197.0	100.0	6816.5	61.33	69.31	7.2
059	201L1059	CPRS/LKST	192.0	92.0	6811.8	52.3	67.3	14.8
023	201L1023	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	190.5	90.0	6811.0	64.15	72.28	9.6
327	201L1327	CPRS/1602195	194.0	95.5	6791.3	61.93	69.16	6.9
317	201L1317	1502085/CTHL	194.0	94.0	6781.4	61.65	70.51	10.4
267	201L1267	CL153/LKST	197.0	89.0	6778.7	62.47	69.75	8.9
270	201L1270	PSDO/CHNR	191.5	106.0	6775.5	67.77	75.62	9.3
102	201L1102	CTHL/LKST	194.5	86.5	6767.9	56.86	69.75	11.7
108	201L1108	CHNR/CL111	194.0	81.0	6762.2	55.75	66.26	11.7
020	201L1020	PSDO/CHNR	194.0	89.0	6760.1	63.66	71.65	9.2
042	201L1042	CL153/LKST	197.0	93.0	6758.0	55.9	67.85	11.3
110	201A1110	JZMN2/CTHL	192.0	91.0	6739.3	54.34	70.94	16.6
184	201L1184	CTHL/CHNR	195.0	97.5	6720.1	60.57	70.68	8.7
321	201L1321	PSDO/CHNR	191.0	81.0	6717.4	62.72	70.65	6.1
007	201L1007	CL153/LKST	195.5	81.0	6675.1	63.04	71.17	8.9
035	201L1035	CTHL/LKST	196.0	90.5	6672.6	55.87	68.85	8.6
322	201L1322	CL172/CPRS	191.5	84.0	6657.7	59.47	69.28	10.4
105	201L1105	CTHL/LKST	193.5	89.5	6657.2	61.88	71.49	3.4
236	201L1236	CHNR/1502115	194.0	93.0	6655.2	56.69	67.98	7.2
228	201L1228	PSDO/CHNR	190.5	89.5	6654.0	59.34	70.59	7.0
120	201L1120	CL153/LKST	193.0	84.5	6652.9	54.5	69.1	13.8
328	201L1328	CL153/3/CL272//CL272/IR9660	193.5	89.0	6652.0	53.63	69.82	8.0
277	201L1277	1502085/CTHL	193.0	88.5	6644.3	56.73	70.83	11.6
237	201L1237	M401/4/9502008A//AR1188/CCDR/3/RU0602128	197.0	94.5	6643.6	54.03	64.91	8.6
072	201L1072	MRMT/LKST	192.0	88.5	6630.3	59.19	69.27	17.0
211	201L1211	CHNR/PSDO	194.0	87.5	6628.1	61.64	71.83	7.3

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
136	201L1136	1602051/PSDO	191.0	92.5	6627.0	53.5	68.43	8.4
170	201L1170	CPRS/1602189	191.0	92.0	6625.4	59.04	70.81	14.3
078	201L1078	PSDO/CHNR	192.5	87.5	6620.2	63.25	70.58	7.8
099	201L1099	MBLE/CTHL	188.5	82.5	6617.2	48.83	71.37	10.9
052	201L1052	CTHL/LKST	192.5	94.0	6615.7	50.94	67.13	16.7
162	201L1162	PSDO/CHNR	191.5	85.5	6608.1	63.56	71.66	4.7
309	201L1309	1502094/CTHL	190.5	100.5	6605.6	58.68	69.3	14.7
063	201L1063	PSDO/CHNR	192.0	87.0	6602.6	61.79	70.5	7.9
106	201L1106	CTHL/CL153	193.5	87.5	6601.0	56.07	69.64	13.5
100	201L1100	1502094/CTHL	194.0	95.0	6587.1	59.05	69.92	10.1
285	201L1285	CTHL/3/TRNS//9502008A/DREW/4/CTHL	193.0	98.0	6576.1	62.25	70.95	6.0
121	201L1121	CTHL/CHNR	190.5	93.5	6568.6	57.25	72.08	8.8
094	201L1094	CHNR/ROYJ	198.0	90.5	6567.5	59.85	70.66	8.0
252	201L1252	PSDO/CHNR	192.0	95.5	6565.7	61.14	69.59	5.7
051	201A151	JZMN2/CTHL	193.0	91.0	6556.0	55.79	70.3	9.9
274	201L1274	CL153/LKST	189.5	88.0	6554.4	57.33	69.7	9.1
128	201L1128	CL153/LKST	194.0	89.0	6546.1	62.35	70.6	16.2
103	201L1103	PSDO/CHNR	193.5	92.0	6544.4	57.47	70.91	7.3
018	201L1018	CHNR/PSDO	193.0	83.5	6538.5	61.72	72.56	9.4
192	201L1192	CTHL/MBLE	179.0	88.5	6533.5	43.2	69.03	11.7
305	201L1305	M401/4/9502008A//AR1188/CCDR/3/RU0602128	194.0	101.5	6510.1	55.96	66.49	13.6
163	201L1163	KATY/CPRS/4/CTHL/3/TRNS//9502008A/DREW	190.0	91.5	6497.9	56.12	70.24	10.9
057	201L1057	CTHL/3/TRNS//9502008A/DREW/4/CTHL	194.5	95.0	6480.7	56.86	71.15	8.7
089	201L1089	MRMT/4/MRMT/3/MRMT//ZHE733/MRMT	192.0	97.5	6430.6	55.42	70.24	11.6
312	201L1312	CL153/LKST	196.0	94.5	6390.7	52.9	67.85	9.7
297	201L1297	CL153/LKST	195.5	93.0	6356.4	58.32	68.5	7.8
272	201L1272	MRMT/CHNR	191.5	96.0	6354.8	61.1	69.89	9.1
293	201L1293	9502008/DREW//CLR20/4/CPRS/KBNT//9502008	194.5	95.5	6350.9	58.33	68.48	6.6
179	201L1179	CL153/LKST	198.0	86.5	6336.8	60.97	70.42	7.4

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
268	201L1268	PSDO/CHNR	195.0	89.0	6319.4	57.61	70.26	5.9
141	201L1141	MBLE/CTHL	195.0	85.5	6309.3	56.52	69.07	6.3
175	201L1175	CHNR/1502115	194.0	91.0	6308.2	61.59	70.48	6.2
022	201L1022	MRMT/CHNR	195.0	98.5	6302.2	60.31	70.61	8.9
296	201L1296	CTHL/CL153	192.5	96.0	6300.1	59.11	69.56	12.0
306	201L1306	CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/PSDO	190.5	87.5	6296.4	49.32	69.21	9.9
318	201L1318	KATY/CPRS/4/CTHL/3/TRNS//9502008A/DREW	195.0	87.5	6291.0	55.74	68.33	12.8
261	201L1261	MS4077/CTHL	194.5	92.0	6289.1	59.8	69.86	9.8
130	201L1130	CTHL/LKST	193.0	87.0	6259.1	51.26	67.7	16.8
171	201L1171	CL172/CPRS	190.5	82.5	6256.4	60.82	70.83	7.3
135	201L1135	CHNR/ROYJ	196.0	88.0	6254.8	61.4	69.95	4.7
113	201L1113	PSDO/CHNR	195.0	86.0	6243.2	60.66	70.48	7.0
122	201L1122	PSDO/CHNR	191.5	91.5	6217.7	57.56	70.98	10.4
030	201L1030	CPRS/LKST	196.0	88.0	6214.0	58.03	68.48	12.2
234	201L1234	DREW/12:1258SBLINE	195.0	93.0	6212.1	49.36	69.02	8.0
092	201L1092	CHNR/ROYJ	194.0	86.5	6199.6	59.5	70.92	8.2
260	201L1260	MS4077/CTHL	191.5	98.5	6199.4	59.67	70.76	8.4
217	201L1217	MRMT/CHNR	186.5	97.5	6182.5	61.91	70.49	6.0
248	201L1248	1502085/CTHL	193.5	85.0	6178.8	56.02	69.87	9.0
149	201L1149	CHNR/ROYJ	197.5	91.5	6166.8	56.91	69.09	5.7
140	201L1140	MRMT/CHNR	196.5	92.5	6163.1	61.12	70.55	6.3
245	201L1245	DREW/12:1258SBLINE	196.5	88.0	6130.2	59.28	70.34	2.6
165	201L1165	CL172/PSDO	194.0	92.0	6116.6	60.06	70.89	4.2
069	201L1069	CHNR/PSDO	194.0	92.0	6106.0	58	69.31	6.7
281	201L1281	CTHL/LKST	193.5	92.5	6072.9	54.7	68.34	11.7
243	201L1243	CPRS/1602195	191.5	95.0	6055.3	59.9	69.29	8.5
303	201L1303	CTHL/LKST	193.5	86.0	6020.5	55.98	68.62	11.6
111	201L1111	DREW/12:1258SBLINE	196.0	89.0	5993.8	60.84	70.62	3.0
010	201L1010	CL111/MRMT	193.5	94.0	5986.9	60.07	70.17	18.4

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
114	201L1114	MS4077/CTHL	193.5	97.5	5982.0	55.74	69.67	10.5
026	201L1026	CL172/CPRS	194.5	88.5	5971.3	63.85	71.13	12.9
191	201L1191	CPRS/LKST	195.0	93.5	5968.0	53.92	67.08	9.9
299	201L1299	CL153/LKST	195.0	89.5	5912.4	53.07	65.88	12.3
123	201A1123	JZMN2/CTHL	194.5	88.5	5911.5	59.33	71.62	4.7
087	201A187	JZMN2/CTHL	193.5	84.5	5906.7	57.56	70.88	10.7
077	201L1077	CL172/CPRS	195.5	92.5	5891.6	59.78	68.97	6.1
208	201L1208	DREW/12:1258SBLINE	193.5	86.5	5853.9	57.12	73.27	6.3
194	201A1194	JZMN2/CTHL	192.0	85.0	5826.1	57.25	70.56	7.6
012	201A1012	JZMN2/CTHL	194.0	89.5	5819.1	57.12	73.23	12.2
283	201L1283	CPRS/LKST	194.0	97.0	5796.7	52.01	66.09	8.3
066	201L1066	CHNR/ROYJ	195.0	96.0	5788.4	60.7	70.36	6.0
287	201L1287	CTHL/LKST	194.0	92.0	5785.1	47.97	64.9	13.2
134	201L1134	CPRS/LKST	196.0	84.5	5773.7	55.32	67.7	11.2
133	201A1133	JZMN2/CTHL	194.0	91.0	5771.0	57.18	70.23	5.1
246	201L1246	CHNR/ROYJ	195.0	92.0	5727.7	49.94	65.59	6.6
203	201A1203	JZMN2/CTHL	193.0	86.5	5694.8	58.96	71.43	7.9
308	201L1308	CL111/MRMT	192.5	85.0	5683.2	55.98	66.91	14.4
231	201L1231	RoyJ/CL153	197.5	93.5	5666.6	59.26	68.41	10.8
336	Thad	THAD	197.0	100.5	5662.2	60.01	67.69	9.5
195	201L1195	CTHL/LKST	195.5	98.0	5657.3	53.29	67.23	10.1
263	201L1263	CPRS/LKST	196.0	88.5	5644.7	58.78	69.03	11.9
301	201L1301	CTHL/3/TRNS//9502008A/DREW/4/CTHL	194.0	98.0	5631.3	57.96	69.97	8.5
313	201L1313	MRMT/CTHL	193.5	87.0	5618.6	56.26	68.67	17.4
186	201L1186	LKST/171L1786	197.0	89.5	5617.2	50.43	66.49	13.0
294	201A1294	JZMN2/CTHL	192.0	92.0	5571.7	61.11	70.45	3.2
025	201L1025	CTHL/CL153	195.5	98.0	5571.6	62.27	71.91	8.1
226	201L1226	CL172/CPRS	194.0	93.0	5569.5	73.67	78.4	9.1
249	201L1249	CTHL/MBLE	184.0	86.5	5567.9	46.24	68.16	9.0

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
227	201L1227	DREW/12:1258SBLINE	198.0	88.5	5493.5	53.15	66.93	5.5
076	201L1076	RoyJ/CL153	197.0	88.5	5489.6	52.31	67.79	12.7
168	201A1168	JZMN2/CTHL	193.5	90.5	5483.2	57.26	70.5	9.0
104	201L1104	CTHL/6/TCRI/3/CPRS//82CAY21/TBNT/4/CFX18/5/CHNR	0.0	91.5	5445.6	56.73	68.23	5.7
330	201L1330	CHNR/ROYJ	196.5	86.0	5411.7	56.53	68.61	8.5
070	201L1070	CTHL/MBLE	196.0	85.5	5399.1	60.75	69.69	4.4
188	201L1188	THAD/1402174	194.5	102.5	5236.5	50.06	64.42	7.4
088	201L1088	MS4077/CTHL	196.5	89.0	5230.2	55.67	67.66	8.2
180	201L1180	MS4077/CTHL	197.0	99.0	5204.2	60.76	69.23	8.3
112	201L1112	MBLE/CTHL	192.0	86.5	5203.1	53.7	69.26	13.6
241	201L1241	CPRS/LKST	198.0	90.5	5193.2	56.07	67.74	11.6
329	201L1329	CPRS/LKST	191.0	91.0	5062.6	50.57	66.32	11.5
284	201L1284	CTHL/MBLE	193.0	81.5	5000.9	42.96	69.1	10.0
015	201L1015	MS4077/CTHL	193.5	91.0	4974.2	60.98	71.25	6.2
182	201L1182	MRMT/MBLE	191.5	80.0	4800.4	57.46	69.67	8.0
214	201A1214	JZMN2/CTHL	195.0	90.0	4640.4	52.64	65.71	6.5
181	201L1181	CHNR/ROYJ	0.0	90.0	4593.0	56.6	68.72	7.0
091	201L1091	MBLE/CTHL	193.0	84.0	4459.0	58.64	71.14	8.6
189	201L1189	CTHL/LKST	194.5	98.5	4353.5	44.29	63.36	15.9
187	201A1187	JZMN2/CTHL	193.5	86.5	4303.1	56.88	69.73	5.3
101	201L1101	MBLE/CTHL	197.0	85.0	3974.9	54.23	69.71	15.3

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 2. Grain and milling yields and agronomic performance of entries in the 2020 Preliminary Yield Medium-Grain Yield trial. H. Rouse Caffey Rice Research Station, Crowley, Lousiana.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
038	201M1038	TITN/1502083	3.0	170.0	106.5	12463.8	62.7	71.1	5.4
114	201M1114	TITN/JPTR	3.0	172.0	105.0	12158.2	65.9	70.3	10.3
065	201M1065	TITN/JPTR	3.5	179.0	100.5	11911.6	65.2	69.2	8.7
029	201M1029	TITN/JPTR	3.0	172.5	100.5	11736.1	65.6	70.1	10.0
012	201M1012	TITN/JPTR	3.5	176.5	101.0	11679.7	65.9	70.0	7.6
115	201M1115	1702143/TITN	4.0	173.5	106.0	11549.9	66.8	71.3	10.3
091	201M1091	TITN/JPTR	3.5	172.0	107.0	11545.3	66.0	70.5	10.2
149	TITN	TITN	2.5	168.0	103.0	11531.6	66.0	71.3	7.9
129	201M1129	TITN/JPTR	3.5	174.5	106.5	11390.4	66.4	70.6	7.7
090	201M1090	1502183/TITN	3.0	171.5	97.0	11383.0	66.0	71.7	7.6
150	JPTR	JPTR	3.5	179.0	97.5	11326.4	65.9	69.7	10.0
064	201M1064	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	175.0	95.5	11142.3	67.0	71.3	10.5
087	201M1087	1702143/TITN	3.5	173.5	105.5	11119.7	62.6	69.4	8.2
070	201M1070	1702143/TITN	4.0	172.5	106.5	11027.6	63.6	70.2	9.8
106	201M1106	CFFY/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	174.5	98.5	11020.0	65.0	70.6	8.1
061	201M1061	1702143/TITN	3.0	176.5	98.0	11016.6	61.4	67.6	12.9
051	201M1051	TITN/1502083	3.0	173.5	101.5	10987.1	63.7	70.7	9.6
116	201M1116	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	176.0	103.0	10985.2	66.0	71.6	10.5
075	201M1075	TITN/1502083	3.0	174.0	96.5	10955.4	65.5	71.1	6.9
002	201M1002	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.0	175.0	90.5	10927.5	65.0	72.4	5.8
043	201M1043	1702143/TITN	4.0	174.5	106.5	10919.1	64.3	69.8	9.5
049	201M1049	1702143/TITN	4.0	174.0	99.5	10876.9	62.6	68.2	10.7
141	201M1141	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/NPTN	4.5	176.0	96.5	10865.8	65.1	69.7	6.4
127	201M1127	1502183/TITN	3.0	172.0	110.5	10823.4	68.0	71.6	7.5
082	201M1082	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	177.0	102.5	10812.4	63.8	69.5	8.9

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
035	201M1035	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.0	175.0	96.5	10799.4	63.6	69.2	9.9
004	201M1004	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	176.5	95.5	10751.0	66.4	71.5	6.6
040	BBC24-19-71506	CL272/3/CL272//CL272/IR9660	3.5	176.0	104.5	10740.4	62.4	69.9	10.9
147	BBC48-19-71618	JPTR/4/CL272/3/CL272//ZHE733/CL272	4.5	176.0	102.5	10719.9	66.5	71.1	6.1
122	201M1122	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	176.0	96.0	10657.9	67.4	71.7	8.1
110	201M1110	CFFY/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	177.5	93.5	10649.1	64.9	70.2	10.4
142	201M1142	CFFY/JPTR	3.5	174.5	96.0	10614.1	62.4	68.8	7.5
047	201M1047	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.0	175.5	89.0	10544.3	63.4	69.4	8.5
003	201M1003	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	173.5	92.0	10534.6	65.7	72.1	6.5
117	201M1117	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	176.5	94.5	10527.9	67.3	72.1	8.8
057	201M1057	NEPTUNE/4/BNGL//MERC/RICO/3/MERC/RICO//BNGL /5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.0	179.5	97.5	10509.6	65.6	70.1	8.9
128	201M1128	NEPTUNE/4/BNGL//MERC/RICO/3/MERC/RICO//BNGL /5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.0	179.5	103.0	10491.0	64.7	69.5	9.6
138	201M1138	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.0	178.0	97.5	10483.1	62.3	68.1	9.2
097	201M1097	TITN/JPTR	3.5	173.5	98.0	10472.5	61.9	68.5	11.1
050	201M1050	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/NPTN	3.5	176.5	96.0	10455.3	65.4	70.3	9.2
077	201M1077	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	176.0	95.5	10455.2	65.4	70.6	9.3
015	201M1015	JPTR/RICO	5.0	182.0	103.0	10446.2	63.8	68.7	8.2
054	201M1054	1701124/KOSH	4.0	177.5	95.5	10441.1	66.0	69.6	7.9
103	201M1103	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	2.5	175.5	94.5	10428.1	65.8	70.5	6.2
022	201M1022	1702143/M206	3.5	178.0	99.5	10407.7	64.6	70.1	9.8
092	201M1092	CFFY/JPTR	4.5	177.0	92.5	10399.2	65.2	69.7	9.4
063	201M1063	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	174.0	97.0	10362.5	61.0	68.2	13.8

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	THE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
009	201M1009	CFFY/JPTR	3.0	175.5	104.0	10344.6	60.9	72.2	7.5
010	201M1010	NEPTUNE/4/BNGL//MERC/RICO/3/MERC/RICO//BNGL /5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	176.5	94.5	10342.6	64.9	69.9	8.4
056	201M1056	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	178.0	97.0	10317.3	66.4	70.6	9.7
144	201M1144	NEPTUNE/4/BNGL//MERC/RICO/3/MERC/RICO//BNGL /5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	176.5	97.5	10314.7	63.9	69.9	11.8
071	201M1071	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/NPTN	4.5	178.5	95.0	10313.8	65.7	70.8	10.2
069	201M1069	JPTR/RICO	5.0	180.0	98.5	10304.3	62.4	70.5	10.9
033	201M1033	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	176.0	97.5	10288.7	63.6	69.6	11.2
113	201M1113	1701124/KOSH	4.0	180.0	92.5	10272.1	65.1	70.7	5.5
079	201M1079	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	176.5	96.0	10241.1	62.0	70.0	8.8
132	201M1132	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	176.5	100.0	10236.6	65.6	70.9	9.2
102	201M1102	NEPTUNE/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.5	176.0	99.0	10212.3	65.6	71.3	7.8
148	BBC26-19-71513	CL272/4/CL272/3/CL153//ZHE733/CL153	4.0	170.5	99.5	10204.3	60.2	68.0	15.3
124	201M1124	1502183/TITN	3.5	176.0	97.5	10177.5	67.1	72.1	8.0
108	201M1108	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	177.5	97.5	10154.6	65.6	71.8	12.1
094	201M1094	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	178.0	95.0	10154.0	64.9	69.6	10.6
120	201M1120	CFFY/JPTR	4.0	177.5	98.5	10151.1	68.0	71.3	7.8
014	201M1014	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	176.5	97.0	10145.6	62.4	69.1	7.9
062	201M1062	JPTR/171M1810	3.0	174.0	93.5	10141.1	65.7	70.0	8.7
039	BBC35-19-71535	CL272/4/CL272/3/CL272//ZHE733/CL272	4.0	174.5	97.0	10092.1	61.2	69.1	8.0
052	201M1052	CFFY/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	176.0	91.5	10087.6	61.7	68.8	8.8
067	201M1067	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	177.5	95.5	10078.3	66.4	71.4	7.7
055	201M1055	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/CFFY	3.5	178.0	94.5	10075.4	66.7	71.5	8.0
131	201M1131	1702143/M206	4.0	178.0	94.0	10071.1	67.0	70.7	7.6

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
006	201M1006	JPTR/171M1810	4.0	175.5	91.5	10069.1	61.5	71.4	8.8
032	201M1032	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	175.5	94.5	10020.0	63.6	69.2	11.0
048	201M1048	NEPTUNE/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	177.0	98.5	10012.3	63.8	69.7	12.1
072	201M1072	1702143/M206	4.5	179.0	91.5	9989.8	64.4	69.3	9.7
123	201M1123	CFFY/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	2.5	174.0	94.0	9968.7	62.9	69.9	10.1
105	201M1105	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	178.0	94.0	9965.3	67.9	71.6	9.2
078	201M1078	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/NPTN	3.5	175.0	94.0	9954.8	63.1	70.6	5.6
101	201M1101	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	179.0	95.0	9934.6	67.9	72.1	7.1
100	201M1100	JPTR/RICO	4.5	179.5	96.5	9928.0	61.9	69.0	14.0
042	201M1042	CFFY/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.0	175.5	97.0	9919.7	63.8	69.8	10.5
145	201M1145	NEPTUNE/4/BNGL//MERC/RICO/3/MERC/RICO//BNGL/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	177.5	98.5	9900.7	66.4	71.0	9.4
037	201M1037	JPTR/RICO	4.5	179.0	97.5	9888.2	63.8	69.1	11.4
084	201M1084	CFFY/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	177.5	94.0	9887.5	62.7	69.3	8.1
060	201M1060	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	176.5	93.0	9872.9	62.8	68.7	7.3
001	201M1001	NEPTUNE/4/BNGL//MERC/RICO/3/MERC/RICO//BNGL/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	177.5	95.0	9869.4	63.7	70.1	8.5
136	201M1136	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/NPTN	4.0	175.5	105.0	9863.1	62.6	68.4	11.2
085	201M1085	NEPTUNE/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	178.0	96.5	9862.6	67.0	70.9	7.5
080	201M1080	1701124/KOSH	4.5	176.5	100.0	9857.2	62.8	69.2	10.4
068	201M1068	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/CFFY	4.5	177.5	100.0	9836.1	67.2	72.2	8.5
019	201M1019	CFFY/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	176.0	93.0	9823.7	60.2	67.8	10.0
013	201M1013	TITN/JPTR	4.0	173.0	100.5	9806.3	57.8	67.3	7.8
074	201M1074	CFFY/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	176.5	94.0	9780.7	66.3	71.6	9.4
011	201M1011	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	175.5	96.0	9779.7	62.6	69.3	9.0
146	201M1146	NEPTUNE/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	176.5	95.0	9776.1	60.8	69.1	9.7

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
140	201M1140	NEPTUNE/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	176.0	102.5	9773.2	61.7	69.6	10.5
076	201M1076	CFFY/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	177.0	95.0	9769.6	66.5	70.9	9.6
023	201M1023	1502183/TITN	3.0	168.0	104.0	9761.6	58.3	67.4	9.3
027	201M1027	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/CFFY	3.0	173.0	113.5	9757.7	62.6	69.7	11.1
126	201M1126	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/NPTN	3.0	176.0	90.0	9755.6	64.6	70.8	8.6
093	201M1093	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	175.5	94.5	9752.8	65.1	70.5	9.6
028	201M1028	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	178.0	93.5	9724.7	64.6	69.8	5.9
125	201M1125	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	175.5	93.5	9708.9	65.3	70.7	8.9
118	201M1118	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	176.5	96.0	9665.7	61.8	69.0	9.8
083	201M1083	CFFY/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	177.0	95.5	9664.4	62.1	68.9	8.0
089	201M1089	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	178.0	94.5	9644.0	62.1	68.7	6.6
119	201M1119	NEPTUNE/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.5	176.0	98.0	9602.5	66.4	70.9	8.2
107	201M1107	1701124/KOSH	4.0	177.5	97.5	9590.8	66.6	70.6	5.5
104	201M1104	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/CFFY	3.0	174.5	99.0	9580.3	63.6	69.9	9.7
058	201M1058	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	178.0	96.0	9542.3	59.5	67.2	9.5
024	201M1024	NEPTUNE/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.5	179.5	96.0	9502.9	62.5	69.2	11.7
111	201M1111	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/CFFY	3.5	174.5	97.5	9486.0	62.2	70.6	8.7
044	201M1044	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	181.5	91.0	9481.8	67.2	71.5	5.9
007	BBC23-19-71500	CL272/4/CL272/3/CL272//ZHE733/CL272	4.0	168.0	94.0	9481.7	57.4	71.4	4.6
017	201M1017	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.0	176.0	89.0	9475.4	61.7	69.1	7.0
137	201M1137	1702143/M206	3.5	175.0	95.0	9441.0	59.6	67.6	11.1
073	201M1073	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/CFFY	4.0	175.5	97.0	9432.8	63.7	70.4	11.8
031	201M1031	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/CFFY	3.5	173.5	94.0	9375.2	59.9	68.1	11.5

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
137	201M1137	1702143/M206	3.5	175.0	95.0	9441.0	59.6	67.6	11.1
073	201M1073	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/CFFY	4.0	175.5	97.0	9432.8	63.7	70.4	11.8
031	201M1031	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/CFFY	3.5	173.5	94.0	9375.2	59.9	68.1	11.5
134	201M1134	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/CFFY	3.5	180.5	93.5	9358.2	66.8	71.9	9.7
053	201M1053	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	179.5	90.0	9346.1	63.6	68.8	11.4
086	201M1086	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/CFFY	4.5	176.5	95.0	9344.5	65.7	71.1	4.7
135	201M1135	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.5	176.5	90.5	9326.3	61.2	67.8	8.5
081	201M1081	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.5	177.0	103.0	9312.7	62.7	69.2	8.4
020	201M1020	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	176.0	97.0	9244.4	61.3	68.0	9.3
066	201M1066	NEPTUNE/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	174.5	98.5	9224.9	65.2	71.2	11.5
121	201M1121	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.0	173.0	95.5	9209.1	60.9	67.9	12.3
018	201M1018	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	2.5	173.5	94.5	9200.3	58.2	66.5	10.2
139	201M1139	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	176.0	93.5	9187.4	59.8	67.7	8.5
059	201M1059	CFFY/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	176.0	100.0	9180.2	60.6	67.9	11.9
016	201M1016	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.0	177.0	99.0	9177.3	62.8	69.2	10.2
025	201M1025	NEPTUNE/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	175.0	98.0	9165.9	63.0	69.1	10.7
041	201M1041	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/NPTN	4.0	176.0	91.5	9148.1	60.8	68.4	8.6
021	201M1021	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/CFFY	4.0	174.0	116.0	9145.4	65.4	71.0	8.4
096	201M1096	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	176.0	95.5	9099.1	64.6	68.6	6.8
133	201M1133	NEPTUNE/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	174.5	91.0	9074.5	60.8	67.1	9.3
143	201M1143	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/NPTN	3.5	174.5	93.5	9039.6	60.4	67.4	10.8
005	201M1005	JPTR/171M1810	3.5	173.0	88.5	8991.3	60.5	71.5	6.7
130	201M1130	1701124/KOSH	3.5	178.5	99.0	8986.2	62.1	68.8	9.4

Continued.

Table 2. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
088	201M1088	NEPTUNE/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/ BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	179.0	97.0	8940.9	61.2	67.3	9.8
095	201M1095	JPTR/171M1810	4.5	178.0	89.5	8872.5	64.9	68.9	7.1
098	201M1098	1701124/KOSH	4.0	179.0	88.0	8834.3	65.3	70.7	11.6
099	201M1099	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	179.0	96.0	8801.5	62.2	70.0	7.4
008	201M1008	NPTN/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/6/BNGL// MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.5	178.0	91.5	8636.4	55.7	66.9	10.3
109	201M1109	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/NPTN	4.0	176.0	99.0	8612.4	59.8	67.6	10.4
046	201M1046	CFFY/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	3.0	176.5	100.5	8533.0	57.3	66.3	9.9
036	201M1036	BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS/5/NPTN	3.0	176.0	94.5	8393.8	59.1	67.3	10.6
034	BBC19-19-71477	CL272/3/CL272//CL272/IR9660	3.5	173.0	94.5	8390.1	60.5	69.8	8.9
026	BBC18-19-71471	CL272/3/CL272//CL272/IR9660	3.0	170.5	89.0	8387.1	52.3	67.5	10.1
030	BBC20-19-71483	CL272/3/CL272//CL272/IR9660	3.0	173.5	102.0	8236.8	62.8	70.4	8.4
045	201M1045	1701124/KOSH	5.0	177.0	99.0	8174.5	59.6	67.4	9.1
112	201M1112	CFFY/5/BNGL//MERC/RICO/3/MERC/RICO//BNGL/4/MARS	4.0	176.5	98.5	8045.1	56.7	66.2	7.7

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

COOPERATIVE UNIFORM REGIONAL RICE NURSERY

The Uniform Regional Rice Nursery (URN) is a multi-state yield nursery conducted by public rice breeders at research locations in Arkansas, Louisiana, Mississippi, Texas, California and Missouri to evaluate experimental lines and commercial varieties. Entries are exposed to different environments over a wide, diverse growing region. This allows researchers to evaluate entries adaptation in a single row.

The 2020 URN test included 240 experimental lines and varieties planted in six states. The randomized complete block design was applied, with three replications for groups 1-4 and two replications for groups 5-8. Seeding rates were 90 lb/A. for varieties.

The 2020 URN results from the HRCRRS will be reported. All plots were drill seeded on March 9. The test was harvested on July 30. Tests were conducted using standard agronomic practices (except that no fungicides were applied). Tables 1-8 show grain and milling yield and agronomic performance (seedling vigor, days to 50% heading, and plant height) of entries in the 2020 URN at the HRCRRS.

Table 1. Grain and milling yields and agronomic performance of entries in the 2020 Uniform Regional Rice Nursery, Group 1, H. Rouse Caffey Rice Research Station, Crowley, Louisiana.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
010	1902026	WLLS/CFX18//DREW/CFX18/3/CHNR//CCDR/JEFF	4.5	172.0	92.0	10736.1	61.5	70.6	26.0
008	1803140	4579	6.7	178.7	120.3	10504.7	59.8	67.7	9.6
014	1902034	9502008/DREW//CLR20/3/CPRS/KBNT//9502008/6/KATY/CPRS//NWBT/KATY/3/9502008/4/CLR9/5/9502008/TCRI//CLR5	4.0	172.7	92.7	10421.0	61.3	70.1	27.9
006	1902142	9502008A/DREW//CLR20/4/9502008A//AR1188/CCDR/3/CPRS/KBNT//9502008A	3.7	173.0	91.0	10059.3	61.9	70.3	20.4
018	CL153	CL153	3.0	173.3	96.3	9843.6	63.0	70.3	18.0
009	JWEL	19991516/19951166/7/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/WLLS/6/RU9201179	2.7	169.3	100.0	9735.0	55.6	69.3	19.8
002	1702183	TRNS//CCDR/JEFF/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	3.0	169.7	97.7	9645.4	64.8	71.1	21.2
003	1904123	Lemont/Jasmine85/3///LMNT*2/82CAY83//Katy/STBN	4.0	174.7	95.7	9614.6	53.8	67.0	23.5
013	1801101	CL172/RU1102034	3.0	174.3	97.3	9551.1	59.5	68.9	17.3
001	1701081	IRGA409/RXMT/5/NWBT/3/LBNT/9902//LBLE/4/MILL/6/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/WLLS	2.0	176.3	102.7	9388.1	64.2	71.9	27.3
015	1904163	Bowman//Bowman/TeQuing	4.3	174.3	92.0	9299.6	51.4	66.8	25.1
017	1601010	91642//KATY/NWBT/5/RU9201176/4/KATY/NWBT/3/LBNT/STBN//NWBT/6/CYBT/7/FRNS	3.0	167.7	98.3	9193.6	53.3	68.8	20.7
007	1904135	Lemont/Jasmine85-220//Francis	3.3	174.0	95.3	9123.6	53.2	67.8	18.4
019	PSDO	PRESIDIO	3.0	170.7	95.3	8960.6	58.6	69.4	7.4
020	CL111	CL111	2.3	166.7	97.0	8898.0	63.7	70.8	20.9
012	1903104	IR64/IR1321-12	5.3	179.0	117.0	8738.5	59.4	67.3	12.1
016	2003016	TH771	7.0	172.0	109.7	8662.3	58.0	67.0	18.4
011	1904139	Lemont/Jasmine85-220//Francis	2.0	177.3	103.3	8546.4	54.7	67.2	23.7
005	1701084	RU0801076/5/KATY/NWBT//L201/7402003/3/WLLS/4/L201/7402003//KATY/NWBT/3/LGRU	3.5	177.5	104.3	8294.4	57.1	68.8	32.8
004	1803156	CCDR/MILL	8.0	175.7	97.0	5431.8	59.1	69.7	18.5

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 2. Grain and milling yields and agronomic performance of entries in the 2020 Uniform Regional Rice Nursery, Group 2, H. Rouse Caffey Rice Research Station, Crowley, Louisiana.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
029	LYNX	Lynx	3.7	173.3	100.7	10670.3	63.2	68.8	21.7
035	1904155	Cheniere/Bowman	2.0	177.0	104.3	10050.4	59.4	69.6	35.7
040	DMND	DIAMOND	2.7	169.0	99.3	9709.6	57.1	70.7	27.0
039	CLL16	CLL16	2.0	178.0	103.0	9605.5	61.1	70.5	27.2
023	1904171	Bowman//Bowman/TeQuing	3.3	168.0	95.0	9525.8	57.3	69.6	20.0
030	1902212	TRNS//CCDR/JEFF/3/AR1188/CCDR//9502008/LGRU	3.0	166.3	93.3	9449.8	61.4	70.2	14.6
021	1701127	JPTR/J062	5.7	177.7	103.3	9196.9	62.0	68.3	26.2
026	1902126	CHNR/6/CPRS/KBNT//9502008/5/KATY/CPRS//NWBT/KATY/3/ 9502008/4/CLR9	2.7	176.3	96.0	9151.5	58.4	69.6	17.1
033	1901033	RICO/BNGL//RU0602162/RU0502031	3.0	172.3	87.3	9028.1	61.9	69.9	12.8
024	1303153	IR64/IR1321-12	7.7	175.7	106.0	8996.8	64.6	69.9	15.2
027	1904167	Bowman/RoyJ	3.3	172.0	101.3	8750.1	56.2	68.2	18.1
025	1801169	ROYJ/RU1501024	3.7	178.0	99.3	8637.5	61.6	69.7	22.6
032	1303138	IR64/IR1321-12	7.3	175.3	99.0	8602.3	62.6	68.8	16.4
034	2002034	CL131/CHNR/4/CPRS/KBNT//9502008A/3/CCDR/JEFF	2.7	172.3	89.3	8334.0	61.9	71.6	15.3
031	1904175	Bowman/RoyJ	3.3	171.7	100.3	8067.2	55.1	68.4	19.8
036	1403141	AC110DH2/AC108DH2//CHEN	6.3	179.3	102.7	8066.6	66.3	73.4	19.3
022	1902170	1002146*4//JZMN/08CLR004	3.0	169.7	94.3	8052.2	64.2	71.6	4.2
037	2002037	JZMN/08CLR004//JZMN	2.0	177.3	111.0	7603.1	59.5	67.5	31.1
038	WLLS	WELLS	2.0	172.7	100.3	6671.3	64.5	72.7	23.0
028	1603138	WAB450-11-1-1-P31-HB(NERICA5)/RSMT	8.0	178.0	94.0	6091.6	62.3	70.2	12.5

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 3. Grain and milling yields and agronomic performance of entries in the 2020 Uniform Regional Rice Nursery, Group 3, H. Rouse Caffey Rice Research Station, Crowley,Louisiana.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
045	1901129	RU1102131/14CSIT203	3.3	172.0	100.3	10589.5	66.8	73.0	28.6
046	1902202	CPRS/KBNT//9502008/3/CCDR/JEFF/4/MRMT	2.3	168.7	95.7	9987.9	60.2	70.6	18.3
042	1902174	NPTN//BNGL/CL161/3/NPTN	4.0	175.3	94.3	9450.1	64.4	70.2	17.0
050	1902207	CTHL/4/CPRS/KBNT//9502008/3/CCDR	4.0	171.7	97.7	9195.9	63.8	71.8	18.9
049	1901081	FRNS//WLLS/CL161/7/FRNS/6/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/DREW	2.0	175.3	107.3	9149.8	62.1	70.6	24.3
058	CHNR	CHENIERE	3.0	172.0	89.7	9020.7	62.4	71.8	10.9
054	1702140	CHNR/MRMT	2.7	170.0	95.0	9003.6	55.7	69.7	14.9
060	CLL17	CL131/TRNS	2.7	172.0	101.3	8872.2	55.6	69.1	20.1
057	1904204	CL151/JSMN85//CL161	3.3	174.7	95.3	8750.6	67.1	74.7	27.3
041	1901177	LMNT//82CAY21/CICA8/3/DLMT/4/BASMATI-(120)/BOND//BSMT122/7//RNS3/5/IR36M4/4/L201/3/TTEP/IR-8//UNKN/6/NWBT/3/LBNT/9902//LBLE/8/91642//KATY/NWBT/5/RU9201176/4/KATY/NWBT/3/LBNT/STBN//NWBT/6/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/WLLS//7/ROYJ	2.7	173.7	101.0	8659.3	62.8	72.1	26.7
059	CCDR	COCODRIE	3.7	171.7	97.3	8422.5	61.9	71.5	18.3
051	2004051	Bowman/RoyJ	3.3	179.0	115.3	8254.5	55.7	68.4	24.7
053	1901137	CL271/JPTR	4.7	179.3	95.3	8081.1	60.7	69.4	19.7
052	1303181	043752/0047277/CHEN	4.7	176.7	99.0	7889.2	62.9	70.9	18.6
055	2004055	TAGGART/REX	3.0	177.7	125.7	7757.5	56.2	68.2	33.5
047	2004047	REX/RU1304122(IR36/8603006)	3.0	175.7	108.7	7594.1	58.4	71.1	40.5
048	1603144	WAB450-11-1-1-P31-HB(NERICA5)/RSMT	7.3	176.7	103.0	7050.8	62.1	71.1	13.7
043	1904131	Rex/Cheniere	3.7	177.0	103.7	5857.0	47.6	67.2	23.7
056	1603178	SABR/CCDR//PRESIDIO	7.3	182.3	103.7	4734.1	58.3	69.8	21.2
044	1403089	CPRS/9901081	8.3	176.7	93.0	2150.9	61.3	70.8	18.9

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 4. Grain and milling yields and agronomic performance of entries in the 2020 Uniform Regional Rice Nursery, Group 4, H. Rouse Caffey Rice Research Station, Crowley,Louisiana.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
062	1902227	NPTN/JPTR	5.0	175.7	93.7	10043.3	58.9	69.4	10.1
080	TITN	TITAN	3.0	168.7	101.7	9990.3	66.4	71.1	16.2
074	2002074	PVL01/CTHL	3.0	168.0	97.3	9499.3	62.8	71.6	17.6
071	2004071	BOWMAN/RU1004083(CL161/PSCL)	3.0	175.0	97.3	9119.3	62.7	71.2	21.0
065	2001065	FRNS/CL.WLLS/7/FRNS/6/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/DREW/8/KBNT/Q36194/7/FRNS/6/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/DREW	2.7	175.3	109.0	8988.1	66.3	73.7	17.3
069	1801145	ROYJ/CL142-AR	3.7	177.0	110.0	8970.5	60.4	69.4	26.0
078	JPTR	JUPITER	5.0	178.0	97.7	8861.0	61.2	69.1	23.2
063	1904219	CL131//CL162-616	3.0	176.7	92.7	8817.4	63.4	70.7	23.3
067	1904187	Taggart/CL111	4.0	177.3	97.7	8777.6	67.3	73.0	31.2
066	2002066	CHNR//CCDR/JEFF/3/BASF2-22	3.0	172.3	94.0	8676.6	63.7	70.4	17.4
064	1603113	043752/0047277/CHEN	5.7	175.7	97.7	8664.5	65.0	72.2	15.1
079	ROYJ	ROYJ	2.7	177.7	110.0	8441.1	60.1	70.8	22.9
073	2001073	LGRU//KATY/STBN/5/LGRU//LMNT/RA73/3/LGRU/4/LGRU/6/NWBT/KATY//RA73/LMNT/3/NWBT/KATY/8/FRNS/CL.WLLS/7/FRNS/6/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/DREW	4.0	177.7	109.7	8293.7	66.0	72.1	21.8
076	1703129	IR64/IR1321-12	6.0	172.0	97.7	8256.1	65.4	70.6	14.0
070	2002070	PVL01/CTHL	2.7	172.0	93.3	8132.4	63.0	70.6	23.3
075	2004075	REX/RU1104073	2.0	181.3	115.0	7667.5	61.6	69.8	25.4
072	1703138	CL161/CPRS	7.3	178.0	98.0	7200.1	64.6	72.3	18.0
077	1803196	CCDR/L202//TRENASSE	6.7	178.0	101.7	7041.6	61.5	69.8	21.8
061	1901169	EARL/9902028//RU1202068	4.3	177.0	99.0	6930.6	56.2	67.4	22.4
068	1603086	CL161/CPRS	7.3	178.3	104.7	6585.5	66.5	72.4	18.2

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 5. Grain and milling yields and agronomic performance of entries in the 2020 Uniform Regional Rice Nursery, Group 5, H. Rouse Caffey Rice Research Station, Crowley, Louisiana.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
118	2005118	RU0601013/Trenasse	2.0	174.0	104.0	11051.9	65.5	73.2	15.5
113	1801238	EARL/9902028//RU1202068	3.0	175.5	97.0	10336.1	63.8	72.5	13.4
120	CLL15	CLL15	2.5	172.5	90.0	10180.8	64.0	70.5	17.7
114	2002114	CL153/LKST	3.0	171.5	98.5	10136.1	60.8	71.5	17.2
091	2004091	REX/CHENIERE	3.0	174.0	105.5	10043.3	58.3	71.0	29.1
119	CLM04	CLM04	3.0	175.0	104.5	10028.5	67.5	71.6	19.7
101	2001101	ROYJ*2/RU1401133	2.0	176.0	116.5	10004.5	65.4	72.9	16.3
087	2004087	Cheniere/Taggart	4.0	173.5	91.0	9913.2	63.5	72.4	21.9
110	2002110	CL131/CHNR//TRNS	4.0	169.0	94.5	9756.8	62.4	70.6	13.2
097	1801237	JPTR/EARL	6.0	179.0	88.0	9564.9	66.5	72.2	21.9
094	2002094	CFFY/3/BNGL/9502065//EARL	3.5	173.0	92.5	9465.2	64.8	71.4	21.4
082	1902110	LGRU/CLR11/4/9302065/3/CFX29/AR1142/LA2031/4/CFX18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A	3.5	169.5	99.0	9438.4	61.3	71.9	15.9
086	2002086	LFTE/BNGL//CFFY	4.5	172.5	95.5	9405.2	63.2	71.1	12.9
098	2002098	TRNS//TRNS/CL131	4.0	171.5	95.0	9319.1	58.8	68.4	17.3
106	2002106	CFX-18//CCDR/9770532DH2/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9602065/3/CFX-29/AR1142/LA2031	3.0	172.0	91.0	9285.2	58.5	72.4	18.2
092	2003092	RU0302088/CHEN	4.5	174.5	99.5	9193.6	69.3	74.5	10.0
111	2004111	13ST26(Priscilla/Cheniere)/MERMENTAU	5.5	176.5	103.0	9122.5	65.6	72.9	32.2
107	2004107	MERMENTAU/RU1201004	2.5	174.5	113.0	9120.3	65.3	71.7	23.1
099	2004099	RSMT//3/MARS/NWRX//TBNT(RU1104191)/PI584663(ElPaso)	2.5	174.5	108.5	9116.1	63.7	72.3	33.3
084	2003084	RU0302088/CHEN	4.0	176.0	104.5	9062.1	69.4	73.9	8.7
085	2001085	DMND/8/FRNS//WLLS/CL161/7/FRNS/6/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/DREW	3.0	173.5	101.5	9040.2	63.1	70.9	22.2
115	2004115	REX/RU1102034	3.0	175.0	94.0	9037.7	64.7	72.3	24.6
093	2001093	ROYJ/CL142-AR	2.0	174.0	105.0	9022.3	57.8	69.2	32.3
089	2001089	FRNS/CL.WLLS/7/FRNS/6/LBNT/9902/3/DAWN/9695//STBN/4/LGRU/5/DREW	2.0	175.0	108.5	8943.8	64.1	71.9	22.4
102	2002102	CL131/3/CPRS/KBNT//9502008A/4/LGRU/CLR11/4/9302065/3/CGX-29/AR1142/LA2031	5.0	174.0	98.5	8875.6	61.7	71.8	24.8
090	2002090	NPTN/JPTR	4.0	178.0	95.5	8762.4	60.4	68.5	22.3

Continued.

Table 5. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
083	2004083	TEMPLETON/RU1201108	3.0	176.5	107.5	8718.0	61.7	72.3	42.6
081	2001081	FRNS/CL.WLLS/7/FRNS/6/LBNT/9902/3/DAWN/9695//STBN/4/ LGRU/5/DREW	3.5	177.5	102.0	8567.7	65.4	73.6	19.7
104	2003104	RU0302088/CHEN	5.0	175.5	101.5	8521.4	68.7	74.0	8.4
117	2005117	Mo0215035/NIL16_2-1	2.5	176.5	113.5	8483.4	60.6	70.9	23.2
116	2003116	CPRS/SABR//Drew	3.0	174.5	93.0	8426.4	61.3	72.8	15.2
109	2001109	JZMN/RU0701124//PI632283	2.0	178.0	105.0	8383.9	67.2	72.9	18.9
103	2004103	TEMPLETON/RU1201108	2.0	179.0	110.0	8290.3	60.1	71.5	39.4
100	1903100	IR64/IR1321-12	6.0	186.0	118.5	8000.1	65.4	70.6	12.8
112	2003112	TH731	5.5	168.0	110.5	7892.4	61.3	69.2	15.2
095	2004095	TAGGART/REX	2.5	175.0	118.0	7884.7	58.9	69.7	28.6
096	1603166	CPRS/3/CPRS/NWBT/KATY	6.5	178.0	98.0	7386.5	65.2	73.1	20.0
108	1903108	M202*5/Katy	3.5	167.5	93.0	7341.8	64.3	69.7	17.7
105	2001105	JZMN/RU0701124//RU0401145	2.0	180.0	117.5	6871.2	49.1	67.9	38.2
088	1703147	CPRS/NWBT//KATY/3/CCDR	8.0	176.0	99.0	2801.5	64.3	73.1	16.0

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 6. Grain and milling yields and agronomic performance of entries in the 2020 Uniform Regional Rice Nursery, Group 6, H. Rouse Caffey Rice Research Station, Crowley, LA.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
125	2001125	ROYJ/RU1501127	3.5	171.5	108.0	10837.4	63.0	71.4	25.3
150	2002150	CHTL/CL153	4.0	169.0	98.5	10782.1	62.5	72.0	19.4
126	2002126	MS4077/CHTL	3.0	170.0	95.0	10018.8	60.1	70.7	20.7
145	2001145	ROYJ/2/KBNT/Q36194/7/LBNT/9902/3/DAWN/9695//STBN/4/ LGRU/5/WLLS/6/LGRU//LMNT/RA73/3/LGRU/4/LGRU	4.0	172.0	102.5	9963.2	66.8	74.1	20.9
147	2004147	RU1102034/RU1304191(RSMT/RXMT/IR36)	3.0	172.5	92.0	9841.1	66.6	73.3	22.5
133	2001133	JPTR/J062	4.5	177.5	101.5	9796.8	67.4	72.0	26.4
149	2201149	LGRU//KATY/STBN/3/LGRU/4/KBNT/Q36194	3.0	172.0	102.0	9673.0	64.7	73.1	24.8
144	1903144	CPRS/SABR//Francis	3.0	172.0	103.0	9580.8	59.8	71.5	31.6
138	2002138	CCDR/JEFF//CFX26/9702128/3/CL151	3.0	173.0	95.0	9407.4	58.8	70.5	17.8
143	2004143	RU1102034/RU1304191(RSMT/RXMT/IR36)	3.0	174.5	97.0	9403.2	66.7	72.9	32.8
153	2001153	ROYJ/2/KBNT/Q36194/7/LBNT/9902/3/DAWN/9695//STBN/4/ LGRU/5/WLLS/6/LGRU//LMNT/RA73/3/LGRU/4/LGRU	2.0	170.5	100.5	9400.5	62.8	72.8	29.7
131	2004131	RU1102034/RU1304191(RSMT/RXMT/IR36)	3.5	174.5	102.0	9393.5	62.0	71.7	36.8
142	2002142	CL172/CL153	4.0	175.0	96.5	9357.4	60.4	71.2	18.1
141	2001141	ROYJ/2/KBNT/Q36194/7/LBNT/9902/3/DAWN/9695//STBN/4/ LGRU/5/WLLS/6/LGRU//LMNT/RA73/3/LGRU/4/LGRU	2.0	174.5	104.5	9232.0	64.1	72.9	32.5
159	ANTO	CPRS/CCDR	2.0	168.0	89.5	9156.0	68.6	75.3	27.6
137	2001137	MRMT/RU1401142	5.0	173.5	104.0	9150.0	64.0	72.3	32.3
123	2004123	RU1304194(RSMT/RXMT/IR36)/MERMENTAU	4.0	179.0	93.5	9138.2	65.8	73.3	33.0
154	2002154	CTHL/MRMT	3.5	170.0	96.0	9092.4	63.6	71.9	17.6
155	2004155	RU1102034/SABINE	3.0	169.5	99.0	9000.1	63.6	72.3	23.5
130	2002130	DREW/5/CPRS/3/9502008A//AR1188/CCDR/4/CPRS/9502008A/3/ CFX29//AR1142/LA2031	3.0	176.5	92.0	8883.4	61.3	70.3	23.1
127	2004127	Bowman/RoyJ	3.0	173.5	113.0	8828.2	62.0	71.4	20.9
140	1903140	Jangseongbyeo/IR1321-12	5.5	174.0	106.5	8742.9	65.9	71.0	15.3
139	2004139	REX/SABINE	3.0	175.0	104.5	8729.8	59.2	69.7	27.5
158	2005158	(CPRS/KBNT//WELLS-1CFX-118/5/TACAURI/3/CPRS//82CAY21/ TBNT/4/ï¿½/6/9502008-A/DREW//CLR-120/3/CL111)-0-50-2-0	2.5	173.5	91.0	8688.3	66.3	73.0	18.7
121	2001121	RU1102131/14CSIT203	2.5	171.5	98.0	8648.5	66.7	73.6	25.2
160	Thad	Thad	5.0	166.5	99.0	8534.9	58.8	70.5	14.3

Continued.

Table 6. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
157	2005157	(CPRS/KBNT//WELLS-1CFX-118/5/TACAURI/3/CPRS//82CAY21/ TBNT/4/ï¿½/6/9502008-A/DREW//CLR-120/3/CL111)-0-55-1-0	3.5	170.5	98.0	8450.4	66.0	72.7	21.0
129	2001129	RU1102131/CL172	3.5	170.0	88.5	8417.8	67.4	73.6	20.9
134	2002134	CPRS/KBNT//WLLS/CFX18/3/MBLE/4/CPRS/KBNT//CFX29/CCDR /3/06CFP952	2.0	175.0	95.5	8405.9	61.3	70.3	17.6
146	2002146	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	6.0	173.5	96.0	8355.0	62.3	69.9	7.5
135	2004135	RU1102034/RU1304191(RSMT/RXMT/IR36)	3.0	179.5	119.5	8301.2	62.0	70.9	21.5
151	2004151	REX/SABINE	2.5	174.5	105.0	7724.7	55.9	69.0	27.3
132	1703132	CPRS/3/CPRS/NWBT/KATY	7.0	176.0	99.5	7652.9	66.8	72.8	17.6
148	1803148	CPRS/3/CPRS/NWBT/KATY	7.0	173.5	96.0	7367.3	67.2	73.5	23.4
136	1603187	CPRS/3/CPRS/NWBT/KATY	6.5	179.0	93.0	7212.7	65.5	73.1	20.4
128	1703181	AC110DH2/AC108DH2//CYBT	8.0	175.0	102.0	7048.7	67.2	74.1	18.1
152	1903152	FRAN/WELLS//BANKS	4.0	181.5	124.5	6804.4	64.9	72.3	16.4
122	2002122	MS4077/CHTL	3.0	168.0	95.5	6294.9	50.5	67.7	17.6
124	1703178	Hayakogane/BALDO	7.5	176.0	103.5	6056.7	64.6	72.8	17.0
156	1903156	CPRS/SABR//Gulfmont	6.0	176.0	106.0	5635.6	65.3	71.9	9.0

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 7. Grain and milling yields and agronomic performance of entries in the 2020 Uniform Regional Rice Nursery, Group 7, H. Rouse Caffey Rice Research Station, Crowley, LA.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
185	2001185	DMND/LKST	3.0	169.5	100.5	10377.6	61.3	72.3	22.9
182	2002182	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	2.5	166.5	95.5	10372.8	61.5	70.7	16.9
198	2005198	(9502008-A/DREW//CLR-120/4/CPRS/KBNT//9502008-A/5/CL111/ CHENIERE)-0-4-1-0	2.5	172.0	93.5	10283.0	64.0	72.6	26.6
195	2004195	REX/RU1104073	3.0	172.5	102.0	10116.6	61.6	71.1	24.3
193	2001193	248DREW16C-1-3/6/LGRU//KATY/STBN/5/NWBT/KATY//RA73/LMNT/4/ LBNT/9902/3/DAWN/9695//STBN/7/FRNS/CL.WLLS/7/FRNS/6/LBNT/9902/ 3/DAWN/9695//STBN/4/LGRU/5/DREW	3.5	175.0	98.0	10115.5	64.8	71.5	20.9
169	2001169	ROYJ/RU1501127	3.5	172.0	110.0	10005.9	61.5	71.3	26.5
194	2002194	CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	3.0	169.5	97.0	9942.5	59.6	70.3	16.6
173	1901173	RU1102034/RU1501024*2	2.5	171.0	101.5	9856.9	61.8	72.2	27.3
184	1803184	CPRS/SABR//MADISON	4.5	178.0	99.0	9697.5	64.7	72.9	14.5
197	2005197	(9502008-A/DREW//CLR-120/4/CPRS/KBNT//9502008-A/5/CL111/ CHENIERE)-0-117-2-0	3.0	171.0	94.5	9592.1	63.9	72.8	26.9
166	2002166	JZMN2/CHTL	4.0	169.5	94.0	9529.4	62.3	70.9	9.6
191	2004191	Tacauri/RU1004083(CL161/PSCL)	3.5	174.0	104.0	9528.6	63.2	73.8	26.9
187	2004187	REX/RU1104073	3.5	175.5	107.0	9413.7	63.8	71.4	22.1
179	2004179	REX/RU1104073	2.5	173.5	99.5	9150.4	57.7	69.6	27.3
183	2004183	RU1004083/CL152	4.0	173.0	99.5	9117.8	64.0	72.8	32.0
177	2001177	ROYJ/2/KBNT/Q36194/TMPL	3.5	177.5	104.0	9009.2	64.7	72.7	18.8
165	1901165	RU1001067/RU0602171	4.5	176.0	90.0	8940.0	62.6	70.9	11.0
188	1803188	Jangseongbyeo/IR1321-12	4.5	176.5	110.0	8859.0	66.7	71.4	14.7
172	1703172	AC110DH2/AC108DH2//CHEN	5.5	174.5	102.0	8807.1	65.8	72.9	17.1
190	2002190	CPRS/LKST	3.5	168.0	95.0	8785.2	61.7	72.2	17.5
162	1902162	DREW//CHNR/LMNT/5/9502008A/DREW//CLR20/4/CPRS/KBNT//9502008A	2.0	172.0	95.0	8777.6	62.3	71.7	14.4
181	2001181	KATY/NWBT//L201/7402003/3/WLLS/4/FRNS/6/LBNT/9902//NWBT/3/ KATY/NWBT/5/IR36M4/4/L201/3/TTEP/IR-8//UNKN/7/9101001//TBNT /KATY/3/LGRU/8/LGRU//KATY/STBN/5/LGRU//LMNT/RA73/3/LGRU/4/ LGRU/6/NWBT/KATY//RA73/LMNT/3/NWBT/KATY	2.0	175.5	104.0	8581.0	60.8	72.6	25.7
171	2004171	REX/SABINE	3.0	174.0	107.0	8284.9	56.3	68.9	27.7
186	2002186	CTHL/MRMT	4.5	168.0	91.0	8267.2	59.2	71.2	21.9

Continued.

Table 7. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
161	2001161	DMND/8/FRNS/CL.WLLS/7/FRNS/6/LBNT/9902/3/DAWN/9695//STBN/4/ LGRU/5/DREW	4.5	176.5	104.0	8231.9	59.4	70.5	22.9
174	2002174	PVL01/CTHL	2.5	173.0	101.0	8178.6	58.9	71.4	9.5
163	2004163	REX/SABINE	2.0	174.0	102.0	8159.3	57.5	69.3	25.5
170	2002170	CHENIERE//CCDR/JEFF/3/BASF2-22	4.0	172.5	93.5	8139.7	64.4	70.1	14.9
175	2004175	REX/SABINE	3.0	173.5	104.0	8101.8	55.6	68.7	25.7
167	2004167	REX/SABINE	2.0	172.0	104.5	7900.3	55.4	68.9	27.8
199	PVL02	CHNR/BASF1-5	2.5	170.5	107.5	7818.6	56.6	71.8	10.2
176	1803176	CPRS/CCDR//WELLS	6.5	173.5	101.5	7615.9	65.7	73.1	22.4
180	2003180	FRAN/WELLS//BANKS	4.5	176.0	115.5	7401.0	64.1	72.9	16.6
200	PVL01	CHNR/BASF1-5	3.0	182.0	99.0	7363.6	57.9	68.8	24.8
192	1903192	CL161/CPRS	7.5	177.0	95.5	7322.7	66.7	73.0	19.0
168	1803168	CPRS/NWBT//KATY/3/CCDR	6.5	176.0	92.5	7280.0	65.5	73.5	12.8
189	1901189	STG11P-04-196/PI632283	2.0	176.5	105.0	7078.5	67.2	72.8	14.8
178	2002178	PVL01/CTHL	2.0	170.5	98.5	6643.1	54.5	70.3	29.3
164	1803164	CPRS/3/CPRS/NWBT/KATY	7.5	177.5	96.5	6479.3	59.0	70.6	24.7
196	1903196	LD183-3/Jasmine85	6.0	187.5	115.0	6177.2	63.3	71.5	14.7

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

Table 8. Grain and milling yields and agronomic performance of entries in the 2020 Uniform Regional Rice Nursery, Group 8, H. Rouse Caffey Rice Research Station, Crowley,Louisiana.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
223	2005223	(9502008-A/DREW//CLR-120/4/CPRS/KBNT//9502008-A/5/CL111/ CHENIERE)-0-12-1-0	2.0	172.0	98.0	10188.6	62.9	72.1	25.6
237	2005237	(TRNS//TCL111/CHENIERE)-0-43-1-0	4.0	170.5	96.5	10186.1	63.2	71.5	15.0
201	2001201	248DREW16C-1-3/6/LGRU//KATY/STBN/5/NWBT/KATY//RA73/LMNT /4/LBNT/9902/3/DAWN/9695//STBN/7/FRNS/CL.WLLS/7/FRNS/6/LBNT/ 9902/3/DAWN/9695//STBN/4/LGRU/5/DREW	3.5	175.5	95.5	10172.9	64.2	71.3	19.8
207	1602082	LAH169	3.5	162.0	117.0	10097.8	60.8	71.0	14.7
222	2002222	CTHL/MRMT	3.5	163.5	94.0	10090.9	62.0	71.6	18.7
232	2002232	TRNS//CCDR/JEFF/4/9502008A//AR1188/CCDR/3/CCDR/JEFF	3.5	172.0	88.0	10070.2	59.8	71.8	11.5
224	2004224	SABINE/RU1104122	3.5	173.5	96.0	9827.1	65.5	72.7	19.9
213	2005213	LA-141:(CL111/CHENIERE/4/CPRS/KBNT//CFX-129/CCDR/3/06CFP952) -0-186-2-0	3.0	170.0	98.5	9649.2	65.2	73.2	21.4
211	2001211	811S/RU1701185	4.0	163.0	115.5	9591.4	62.6	71.1	21.3
233	2005233	(TRNS//TCL111/CHENIERE)-0-32-1-0	3.0	166.0	97.0	9557.7	63.9	71.3	20.1
217	2002217	TGRT/3/TRNS//CCDR/JEFF	4.0	174.0	96.5	9494.1	61.5	71.6	15.1
206	1901206	JZMN/STG05F5-08-104//DLLA2	4.0	174.0	96.5	9378.5	64.8	70.9	13.9
218	2005218	LA-141:(CL111/CHENIERE/4/CPRS/KBNT//CFX-129/CCDR/3/06CFP952) -0-187-2-0	3.0	173.0	95.5	9377.5	65.2	72.9	20.5
238	2005238	LA-141:(CL111/CHENIERE/4/CPRS/KBNT//CFX-129/CCDR/3/06CFP952) -0-224-2-0	3.5	176.5	89.5	9330.3	63.9	71.2	23.3
236	2005236	LA-141:(CL111/CHENIERE/4/CPRS/KBNT//CFX-129/CCDR/3/06CFP952) -0-8-2-0	3.0	175.5	96.0	9215.9	62.7	71.2	26.2
227	2002227	CCDR/3/TRNS//CCDR/JEFF	4.5	173.5	90.0	8853.7	56.2	69.5	13.8
208	2005208	(CL111/CHENIERE//CL111/CCDR)-0-125-2-0	2.5	176.0	100.0	8782.9	65.5	71.0	21.1
234	MM17	Baldo/RU0201093	5.0	178.0	92.0	8705.9	66.4	72.2	13.3
203	2005203	(9502008-A/DREW//CLR-120/4/CPRS/KBNT//9502008-A/5/CL111/ CHENIERE)-0-129-2-0	2.5	172.0	93.0	8694.9	62.4	72.4	23.3
202	1602071	CLH161	4.0	167.0	109.5	8612.7	60.5	70.9	14.8
240	Rex	Rex	4.5	175.5	109.0	8566.5	59.0	70.1	25.7
216	1701090	WLLS/CL161//TGRT/3/DREW/CL161//CL142-AR	2.5	174.5	100.0	8480.5	64.3	72.6	15.7
219	2004219	REX/RU1104073	3.0	172.0	99.0	8457.0	61.1	70.8	22.0
204	2004204	Tacauri/RU1104154	3.0	172.0	94.5	8316.4	60.8	72.6	21.3

Continued.

Table 8. Continued.

ENT	NAME	PEDIGREE	VIG[1]	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
228	2005228	(CPRS/KBNT//WELLS-1CFX-118/5/TACAURI/3/CPRS//82CAY21/TBNT /4/ï¿½/6/9502008-A/DREW//CLR-120/3/CL111)-0-35-1-0	2.5	175.0	96.0	8273.8	67.6	73.5	12.5
214	2004214	SABINE/RU1104122	3.5	176.5	95.5	8159.7	62.1	71.8	21.1
239	Aroma17	Aroma17	2.5	178.0	106.5	8156.6	69.0	73.4	10.1
220	2003220	043752/0047277/CHEN	4.0	174.5	92.5	7980.2	65.1	72.6	15.6
209	2004209	SABINE/RU1004083(CL161/PSCL)	2.5	171.0	99.0	7768.8	57.6	70.6	22.2
215	2003215	IR64/IR1321-12	5.5	171.0	97.0	7757.4	64.7	70.0	11.7
212	2002212	NPTN//BNGL/CL161/3/NPTN	4.0	174.5	93.0	7697.0	60.0	69.3	12.7
229	2004229	REX/RU1104073	2.5	174.5	98.0	7387.4	52.9	68.5	25.7
231	1901231	JZMN/RU0701124//TGRT	3.5	174.5	113.0	7338.6	66.0	71.9	10.4
210	1903210	RU0302088/CHEN	7.5	180.0	107.0	7253.7	68.7	73.8	5.2
221	2001221	RU0401064/TITN	4.0	172.0	91.5	7224.2	57.3	69.4	17.6
205	2003205	RU0302088/CHEN	6.5	176.0	102.5	7081.1	67.2	72.8	6.7
226	2001226	IRRDTGRT30RADS	3.5	180.5	119.0	7023.0	57.3	71.1	22.7
230	1803230	FRAN/WELLS//BANKS	6.0	179.0	115.5	6844.8	62.8	72.1	24.4
225	1903225	RU0302085/4593	7.0	180.0	105.5	6218.7	65.9	73.4	24.3
235	1903235	Hayakogane/BALDO	8.0	177.0	91.5	3948.5	62.8	71.3	14.9

[1] Subjective rating 0 to 9, where 0 = excellent, 9 = poor.

PROVISIA PRELIMINARY YIELD TRIAL

The Provisia Preliminary Yield trials consist primarily of promising breeding nursery material that is ready to be tested in replicated yield trials. The material in these trials was screened for agronomic and grain characteristics in nurseries prior to this phase of testing. Promising experimental lines were evaluated for seedling vigor, maturity, plant height, lodging resistance, grain yield of main crop, and disease resistance.

Trials were conducted using standard agronomic practices (except that no fungicides were applied) at the H. Rouse Caffey Rice Research Station (HRCRRS). Provisia herbicide was applied at 31 oz (2x rate) on April 28. A randomized complete block design was applied to arrange test entries. The plot size was 4.66 x 16 ft. Seeding rate was 90 lb/A. Trials were drill seeded on March 26 and harvested on Aug. 10. Data is presented in Table 1.

Table 1. Grain and milling yields and agronomic performance of entries in the 2020 Provisia Preliminary Yield trial. H. Rouse Caffey Rice Research Station, Crowley, Louisiana.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
167	203L1167	1402091/PV17TA75	182.0	96.0	9964.0	52.7	71.1	17.1
086	203L1086	1402091/PV17TA75	182.0	93.0	9670.2	51.5	72.2	18.2
002	203L1002	Unknown	180.5	106.5	9552.2	61.3	69.8	7.3
006	203L1006	TRNS/14PVL100	171.0	96.5	9499.9	45.6	69.3	16.4
065	203L1065	MRMTBCR048-7GLABNICE	179.5	91.5	9446.2	55.0	69.7	16.7
144	203L1144	1402091/PV17TA75	182.0	106.0	9401.7	51.3	71.1	16.7
132	203L1132	1402091/PV17TA75	181.5	103.5	9358.0	58.4	69.3	17.7
145	203L1145	Unknown	182.0	101.0	9276.6	60.7	68.7	9.5
109	203L1109	TRNS/5/CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21	178.5	93.5	9235.9	46.4	68.4	7.8
104	203L1104	1502115/PVL01	189.0	89.0	9180.8	65.0	69.9	13.1
125	203L1125	1402091/PV17TA75	181.5	100.5	9168.7	59.2	69.9	18.0
068	203L1068	TRNS/BASF1-10//PSDO/BASF1-12	182.5	99.0	9092.8	60.7	70.7	9.3
003	203L1003	CHTL/PVL038	185.5	94.0	9072.4	61.2	70.8	10.3
128	203L1128	CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21/5/CHNR/BASF1-2	178.5	95.0	9070.1	51.8	67.7	7.5
119	203L1119	TRNS/5/CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21	179.0	98.0	9058.7	52.5	68.4	8.3
090	203L1090	Unknown	185.0	101.0	9051.0	61.9	69.7	3.9
050	203L1050	1402091/PV17TA75	182.0	105.5	9045.8	58.4	70.7	12.7
166	203L1166	PV17TA74/TRNS	179.0	102.5	9045.5	52.3	69.2	8.8
140	203L1140	Unknown	178.0	102.0	8975.3	57.0	67.8	4.6
055	203L1055	PVL01/LKST	185.0	103.5	8966.3	55.2	68.4	14.0
136	203L1136	1402091/PV17TA75	186.0	98.0	8918.3	58.6	70.4	11.0
052	203L1052	PV17TA73/CTHL	182.0	100.0	8913.2	57.8	71.0	24.7
200	PVL02	PVL02	183.5	107.0	8870.0	62.3	72.6	6.6
163	203L1163	CCDR//CPRS/BASF1-13	180.0	105.0	8812.8	54.5	68.4	23.7
116	203L1116	MRMTBCR048(5)/MRMT//MRMT	182.0	91.5	8795.4	59.5	68.1	8.1
180	203L1180	BLDO//CHNR/BASF1-2/	178.0	86.0	8785.8	59.5	70.3	9.8
088	203L1088	MRMTBCR048-7/CCDR	180.5	80.0	8740.5	54.7	68.6	14.6
053	203L1053	PVL081/CL172	184.5	105.0	8706.5	60.1	70.2	8.1
141	203L1141	1702103/PVL01	182.5	103.0	8696.6	63.5	70.4	14.0

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
007	203L1007	1402091/PV17TA75	182.5	101.5	8677.3	61.1	70.8	15.7
161	203L1161	Unknown	181.0	94.5	8658.4	61.6	69.2	7.7
026	203L1026	PVL081/CL172	184.0	95.0	8631.5	56.8	70.7	9.8
021	203L1021	CCDR/MRMTBCR048(5)	182.5	98.0	8624.0	58.3	68.3	12.2
058	203L1058	PVL01/CTHL	184.5	93.0	8618.6	61.0	69.6	10.0
012	203L1012	TRNS/5/CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21	179.5	90.5	8584.1	58.4	69.8	9.0
022	203L1022	Unknown	183.5	98.0	8498.3	59.1	69.0	6.3
033	203L1033	TRNS//CHNR/BASF1-2	174.0	100.0	8495.0	53.0	67.3	10.3
117	203L1117	PVL081/CL172	187.0	97.0	8479.9	56.0	67.7	12.9
057	203L1057	CPRS/PVL01	183.5	101.0	8470.4	61.0	70.2	8.6
142	203L1142	PVL01/CTHL	189.5	95.5	8448.0	62.7	70.3	12.6
153	203L1153	PVL01/1602189	186.0	93.5	8414.2	61.1	69.2	11.4
014	203L1014	Unknown	181.0	98.5	8398.6	62.1	70.0	8.8
077	203L1077	TRNS//TRNS/BASF1-10	178.5	103.0	8361.8	61.2	69.3	10.8
087	203L1087	Unknown	185.0	86.5	8361.5	62.4	71.0	12.0
015	203L1015	PVL01/CTHL	190.0	105.5	8353.4	62.5	70.9	9.5
093	203L1093	171L1629/PV17TA76	182.5	95.5	8331.3	55.4	71.4	17.3
177	203L1177	1702103/PVL01	181.5	95.5	8324.2	58.1	70.9	14.5
034	203L1034	1502115/PVL01	191.0	91.0	8313.5	59.5	68.6	7.5
001	203L1001	1502115/PVL01	188.5	92.5	8271.7	61.9	69.5	6.4
102	203L1102	CTHL//CPRS/BASF1-13	179.5	98.0	8264.5	50.0	68.0	22.0
049	203L1049	Unknown	186.5	87.0	8257.4	62.9	70.7	5.8
035	203L1035	1402091/PV17TA75	184.5	97.0	8240.4	61.5	72.3	13.3
120	203L1120	PV17TA76/PVL01	187.0	95.5	8199.7	66.3	72.8	8.8
111	203L1111	CTHL//CPRS/BASF1-13	181.0	99.5	8172.9	43.9	67.4	22.9
030	203L1030	Unknown	191.5	82.0	8164.7	59.5	69.3	11.0
037	203L1037	TRNS/5/CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21	179.5	102.0	8158.5	56.8	68.8	7.8
011	203L1011	1502115/PVL01	189.5	98.0	8128.0	62.8	69.5	10.0
103	203L1103	PVL081/CL172	186.5	92.5	8115.9	60.6	68.4	8.0

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
099	203L1099	PVL01/CTHL	189.0	92.0	8113.7	64.2	71.9	8.5
013	203L1013	1402091/PV17TA75	183.0	98.5	8093.2	56.2	71.0	16.5
028	203L1028	CTHL//CPRS/BASF1-13	173.5	93.5	8067.8	56.2	69.5	18.9
182	203L1182	CTHL//CPRS/BASF1-13	182.5	96.0	8057.0	50.4	68.4	27.9
186	203L1186	TRNS/14PVL100	170.5	97.5	8014.5	44.9	69.5	19.7
019	203L1019	PVL24B/MRMT	188.5	99.5	8011.2	62.4	69.2	9.9
147	203L1147	PVL01/CTHL	184.5	94.5	7997.9	61.1	68.9	8.1
191	203L1191	PVL01/CTHL	189.0	92.0	7994.8	64.8	71.2	9.6
157	203L1157	PVL081/CL172	187.5	95.0	7986.8	62.1	69.4	10.6
018	203L1018	PVL081/CL172	188.0	102.5	7986.5	57.1	70.0	7.0
106	203L1106	TRNS/5/CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21	170.5	81.5	7955.6	45.7	69.5	11.7
168	203L1168	9302065/CPRSBCR045-5	180.0	103.5	7936.4	58.7	70.3	11.9
040	203L1040	CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21/5/CHNR/BASF1-2	182.0	106.0	7926.5	53.6	67.6	3.8
101	203L1101	PVL01/CTHL	188.5	90.0	7923.8	63.5	69.9	8.5
082	203L1082	CTHL//PSDO/BASF1-12	181.0	103.5	7912.5	39.8	70.3	13.8
084	203L1084	CHNR/BASF1-6//TRNS	178.0	96.5	7908.5	59.0	70.5	11.7
091	203L1091	PSDO//PSDO/MRMTBCR048(5)	189.0	111.5	7883.3	57.3	67.7	11.5
115	203L1115	PVL01/CTHL	191.0	98.0	7872.8	55.9	69.8	13.7
137	203L1137	CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21/5/CHNR/BASF1-2	177.0	99.0	7850.6	52.8	68.6	8.1
056	203L1056	PVL081/CL172	188.0	92.5	7838.1	54.5	68.4	12.5
171	203L1171	PV17TA76/PVL01	185.0	103.5	7829.4	60.9	70.3	12.5
159	203L1159	PVL081/CL172	188.5	83.5	7828.3	62.5	69.5	3.9
046	203L1046	CHNR/3/NWBT/KATY//9902207X2/4/BASF221/5/PVL01	183.5	97.0	7826.7	56.0	68.2	13.7
151	203L1151	1502115/PVL01	187.5	95.0	7824.7	60.9	69.0	13.2
138	203L1138	1402091/PV17TA75	180.0	98.5	7816.8	58.0	71.2	8.1
005	203L1005	PVL01/LKST	188.5	97.0	7812.9	56.9	68.0	8.2
169	203L1169	1502115/PVL01	185.0	95.5	7807.3	60.8	70.1	17.3
043	203L1043	1502115/PVL01	187.5	91.5	7800.9	60.8	69.2	9.1
155	203L1155	Unknown	189.0	83.5	7780.0	63.2	68.9	9.4

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
024	203L1024	PVL01/1602189	185.0	99.0	7773.8	62.8	69.6	6.4
079	203L1079	PV17TA73/CTHL	183.5	100.0	7772.2	55.2	69.4	18.7
197	203L1197	1702103/PVL01	182.0	105.5	7761.1	60.2	69.7	12.5
095	203L1095	1502115/PVL01	190.0	90.5	7755.3	62.0	69.0	6.6
097	203L1097	1502115/PVL01	192.5	91.0	7753.5	62.9	68.7	6.8
032	203L1032	1502115/PVL01	189.0	93.0	7748.7	62.8	69.2	5.9
089	203L1089	PVL081/CL172	189.0	97.5	7735.7	59.0	68.8	5.9
124	203L1124	1502115/PVL01	190.0	90.0	7724.3	60.3	68.9	7.2
029	203L1029	CTHL//PSDO/BASF1-12	180.5	91.5	7710.8	51.0	68.7	13.4
105	203L1105	171L1629/PV17TA76	182.5	103.5	7699.4	57.1	66.9	18.2
129	203L1129	CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21/5/CHNR/BASF1-2	178.5	97.0	7671.3	53.0	68.2	7.7
042	203L1042	9302065/CPRSBCR045-5	180.5	114.0	7661.6	30.3	66.0	38.2
023	203L1023	CL163/PV17TA76	177.5	101.5	7655.5	50.0	70.6	22.2
156	203L1156	PVL081/CL172	185.0	101.5	7647.9	56.9	66.2	6.1
063	203L1063	CHNR/3/NWBT/KATY//9902207X2/4/BASF221/5/PVL01	186.0	99.5	7636.5	62.6	70.9	8.4
061	203L1061	1702103/PVL01	189.0	87.5	7620.7	55.7	67.6	14.4
152	203L1152	CPRS/PVL24B	179.0	97.5	7616.1	56.0	68.3	8.3
074	203L1074	172L1334/PV17TA77	182.5	102.0	7613.5	56.9	67.8	17.6
085	203L1085	1502115/PVL01	187.0	89.0	7606.2	63.3	70.1	6.9
198	203L1198	PV17TA76/PVL01	181.0	105.5	7603.3	56.3	70.9	22.6
048	203L1048	CHNR/3/NWBT/KATY//9902207X2/4/BASF221/5/PVL01	179.5	95.5	7594.7	54.8	68.3	10.9
127	203L1127	PVL01/CTHL	189.0	89.5	7594.4	61.1	68.7	7.9
170	203L1170	PVL080/CL153	177.5	89.0	7562.8	47.1	69.1	16.5
054	203L1054	1502115/PVL01	187.5	104.5	7514.6	63.9	69.7	6.0
187	203L1187	PVL01/1602189	183.0	99.0	7504.2	61.5	69.8	8.9
154	203L1154	PVL01/CTHL	188.5	93.0	7476.7	6.2	68.6	8.3
131	203L1131	PVL24B/MRMT	185.0	95.5	7472.9	60.9	69.1	12.5
016	203L1016	PVL01/MRMT	188.0	96.0	7467.9	58.3	68.5	9.5
069	203L1069	PV17TA73/CTHL	180.0	102.0	7460.8	39.0	69.1	30.7

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
176	203L1176	CHNR/3/NWBT/KATY//9902207X2/4/BASF221/5/PVL01	180.0	94.5	7451.9	60.3	69.4	9.3
133	203L1133	1702103/PVL01	186.0	96.5	7439.3	57.2	66.9	12.9
150	203L1150	1702103/PVL01	182.5	107.5	7405.0	57.1	69.1	12.2
051	203L1051	PV17TA74/TRNS	184.5	105.0	7399.4	52.7	66.5	15.9
010	203L1010	CTHL//CPRS/BASF1-13	186.0	99.0	7391.5	63.9	69.6	9.1
078	203L1078	MRMTBCR048(5)/MRMT	185.0	98.5	7390.1	58.7	68.2	12.9
076	203L1076	CPRS/PVL01	187.0	97.5	7361.1	60.0	70.0	12.5
123	203L1123	PSDO//PSDO/MRMTBCR048(5)	183.5	106.0	7358.7			
094	203L1094	PVL080/CL153	183.0	93.5	7357.9	55.7	68.5	5.8
139	203L1139	1502115/PVL01	183.0	93.0	7339.0	54.9	63.5	10.0
098	203L1098	PVL01/MRMT	191.0	99.0	7332.4	60.5	70.4	6.8
143	203L1143	1402091/PV17TA75	183.0	105.0	7316.7	59.6	70.7	13.3
193	203L1193	CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21/5/CHNR/BASF1-2	175.5	97.5	7273.0	52.1	66.7	3.6
075	203L1075	1502115/PVL01	189.5	94.0	7266.2	60.9	69.5	7.9
175	203L1175	PV17TA74/TRNS	184.5	102.5	7251.4	57.4	69.0	9.6
114	203L1114	PVL080/CL153	180.5	92.0	7235.8	49.2	70.6	21.5
064	203L1064	PVL01/LKST	188.5	89.0	7231.2	54.8	68.4	13.5
189	203L1189	MRMTBCR048(5)/MRMT//MRMT	181.0	90.5	7224.3	57.2	68.6	4.8
179	203L1179	TRNS//CHNR/BASF1-2	178.0	85.5	7215.7	43.6	68.2	8.6
195	203L1195	1702103/PVL01	190.5	101.0	7212.2	62.1	69.0	8.9
113	203L1113	TRNS//CHNR/BASF1-2	180.0	96.0	7192.1	54.0	68.2	9.0
070	203L1070	PVL01/1602189	190.5	94.5	7145.2	64.2	70.9	4.4
173	203L1173	1702103/PVL01	186.5	96.5	7118.7	58.6	68.8	7.6
164	203L1164	PVL01/CTHL	190.5	93.5	7102.7	58.7	68.4	11.2
121	203L1121	PVL24B/MRMT	188.5	96.0	7046.8	62.3	68.4	5.2
083	203L1083	PSDO//PSDO/MRMTBCR048(5)	181.5	101.0	7026.6	36.7	71.2	9.5
081	203L1081	TCRI/MRMTBCR048-7	174.0	91.0	7015.5	38.5	69.9	23.5
009	203L1009	PV17TA75/CPRS	181.0	102.5	6996.6	58.1	70.3	14.8
067	203L1067	1502115/PVL01	192.5	96.0	6991.3	61.4	69.4	6.3

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
080	203L1080	Unknown	190.5	92.0	6986.6	64.5	69.3	2.9
041	203L1041	PVL24B/MRMT	190.5	94.5	6944.7	54.6	63.5	5.4
126	203L1126	CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21/5/CHNR/BASF1-2	178.5	89.0	6921.5	48.5	68.6	9.6
181	203L1181	PV17TA76/PVL01	185.5	100.0	6898.3	54.5	68.9	18.3
194	203L1194	1702103/PVL01	184.0	97.0	6866.1	54.0	67.7	16.6
192	203L1192	1702103/PVL01	186.5	92.0	6847.0	55.5	65.4	9.2
071	203L1071	1402091/PV17TA75	185.0	103.5	6824.5	62.3	70.8	11.0
092	203L1092	PVL01/1602189	189.5	90.0	6804.4	62.0	68.6	5.8
178	203L1178	Unknown	190.5	80.5	6789.4	59.6	68.3	11.8
122	203L1122	PSDO//PSDO/MRMTBCR048(5)	184.0	106.0	6787.0	56.8	69.8	7.1
025	203L1025	1502115/PVL01	193.5	89.5	6765.4	63.9	69.5	3.1
165	203L1165	CL163/PV17TA76	183.5	91.0	6754.3	51.1	69.2	23.5
185	203L1185	1502115/PVL01	186.5	93.0	6749.7	63.0	70.0	10.5
112	203L1112	1702103/PVL01	190.0	94.0	6683.6	56.2	67.9	12.6
020	203L1020	1702103/PVL01	187.0	95.5	6661.7	61.5	69.5	8.9
066	203L1066	1502115/PVL01	192.0	101.5	6618.1	60.5	69.8	4.2
004	203L1004	Unknown	187.5	87.0	6607.0	60.5	68.4	8.1
060	203L1060	CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21/5/CHNR/BASF1-2	172.5	91.5	6606.7	43.3	68.4	16.1
100	203L1100	CHTL/PVL038	185.5	93.0	6548.5	56.9	69.8	9.5
174	203L1174	PVL01/LKST	189.5	91.5	6548.5	55.5	66.3	11.4
146	203L1146	1502115/PVL01	194.0	94.5	6547.0	62.2	68.9	8.1
072	203L1072	1502115/PVL01	193.0	87.0	6529.6	59.6	67.6	5.5
196	203L1196	1502115/PVL01	190.0	85.5	6486.1	65.7	70.7	9.8
188	203L1188	CPRS/PVL01	188.0	94.0	6446.8	58.0	66.9	9.3
017	203L1017	1502115/PVL01	191.0	94.0	6350.6	63.3	70.2	7.3
107	203L1107	PVL01/1602189	192.5	93.5	6339.2	65.2	70.0	2.8
036	203L1036	1502115/PVL01	192.0	97.5	6333.6	55.7	67.2	7.3
027	203L1027	CHNR/3/NWBT/KATY//9902207X2/4/BASF2-21/5/CHNR/BASF1-2	178.0	93.5	6311.9	57.7	69.9	4.8
031	203L1031	PVL24B/MRMT	188.0	100.0	6303.9	62.6	70.7	8.2

Continued.

Table 1. Continued.

ENT	NAME	PEDIGREE	HDT	HTE (cm)	YIELD (lb/A)	WHOLE (%)	TOTAL (%)	CHALK (%)
045	203L1045	1502115/PVL01	190.0	95.0	6287.6	54.9	68.0	5.3
130	203L1130	CTHL//CPRS/BASF1-13	184.0	91.5	6272.1	49.6	64.4	16.4
162	203L1162	PVL01/CTHL	189.0	96.5	6259.9	56.1	65.6	9.5
118	203L1118	1502115/PVL01	193.0	84.5	6235.0	62.7	68.8	6.2
158	203L1158	PVL080/CL153	184.5	88.5	6203.8	55.3	66.9	14.1
149	203L1149	PV17TA75/171L1786	179.5	98.5	6201.6	37.7	66.6	21.3
062	203L1062	1402091/PV17TA75	183.5	97.5	6195.3	58.6	70.2	10.6
108	203L1108	CCDR/MRMTBCR048(5)	190.0	92.0	6195.3	48.2	64.2	10.8
039	203L1039	PVL01/CTHL	192.5	95.5	6177.8	55.6	67.0	10.7
184	203L1184	PVL080/CL153	182.5	99.0	6117.9	54.3	70.0	10.4
008	203L1008	9302065/MRMTBCR048-6	181.0	101.5	5971.3	44.2	66.1	12.6
199	PVL01	PVL01	191.0	99.0	5937.5	55.3	67.2	9.8
134	203L1134	PVL080/CL153	188.5	93.5	5936.4	61.4	68.6	6.0
038	203L1038	PVL01/1602189	191.5	87.0	5934.3	58.4	67.8	4.2
160	203L1160	PVL01/1602189	193.5	94.0	5796.9	59.2	67.7	5.9
047	203L1047	MRMTBCR048(5)/MRMT//MRMT	182.0	89.0	5762.0	56.4	68.3	3.4
110	203L1110	PV17TA75/PV17TA76	185.0	94.5	5734.5	42.8	70.7	9.9
059	203L1059	TCRI/MRMTBCR048-7	182.0	88.5	5513.3	54.8	65.3	7.0
044	203L1044	PVL01/1602189	190.5	99.5	5282.2	50.6	66.2	8.9
073	203L1073	9302065/MRMTBCR048-6	177.0	90.5	5116.9	46.9	67.8	13.2
190	203L1190	PVL01/1602189	195.0	83.0	5050.0	61.5	67.7	4.1
135	203L1135	PVL081/CL172	192.0	92.0	5013.2	45.7	63.6	9.4
148	203L1148	CCDR/MRMTBCR048(5)	186.5	93.0	4962.0	42.5	63.9	13.6
183	203L1183	MBLE//TRNS/BASF1-10	174.0	93.5	4918.3	42.4	64.6	12.3
096	203L1096	PVL01/1602189	187.5	89.5	4521.0	55.0	64.8	9.3
172	203L1172	PVL081/CL172	191.5	94.5	4044.6	-	-	-

DATE OF PLANTING STUDIES

The purpose of these trials is to determine the grain yield, milling quality, and other agronomic characteristics of major rice varieties, experimental lines and hybrids planted at various times. The choice of planting date can significantly impact growth, development and yield. The information generated from these trials is important for understanding the impact on the key economic and production characteristics associated with rice production.

Experiment: Date of Planting

Location: H. Rouse Caffey Rice Research Station, Crowley, Louisiana

Planting Method: Drill seeded

Plot size: 4.66 x 16 ft

Experimental Design: Replicated complete block design with three replications

Entries: CL111, CL153, Cheniere, PVL01, PVL02, 1902020, LA2140, CLL16, CLL17, CLM04, Jupiter, and Lynx

Planting Dates: March 2, March 16, March 27, April 9, April 24, May 8, May 22 and June 4

Harvesting Dates: July 30, July 30, Aug. 11, Aug. 19, Sept. 10*, Sept. 16, Sept. 16 and Sept. 30
*Severe damage due to Hurricane Laura.

Results: Results can be found in Tables 1-8, which are arranged across planting dates.

Table 1. Grain yields† of 12 rice varieties and experimental lines planted over eight planting dates, 2020. H. Rouse Caffey Rice Research Station, Crowley, Louisiana.

	Planting Date								
Entry	March 2	March 16	March 27	April 9	April 24	May 8	May 22	June 4	Mean
1902202	10788.9	10513.9	9561.0	5662.4	5869.9	7117.2	7647.9	6146.1	7913.4
CHNR	9915.0	9575.4	8683.3	5794.5	5498.9	8094.2	6852.8	5757.9	7521.5
CL111	9747.5	10891.8	9580.5	7749.2	4654.2	4909.6	6078.4	6896.8	7563.5
CL153	9570.0	11190.3	10109.2	8312.7	6043.8	6546.3	8072.9	7012.2	8357.2
CLL16	9747.3	9470.1	9851.5	8637.7	5897.8	10068.4	7727.3	7877.1	8659.7
CLL17	11025.2	10602.0	9764.7	10268.7	6687.6	6609.0	7701.2	5010.9	8458.7
CLM04	12132.0	11600.1	10464.6	8805.4	7275.1	8012.1	8478.8	7944.4	9339.1
JPTR	10465.6	9504.3	9021.4	5785.4	8605.9	9267.2	8089.4	4995.8	8216.9
LA2140	9729.8	9409.4	8716.0	5590.0	4748.6	5190.2	6170.1	6314.4	6983.6
LYNX	11453.1	11711.2	10123.9	7344.2	5544.3	7190.2	8811.3	7686.0	8733.0
PVL01	7512.5	8488.7	6990.9	5652.0	4663.7	5415.1	5442.2	3345.4	5938.8
PVL02	9485.8	9848.8	8900.1	7641.1	3681.9	3593.5	5169.7	5467.6	6723.6
Mean	10131.1	10233.8	9313.9	7270.3	5764.3	6834.4	7186.8	6204.6	

† Yield is in pounds of rough rice per acre at 12% moisture.

Table 2. Seedling vigor† of 12 rice varieties and experimental lines planted over seven planting dates, 2020. H. Rouse Caffey Rice Research Station, Crowley, Louisiana.

	Planting Date								
Entry	March 2	March 16	March 27	April 9	April 24	May 8	May 22	June 4	Mean
1902202	2.3	3.0	3.0	3.0	3.0	3.3	3.0	3.0	3.0
CHNR	3.3	3.7	4.0	2.7	3.7	3.7	3.7	3.3	3.5
CL111	3.3	2.7	2.7	2.7	2.7	2.3	3.0	2.3	2.7
CL153	3.0	3.0	3.0	3.0	3.7	3.3	2.7	3.0	3.1
CLL16	3.3	3.0	2.7	2.0	2.3	2.0	2.0	2.7	2.5
CLL17	2.7	2.7	2.3	2.0	2.7	2.7	2.3	2.3	2.5
CLM04	3.3	3.0	3.0	2.7	2.7	2.0	2.0	2.3	2.6
JPTR	3.7	5.0	4.3	4.3	4.7	3.7	4.0	3.7	4.2
LA2140	2.7	3.0	3.3	3.7	3.3	3.3	3.0	3.0	3.2
LYNX	3.3	3.3	2.7	3.0	3.0	3.7	3.0	3.0	3.1
PVL01	4.0	3.0	3.0	3.0	3.0	4.0	3.0	3.0	3.3
PVL02	3.0	3.0	3.0	2.7	2.7	3.3	3.0	2.7	2.9
Mean	3.2	3.2	3.1	2.9	3.1	3.1	2.9	2.9	

† Subjective rating of 1 to 9, where 1 is the highest seedling vigor and 9 is the lowest seedling vigor.

Table 3. Days to 50% heading of 12 rice varieties and experimental lines planted over eight planting dates, 2020. H. Rouse Caffey Rice Research Station, Crowley, Louisiana.

	Planting Date								
Entry	March 2	March 16	March 27	April 9	April 24	May 8	May 22	June 4	Mean
1902202	90.7	86.0	84.3	74.3	73.0	74.3	67.0	68.0	77.2
CHNR	94.3	90.3	86.7	77.7	75.7	78.3	72.3	70.0	80.7
CL111	95.3	91.0	84.0	73.3	72.0	72.3	62.3	62.7	76.6
CL153	98.7	93.3	87.3	77.0	76.0	74.0	68.7	66.7	80.2
CLL16	102.7	98.0	90.3	79.0	78.7	83.0	75.3	70.0	84.6
CLL17	96.7	92.3	86.7	76.0	73.3	75.0	68.3	64.7	79.1
CLM04	98.7	92.7	86.7	78.3	76.3	78.7	72.0	70.0	81.7
JPTR	98.3	96.0	88.7	81.3	76.0	78.0	70.3	70.0	82.3
LA2140	91.3	89.0	85.0	76.0	73.7	75.7	68.7	67.0	78.3
LYNX	95.0	91.0	85.0	79.3	75.3	79.3	70.7	67.3	80.4
PVL01	108.0	103.0	96.3	86.7	79.3	85.0	75.3	72.3	88.2
PVL02	96.3	92.3	85.0	75.3	72.3	73.3	65.0	64.0	77.9
Mean	97.2	92.9	87.2	77.9	75.1	77.2	69.7	67.7	

Table 4. Plant height[†] of 12 rice varieties and experimental lines planted over seven planting dates, 2020. H. Rouse Caffey Rice Research Station, Crowley, Louisiana.

	Planting Date								
Entry	March 2	March 16	March 27	April 9	April 24	May 8	May 22	June 4	Mean[§]
1902202	95.7	95.0	97.0	86.7	-	102.0	98.7	95.0	95.7
CHNR	94.7	97.0	96.7	88.7	-	99.7	98.3	99.0	96.3
CL111	103.7	105.0	103.0	97.7	-	103.7	101.3	104.3	102.7
CL153	99.7	101.7	103.3	90.0	-	101.0	102.0	100.3	99.7
CLL16	110.7	107.3	107.0	94.3	-	109.0	110.3	104.3	106.1
CLL17	107.7	102.7	106.7	95.7	-	104.3	101.3	102.7	103.0
CLM04	108.3	108.0	106.0	95.3	-	109.7	108.0	105.0	105.8
JPTR	96.3	98.3	95.7	85.7	-	99.7	99.7	92.0	95.3
LA2140	97.0	100.7	102.3	91.0	-	98.7	100.0	97.7	98.2
LYNX	103.3	103.0	100.7	93.7	-	103.0	99.7	100.0	100.5
PVL01	99.7	100.7	99.7	94.7	-	99.3	99.7	101.0	99.3
PVL02	112.7	109.0	112.7	105.0	-	104.3	108.3	109.3	108.8
Mean	102.5	102.4	102.6	93.2	-	102.9	102.3	100.9	

[†] Plant height in centimeters from the soil surface to the tip of the main panicle.
[*] Date of Planting April 24 was severely damaged by Hurricane Laura.
[§] Means do not include Date of Planting April 24.

Table 5. Whole milling percentage[†] of 12 rice varieties and experimental lines planted over seven planting dates, 2020. H. Rouse Caffey Rice Research Station, Crowley, Louisiana.

	Planting Date								
Entry	March 2	March 16	March 27	April 9	April 24	May 8	May 22	June 4	Mean[§]
1902202	59.4	60.8	59.4	58.1	-	60.9	62.4	61.9	60.4
CHNR	63.6	64.7	65.0	62.8	-	61.7	65.6	64.2	63.9
CL111	61.4	63.8	63.4	57.3	-	58.1	63.9	65.2	61.9
CL153	62.1	63.9	62.5	61.8	-	62.1	62.4	65.3	62.9
CLL16	56.8	56.7	53.6	52.0	-	60.4	60.3	62.6	57.5
CLL17	58.7	59.1	57.5	59.4	-	56.2	59.1	60.7	58.7
CLM04	65.4	67.0	64.1	63.5	-	65.9	66.8	67.6	65.8
JPTR	60.7	64.4	56.7	59.1	-	65.5	67.2	67.0	62.9
LA2140	58.1	58.9	59.1	58.2	-	55.8	57.9	60.8	58.4
LYNX	63.1	67.3	62.9	58.4	-	63.8	68.4	66.1	64.3
PVL01	57.6	62.5	54.8	53.1	-	48.2	52.0	64.6	56.1
PVL02	58.9	58.9	62.0	61.7	-	54.2	60.6	58.9	59.3
Mean	60.5	62.3	60.1	58.8	59.4	62.2	63.7	60.5	

[†] The percentage of unbroken grains after the removal of the hulls and broken grains.
[*] Date of Planting April 24 was severely damaged by Hurricane Laura.
[§] Means do not include Date of Planting April 24.

Table 6. Total milling percentage[†] of 12 rice varieties and experimental lines planted over eight planting dates, 2020. H. Rouse Caffey Rice Research Station, Crowley, Louisiana.

	Planting Date								
Entry	March 2	March 16	March 27	April 9	April 24	May 8	May 22	June 4	Mean[§]
1902202	70.7	69.3	68.1	68.9	-	70.0	69.9	69.1	69.4
CHNR	72.5	71.6	71.1	71.2	-	71.4	71.6	70.8	71.5
CL111	71.7	71.5	71.2	71.3	-	70.5	70.4	70.5	71.0
CL153	71.3	70.3	68.8	69.5	-	70.7	70.4	70.1	70.2
CLL16	68.8	67.8	63.3	65.8	-	69.9	68.1	69.7	67.6
CLL17	69.9	68.9	67.3	68.6	-	68.6	68.4	67.7	68.5
CLM04	70.2	70.0	67.6	69.1	-	70.4	69.8	69.7	69.5
JPTR	68.3	68.4	60.9	64.5	-	69.9	70.2	69.3	67.4
LA2140	70.6	69.5	69.3	70.2	-	69.0	67.9	68.6	69.3
LYNX	68.9	70.1	66.7	67.0	-	69.9	71.4	69.4	69.1
PVL01	70.1	69.5	65.4	66.9	-	66.0	65.9	68.7	67.5
PVL02	72.4	71.2	71.2	71.3	-	70.2	70.4	70.1	71.0
Mean	70.5	69.8	67.6	68.7	69.7	69.5	69.5	70.5	

[†] The cumulative percentage of broken and unbroken grains after the removal of the hulls.
[*] Date of Planting April 24 was severely damaged by Hurricane Laura.
[§] Means do not include Date of Planting April 24.

HIGH-THROUGHPUT DNA MARKER LAB FOR APPLIED BREEDING

B. Angira, A.N. Famoso, J.D. Dartez, and R.E. Zaunbrecher

A single nucleotide polymorphism (SNP) marker-assisted lab was established in February 2016 through the support of the Louisiana Rice Research Board and the LSU AgCenter at the H. Rouse Caffey Rice Research Station (HRCRRS) as part of the Variety Development Program. The lab facilitates the integration of molecular breeding as a core element to an applied breeding program and offers tangible benefits to our variety development efforts in terms of speed, accuracy, throughput, and uniformity. The lab is fulfilling the objective of research to develop, optimize and implement a comprehensive molecular breeding strategy as an integrated component of rice variety development efforts. The SNP lab also facilitates the necessary scale and inexpensive modern breeding approaches that are incorporated into the variety development efforts.

The molecular breeding lab has SNP markers associated with major rice traits, including blast resistance genes (PITA2, PIZ, Pi9, Pik, Pib and Pi33), Cercospora resistance, aroma (BADH2), amylose, gel temperature, pubescence, grain size (GS3 and qGL7.1), and plant height (*sd1*- deletion and Calrose mutation). In addition to these markers, the lab also has SNP markers for Clearfield and Provisia herbicide resistance genes. These markers were deployed at different stages of the breeding program to improve the accuracy and speed of the program in 2020. To enable gene discovery and validation, a breeding germplasm panel of 384 lines was updated with modern, relevant and diverse germplasm. This updated panel was phenotyped for heading date and purified by using markers and selecting a single source panicle for planting in 2021. The same selected panicles were used for genotyping. This panel was outsourced for whole genome sequencing. The sequencing data would allows the discovery of many important novel genes/genetic regions in the southern U.S. rice germplasm. These novel genetic regions would be used in improving Louisiana rice breeding germplasm and developing improved varieties.

Marker-assisted selection (MAS) was performed on a total of 103 rice breeding populations that included 26,496 individual plants (Table 1). DNA was extracted from these plants, and the appropriate trait SNP markers were run to select the desired 100 or 50 plants from each population. The selected seedling plants were then transplanted into a greenhouse and selected panicles were planted in the field. The harvested panicles will either be grown as panicle rows in the 2021 field or replanted to develop the next generation in the greenhouse. The traits that are focused in the MAS approach are controlled by either one or few genes and these genes have large effects. The target of the traits depends on the current needs and breeding objectives. The MAS approach was integrated with the extensive and successful core breeding program, and it improved the speed, accuracy, and uniformity of the Variety Development Program.

In addition to MAS, we are in the process of integrating genomic selection in our breeding program for complex rice traits, that are difficult to target using the MAS approach.

Markers are also used to identify purity and heterogeneity of entries in the yield plot test. A set of markers was developed for this purpose. This marker set is surveyed across our yield plots from the different breeding tests to improve the efficiency and accuracy of the program. From the test plots, 8,864 leaf samples were collected (Table 2). All of the developed trait markers were then run on these leaf samples. All entries included in yield plot tests were genotyped and analyzed, except for the RiceTec hybrid entries. The data was analyzed to check the purity of the tests and necessary actions were engaged. In addition to yield plot testing, F_1 populations were also tested to identify true crosses in 2020. Each F_1 population had eight plants with 288 total F_1 populations. All 2,304 plants were sampled and sets of markers were run to identify true breeding crosses.

In previous years, a set of genome-wide (GW) markers were identified, which along with the trait markers, has the ability to purify Louisiana rice varieties. This set has been successful in purifying foundation seed headrows of important Louisiana varieties in the Foundation Seed Program of the LSU AgCenter. In 2020, headrows of four Provisia variety candidates – 2002070, 2002074 (PVL03), 2002174, and 2002178 were purified using the defined molecular SNP marker set in the Foundation Seed Program. SNP profile of each of these lines was developed. The SNP profile will be useful in future purification process. These lines had different genetic groups based on DNA markers and each group was planted in the field separately to identify any significant differences between each group, as well as further purification based on phenotype.

Table 1. Breeding populations utilized for marker-assisted selection for target traits.

Population ID	Leaf Source	Round	No. of Plants	Target Traits*
19T-283	Panicle	Round1	192	Glabrous, Provisia, Blast-Pita
19T-284	Panicle	Round1	192	Glabrous, Provisia, Blast-Pita
19T-285	Panicle	Round1	192	Glabrous, Blast-Pita and Pib
19T-286	Panicle	Round1	192	Glabrous, Blast-Pita and Pib
19T-267	Panicle	Round1	192	Provisia, Blast-Pita
19T-272	Panicle	Round1	192	Provisia, Semi-dwarf
19T-086	Panicle	Round1	192	Clearfield, High amylose, Gel temperature, Blast-Pita
19T-089-CONV	Panicle	Round1	192	Clearfield, Amylose, Blast-Pita
19T-126	Panicle	Round1	192	Clearfield, Amylose
19T-152	Panicle	Round1	192	Clearfield
19T-188	Panicle	Round1	192	Clearfield, Blast-Pita, Gel Temperature
19T-232	Panicle	Round1	192	Glabrous, Amylose, Gel Temperature, Blast-Pita
19T-240	Panicle	Round1	192	Glabrous, Blast-Pib
19T-287	Panicle	Round1	192	Glabrous, Blast-Pib
19T-087	Panicle	Round1	192	Clearfield
19T-093	Panicle	Round1	192	Clearfield
19T-097	Panicle	Round1	192	Clearfield
19T-101	Panicle	Round1	192	Clearfield
19T-106-CONV	Panicle	Round1	192	Clearfield
19T-110	Panicle	Round1	192	Clearfield
19T-111-CONV	Panicle	Round1	192	Clearfield
19T-123	Panicle	Round1	192	Clearfield
19T-134-CONV	Panicle	Round1	192	Clearfield
19T-136	Panicle	Round1	192	Clearfield
19T-139	Panicle	Round1	192	Clearfield
19T-144-CONV	Panicle	Round1	192	Clearfield
19T-175-CONV	Panicle	Round1	192	Clearfield
19T-176-CONV	Panicle	Round1	192	Clearfield
19T-177-CONV	Panicle	Round1	192	Clearfield
19T-181-CONV	Panicle	Round1	192	Clearfield
19T-183-CONV	Panicle	Round1	192	Clearfield
19T-184-CONV	Panicle	Round1	192	Clearfield
19T-187	Panicle	Round1	192	Clearfield
19T-189	Panicle	Round1	192	Clearfield
19T-083-CONV	Panicle	Round1	192	Clearfield, Blast-Pita
19T-091	Panicle	Round1	192	Clearfield, Blast-Pita
19T-096-CONV	Panicle	Round1	192	Clearfield, Blast-Pita
19T-098	Panicle	Round1	192	Clearfield, Blast-Pita
19T-114-CONV	Panicle	Round1	192	Clearfield, Blast-Pita

Continued.

Table 1. Continued.

19T-119	Panicle	Round1	192	Clearfield, Blast-Pita
19T-125	Panicle	Round1	192	Clearfield, Blast-Pita
19T-133	Panicle	Round1	192	Clearfield, Blast-Pita
19T-137	Panicle	Round1	192	Clearfield, Blast-Pita
19T-141-CONV	Panicle	Round1	192	Clearfield, Blast-Pita
19T-148	Panicle	Round1	192	Clearfield, Blast-Pita
19T-170	Panicle	Round1	192	Clearfield, Blast-Pita
19T-163	Panicle	Round1	192	Glabrous, Clearfield, Amylose, Gel Temperature
19T-165	Panicle	Round1	192	Glabrous, Clearfield, Amylose, Gel Temperature
19T-166	Panicle	Round1	192	Glabrous, Clearfield, Amylose, Gel Temperature
19T-234	Panicle	Round1	192	Glabrous, Amylose, Gel Temperature
19T-001	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-002	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-003	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-005	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-006	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-007	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-008	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-009	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-010	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-011	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-075	Panicle	Round1	192	Amylose, Gel Temperature, Aromatic
19T-076	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-078	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-079	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-080	Panicle	Round1	96	Amylose, Gel Temperature, Aromatic
19T-082	Panicle	Round1	192	Glabrous, Amylose, Aromatic
19T-153	Panicle	Round1	192	Clearfield, Amylose
19T-160	Panicle	Round1	192	Glabrous, Amylose, Gel Temperature
19T-161	Panicle	Round1	192	Glabrous, Amylose, Gel Temperature
19T-162	Panicle	Round1	192	Glabrous, Amylose, Gel Temperature
19T-164	Panicle	Round1	192	Glabrous, Amylose, Gel Temperature
19T-191	Seedlings	Round2	768	Clearfield, Provisia
19T-192	Seedlings	Round2	768	Clearfield, Provisia
19T-193	Seedlings	Round2	768	Clearfield, Provisia
19T-194	Seedlings	Round2	768	Clearfield, Provisia
20T-112	Seedlings	Round3	384	Clearfield/Conventional, Blast-Pi9
20T-118	Seedlings	Round3	384	Clearfield/Conventional, Blast-Pi9

Continued.

Table 1. Continued.

20T-122	Seedlings	Round3	384	Clearfield/Conventional, Blast-Pi9
20T-137	Seedlings	Round3	384	Clearfield/Conventional, Blast-Pi9
20T-125	Seedlings	Round3	384	Clearfield/Conventional, Blast-Pi42
20T-132	Seedlings	Round3	384	Clearfield/Conventional, Blast-Pi42
20T-134	Seedlings	Round3	384	Clearfield/Conventional, Blast-Pi42
20T-140	Seedlings	Round3	384	Clearfield/Conventional, Blast-Pi9
20T-290	Seedlings	Round3	384	Clearfield, Provisia, Blast-Pita
20T-291	Seedlings	Round3	384	Clearfield, Provisia, Blast-Pita
20T-292	Seedlings	Round3	384	Clearfield, Provisia, Blast-Pita
20T-294	Seedlings	Round3	384	Clearfield, Provisia, Blast-Pita
20T-059	Seedlings	Round3	384	Glabrous, Amylose, Blast-Pita
20T-149	Seedlings	Round3	384	Glabrous, Amylose, Blast-Pita
20T-159	Seedlings	Round3	384	Amylose, Blast-Pita
20T-161	Seedlings	Round3	384	Amylose, Blast-Pita
20T-053	Seedlings	Round3	384	Glabrous, Clearfield, Amylose
20T-081	Seedlings	Round3	384	Clearfield
20RYT-118	Seedlings	Round3	768	Clearfield
20T-077	Seedlings	Round3	384	Clearfield, Cercospora
20T-293	Seedlings	Round3	384	Clearfield, Provisia, Cercospora
20T-249	Seedlings	Round3	384	Glabrous, Provisia
20T-295	Seedlings	Round3	384	Clearfield, Provisia, Blast-Pita
20T-011	Seedlings	Round3	384	Blast-Pita and Pi9
20T-153	Seedlings	Round3	384	Glabrous, Amylose, Blast-Pib
20T-067	Seedlings	Round3	384	Clearfield, Amylose, Blast-Pita
20T-074	Seedlings	Round3	384	Clearfield, Amylose, Blast-Pita
20T-296	Seedlings	Round3	384	Clearfield, Provisia, Cercospora
Total			**26,496**	

* Pita, Pi9, and Pib are rice blast resistance genes, GS3 and qGL7.1 are grain length genes, and *sd1* is plant height gene

Table 2. Yield plots of breeding tests were screened with molecular markers to validate the desired traits of the test entries.

Test*	Entries	Samples/Entries	Total Samples Collected
20 RYT	165	8	1,320
20 URRN	240	4	960
20 CA	80	8	640
20 CLPY-M	150	2	300
20 PY-M	150	2	300
20 Diversity	52	2	104
20 HYBML	21	2	42
20 LxM PY	300	2	600
20 CLPY-L	750	2	1,500
20 PY-L	336	2	672
20 PVPY	200	2	400
20 HLPY	150	2	300
20 MP2	430	2	860
20 MP4	298	2	596
20 HYBPY	135	2	270
Total	**3457**		**8,864**

* CA = Commercial Advance test, URRN = Uniform Regional Rice Nursery, RYT = Regional Yield test, PY-Long = Preliminary Yield Long-grain test, PVPY = Provisia Preliminary Yield test, PVPR = Provisia Preliminary Yield test (Puerto Rico), CLPY-Long = Clearfield Preliminary Yield Long-grain test, CLPY-Med = Clearfield Preliminary Yield Medium-grain test, PY-Med = Conventional Preliminary Yield Medium-grain test, HYBML = Hybrid multi-location test, 20 LxM PY – Long by Medium Preliminary Yield test, HLPY = High amylose Preliminary Yield Test, MP2 = Two way cross RILs, MP4 = Four way cross lines, HYBPY = Hybrid Preliminary Yield test.

DEVELOPMENT OF HYBRID RICE GERMPLASM FOR LOUISIANA

J.H. Oard, A.N. Famoso, J.L. Thornton, and T.L. Roy

Introduction

Hybrid rice, produced from the first generation (F_1) of seeds between a cross of two genetically dissimilar pure line (inbred) parents, represents a relatively new option for Louisiana farmers. Commercial hybrids typically yield 10-20% more than the best inbreds grown under similar conditions believed to be the result of hybrid vigor or heterosis from crossing the two parents. Research goals of the Hybrid Rice program at the H. Rouse Caffey Rice Research Station (HRCRRS) include: (1) Develop elite cross combinations (hybrid varieties) through extensive test-crossing and yield trials, (2) Create and/or identify male-sterile (cytoplasmic A or environmental sensitive S) lines and restorer (R) lines adapted to Louisiana and southern U.S. environmental conditions, (3) Develop effective and economical hybrid seed production technology for Louisiana by modifying or optimizing available technologies.

Two new Louisiana Clearfield hybrids, CLH134 and CLH103, showed high yields of 10,644 lb/A to 11,090 lb/A that were comparable to commercial hybrids RT7301 and RT7321FP in the 2020 Hybrid Multi-Location Trial. CLH134 produced 15% to 32% higher grain yields vs. Clearfield varieties CLL17, CL153, CL151 and CL111. CLH134 also generated 14% higher grain yields compared to conventional hybrid LAH169. Excellent whole-grain milling yields were observed for CLH34 while chalk values were relatively high at 15%. We observed that chalk was high as measured by the Seed Count scanning technology for nearly all varieties and hybrids evaluated in 2020 trials at the HRCRRS. Hybrid CLH103 produced grain yields virtually identical to CLXL745, an 11% yield advantage vs LAH169, and excellent milling yields. Both CLH134 and CLH103 exhibited early maturity at 77 to 79 days. Six of the seven hybrids in this test, including CLH134 and CLH103, were tall that resulted in minimal lodging that did not interfere with the combine harvest.

New Provisia hybrid PVH148 showed high yield potential with 11,019 lb/A that was slightly higher vs RT7521FP, Gemini 214, and XP753 in the 2020 Hybrid Preliminary Yield Trial 1 at the HRCRRS South Farm. PVH148 produced 34% and 24% higher yields vs Provisia variety PVL02 and LAH169, respectively. Milling yields of PVH148 at 56/70 were moderate that were similar to other hybrids and varieties in this trial. Grain chalk of 15% for PVH148 was consistent with other entries in this trial. Height and maturity of this hybrid fell within acceptable ranges. The second Provisia hybrid PVH149 at 10,463 lb/A generated nearly identical yields vs XP753, a 20% yield advantage vs LAH169, and height and maturity virtually the same as PVH148.

An average 29% yield advantage for Provisia hybrids PVH827 and PVH498 were observed in the 2020 Hybrid Preliminary Yield Trial 2 when compared to Provisia variety PVL02. Moderate milling yields and chalk values were observed for both hybrids. A 22% to 36% yield advantage was detected for new Clearfield hybrid CLH104 vs. Clearfield varieties CL111, CLL15 and CL153.

High yields of 10,358 lb/A and 10,214 lb/A were observed with new Provisia hybrids PVH489 and PVH397 at the HRCRRS in the 2020 Hybrid Observational Yield Trial 1. The two hybrids produced 35% higher yields vs Provisia variety PVL02 and 10% to 15% higher yields than CLXL745, GEMINI 214 and XP753. Milling yields were good for both Provisia hybrids and endosperm chalk was similar to other entries in this test. In the 2020 Hybrid Observational Yield Trial 2, conventional hybrid LAH120 generated 21% to 29% higher yields vs two Clearfield varieties and 4% to 20% yield advantage vs. hybrids GEMINI 214, RT7501, and LAH169.

A new and efficient method for rapid advancement of breeding material in the greenhouse has been developed at the HRCRRS. This method uses a synthetic soil mix for year-round availability that reduces costs in labor and equipment. Small growth containers result in high capacity of growing breeding material in an efficient manner in the greenhouse. Using this new approach nearly 3,000 individuals can be advanced over a generation time of 3.2 months in a small footprint of 8 ft x 4 ft in the greenhouse.

Yield Trials

Main crop yield, height, maturity, and grain characteristics are presented in Table 1 for hybrids and varieties in the 2020 Hybrid Multi-Location Yield Trial. New Louisiana Clearfield hybrid CLH134 showed good yield potential at 11,090 lb/A that was comparable to commercial hybrids RT7301 and RT7321FP. CLH134 produced a 15% to 32% yield advantage over four Clearfield varieties and a 14% advantage vs. LAH169. Whole grain milling yields were good for CLH134 and grain chalk was similar or lower than both hybrids and varieties in this test. The second Clearfield LA hybrid CLH103 produced similar grain yield vs. CLXL745 while milling and chalk values were virtually identical to those of CLH134. Lodging was minimal for all entries except for CLXL745 and LAH169.

Table 1. 2020 Hybrid Multi-Location Yield Trial. Main crop yield, height, heading, lodge score, milling yield, and % grain chalk for three Louisiana hybrids, four commercial hybrid checks, and four Clearfield varieties. Data are mean values from two trials at the HRCRRS and one trial at the HRCRRS South Farm, Crowley, LA.

Hybrid/ Variety	Height (inches)	50% Days to heading	Yield Main (lb/A)	% Yield vs CL111	Lodge (0-4)	% Whole /% Total	% Chalk	NOTES
GEM214	47	81	12264	139	1	60/69	18	CL Hybrid
RT7301	42	79	11579	135	1	63/70	16	Conv Hybrid
RT7321FP	46	78	11123	132	1	63/71	13	FP Hybrid
CLH134	46	79	11090	132	0.5	61/72	15	CL Hybrid
CLH103	50	77	10644	129	0.5	64/72	15	CL Hybrid
CLXL745	45	77	10507	128	2	62/71	16	CL Hybrid
LAH169	48	80	9221	118	2	61/70	13	Conv Hybrid
CLL17	38	81	9045	117	1.5	59/69	11	CL Variety
CL153	38	83	8754	114	0	62/69	11	CL Variety
CL151	38	79	8383	110	0.5	58/69	25	CL Variety
CL111	39	79	7525	100	0	63/71	16	CL Variety

Table 2 shows agronomic and grain quality characteristics for LA and commercial hybrids evaluated in the 2020 Hybrid Preliminary Yield Trial 1 at the LSU AgCenter South Farm location. New Provisia long-grain hybrid PVH148 produced similar or greater yields vs. three commerical hybrids and a 34% yield advantage vs. Provisia variety PVL02. Milling yields for PVH148 were comparable to other hybrids in this test, and chalk values were lower vs. RT7521FP and XP753. New Provisia long-grain hybrid PVH149 produced grain yields comparable to XP753 and Gemini 214, a 31% yield advantage vs. PVL02, and the lowest chalk value in this trial. No lodging was observed for any hybrid except for LAH169.

Table 2. 2020 Hybrid Preliminary Yield Trial 1. Main crop yield, height, heading, lodge score, milling yield, and % grain chalk for three Louisiana hybrids, three commercial hybrid checks, and two Louisiana varieties. Data are mean values from HRCRRS South Farm, Crowley, LA.

Hybrid/ Variety	Ht (in)	50% Days to heading	Yield Main (lb/A)	% Yield vs PVL02	Whole / Total	% Chalk	Lodge (0-4)	NOTES
PVH148	44	81	11019	134	56/70	15	0	PV Hybrid
RT7521FP	43	92	10700	132	59/70	25	0	FP Hybrid
Gem214	42	83	10676	132	59/68	13	0	CL Hybrid
XP753	44	90	10492	131	52/71	24	0	Conv Hybrid
PVH149	44	83	10463	131	59/69	11	0	PV Hybrid
LAH169	43	91	8050	110	59/69	19	2	Conv Hybrid
CLL17	38	87	7799	107	57/69	17	1	CL Variety
PVL02	38	89	7267	100	65/72	14	0	PV Variety

Agronomic and grain quality characteristics for new LA Pvovisia and Clearfield hybrids are presented in Table 3. Provisia hybrids PVH827 and PVH498 showed a mean 29% yield advantage compared to Provisia variety PVL02. Milling yields and chalk values were moderate for both candidates while moderate lodging did not interfere with the combine harvest. New Clearfield hybrid CLH104 showed 22% to 36% yield advantage when compared with Clearfield varieties CL111, CLL15, and CL153.

Table 3. 2020 Hybrid Preliminary Yield Trial 2. Main crop yield, height, heading, lodge score, milling yield, and % grain chalk for three Louisiana hybrids and four Louisiana Provisia and Clearfield varieties, HRCRRS, Crowley, LA.

Hybrid/ Variety	Height (in)	50% Days to heading	Yield Main (lb/A)	% Yield vs PVL02/ CL153	% Whole /% Total	% Chalk	Lodge (0-4)	NOTES
PVH827	47	85	8448	131	54/69	14	2	PV Hybrid
PVH498	52	82	7987	127	53/68	12	2	PV Hybrid
PVL02	43	90	5837	100	64/71	8	1	PV Variety
CLH104	43	80	7834	136	55/69	21	0	CL Hybrid
CL111	42	81	5838	114	58/70	12	0	CL Variety
CLL15	37	87	5126	102	59/67	10	0	CL Variety
CL153	42	87	5011	100	61/70	11	0	CL Variety

Two new Provisia hybbrids PVH397 and PVH489 produced an average grain yield of 10236 lb/A in the 2020 Hybrid Observational Yield Trial 1 (Table 4). This performance represented a 35% advantage compared to PVL02 in the same trial. Height and maturity of the two hybrids were comparable to three commercial hyhrids while milling yields were good and chalk values were similar or lower than other hybrids in the test. PVH397 and PVH489 generated yields that were 10% to 15% higher than CLXL745, GEMINI 214, and XP753. No lodging was found for any entry in this trial.

Table 4. 2020 Hybrid Observational Yield Trial 1. Main crop yield, height, heading, lodge score, milling yield, and % grain chalk for three Provisia Louisiana hybrids and three commercial hybrid checks, and one Provisia variety, HRCRRS, Crowley, LA.

Hybrid/ Variety	Height (in)	50% Days to heading	Yield Main (lb/A)	% Yield vs PVL02	% Whole / % Total	% Chalk	Lodge (0-4)	NOTES
PVH489	46	79	10358	135	60/67	14	0	PV Hybrid
PVH397	48	77	10214	136	61/69	11	0	PV Hybrid
PVH131	46	78	9754	135	60/67	12	0	PV Hybrid
CLXL745	43	75	8486	125	63/69	15	0	CL Hybrid
GEM 214	48	81	8275	123	59/68	17	0	CL Hybrid
XP753	43	77	7834	118	60/69	21	0	Conv Hybrid
PVL02	44	81	6394	100	64/71	8	0	PV Variety

Table 5 shows agronomic and grain quality values for four LA hybrids evaluated in the 2020 Hybrid Observational Yield Trial 2 at the HRCRRS. Conventional hybrid LAH120 at 10349 lb/A produced a substantial yield advantage of 21% to 29% when compared to varieties CL153 and CL111, and 4% to 20% greater yield vs. hybrids GEMINI 214, RT7501, and LAH169. Height, maturity, and milling yields of LAH120 were comparable to the other hybrids in this trial. LAH120 has the added benefit of smooth leaves and grain. The new Clearfield hybrids CLH177 and CLH149 generated similar grain yields to those of CLXL745, GEMINI 214, RT7301, and RT7501. No lodging was observed in this trial.

Table 5. 2020 Hybrid Observational Yield Trial 2. Main crop yield, height, heading, lodge score, milling yield, and % grain chalk for three Provisia Louisiana hybrids and three commercial hybrid checks, and one Provisia variety, HRCRRS, Crowley, LA.

Hybrid/ Variety	Height (in)	50% Days to heading	Yield Main (lb/A)	% Yield vs CL111	Lodge (0-4)	% Whole / % Total	NOTES
LAH120	41	84	10349	129	0	57/68	Conv Hybrid
CLXL745	42	84	9978	127	0	55/65	CL Hybrid
CLH177	41	83	9792	125	0	62/69	CL Hybrid
GEM 214	46	90	9696	125	0	59/68	CL Hybrid
RT7301	41	85	9581	124	0	58/69	Conv Hybrid
CLH149	44	84	9562	124	0	64/71	CL Hybrid
LAH169	42	86	8304	112	0	59/68	Conv Hybrid
RT7501	44	81	8064	109	0	62/69	Conv Hybrid
CL153	40	90	7910	108	0	65/70	CL Variety
CL111	44	88	7315	100	0	65/71	CL Variety

Conventional hybrid LAH169 produced good grain yield in the 2020 Uniform Regional Nursery at the HRCRRS that was 2% to 17% higher than varieties CL153, Cheniere, CL111, and CLL17 (Table 6). Arkansas hybrid RU2001211 produced 8% to 10% higher yields than Cheniere, CL111, and CLL17. All entries in this test produced good to excellent milling yields, and no lodging was found. Relively high chalk values of 10% to 25% were observed in this trial.

Table 6. 2020 Uniform Regional Nursery (URN). Main crop yield, height, heading, lodge score, milling yield, and % grain chalk for one Louisiana and one Arkansas hybrids, and six Louisiana variety checks, HRCRRS, Crowley, LA

Hybrid/ Variety	Height (in)	50% Days to heading	Yield Main (lb/A)	% Yield vs PVL01	Lodge (0-4)	% Whole/ % Total	% Chalk	NOTES
LAH169	46	85	10098	137	0	64/70	18	Conv Hybrid
CL153	38	96	9844	135	0	63/70	18	CL Variety
RU2001211	45	86	9591	130	0	63/71	21	Conv Hybrid
Cheniere	35	96	9021	122	0	62/72	11	Conv Variety
CL111	38	91	8898	121	0	64/72	21	CL Variety
CLL17	40	95	8872	120	0	55/69	20	CL Variety
PVL02	42	94	7819	106	0	57/72	10	PV Variety
PVL01	41	99	7364	100	0	58/65	25	PV Variety

Agronomic and grain quality performance of the 2020 Commercial Advanced (CA) trial is shown in Table 7. The DynaGro conventional variety DG263L was the top performer at 11292 lb/A. The milling yields of 52/69 and the grain lengh/width ratio of 2.65 were relatively low for long-grains, but height and maturity fell well within acceptable ranges. LAH169 produced similar grain yield at 10400 lb/A vs. 10098 lb/A in the 2020 URN trial. Chalk values were relatively high for all entries that were consistent with grain quality values in the 2020 URN trial.

Table 7. 2020 Commercial Advanced (CA) trial. Main crop yield, height, heading, lodge score, milling yield, and % grain chalk for one Louisiana and one Arkansas hybrids, and six Louisiana variety checks, HRCRRS, Crowley, LA.

Hybrid/ Variety	Height (in)	50% Days to heading	Yield Main (lb/A)	% Yield vs CLL17	Lodge (0-4)	% Whole/ % Total	% Chalk	NOTES
DG263L	37	92	11292	139	0	52/69	16	Conv. Variety
CL153	37	97	10878	134	0	64/71	21	CL Variety
LAH169	44	85	10400	128	0	62/72	19	Conv Hybrid
Cheniere	36	96	9904	122	0	64/72	13	Conv. Variety
CL111	39	90	9498	117	0	65/72	20	CL Variety
PVL01	39	108	8985	111	0	62/70	16	PV Variety
PVL02	42	94	8445	109	0	59/72	15	PV Variety
CLL17	37	95	8120	100	0	58/69	21	CL Variety

Rapid Generation Advance Technology for LA Rice Breeding

Standard breeding practices at the HRCRRS typically involve field evaluation and advance of early generation material in the field and the Puerto Rico winter nursery. This strategy has proven successful over the years, but is costly, time-consuming, and labor-intensive. The Rapid Generation Advance (RGA) method was develped recently by IRRI to overcome similar challenges for indica rice in a tropical environment. However, this approach is labor intensive and requires handling and processing of field soil that adds to labor and equipment costs. Morevoer, the IRRI method uses growth containers that can limit the amount of material advanced in the greenhouse. We have developed an alternative RGA method that uses no field soil, reduces labor inputs, and doubles the capacity per generation in the greenhouse vs the IRRI approach. The new soil mix consists of peat moss and silica resulting in year-round availability and reduced or no costs for sterilization and weed management. Small cone-shaped containers allowed doubling the capacity of breeding lines per generation vs the IRRI method. Planting one seed per container eliminated the need for thinning and pruning of seedlings. The optimized RGA protcol resulted in an average generation time of 3.2 months with 2,800 individuals grown in a greenhouse bench area of 2.4 m x 1.3 m (8 ft x 4 ft). A recent RGA of Dr. Famoso's breeding material at the HRCRRS in shown in Figure below.

DEVELOPMENT OF LOW GLYCEMIC SOUTHERN U.S. RICE THROUGH BIOTECHNOLOGY, GENOMICS, AND BREEDING

H.S. Utomo, I. Wenefrida, G. Zaunbrecher, H. Dugas

1. Nutritional and grain quality profiling

New lines that have potential for low Glycemic Index (GI) were evaluated for several crucially important traits associated with the GI. The related traits include crude bran fat content, crude fiber, carbohydrates, protein content and cereal chemistry. These traits were analyzed in the reporting year of 2020. Yield potential and other agronomic traits were based on field evaluations conducted in the 2019 and 2018 Preliminary Yield (PY) trials in replicated plots at the H. Rouse Caffey Rice Research Station, Crowley, Louisiana (HRCRRS). Nutritional and grain quality profiles and yield potential of three GI lines are summarized in Table 1.

Table 1. Potential yield, grain quality, nutritional profiles of GI lines 19GIR-05, 19GIR-20, 19GIR-71, and 19GIR-87. Cultivar Frontiere (FNTR) was included as a check.

TRAIT	FNTR	19GIR-05	19GIR-20	19GIR-71	19GIR-87
Yield (lbs/A) †	5.879	7,200	6,455	6,569	6,033
Crude Fat (g/100g)	0.5	0.8	0.5	1.0	1.4
Crude Fiber (g/100g)	0.9	0.8	2.0	1.0	1.1
Carbs (g/100g)	79	78	77	78	77
Calories (kcas/100g)	360				
Protein (w/w) %	10.22	11.2	11.4	11.1	11.2
Amylose (w/w) %	21.8	20.1	20.6	20.3	20.3
Alkali Spreading	5	5	5	5	5
Gel Temp	Int.	Int.	Int.	Int.	Int.
Pasting Temp (ºC)	82.73	74.3	71.2	83.2	85.9
Chalk (%)	9	8.1	9	7	7
Milling Quality (% hulls)	20	22	20	20	20
Milling yield (% whole kernel	60	61	58	59	61
Glycemic Index	41				

†Averaged over 2 years (2018 and 2019 PY tests) and 3 replications.

2. Performance of some key trait indicators among breeding lines.

A total of 603 breeding lines of GI rice were harvested from replicated field trials at the HRCRRS in 2019. In 2020, a portion of these breeding lines was evaluated for their resistant starch, bran oil content and protein content. In addition, standard amylose content and gel temp were also evaluated. Table 2 is the data summary that can be generated up to this point.

Table 2. Performance of key trait indicators among breeding lines grown in the 2019 headrows at the HRCRRS.

Entry	Line ID	BOC†	RS††	Pro††	Row Yield†	DNA Maker Analysis for Amylose Cont.	Cooking Quality
19GIR 001	16CG-1-011	0.8	1.1	10.5	868	High Amylose	Intermediate
19GIR 002	16CG-1-023	0.9	2.0	10.3	672	High Amylose	Intermediate
19GIR 003	16CG-1-025	0.5	1.5	12.1	773	High Amylose	Intermediate
19GIR 004	16CG-1-026	0.9	1.3	10.9	978	High Amylose	Intermediate
19GIR 005	16CG-1-031	1.2	2.0	11.4	906	High Amylose	Intermediate
19GIR 006	16CG-1-046	0.9	1.7	11.1	816	High Amylose	Intermediate
19GIR 007	16CG-1-055	0.8	1.1	10.7	835	High Amylose	Intermediate
19GIR 008	16CG-2-075	0.8	2.0	11.3	865	High Amylose	Intermediate
19GIR 009	16CG-2-076	0.8	1.5	12.1	757	High Amylose	Intermediate
19GIR 010	16CG-2-098	0.7	1.1	12.5	917	High Amylose	Intermediate
19GIR 011	16CG-2-099	0.8	2.1	11.5	966	High Amylose	Intermediate
19GIR 012	16CG-2-103	0.9	1.5	10.7	928	High Amylose	Intermediate
19GIR 013	16CG-2-105	0.6	1.8	10.4	876	High Amylose	Intermediate
19GIR 014	16CG-2-115	1.0	2.0	11.2	652	High Amylose	Intermediate
19GIR 015	16CG-2-134	1.1	1.7	12.8	787	High Amylose	Intermediate
19GIR 016	16CG-3-154	0.5	1.1	10.5	958	High Amylose	Intermediate
19GIR 017	16CG-3-177	0.7	2.1	10.1	886	High Amylose	Intermediate
19GIR 018	16CG-3-182	1.1	1.5	11.5	876	High Amylose	Intermediate
19GIR 019	16CG-3-186	0.8	1.1	10.6	872	High Amylose	Intermediate
19GIR 020	16CG-3-198	0.9	2.0	11.8	819	High Amylose	Intermediate
19GIR 021	16CG-3-199	0.8	1.6	12.4	987	High Amylose	Intermediate
19GIR 022	16CG-3-206	0.8	1.6	10.2	913	High Amylose	Intermediate
19GIR 023	16CG-3-211	0.8	1.8	11.6	826	High Amylose	Intermediate
19GIR 024	16CG-3-215	0.7	1.5	12.0	977	High Amylose	Intermediate
19GIR 027	16CG-4-216	-	-	13.2	761	High Amylose	Intermediate
19GIR 026	16CG-4-217	-	-	11.2	772	High Amylose	Intermediate
19GIR 027	16CG-4-218	-	-	11.1	875	High Amylose	Intermediate
19GIR 028	16CG-4-221	-	-	11.3	771	High Amylose	Intermediate
19GIR 029	16CG-4-222	-	-	11.5	902	High Amylose	Intermediate
19GIR 030	16CG-4-224	-	-	10.5	814	High Amylose	Intermediate
19GIR 031	16CG-4-226	-	-	11.7	732	High Amylose	Intermediate
19GIR 032	16CG-4-227	-	-	10.3	773	High Amylose	Intermediate
19GIR 033	16CG-4-228	-	-	10.4	876	High Amylose	Intermediate
19GIR 034	16CG-4-233	-	-	12.5	812	High Amylose	Intermediate
19GIR 035	16CG-4-234	-	-	10.3	964	High Amylose	Intermediate
19GIR 036	16CG-5-237	-	-	10.9	878	High Amylose	Intermediate
19GIR 037	16CG-5-239	-	-	12.3	772	High Amylose	Intermediate
19GIR 038	16CG-5-241	-	-	13.1	751	High Amylose	Intermediate
19GIR 039	16CG-5-243	-	-	12.4	851	High Amylose	Intermediate
19GIR 040	16CG-5-244	-	-	12.6	953	High Amylose	Intermediate
19GIR 041	16CG-5-256	-	-	11.9	982	High Amylose	Intermediate
19GIR 042	16CG-5-257	-	-	12.6	775	High Amylose	Intermediate
19GIR 043	16CG-5-259	-	-	11.4	951	High Amylose	Intermediate
19GIR 044	16CG-5-261	-	-	12.7	764	High Amylose	Intermediate
19GIR 045	16CG-5-262	-	-	10.3	673	High Amylose	Intermediate
19GIR 046	16CG-5-264	-	-	11.1	762	High Amylose	Intermediate
19GIR 047	16CG-6-265	-	-	12.3	659	High Amylose	Intermediate
19GIR 048	16CG-6-267	-	-	13.2	825	High Amylose	Intermediate
19GIR 049	16CG-6-269	-	-	10.4	826	High Amylose	Intermediate

19GIR 050	16CG-6-270	-	-	11.2	923	High Amylose	Intermediate
19GIR 051	16CG-6-172	-	-	11.4	987	High Amylose	Intermediate
19GIR 052	16CG-67-24	-	-	12.8	874	High Amylose	Intermediate
19GIR 053	16CG-6-277	-	-	13.3	705	High Amylose	Intermediate
19GIR 054	16CG-6-278	-	-	13.2	982	High Amylose	Intermediate
19GIR 055	16CG-6-279	-	-	11.0	774	High Amylose	Intermediate
19GIR 056	16CG-6-280	-	-	13.2	872	High Amylose	Intermediate
19GIR 057	16CG-6-281	-	-	12.3	853	High Amylose	Intermediate
19GIR 058	16CG-6-282	-	-	11.6	913	High Amylose	Intermediate
19GIR 059	16CG-6-284	-	-	12.2	865	High Amylose	Intermediate
19GIR 060	16CG-6-285	-	-	10.0	873	High Amylose	Intermediate
19GIR 061	16CG-7-287	-	-	13.2	977	High Amylose	Intermediate
19GIR 062	16CG-7-288	-	-	10.1	853	High Amylose	Intermediate
19GIR 063	16CG-7-289	-	-	12.2	672	High Amylose	Intermediate
19GIR 064	16CG-7-291	-	-	11.2	654	High Amylose	Intermediate
19GIR 065	16CG-7-292	-	-	10.7	663	High Amylose	Intermediate
19GIR 066	16CG-7-295	-	-	10.7	669	High Amylose	Intermediate
19GIR 067	16CG-7-296	-	-	12.6	879	High Amylose	Intermediate
19GIR 068	16CG-7-298	-	-	11.9	718	High Amylose	Intermediate
19GIR 069	16CG-7-299	-	-	12.5	885	High Amylose	Intermediate
19GIR 070	16CG-7-300	-	-	12.3	896	High Amylose	Intermediate
19GIR 071	16CG-7-301	-	-	10.8	923	High Amylose	Intermediate
19GIR 072	16CG-7-302	-	-	11.4	894	High Amylose	Intermediate
19GIR 073	16CG-7-303	-	-	10.3	792	High Amylose	Intermediate
19GIR 074	16CG-7-306	-	-	10.4	664	High Amylose	Intermediate
19GIR 075	16CG-7-307	-	-	13.2	999	High Amylose	Intermediate
19GIR 076	16CG-7-309	-	-	10.1	843	High Amylose	Intermediate
19GIR 077	16CG-7-311	-	-	12.9	844	High Amylose	Intermediate
19GIR 078	16CG-7-312	-	-	11.9	947	High Amylose	Intermediate
19GIR 079	16CG-7-314	-	-	11.9	933	High Amylose	Intermediate
19GIR 080	16CG-7-315	-	-	12.1	964	High Amylose	Intermediate
19GIR 081	16CG-8-316	-	-	12.2	942	High Amylose	Intermediate
19GIR 082	16CG-8-318	-	-	13.3	811	High Amylose	Intermediate
19GIR 083	16CG-8-319	-	-	10.6	781	High Amylose	Intermediate
19GIR 084	16CG-8-320	-	-	11.2	688	High Amylose	Intermediate
19GIR 085	16CG-8-321	-	-	12.3	975	High Amylose	Intermediate
19GIR 086	16CG-8-322	-	-	10.8	755	High Amylose	Intermediate
19GIR 087	16CG-8-324	-	-	12.2	885	High Amylose	Intermediate
19GIR 088	16CG-8-325	-	-	11.3	884	High Amylose	Intermediate
19GIR 089	16CG-8-326	-	-	10.2	983	High Amylose	Intermediate
19GIR 090	16CG-8-327	-	-	10.8	822	High Amylose	Intermediate
19GIR 091	16CG-8-328	-	-	10.3	948	High Amylose	Intermediate
19GIR 092	16CG-8-329	-	-	12.5	727	High Amylose	Intermediate
19GIR 093	16CG-8-330	-	-	12.3	875	High Amylose	Intermediate
19GIR 094	16CG-8-332	-	-	11.1	824	High Amylose	Intermediate
19GIR 095	16CG-8-333	-	-	11.8	955	High Amylose	Intermediate
CCDR	Check	-	-	7.1	823	High Amylose	High/Intermediate
CPRS	Check	-	-	7.2	782	High Amylose	High/Intermediate

* Protein Content determined using N-Combustion analyzer (% w/w).† BOC = Bran Oil Content (g/100g).
††RS = Resistant starch (%, w/w). ††† Yield (lbs).

3. Marker Data for GI rice lines

Table 3. Marker data of GI lines.

No.	Plant ID	Blast Genes	Type	ALK	WaxyExon1	WaxyExon2	Waxy Hap)	Amylose Content	Gel Temp
1	17G014	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
2	17G023	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
3	17G032	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
4	17G045	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
5	17G047	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
6	17G096	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
7	17G098	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
8	17G102	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
9	17G107	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
10	17G113	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
11	17G121	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
12	17G122	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
13	17G133	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
14	17G145	Pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
15	17G149	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
16	17G065	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
17	17G076	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
18	17G132	Pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
19	17G134	Pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
20	17G157	Pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
21	17G159	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
22	17G169	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
23	17G186	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
24	17G187	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
25	17G191	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
26	17G198	Pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
27	17G204	Pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
28	16G103	Pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
29	16G109	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
30	16G116	Pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
31	16G123	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
32	16G132	Pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
33	16G140	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
34	16G144	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
35	16G169	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
36	16G173	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
37	16G178	Pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
38	16G187	Pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
39	16G199	Pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
40	16G150	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
41	16G154	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
42	16G178	pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
43	16G198	Pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
44	16G203	Pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy3(2)	Int Am	Int Gel
45	15G256	Pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
46	15G278	Pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
47	15G379	Pi-ta^2, Pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
48	15G601	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
49	15G759	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel
50	15GG88	pi-ta^2, pi-b	L	IGT(2)	Std(2)	Std(2)	Amy2(2)	Int Am	Int Gel

L = Long Grain.

4. Performance of Select Advanced Lines in the Diversity PY Tests.

Thirteen advanced lines with different enhanced genetic traits that include disease resistance, chalk, protein content and yield were placed in the Diversity PY test in a collaboration with the Breeding Project. The trials were carried out on the South Farm of the HRCRRS. In addition to agronomic traits, the lines were evaluated using DNA makers for several important traits (Tables 3A-C).

Table 4A. Performance of advanced lines and their cultivar checks in the Diversity PY trials at the HRSRRS South Farm near Crowley, LA.*

No.	Plant ID	Type†	Stand	Vigor‡	Plant Height (cm)	Days to Heading	Yield (lb/A)	Total§	Whole§
1	2020DPY-HU-2	L, Conv	65.0	3.5	99.0	90.0	9,561.9	68.17	58.66
2	2020IW-DPY-2	L, Conv	77.5	2.5	93.0	89.5	9,517.6	71.27	64.59
3	2020DPY-HU-6	L, Conv	62.5	3.5	97.5	88.5	9,515.6	71.52	65.86
4	2020DPY-HU-5	L, Conv	50.0	4.5	102.5	86.5	9,345.4	70.97	65.08
5	CHNR	L, Conv	72.5	3.0	97.0	89.5	9,216.7	69.70	62.71
6	2020IW-DPY-1	L, Conv	75.0	2.5	92.5	88.5	9,134.4	69.07	61.60
7	2020DPY-HU-3	L, Conv	57.5	4.0	101.0	85.0	9,117.2	71.21	64.01
8	2020DPY-HU-1	L, Conv	67.5	4.0	101.0	86.5	8,982.1	69.31	62.68
9	2020DPY-HU-4	L, Conv	55.0	4.0	103.0	86.0	8,947.3	68.44	57.96
10	CLL17	L, Clfld	70.0	2.0	98.0	87.0	9,807.1	67.44	52.96
11	CL151	L, Clfld	77.5	2.0	96.0	87.0	9,750.5	70.26	63.81
12	CL153	L, Clfld	75.0	3.0	101.0	90.0	9,582.6	70.19	60.52
13	PVL02	L, PV	77.5	2.5	111.0	86.5	7,228.7	70.12	67.87
14	JPTR	M, Conv	72.5	3.5	94.5	93.0	11,448.0		

* Mean Value based on 3 replications.
† L = Long grain, M = Medium grain, Conv = Conventional, Clfld = Clearfield, and PV= Provisia rice.
‡ Subjective rating 1 to 5, where 1 = poor, 5 = excellent.
§ Total (total milling), Whole (whole milling).

Table 4B. Analysis of DNA makers of advanced lines and their cultivar checks in the Diversity PY trials at the HRCRRS South Farm.*

No.	Plant ID	ALK	WaxyExon1	WaxyExon6	Waxy Hap	963b_GS3	Pita-2	Piz
1	2020DPY-HU-2	IGT(2)	Std(2)	Std(2)	Amy2(2)	Lng:Lng(2)	Res(2)	Sus(2)
2	2020IW-DPY-2	IGT(2)	Std(2)	Std(2)	Amy3(2)	Lng:Lng(2)	Sus(2)	Sus(2)
3	2020DPY-HU-6	IGT(2)	Std(2)	Std(2)	Amy2(2)	Lng:Lng(2)	Sus(2)	Sus(2)
4	2020DPY-HU-5	IGT(2)	Std(2)	Std(2)	Amy2(2)	Lng:Lng(2)	Sus(2)	Sus(2)
5	CHNR	IGT(2)	Std(2)	Std(2)	Amy3(2)	Lng:Lng(2)	Sus(2)	Sus(2)
6	2020IW-DPY-1	IGT(2)	Std(2)	Std(2)	Amy3(2)	Lng:Lng(2)	Sus(2)	Sus(2)
7	2020DPY-HU-3	IGT(2)	Std(2)	Std(2)	Amy2(2)	Lng:Lng(2)	Sus(2)	Sus(2)
8	2020DPY-HU-1	IGT(2)	Std(2)	Std(2)	Amy2(2)	Lng:Lng(2)	Sus(2)	Sus(2)
9	2020DPY-HU-4	IGT(2)	Std(2)	Std(2)	Amy2(2)	Lng:Lng(2)	Sus(2)	Sus(2)
10	CLL17	IGT(2)	Std(2)	Std(2)	Amy2(2)	Lng:Lng(2)	Sus(2)	Sus(2)
11	CL151	IGT(2)	Std(2)	Std(2)	Amy2(2)	Lng:Lng(2)	Sus(2)	Sus(2)
12	CL153	IGT(2)	Std(2)	Std(2)	Amy2(2)	Lng:Lng(2)	Sus(2)	Sus(2)
13	PVL02	IGT(2)	Std(2)	Std(2)	Amy2(2)	Lng:Lng(2)	Sus(2)	Sus(2)
14	JPTR	IGT(2)	Low(2)	IntH(2)	Amy2(2)	Med:Med(2)	Sus(2)	Sus(2)

* Analysis of DNA makers was performed by the Breeding Project.

Table 4C. Analysis of DNA makers of advanced lines and their cultivar checks in the Diversity PY trials at the HRCRRS South Farm.*

No.	Plant ID	Pib	Pik	Pikm	Pik Hap	Pi9	Pubescence	GS3	SD1
1	2020DPY-HU-2	Sus(2)	T(2)	C(2)	PikM(2)	Sus(2)	Glb(2)	Lng(2)	SH(2)
2	2020IW-DPY-2	Sus(2)	T(2)	G(2)	PikS(2)	Sus(2)	Glb(2)	Lng(2)	SH(2)
3	2020DPY-HU-6	Sus(2)	T(2)	C(2)	PikM(2)	Sus(2)	Glb(2)	Lng(2)	SH(2)
4	2020DPY-HU-5	Sus(2)	T(2)	C(2)	PikM(2)	Sus(2)	Glb(2)	Lng(2)	SH(2)
5	CHNR	Sus(2)	T(2)	G(2)	PikS(2)	Sus(2)	Glb(2)	Lng(2)	SH(2)
6	2020IW-DPY-1	Sus(2)	T(2)	G(2)	PikS(2)	Sus(2)	Glb(2)	Lng(2)	SH(2)
7	2020DPY-HU-3	Sus(2)	T(2)	C(2)	PikM(2)	Sus(2)	Glb(2)	Lng(2)	SH(2)
8	2020DPY-HU-1	Sus(2)	T(2)	C(2)	PikM(2)	Sus(2)	Glb(2)	Lng(2)	SH(2)
9	2020DPY-HU-4	Sus(2)	T(2)	C(2)	PikM(2)	Sus(2)	Glb(2)	Lng(2)	SH(2)
10	CLL17	Sus(2)	T(2)	C(2)	PikM(2)	Sus(2)	Glb(2)	Lng(2)	SH(2)
11	CL151	Sus(2)	T(2)	C(2)	PikM(2)	Sus(2)	Glb(2)	Lng(2)	SH(2)
12	CL153	Sus(2)	T(2)	C(2)	PikM(2)	Sus(2)	Glb(2)	Lng(2)	SH(2)
13	PVL02	Sus(2)	T(2)	C(2)	PikM(2)	Sus(2)	Glb(2)	Lng(2)	TL(2)
14	JPTR	Sus(2)	T(2)	G(2)	PikS(2)	Sus(2)	Glb(2)	Med(2)	TL(2)

*Analysis of DNA makers was performed by the Breeding Project.

5. Improving Grain Quality.

Consistency and homogeneity of grain size and appearance are also important breeding goals of the Marker-Assisted Breeding Project of the HRCRRS in developing improved lines. Equally important is reducing the percentage of grain chalk among progeny lines. Selected lines were evaluated, and the improved lines will be advanced in the next growing season.

Table 5. Grain appearance expressed as % grain homogeneity and % chalk among GI rice lines evaluated.

Entry	Line ID	Grain Type	GH†	% Chalk
19GIR 001	16CG-1-011	L	90.3	9.8
19GIR 002	16CG-1-023	L	91.7	11.2
19GIR 003	16CG-1-025	L	91.3	4.4
19GIR 004	16CG-1-026	L	90.2	4.6
19GIR 005	16CG-1-031	L	90.5	8.7
19GIR 006	16CG-1-046	L	91.4	9.1
19GIR 007	16CG-1-055	L	91.6	3.6
19GIR 008	16CG-2-075	L	90.4	3.9
19GIR 009	16CG-2-076	L	91.9	6.6
19GIR 010	16CG-2-098	L	91.0	8.6
19GIR 011	16CG-2-099	L	90.6	9.9
19GIR 012	16CG-2-103	L	90.7	5.6
19GIR 013	16CG-2-105	L	90.6	7.2
19GIR 014	16CG-2-115	L	91.3	1.4
19GIR 015	16CG-2-134	L	89.8	1.8
19GIR 016	16CG-3-154	L	91.3	2.5
19GIR 017	16CG-3-177	L	91.3	1.3
19GIR 018	16CG-3-182	L	89.3	7.4
19GIR 019	16CG-3-186	L	90.1	10.2
19GIR 020	16CG-3-198	L	91.8	8.7
19GIR 021	16CG-3-199	L	88.6	8.5
19GIR 022	16CG-3-206	L	91.2	10.2
19GIR 023	16CG-3-211	L	91.5	7.4
19GIR 024	16CG-3-215	L	90.3	6.1
19GIR 027	16CG-4-216	L	90.4	11.4

19GIR 026	16CG-4-217	L	90.2	6.5
19GIR 027	16CG-4-218	L	93.8	2.9
19GIR 028	16CG-4-221	L	91.6	8.5
19GIR 029	16CG-4-222	L	92.2	3.3
19GIR 030	16CG-4-224	L	90.8	4.5
19GIR 031	16CG-4-226	L	90.5	3.7
19GIR 032	16CG-4-227	L	91.5	9.6
19GIR 033	16CG-4-228	L	93.7	1.6
19GIR 034	16CG-4-233	L	91.1	1.3
19GIR 035	16CG-4-234	L	93.1	1.8
19GIR 036	16CG-5-237	L	91.4	1.6
19GIR 037	16CG-5-239	L	92.6	12.5
19GIR 038	16CG-5-241	L	90.3	3.3
19GIR 039	16CG-5-243	L	97.7	7.3
19GIR 040	16CG-5-244	L	90.6	8.7
19GIR 041	16CG-5-256	L	90.3	10.1
19GIR 042	16CG-5-257	L	92.3	10.3
19GIR 043	16CG-5-259	L	92.6	1.8
19GIR 044	16CG-5-261	L	88.4	4.4
19GIR 045	16CG-5-262	L	90.4	10.0
19GIR 046	16CG-5-264	L	91.8	11.1
19GIR 047	16CG-6-265	L	91.5	9.8
19GIR 048	16CG-6-267	L	90.6	9.1
19GIR 049	16CG-6-269	L	90.8	4.4
19GIR 050	16CG-6-270	L	93.5	4.6
19GIR 051	16CG-6-172	L	90.5	8.7
19GIR 052	16CG-67-24	L	93.7	9.1
19GIR 053	16CG-6-277	L	96.4	3.6
19GIR 054	16CG-6-278	L	91.1	3.9
19GIR 055	16CG-6-279	L	94.6	6.6
19GIR 056	16CG-6-280	L	94.5	8.6
19GIR 057	16CG-6-281	L	91.3	9.6
19GIR 058	16CG-6-282	L	90.9	5.6
19GIR 059	16CG-6-284	L	91.1	7.0
19GIR 060	16CG-6-285	L	93.8	1.4
19GIR 061	16CG-7-287	L	91.5	1.8
19GIR 062	16CG-7-288	L	93.6	2.3
19GIR 063	16CG-7-289	L	93.6	1.3
19GIR 064	16CG-7-291	L	91.2	7.4
19GIR 065	16CG-7-292	L	92.4	10.2
19GIR 066	16CG-7-295	L	90.3	8.7
19GIR 067	16CG-7-296	L	91.4	8.5
19GIR 068	16CG-7-298	L	91.6	10.2
19GIR 069	16CG-7-299	L	90.4	7.4
19GIR 070	16CG-7-300	L	91.9	6.1
19GIR 071	16CG-7-301	L	91.0	11.4
19GIR 072	16CG-7-302	L	90.6	6.5
19GIR 073	16CG-7-303	L	93.7	2.9
19GIR 074	16CG-7-306	L	90.6	8.5
19GIR 075	16CG-7-307	L	93.3	3.3
19GIR 076	16CG-7-309	L	89.8	4.5
19GIR 077	16CG-7-311	L	91.3	3.7

19GIR 078	16CG-7-312	L	91.3	9.6
19GIR 079	16CG-7-314	L	89.3	1.6
19GIR 080	16CG-7-315	L	95.1	1.3
19GIR 081	16CG-8-316	L	91.8	1.8
19GIR 082	16CG-8-318	L	88.8	1.6
19GIR 083	16CG-8-319	L	91.2	8.5
19GIR 084	16CG-8-320	L	91.5	3.3
19GIR 085	16CG-8-321	L	90.6	4.5
19GIR 086	16CG-8-322	L	90.7	3.7
19GIR 087	16CG-8-324	L	90.6	9.6
19GIR 088	16CG-8-325	L	91.4	8.6
19GIR 089	16CG-8-326	L	89.8	3.9
19GIR 090	16CG-8-327	L	91.3	6.6
19GIR 091	16CG-8-328	L	93.3	8.6
19GIR 092	16CG-8-329	L	89.3	3.9
19GIR 093	16CG-8-330	L	91.3	6.6
19GIR 094	16CG-8-332	L	89.8	8.6
19GIR 095	16CG-8-333	L	91.3	1.2
CCDR	Check	L	90.3	9.1
CPRS	Check	L	91.3	8.2

[†]GH=% Grain Homogeneity,

RICE QUALITY ENHANCEMENT PROJECT: GRAIN NUTRITIONAL CONTENT AND HERBICIDE RESISTANT RICE DEVELOPMENT

I. Wenefrida and H.S. Utomo

The Rice Nutrition Enhancement Project conducted 1) grain quality evaluation among newly developed high-protein rice lines, 2) crude protein determination among high protein rice lines that was evaluated in the 2018 and 2019 replicated head-row trials, 3) crude protein determination among newer developed high-protein rice lines, 4) laboratory evaluation of glyphosate herbicide resistant rice lines, and 5) laboratory evaluation for Dual Magnum (S-metolachlor) herbicide-resistant rice lines.

1. Grain Quality of High Protein Lines

Analyses were conducted on grain quality and cooking characteristics that include 1) whole milling, 2) total milling, 3) grain shape homogeneity, 4) percent chalk, 5) gel temp, and 6) amylose content. The advanced high protein rice lines evaluated were from the 2019 planting. Data generated (Table 1) will be used to select lines with grain quality better or at least comparable to that of cultivar Frontière. Cultivar Frontière is our first commercial high-protein rice and currently being marketed as Cahokia for the northern part of the United States. The second brand marketed for the Southern part of the United States is under the trade name Prairie Acadian Rice.

Table 1. Grain quality analyses of advanced high-protein rice planted in 2019.

Entry	Pedigree	Whole	Total	Grain Shape Homogeneity	% Chalk	Gel Temp	Amylose Content
19IDV 0011	15P100674	62.4	70.1	90.8	11	Intermediate-high	21.32
19IDV 0012	15P100683	63.1	71.4	92.3	9	Intermediate	22.07
19IDV 0013	14P100731	64.5	70.6	90.9	8	Intermediate-high	21.30
19IDV 0014	14P100733	61.3	73.2	91.1	10	Intermediate-high	22.23
19IDV 0015	14P100739	63.1	69.9	91.5	12	Intermediate-high	23.15
19IDV 0016	14P100751	62.9	70.1	91.5	2	Intermediate-high	24.06
19IDV 0017	14P100771	61.1	71.7	91.5	5	Intermediate-high	23.55
19IDV 0018	14P100805	63.3	69.6	91.6	11	Intermediate-high	20.30
19IDV 0019	14P100812	64.5	71.3	91.6	11	Intermediate-high	20.69
19IDV 0020	14P100814	63.7	70.7	91.0	7	Intermediate	21.13
19IDV 0021	14P100817	63.3	69.2	91.6	10	Intermediate-high	20.26
19IDV 0022	14P100818	63.9	70.4	93.0	9	Intermediate-high	24.15
19IDV 0023	14P100821	63.7	71.3	90.2	12	Intermediate-high	22.23
19IDV 0024	14P100824	64.5	71.6	92.3	2	Intermediate	23.45
19IDV 0025	14P100825	60.5	73.0	90.2	6	Intermediate	24.08
19IDV 0026	14P100826	63.1	69.8	91.8	11	Intermediate-high	23.55
19IDV 0027	14P100833	62.9	70.2	91.5	10	Intermediate-high	20.30
19IDV 0028	14P100837	61.6	70.5	91.5	7	Intermediate-high	20.79
19IDV 0029	14P100839	62.1	69.4	91.3	10	Intermediate	20.34
19IDV 0030	14P100856	61.8	71.1	91.3	9	Intermediate	20.19
19IDV 0031	14P100876	62.3	70.6	91.6	9	Intermediate-high	21.13
19IDV 0032	CPRS	64.0	69.2	91.9	11	Intermediate-high	21.21
19IDV 0033	CCDR	60.3	70.4	92.6	10	Intermediate-high	23.65

2. Gelatinization temperature of high protein rice lines grown in 2019 planting.

Table 2. Characteristics of gelatinization temperature among high-protein rice lines grown in 2019 planting compared with the experimental checks, medium-grain Bengal (BNGL) and long grains Cheniere (CHNR), Hidalgo (HDLG), Cypress (CPRS) and Dixiebelle (DXBL).

Cell	Sample #	Seed # (Alkali Ratings)*						Average	Gel Temp†
		1	2	3	4	5	6		
C1	19-ID-23	4	2	2	4	3	3	3.0	Intermediate-high
C2	19-ID-43	5	4	6	7	6	7	5.8	Low
C3	19-ID-88	5	7	6	7	6	5	6.0	Low
C4	17-IL-HP-01	7	7	5	5	6	6	6.0	Low
B5	17-IL-HP-02	6	4	6	6	4	6	5.3	Low
C6	17-ID-17	4	2	2	4	3	3	3.0	Intermediate-high
C7	17-ID-19	3	3	5	2	3	3	3.2	Intermediate-high
C8	17-ID-21	2	2	4	3	3	4	3.0	Intermediate-high
C9	17-ID-25	3	2	3	5	3	3	3.2	Intermediate-high
C10	17-ID-26	4	4	2	2	3	3	3.0	Intermediate-high
C11	17-ID-33	3	5	3	2	3	3	3.2	Intermediate-high
C12	17-ID-35	4	4	2	2	3	3	3.0	Intermediate-high
C13	17-ID-37	3	5	3	3	3	3	3.3	Intermediate-high
C14	17-ID-39	4	4	2	3	3	3	3.2	Intermediate-high
C15	17-ID-41	3	5	3	2	3	3	3.2	Intermediate-high
C16	17-ID-43	3	5	3	2	3	3	3.2	Intermediate-high
C17	17-ID-44	3	5	3	3	3	3	3.3	Intermediate-high
C18	17-ID-45	3	4	2	2	3	4	3.0	Intermediate-high
C19	17-ID-47	3	5	3	2	3	3	3.2	Intermediate-high
C20	17-ID-48	4	4	2	2	3	3	3.0	Intermediate-high
C21	17-ID-51	3	5	3	2	3	3	3.2	Intermediate-high
C22	17-ID-62	3	5	3	2	3	3	3.2	Intermediate-high
C23	17-ID-65	4	4	2	2	3	3	3.0	Intermediate-high
C24	17-ID-77	3	5	3	2	3	3	3.2	Intermediate-high
C25	17-ID-78	3	5	3	2	3	3	3.2	Intermediate-high
C26	17-ID-82	2	4	2	4	3	3	3.0	Intermediate-high
C27	17-ID-83	4	4	2	2	3	3	3.0	Intermediate-high
C28	17-ID-88	4	4	2	2	3	3	3.0	Intermediate-high
C29	17-ID-89	3	5	3	2	2	3	3.0	Intermediate-high
C30	17-ID-93	3	5	3	2	3	3	3.2	Intermediate-high
C31	17-ID-94	2	4	2	4	3	3	3.0	Intermediate-high
C32	17-ID-99	3	5	3	3	3	3	3.3	Intermediate-high
C33	17-ID-102	4	4	2	2	3	3	3.0	Intermediate-high
C34	17-ID-104	3	5	3	2	3	3	3.2	Intermediate-high
C35	17-ID-107	3	5	3	3	3	3	3.3	Intermediate-high
C36	17-ID-108	4	4	2	2	3	3	3.0	Intermediate-high
C37	17-ID-122	3	5	3	3	3	3	3.3	Intermediate-high
C38	17-ID-124	4	4	2	2	3	3	3.0	Intermediate-high
C39	17-ID-126	3	5	3	2	2	3	3.0	Intermediate-high
C40	17-ID-127	3	5	3	2	3	3	3.2	Intermediate-high
C41	17-ID-132	4	4	2	2	3	3	3.0	Intermediate-high
C42	17-ID-134	2	4	2	4	3	3	3.0	Intermediate-high
C43	17-ID-135	3	3	3	3	5	3	3.3	Intermediate-high
C44	17-ID-137	3	5	3	2	3	3	3.2	Intermediate-high
C45	17-ID-157	3	4	2	3	3	3	3.0	Intermediate-high
C46	17-ID-158	4	4	2	2	3	3	3.0	Intermediate-high

C47	17-ID-162	3	5	3	2	3	3	3.2	Intermediate-high
C48	17-ID-167	3	3	3	5	3	3	3.3	Intermediate-high
C49	17-ID-168	3	5	3	2	3	3	3.2	Intermediate-high
C50	17-ID-172	3	4	2	2	3	4	3.0	Intermediate-high
C51	17-ID-173	4	4	2	3	3	3	3.2	Intermediate-high
C52	17-ID-178	3	5	3	2	2	3	3.0	Intermediate-high
C53	17-ID-179	3	5	3	3	3	3	3.3	Intermediate-high
C54	17-ID-186	3	5	3	2	3	3	3.2	Intermediate-high
C55	17-ID-187	2	4	2	4	3	3	3.0	Intermediate-high
C56	17-ID-188	4	2	4	3	3	3	3.2	Intermediate-high
C57	17-ID-190	3	4	2	2	4	3	3.0	Intermediate-high
C58	17-ID-192	3	5	3	3	3	3	3.3	Intermediate-high
C59	17-ID-193	3	4	2	2	3	4	3.0	Intermediate-high
C60	17-ID-194	3	5	3	3	3	3	3.3	Intermediate-high
A1	BNGL	5	6	6	5	6	6	5.7	Low
A2	CHNR	4	4	2	3	5	2	3.3	Intermediate-high
A3	HDLG	3	2	2	2	2	2	2.2	High
A4	DXBL	4	3	2	3	3	3	3.0	Intermediate-high
A5	CPRS	4	3	3	4	4	4	3.7	Intermediate-high

* The degree of spreading was determined by incubating six grains of milled rice in 10 ml of 1.7% KOH for 24 hours at 30 °C using a seven-point score (7=completely spread, and 1=no reaction).

† The gelatinization temperature of starch was estimated based on spreading value and determined as Low (6-7); Intermediate (4-5); Intermediate-high (3); and High (1-2).

3. Crude Protein Content of High Protein Rice Lines from the 2018 and 2019 Replicated Head-row Trials at the H. Caffey Rice Research Station, Crowley, LA.

Crude protein content among promising high-protein lines was analyzed using the N Combustion Analyzer through high-temperature digestion of samples at 850 to 1,200 °C. The values presented are based on the averaged crude N content from the 2018 and 2019 replicated head-row trials. Data collected from these tests will be used to select lines to be advanced to PY trials. The PY tests will employ a bigger plot size to allow for grain yield evaluations.

Table 3. Averaged crude protein content of 100 high protein lines in the multi-year 2018 and 2019 replicated head-row trials at the H. Rouse Caffey Rice Research Station, near Crowley, LA.

No.	Genotype	Mass	N-Cont.	Crude Protein Content	No.	Genotype	Mass	N-Cont.	Crude Protein Content
1	15R-5001pan1	0.10	1.97	12.31	**51**	15R -5187pan5	0.09	1.99	12.44
2	15R-5003pan1	0.11	2.08	13.00	**52**	15R -5188pan2	0.13	1.77	11.06
3	15R-5020pan3	0.09	2.17	13.56	**53**	15R -5190pan4	0.11	1.96	12.25
4	15R-5021pan1	0.11	1.76	11.00	**54**	15R -5191pan2	0.09	1.91	11.94
5	15R-5033pan3	0.12	2.42	15.13	**55**	15R -5192pan2	0.11	1.62	10.13
6	15R-5041pan2	0.10	2.27	14.19	**56**	15R -5195pan6	0.11	2.08	13.00
7	15R-5043pan3	0.12	1.86	11.63	**57**	15R -5197pan1	0.11	1.85	11.56
8	15R-5045pan1	0.11	1.62	10.13	**58**	15R -5198pan6	2.42	1.81	11.31
9	15R-5046pan1	0.11	1.87	11.69	**59**	15R -5202pan7	2.27	1.79	11.19
10	15R-5050pan1	0.09	1.62	10.13	**60**	15R -5203pan2	0.12	1.84	11.50
11	15R-5051pan2	0.11	2.3	14.38	**61**	15R -5206pan5	0.10	2.49	15.56
12	15R -5053pan4	0.12	2.19	13.69	**62**	15R -5208pan2	0.12	2.17	13.56
13	15R -5055pan4	0.11	2.41	15.06	**63**	15R -5209pan3	0.12	1.92	12.00
14	15R -5062pan1	0.10	2.44	15.25	**64**	15R -5211pan4	0.10	2.41	15.06

15	15R -5064pan3	0.11	2.17	13.56	**65**	15R -5216pan2	0.12	2.21	13.81
16	15R -5065pan3	0.10	1.99	12.44	**66**	15R -5218pan4	0.11	1.98	12.38
17	15R -5067pan2	0.11	1.8	11.25	**67**	15R -5219pan2	0.11	2.01	12.56
18	15R -5068pan1	0.11	2.35	14.69	**68**	15R -5222pan5	0.11	2.03	12.69
19	15R -5069pan4	0.12	1.8	11.25	**69**	15R -5224pan4	0.12	2.11	13.19
20	15R -5071pan2	0.10	1.78	11.13	**70**	15R -5225pan3	0.12	2.22	13.88
21	15R -5072pan4	0.11	1.84	11.50	**71**	15R -5226pan3	0.13	1.98	12.38
22	15R -5073pan5	0.12	2.22	13.88	**72**	15R -5228pan2	0.11	1.71	10.69
23	15R -5074pan2	0.11	2.34	14.63	**73**	15R -5229pan3	0.11	1.72	10.75
24	15R -5076pan5	0.12	1.77	11.06	**74**	15R -5230pan1	0.13	1.81	11.31
25	15R -5078pan3	0.11	1.92	12.00	**75**	15R -5232pan1	0.09	1.79	11.19
26	15R -5080pan3	0.13	2.32	14.50	**76**	15R -5239pan5	0.13	2.44	15.25
27	15R -5082pan2	0.12	1.97	12.31	**77**	15R -5241pan8	0.11	1.89	11.81
28	15R -5091pan6	0.09	2.36	14.75	**78**	15R -5242pan4	0.10	1.93	12.06
29	15R -5094pan4	0.12	2.33	14.56	**79**	15R -5243pan3	0.12	2.08	13.00
30	15R -5096pan3	0.10	1.66	10.38	**80**	15R -5248pan1	0.12	2.08	13.00
31	15R -5098pan2	0.12	1.89	11.81	**81**	15R -5251pan6	0.09	1.99	12.44
32	15R -5101pan3	0.12	1.99	12.44	**82**	15R -5253pan5	0.11	2.19	13.69
33	15R -5102pan5	0.10	1.98	12.38	**83**	15R -5254pan1	0.10	2.4	15.00
34	15R -5105pan1	0.09	2.1	13.13	**84**	15R -5261pan4	0.11	2.42	15.13
35	15R -5117pan1	0.11	1.88	11.75	**85**	15R -5263pan5	0.13	2.09	13.06
36	15R -5118pan2	0.11	1.92	12.00	**86**	15R -5265pan1	0.10	2.15	13.44
37	15R -5119pan2	0.10	1.89	11.81	**87**	15R -5267pan1	0.13	2.04	12.75
38	15R -5122pan4	0.11	1.69	10.56	**88**	15R -5571pan1	0.12	2.37	14.81
39	15R -5124pan5	0.10	2.09	13.06	**89**	15R -5573pan2	0.10	2.3	14.38
40	15R -5132pan3	0.11	2.25	14.06	**90**	15R -5588pan6	0.13	1.67	10.44
41	15R -5135pan1	0.14	2.05	12.81	**91**	15R -5589pan1	0.14	1.67	10.44
42	15R -5136pan1	0.12	2.4	15.00	**92**	15R -5592pan3	0.11	2.08	13.00
43	15R -5159pan4	0.09	2.21	13.81	**93**	15R -5593pan3	0.12	2.09	13.06
44	15R -5164pan3	0.13	1.94	12.13	**94**	15R -5594pan5	0.11	1.89	11.81
45	15R -5165pan7	0.11	1.79	11.19	**95**	15R -5596pan3	0.10	1.74	10.88
46	15R-5166pan2	0.12	2.05	12.81	**96**	15R -5597pan1	0.10	2.35	14.69
47	15R -5174pan2	0.12	2.01	12.56	**97**	15R -5598pan2	0.13	2.3	14.38
48	15R-5178pan2	0.10	2.31	14.44	**98**	15R -5599pan1	0.12	1.98	12.38
49	15R-5179pan4	0.13	2.14	13.38	**99**	15R -6003pan3	0.11	1.79	11.19
50	15R-5182pan3	0.10	2.25	14.06	**100**	15R -6011pan4	0.11	2.1	13.13

4. Crude Protein Content of Newer Lines.

Every year, newer versions of high-protein rice lines are developed through a series of mutational experiments. In the 2019 planting season, field tests were carried out for the 120 promising lines previously selected from 1,400 newly developed high-protein lines (Table 4). In addition to high-protein content, selections were emphasized also on grain quality aspects. The ten most promising lines that have stable protein content will be advanced to the replicated headrow and PY trials in the next growing season.

Table 4. Grain crude protein content (GCPC) of newly developed rice lines. The GCPC was determined using the N Combustion Analyzer through high temperature digestion of samples at 850 to 1,200 °C.

No.	Genotype	Mass	N-Cont.	Crude Protein Content	No.	Genotype	Mass	N-Cont.	Crude Protein Content
1	16R -6201 pan1	0.13	1.89	11.81	**61**	16R -6307 pan7	0.09	1.76	11.00
2	16R -6206 pan6	0.10	1.67	10.44	**62**	16R -6308 pan1	0.12	1.98	12.38
3	16R -6207 pan3	0.09	1.92	12.00	**63**	16R -6309 pan2	0.12	2.11	13.19
4	16R -6209 pan7	0.11	1.91	11.94	**64**	16R -6310 pan7	0.12	1.93	12.06
5	16R -6210 pan2	0.12	1.72	10.75	**65**	16R -6311 pan4	0.10	1.99	12.44
6	16R -6217 pan6	0.13	2.32	14.50	**66**	16R -6312 pan2	0.10	2.03	12.69
7	16R -6219 pan3	0.11	1.99	12.44	**67**	16R -6315 pan3	0.12	2.02	12.63
8	16R -6221 pan5	0.10	1.77	11.06	**68**	16R -6316 pan1	0.10	1.77	11.06
9	16R -6222 pan1	0.09	1.66	10.38	**69**	16R -6317 pan1	0.09	2.01	12.56
10	16R -6224 pan2	0.12	1.78	11.13	**70**	16R -6318 pan2	0.10	1.92	12.00
11	16R -6225 pan2	0.11	1.86	11.63	**71**	16R -6320 pan4	0.11	2.11	13.19
12	16R -6236 pan3	0.10	1.72	10.75	**72**	16R -6322 pan4	0.10	2.03	12.69
13	16R -6231 pan3	0.10	1.66	10.38	**73**	16R -6323 pan2	0.10	1.97	12.31
14	16R -6233 pan3	0.11	1.87	11.69	**74**	16R -6324 pan7	0.09	2.11	13.19
15	16R -6234 pan2	0.12	2.2	13.75	**75**	16R -6326 pan1	0.11	1.78	11.13
16	16R -6236 pan4	0.10	1.77	11.06	**76**	16R -6327 pan4	0.12	1.87	11.69
17	16R -6237 pan7	0.11	2.01	12.56	**77**	16R -6328 pan1	1.12	1.7	10.63
18	16R -6239 pan1	0.09	1.86	11.63	**78**	16R -6329 pan5	0.10	2.11	13.19
19	16R -6241 pan11	0.10	1.81	11.31	**79**	16R -6330 pan2	0.09	2.01	12.56
20	16R -6242 pan9	0.11	2.18	13.63	**80**	16R -6331 pan2	0.11	1.78	11.13
21	16R -6243 pan5	0.12	2.22	13.88	**81**	16R -6332 pan2	0.13	1.99	12.44
22	16R -6247 pan1	0.11	1.77	11.06	**82**	16R -6333 pan1	0.11	2	12.50
23	16R -6248 pan4	0.11	1.77	11.06	**83**	16R -6334 pan1	0.10	1.87	11.69
24	16R -6249 pan1	0.12	2.03	12.69	**84**	16R -6335 pan1	0.09	1.78	11.13
25	16R -6251 pan8	0.11	2.12	13.25	**85**	16R -6336 pan1	0.10	1.99	12.44
26	16R -6253 pan5	0.10	1.65	10.31	**86**	16R -6337 pan1	0.12	1.86	11.63
27	16R -6254 pan2	0.10	1.98	12.38	**87**	16R -6338 pan4	0.11	1.77	11.06
27	16R -6256 pan1	0.12	1.99	12.44	**88**	16R -6339 pan4	0.10	1.97	12.31
29	16R -6257 pan2	0.11	1.78	11.13	**89**	16R -6340 pan6	0.11	1.87	11.69
30	16R -6258 pan5	0.09	1.78	11.13	**90**	16R -6342 pan6	0.11	1.77	11.06
31	16R -6259 pan5	0.12	1.95	12.19	**91**	16R -6343 pan2	0.12	1.79	11.19
32	16R -6260 pan7	0.10	1.78	11.13	**92**	16R -6344 pan2	0.10	2.11	13.19
33	16R -6261 pan3	0.11	1.65	10.31	**93**	16R -6345 pan5	0.11	2.09	13.06
34	16R -6263 pan8	0.10	1.98	12.38	**94**	16R -6346 pan2	0.12	2.05	12.81
35	16R -6264 pan3	0.12	1.77	11.06	**95**	16R -6349 pan2	0.11	2.12	13.25
36	16R -6265 pan1	0.09	2.12	13.25	**96**	16R -6350 pan4	0.11	2.32	14.50
37	16R -6268 pan1	0.11	1.96	12.25	**97**	16R -6354 pan2	0.12	1.87	11.69
38	16R -6269 pan2	0.11	1.77	11.06	**98**	16R -6355 pan4	0.12	1.97	12.31
39	16R -6270 pan6	0.10	1.87	11.69	**99**	16R -6357 pan4	0.12	1.77	11.06
40	16R -6275 pan6	0.12	1.77	11.06	**100**	16R -6358 pan1	0.11	1.87	11.69
41	16R -6277 pan7	0.12	1.87	11.69	**101**	16R -6359 pan1	0.10	1.89	11.81
42	16R -6278 pan1	0.11	1.84	11.50	**102**	16R -6362 pan1	0.11	2.21	13.81
43	16R -6279 pan5	0.12	1.65	10.31	**103**	16R -6363 pan5	0.10	2.08	13.00

44	16R -6280 pan4	0.09	1.78	11.13	**104**	16R -6364 pan3	0.10	1.76	11.00
45	16R -6283 pan1	0.11	1.91	11.94	**105**	16R -6367 pan3	0.11	1.87	11.69
46	16R -6284 pan2	0.11	1.74	10.88	**106**	16R -6368 pan1	0.12	0.79	4.94
47	16R -6285 pan2	0.10	1.67	10.44	**107**	16R -6369 pan3	0.11	1.87	11.69
48	16R -6286 pan3	0.11	2.02	12.63	**108**	16R -6370 pan1	0.12	1.98	12.38
49	16R -6287 pan3	0.12	2.07	12.94	**109**	16R -6372 pan4	0.11	2.01	12.56
50	16R -6288 pan5	0.11	1.87	11.69	**110**	16R -6376 pan3	0.10	1.96	12.25
51	16R -6289 pan2	0.11	1.78	11.13	**111**	16R -6377 pan3	0.12	1.77	11.06
52	16R -6292 pan9	0.11	2.08	13.00	**112**	16R -6378 pan1	0.12	1.86	11.63
53	16R -6293 pan4	0.12	1.73	10.81	**113**	16R -6379 pan1	0.10	2.07	12.94
54	16R -6295 pan7	0.11	1.68	10.50	**114**	16R -6380 pan1	0.10	1.89	11.81
55	16R -6297 pan2	0.10	1.82	11.38	**115**	16R -6381 pan1	0.11	1.97	12.31
56	16R -6298 pan4	0.10	2.11	13.19	**116**	16R -6383 pan6	0.11	2.03	12.69
57	16R -6299 pan3	0.12	1.99	12.44	**117**	16R -6384 pan4	0.12	2.03	12.69
58	16R -6301 pan2	0.12	1.78	11.13	**118**	16R -6385 pan4	0.10	1.99	12.44
59	16R -6305 pan3	0.11	2.06	12.88	**119**	16R -6387 pan2	0.11	2.02	12.63
60	16R -6306 pan1	0.10	1.79	11.19	**120**	16R -6388 pan3	0.11	1.98	12.38

5. Glyphosate and S-metolachlor Resistant Rice: Laboratory Screening

In addition to field screening, we developed lab screening methodologies that will allow us to study resistance characteristics more precisely. Tray seed sprouter tests were evaluated for their effectiveness to study the genetics and the ease of screening of herbicide resistance. Both the progenies of the 1X surviving parental line and the original populations were screened through the tray seed sprouter methods. The progeny of 9 plants recovered from herbicide treatment of 1X rate of glyphosate were studied in laboratory screening to evaluate different responses to the increment of 0.1X from 0.5 to 1X concentrations. The objective was to identify potential differences to the herbicide responses prior to their advancement in the greenhouse. The same procedures were used to evaluate for Dual Magnum (S-metolachlor) response among S-metolachlor resistant rice previously identified. As a result of these methods, we are now able to narrow the potential glyphosate lines to three and the S-metolachlor lines to four.

RICE AGRONOMY

D.L. Harrell, M. Kongchum, J.P. Leonards, J.S. Fluitt and J.R. Hartman

INTRODUCTION

The following report documents research conducted in rice plant nutrition, cultural management, and rice rotational crops. Rice plant nutrition studies were conducted at the LSU AgCenter H. Rouse Caffey Rice Research Station (HRCRRS) and at multiple off-station locations in an effort to generate agronomic production information, representative of all Louisiana rice production areas. Rice nutrition studies were conducted in Acadia at the HRCRRS, St. Landry, Tensas, Richland and Calcasieu parishes. Cultural management studies were conducted at the HRCRRS north and south units.

The year 2020 was a difficult time for everyone. The Covid-19 pandemic limited operations and Louisiana was hit by multiple tropical storms. Regardless, it was another successful year for rice research. The storms impacted only our ratoon research at HRCRRS, and plant nutrition research at Calcasieu Parish.

We would like to express our sincere appreciation to the following off-station cooperators for their assistance in conducting this research. Our efforts would not be successful without their support:

Charlie Fontenot – St. Landry Parish
Northeast Research Station – Tensas Parish
Woodsland Plantation and Ashley Dixon – Richland Parish
Kyle Hensgens – Calcasieu Parish

Throughout this section, multiple abbreviations are used to represent common units of measure and agricultural chemicals; these abbreviations are explained below in Tables 1 and 2, respectively.

Table 1. Common abbreviations used in agronomic research at the H. Rouse Caffey Rice Research Station (HRCRRS).

Abbreviation	Explanation
A	Acre
ANOVA	Analysis of variance
bu/A	Bushels per acre
Ca	Calcium
COC	Crop oil concentrate
DAT	Days after treatment
DPF	Days preflood
DPP	Days prior to planting
Fe	Iron
ft	Feet
ft^2	Square feet
gal/A	Gallons product per acre
Head Rice	Percent unbroken kernels left after milling
in	Inches
lb	Pounds
lb/A	Pounds product per acre
lb ai/A	Pounds active ingredient per acre
Ldg-Rate	Lodging rate in percent
Ldg-Type	Lodging type on a scale from 0 to 5; where 0 = no lodging, 1 = slightly lodged (approximately 1 - 23^o angle) and 5 = lodged to ground (90^o angle)
K	Potassium
Main	First rice crop; crop growth stage prior to first harvest
Mg	Magnesium
Mn	Manganese
Mo	Molybdenum
N	Nitrogen
Na	Sodium
NA	Information not available/applicable
NUE	Nitrogen use efficiency
oz/A	Ounces product per acre
P	Phosphorus
PD	Panicle differentiation
PI	Panicle initiation
pl/m^2	Plant densities measured 14 days after seeding emergence by counting the main-stem numbers in a randomly selected area of 1 m^2 in each plot
Postharvest	Application applied immediately following main crop harvest
ppm	Parts per million
PRE	Application prior to crop emergence
Preflood	Preflood application applied 1 to 2 days prior to permanent flood establishment
Preplant	Preplanting application prior to flooding and seeding
pt/A	Pints product per acre
Ratoon	Second rice crop; crop growth after harvest of first (main) crop
HRCRRS	H. Rouse Caffey Rice Research Station, Crowley, LA
RGY	Relative grain yield
S	Sulfur
SB Severity	Sheath blight infestation on a scale from 1 to 9; where 1 = no sheath blight and 9 = severe sheath blight infestation
Total Mill	Percent of rice kernels left after milling
Zn	Zinc
10% Heading (HD)	Crop growth stage where 10% of plants within a plot have visible panicles
50% Heading (HD)	Number of days from effective seeding date to 50% panicle exertion

Table 2. Common crop protection chemicals and formulations used in agronomic research at the H. Rouse Caffey Rice Research Station (HRCRRS).

Trade Name	Common Name	Formulation	Company
Herbicides			
Aim	carfentrazone	EC2	FMC Corp.
Arrosolo	propanil + molinate	3 lb + 3 lb	RiceCo, LLC
Basagran	bentazon	4 lb	BASF
Clincher	cyhalofop	2.38 lb	Dow AgroSciences, LLC
Command	clomazone	3ME	FMC Corp.
Duet	propanil + bensulfuron	4 lb + 0.48 oz	RiceCo LLC
Grandstand R	triclopyr	3 lb	Dow AgroSciences, LLC
Grasp	Penoxsulam	SC2	Dow AgroSciences, LLC
Gambit	Halosulfuron-methyl + prosulfuron	50% + 29%	Gowan
Honcho Plus	glyphosate	4 lb	Monsanto
Liberty	glufosinate ammonium	18.19%	Bayer CropSciences
Londax	bensulfuron	60% DF	DuPont
Newpath	imazethapyr	2 lb	BASF
Permit	halosulfuron	75% WSG	Monsanto
Prowl	pendimethalin	EL 3.3	BASF
Regiment	bispyribac-sodium	80% DF	Valent USA
RiceBeaux	propanil + thiobencarb	3 lb + 3 lb	RiceCo, LLC
Ricestar HT	fenoxaprop-P-ethyl	0.58 lb	Bayer Crop Sciences
Roundup Weatherman	glyphosate	4 lb	Monsanto
Sharpen	saflufenacil	2.85 lb	BASF
Stam M4	propanil	4 lb	Dow AgroSciences, LLC
Weedar 64	2,4-D	3.8 lb	Aventis
Insecticides			
Dermacor X-100	rynaxypyr		DuPont
Karate Z	cyhalothrin	2.08 lb	Syngenta
Mustang Maxx	zeta-cypermethrin	0.8 lb	FMC Corp.
Methyl Parathion	methyl Parathion	4 lb	Cheminova
Fungicides			
Amistartop	Azoxystrobin + difenoconazole	1.67 lb + 1.05 lb	Dow AgroSciences, LLC
Diathane DF	mancozeb	75% DF	Dow AgroSciences, LLC
Stratego	propiconazole + trifloxystrobin	1.04 lb + 1.04 lb	Bayer Crop Science, LLC
Quadris	azoxystrobin	2.08 lb	Syngenta
Quilt	azoxystrobin + propiconazole	1.04 lb + 0.62 lb	Syngenta

RICE FERTILITY AND CULTURAL PRACTICE RESEARCH

D.L. Harrell, M. Kongchum, J.P. Leonards, J.S. Fluitt, and J.R. Hartman

INTRODUCTION

The following research focuses on rice production. Research topics include variety by nitrogen response, hybrid by nitrogen response, fertilizer application timing, fertilizer application rate, fertilizer source, water management and ratoon rice research.

Agronomic Response of Drill-Seeded CLJ01 to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-01

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.02
- **Extractable nutrients ppm** ..... : Ca-1,280; Cu-1.80; Mg-260; P-11.1; K-69; Na-98; S-10.8; Zn-8.5

Crop/Variety ..... : Rice / CLJ01
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Oct. 29

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, July 24

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 23
- **Drain** ..... : July 8
- **Ratoon flood** ..... : July 28
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 1. Agronomic response of drill-seeded CLJ01 to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		10/29/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	98.3	c	89.3	c	28.3	f	2985	f	1607	f	4592	f
2	UREA	30	4-5 leaf	96.5	d	87.5	d	31.8	e	5999	e	2399	ab	8398	e
3	UREA	60	4-5 leaf	97.8	c	88.8	c	32.5	de	7797	d	2500	a	10297	d
4	UREA	90	4-5 leaf	99.3	b	90.3	b	33.3	cde	9317	c	2266	abc	11582	bc
5	UREA	120	4-5 leaf	99.8	ab	90.8	ab	34.8	bc	10383	ab	2113	cde	12497	a
6	UREA	150	4-5 leaf	100.5	a	91.5	a	35.8	b	10588	ab	2052	cde	12640	a
7	UREA	180	4-5 leaf	100.5	a	91.5	a	38.5	a	10722	a	1930	e	12652	a
8	UREA	210	4-5 leaf	100.5	a	91.5	a	39.0	a	10531	ab	1918	e	12449	a
9	UREA	45	4-5 leaf	96.5	d	87.5	d	32.8	cde	7513	d	2270	abc	9783	d
	UREA	45	PD												
10	UREA	75	4-5 leaf	99.5	b	90.5	b	34.5	bcd	9078	c	2197	bcd	11276	c
	UREA	45	PD												
11	UREA	105	4-5 leaf	99.8	ab	90.8	ab	36.3	b	10017	b	1979	de	11996	ab
	UREA	45	PD												
12	UREA	135	4-5 leaf	99.8	ab	90.8	ab	35.5	b	10500	ab	2048	cde	12548	a
	UREA	45	PD												
LSD P=.05				0.75		0.75		2.15		601.6		244.5		705.2	
Standard Deviation				0.52		0.52		1.50		418.2		170.0		490.2	
CV				0.53		0.58		4.35		4.76		8.07		4.5	
Treatment F				30.853		30.853		15.735		127.750		8.055		95.696	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded PVL02 to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-02

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.02
- **Extractable nutrients ppm** ..... : Ca-1,280; Cu-1.80; Mg-260; P-11.1; K-69; Na-98; S-10.8; Zn-8.5

Crop/Variety ..... : Rice / PVL02
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 22
- **Ratoon Harvest date** ..... : Oct. 29

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, July 24

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 23
- **Drain** ..... : July 8
- **Ratoon flood** ..... : July 28
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 2. Agronomic response of drill-seeded PVL02 to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/22/2020		7/22/2020		10/29/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	96.3	e	87.3	e	31.0	e	3425	f	1818	bcd	5243	g
2	UREA	30	4-5 leaf	97.8	d	88.8	d	32.8	de	6336	e	2054	ab	8390	f
3	UREA	60	4-5 leaf	98.8	c	89.8	c	38.8	c	8350	c	2069	a	10419	d
4	UREA	90	4-5 leaf	100.3	b	91.3	b	38.8	c	9258	b	2041	ab	11299	bc
5	UREA	120	4-5 leaf	100.3	b	91.3	b	41.0	c	10135	a	1814	bcd	11949	a
6	UREA	150	4-5 leaf	101.3	a	92.3	a	41.0	c	10061	a	1690	cde	11752	ab
7	UREA	180	4-5 leaf	102.0	a	93.0	a	45.5	a	9887	a	1604	de	11491	abc
8	UREA	210	4-5 leaf	101.8	a	92.8	a	44.5	ab	9972	a	1472	e	11443	bc
9	UREA	45	4-5 leaf	97.3	d	88.3	d	35.3	d	7609	d	2072	a	9681	e
	UREA	45	PD												
10	UREA	75	4-5 leaf	99.8	b	90.8	b	41.5	bc	9262	b	1898	abc	11161	c
	UREA	45	PD												
11	UREA	105	4-5 leaf	100.3	b	91.3	b	41.5	bc	9766	a	1831	a-d	11596	abc
	UREA	45	PD												
12	UREA	135	4-5 leaf	101.5	a	92.5	a	41.0	c	9808	a	1678	cde	11485	abc
	UREA	45	PD												
LSD P=.05				0.93		0.93		3.46		399.2		243.8		469.8	
Standard Deviation				0.64		0.64		2.40		277.5		169.5		326.6	
CV				0.65		0.71		6.1		3.21		9.23		3.11	
Treatment F				33.915		33.915		13.384		210.799		5.536		141.692	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded CLL15 to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-03

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.02
- **Extractable nutrients ppm** ..... : Ca-1,280; Cu-1.80; Mg-260; P-11.1; K-69; Na-98; S-10.8; Zn-8.5

Crop/Variety ..... : Rice / CLL15
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 22
- **Ratoon Harvest date** ..... : Oct. 29

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, July 24

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 23
- **Drain** ..... : July 8
- **Ratoon flood** ..... : July 28
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 3. Agronomic response of drill-seeded CLL15 to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/22/2020		7/22/2020		10/29/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	94.8	g	85.8	g	27.8	f	4036	f	1165	cd	5200	f
2	UREA	30	4-5 leaf	95.0	g	86.0	g	29.3	ef	6054	e	1108	d	7162	e
3	UREA	60	4-5 leaf	96.5	ef	87.5	ef	30.3	def	8655	c	1382	c	10038	c
4	UREA	90	4-5 leaf	98.0	cd	89.0	cd	33.3	abc	9606	b	1739	b	11345	b
5	UREA	120	4-5 leaf	98.5	bc	89.5	bc	32.8	bcd	10546	a	1847	b	12393	a
6	UREA	150	4-5 leaf	99.3	ab	90.3	ab	33.8	ab	10757	a	1950	ab	12708	a
7	UREA	180	4-5 leaf	99.8	a	90.8	a	33.3	abc	10367	a	2133	a	12500	a
8	UREA	210	4-5 leaf	99.8	a	90.8	a	35.8	a	10902	a	2194	a	13096	a
9	UREA	45	4-5 leaf	95.5	fg	86.5	fg	30.8	cde	7570	d	1354	cd	8924	d
	UREA	45	PD												
10	UREA	75	4-5 leaf	97.3	de	88.3	de	31.0	cde	9212	bc	1405	c	10617	bc
	UREA	45	PD												
11	UREA	105	4-5 leaf	98.0	cd	89.0	cd	31.8	b-e	10523	a	1979	ab	12502	a
	UREA	45	PD												
12	UREA	135	4-5 leaf	99.5	ab	90.5	ab	34.3	ab	10677	a	1984	ab	12660	a
	UREA	45	PD												
LSD P=.05				1.05		1.05		2.53		719.1		270.9		773.9	
Standard Deviation				0.73		0.73		1.76		499.8		188.3		537.9	
CV				0.75		0.82		5.5		5.51		11.16		5.0	
Treatment F				25.552		25.552		6.726		75.573		16.594		87.588	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded CLM04 to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-04

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.02
- **Extractable nutrients ppm** ..... : Ca-1,280; Cu-1.80; Mg-260; P-11.1; K-69; Na-98; S-10.8; Zn-8.5

Crop/Variety ..... : Rice / CLM04
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Oct. 29

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, July 24

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 23
- **Drain** ..... : July 8
- **Ratoon flood** ..... : July 28
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 4. Agronomic response of drill-seeded CLM04 to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		10/29/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		Days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	105.0	a	96.0	a	31.0	d	4108	d	1658	c	5766	e
2	UREA	30	4-5 leaf	102.3	f	93.3	f	33.8	c	6020	c	2309	abc	8329	d
3	UREA	60	4-5 leaf	103.0	de	94.0	de	34.0	c	8566	b	2758	ab	11324	bc
4	UREA	90	4-5 leaf	103.3	cd	94.3	cd	36.0	abc	9220	ab	2919	a	12139	abc
5	UREA	120	4-5 leaf	103.3	cd	94.3	cd	36.0	abc	10212	a	2625	ab	12837	ab
6	UREA	150	4-5 leaf	103.8	bc	94.8	bc	35.8	abc	10399	a	2745	ab	13145	a
7	UREA	180	4-5 leaf	104.0	b	95.0	b	36.5	ab	10256	a	2556	ab	12811	ab
8	UREA	210	4-5 leaf	104.0	b	95.0	b	38.0	a	10059	a	2094	bc	12153	abc
9	UREA	45	4-5 leaf	102.5	ef	93.5	ef	34.5	bc	8270	b	2409	ab	10679	c
	UREA	45	PD												
10	UREA	75	4-5 leaf	102.5	ef	93.5	ef	36.0	abc	9599	ab	2486	ab	12085	abc
	UREA	45	PD												
11	UREA	105	4-5 leaf	103.0	de	94.0	de	37.0	a	10322	a	2671	ab	12993	a
	UREA	45	PD												
12	UREA	135	4-5 leaf	103.5	bcd	94.5	bcd	37.3	a	10276	a	2595	ab	12871	a
	UREA	45	PD												
LSD P=.05				0.59		0.59		2.27		1410.0		666.1		1542.2	
Standard Deviation				0.41		0.41		1.58		980.1		463.0		1072.0	
CV				0.4		0.43		4.44		10.96		18.63		9.38	
Treatment F				14.545		14.545		5.842		16.431		2.163		17.428	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0430		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded CLL17 to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-05

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.02
- **Extractable nutrients ppm** ..... : Ca-1,280; Cu-1.80; Mg-260; P-11.1; K-69; Na-98; S-10.8; Zn-8.5

Crop/Variety ..... : Rice / CLL17
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Oct. 29

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, July 24

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 23
- **Drain** ..... : July 8
- **Ratoon flood** ..... : July 28
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 5. Agronomic response of drill-seeded CLL17 to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle									
Rating Date								7/23/2020				7/23/2020		10/29/2020			
Rating Type				50% HD		50% HD		Height		Lodge		Yield		Yield		Total Yield	
Rating Unit				days		days		in		% plot	rate	lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main	Main	Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage														
1	UREA	0	4-5 leaf	95.3	fg	87.3	fg	29.8	f	0.0	a 0.0 a	4725	e	1223	f	5948	g
2	UREA	30	4-5 leaf	94.5	g	86.5	g	32.8	e	0.0	a 0.0 a	7624	d	1387	ef	9011	f
3	UREA	60	4-5 leaf	95.5	f	87.5	f	34.5	de	0.0	a 0.0 a	9447	c	1418	def	10865	e
4	UREA	90	4-5 leaf	96.8	de	88.8	de	35.3	cd	0.0	a 0.0 a	10575	b	1944	bc	12519	cd
5	UREA	120	4-5 leaf	97.5	bcd	89.5	bcd	35.5	cd	0.0	a 0.0 a	11279	a	2172	abc	13451	ab
6	UREA	150	4-5 leaf	97.8	abc	89.8	abc	37.8	ab	0.0	a 0.0 a	11486	a	2474	a	13960	a
7	UREA	180	4-5 leaf	98.5	a	90.5	a	37.5	ab	0.0	a 0.0 a	11387	a	2427	ab	13814	ab
8	UREA	210	4-5 leaf	98.5	a	90.5	a	38.0	a	10.0	a 1.0 a	11194	a	1913	bcd	13106	bc
9	UREA	45	4-5 leaf	95.3	fg	87.3	fg	34.3	de	0.0	a 0.0 a	9191	c	1359	ef	10550	e
	UREA	45	PD														
10	UREA	75	4-5 leaf	96.5	e	88.5	e	34.8	d	0.0	a 0.0 a	10457	b	1774	cde	12231	d
	UREA	45	PD														
11	UREA	105	4-5 leaf	97.0	cde	89.0	cde	36.0	bcd	0.0	a 0.0 a	11145	a	2131	abc	13277	abc
	UREA	45	PD														
12	UREA	135	4-5 leaf	98.0	ab	90.0	ab	36.8	abc	0.0	a 0.0 a	11233	a	2277	abc	13509	ab
	UREA	45	PD														
LSD P=.05				0.82		0.82		1.94		8.31	0.83	492.1		515.9		765.0	
Standard Deviation				0.57		0.57		1.35		5.77	0.58	342.1		358.6		531.7	
CV				0.59		0.65		3.83		692.82	692.82	3.43		19.13		4.49	
Treatment F				22.708		22.708		11.974		1.000	1.000	139.833		6.033		81.523	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.4671	0.4671	0.0001		0.0001		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded LA2140 to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-06

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.02
- **Extractable nutrients ppm** ..... : Ca-1,280; Cu-1.80; Mg-260; P-11.1; K-69; Na-98; S-10.8; Zn-8.5

Crop/Variety ..... : Rice / LA2140
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Oct. 29

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, July 24

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 23
- **Drain** ..... : July 8
- **Ratoon flood** ..... : July 28
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 6. Agronomic response of drill-seeded LA2140 to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		10/29/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	93.5	e	85.5	e	26.5	e	4009	f	1230	c	5239	f
2	UREA	30	4-5 leaf	94.3	de	86.3	de	31.3	d	6439	e	1196	c	7635	e
3	UREA	60	4-5 leaf	95.0	d	87.0	d	32.8	bcd	8221	d	1163	c	9385	d
4	UREA	90	4-5 leaf	96.0	c	88.0	c	35.5	ab	9473	bc	1342	bc	10815	bc
5	UREA	120	4-5 leaf	96.8	bc	88.8	bc	33.5	bcd	9936	a	1342	bc	11278	ab
6	UREA	150	4-5 leaf	97.8	a	89.8	a	37.0	a	10099	a	1564	a	11663	a
7	UREA	180	4-5 leaf	97.8	a	89.8	a	35.5	ab	10001	a	1466	ab	11467	a
8	UREA	210	4-5 leaf	97.5	ab	89.5	ab	37.0	a	10112	a	1631	a	11742	a
9	UREA	45	4-5 leaf	95.0	d	87.0	d	32.3	cd	7994	d	1149	c	9143	d
	UREA	45	PD												
10	UREA	75	4-5 leaf	96.3	c	88.3	c	32.0	cd	9220	c	1245	c	10465	c
	UREA	45	PD												
11	UREA	105	4-5 leaf	96.8	bc	88.8	bc	34.3	abc	9866	ab	1290	bc	11156	ab
	UREA	45	PD												
12	UREA	135	4-5 leaf	97.3	ab	89.3	ab	35.5	ab	10145	a	1473	ab	11617	a
	UREA	45	PD												
LSD P=.05				0.88		0.88		2.78		455.8		203.4		596.6	
Standard Deviation				0.61		0.61		1.93		316.8		141.4		414.7	
CV				0.64		0.69		5.76		3.6		10.54		4.09	
Treatment F				21.546		21.546		9.271		142.109		5.098		92.135	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded DG263L to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-07

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.02
- **Extractable nutrients ppm** ..... : Ca-1,280; Cu-1.80; Mg-260; P-11.1; K-69; Na-98; S-10.8; Zn-8.5

Crop/Variety ..... : Rice / DG263L
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 22
- **Ratoon Harvest date** ..... : Oct. 29

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, July 24

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 23
- **Drain** ..... : July 8
- **Ratoon flood** ..... : July 28
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 7. Agronomic response of drill-seeded DG263L to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		10/29/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	88.0	f	80.0	f	26.5	d	5050	d	2459	a	7509	e
2	UREA	30	4-5 leaf	90.5	e	82.5	e	29.0	c	8506	c	2074	a	10581	d
3	UREA	60	4-5 leaf	92.3	d	84.3	d	29.3	bc	10145	b	1764	a	11910	bc
4	UREA	90	4-5 leaf	93.3	bc	85.3	bc	31.0	ab	11123	a	1451	a	12573	ab
5	UREA	120	4-5 leaf	93.8	ab	85.8	ab	32.3	a	11080	a	1868	a	12947	a
6	UREA	150	4-5 leaf	93.5	abc	85.5	abc	31.3	a	11283	a	1725	a	13009	a
7	UREA	180	4-5 leaf	94.0	ab	86.0	ab	31.0	ab	10850	a	1708	a	12558	ab
8	UREA	210	4-5 leaf	94.3	a	86.3	a	32.5	a	11514	a	1470	a	12984	a
9	UREA	45	4-5 leaf	90.5	e	82.5	e	31.0	ab	9618	b	2011	a	11629	c
	UREA	45	PD												
10	UREA	75	4-5 leaf	92.8	cd	84.8	cd	29.0	c	11014	a	1431	a	12445	abc
	UREA	45	PD												
11	UREA	105	4-5 leaf	93.5	abc	85.5	abc	31.8	a	11295	a	2012	a	13307	a
	UREA	45	PD												
12	UREA	135	4-5 leaf	94.3	a	86.3	a	31.3	a	11280	a	1671	a	12951	a
	UREA	45	PD												
LSD P=.05				0.91		0.91		2.00		699.0		687.2		901.4	
Standard Deviation				0.63		0.63		1.39		485.9		477.7		626.6	
CV				0.68		0.74		4.56		4.75		26.48		5.21	
Treatment F				37.471		37.471		6.134		58.058		1.598		26.531	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.1452		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded 1902026 CLL to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-08

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.02
- **Extractable nutrients ppm** ..... : Ca-1,280; Cu-1.80; Mg-260; P-11.1; K-69; Na-98; S-10.8; Zn-8.5

Crop/Variety ..... : Rice / 1902026 CLL
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 22
- **Ratoon Harvest date** ..... : Oct. 29

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, July 24

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 23
- **Drain** ..... : July 8
- **Ratoon flood** ..... : July 28
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 8. Agronomic response of drill-seeded 1902026 CLL to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/22/2020		7/22/2020		10/29/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	92.5	f	83.5	f	25.3	e	4178	f	1465	a	5643	e
2	UREA	30	4-5 leaf	94.0	e	85.0	e	26.8	de	6851	e	1468	a	8319	d
3	UREA	60	4-5 leaf	94.5	de	85.5	de	28.8	cd	9024	cd	1646	a	10670	bc
4	UREA	90	4-5 leaf	95.5	cd	86.5	cd	31.0	ab	10691	ab	1685	a	12375	a
5	UREA	120	4-5 leaf	97.0	ab	88.0	ab	31.3	ab	10861	ab	1427	a	12289	a
6	UREA	150	4-5 leaf	96.8	ab	87.8	ab	31.5	ab	11154	ab	1522	a	12676	a
7	UREA	180	4-5 leaf	96.5	bc	87.5	bc	31.3	ab	11404	a	1530	a	12934	a
8	UREA	210	4-5 leaf	97.8	a	88.8	a	33.0	a	10473	b	1595	a	12068	a
9	UREA	45	4-5 leaf	94.5	de	85.5	de	29.5	bc	8758	d	1406	a	10163	c
	UREA	45	PD												
10	UREA	75	4-5 leaf	95.0	de	86.0	de	29.5	bc	9688	c	1381	a	11069	b
	UREA	45	PD												
11	UREA	105	4-5 leaf	96.3	bc	87.3	bc	29.5	bc	11130	ab	1632	a	12762	a
	UREA	45	PD												
12	UREA	135	4-5 leaf	96.3	bc	87.3	bc	31.5	ab	11167	ab	1581	a	12748	a
	UREA	45	PD												
LSD P=.05				1.06		1.06		2.01		739.5		354.3		898.9	
Standard Deviation				0.73		0.73		1.40		514.0		246.3		624.8	
CV				0.77		0.85		4.68		5.35		16.12		5.61	
Treatment F				16.549		16.549		9.845		71.573		0.664		50.155	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.7608		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded 1702183 CLL to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-09

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.02
- **Extractable nutrients ppm** ..... : Ca-1,280; Cu-1.80; Mg-260; P-11.1; K-69; Na-98; S-10.8; Zn-8.5

Crop/Variety ..... : Rice / 1702183 CLL
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Oct. 30

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, July 24

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 23
- **Drain** ..... : July 8
- **Ratoon flood** ..... : July 28
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 9. Agronomic response of drill-seeded 1702183 CLL to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		7/30/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	87.0	h	79.0	h	27.5	e	3434	i	1124	a	4558	i
2	UREA	30	4-5 leaf	89.0	g	81.0	g	30.0	de	6158	h	1127	a	7285	h
3	UREA	60	4-5 leaf	91.3	e	83.3	e	30.0	de	8524	f	1200	a	9724	f
4	UREA	90	4-5 leaf	92.8	d	84.8	d	32.3	bcd	10178	de	1178	a	11356	de
5	UREA	120	4-5 leaf	93.8	c	85.8	c	32.5	bcd	10912	bc	1230	a	12143	bc
6	UREA	150	4-5 leaf	94.5	b	86.5	b	33.3	abc	10895	bc	1332	a	12226	bc
7	UREA	180	4-5 leaf	96.0	a	88.0	a	32.0	bcd	11043	b	1235	a	12278	ab
8	UREA	210	4-5 leaf	95.8	a	87.8	a	35.5	a	11546	a	1198	a	12745	a
9	UREA	45	4-5 leaf	90.3	f	82.3	f	30.5	d	7915	g	1113	a	9029	g
	UREA	45	PD												
10	UREA	75	4-5 leaf	91.5	e	83.5	e	31.3	cd	9902	e	1206	a	11107	e
	UREA	45	PD												
11	UREA	105	4-5 leaf	93.8	c	85.8	c	33.8	abc	10472	cd	1255	a	11727	cd
	UREA	45	PD												
12	UREA	135	4-5 leaf	94.5	b	86.5	b	34.0	ab	11141	ab	1249	a	12390	ab
	UREA	45	PD												
LSD P=.05				0.74		0.74		2.57		449.4		143.7		504.8	
Standard Deviation				0.52		0.52		1.79		312.4		99.9		350.9	
CV				0.56		0.61		5.61		3.34		8.3		3.33	
Treatment F				114.283		114.283		5.917		245.550		1.600		202.165	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.1448		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded 1902202 L to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-10

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.02
- **Extractable nutrients ppm** ..... : Ca-1,280; Cu-1.80; Mg-260; P-11.1; K-69; Na-98; S-10.8; Zn-8.5

Crop/Variety ..... : Rice / 1902202 L
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Oct. 30

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, July 24

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 23
- **Drain** ..... : July 8
- **Ratoon flood** ..... : July 28
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 10. Agronomic response of drill-seeded 1902202 L to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		10/30/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	93.0	e	85.0	e	24.3	f	3367	f	1250	cde	4617	f
2	UREA	30	4-5 leaf	93.0	e	85.0	e	27.3	e	6446	e	1239	cde	7686	e
3	UREA	60	4-5 leaf	93.3	e	85.3	e	30.3	d	8433	cd	1206	de	9639	cd
4	UREA	90	4-5 leaf	95.0	cd	87.0	cd	32.3	abc	8913	bc	1289	cde	10203	bc
5	UREA	120	4-5 leaf	94.8	cd	86.8	cd	32.3	abc	9934	a	1448	bc	11381	a
6	UREA	150	4-5 leaf	96.0	ab	88.0	ab	32.8	abc	9987	a	1607	ab	11593	a
7	UREA	180	4-5 leaf	96.5	a	88.5	a	33.8	a	9343	abc	1570	ab	10912	ab
8	UREA	210	4-5 leaf	96.0	ab	88.0	ab	33.5	ab	9263	abc	1803	a	11066	ab
9	UREA	45	4-5 leaf	93.0	e	85.0	e	31.0	cd	7528	d	1074	e	8602	de
	UREA	45	PD												
10	UREA	75	4-5 leaf	94.3	d	86.3	d	31.8	bcd	9017	abc	1182	de	10199	bc
	UREA	45	PD												
11	UREA	105	4-5 leaf	95.3	bc	87.3	bc	32.8	abc	9632	ab	1410	bcd	11042	ab
	UREA	45	PD												
12	UREA	135	4-5 leaf	96.0	ab	88.0	ab	32.5	abc	9581	ab	1589	ab	11170	ab
	UREA	45	PD												
LSD P=.05				0.84		0.84		1.84		1008.7		236.1		1088.4	
Standard Deviation				0.59		0.59		1.28		701.2		164.1		756.6	
CV				0.62		0.68		4.11		8.29		11.81		7.69	
Treatment F				20.824		20.824		18.965		29.540		7.054		28.633	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded 1902212 L to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-11

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.02
- **Extractable nutrients ppm** ..... : Ca-1,280; Cu-1.80; Mg-260; P-11.1; K-69; Na-98; S-10.8; Zn-8.5

Crop/Variety ..... : Rice / 1902212 L
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Oct. 30

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, July 24

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 23
- **Drain** ..... : July 8
- **Ratoon flood** ..... : July 28
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 11. Agronomic response of drill-seeded 1902212 L to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		10/30/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	86.5	f	78.5	f	26.0	e	3554	f	1641	d	5194	g
2	UREA	30	4-5 leaf	87.8	f	79.8	f	28.0	de	6400	e	1989	bc	8389	f
3	UREA	60	4-5 leaf	90.0	de	82.0	de	30.3	a-d	8727	cd	2221	abc	10949	de
4	UREA	90	4-5 leaf	91.0	bcd	83.0	bcd	31.0	abc	9783	bc	2305	ab	12088	bcd
5	UREA	120	4-5 leaf	92.8	ab	84.8	ab	31.5	ab	9733	bc	2077	abc	11809	cd
6	UREA	150	4-5 leaf	92.8	ab	84.8	ab	31.8	ab	11003	a	2247	ab	13249	ab
7	UREA	180	4-5 leaf	93.5	a	85.5	a	31.3	ab	10757	ab	2386	a	13143	ab
8	UREA	210	4-5 leaf	92.5	ab	84.5	ab	32.5	a	11101	a	2244	ab	13345	a
9	UREA	45	4-5 leaf	88.3	ef	80.3	ef	28.8	cd	8178	d	2232	abc	10410	e
	UREA	45	PD												
10	UREA	75	4-5 leaf	90.3	cd	82.3	cd	29.8	bcd	10179	ab	2269	ab	12448	abc
	UREA	45	PD												
11	UREA	105	4-5 leaf	92.0	abc	84.0	abc	31.5	ab	10422	ab	2174	abc	12597	abc
	UREA	45	PD												
12	UREA	135	4-5 leaf	93.0	a	85.0	a	30.3	a-d	9908	b	1893	cd	11801	cd
	UREA	45	PD												
LSD P=.05				1.82		1.82		2.28		1070.7		347.6		1243.5	
Standard Deviation				1.27		1.27		1.58		744.3		241.6		864.4	
CV				1.4		1.53		5.24		8.14		11.29		7.66	
Treatment F				13.423		13.423		5.453		35.331		2.990		30.260	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0073		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded Jewel to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-12

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.02
- **Extractable nutrients ppm** ..... : Ca-1,280; Cu-1.80; Mg-260; P-11.1; K-69; Na-98; S-10.8; Zn-8.5

Crop/Variety ..... : Rice / Jewel
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Oct. 30

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, July 24

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 23
- **Drain** ..... : July 8
- **Ratoon flood** ..... : July 28
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 12. Agronomic response of drill-seeded Jewel to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		10/30/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	91.0	g	82.0	g	29.0	g	3651	f	1498	ef	5149	f
2	UREA	30	4-5 leaf	92.0	f	83.0	f	30.0	g	5918	e	1264	fg	7182	e
3	UREA	60	4-5 leaf	95.0	e	86.0	e	32.0	f	7426	d	1296	fg	8722	d
4	UREA	90	4-5 leaf	96.0	d	87.0	d	34.0	cde	9046	c	1732	de	10778	c
5	UREA	120	4-5 leaf	97.0	bc	88.0	bc	33.5	def	9423	bc	1919	cd	11342	c
6	UREA	150	4-5 leaf	97.8	ab	88.8	ab	35.8	bc	10231	ab	2313	ab	12544	a
7	UREA	180	4-5 leaf	98.0	a	89.0	a	36.0	ab	10138	ab	2266	bc	12404	ab
8	UREA	210	4-5 leaf	97.8	ab	88.8	ab	37.8	a	10666	a	2658	a	13324	a
9	UREA	45	4-5 leaf	96.0	d	87.0	d	33.3	ef	7230	d	1133	g	8364	d
	UREA	45	PD												
10	UREA	75	4-5 leaf	96.0	d	87.0	d	32.3	ef	9128	c	1541	ef	10669	c
	UREA	45	PD												
11	UREA	105	4-5 leaf	96.8	cd	87.8	cd	35.3	bcd	9640	bc	1812	de	11452	bc
	UREA	45	PD												
12	UREA	135	4-5 leaf	97.3	abc	88.3	abc	35.8	bc	10215	ab	2258	bc	12472	a
	UREA	45	PD												
LSD P=.05				0.91		0.91		1.78		863.3		363.1		988.7	
Standard Deviation				0.63		0.63		1.24		600.1		252.4		687.2	
CV				0.66		0.73		3.67		7.01		13.96		6.63	
Treatment F				49.868		49.868		17.461		49.531		14.787		52.777	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded Lynx to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-12

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.02
- **Extractable nutrients ppm** ..... : Ca-1,280; Cu-1.80; Mg-260; P-11.1; K-69; Na-98; S-10.8; Zn-8.5

Crop/Variety ..... : Rice / Lynx
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Oct. 30

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, July 24

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 23
- **Drain** ..... : July 8
- **Ratoon flood** ..... : July 28
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 13. Agronomic response of drill-seeded Lynx to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		10/30/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	103.5	a	94.5	a	28.0	d	4101	e	1084	d	5185	f
2	UREA	30	4-5 leaf	100.5	d	91.5	d	28.3	cd	6174	d	1156	cd	7329	e
3	UREA	60	4-5 leaf	101.0	cd	92.0	cd	31.5	ab	8304	bc	1047	d	9351	d
4	UREA	90	4-5 leaf	101.3	bcd	92.3	bcd	31.5	ab	8484	bc	1343	bcd	9827	cd
5	UREA	120	4-5 leaf	101.3	bcd	92.3	bcd	32.0	a	9702	a	1779	b	11481	a
6	UREA	150	4-5 leaf	101.8	bc	92.8	bc	31.8	ab	9106	ab	1477	bcd	10583	abc
7	UREA	180	4-5 leaf	102.0	bc	93.0	bc	32.3	a	9254	ab	1783	b	11037	ab
8	UREA	210	4-5 leaf	102.3	b	93.3	b	32.3	a	8816	abc	2254	a	11070	ab
9	UREA	45	4-5 leaf	101.0	cd	92.0	cd	30.8	ab	7841	c	1273	cd	9114	d
	UREA	45	PD												
10	UREA	75	4-5 leaf	101.0	cd	92.0	cd	30.0	bc	8634	abc	1435	bcd	10069	bcd
	UREA	45	PD												
11	UREA	105	4-5 leaf	101.3	bcd	92.3	bcd	31.8	ab	9207	ab	1278	cd	10485	abc
	UREA	45	PD												
12	UREA	135	4-5 leaf	102.0	bc	93.0	bc	30.8	ab	8942	ab	1589	bc	10531	abc
	UREA	45	PD												
LSD P=.05				1.01		1.01		1.85		1073.6		460.7		1100.0	
Standard Deviation				0.70		0.70		1.28		746.3		320.2		764.6	
CV				0.69		0.76		4.15		9.09		21.96		7.91	
Treatment F				5.201		5.201		5.146		17.920		4.752		22.102	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0002		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded RT7321 FP to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-41

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.15
- **Extractable nutrients ppm** ..... : Ca-1,200; Cu-1.45; Mg-233; P-5.8; K-57; Na-84; S-7.4; Zn-6.9

Crop/Variety ..... : Rice / RT7321 FP
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Nov. 2

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, Aug

Water management ..... : Underground irrigation
- **Flush** ..... : April 7
- **Flood** ..... : April 24
- **Drain** ..... : July 10
- **Ratoon flood** ..... : Aug. 6
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 14. Agronomic response of drill-seeded RT7321 FP to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		11/2/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	91.0	e	83.0	e	31.5	e	5743	f	1848	a	7592	e
2	UREA	60	4-5 leaf	93.0	d	85.0	d	39.3	cd	11274	e	1936	a	13210	d
3	UREA	90	4-5 leaf	93.0	d	85.0	d	42.0	ab	12211	d	2119	a	14330	c
4	UREA	120	4-5 leaf	95.5	b	87.5	b	41.3	abc	13276	ab	2182	a	15457	ab
5	UREA	150	4-5 leaf	95.3	bc	87.3	bc	42.8	a	13429	a	2191	a	15619	a
6	UREA	180	4-5 leaf	96.8	a	88.8	a	42.8	a	13144	ab	2000	a	15144	ab
7	UREA	75	4-5 leaf	92.8	d	84.8	d	38.0	d	12253	cd	2074	a	14327	c
	UREA	45	50% HD												
8	UREA	105	4-5 leaf	94.3	c	86.3	c	40.5	a-d	12790	bc	2003	a	14793	bc
	UREA	45	50% HD												
9	UREA	135	4-5 leaf	95.5	b	87.5	b	40.0	bcd	13565	a	2205	a	15770	a
	UREA	45	50% HD												
LSD P=.05				1.02		1.02		2.51		558.8		450.2		728.5	
Standard Deviation				0.70		0.70		1.72		382.9		308.5		499.2	
CV				0.74		0.81		4.32		3.2		14.96		3.56	
Treatment F				26.886		26.886		16.446		163.088		0.650		103.777	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.7287		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded RT7521 FP to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-42

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.15
- **Extractable nutrients ppm** ..... : Ca-1,200; Cu-1.45; Mg-233; P-5.8; K-57; Na-84; S-7.4; Zn-6.9

Crop/Variety ..... : Rice / RT7521 FP
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Nov. 2

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 7
- **Flood** ..... : April 24
- **Drain** ..... : July 10
- **Ratoon flood** ..... : Aug. 6
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 15. Agronomic response of drill-seeded RT7521 FP to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		11/2/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	91.3	e	83.3	e	32.3	c	6330	e	1832	cd	8161	f
2	UREA	60	4-5 leaf	93.5	d	85.5	d	39.8	b	11429	d	1601	d	13030	e
3	UREA	90	4-5 leaf	95.0	c	87.0	c	42.0	ab	12194	bc	1888	cd	14082	d
4	UREA	120	4-5 leaf	96.0	bc	88.0	bc	44.3	a	12749	ab	2122	abc	14871	bc
5	UREA	150	4-5 leaf	97.0	ab	89.0	ab	43.8	a	13261	a	2359	ab	15619	a
6	UREA	180	4-5 leaf	97.3	a	89.3	a	44.3	a	12906	a	2008	bcd	14914	abc
7	UREA	75	4-5 leaf	95.5	c	87.5	c	39.8	b	12124	c	2147	abc	14270	cd
	UREA	45	50% HD												
8	UREA	105	4-5 leaf	96.8	ab	88.8	ab	40.3	b	12999	a	2388	ab	15387	ab
	UREA	45	50% HD												
9	UREA	135	4-5 leaf	97.0	ab	89.0	ab	43.0	a	13160	a	2492	a	15652	a
	UREA	45	50% HD												
LSD P=.05				1.03		1.03		2.46		578.3		465.6		740.5	
Standard Deviation				0.71		0.71		1.69		396.3		319.0		507.4	
CV				0.74		0.81		4.11		3.33		15.25		3.62	
Treatment F				31.828		31.828		20.024		120.252		3.339		85.409	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0104		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded RT7301 to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-43

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.15
- **Extractable nutrients ppm** ..... : Ca-1,200; Cu-1.45; Mg-233; P-5.8; K-57; Na-84; S-7.4; Zn-6.9

Crop/Variety ..... : Rice / RT7301
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Nov. 2

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 7
- **Flood** ..... : April 24
- **Drain** ..... : July 10
- **Ratoon flood** ..... : Aug. 6
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 16. Agronomic response of drill-seeded RT7301 to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		11/2/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	93.0	d	85.0	d	28.3	d	4528	f	1973	a	6501	e
2	UREA	60	4-5 leaf	96.0	c	88.0	c	35.0	c	9967	e	1326	cd	11294	d
3	UREA	90	4-5 leaf	96.3	bc	88.3	bc	36.5	bc	11205	cd	1463	bcd	12668	c
4	UREA	120	4-5 leaf	96.8	abc	88.8	abc	36.5	bc	11919	bc	1143	d	13063	bc
5	UREA	150	4-5 leaf	97.0	ab	89.0	ab	37.5	ab	12644	ab	1242	d	13886	ab
6	UREA	180	4-5 leaf	97.3	a	89.3	a	38.8	a	12780	a	1780	ab	14560	a
7	UREA	75	4-5 leaf	96.0	c	88.0	c	36.0	bc	10997	d	1785	ab	12782	c
	UREA	45	50% HD												
8	UREA	105	4-5 leaf	96.5	abc	88.5	abc	36.0	bc	12105	ab	1249	d	13353	bc
	UREA	45	50% HD												
9	UREA	135	4-5 leaf	97.0	ab	89.0	ab	37.5	ab	12638	ab	1739	abc	14377	a
	UREA	45	50% HD												
LSD P=.05				0.82		0.82		1.81		785.4		439.8		961.6	
Standard Deviation				0.56		0.56		1.24		538.2		301.4		658.9	
CV				0.59		0.64		3.46		4.9		19.8		5.27	
Treatment F				20.650		20.650		23.842		92.538		3.989		55.606	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0039		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded RT7501 to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-44

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.15
- **Extractable nutrients ppm** ..... : Ca-1,200; Cu-1.45; Mg-233; P-5.8; K-57; Na-84; S-7.4; Zn-6.9

Crop/Variety ..... : Rice / RT7501
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Nov. 2

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 7
- **Flood** ..... : April 24
- **Drain** ..... : July 10
- **Ratoon flood** ..... : Aug. 6
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 17. Agronomic response of drill-seeded RT7501 to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		11/2/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	99.5	bc	91.5	bc	31.0	b	4804	e	2341	a	7145	d
2	UREA	60	4-5 leaf	98.8	c	90.8	c	37.0	a	9922	d	1203	bc	11125	c
3	UREA	90	4-5 leaf	99.5	bc	91.5	bc	38.5	a	10752	cd	1332	bc	12084	bc
4	UREA	120	4-5 leaf	100.5	ab	92.5	ab	38.5	a	11637	abc	1516	bc	13153	ab
5	UREA	150	4-5 leaf	100.8	ab	92.8	ab	38.8	a	11340	abc	1237	bc	12577	b
6	UREA	180	4-5 leaf	101.5	a	93.5	a	39.0	a	11762	ab	1410	bc	13172	ab
7	UREA	75	4-5 leaf	99.5	bc	91.5	bc	36.8	a	11009	bc	1524	bc	12532	b
	UREA	45	50% HD												
8	UREA	105	4-5 leaf	100.0	abc	92.0	abc	36.5	a	11998	a	1183	c	13182	ab
	UREA	45	50% HD												
9	UREA	135	4-5 leaf	100.5	ab	92.5	ab	38.3	a	12227	a	1646	b	13873	a
	UREA	45	50% HD												
LSD P=.05				1.55		1.55		3.45		946.9		450.2		1155.1	
Standard Deviation				1.06		1.06		2.36		648.8		308.5		791.5	
CV				1.06		1.15		6.36		6.12		20.73		6.54	
Treatment F				2.493		2.493		4.417		49.667		5.366		25.931	
Treatment Prob(F)				0.0398		0.0398		0.0022		0.0001		0.0006		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded LAH200 to Nitrogen
Fertilizer Rate and Time of Application – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-45

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.15
- **Extractable nutrients ppm** ..... : Ca-1,200; Cu-1.45; Mg-233; P-5.8; K-57; Na-84; S-7.4; Zn-6.9

Crop/Variety ..... : Rice / LAH200
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 23
- **Ratoon Harvest date** ..... : Nov. 2

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 7
- **Flood** ..... : April 24
- **Drain** ..... : July 10
- **Ratoon flood** ..... : Aug. 6
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 18. Agronomic response of drill-seeded LAH200 to nitrogen fertilizer rate and time of application. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/23/2020		7/23/2020		11/2/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	97.0	e	89.0	e	33.0	c	4693	e	1834	a	6527	d
2	UREA	60	4-5 leaf	100.0	cd	92.0	cd	39.0	b	9428	d	1712	a	11140	c
3	UREA	90	4-5 leaf	100.0	cd	92.0	cd	41.8	ab	10536	c	1888	a	12423	b
4	UREA	120	4-5 leaf	100.8	bc	92.8	bc	42.3	ab	11598	a	1666	a	13264	ab
5	UREA	150	4-5 leaf	101.5	ab	93.5	ab	43.3	a	11298	ab	1961	a	13260	ab
6	UREA	180	4-5 leaf	102.0	a	94.0	a	43.0	ab	11976	a	1887	a	13862	a
7	UREA	75	4-5 leaf	99.5	d	91.5	d	39.8	ab	10786	bc	1824	a	12610	b
	UREA	45	50% HD												
8	UREA	105	4-5 leaf	100.8	bc	92.8	bc	41.5	ab	11600	a	1921	a	13521	a
	UREA	45	50% HD												
9	UREA	135	4-5 leaf	101.5	ab	93.5	ab	41.5	ab	11591	a	1966	a	13557	a
	UREA	45	50% HD												
LSD P=.05				0.99		0.99		4.07		743.0		374.1		875.7	
Standard Deviation				0.68		0.68		2.79		509.1		256.3		600.1	
CV				0.67		0.73		6.88		4.9		13.85		4.9	
Treatment F				19.599		19.599		5.100		79.619		0.665		58.479	
Treatment Prob(F)				0.0001		0.0001		0.0009		0.0001		0.7165		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded CLJ01 to Nitrogen
Fertilizer Rate and Time of Application – St. Landry Parish

Experiment number ..... : 20-SLP-01

Site and design ..... :
- **Location/Cooperator** ..... : St. Landry Parish / Charlie Fontenot
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Tensas-Sharkey Complex
- **% organic matter** ..... : 1.69
- **pH** ..... : 7.84
- **Extractable nutrients ppm** ..... : Ca-4,983; Cu-3.17; Mg-770; P-77.8; K-245; Na-15; S-8.5; Zn-1.5

Crop/Variety ..... : Rice / CLJ01
- **Planting method/date** ..... : Drill seeded / May 7
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 14
- **Harvest date** ..... : Sept. 16

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 16
- **Drain** ..... : Sept. 4

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 9 oz/A Command, May 6
  32 oz/A Facet + .4 oz/A Regiment, June 15
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 22

Table 19. Agronomic response of drill-seeded CLJ01 to nitrogen fertilizer rate and time of application. St. Landry Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle									
Rating Date								9/16/2020		9/16/2020		9/16/2020		9/16/2020			
Rating Type				50% HD		50% HD		Height		Lodge				Moist		Yield	
Rating Unit				days		days		in		% plot		rate		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage														
1	UREA	0	4-5 leaf	80.5	e	73.5	e	35.8	d	0.0	c	0.0	b	16.0	a	6142	bcd
2	UREA	30	4-5 leaf	80.8	e	73.8	e	37.5	bcd	0.0	c	0.0	b	16.2	a	6831	ab
3	UREA	60	4-5 leaf	83.8	d	76.8	d	38.8	bc	0.0	c	0.0	b	15.9	a	7030	a
4	UREA	90	4-5 leaf	86.0	c	79.0	c	37.8	bc	0.0	c	0.0	b	15.9	a	6597	abc
5	UREA	120	4-5 leaf	83.8	d	76.8	d	40.8	a	25.0	ab	2.3	a	17.0	a	5992	cd
6	UREA	150	4-5 leaf	86.5	c	79.5	c	39.3	ab	35.0	a	2.3	a	16.3	a	6732	ab
7	UREA	180	4-5 leaf	87.3	bc	80.3	bc	39.3	ab	35.0	a	3.0	a	16.4	a	5632	d
8	UREA	210	4-5 leaf	88.8	a	81.8	a	39.0	abc	30.0	ab	2.3	a	16.7	a	5974	cd
9	UREA	45	4-5 leaf	83.0	d	76.0	d	37.3	cd	0.0	c	0.0	b	15.7	a	7277	a
	UREA	45	PD														
10	UREA	75	4-5 leaf	81.0	e	74.0	e	38.0	bc	0.0	c	0.0	b	16.1	a	7081	a
	UREA	45	PD														
11	UREA	105	4-5 leaf	86.0	c	79.0	c	39.0	abc	0.0	c	0.0	b	15.7	a	7024	a
	UREA	45	PD														
12	UREA	135	4-5 leaf	88.5	ab	81.5	ab	38.5	bc	12.5	bc	0.5	b	16.2	a	6719	ab
	UREA	45	PD														
LSD P=.05				1.49		1.49		1.88		22.00		1.13		1.02		721.9	
Standard Deviation				1.04		1.04		1.31		15.29		0.78		0.71		501.8	
CV				1.23		1.34		3.41		133.47		91.57		4.39		7.62	
Treatment F				32.282		32.282		3.728		3.973		9.322		1.223		4.399	
Treatment Prob(F)				0.0001		0.0001		0.0016		0.0010		0.0001		0.3113		0.0004	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded PVL02 to Nitrogen
Fertilizer Rate and Time of Application – St. Landry Parish

Experiment number ..... : 20-SLP-02

Site and design ..... :
- **Location/Cooperator** ..... : St. Landry Parish / Charlie Fontenot
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Tensas-Sharkey Complex
- **% organic matter** ..... : 1.69
- **pH** ..... : 7.84
- **Extractable nutrients ppm** ..... : Ca-4,983; Cu-3.17; Mg-770; P-77.8; K-245; Na-15; S-8.5; Zn-1.5

Crop/Variety ..... : Rice / PVL02
- **Planting method/date** ..... : Drill seeded / May 7
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 14
- **Harvest date** ..... : Sept. 16

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 16
- **Drain** ..... : Sept. 4

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 9 oz/A Command, May 6
  32 oz/A Facet + .4 oz/A Regiment, June 15
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 22

Table 20. Agronomic response of drill-seeded PVL02 to nitrogen fertilizer rate and time of application. St. Landry Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle									
Rating Date								9/16/2020		9/16/2020		9/16/2020		9/16/2020			
Rating Type				50% HD		50% HD		Height		Lodge				Moist		Yield	
Rating Unit				days		days		in		% plot		rate		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage														
1	UREA	0	4-5 leaf	78.3	g	71.3	g	40.3	a	95.0	a	3.0	b	14.3	a	5950	a
2	UREA	30	4-5 leaf	79.0	fg	72.0	fg	39.5	a	80.0	a	4.3	a	15.0	a	6090	a
3	UREA	60	4-5 leaf	81.8	e	74.8	e	41.5	a	90.0	a	5.0	a	15.2	a	5460	a
4	UREA	90	4-5 leaf	83.5	cd	76.5	cd	41.0	a	90.0	a	5.0	a	14.9	a	5918	a
5	UREA	120	4-5 leaf	81.0	e	74.0	e	41.3	a	90.0	a	5.0	a	15.0	a	5794	a
6	UREA	150	4-5 leaf	85.0	b	78.0	b	42.5	a	90.0	a	5.0	a	14.6	a	5755	a
7	UREA	180	4-5 leaf	86.5	a	79.5	a	42.5	a	90.0	a	5.0	a	14.6	a	5220	a
8	UREA	210	4-5 leaf	83.3	d	76.3	d	44.0	a	90.0	a	5.0	a	14.9	a	5368	a
9	UREA	45	4-5 leaf	79.8	f	72.8	f	41.5	a	90.0	a	5.0	a	15.0	a	5376	a
	UREA	45	PD														
10	UREA	75	4-5 leaf	83.0	d	76.0	d	40.8	a	90.0	a	5.0	a	14.4	a	5894	a
	UREA	45	PD														
11	UREA	105	4-5 leaf	84.8	b	77.8	b	41.0	a	90.0	a	5.0	a	15.2	a	5691	a
	UREA	45	PD														
12	UREA	135	4-5 leaf	84.5	bc	77.5	bc	41.5	a	90.0	a	5.0	a	15.0	a	6149	a
	UREA	45	PD														
LSD P=.05				1.15		1.15		3.68		8.52		1.17		0.87		895.1	
Standard Deviation				0.80		0.80		2.56		5.92		0.81		0.60		622.2	
CV				0.97		1.06		6.17		6.61		17.06		4.06		10.87	
Treatment F				42.134		42.134		0.828		1.273		2.159		0.933		0.950	
Treatment Prob(F)				0.0001		0.0001		0.6141		0.2821		0.0433		0.5223		0.5081	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded CLL15 to Nitrogen
Fertilizer Rate and Time of Application – St. Landry Parish

Experiment number ..... : 20-SLP-03

Site and design ..... :
- **Location/Cooperator** ..... : St. Landry Parish / Charlie Fontenot
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Tensas-Sharkey Complex
- **% organic matter** ..... : 1.69
- **pH** ..... : 7.84
- **Extractable nutrients ppm** ..... : Ca-4,983; Cu-3.17; Mg-770; P-77.8; K-245; Na-15; S-8.5; Zn-1.5

Crop/Variety ..... : Rice / CLL15
- **Planting method/date** ..... : Drill seeded / May 7
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 14
- **Harvest date** ..... : Sept. 16

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 16
- **Drain** ..... : Sept. 4

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 9 oz/A Command, May 6
  32 oz/A Facet + .4 oz/A Regiment, June 15
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 22

Table 21. Agronomic response of drill-seeded CLL15 to nitrogen fertilizer rate and time of application. St. Landry Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								9/16/2020		9/16/2020			
Rating Type				50% HD		50% HD		Height		Moist		Yield	
Rating Unit				days		days		in		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	UREA	0	4-5 leaf	80.0	h	73.0	h	35.3	d	15.4	a	7047	a
2	UREA	30	4-5 leaf	81.3	g	74.3	g	38.3	c	15.3	a	7454	a
3	UREA	60	4-5 leaf	83.0	f	76.0	f	38.3	c	15.1	a	7393	a
4	UREA	90	4-5 leaf	83.8	def	76.8	def	40.0	bc	15.1	a	7452	a
5	UREA	120	4-5 leaf	85.5	b	78.5	b	39.0	bc	15.2	a	7253	a
6	UREA	150	4-5 leaf	87.3	a	80.3	a	39.8	bc	15.1	a	7314	a
7	UREA	180	4-5 leaf	87.5	a	80.5	a	41.0	ab	15.1	a	7128	a
8	UREA	210	4-5 leaf	85.3	bc	78.3	bc	43.3	a	15.2	a	7573	a
9	UREA	45	4-5 leaf	81.3	g	74.3	g	37.8	c	15.2	a	7683	a
	UREA	45	PD										
10	UREA	75	4-5 leaf	83.5	ef	76.5	ef	38.3	c	15.1	a	7284	a
	UREA	45	PD										
11	UREA	105	4-5 leaf	84.3	de	77.3	de	39.8	bc	14.9	a	7413	a
	UREA	45	PD										
12	UREA	135	4-5 leaf	84.5	cd	77.5	cd	39.0	bc	15.1	a	7331	a
	UREA	45	PD										
LSD P=.05				0.87		0.87		2.28		0.40		615.2	
Standard Deviation				0.60		0.60		1.58		0.28		427.7	
CV				0.72		0.78		4.04		1.83		5.81	
Treatment F				59.292		59.292		6.003		0.784		0.681	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.6539		0.7458	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded CLM04 to Nitrogen
Fertilizer Rate and Time of Application – St. Landry Parish

Experiment number ..... : 20-SLP-04

Site and design ..... :
- **Location/Cooperator** ..... : St. Landry Parish / Charlie Fontenot
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Tensas-Sharkey Complex
- **% organic matter** ..... : 1.69
- **pH** ..... : 7.84
- **Extractable nutrients ppm** ..... : Ca-4,983; Cu-3.17; Mg-770; P-77.8; K-245; Na-15; S-8.5; Zn-1.5

Crop/Variety ..... : Rice / CLM04
- **Planting method/date** ..... : Drill seeded / May 7
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 14
- **Harvest date** ..... : Sept. 16

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 16
- **Drain** ..... : Sept. 4

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 9 oz/A Command, May 6
  32 oz/A Facet + .4 oz/A Regiment, June 15
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 22

Table 22. Agronomic response of drill-seeded CLM04 to nitrogen fertilizer rate and time of application. St. Landry Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle									
Rating Date								9/16/2020		9/16/2020		9/16/2020		9/16/2020			
Rating Type				50% HD		50% HD		Height		Lodge				Moist		Yield	
Rating Unit				days		days		in		% plot		rate		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage														
1	UREA	0	4-5 leaf	85.8	e	78.8	e	38.5	g	0.0	d	0.0	b	16.9	d	7757	cde
2	UREA	30	4-5 leaf	85.5	e	78.5	e	40.8	f	0.0	d	0.0	b	16.8	d	8377	abc
3	UREA	60	4-5 leaf	86.8	d	79.8	d	41.8	ef	0.0	d	0.0	b	16.8	d	8436	abc
4	UREA	90	4-5 leaf	87.3	d	80.3	d	43.5	cde	0.0	d	0.0	b	17.1	cd	8757	a
5	UREA	120	4-5 leaf	88.3	c	81.3	c	43.5	cde	43.0	c	2.8	a	17.9	ab	7606	de
6	UREA	150	4-5 leaf	89.3	b	82.3	b	44.3	bc	47.5	c	2.8	a	17.9	ab	8025	bcd
7	UREA	180	4-5 leaf	91.5	a	84.5	a	45.8	ab	54.3	bc	2.8	a	18.1	a	6335	g
8	UREA	210	4-5 leaf	91.3	a	84.3	a	46.8	a	77.5	a	3.0	a	17.8	ab	6696	fg
9	UREA	45	4-5 leaf	88.3	c	81.3	c	43.8	cd	0.0	d	0.0	b	17.0	cd	8762	a
	UREA	45	PD														
10	UREA	75	4-5 leaf	89.5	b	82.5	b	42.3	def	0.0	d	0.0	b	17.3	bcd	8723	ab
	UREA	45	PD														
11	UREA	105	4-5 leaf	89.8	b	82.8	b	44.5	bc	71.8	ab	2.8	a	17.1	cd	7219	ef
	UREA	45	PD														
12	UREA	135	4-5 leaf	89.3	b	82.3	b	45.0	abc	55.5	bc	3.0	a	17.5	abc	7483	de
	UREA	45	PD														
LSD P=.05				0.69		0.69		1.83		20.35		0.40		0.60		724.8	
Standard Deviation				0.48		0.48		1.28		14.14		0.28		0.42		503.8	
CV				0.55		0.59		2.94		48.56		19.43		2.42		6.42	
Treatment F				64.870		64.870		12.614		20.182		116.000		4.875		10.452	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0001		0.0002		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded CLL17 to Nitrogen
Fertilizer Rate and Time of Application – St. Landry Parish

Experiment number ..... : 20-SLP-05

Site and design ..... :
- **Location/Cooperator** ..... : St. Landry Parish / Charlie Fontenot
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Tensas-Sharkey Complex
- **% organic matter** ..... : 1.69
- **pH** ..... : 7.84
- **Extractable nutrients ppm** ..... : Ca-4,983; Cu-3.17; Mg-770; P-77.8; K-245; Na-15; S-8.5; Zn-1.5

Crop/Variety ..... : Rice / CLL17
- **Planting method/date** ..... : Drill seeded / May 7
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 14
- **Harvest date** ..... : Sept. 16

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 16
- **Drain** ..... : Sept. 4

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 9 oz/A Command, May 6
  32 oz/A Facet + .4 oz/A Regiment, June 15
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 22

Table 23. Agronomic response of drill-seeded CLL17 to nitrogen fertilizer rate and time of application. St. Landry Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle									
Rating Date										9/16/2020		9/16/2020		9/16/2020		9/16/2020	
Rating Type				50% HD		50% HD		Height		Lodge				Moist		Yield	
Rating Unit				days		days		in		% plot		rate		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage														
1	UREA	0	4-5 leaf	82.0	f	75.0	f	36.0	d	20.0	a	0.5	a	14.9	a	6698	a
2	UREA	30	4-5 leaf	82.0	f	75.0	f	39.5	bc	60.0	a	2.8	a	15.2	a	7124	a
3	UREA	60	4-5 leaf	82.5	f	75.5	f	39.5	bc	60.0	a	2.3	a	15.1	a	6496	a
4	UREA	90	4-5 leaf	85.8	cd	78.8	cd	42.5	a	62.5	a	2.5	a	15.8	a	7172	a
5	UREA	120	4-5 leaf	85.0	de	78.0	de	39.8	abc	67.5	a	3.0	a	16.2	a	8092	a
6	UREA	150	4-5 leaf	86.8	bc	79.8	bc	40.8	abc	57.5	a	3.0	a	14.9	a	7306	a
7	UREA	180	4-5 leaf	87.8	b	80.8	b	42.5	a	60.0	a	2.5	a	15.6	a	6910	a
8	UREA	210	4-5 leaf	89.5	a	82.5	a	42.0	ab	65.0	a	2.8	a	15.6	a	6462	a
9	UREA	45	4-5 leaf	84.5	e	77.5	e	39.0	c	35.0	a	2.0	a	15.2	a	7042	a
	UREA	45	PD														
10	UREA	75	4-5 leaf	85.8	cd	78.8	cd	39.8	abc	42.5	a	2.0	a	15.6	a	6964	a
	UREA	45	PD														
11	UREA	105	4-5 leaf	86.8	bc	79.8	bc	40.8	abc	57.5	a	2.3	a	15.1	a	7131	a
	UREA	45	PD														
12	UREA	135	4-5 leaf	85.3	de	78.3	de	41.3	abc	42.5	a	2.3	a	15.0	a	7565	a
	UREA	45	PD														
LSD P=.05				1.06		1.06		2.86		38.23		1.49		1.32		1621.4	
Standard Deviation				0.74		0.74		1.98		26.57		1.04		0.91		1125.7	
CV				0.87		0.95		4.93		50.61		44.86		5.96		15.9	
Treatment F				38.889		38.889		3.316		1.165		1.652		0.830		0.642	
Treatment Prob(F)				0.0001		0.0001		0.0037		0.3471		0.1296		0.6126		0.7797	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded LA2140 to Nitrogen
Fertilizer Rate and Time of Application – St. Landry Parish

Experiment number ..... : 20-SLP-06

Site and design ..... :
- **Location/Cooperator** ..... : St. Landry Parish / Charlie Fontenot
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Tensas-Sharkey Complex
- **% organic matter** ..... : 1.69
- **pH** ..... : 7.84
- **Extractable nutrients ppm** ..... : Ca-4,983; Cu-3.17; Mg-770; P-77.8; K-245; Na-15; S-8.5; Zn-1.5

Crop/Variety ..... : Rice / LA2140
- **Planting method/date** ..... : Drill seeded / May 7
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 14
- **Harvest date** ..... : Sept. 16

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 16
- **Drain** ..... : Sept. 4

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 9 oz/A Command, May 6
  32 oz/A Facet + .4 oz/A Regiment, June 15
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 22

Table 24. Agronomic response of drill-seeded LA2140 to nitrogen fertilizer rate and time of application. St. Landry Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle									
Rating Date								9/15/2020						9/16/2020			
Rating Type				50% HD		50% HD		Height		Lodge				Moist		Yield	
Rating Unit				days		days		in		% plot		rate		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage														
1	UREA	0	4-5 leaf	80.8	h	73.8	h	36.0	d	97.5	a	2.0	a	13.7	bc	5994	d
2	UREA	30	4-5 leaf	81.3	gh	74.3	gh	37.0	cd	95.0	ab	3.0	a	13.6	c	7176	ab
3	UREA	60	4-5 leaf	82.3	g	75.3	g	39.3	abc	87.5	abc	2.5	a	13.7	bc	6920	bc
4	UREA	90	4-5 leaf	84.8	ef	77.8	ef	40.5	ab	70.0	b-f	3.0	a	13.9	abc	7236	ab
5	UREA	120	4-5 leaf	86.3	d	79.3	d	40.0	ab	62.5	c-f	2.8	a	14.3	a	7763	a
6	UREA	150	4-5 leaf	86.3	d	79.3	d	40.3	ab	82.5	a-d	3.3	a	14.0	abc	7019	bc
7	UREA	180	4-5 leaf	88.8	b	81.8	b	41.8	a	60.0	def	3.3	a	14.3	a	7182	ab
8	UREA	210	4-5 leaf	90.8	a	83.8	a	40.8	ab	55.0	ef	4.3	a	14.1	ab	6533	cd
9	UREA	45	4-5 leaf	83.8	f	76.8	f	39.8	ab	92.5	ab	2.3	a	13.6	bc	6849	bc
	UREA	45	PD														
10	UREA	75	4-5 leaf	85.8	de	78.8	de	38.3	bcd	95.0	ab	2.3	a	13.6	c	7201	ab
	UREA	45	PD														
11	UREA	105	4-5 leaf	88.0	bc	81.0	bc	39.5	abc	75.0	a-e	2.3	a	13.8	bc	7059	bc
	UREA	45	PD														
12	UREA	135	4-5 leaf	87.5	c	80.5	c	39.5	abc	47.5	f	3.0	a	13.9	abc	7416	ab
	UREA	45	PD														
LSD P=.05				1.16		1.16		2.59		25.29		1.25		0.45		599.8	
Standard Deviation				0.80		0.80		1.80		17.58		0.87		0.31		416.9	
CV				0.94		1.02		4.57		22.93		30.96		2.26		5.93	
Treatment F				58.711		58.711		3.187		3.946		2.046		2.502		4.535	
Treatment Prob(F)				0.0001		0.0001		0.0048		0.0011		0.0554		0.0206		0.0003	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded DG263L to Nitrogen
Fertilizer Rate and Time of Application – St. Landry Parish

Experiment number ..... : 20-SLP-07

Site and design ..... :
- **Location/Cooperator** ..... : St. Landry Parish / Charlie Fontenot
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Tensas-Sharkey Complex
- **% organic matter** ..... : 1.69
- **pH** ..... : 7.84
- **Extractable nutrients ppm** ..... : Ca-4,983; Cu-3.17; Mg-770; P-77.8; K-245; Na-15; S-8.5; Zn-1.5

Crop/Variety ..... : Rice / DG263L
- **Planting method/date** ..... : Drill seeded / May 7
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 14
- **Harvest date** ..... : Sept. 16

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 16
- **Drain** ..... : Sept. 4

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 9 oz/A Command, May 6
  32 oz/A Facet + .4 oz/A Regiment, June 15
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 22

Table 25. Agronomic response of drill-seeded DG263L to nitrogen fertilizer rate and time of application. St. Landry Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								9/15/2020		9/16/2020			
Rating Type				50% HD		50% HD		Height		Moist		Yield	
Rating Unit				days		days		in		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	UREA	0	4-5 leaf	79.0	g	72.0	g	35.0	c	13.4	d	8045	a
2	UREA	30	4-5 leaf	80.3	f	73.3	f	35.5	c	13.6	bcd	8921	a
3	UREA	60	4-5 leaf	82.0	cde	75.0	cde	36.8	bc	13.4	d	8883	a
4	UREA	90	4-5 leaf	81.5	de	74.5	de	38.5	ab	13.5	cd	9195	a
5	UREA	120	4-5 leaf	83.0	c	76.0	c	40.3	a	13.8	abc	9382	a
6	UREA	150	4-5 leaf	84.3	b	77.3	b	40.3	a	14.0	a	8371	a
7	UREA	180	4-5 leaf	85.5	a	78.5	a	40.3	a	14.1	a	9018	a
8	UREA	210	4-5 leaf	86.3	a	79.3	a	39.5	a	13.9	ab	9047	a
9	UREA	45	4-5 leaf	81.0	ef	74.0	ef	38.8	ab	13.4	d	8892	a
	UREA	45	PD										
10	UREA	75	4-5 leaf	82.5	cd	75.5	cd	39.3	a	13.4	d	9167	a
	UREA	45	PD										
11	UREA	105	4-5 leaf	84.3	b	77.3	b	38.5	ab	13.8	a-d	9256	a
	UREA	45	PD										
12	UREA	135	4-5 leaf	86.0	a	79.0	a	38.8	ab	14.0	a	8931	a
	UREA	45	PD										
LSD P=.05				1.15		1.15		2.21		0.35		804.6	
Standard Deviation				0.80		0.80		1.54		0.24		559.3	
CV				0.97		1.06		4.0		1.78		6.27	
Treatment F				33.871		33.871		5.405		4.445		1.810	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0004		0.0924	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded 1902026 CLL to Nitrogen Fertilizer Rate and Time of Application – St. Landry Parish

Experiment number ..... : 20-SLP-08

Site and design ..... :
- **Location/Cooperator** ..... : St. Landry Parish / Charlie Fontenot
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Tensas-Sharkey Complex
- **% organic matter** ..... : 1.69
- **pH** ..... : 7.84
- **Extractable nutrients ppm** ..... : Ca-4,983; Cu-3.17; Mg-770; P-77.8; K-245; Na-15; S-8.5; Zn-1.5

Crop/Variety ..... : Rice / 1902026 CLL
- **Planting method/date** ..... : Drill seeded / May 7
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 14
- **Harvest date** ..... : Sept. 16

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 16
- **Drain** ..... : Sept. 4

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 9 oz/A Command, May 6
  32 oz/A Facet + .4 oz/A Regiment, June 15
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 22

Table 26. Agronomic response of drill-seeded 1902026 CLL to nitrogen fertilizer rate and time of application. St. Landry Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle									
Rating Date								9/15/2020		9/16/2020		9/16/2020		9/16/2020			
Rating Type				50% HD		50% HD		Height				Lodge				Moist		Yield	
Rating Unit				days		days		in		% plot		rate		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage														
1	UREA	0	4-5 leaf	78.3	h	71.3	h	35.8	f	0.0	a	0.0	a	14.0	a	7254	a
2	UREA	30	4-5 leaf	79.0	h	72.0	h	37.8	de	0.0	a	0.0	a	13.8	a	7996	a
3	UREA	60	4-5 leaf	80.8	fg	73.8	fg	38.8	cde	0.0	a	0.0	a	13.9	a	8311	a
4	UREA	90	4-5 leaf	82.8	de	75.8	de	38.8	cde	0.0	a	0.0	a	14.0	a	8390	a
5	UREA	120	4-5 leaf	83.5	cd	76.5	cd	40.3	bc	0.0	a	0.0	a	13.9	a	7699	a
6	UREA	150	4-5 leaf	84.8	b	77.8	b	41.5	ab	0.0	a	0.0	a	13.7	a	8284	a
7	UREA	180	4-5 leaf	87.5	a	80.5	a	39.8	c	7.5	a	1.0	a	13.9	a	7701	a
8	UREA	210	4-5 leaf	87.5	a	80.5	a	42.0	a	15.0	a	0.8	a	13.7	a	7623	a
9	UREA	45	4-5 leaf	80.5	g	73.5	g	37.5	e	0.0	a	0.0	a	13.5	a	8246	a
	UREA	45	PD														
10	UREA	75	4-5 leaf	81.8	ef	74.8	ef	39.3	cd	0.0	a	0.0	a	13.9	a	8200	a
	UREA	45	PD														
11	UREA	105	4-5 leaf	84.3	bc	77.3	bc	39.5	c	0.0	a	0.0	a	13.7	a	7973	a
	UREA	45	PD														
12	UREA	135	4-5 leaf	85.3	b	78.3	b	40.3	bc	0.0	a	0.0	a	13.9	a	8077	a
	UREA	45	PD														
LSD P=.05				1.13		1.13		1.73		13.41		0.99		0.36		793.5	
Standard Deviation				0.79		0.79		1.20		9.32		0.69		0.25		551.6	
CV				0.95		1.04		3.06		497.27		472.78		1.82		6.91	
Treatment F				59.607		59.607		8.337		1.000		1.000		1.130		1.566	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.4671		0.4671		0.3704		0.1553	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded 1702183 CLL to Nitrogen Fertilizer Rate and Time of Application – St. Landry Parish

Experiment number ..... : 20-SLP-09

Site and design ..... :
- **Location/Cooperator** ..... : St. Landry Parish / Charlie Fontenot
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Tensas-Sharkey Complex
- **% organic matter** ..... : 1.69
- **pH** ..... : 7.84
- **Extractable nutrients ppm** ..... : Ca-4,983; Cu-3.17; Mg-770; P-77.8; K-245; Na-15; S-8.5; Zn-1.5

Crop/Variety ..... : Rice / 1702183 CLL
- **Planting method/date** ..... : Drill seeded / May 7
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 14
- **Harvest date** ..... : Sept. 16

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 16
- **Drain** ..... : Sept. 4

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 9 oz/A Command, May 6
  32 oz/A Facet + .4 oz/A Regiment, June 15
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 22

Table 27. Agronomic response of drill-seeded 1702183 CLL to nitrogen fertilizer rate and time of application. St. Landry Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								9/15/2020		9/16/2020			
Rating Type				50% HD		50% HD		Height		Moist		Yield	
Rating Unit				days		days		in		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	UREA	0	4-5 leaf	75.0	d	68.0	d	38.5	c	14.9	a	5336	b
2	UREA	90	4-5 leaf	80.3	c	73.3	c	42.5	b	14.5	a	6881	a
3	UREA	120	4-5 leaf	80.3	c	73.3	c	43.5	ab	14.5	a	6889	a
4	UREA	150	4-5 leaf	82.5	b	75.5	b	43.5	ab	14.6	a	6828	a
5	UREA	180	4-5 leaf	84.8	a	77.8	a	44.5	a	14.5	a	6580	a
6	UREA	210	4-5 leaf	84.3	a	77.3	a	44.5	a	14.8	a	6736	a
LSD P=.05				0.75		0.75		2.00		0.48		793.2	
Standard Deviation				0.49		0.49		1.32		0.32		526.3	
CV				0.61		0.67		3.09		2.2		8.05	
Treatment F				208.909		208.909		11.544		1.150		5.230	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.3775		0.0056	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded RT7321 FP to Nitrogen
Fertilizer Rate and Time of Application – St. Landry Parish

Experiment number ..... : 20-SLP-41

Site and design ..... :
- **Location/Cooperator** ..... : St. Landry Parish / Charlie Fontenot
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Tensas-Sharkey Complex
- **% organic matter** ..... : 1.69
- **pH** ..... : 7.84
- **Extractable nutrients ppm** ..... : Ca-4,983; Cu-3.17; Mg-770; P-77.8; K-245; Na-15; S-8.5; Zn-1.5

Crop/Variety ..... : Rice / RT7321 FP
- **Planting method/date** ..... : Drill seeded / May 7
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 14
- **Harvest date** ..... : Sept. 16

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 16
- **Drain** ..... : Sept. 4

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 9 oz/A Command, May 6
  32 oz/A Facet + .4 oz/A Regiment, June 15
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 22

Table 28. Agronomic response of drill-seeded RT7321 FP to nitrogen fertilizer rate and time of application. St. Landry Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle									
Rating Date								9/15/2020		9/16/2020		9/16/2020		9/16/2020			
Rating Type				50% HD		50% HD		Height		Lodge				Moist		Yield	
Rating Unit				days		days		in		% plot		rate		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage														
1	UREA	0	4-5 leaf	77.0	e	70.0	e	45.3	a	75.0	a	0.8	c	13.1	a	9284	a
2	UREA	60	4-5 leaf	78.3	d	71.3	d	49.8	a	100.0	a	1.5	bc	13.3	a	10012	a
3	UREA	90	4-5 leaf	78.8	cd	71.8	cd	42.3	a	100.0	a	1.5	bc	13.5	a	9496	a
4	UREA	120	4-5 leaf	80.0	b	73.0	b	48.8	a	100.0	a	2.0	ab	13.3	a	8895	a
5	UREA	150	4-5 leaf	81.3	a	74.3	a	50.3	a	95.0	a	2.3	ab	13.8	a	9008	a
6	UREA	180	4-5 leaf	81.3	a	74.3	a	50.0	a	97.5	a	2.5	a	13.3	a	9460	a
7	UREA	75	4-5 leaf	79.5	bc	72.5	bc	48.3	a	100.0	a	1.5	bc	13.0	a	9627	a
	UREA	45	50% HD														
8	UREA	105	4-5 leaf	78.5	d	71.5	d	50.0	a	100.0	a	1.0	c	13.0	a	10448	a
	UREA	45	50% HD														
9	UREA	135	4-5 leaf	81.5	a	74.5	a	51.5	a	100.0	a	2.0	ab	13.3	a	10186	a
	UREA	45	50% HD														
LSD P=.05				0.83		0.83		5.69		25.24		0.77		0.54		1579.8	
Standard Deviation				0.57		0.57		3.90		17.29		0.52		0.37		1082.5	
CV				0.72		0.78		8.05		17.94		31.49		2.78		11.27	
Treatment F				30.429		30.429		2.230		0.901		4.765		2.083		0.944	
Treatment Prob(F)				0.0001		0.0001		0.0615		0.5314		0.0013		0.0787		0.5003	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded RT7521 FP to Nitrogen
Fertilizer Rate and Time of Application – St. Landry Parish

Experiment number ..... : 20-SLP-42

Site and design ..... :
- **Location/Cooperator** ..... : St. Landry Parish / Charlie Fontenot
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Tensas-Sharkey Complex
- **% organic matter** ..... : 1.69
- **pH** ..... : 7.84
- **Extractable nutrients ppm** ..... : Ca-4,983; Cu-3.17; Mg-770; P-77.8; K-245; Na-15; S-8.5; Zn-1.5

Crop/Variety ..... : Rice / RT7521 FP
- **Planting method/date** ..... : Drill seeded / May 7
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 14
- **Harvest date** ..... : Sept. 16

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 16
- **Drain** ..... : Sept. 4

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 9 oz/A Command, May 6
  32 oz/A Facet + .4 oz/A Regiment, June 15
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 22

Table 29. Agronomic response of drill-seeded RT7521 FP to nitrogen fertilizer rate and time of application. St. Landry Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								9/15/2020		9/16/2020		9/16/2020	
Rating Type				50% HD		50% HD		Height		Moist		Yield	
Rating Unit				days		days		in		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	UREA	0	4-5 leaf	81.3	f	74.3	f	45.0	a	13.1	c	9470	a
2	UREA	60	4-5 leaf	83.0	e	76.0	e	47.3	a	14.0	ab	10509	a
3	UREA	90	4-5 leaf	82.8	e	75.8	e	47.5	a	13.5	bc	10806	a
4	UREA	120	4-5 leaf	87.5	b	80.5	b	49.3	a	13.7	abc	10188	a
5	UREA	150	4-5 leaf	87.5	b	80.5	b	51.3	a	14.1	ab	11188	a
6	UREA	180	4-5 leaf	88.8	a	81.8	a	51.0	a	14.2	a	12325	a
7	UREA	75	4-5 leaf	84.5	d	77.5	d	48.5	a	13.2	c	11071	a
	UREA	45	50% HD										
8	UREA	105	4-5 leaf	85.5	cd	78.5	cd	49.5	a	13.5	bc	10641	a
	UREA	45	50% HD										
9	UREA	135	4-5 leaf	86.0	c	79.0	c	48.3	a	13.6	bc	11752	a
	UREA	45	50% HD										
LSD P=.05				1.09		1.09		3.84		0.61		2139.1	
Standard Deviation				0.74		0.74		2.63		0.42		1465.7	
CV				0.87		0.95		5.41		3.06		13.47	
Treatment F				45.954		45.954		2.177		3.400		1.314	
Treatment Prob(F)				0.0001		0.0001		0.0672		0.0095		0.2838	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded PVL02 to Nitrogen
Fertilizer Rate and Time of Application – Tensas Parish

Experiment number ..... : 20-SJ-02

Site and design ..... :
- **Location/Cooperator** ..... : Tensas Parish / Warren Ratcliff
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Commerce silt loam / Sharkey clay (2018 soil sample)
- **% organic matter** ..... : 1.71
- **pH** ..... : 7.75
- **Extractable nutrients ppm** ..... : Ca-4568; Cu-6.5; Mg-892; P-47; K-303; Na-51; S-8.3; Zn-2.9

Crop/Variety ..... : Rice / PVL02
- **Planting method/date** ..... : Drill seeded / May 6
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 13
- **Harvest date** ..... : Sept. 9

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 4
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 2 qt/A Glyphosate + 2 oz/A Sharpen + 16 oz/A Command, May 9
  2 qt/A Stam + 2 pt/A Prowl H_2O, May 20
  2 qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + .5 oz/A Permit + 1 oz/A Londax, June 2
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 31

Table 30. Agronomic response of drill-seeded PVL02 to nitrogen fertilizer rate and time of application. Tensas Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								9/8/2020		9/8/2020		9/8/2020		9/9/2020	
Rating Type				50% HD		50% HD		Height		Lodge				Yield	
Rating Unit				days		days		in		% plot		rate		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	75.8	cde	68.8	cde	38.5	g	0.0	a	0.0	a	3932	d
2	UREA	30	4-5 leaf	75.5	de	68.5	de	39.0	fg	0.0	a	0.0	a	4436	d
3	UREA	60	4-5 leaf	75.5	de	68.5	de	41.8	def	0.0	a	0.0	a	5221	c
4	UREA	90	4-5 leaf	75.5	de	68.5	de	43.0	b-e	0.0	a	0.0	a	5647	bc
5	UREA	120	4-5 leaf	76.3	a-d	69.3	a-d	44.0	bcd	0.0	a	0.0	a	5393	c
6	UREA	150	4-5 leaf	77.0	a	70.0	a	44.0	bcd	15.0	a	1.0	a	6374	a
7	UREA	180	4-5 leaf	76.8	ab	69.8	ab	45.8	ab	15.0	a	1.0	a	6610	a
8	UREA	210	4-5 leaf	76.5	abc	69.5	abc	47.3	a	15.0	a	1.0	a	6466	a
9	UREA	45	4-5 leaf	75.5	de	68.5	de	40.8	efg	0.0	a	0.0	a	5125	c
	UREA	45	PD												
10	UREA	75	4-5 leaf	75.3	e	68.3	e	45.3	ab	0.0	a	0.0	a	5609	bc
	UREA	45	PD												
11	UREA	105	4-5 leaf	75.8	cde	68.8	cde	45.0	abc	0.0	a	0.0	a	6118	ab
	UREA	45	PD												
12	UREA	135	4-5 leaf	76.0	b-e	69.0	b-e	42.3	cde	0.0	a	0.0	a	6228	ab
	UREA	45	PD												
LSD P=.05				0.80		0.80		2.93		19.52		1.30		645.1	
Standard Deviation				0.56		0.56		2.04		13.57		0.90		448.4	
CV				0.73		0.81		4.74		361.81		361.81		8.01	
Treatment F				4.141		4.141		7.012		1.000		1.000		13.715	
Treatment Prob(F)				0.0007		0.0007		0.0001		0.4671		0.4671		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded LA2140 to Nitrogen
Fertilizer Rate and Time of Application – Tensas Parish

Experiment number ..... : 20-SJ-06

Site and design ..... :
- **Location/Cooperator** ..... : Tensas Parish / Warren Ratcliff
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Commerce silt loam / Sharkey clay (2018 soil sample)
- **% organic matter** ..... : 1.71
- **pH** ..... : 7.75
- **Extractable nutrients ppm** ..... : Ca-4568; Cu-6.5; Mg-892; P-47; K-303; Na-51; S-8.3; Zn-2.9

Crop/Variety ..... : Rice / LA2140
- **Planting method/date** ..... : Drill seeded / May 6
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 13
- **Harvest date** ..... : Sept. 9

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 4
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 2 qt/A Glyphosate + 2 oz/A Sharpen + 16 oz/A Command, May 9
  2 qt/A Stam + 2 pt/A Prowl H_2O, May 20
  2 qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + .5 oz/A Permit + 1 oz/A Londax, June 2
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 31

Table 31. Agronomic response of drill-seeded LA2140 to nitrogen fertilizer rate and time of application. Tensas Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								9/8/2020		9/9/2020		9/9/2020	
Rating Type				50% HD		50% HD		Height		Moist		Yield	
Rating Unit				days		days		in		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	UREA	0	4-5 leaf	76.0	de	69.0	de	35.8	d	16.7	a	3581	g
2	UREA	30	4-5 leaf	75.8	e	68.8	e	36.3	d	16.1	cd	4355	f
3	UREA	60	4-5 leaf	76.0	de	69.0	de	37.8	cd	15.6	e	5330	e
4	UREA	90	4-5 leaf	76.8	abc	69.8	abc	40.8	a	15.7	de	6130	cd
5	UREA	120	4-5 leaf	76.5	bcd	69.5	bcd	40.3	ab	15.7	de	6545	c
6	UREA	150	4-5 leaf	76.5	bcd	69.5	bcd	41.0	a	16.0	cde	7607	ab
7	UREA	180	4-5 leaf	77.3	a	70.3	a	40.0	ab	17.0	a	7632	ab
8	UREA	210	4-5 leaf	76.8	abc	69.8	abc	41.0	a	16.6	ab	8128	a
9	UREA	45	4-5 leaf	76.3	cde	69.3	cde	39.8	abc	15.6	e	5643	de
	UREA	45	PD										
10	UREA	75	4-5 leaf	76.5	bcd	69.5	bcd	38.5	bc	15.8	de	6615	c
	UREA	45	PD										
11	UREA	105	4-5 leaf	76.5	bcd	69.5	bcd	41.8	a	15.8	cde	7262	b
	UREA	45	PD										
12	UREA	135	4-5 leaf	77.0	ab	70.0	ab	40.3	ab	16.2	bc	7638	ab
	UREA	45	PD										
LSD P=.05				0.69		0.69		2.25		0.44		641.7	
Standard Deviation				0.48		0.48		1.56		0.30		446.0	
CV				0.62		0.69		3.96		1.89		7.0	
Treatment F				3.283		3.283		6.137		9.530		40.603	
Treatment Prob(F)				0.0040		0.0040		0.0001		0.0001		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded DG263L to Nitrogen
Fertilizer Rate and Time of Application – Tensas Parish

Experiment number ..... : 20-SJ-07

Site and design ..... :
- **Location/Cooperator** ..... : Tensas Parish / Warren Ratcliff
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Commerce silt loam / Sharkey clay (2018 soil sample)
- **% organic matter** ..... : 1.71
- **pH** ..... : 7.75
- **Extractable nutrients ppm** ..... : Ca-4568; Cu-6.5; Mg-892; P-47; K-303; Na-51; S-8.3; Zn-2.9

Crop/Variety ..... : Rice / DG263L
- **Planting method/date** ..... : Drill seeded / May 6
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 13
- **Harvest date** ..... : Sept. 9

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 4
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 2 qt/A Glyphosate + 2 oz/A Sharpen + 16 oz/A Command, May 9
  2 qt/A Stam + 2 pt/A Prowl H_2O, May 20
  2 qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + .5 oz/A Permit + 1 oz/A Londax, June 2
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 31

Table 32. Agronomic response of drill-seeded DG263L to nitrogen fertilizer rate and time of application. Tensas Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								9/8/2020		9/8/2020		9/8/2020		9/9/2020	
Rating Type				50% HD		50% HD		Height		Lodge				Yield	
Rating Unit				days		days		in		% plot		rate		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	71.3	d	64.3	d	31.8	a	0.0	a	0.0	a	4846	e
2	UREA	30	4-5 leaf	71.5	d	64.5	d	34.0	a	0.0	a	0.0	a	6466	de
3	UREA	60	4-5 leaf	71.8	cd	64.8	cd	33.0	a	20.0	a	0.3	a	7841	cd
4	UREA	90	4-5 leaf	72.0	bcd	65.0	bcd	35.5	a	0.0	a	0.0	a	8911	abc
5	UREA	120	4-5 leaf	72.8	ab	65.8	ab	37.5	a	10.0	a	0.8	a	9533	abc
6	UREA	150	4-5 leaf	73.0	a	66.0	a	35.5	a	27.5	a	1.0	a	9956	ab
7	UREA	180	4-5 leaf	72.5	abc	65.5	abc	34.0	a	37.5	a	1.5	a	10190	ab
8	UREA	210	4-5 leaf	73.0	a	66.0	a	37.3	a	17.5	a	0.3	a	10273	a
9	UREA	45	4-5 leaf	71.8	cd	64.8	cd	36.0	a	12.5	a	0.5	a	8183	bcd
	UREA	45	PD												
10	UREA	75	4-5 leaf	72.8	ab	65.8	ab	36.0	a	17.5	a	0.5	a	6675	de
	UREA	45	PD												
11	UREA	105	4-5 leaf	72.5	abc	65.5	abc	39.8	a	10.0	a	0.8	a	9682	abc
	UREA	45	PD												
12	UREA	135	4-5 leaf	73.0	a	66.0	a	36.8	a	35.0	a	1.0	a	10143	ab
	UREA	45	PD												
LSD P=.05				0.81		0.81		4.44		35.20		1.22		2034.8	
Standard Deviation				0.56		0.56		3.09		24.47		0.85		1414.4	
CV				0.78		0.86		8.68		156.58		157.17		16.53	
Treatment F				5.008		5.008		1.981		1.110		1.244		6.319	
Treatment Prob(F)				0.0001		0.0001		0.0638		0.3847		0.2988		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded 1902202 L to Nitrogen
Fertilizer Rate and Time of Application – Tensas Parish

Experiment number ..... : 20-SJ-10

Site and design ..... :
- **Location/Cooperator** ..... : Tensas Parish / Warren Ratcliff
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Commerce silt loam / Sharkey clay (2018 soil sample)
- **% organic matter** ..... : 1.71
- **pH** ..... : 7.75
- **Extractable nutrients ppm** ..... : Ca-4568; Cu-6.5; Mg-892; P-47; K-303; Na-51; S-8.3; Zn-2.9

Crop/Variety ..... : Rice / 1902202 L
- **Planting method/date** ..... : Drill seeded / May 6
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 13
- **Harvest date** ..... : Sept. 9

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 4
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 2 qt/A Glyphosate + 2 oz/A Sharpen + 16 oz/A Command, May 9
  2 qt/A Stam + 2 pt/A Prowl H_2O, May 20
  2 qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + .5 oz/A Permit + 1 oz/A Londax, June 2
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 31

Table 33. Agronomic response of drill-seeded 1902202 L to nitrogen fertilizer rate and time of application. Tensas Parish.

Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage	Rice Plant-hd (50% HD days)		Rice Emer-hd (50% HD days)		Rice Tip of Panicle 9/8/2020 Height (in)		Rice 9/8/2020 Moist (%)		Rice 9/8/2020 Yield (lb/A)	
1	UREA	0	4-5 leaf	74.8	a	67.8	a	32.0	c	14.7	b	4374	c
2	UREA	90	4-5 leaf	75.3	a	68.3	a	39.0	ab	14.0	c	7133	b
3	UREA	120	4-5 leaf	75.0	a	68.0	a	38.5	b	14.7	b	7379	ab
4	UREA	150	4-5 leaf	75.3	a	68.3	a	40.8	a	14.7	b	8432	a
5	UREA	180	4-5 leaf	75.3	a	68.3	a	40.3	ab	14.9	ab	8271	a
6	UREA	210	4-5 leaf	75.3	a	68.3	a	39.5	ab	15.3	a	8356	a
LSD P=.05				0.63		0.63		2.15		0.46		1135.1	
Standard Deviation				0.42		0.42		1.43		0.31		753.2	
CV				0.56		0.61		3.72		2.09		10.28	
Treatment F				1.000		1.000		20.246		7.292		16.827	
Treatment Prob(F)				0.4509		0.4509		0.0001		0.0012		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded 1902212 L to Nitrogen
Fertilizer Rate and Time of Application – Tensas Parish

Experiment number ..... : 20-SJ-11

Site and design ..... :
- **Location/Cooperator** ..... : Tensas Parish / Warren Ratcliff
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Commerce silt loam / Sharkey clay (2018 soil sample)
- **% organic matter** ..... : 1.71
- **pH** ..... : 7.75
- **Extractable nutrients ppm** ..... : Ca-4568; Cu-6.5; Mg-892; P-47; K-303; Na-51; S-8.3; Zn-2.9

Crop/Variety ..... : Rice / 1902212 L
- **Planting method/date** ..... : Drill seeded / May 6
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 13
- **Harvest date** ..... : Sept. 9

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 4
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 2 qt/A Glyphosate + 2 oz/A Sharpen + 16 oz/A Command, May 9
  2 qt/A Stam + 2 pt/A Prowl H_2O, May 20
  2 qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + .5 oz/A Permit + 1 oz/A Londax, June 2
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 31

Table 34. Agronomic response of drill-seeded 1902212 L to nitrogen fertilizer rate and time of application. Tensas Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								9/8/2020		9/9/2020		9/9/2020	
Rating Type				50% HD		50% HD		Height		Moist		Yield	
Rating Unit				days		days		in		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	UREA	0	4-5 leaf	70.3	g	63.3	g	30.5	e	15.6	bcd	3240	h
2	UREA	30	4-5 leaf	70.8	fg	63.8	fg	33.8	d	15.1	def	4271	g
3	UREA	60	4-5 leaf	71.5	efg	64.5	efg	37.3	abc	14.8	f	4927	f
4	UREA	90	4-5 leaf	73.8	abc	66.8	abc	37.0	bc	14.9	ef	5910	e
5	UREA	120	4-5 leaf	73.3	a-d	66.3	a-d	37.5	abc	15.4	cde	6699	cd
6	UREA	150	4-5 leaf	73.8	abc	66.8	abc	38.5	ab	15.7	abc	7418	b
7	UREA	180	4-5 leaf	74.3	ab	67.3	ab	39.0	ab	16.0	ab	7625	b
8	UREA	210	4-5 leaf	74.5	a	67.5	a	39.8	a	16.2	a	8510	a
9	UREA	45	4-5 leaf	72.0	def	65.0	def	35.8	cd	15.0	ef	5780	e
	UREA	45	PD										
10	UREA	75	4-5 leaf	72.5	cde	65.5	cde	36.5	bc	15.1	def	6207	de
	UREA	45	PD										
11	UREA	105	4-5 leaf	73.0	bcd	66.0	bcd	38.5	ab	15.3	cde	7128	bc
	UREA	45	PD										
12	UREA	135	4-5 leaf	74.3	ab	67.3	ab	37.5	abc	15.8	abc	7571	b
	UREA	45	PD										
LSD P=.05				1.42		1.42		2.65		0.52		542.1	
Standard Deviation				0.99		0.99		1.84		0.36		376.8	
CV				1.35		1.5		5.01		2.36		6.01	
Treatment F				8.344		8.344		7.561		6.252		66.940	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD)

Agronomic Response of Drill-Seeded CLJ01 to Nitrogen
Fertilizer Rate and Time of Application – Richland Parish

Experiment number ..... : 20-RP-01

Site and design ..... :
- **Location/Cooperator** ..... : Richland Parish / Ashley Dixon
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Hebert silty clay
- **% organic matter** ..... : 2.48
- **pH** ..... : 6.94
- **Extractable nutrients ppm** ..... : Ca-2,937; Cu-3.15; Mg-681; P-15.0; K-160; Na-149; S-31; Zn-1.5

Crop/Variety ..... : Rice / CLJ01
- **Planting method/date** ..... : Drill seeded / May 19
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 28
- **Harvest date** ..... : Sept. 10

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 18
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 16 oz/A Command + 2 oz/A Sharpen, May 19
  2qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + 0.33 oz/A Permit, June 2
  2qt/A Stam + 2 qt/A Rice Beaux + 8 oz/A Newpath, June 16
  21 oz/A Clincher + 8 oz/A Crop oil, June 29
- **Insecticides** ..... : None
- **Fungicides** ..... : None

Table 35. Agronomic response of drill-seeded CLJ01 to nitrogen fertilizer rate and time of application. Richland Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								9/10/2020		9/10/2020		9/10/2020	
Rating Type				50% HD		50% HD		Height		Moist		Yield	
Rating Unit				days		days		in		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Groth Stage										
1	UREA	0	4-5 leaf	78.0	h	69.0	h	32.0	a	16.2	a	4924	d
2	UREA	30	4-5 leaf	78.8	gh	69.8	gh	33.8	a	15.9	a	5627	c
3	UREA	60	4-5 leaf	80.3	f	71.3	f	32.0	a	16.6	a	6002	c
4	UREA	90	4-5 leaf	82.0	e	73.0	e	32.8	a	16.8	a	6436	b
5	UREA	120	4-5 leaf	84.5	d	75.5	d	33.0	a	16.5	a	6729	ab
6	UREA	150	4-5 leaf	85.8	c	76.8	c	32.8	a	16.8	a	6670	ab
7	UREA	180	4-5 leaf	88.8	a	79.8	a	33.5	a	16.3	a	6714	ab
8	UREA	210	4-5 leaf	86.8	b	77.8	b	33.3	a	16.7	a	6488	ab
9	UREA	45	4-5 leaf	78.8	gh	69.8	gh	33.8	a	16.0	a	6534	ab
	UREA	45	PD										
10	UREA	75	4-5 leaf	79.5	fg	70.5	fg	33.5	a	16.5	a	6726	ab
	UREA	45	PD										
11	UREA	105	4-5 leaf	85.8	c	76.8	c	34.8	a	16.4	a	6916	a
	UREA	45	PD										
12	UREA	135	4-5 leaf	84.3	d	75.3	d	33.8	a	17.0	a	6760	ab
	UREA	45	PD										
LSD P=.05				0.99		0.99		2.59		1.01		433.0	
Standard Deviation				0.69		0.69		1.80		0.70		301.0	
CV				0.83		0.93		5.42		4.25		4.72	
Treatment F				114.000		114.000		0.763		0.923		14.998	
Treatment Prob(F)				0.0001		0.0001		0.6724		0.5303		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD)

Agronomic Response of Drill-Seeded CLL15 to Nitrogen
Fertilizer Rate and Time of Application – Richland Parish

Experiment number ..... : 20-RP-03

Site and design ..... :
- **Location/Cooperator** ..... : Richland Parish / Ashley Dixon
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Hebert silty clay
- **% organic matter** ..... : 2.48
- **pH** ..... : 6.94
- **Extractable nutrients ppm** ..... : Ca-2,937; Cu-3.15; Mg-681; P-15.0; K-160; Na-149; S-31; Zn-1.5

Crop/Variety ..... : Rice / CLL15
- **Planting method/date** ..... : Drill seeded / May 19
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 28
- **Harvest date** ..... : Sept. 10

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 18
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 16 oz/A Command + 2 oz/A Sharpen, May 19
  2qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + 0.33 oz/A Permit, June 2
  2qt/A Stam + 2 qt/A Rice Beaux + 8 oz/A Newpath, June 16
  21 oz/A Clincher + 8 oz/A Crop oil, June 29
- **Insecticides** ..... : None
- **Fungicides** ..... : None

Table 36. Agronomic response of drill-seeded CLL15 to nitrogen fertilizer rate and time of application. Richland Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								9/10/2020		9/10/2020		9/10/2020	
Rating Type				50% HD		50% HD		Height		Moist		Yield	
Rating Unit				days		days		in		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	UREA	0	4-5 leaf	78.0	i	69.0	i	30.5	f	15.8	a	5929	e
2	UREA	30	4-5 leaf	78.5	hi	69.5	hi	32.0	e	15.8	a	7322	d
3	UREA	60	4-5 leaf	79.3	gh	70.3	gh	33.3	de	16.1	a	7968	bc
4	UREA	90	4-5 leaf	84.3	cd	75.3	cd	34.3	a-d	16.4	a	8045	abc
5	UREA	120	4-5 leaf	85.3	bc	76.3	bc	35.5	a	16.4	a	8201	ab
6	UREA	150	4-5 leaf	84.0	d	75.0	d	35.0	ab	16.6	a	8085	abc
7	UREA	180	4-5 leaf	87.3	a	78.3	a	34.8	abc	15.7	a	7921	bc
8	UREA	210	4-5 leaf	85.5	b	76.5	b	33.5	cd	16.0	a	7632	cd
9	UREA	45	4-5 leaf	80.3	fg	71.3	fg	33.5	cd	16.1	a	7789	bcd
	UREA	45	PD										
10	UREA	75	4-5 leaf	82.0	e	73.0	e	34.3	a-d	16.7	a	8280	ab
	UREA	45	PD										
11	UREA	105	4-5 leaf	81.3	ef	72.3	ef	35.0	ab	16.7	a	8576	a
	UREA	45	PD										
12	UREA	135	4-5 leaf	85.8	b	76.8	b	34.0	bcd	17.6	a	8084	abc
	UREA	45	PD										
LSD P=.05				1.09		1.09		1.32		1.39		543.0	
Standard Deviation				0.76		0.76		0.92		0.97		377.5	
CV				0.92		1.03		2.72		5.93		4.83	
Treatment F				68.487		68.487		9.340		1.203		12.792	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.3232		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded CLM04 to Nitrogen
Fertilizer Rate and Time of Application – Richland Parish

Experiment number ..... : 20-RP-04

Site and design ..... :
- **Location/Cooperator** ..... : Richland Parish / Ashley Dixon
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Hebert silty clay
- **% organic matter** ..... : 2.48
- **pH** ..... : 6.94
- **Extractable nutrients ppm** ..... : Ca-2,937; Cu-3.15; Mg-681; P-15.0; K-160; Na-149; S-31; Zn-1.5

Crop/Variety ..... : Rice / CLM04
- **Planting method/date** ..... : Drill seeded / May 19
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 28
- **Harvest date** ..... : Sept. 10

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 18
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 16 oz/A Command + 2 oz/A Sharpen, May 19
  2qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + 0.33 oz/A Permit, June 2
  2qt/A Stam + 2 qt/A Rice Beaux + 8 oz/A Newpath, June 16
  21 oz/A Clincher + 8 oz/A Crop oil, June 29
- **Insecticides** ..... : None
- **Fungicides** ..... : None

Table 37. Agronomic response of drill-seeded CLM04 to nitrogen fertilizer rate and time of application. Richland Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								9/10/2020		9/10/2020		9/10/2020	
Rating Type				50% HD		50% HD		Height		Moist		Yield	
Rating Unit				days		days		in		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	UREA	0	4-5 leaf	84.8	e	75.8	e	33.0	e	22.5	a	5951	e
2	UREA	30	4-5 leaf	85.8	e	76.8	e	35.3	d	21.4	a	7113	cd
3	UREA	60	4-5 leaf	85.3	e	76.3	e	36.0	cd	21.0	a	7482	bc
4	UREA	90	4-5 leaf	87.3	d	78.3	d	37.5	abc	21.0	a	7706	abc
5	UREA	120	4-5 leaf	88.5	bc	79.5	bc	39.0	a	20.4	a	8224	a
6	UREA	150	4-5 leaf	88.5	bc	79.5	bc	38.0	ab	20.6	a	7625	abc
7	UREA	180	4-5 leaf	89.5	ab	80.5	ab	38.0	ab	19.5	a	7322	cd
8	UREA	210	4-5 leaf	90.3	a	81.3	a	38.3	ab	19.5	a	6808	d
9	UREA	45	4-5 leaf	87.8	cd	78.8	cd	36.5	bcd	21.3	a	7652	abc
	UREA	45	PD										
10	UREA	75	4-5 leaf	88.8	bc	79.8	bc	37.8	abc	20.7	a	8039	ab
	UREA	45	PD										
11	UREA	105	4-5 leaf	89.5	ab	80.5	ab	37.5	abc	20.3	a	7674	abc
	UREA	45	PD										
12	UREA	135	4-5 leaf	89.0	b	80.0	b	38.3	ab	21.5	a	7526	bc
	UREA	45	PD										
LSD P=.05				1.21		1.21		1.81		1.78		617.1	
Standard Deviation				0.84		0.84		1.25		1.23		429.0	
CV				0.96		1.07		3.38		5.93		5.78	
Treatment F				18.013		18.013		7.060		1.889		7.754	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0778		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded CLL17 to Nitrogen
Fertilizer Rate and Time of Application – Richland Parish

Experiment number ..... : 20-RP-05

Site and design ..... :
- **Location/Cooperator** ..... : Richland Parish / Ashley Dixon
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Hebert silty clay
- **% organic matter** ..... : 2.48
- **pH** ..... : 6.94
- **Extractable nutrients ppm** ..... : Ca-2,937; Cu-3.15; Mg-681; P-15.0; K-160; Na-149; S-31; Zn-1.5

Crop/Variety ..... : Rice / CLL17
- **Planting method/date** ..... : Drill seeded / May 19
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 28
- **Harvest date** ..... : Sept. 10

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 18
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 16 oz/A Command + 2 oz/A Sharpen, May 19
  2qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + 0.33 oz/A Permit, June 2
  2qt/A Stam + 2 qt/A Rice Beaux + 8 oz/A Newpath, June 16
  21 oz/A Clincher + 8 oz/A Crop oil, June 29
- **Insecticides** ..... : None
- **Fungicides** ..... : None

Table 38. Agronomic response of drill-seeded CLL17 to nitrogen fertilizer rate and time of application. Richland Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								9/10/2020		9/10/2020		9/10/2020	
Rating Type				50% HD		50% HD		Height		Moist		Yield	
Rating Unit				days		days		in		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	UREA	0	4-5 leaf	79.8	fg	70.8	fg	31.0	d	14.6	a	6259	d
2	UREA	30	4-5 leaf	79.3	g	70.3	g	32.8	cd	14.4	a	7278	bc
3	UREA	60	4-5 leaf	80.3	f	71.3	f	33.5	bc	14.4	a	7872	a
4	UREA	90	4-5 leaf	82.8	d	73.8	d	35.0	ab	14.2	a	7631	ab
5	UREA	120	4-5 leaf	82.8	d	73.8	d	36.3	a	14.7	a	7958	a
6	UREA	150	4-5 leaf	82.3	de	73.3	de	36.3	a	14.5	a	7644	ab
7	UREA	180	4-5 leaf	86.5	a	77.5	a	35.5	ab	13.9	a	7237	bc
8	UREA	210	4-5 leaf	85.5	bc	76.5	bc	35.5	ab	13.8	a	7119	c
9	UREA	45	4-5 leaf	86.3	ab	77.3	ab	32.8	cd	14.4	a	7675	ab
	UREA	45	PD										
10	UREA	75	4-5 leaf	81.5	e	72.5	e	35.5	ab	14.4	a	7926	a
	UREA	45	PD										
11	UREA	105	4-5 leaf	85.0	c	76.0	c	36.5	a	14.6	a	7657	ab
	UREA	45	PD										
12	UREA	135	4-5 leaf	85.5	bc	76.5	bc	36.8	a	15.2	a	7556	abc
	UREA	45	PD										
LSD P=.05				0.99		0.99		2.10		0.92		489.2	
Standard Deviation				0.69		0.69		1.46		0.64		340.0	
CV				0.83		0.93		4.2		4.44		4.54	
Treatment F				57.451		57.451		6.299		1.254		7.630	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.2931		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded 1702183 CLL to Nitrogen
Fertilizer Rate and Time of Application – Richland Parish

Experiment number ..... : 20-RP-09

Site and design ..... :
- **Location/Cooperator** ..... : Richland Parish / Ashley Dixon
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Hebert silty clay
- **% organic matter** ..... : 2.48
- **pH** ..... : 6.94
- **Extractable nutrients ppm** ..... : Ca-2,937; Cu-3.15; Mg-681; P-15.0; K-160; Na-149; S-31; Zn-1.5

Crop/Variety ..... : Rice / 1702183 CLL
- **Planting method/date** ..... : Drill seeded / May 19
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 28
- **Harvest date** ..... : Sept. 10

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 18
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 16 oz/A Command + 2 oz/A Sharpen, May 19
  2qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + 0.33 oz/A Permit, June 2
  2qt/A Stam + 2 qt/A Rice Beaux + 8 oz/A Newpath, June 16
  21 oz/A Clincher + 8 oz/A Crop oil, June 29
- **Insecticides** ..... : None
- **Fungicides** ..... : None

Table 39. Agronomic response of drill-seeded 1702183 CLL to nitrogen fertilizer rate and time of application. Richland Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								9/10/2020		9/10/2020		9/10/2020	
Rating Type				50% HD		50% HD		Height		Moist		Yield	
Rating Unit				days		days		in		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	UREA	0	4-5 leaf	75.8	d	66.8	d	31.8	c	13.8	c	5104	b
2	UREA	90	4-5 leaf	78.8	c	69.8	c	35.8	b	15.1	b	7504	a
3	UREA	120	4-5 leaf	79.5	bc	70.5	bc	36.3	b	15.5	ab	7579	a
4	UREA	150	4-5 leaf	78.8	c	69.8	c	37.5	ab	15.3	ab	7424	a
5	UREA	180	4-5 leaf	80.5	a	71.5	a	39.8	a	15.6	ab	7526	a
6	UREA	210	4-5 leaf	80.3	ab	71.3	ab	37.5	ab	15.8	a	7410	a
LSD P=.05				0.83		0.83		2.62		0.77		536.0	
Standard Deviation				0.55		0.55		1.74		0.51		355.7	
CV				0.69		0.78		4.77		3.38		5.02	
Treatment F				39.222		39.222		9.487		8.052		30.108	
Treatment Prob(F)				0.0001		0.0001		0.0003		0.0007		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded RT7321 FP to Nitrogen Fertilizer Rate and Time of Application – Richland Parish

Experiment number ..... : 20-RP-41

Site and design ..... :
- **Location/Cooperator** ..... : Richland Parish / Ashley Dixon
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Hebert silty clay
- **% organic matter** ..... : 2.48
- **pH** ..... : 6.94
- **Extractable nutrients ppm** ..... : Ca-2,937; Cu-3.15; Mg-681; P-15.0; K-160; Na-149; S-31; Zn-1.5

Crop/Variety ..... : Rice / RT7321 FP
- **Planting method/date** ..... : Drill seeded / May 19
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 28
- **Harvest date** ..... : Sept. 10

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 18
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 16 oz/A Command + 2 oz/A Sharpen, May 19
  2qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + 0.33 oz/A Permit, June 2
  2qt/A Stam + 2 qt/A Rice Beaux + 8 oz/A Newpath, June 16
  21 oz/A Clincher + 8 oz/A Crop oil, June 29
- **Insecticides** ..... : None
- **Fungicides** ..... : None

Table 40. Agronomic response of drill-seeded RT7321 FP to nitrogen fertilizer rate and time of application. Richland Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								9/10/2020		9/10/2020		9/10/2020		9/10/2020	
Rating Type				50% HD		50% HD		Height		Lodge				Yield	
Rating Unit				days		days		in		% plot		rate		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	77.5	d	68.5	d	38.0	a	90.0	a	2.0	a	4922	c
2	UREA	60	4-5 leaf	78.8	cd	69.8	cd	31.8	a	72.8	a	2.8	a	7076	b
3	UREA	90	4-5 leaf	80.5	ab	71.5	ab	41.5	a	82.5	a	2.3	a	7259	b
4	UREA	120	4-5 leaf	80.5	ab	71.5	ab	40.5	a	92.5	a	2.8	a	8475	a
5	UREA	150	4-5 leaf	81.0	a	72.0	a	42.3	a	90.0	a	2.3	a	7934	ab
6	UREA	180	4-5 leaf	81.5	a	72.5	a	41.3	a	90.0	a	2.3	a	8506	a
7	UREA	75	4-5 leaf	79.5	bc	70.5	bc	40.5	a	90.0	a	2.0	a	8590	a
	UREA	45	50% HD												
8	UREA	105	4-5 leaf	80.5	ab	71.5	ab	39.8	a	82.5	a	2.0	a	8360	a
	UREA	45	50% HD												
9	UREA	135	4-5 leaf	80.5	ab	71.5	ab	44.0	a	85.0	a	2.3	a	8675	a
	UREA	45	50% HD												
LSD P=.05				1.28		1.28		9.32		21.21		1.16		880.6	
Standard Deviation				0.87		0.87		6.39		14.53		0.80		603.4	
CV				1.09		1.23		15.99		16.87		35.03		7.78	
Treatment F				8.055		8.055		1.195		0.727		0.535		16.154	
Treatment Prob(F)				0.0001		0.0001		0.3427		0.6664		0.8188		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Agronomic Response of Drill-Seeded RT7521 FP to Nitrogen Fertilizer Rate and Time of Application – Richland Parish

Experiment number ..... : 20-RP-41

Site and design ..... :
- **Location/Cooperator** ..... : Richland Parish / Ashley Dixon
- **Tillage type** ..... : Conventional
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Hebert silty clay
- **% organic matter** ..... : 2.48
- **pH** ..... : 6.94
- **Extractable nutrients ppm** ..... : Ca-2,937; Cu-3.15; Mg-681; P-15.0; K-160; Na-149; S-31; Zn-1.5

Crop/Variety ..... : Rice / RT7521 FP
- **Planting method/date** ..... : Drill seeded / May 19
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 28
- **Harvest date** ..... : Sept. 10

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : No blanket applications

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 18
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 16 oz/A Command + 2 oz/A Sharpen, May 19
  2qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + 0.33 oz/A Permit, June 2
  2qt/A Stam + 2 qt/A Rice Beaux + 8 oz/A Newpath, June 16
  21 oz/A Clincher + 8 oz/A Crop oil, June 29
- **Insecticides** ..... : None
- **Fungicides** ..... : None

Table 41. Agronomic response of drill-seeded RT7521 FP to nitrogen fertilizer rate and time of application. Richland Parish.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								9/10/2020		9/10/2020		9/10/2020		9/10/2020	
Rating Type				50% HD		50% HD		Height		Lodge				Yield	
Rating Unit				days		days		in		% plot		rate		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	79.5	e	70.5	e	35.5	b	0.0	a	0.0	a	5672	d
2	UREA	60	4-5 leaf	81.0	de	72.0	de	38.5	b	0.0	a	0.0	a	7104	c
3	UREA	90	4-5 leaf	81.8	cd	72.8	cd	43.0	a	0.0	a	0.0	a	8098	b
4	UREA	120	4-5 leaf	83.8	ab	74.8	ab	44.3	a	0.0	a	0.0	a	8904	a
5	UREA	150	4-5 leaf	85.0	ab	76.0	ab	44.0	a	0.0	a	0.0	a	8785	ab
6	UREA	180	4-5 leaf	85.5	a	76.5	a	45.8	a	0.0	a	0.0	a	8917	a
7	UREA	75	4-5 leaf	81.8	cd	72.8	cd	43.0	a	12.5	a	0.8	a	8146	b
	UREA	45	50% HD												
8	UREA	105	4-5 leaf	83.3	bc	74.3	bc	43.5	a	0.0	a	0.0	a	8762	ab
	UREA	45	50% HD												
9	UREA	135	4-5 leaf	85.3	a	76.3	a	44.5	a	12.5	a	0.8	a	8913	a
	UREA	45	50% HD												
LSD P=.05				1.79		1.79		3.49		16.09		0.97		700.1	
Standard Deviation				1.23		1.23		2.39		11.02		0.66		479.7	
CV				1.48		1.66		5.63		396.86		396.86		5.89	
Treatment F				11.732		11.732		7.548		1.000		1.000		21.190	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.4613		0.4613		0.0001	

Means followed by the same letter or symbol do not significantly differ (P =.05, LSD).

Evaluation of Seeding Rate and Plant Population in a Stale Seedbed for PVL02 – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-14

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.32
- **Extractable nutrients ppm** ..... : Ca-1,446; Cu-1.73; Mg-276; P-7.7; K-64.5; Na-86; S-9.0; Zn-7.4

Crop/Variety ..... : Rice / PVL02
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : See treatment name for seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : Aug. 4
- **Ratoon harvest date** ..... : Nov. 3

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
150 lb N/A 46-0-0, April 21
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 42. Evaluation of seeding rate and plant population in a stale seedbed for PVL02. H. Rouse Caffey Rice Research Station.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Rice Density		Plant-hd		Emer-hd		Tip of panicle							
Rating Date		4/2/2020						8/4/2020		8/4/2020		11/3/2020			
Rating Type		Stand Count		50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit		#/sq ft.		days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority		Main		Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	4.5	f	102.8	a	94.8	a	43.0	a	8249	c	1074	d	9322	e
2	7.5 seed/ft2 (17.4 lb/A)	6.2	ef	102.3	ab	94.3	ab	43.0	a	9028	b	1115	d	10143	de
3	10 seed/ft2 (22.3 lb/A)	7.9	ef	101.3	bc	93.3	bc	40.0	a	9378	ab	1419	cd	10796	cd
4	15 seed/ft2 (34.9 lb/A)	9.9	e	101.3	bc	93.3	bc	40.3	a	9297	ab	1800	bc	11097	bc
5	20 seed/ft2 (46.6 lb/A)	16.9	d	100.3	cd	92.3	cd	41.8	a	9717	a	2290	ab	12007	ab
6	25 seed/ft2 (58.2 lb/A)	20.1	cd	99.8	d	91.8	d	40.3	a	9580	ab	2109	ab	11689	abc
7	30 seed/ft2 (69.9 lb/A)	24.7	bc	100.3	cd	92.3	cd	40.8	a	9618	ab	2298	ab	11916	ab
8	35 seed/ft2 (81.5 lb/A)	28.2	ab	99.8	d	91.8	d	42.3	a	9670	ab	2610	a	12280	a
9	40 seed/ft2 (93.1 lb/A)	31.0	a	99.5	d	91.5	d	43.0	a	9788	a	2773	a	12561	a
LSD P=.05		5.13		1.04		1.04		2.87		670.3		681.1		950.8	
Standard Deviation		3.52		0.71		0.71		1.96		459.3		466.7		651.5	
CV		21.18		0.7		0.77		4.72		4.9		24.02		5.76	
Treatment F		32.190		10.706		10.706		1.718		4.434		7.216		10.748	
Treatment Prob(F)		0.0001		0.0001		0.0001		0.1455		0.0021		0.0001		0.0001	

Continued.

Table 42. Continued.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Yield Components													
Rating Type		WP dry wt.		Panicle		Grain wt.		10 P gr wt.		10 P seed		Milling (%)			
Rating Unit		grams		number		grams		grams		number		head		total	
Sample size, unit		3 ft.		3 ft.		3 ft.		3 ft.		3 ft.					
Collection basis, unit		1 row		1 row		1 row		1 row		1 row					
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	366.7	a	76	a	119.6	a	25.73	a	1260	a	69.16	a	74.78	a
2	7.5 seed/ft2 (17.4 lb/A)	346.1	a	70	a	138.3	a	27.44	a	1341	a	68.97	a	74.84	a
3	10 seed/ft2 (22.3 lb/A)	373.5	a	77	a	159.3	a	29.70	a	1432	a	69.10	a	74.81	a
4	15 seed/ft2 (34.9 lb/A)	334.1	a	76	a	112.0	a	23.14	a	1115	a	69.16	a	74.74	a
5	20 seed/ft2 (46.6 lb/A)	363.9	a	78	a	155.5	a	25.36	a	1219	a	69.47	a	74.95	a
6	25 seed/ft2 (58.2 lb/A)	335.7	a	81	a	100.3	a	26.27	a	1236	a	69.13	a	74.83	a
7	30 seed/ft2 (69.9 lb/A)	362.3	a	91	a	139.6	a	29.05	a	1346	a	69.11	a	74.94	a
8	35 seed/ft2 (81.5 lb/A)	353.9	a	85	a	157.0	a	22.24	a	1023	a	69.11	a	74.88	a
9	40 seed/ft2 (93.1 lb/A)	379.8	a	103	a	139.8	a	22.43	a	1072	a	69.21	a	74.90	a
LSD P=.05		90.52		20.9		66.48		6.582		305.1		1.061		0.470	
Standard Deviation		62.02		14.3		45.55		4.510		209.1		0.726		0.321	
CV		17.36		17.52		33.56		17.54		17.04		1.05		0.43	
Treatment F		0.269		1.948		0.847		1.473		1.701		0.137		0.204	
Treatment Prob(F)		0.9700		0.0988		0.5719		0.2188		0.1497		0.9966		0.9873	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Seeding Rate and Plant Population in a Stale Seedbed for CLJ01 – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-15

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.32
- **Extractable nutrients ppm** ..... : Ca-1,446; Cu-1.73; Mg-276; P-7.7; K-64.5; Na-86; S-9.0; Zn-7.4

Crop/Variety ..... : Rice / CLJ01
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : See treatment name for seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : Aug. 4
- **Ratoon harvest date** ..... : Nov. 3

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
150 lb N/A 46-0-0, April 21
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 43. Evaluation of seeding rate and plant population in a stale seedbed for CLJ01. H. Rouse Caffey Rice Research Station.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Rice Density		Plant-hd		Emer-hd		Tip of panicle							
Rating Date		4/2/2020						8/4/2020		8/4/2020		11/3/2020			
Rating Type		Stand Count		50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit		#/sq ft.		days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority		Main		Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	3.9	f	102.8	a	94.8	a	37.3	a	9096	a	1294	c	10390	c
2	7.5 seed/ft2 (17.4 lb/A)	6.6	ef	102.5	a	94.5	a	37.5	a	9473	a	1401	c	10874	bc
3	10 seed/ft2 (22.3 lb/A)	8.5	e	101.8	ab	93.8	ab	36.8	a	9927	a	1603	bc	11530	ab
4	15 seed/ft2 (34.9 lb/A)	13.2	d	101.0	bc	93.0	bc	36.0	a	10001	a	2021	ab	12022	a
5	20 seed/ft2 (46.6 lb/A)	16.4	cd	100.5	bcd	92.5	bcd	36.5	a	9943	a	1909	ab	11852	ab
6	25 seed/ft2 (58.2 lb/A)	19.1	c	100.5	bcd	92.5	bcd	37.0	a	9474	a	2063	ab	11537	ab
7	30 seed/ft2 (69.9 lb/A)	23.6	b	100.0	cd	92.0	cd	37.5	a	10225	a	2214	a	12439	a
8	35 seed/ft2 (81.5 lb/A)	27.4	a	99.8	cd	91.8	cd	37.0	a	10019	a	2198	a	12217	a
9	40 seed/ft2 (93.1 lb/A)	28.7	a	99.5	d	91.5	d	36.5	a	9864	a	2167	a	12031	a
LSD P=.05		3.60		1.37		1.37		1.80		776.6		499.5		1137.7	
Standard Deviation		2.47		0.94		0.94		1.24		532.1		342.3		779.6	
CV		15.07		0.93		1.01		3.35		5.44		18.26		6.69	
Treatment F		53.888		6.340		6.340		0.660		1.790		4.265		2.866	
Treatment Prob(F)		0.0001		0.0002		0.0002		0.7206		0.1288		0.0027		0.0217	

Continued.

Table 42. Continued.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Yield Components													
Rating Type		WP dry wt.		Panicle #		Grain wt.		10 P gr wt.		10 P seed		Milling (%)			
Rating Unit		grams		number		grams		grams		number		head		total	
Sample size, unit		3 ft.		3 ft.		3 ft.		3 ft.		3 ft.					
Collection basis, unit		1 row		1 row		1 row		1 row		1 row					
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	346.1	a	72	d	129.1	a	26.52	a	1201	a	69.09	a	73.63	a
2	7.5 seed/ft2 (17.4 lb/A)	364.6	a	86	bcd	133.4	a	22.05	a	1035	a	69.31	a	73.71	a
3	10 seed/ft2 (22.3 lb/A)	303.1	a	76	d	98.8	a	24.44	a	1149	a	69.33	a	73.79	a
4	15 seed/ft2 (34.9 lb/A)	314.1	a	88	bcd	112.7	a	22.36	a	1047	a	68.85	a	73.68	a
5	20 seed/ft2 (46.6 lb/A)	294.0	a	82	cd	80.6	a	17.25	a	809	a	68.66	a	73.57	a
6	25 seed/ft2 (58.2 lb/A)	269.8	a	85	bcd	96.5	a	21.20	a	987	a	69.25	a	73.69	a
7	30 seed/ft2 (69.9 lb/A)	319.7	a	100	abc	112.8	a	20.33	a	936	a	69.24	a	74.17	a
8	35 seed/ft2 (81.5 lb/A)	312.0	a	110	a	109.6	a	19.42	a	879	a	68.94	a	74.10	a
9	40 seed/ft2 (93.1 lb/A)	311.6	a	106	ab	84.5	a	16.41	a	756	a	69.06	a	74.05	a
LSD P=.05		71.38		21.7		53.79		7.543		352.3		0.710		0.429	
Standard Deviation		48.91		14.9		36.86		5.169		241.4		0.487		0.294	
CV		15.53		16.61		34.63		24.48		24.7		0.7		0.4	
Treatment F		1.272		3.156		0.970		1.558		1.514		0.895		2.308	
Treatment Prob(F)		0.3033		0.0138		0.4819		0.1901		0.2043		0.5355		0.0541	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Seeding Rate and Plant Population in a Stale Seedbed for CLL15 – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-16

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.32
- **Extractable nutrients ppm** ..... : Ca-1,446; Cu-1.73; Mg-276; P-7.7; K-64.5; Na-86; S-9.0; Zn-7.4

Crop/Variety ..... : Rice / CLL15
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : See treatment name for seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : Aug. 4
- **Ratoon harvest date** ..... : Nov. 3

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
150 lb N/A 46-0-0, April 21
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 43. Evaluation of seeding rate and plant population in a stale seedbed for CLL15. H. Rouse Caffey Rice Research Station.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Rice Density		Plant-hd		Emer-hd		Tip of panicle							
Rating Date		4/2/2020						8/4/2020		8/4/2020		11/3/2020			
Rating Type		Stand Count		50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit		#/sq ft.		days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority		Main		Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	4.0	e	101.8	a	93.8	a	35.8	a	9534	b	1312	c	10847	c
2	7.5 seed/ft2 (17.4 lb/A)	5.6	e	101.5	a	93.5	a	35.5	a	9803	b	1360	c	11146	c
3	10 seed/ft2 (22.3 lb/A)	8.9	d	100.5	b	92.5	b	34.3	a	10580	a	1639	abc	12292	ab
4	15 seed/ft2 (34.9 lb/A)	10.8	d	100.5	b	92.5	b	34.0	a	9787	b	1586	bc	11445	bc
5	20 seed/ft2 (46.6 lb/A)	16.7	c	99.5	c	91.5	c	33.8	a	11037	a	1911	ab	12949	a
6	25 seed/ft2 (58.2 lb/A)	20.2	b	99.0	c	91.0	c	34.8	a	10660	a	1931	a	12614	a
7	30 seed/ft2 (69.9 lb/A)	23.0	b	98.8	c	90.8	c	34.0	a	10570	a	1927	a	12522	a
8	35 seed/ft2 (81.5 lb/A)	26.4	a	98.8	c	90.8	c	34.3	a	10868	a	1865	ab	12740	a
9	40 seed/ft2 (93.1 lb/A)	26.1	a	98.8	c	90.8	c	35.3	a	10950	a	1896	ab	12983	a
LSD P=.05		3.03		1.00		1.00		1.73		639.2		336.5		851.8	
Standard Deviation		2.08		0.68		0.68		1.18		428.5		230.6		571.0	
CV		13.21		0.68		0.74		3.42		4.11		13.45		4.69	
Treatment F		69.879		12.446		12.446		1.522		6.902		4.664		8.058	
Treatment Prob(F)		0.0001		0.0001		0.0001		0.2016		0.0004		0.0015		0.0002	

Continued.

Table 43. Continued.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Yield Components													
Rating Type		WP dry wt.		Panicle #		Grain wt.		10 P gr wt.		10 P seed		Milling (%)			
Rating Unit		grams		number		grams		grams		number		head		total	
Sample size, unit		3 ft.		3 ft.		3 ft.		3 ft.		3 ft.					
Collection basis, unit		1 row		1 row		1 row		1 row		1 row					
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	338.6	a	65	e	137.7	a	30.10	a	1338	a	64.45	a	73.19	a
2	7.5 seed/ft2 (17.4 lb/A)	361.6	a	77	cde	153.9	a	25.84	ab	1230	ab	64.53	a	73.21	a
3	10 seed/ft2 (22.3 lb/A)	324.4	a	75	de	122.1	a	26.43	ab	1190	abc	62.85	bc	72.72	a
4	15 seed/ft2 (34.9 lb/A)	310.3	a	79	cde	121.6	a	22.89	bc	1000	bcd	64.01	ab	73.00	a
5	20 seed/ft2 (46.6 lb/A)	350.2	a	94	bc	148.6	a	22.74	bc	1017	bcd	63.69	abc	73.13	a
6	25 seed/ft2 (58.2 lb/A)	394.2	a	106	ab	155.2	a	21.09	bc	943	cd	63.69	abc	73.16	a
7	30 seed/ft2 (69.9 lb/A)	366.4	a	120	a	152.8	a	18.63	c	843	d	62.62	c	72.84	a
8	35 seed/ft2 (81.5 lb/A)	309.7	a	91	bcd	134.9	a	19.01	c	830	d	62.71	c	73.15	a
9	40 seed/ft2 (93.1 lb/A)	328.8	a	105	ab	123.8	a	22.52	bc	978	bcd	62.78	c	72.84	a
LSD P=.05		57.86		18.3		29.46		6.687		269.7		1.183		0.522	
Standard Deviation		39.65		12.5		20.19		4.582		184.8		0.811		0.358	
CV		11.57		13.89		14.53		19.71		17.75		1.28		0.49	
Treatment F		2.006		8.248		1.971		2.587		3.594		3.521		1.046	
Treatment Prob(F)		0.0896		0.0001		0.0950		0.0341		0.0070		0.0079		0.4311	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Seeding Rate and Plant Population in a Stale Seedbed for DG-263L – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-17

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.32
- **Extractable nutrients ppm** ..... : Ca-1,446; Cu-1.73; Mg-276; P-7.7; K-64.5; Na-86; S-9.0; Zn-7.4

Crop/Variety ..... : Rice / DG-263L
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : See treatment name for seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : Aug. 4
- **Ratoon harvest date** ..... : Nov. 3

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
150 lb N/A 46-0-0, April 21
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 44. Evaluation of seeding rate and plant population in a stale seedbed for DG-263L. H. Rouse Caffey Rice Research Station.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Rice Density		Plant-hd		Emer-hd		Tip of panicle							
Rating Date		4/2/2020						8/4/2020		8/4/2020		11/3/2020			
Rating Type		Stand Count		50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit		#/sq ft.		days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority		Main		Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	4.2	f	100.0	a	92.0	a	32.0	a	10092	c	1197	cd	11289	d
2	7.5 seed/ft2 (17.4 lb/A)	6.1	ef	99.0	ab	91.0	ab	32.0	a	10426	c	1140	d	11565	d
3	10 seed/ft2 (22.3 lb/A)	7.2	e	98.5	b	90.5	b	31.8	a	10866	b	1368	bcd	12234	c
4	15 seed/ft2 (34.9 lb/A)	12.9	d	96.8	c	88.8	c	31.8	a	11006	ab	1629	ab	12636	abc
5	20 seed/ft2 (46.6 lb/A)	16.4	c	96.5	c	88.5	c	30.8	a	11033	ab	1376	bcd	12408	bc
6	25 seed/ft2 (58.2 lb/A)	17.5	c	96.0	c	88.0	c	32.0	a	11164	ab	1451	abc	12614	abc
7	30 seed/ft2 (69.9 lb/A)	23.7	b	96.0	c	88.0	c	31.8	a	11018	ab	1520	ab	12538	abc
8	35 seed/ft2 (81.5 lb/A)	22.6	b	96.0	c	88.0	c	31.8	a	11163	ab	1693	a	12856	a
9	40 seed/ft2 (93.1 lb/A)	28.9	a	96.0	c	88.0	c	33.3	a	11282	a	1537	ab	12820	ab
LSD P=.05		2.38		1.03		1.03		1.62		354.6		293.7		434.1	
Standard Deviation		1.63		0.71		0.71		1.11		243.0		201.3		297.5	
CV		10.54		0.73		0.79		3.48		2.23		14.03		2.41	
Treatment F		111.582		19.222		19.222		1.323		10.206		3.386		13.659	
Treatment Prob(F)		0.0001		0.0001		0.0001		0.2797		0.0001		0.0096		0.0001	

Continued.

Table 44. Continued.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Yield Components													
Rating Type		WP dry wt.		Panicle #		Grain wt.		10 P gr wt.		10 P seed		Milling (%)			
Rating Unit		grams		number		grams		grams		number		head		total	
Sample size, unit		3 ft.		3 ft.		3 ft.		3 ft.		3 ft.					
Collection basis, unit		1 row		1 row		1 row		1 row		1 row					
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	336.3	a	59	d	142.3	a	30.85	ab	1285	a	58.62	a	70.19	a
2	7.5 seed/ft2 (17.4 lb/A)	441.4	a	82	bc	188.2	a	32.68	a	1394	a	58.42	a	70.16	a
3	10 seed/ft2 (22.3 lb/A)	352.3	a	72	cd	146.0	a	25.88	bcd	1424	a	59.09	a	70.36	a
4	15 seed/ft2 (34.9 lb/A)	359.0	a	74	cd	148.2	a	28.17	abc	1151	a	57.41	a	70.10	a
5	20 seed/ft2 (46.6 lb/A)	423.1	a	92	ab	170.2	a	27.26	a-d	827	a	57.92	a	70.28	a
6	25 seed/ft2 (58.2 lb/A)	390.8	a	92	ab	159.4	a	17.93	e	949	a	57.98	a	70.26	a
7	30 seed/ft2 (69.9 lb/A)	406.2	a	95	ab	149.1	a	23.91	cd	1020	a	58.05	a	70.42	a
8	35 seed/ft2 (81.5 lb/A)	429.8	a	101	a	177.7	a	27.87	a-d	1155	a	58.24	a	70.38	a
9	40 seed/ft2 (93.1 lb/A)	442.7	a	104	a	176.3	a	22.58	de	939	a	58.13	a	70.59	a
LSD P=.05		81.07		17.9		33.59		5.570		444.1		1.287		0.554	
Standard Deviation		55.55		12.3		23.01		3.817		304.3		0.882		0.379	
CV		13.96		14.31		14.21		14.49		27.0		1.52		0.54	
Treatment F		2.116		5.939		2.085		5.430		1.912		1.151		0.638	
Treatment Prob(F)		0.0745		0.0003		0.0784		0.0006		0.1049		0.3671		0.7383	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Seeding Rate and Plant Population in a Stale Seedbed for CLM04 – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-18

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.32
- **Extractable nutrients ppm** ..... : Ca-1,446; Cu-1.73; Mg-276; P-7.7; K-64.5; Na-86; S-9.0; Zn-7.4

Crop/Variety ..... : Rice / CLM04
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : See treatment name for seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : Aug. 4
- **Ratoon harvest date** ..... : Nov. 3

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
150 lb N/A 46-0-0, April 21
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 45. Evaluation of seeding rate and plant population in a stale seedbed for CLM04. H. Rouse Caffey Rice Research Station.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Rice Density		Plant-hd		Emer-hd		Tip of panicle							
Rating Date		4/2/2020						8/4/2020		8/4/2020		11/3/2020			
Rating Type		Stand Count		50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit		#/sq ft.		days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority		Main		Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	3.8	f	105.0	a	97.0	a	36.5	a	8860	e	1286	e	10146	f
2	7.5 seed/ft2 (17.4 lb/A)	4.9	ef	105.0	a	97.0	a	36.8	a	9728	d	1649	d	11377	e
3	10 seed/ft2 (22.3 lb/A)	7.5	e	104.5	a	96.5	a	36.3	a	10121	cd	1815	cd	11936	de
4	15 seed/ft2 (34.9 lb/A)	11.4	d	104.5	a	96.5	a	37.3	a	10383	bc	1812	cd	12195	cd
5	20 seed/ft2 (46.6 lb/A)	13.8	cd	105.0	a	97.0	a	37.3	a	10493	abc	1967	bc	12460	bcd
6	25 seed/ft2 (58.2 lb/A)	14.9	c	105.0	a	97.0	a	37.8	a	10565	abc	2222	ab	12786	abc
7	30 seed/ft2 (69.9 lb/A)	16.8	c	104.5	a	96.5	a	37.0	a	10593	abc	2382	a	12975	ab
8	35 seed/ft2 (81.5 lb/A)	20.6	b	105.0	a	97.0	a	36.5	a	10937	a	2289	a	13226	a
9	40 seed/ft2 (93.1 lb/A)	25.2	a	105.0	a	97.0	a	36.8	a	10873	ab	2358	a	13230	a
LSD P=.05		3.14		0.83		0.83		1.79		496.8		302.4		624.1	
Standard Deviation		2.15		0.57		0.57		1.23		340.4		207.2		427.6	
CV		16.31		0.54		0.59		3.32		3.31		10.49		3.49	
Treatment F		44.075		0.771		0.771		0.587		14.507		12.877		22.039	
Treatment Prob(F)		0.0001		0.6311		0.6311		0.7786		0.0001		0.0001		0.0001	

Continued.

Table 45. Continued.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Yield Components								Milling (%)			
Rating Type		WP dry wt.		Panicle #		Grain wt.		10 P gr wt.		10 P seed			
Rating Unit		grams		number		grams		grams		number		head	total
Sample size, unit		3 ft.		3 ft.		3 ft.		3 ft.		3 ft.			
Collection basis, unit		1 row		1 row		1 row		1 row		1 row			
Crop Stage Majority		Main		Main		Main		Main		Main		Main	Main
Trt. No.	Treatment Name												
1	5 seed/ft2 (11.6 lb/A)	389.9	a	68	bc	171.5	a	32.49	a	1297	a	68.00 a	71.66 a
2	7.5 seed/ft2 (17.4 lb/A)	323.9	a	58	c	136.1	a	29.97	abc	1220	a	68.04 a	71.40 a
3	10 seed/ft2 (22.3 lb/A)	362.5	a	67	bc	156.1	a	33.76	a	1371	a	68.03 a	70.97 a
4	15 seed/ft2 (34.9 lb/A)	382.4	a	71	bc	146.9	a	31.59	ab	1599	a	67.54 a	71.04 a
5	20 seed/ft2 (46.6 lb/A)	404.1	a	81	ab	165.5	a	20.21	d	801	a	68.28 a	71.08 a
6	25 seed/ft2 (58.2 lb/A)	397.9	a	82	ab	167.1	a	25.31	a-d	1033	a	68.16 a	71.00 a
7	30 seed/ft2 (69.9 lb/A)	384.3	a	81	ab	161.2	a	29.24	a-d	1175	a	67.73 a	70.66 a
8	35 seed/ft2 (81.5 lb/A)	374.5	a	78	b	140.2	a	20.56	cd	825	a	68.15 a	70.96 a
9	40 seed/ft2 (93.1 lb/A)	408.3	a	98	a	163.5	a	22.38	bcd	913	a	68.11 a	71.06 a
LSD P=.05		93.36		18.0		42.45		9.704		586.1		0.882	0.553
Standard Deviation		63.97		12.3		29.09		6.649		401.6		0.605	0.379
CV		16.8		16.26		18.59		24.38		35.32		0.89	0.53
Treatment F		0.647		3.537		0.746		2.510		1.779		0.576	2.281
Treatment Prob(F)		0.7309		0.0077		0.6514		0.0387		0.1312		0.7869	0.0566

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Seeding Rate and Plant Population in a Stale Seedbed for CLL17 – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-19

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.32
- **Extractable nutrients ppm** ..... : Ca-1,446; Cu-1.73; Mg-276; P-7.7; K-64.5; Na-86; S-9.0; Zn-7.4

Crop/Variety ..... : Rice / CLL17
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : See treatment name for seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : Aug. 4
- **Ratoon harvest date** ..... : Nov. 3

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
150 lb N/A 46-0-0, April 21
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 46. Evaluation of seeding rate and plant population in a stale seedbed for CLL17. H. Rouse Caffey Rice Research Station.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Rice Density		Plant-hd		Emer-hd		Tip of panicle							
Rating Date		4/2/2020						8/4/2020		8/4/2020		11/3/2020			
Rating Type		Stand Count		50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit		#/sq ft.		days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority		Main		Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	3.9	f	101.0	a	93.0	a	38.0	a	10460	d	1733	e	12193	e
2	7.5 seed/ft2 (17.4 lb/A)	6.5	ef	100.8	a	92.8	a	38.8	a	10791	cd	2057	d	12847	d
3	10 seed/ft2 (22.3 lb/A)	7.7	e	100.8	a	92.8	a	36.8	a	11058	bc	2305	cd	13363	cd
4	15 seed/ft2 (34.9 lb/A)	11.6	d	100.3	a	92.3	a	37.0	a	11084	bc	2308	cd	13392	cd
5	20 seed/ft2 (46.6 lb/A)	15.5	c	98.8	b	90.8	b	37.3	a	11319	ab	2472	bc	13791	bc
6	25 seed/ft2 (58.2 lb/A)	17.9	c	99.3	b	91.3	b	37.8	a	11509	ab	2801	a	14310	ab
7	30 seed/ft2 (69.9 lb/A)	22.7	b	99.0	b	91.0	b	39.0	a	11625	a	2834	a	14459	a
8	35 seed/ft2 (81.5 lb/A)	22.8	b	98.8	b	90.8	b	37.5	a	11162	abc	2640	ab	13802	bc
9	40 seed/ft2 (93.1 lb/A)	28.0	a	98.8	b	90.8	b	38.3	a	11297	ab	2802	a	14099	ab
LSD P=.05		2.92		0.82		0.82		2.68		464.1		256.0		583.5	
Standard Deviation		2.00		0.56		0.56		1.84		318.0		175.4		399.8	
CV		13.17		0.56		0.61		4.86		2.85		7.19		2.94	
Treatment F		69.733		11.978		11.978		0.699		5.056		18.543		13.175	
Treatment Prob(F)		0.0001		0.0001		0.0001		0.6895		0.0009		0.0001		0.0001	

Continued.

Table 46. Continued.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Yield Components													
Rating Type		WP dry wt.		Panicle #		Grain wt.		10 P gr wt.		10 P seed		Milling (%)			
Rating Unit		grams		number		grams		grams		number		head		total	
Sample size, unit		3 ft.		3 ft.		3 ft.		3 ft.		3 ft.					
Collection basis, unit		1 row		1 row		1 row		1 row		1 row					
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	316.6	a	68	c	140.9	a	28.10	a	1279	a	64.46	a	71.91	a
2	7.5 seed/ft2 (17.4 lb/A)	417.1	a	104	b	161.3	a	22.65	a	1041	a	64.10	a	71.96	a
3	10 seed/ft2 (22.3 lb/A)	346.7	a	107	b	194.1	a	26.08	a	1173	a	64.08	a	71.91	a
4	15 seed/ft2 (34.9 lb/A)	439.4	a	107	b	199.1	a	25.55	a	1156	a	64.43	a	72.08	a
5	20 seed/ft2 (46.6 lb/A)	400.3	a	107	b	180.2	a	24.06	a	1084	a	63.84	a	71.87	a
6	25 seed/ft2 (58.2 lb/A)	361.6	a	98	b	158.5	a	29.55	a	1323	a	63.81	a	72.01	a
7	30 seed/ft2 (69.9 lb/A)	403.7	a	116	ab	181.7	a	22.11	a	1005	a	63.21	a	71.68	a
8	35 seed/ft2 (81.5 lb/A)	424.7	a	137	a	190.6	a	21.41	a	943	a	64.22	a	72.14	a
9	40 seed/ft2 (93.1 lb/A)	450.5	a	142	a	201.6	a	26.68	a	1244	a	63.70	a	71.95	a
LSD P=.05		134.44		28.7		59.59		6.581		299.1		1.628		0.625	
Standard Deviation		92.12		19.7		40.83		4.509		204.9		1.116		0.429	
CV		23.29		17.99		22.85		17.94		18.0		1.74		0.6	
Treatment F		0.949		4.756		1.041		1.526		1.610		0.501		0.372	
Treatment Prob(F)		0.4966		0.0014		0.4343		0.2004		0.1741		0.8437		0.9250	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Seeding Rate and Plant Population in a Stale Seedbed for LA2140 – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-20

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.32
- **Extractable nutrients ppm** ..... : Ca-1,446; Cu-1.73; Mg-276; P-7.7; K-64.5; Na-86; S-9.0; Zn-7.4

Crop/Variety ..... : Rice / LA2140
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : See treatment name for seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : Aug. 4
- **Ratoon harvest date** ..... : Nov. 3

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
150 lb N/A 46-0-0, April 21
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 47. Evaluation of seeding rate and plant population in a stale seedbed for LA2140. H. Rouse Caffey Rice Research Station.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Rice Density		Plant-hd		Emer-hd		Tip of panicle							
Rating Date		4/2/2020						8/4/2020		8/4/2020		11/3/2020			
Rating Type		Stand Count		50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit		#/sq ft.		days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority		Main		Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	4.7	e	101.0	a	93.0	a	34.8	a	5532	e	599	e	6131	f
2	7.5 seed/ft2 (17.4 lb/A)	5.1	e	101.0	a	93.0	a	35.0	a	6495	d	695	e	7190	e
3	10 seed/ft2 (22.3 lb/A)	6.5	e	101.0	a	93.0	a	34.8	a	7774	c	777	e	8550	d
4	15 seed/ft2 (34.9 lb/A)	11.4	d	100.8	ab	92.8	ab	35.3	a	8037	bc	1063	d	9100	cd
5	20 seed/ft2 (46.6 lb/A)	14.7	c	100.8	ab	92.8	ab	35.5	a	8406	abc	1193	cd	9599	bc
6	25 seed/ft2 (58.2 lb/A)	20.1	b	100.0	bc	92.0	bc	33.3	a	8645	ab	1338	bc	9983	abc
7	30 seed/ft2 (69.9 lb/A)	22.7	ab	99.3	c	91.3	c	36.3	a	8999	a	1491	ab	10490	ab
8	35 seed/ft2 (81.5 lb/A)	22.4	ab	99.8	c	91.8	c	35.0	a	8722	ab	1443	abc	10165	ab
9	40 seed/ft2 (93.1 lb/A)	24.0	a	99.3	c	91.3	c	35.0	a	9182	a	1605	a	10787	a
LSD P=.05		2.75		0.90		0.90		2.53		814.4		257.6		987.8	
Standard Deviation		1.89		0.62		0.62		1.73		558.1		176.5		676.9	
CV		12.89		0.62		0.67		4.95		7.0		15.57		7.43	
Treatment F		71.716		5.819		5.819		0.843		19.100		17.688		21.506	
Treatment Prob(F)		0.0001		0.0004		0.0004		0.5754		0.0001		0.0001		0.0001	

Continued.

Table 47. Continued.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Yield Components										Milling (%)			
Rating Type		WP dry wt.		Panicle #		Grain wt.		10 P gr wt.		10 P seed					
Rating Unit		grams		number		grams		grams		number		head		total	
Sample size, unit		3 ft.		3 ft.		3 ft.		3 ft.		3 ft.					
Collection basis, unit		1 row		1 row		1 row		1 row		1 row					
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	190.0	c	30	d	60.3	a	42.98	ab	2079	a	64.97	ab	74.28	a
2	7.5 seed/ft2 (17.4 lb/A)	261.8	b	39	cd	102.5	a	44.08	a	1805	a	63.70	cd	73.74	a
3	10 seed/ft2 (22.3 lb/A)	291.4	ab	46	c	116.0	a	37.94	abc	1811	a	63.81	cd	73.79	a
4	15 seed/ft2 (34.9 lb/A)	330.8	a	54	bc	140.9	a	31.60	bcd	1540	a	64.53	abc	74.06	a
5	20 seed/ft2 (46.6 lb/A)	271.9	ab	62	ab	93.8	a	22.63	d	1382	a	64.14	a-d	74.19	a
6	25 seed/ft2 (58.2 lb/A)	321.7	ab	67	ab	114.5	a	25.12	d	1198	a	65.19	a	74.29	a
7	30 seed/ft2 (69.9 lb/A)	303.4	ab	78	a	114.2	a	23.12	d	1153	a	63.24	d	74.12	a
8	35 seed/ft2 (81.5 lb/A)	275.5	ab	68	ab	117.6	a	23.90	d	1151	a	63.99	bcd	74.30	a
9	40 seed/ft2 (93.1 lb/A)	303.7	ab	73	a	120.0	a	29.07	cd	1389	a	63.98	bcd	74.36	a
LSD P=.05		64.39		15.8		51.75		11.982		706.3		1.098		0.582	
Standard Deviation		44.12		10.8		35.46		8.191		482.8		0.753		0.399	
CV		15.57		18.86		32.57		26.29		32.18		1.17		0.54	
Treatment F		3.591		9.058		1.578		4.352		1.900		2.724		1.260	
Treatment Prob(F)		0.0071		0.0001		0.1838		0.0026		0.1091		0.0273		0.3095	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Seeding Rate and Plant Population in a Stale Seedbed for PVL02 – Tensas Parish

Experiment number ..... : 20-SJ-14

Site and design ..... :
- **Location/Cooperator** ..... : Tensas Parish / Warren Ratcliff
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Commerce silt loam / Sharkey clay (2018 soil sample)
- **% organic matter** ..... : 1.71
- **pH** ..... : 7.75
- **Extractable nutrients ppm** ..... : Ca-4568; Cu-6.5; Mg-892; P-47; K-303; Na-51; S-8.3; Zn-2.9

Crop/Variety ..... : Rice / PVL02
- **Planting method/date** ..... : Drill seeded / May 6
- **Seeding rate/depth** ..... : (See data sheet) seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 13
- **Harvest date** ..... : Sept. 9

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 150 lb N/A 46-0-0, June 2

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 4
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 2 qt/A Glyphosate + 2 oz/A Sharpen + 16 oz/A Command, May 9
  2 qt/A Stam + 2 pt/A Prowl H_2O, May 20
  2 qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + .5 oz/A Permit + 1 oz/A Londax, June 2
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 31

Table 48. Evaluation of seeding rate and plant population in a stale seedbed for PVL02. Tensas Parish.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Rice Density		Plant-hd		Emer-hd		Tip of Panicle					
Rating Date		6/2/2020						9/8/2020		9/9/2020			
Rating Type		Stand Count		50% HD		50% HD		Height		Moist		Yield	
Rating Unit		#/sq ft		days		days		in		%		lb/A	
Crop Stage Majority		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name												
1	5 seed/ft2 (11.6 lb/A)	3.3	e	81.0	a	74.0	a	43.8	a	14.0	a	6668	a
2	7.5 seed/ft2 (17.4 lb/A)	6.9	d	80.0	bc	73.0	bc	42.3	a	13.7	a	6876	a
3	10 seed/ft2 (22.3 lb/A)	7.2	d	80.8	ab	73.8	ab	44.0	a	14.1	a	7290	a
4	15 seed/ft2 (34.9 lb/A)	12.6	c	79.5	cd	72.5	cd	43.0	a	13.8	a	6753	a
5	20 seed/ft2 (46.6 lb/A)	12.9	c	79.3	cd	72.3	cd	45.0	a	13.7	a	7377	a
6	25 seed/ft2 (58.2 lb/A)	18.2	b	79.3	cd	72.3	cd	44.3	a	13.6	a	6747	a
7	30 seed/ft2 (69.9 lb/A)	21.6	a	79.3	cd	72.3	cd	43.3	a	13.6	a	6391	a
8	35 seed/ft2 (81.5 lb/A)	20.2	ab	79.3	cd	72.3	cd	41.3	a	13.5	a	6843	a
9	40 seed/ft2 (93.1 lb/A)	22.8	a	79.0	d	72.0	d	43.3	a	13.6	a	6582	a
LSD P=.05		3.29		0.85		0.85		3.47		0.36		669.3	
Standard Deviation		2.26		0.59		0.59		2.38		0.25		458.6	
CV		16.17		0.73		0.81		5.49		1.82		6.71	
Treatment F		40.167		6.162		6.162		0.872		2.335		1.914	
Treatment Prob(F)		0.0001		0.0002		0.0002		0.5527		0.0517		0.1046	

Continued.

Table 48. Continued.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Yield Components													
Rating Type		WP dry wt.		Panicle #		Grain wt.		10 P gr wt.		10 P seed		Milling (%)			
Rating Unit		grams		number		grams		grams		number		head		total	
Sample size, unit		3 ft.		3 ft.		3 ft.		3 ft.		3 ft.					
Collection basis, unit		1 row		1 row		1 row		1 row		1 row					
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	395.7	a	57	bcd	122.1	a	27.51	a	1362	a	69.35	a	74.33	a
2	7.5 seed/ft2 (17.4 lb/A)	299.8	a	54	cd	88.6	a	14.28	bcd	726	bcd	68.96	a	74.10	a
3	10 seed/ft2 (22.3 lb/A)	280.6	a	50	d	79.8	a	17.95	bc	904	bc	69.02	a	74.29	a
4	15 seed/ft2 (34.9 lb/A)	281.3	a	53	cd	80.9	a	16.65	bc	811	bc	69.32	a	73.85	a
5	20 seed/ft2 (46.6 lb/A)	322.9	a	63	a-d	98.8	a	19.48	b	957	b	69.65	a	74.95	a
6	25 seed/ft2 (58.2 lb/A)	322.5	a	68	a-d	91.6	a	15.10	bcd	738	bcd	68.42	a	74.10	a
7	30 seed/ft2 (69.9 lb/A)	306.6	a	74	ab	84.2	a	13.42	cd	671	cd	67.88	a	73.68	a
8	35 seed/ft2 (81.5 lb/A)	318.2	a	73	abc	69.8	a	11.41	d	538	d	68.96	a	74.38	a
9	40 seed/ft2 (93.1 lb/A)	355.0	a	80	a	113.1	a	16.11	bcd	794	bc	68.51	a	73.98	a
LSD P=.05		103.33		20.0		44.44		5.206		243.7		1.241		0.709	
Standard Deviation		70.81		13.6		30.31		3.540		165.7		0.850		0.486	
CV		22.11		21.51		32.91		20.97		19.89		1.23		0.65	
Treatment F		1.058		2.506		1.215		6.912		7.944		1.650		2.304	
Treatment Prob(F)		0.4231		0.0404		0.3356		0.0002		0.0001		0.1630		0.0545	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Seeding Rate and Plant Population in a Stale Seedbed for DG-263L – Tensas Parish

Experiment number ..... : 20-SJ-17

Site and design ..... :
- **Location/Cooperator** ..... : Tensas Parish / Warren Ratcliff
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Commerce silt loam / Sharkey clay (2018 soil sample)
- **% organic matter** ..... : 1.71
- **pH** ..... : 7.75
- **Extractable nutrients ppm** ..... : Ca-4568; Cu-6.5; Mg-892; P-47; K-303; Na-51; S-8.3; Zn-2.9

Crop/Variety ..... : Rice / DG-263L
- **Planting method/date** ..... : Drill seeded / May 6
- **Seeding rate/depth** ..... : (See data sheet) seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 13
- **Harvest date** ..... : Sept. 9

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 150 lb N/A 46-0-0, June 2

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 4
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 2 qt/A Glyphosate + 2 oz/A Sharpen + 16 oz/A Command, May 9
  2 qt/A Stam + 2 pt/A Prowl H_2O, May 20
  2 qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + .5 oz/A Permit + 1 oz/A Londax, June 2
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 31

Table 49. Evaluation of seeding rate and plant population in a stale seedbed for DG-263L. Tensas Parish.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Rice Density		Plant-hd		Emer-hd		Tip of Panicle					
Rating Date		6/2/2020						9/8/2020		9/9/2020		9/9/2020	
Rating Type		Stand Count		50% HD		50% HD		Height		Moist		Yield	
Rating Unit		#/sq ft		days		days		in		%		lb/A	
Crop Stage Majority		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name												
1	5 seed/ft2 (11.6 lb/A)	3.5	d	78.5	a	71.5	a	38.0	a	15.5	ab	10023	a
2	7.5 seed/ft2 (17.4 lb/A)	5.0	d	77.8	ab	70.8	ab	37.3	a	15.1	bc	10220	a
3	10 seed/ft2 (22.3 lb/A)	6.7	d	77.5	bc	70.5	bc	37.8	a	15.7	a	10419	a
4	15 seed/ft2 (34.9 lb/A)	12.2	c	76.8	cd	69.8	cd	38.8	a	14.8	cd	9940	a
5	20 seed/ft2 (46.6 lb/A)	13.6	c	77.0	bcd	70.0	bcd	38.3	a	14.5	de	10211	a
6	25 seed/ft2 (58.2 lb/A)	17.7	b	76.5	d	69.5	d	38.0	a	14.4	de	10136	a
7	30 seed/ft2 (69.9 lb/A)	20.6	ab	76.3	d	69.3	d	37.0	a	14.8	cd	10139	a
8	35 seed/ft2 (81.5 lb/A)	22.0	a	76.3	d	69.3	d	38.3	a	14.0	e	10182	a
9	40 seed/ft2 (93.1 lb/A)	23.0	a	76.5	d	69.5	d	36.5	a	14.4	de	10219	a
LSD P=.05		3.62		0.98		0.98		2.32		0.62		619.4	
Standard Deviation		2.48		0.67		0.67		1.59		0.42		424.4	
CV		17.99		0.87		0.96		4.2		2.86		4.18	
Treatment F		36.686		5.289		5.289		0.794		6.925		0.404	
Treatment Prob(F)		0.0001		0.0007		0.0007		0.6131		0.0001		0.9073	

Continued.

Table 49. Continued.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Yield Components													
Rating Type		WP dry wt.		Panicle #		Grain wt.		10 P gr wt.		10 P seed		Milling (%)			
Rating Unit		grams		number		grams		grams		number		head		total	
Sample size, unit		3 ft.		3 ft.		3 ft.		3 ft.		3 ft.					
Collection basis, unit		1 row		1 row		1 row		1 row		1 row					
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	527.4	a	71	a	196.6	a	28.69	a	1212	a	66.77	a	72.16	a-d
2	7.5 seed/ft2 (17.4 lb/A)	481.7	a	70	a	179.5	a	24.33	a	1025	a	67.36	a	72.24	ab
3	10 seed/ft2 (22.3 lb/A)	511.7	a	74	a	217.1	a	27.18	a	1157	a	67.32	a	72.29	a
4	15 seed/ft2 (34.9 lb/A)	436.6	a	68	a	159.5	a	33.80	a	1417	a	66.81	a	72.18	abc
5	20 seed/ft2 (46.6 lb/A)	489.7	a	77	a	199.2	a	32.55	a	1349	a	66.58	a	72.02	cde
6	25 seed/ft2 (58.2 lb/A)	390.5	a	71	a	135.7	a	26.25	a	1086	a	66.50	a	71.98	de
7	30 seed/ft2 (69.9 lb/A)	426.6	a	77	a	165.2	a	18.41	a	782	a	66.27	a	71.92	e
8	35 seed/ft2 (81.5 lb/A)	472.8	a	83	a	167.8	a	24.62	a	1025	a	66.04	a	72.08	b-e
9	40 seed/ft2 (93.1 lb/A)	481.0	a	88	a	193.7	a	29.98	a	1262	a	66.30	a	72.10	a-e
LSD P=.05		110.80		19.3		79.62		9.911		411.0		0.894		0.202	
Standard Deviation		75.92		13.2		54.56		6.791		281.6		0.613		0.139	
CV		16.2		17.53		30.42		24.87		24.58		0.92		0.19	
Treatment F		1.301		0.985		0.833		1.897		1.877		2.221		3.093	
Treatment Prob(F)		0.2896		0.4714		0.5824		0.1076		0.1114		0.0625		0.0152	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Seeding Rate and Plant Population in a Stale Seedbed for CLM04 – Tensas Parish

Experiment number ..... : 20-SJ-18

Site and design ..... :
- **Location/Cooperator** ..... : Tensas Parish / Warren Ratcliff
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Commerce silt loam / Sharkey clay (2018 soil sample)
- **% organic matter** ..... : 1.71
- **pH** ..... : 7.75
- **Extractable nutrients ppm** ..... : Ca-4568; Cu-6.5; Mg-892; P-47; K-303; Na-51; S-8.3; Zn-2.9

Crop/Variety ..... : Rice / CLM04
- **Planting method/date** ..... : Drill seeded / May 6
- **Seeding rate/depth** ..... : (See data sheet) seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 13
- **Harvest date** ..... : Sept. 9

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 150 lb N/A 46-0-0, June 2

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 4
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 2 qt/A Glyphosate + 2 oz/A Sharpen + 16 oz/A Command, May 9
  2 qt/A Stam + 2 pt/A Prowl H_2O, May 20
  2 qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + .5 oz/A Permit + 1 oz/A Londax, June 2
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 31

Table 50. Evaluation of seeding rate and plant population in a stale seedbed for CLM04. Tensas Parish.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Rice Density		Plant-hd		Emer-hd		Tip of Panicle					
Rating Date		6/2/2020						9/8/2020		9/9/2020			
Rating Type		Stand Count		50% HD		50% HD		Height		Moist		Yield	
Rating Unit		#/sq ft		days		days		in		%		lb/A	
Crop Stage Majority		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name												
1	5 seed/ft2 (11.6 lb/A)	3.1	d	86.0	a	79.0	a	41.8	a	17.5	a	8907	d
2	7.5 seed/ft2 (17.4 lb/A)	5.4	d	85.8	a	78.8	a	43.3	a	17.4	a	9137	cd
3	10 seed/ft2 (22.3 lb/A)	6.0	d	85.5	a	78.5	a	41.3	a	17.5	a	9130	cd
4	15 seed/ft2 (34.9 lb/A)	10.0	c	85.5	a	78.5	a	43.0	a	17.6	a	9342	bcd
5	20 seed/ft2 (46.6 lb/A)	13.7	b	85.8	a	78.8	a	43.5	a	17.6	a	9674	abc
6	25 seed/ft2 (58.2 lb/A)	15.3	ab	85.8	a	78.8	a	42.5	a	17.9	a	9889	ab
7	30 seed/ft2 (69.9 lb/A)	16.4	ab	85.8	a	78.8	a	42.3	a	17.9	a	9936	a
8	35 seed/ft2 (81.5 lb/A)	18.2	a	85.5	a	78.5	a	42.5	a	17.7	a	10025	a
9	40 seed/ft2 (93.1 lb/A)	18.5	a	85.3	a	78.3	a	42.0	a	17.8	a	9713	ab
LSD P=.05		3.21		0.78		0.78		2.91		0.84		549.6	
Standard Deviation		2.20		0.54		0.54		1.99		0.57		376.6	
CV		18.6		0.63		0.68		4.7		3.25		3.95	
Treatment F		28.379		0.677		0.677		0.531		0.408		4.691	
Treatment Prob(F)		0.0001		0.7066		0.7066		0.8211		0.9046		0.0015	

Continued.

Table 50. Continued.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Yield Components											
Rating Type		WP dry wt.		Panicle #		Grain wt.		10 P gr wt.		10 P seed		Milling (%)	
Rating Unit		grams		number		grams		grams		number		head	total
Sample size, unit		3 ft.		3 ft.		3 ft.		3 ft.		3 ft.			
Collection basis, unit		1 row		1 row		1 row		1 row		1 row			
Crop Stage Majority		Main		Main		Main		Main		Main		Main	Main
Trt. No.	Treatment Name												
1	5 seed/ft2 (11.6 lb/A)	388.5	a	55	b	146.4	a	30.01	abc	1482	a	69.91 a	72.50 a
2	7.5 seed/ft2 (17.4 lb/A)	408.5	a	61	ab	174.7	a	36.27	a	1516	a	69.95 a	72.48 a
3	10 seed/ft2 (22.3 lb/A)	245.8	b	39	c	95.8	a	32.32	ab	1374	a	70.08 a	72.42 a
4	15 seed/ft2 (34.9 lb/A)	340.0	ab	53	bc	139.6	a	36.81	a	1558	a	70.07 a	72.43 a
5	20 seed/ft2 (46.6 lb/A)	349.0	a	67	ab	107.2	a	20.41	c	858	a	70.00 a	72.43 a
6	25 seed/ft2 (58.2 lb/A)	417.8	a	66	ab	181.8	a	31.88	ab	1331	a	70.39 a	72.58 a
7	30 seed/ft2 (69.9 lb/A)	388.0	a	64	ab	148.4	a	36.65	a	1540	a	69.92 a	71.96 a
8	35 seed/ft2 (81.5 lb/A)	366.5	a	62	ab	138.1	a	33.11	ab	1236	a	70.21 a	72.47 a
9	40 seed/ft2 (93.1 lb/A)	408.0	a	76	a	153.1	a	22.93	bc	968	a	70.11 a	72.48 a
LSD P=.05		100.48		16.0		63.44		10.461		492.0		0.714	0.409
Standard Deviation		68.85		11.0		43.47		7.168		337.1		0.489	0.280
CV		18.71		18.17		30.44		23.01		25.58		0.7	0.39
Treatment F		2.386		3.641		1.639		2.711		2.275		0.392	1.607
Treatment Prob(F)		0.0475		0.0066		0.1659		0.0279		0.0571		0.9144	0.1752

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Seeding Rate and Plant Population in a Stale Seedbed for CLL17 – Tensas Parish

Experiment number ..... : 20-SJ-19

Site and design ..... :
- **Location/Cooperator** ..... : Tensas Parish / Warren Ratcliff
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Commerce silt loam / Sharkey clay (2018 soil sample)
- **% organic matter** ..... : 1.71
- **pH** ..... : 7.75
- **Extractable nutrients ppm** ..... : Ca-4568; Cu-6.5; Mg-892; P-47; K-303; Na-51; S-8.3; Zn-2.9

Crop/Variety ..... : Rice / CLL17
- **Planting method/date** ..... : Drill seeded / May 6
- **Seeding rate/depth** ..... : (See data sheet) seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 13
- **Harvest date** ..... : Sept. 9

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 150 lb N/A 46-0-0, June 2

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 4
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 2 qt/A Glyphosate + 2 oz/A Sharpen + 16 oz/A Command, May 9
  2 qt/A Stam + 2 pt/A Prowl H_2O, May 20
  2 qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + .5 oz/A Permit + 1 oz/A Londax, June 2
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 31

Table 51. Evaluation of seeding rate and plant population in a stale seedbed for CLL17. Tensas Parish.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Rice Density		Plant-hd		Emer-hd		Tip of Panicle					
Rating Date		6/2/2020						9/8/2020					
Rating Type		Stand Count		50% HD		50% HD		Height		Moist		Yield	
Rating Unit		#/sq ft		days		days		in		%		lb/A	
Crop Stage Majority		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name												
1	5 seed/ft2 (11.6 lb/A)	3.1	f	80.0	a	73.0	a	40.3	a	15.8	a	8200	a
2	7.5 seed/ft2 (17.4 lb/A)	5.4	ef	79.8	a	72.8	a	41.0	a	15.2	b	8730	a
3	10 seed/ft2 (22.3 lb/A)	6.6	de	79.5	ab	72.5	ab	40.0	a	15.2	b	8606	a
4	15 seed/ft2 (34.9 lb/A)	8.7	d	79.0	bc	72.0	bc	42.5	a	15.2	b	8749	a
5	20 seed/ft2 (46.6 lb/A)	12.0	c	78.5	c	71.5	c	40.8	a	14.9	bc	9225	a
6	25 seed/ft2 (58.2 lb/A)	15.9	b	78.5	c	71.5	c	41.5	a	15.1	b	9025	a
7	30 seed/ft2 (69.9 lb/A)	17.7	b	78.5	c	71.5	c	42.0	a	15.0	b	8927	a
8	35 seed/ft2 (81.5 lb/A)	17.3	b	78.5	c	71.5	c	40.3	a	14.4	c	8632	a
9	40 seed/ft2 (93.1 lb/A)	22.1	a	78.5	c	71.5	c	40.5	a	14.9	bc	9170	a
LSD P=.05		2.54		0.58		0.58		2.45		0.51		651.0	
Standard Deviation		1.74		0.40		0.40		1.68		0.35		446.1	
CV		14.39		0.5		0.55		4.1		2.3		5.06	
Treatment F		56.157		9.706		9.706		1.053		4.142		2.053	
Treatment Prob(F)		0.0001		0.0001		0.0001		0.4267		0.0032		0.0828	

Continued.

Table 51. Continued.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Yield Components													
Rating Type		WP dry wt.		Panicle #		Grain wt.		10 P gr wt.		10 P seed		Milling (%)			
Rating Unit		grams		number		grams		grams		number		head		total	
Sample size, unit		3 ft.		3 ft.		3 ft.		3 ft.		3 ft.					
Collection basis, unit		1 row		1 row		1 row		1 row		1 row					
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	405.7	a	71	a	171.6	a	29.26	a	1288	a	68.29	a	72.98	a
2	7.5 seed/ft2 (17.4 lb/A)	344.5	a	58	a	130.9	a	29.11	a	1285	a	68.28	a	72.88	a
3	10 seed/ft2 (22.3 lb/A)	335.9	a	59	a	140.8	a	30.98	a	1384	a	66.66	a	71.96	a
4	15 seed/ft2 (34.9 lb/A)	352.1	a	69	a	135.1	a	24.50	a	1075	a	67.13	a	72.13	a
5	20 seed/ft2 (46.6 lb/A)	385.6	a	69	a	149.2	a	28.83	a	1270	a	67.10	a	72.39	a
6	25 seed/ft2 (58.2 lb/A)	355.3	a	64	a	147.6	a	27.14	a	1188	a	67.98	a	72.65	a
7	30 seed/ft2 (69.9 lb/A)	356.7	a	69	a	141.2	a	25.55	a	1081	a	66.12	a	71.97	a
8	35 seed/ft2 (81.5 lb/A)	350.7	a	73	a	143.6	a	26.11	a	1132	a	66.68	a	72.73	a
9	40 seed/ft2 (93.1 lb/A)	427.9	a	87	a	141.4	a	25.44	a	1113	a	65.68	a	71.86	a
LSD P=.05		138.76		25.6		70.13		7.653		342.9		2.048		1.081	
Standard Deviation		95.08		17.5		48.05		5.244		234.9		1.403		0.740	
CV		25.82		25.51		33.23		19.11		19.55		2.09		1.02	
Treatment F		0.429		0.984		0.232		0.701		0.868		1.759		1.356	
Treatment Prob(F)		0.8922		0.4723		0.9808		0.6878		0.5557		0.1358		0.2651	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Seeding Rate and Plant Population in a Stale Seedbed for LA2140– Tensas Parish

Experiment number ..... : 20-SJ-20

Site and design ..... :
- **Location/Cooperator** ..... : Tensas Parish / Warren Ratcliff
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Commerce silt loam / Sharkey clay (2018 soil sample)
- **% organic matter** ..... : 1.71
- **pH** ..... : 7.75
- **Extractable nutrients ppm** ..... : Ca-4568; Cu-6.5; Mg-892; P-47; K-303; Na-51; S-8.3; Zn-2.9

Crop/Variety ..... : Rice / LA2140
- **Planting method/date** ..... : Drill seeded / May 6
- **Seeding rate/depth** ..... : (See data sheet) seeds /ft^2 / 0.5 inches
- **Emergence date** ..... : May 13
- **Harvest date** ..... : Sept. 9

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 150 lb N/A 46-0-0, June 2

Water management ..... : Underground irrigation
- **Flush** ..... : NA
- **Flood** ..... : June 4
- **Drain** ..... : Aug. 24

Pest management ..... :
- **Herbicides** ..... : 2 qt/A Glyphosate + 2 oz/A Sharpen + 16 oz/A Command, May 9
  2 qt/A Stam + 2 pt/A Prowl H_2O, May 20
  2 qt/A Stam + 2 qt/A Rice Beaux + 2 pt/A Prowl H_2O + .5 oz/A Permit + 1 oz/A Londax, June 2
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, July 31

Table 52. Evaluation of seeding rate and plant population in a stale seedbed for LA2140. Tensas Parish.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Rice Density		Plant-hd		Emer-hd		Tip of Panicle							
Rating Date		6/2/2020						9/9/2020		9/9/2020		9/9/2020		9/9/2020	
Rating Type		Stand Count		50% HD		50% HD		Height		Lodge				Yield	
Rating Unit		#/sq ft		days		days		in		% plot		rate		lb/A	
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	2.9	e	82.3	a	75.3	a	40.3	a	0.0	c	0.0	b	7510	d
2	7.5 seed/ft2 (17.4 lb/A)	4.2	de	80.0	bc	73.0	bc	41.3	a	0.0	c	0.0	b	8450	c
3	10 seed/ft2 (22.3 lb/A)	5.2	d	80.5	b	73.5	b	41.3	a	45.0	ab	1.3	ab	8520	bc
4	15 seed/ft2 (34.9 lb/A)	8.6	c	79.8	bcd	72.8	bcd	42.3	a	25.0	bc	1.3	ab	8985	abc
5	20 seed/ft2 (46.6 lb/A)	12.2	b	79.5	bcd	72.5	bcd	43.0	a	65.0	ab	2.3	a	9018	abc
6	25 seed/ft2 (58.2 lb/A)	13.1	b	79.0	cd	72.0	cd	42.0	a	57.5	ab	1.5	a	9239	ab
7	30 seed/ft2 (69.9 lb/A)	13.4	b	79.3	cd	72.3	cd	40.8	a	67.5	a	2.3	a	9183	abc
8	35 seed/ft2 (81.5 lb/A)	14.3	b	78.8	d	71.8	d	41.3	a	82.5	a	2.3	a	9350	a
9	40 seed/ft2 (93.1 lb/A)	17.3	a	78.8	d	71.8	d	42.0	a	67.5	a	2.3	a	9426	a
LSD P=.05		2.11		1.15		1.15		2.94		40.94		1.29		736.8	
Standard Deviation		1.45		0.79		0.79		2.01		28.05		0.88		504.9	
CV		14.28		0.99		1.09		4.84		61.58		60.96		5.7	
Treatment F		49.045		7.800		7.800		0.691		4.715		4.415		5.796	
Treatment Prob(F)		0.0001		0.0001		0.0001		0.6954		0.0014		0.0022		0.0004	

Continued.

Table 52. Continued.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Yield Components													
Rating Type		WP dry wt.		Panicle #		Grain wt.		10 P gr wt.		10 P seed		Milling (%)			
Rating Unit		grams		number		grams		grams		number		head		total	
Sample size, unit		3 ft.		3 ft.		3 ft.		3 ft.		3 ft.					
Collection basis, unit		1 row		1 row		1 row		1 row		1 row					
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Main	
Trt. No.	Treatment Name														
1	5 seed/ft2 (11.6 lb/A)	304.6	a	47	bcd	61.1	a	43.29	a	2043	ab	69.17	a	74.30	a
2	7.5 seed/ft2 (17.4 lb/A)	351.4	a	44	cd	104.1	a	43.69	a	2133	a	69.79	a	74.77	a
3	10 seed/ft2 (22.3 lb/A)	303.4	a	41	d	117.4	a	39.96	a	2000	a-d	69.33	a	74.43	a
4	15 seed/ft2 (34.9 lb/A)	424.9	a	56	a-d	142.3	a	41.51	a	2012	abc	69.02	a	74.42	a
5	20 seed/ft2 (46.6 lb/A)	440.8	a	62	ab	94.8	a	34.42	a	1696	b-e	68.87	a	74.37	a
6	25 seed/ft2 (58.2 lb/A)	369.6	a	67	a	116.0	a	35.14	a	1658	cde	69.10	a	74.40	a
7	30 seed/ft2 (69.9 lb/A)	419.5	a	65	ab	115.7	a	32.27	a	1518	e	68.83	a	74.33	a
8	35 seed/ft2 (81.5 lb/A)	380.1	a	62	abc	118.8	a	35.00	a	1730	b-e	68.92	a	74.58	a
9	40 seed/ft2 (93.1 lb/A)	390.7	a	61	abc	121.2	a	32.97	a	1625	de	68.81	a	74.41	a
LSD P=.05		151.42		18.2		52.25		8.708		382.3		0.904		0.556	
Standard Deviation		103.75		12.5		35.80		5.967		261.9		0.619		0.381	
CV		27.59		22.31		32.5		15.88		14.36		0.9		0.51	
Treatment F		0.916		2.468		1.571		2.290		2.882		1.029		0.569	
Treatment Prob(F)		0.5201		0.0415		0.1859		0.0557		0.0212		0.4417		0.7925	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

CLXL745 Response to Nitrogen Fertilizer Rate in a Furrow Irrigation – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-34A

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.43
- **pH** ..... : 7.55
- **Extractable nutrients ppm** ..... : Ca-1,258; Cu-1.46; Mg-248; P-8.3; K-62; Na-83; S-9.2; Zn-7.1

Crop/Variety ..... : Rice / CLXL745
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 30
- **Ratoon Harvest date** ..... : NA

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16

Water management ..... : Underground irrigation
- **Flush** ..... :
- **Flood** ..... :
- **Drain** ..... :
- **Ratoon flood** ..... :
- **Ratoon drain** ..... :

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  2 qt/A Rice Beaux + 2 oz/A Permit, May 14
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 53. CLXL745 response to N fertilizer rate in a furrow irrigation system. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								7/30/2020		7/30/2020		7/30/2020	
Rating Type				50% HD		50% HD		Height		Moist		Yield	
Rating Unit				days		days		in		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	UREA	0	4-5 leaf	96.0	b	88.0	b	29.5	c	13.1	a	2730	d
2	UREA	90	4-5 leaf	98.8	a	90.8	a	31.3	bc	12.6	a	6158	c
3	UREA	120	4-5 leaf	98.8	a	90.8	a	30.8	c	12.7	a	6485	bc
4	UREA	150	4-5 leaf	98.8	a	90.8	a	34.3	a	12.5	a	6643	bc
5	UREA	180	4-5 leaf	99.3	a	91.3	a	32.0	abc	12.6	a	6951	ab
6	UREA	210	4-5 leaf	99.8	a	91.8	a	33.5	ab	13.1	a	7188	a
LSD P=.05				1.47		1.47		2.69		0.59		519.5	
Standard Deviation				0.98		0.98		1.78		0.38		340.1	
CV				0.99		1.08		5.6		3.01		5.64	
Treatment F				7.181		7.181		3.915		1.583		94.612	
Treatment Prob(F)				0.0013		0.0013		0.0180		0.2330		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

CLXL745 Response to Nitrogen Fertilizer Application Timing
In a Furrow Irrigation System – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-34B

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.43
- **pH** ..... : 7.55
- **Extractable nutrients ppm** ..... : Ca-1,258; Cu-1.46; Mg-248; P-8.3; K-62; Na-83; S-9.2; Zn-7.1

Crop/Variety ..... : Rice / CLXL745
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 30
- **Ratoon Harvest date** ..... : NA

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16

Water management ..... : Underground irrigation
- **Flush** ..... :
- **Flood** ..... :
- **Drain** ..... :
- **Ratoon flood** ..... :
- **Ratoon drain** ..... :

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  2 qt/A Rice Beaux + 2 oz/A Permit, May 14
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 54. CLXL745 response to N fertilizer application timing in a furrow irrigation system. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle				Biomass		Tissue N		N Uptake			
Rating Date								7/30/2020		7/30/2020									
Part Rated												Abvgrd		Abvgrd		Total			
Rating Type				50% HD		50% HD		Height		Yield		50% HD		50% HD		50% HD		Milling (%)	
Rating Unit				days		days		in		lb/A		lb/A		% N		lb/A		Head	Total
Crop Stage Majority				Main		Main		Main		Main		Main		Main		Main		Main	Main
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage																
1	120 lb N/A			98.8	a	90.8	a	34.0	ab	6570	cd	3013	bc	1.31	bc	39	cd	57.91 c	73.14 d
	Single Pre-flood	120	4-LEAF																
2	120 lb N/A			98.8	a	90.8	a	32.5	abc	6341	d	3570	abc	1.30	bc	45	bc	55.58 d	73.03 d
	2-way split (7-day)	60	4-LEAF																
	2-way split (7-day)	60	4-LEAF+7D																
3	120 lb N/A			99.0	a	91.0	a	31.3	c	6683	bcd	4442	a	1.22	cd	53	bc	57.54 c	73.05 d
	2-way split (14-day)	60	4-LEAF																
	2-way split (14-day)	60	4-LEAF+14D																
4	120 lb N/A			99.3	a	91.3	a	33.3	abc	6579	bcd	3989	ab	1.13	cd	45	bc	58.74 abc	73.52 bc
	3-way (7 day)	40	4-LEAF																
	3-way (14 day)	40	4-LEAF+7D																
	3-way (21 day)	40	4-LEAF+14D																
5	165 lb N/A			99.0	a	91.0	a	31.5	bc	7024	ab	3726	ab	1.45	ab	54	bc	60.35 a	73.54 bc
	Single Pre-flood	165																	
6	165 lb N/A			99.0	a	91.0	a	32.3	bc	6884	abc	4532	a	1.21	cd	54	bc	59.78 ab	73.22 cd
	2-way split (7-day)	82.5	4-LEAF																
	2-way split (7-day)	82.5	4-LEAF+7D																
7	165 lb N/A			98.8	a	90.8	a	35.0	a	6972	abc	4694	a	1.55	a	72	a	60.43 a	73.75 ab
	2-way split (14-day)	82.5	4-LEAF																
	2-way split (14-day)	82.5	4-LEAF+14D																
8	165 lb N/A			99.3	a	91.3	a	33.5	abc	7299	a	3908	ab	1.53	ab	59	ab	60.19 a	74.02 a
	3-way (7 day)	55	4-LEAF																
	3-way (14 day)	55	4-LEAF+7D																
	3-way (21 day)	55	4-LEAF+14D																
9	0 N			95.0	b	87.0	b	24.8	d	3408	e	2406	c	1.05	d	24	d	58.06 bc	72.36 e
LSD P=.05				1.25		1.25		2.73		446.0		1283.8		0.234		16.8		1.744	0.371
Standard Deviation				0.86		0.86		1.87		305.6		879.7		0.160		11.5		1.195	0.254
CV				0.87		0.95		5.85		4.76		23.1		12.26		23.2		2.03	0.35
Treatment F				9.717		9.717		10.071		58.102		2.851		4.783		5.415		7.426	14.516
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0223		0.0013		0.0006		0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of SuperU Fertilizer in a Furrow Irrigation System – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-34C

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.43
- **pH** ..... : 7.55
- **Extractable nutrients ppm** ..... : Ca-1,258; Cu-1.46; Mg-248; P-8.3; K-62; Na-83; S-9.2; Zn-7.1

Crop/Variety ..... : Rice / CLXL745
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 30
- **Ratoon Harvest date** ..... : NA

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16

Water management ..... : Underground irrigation
- **Flush** ..... :
- **Flood** ..... :
- **Drain** ..... :
- **Ratoon flood** ..... :
- **Ratoon drain** ..... :

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  2 qt/A Rice Beaux + 2 oz/A Permit, May 14
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 55-A. Evaluation of SUPERU® fertilizer in a furrow-irrigated rice production system. Factorial ANOVA results of the main effects of N source and time of application on agronomics. H. Rouse Caffey Rice Research Station, 2020.

		50% Heading (emergence) days	Height Height inches	Lodging Lodging %	Lodging Lodge rate 0-5	Moisture %	Test Weight Test Wt. lb/bu	Yield lb/A	Milling Head %	Milling Total %	Biomass-dry Abvgrd - lb/A 50% HD	Tissue N Abvgrd - % N 50% HD	N Uptake total - lb/A 50% HD	RE (N recovery eff) % of total N applied
N Source														
Urea	138 lb ai/a	90 a	33.4 NS	63.8 NS	2.9 NS	10.8 NS	40.5 NS	6326 c	55.0 NS	71.7 NS	4413 NS	1.21 NS	54 NS	9 NS
Urea + Agrotain Advanced	138 lb ai/a	90 a	34.9 NS	72.5 NS	3.2 NS	10.6 NS	40.9 NS	6578 ab	56.1 NS	72.1 NS	4822 NS	1.26 NS	61 NS	13 NS
SuperU	138 lb ai/a	90 b	33.2 NS	65.2 NS	3.1 NS	10.8 NS	40.8 NS	6729 a	55.5 NS	72.1 NS	3933 NS	1.24 NS	48 NS	7 NS
Urea + Anvol	138 lb ai/a	90 ab	33.7 NS	72.5 NS	3.4 NS	10.9 NS	40.6 NS	6499 bc	55.7 NS	71.8 NS	3967 NS	1.22 NS	49 NS	8 NS
LSD P=.10		0.3	1.47	12.21	0.46	0.3635	0.583	226.3	0.8925	0.3227	739.8	0.08	11.0	6.7
Standard Deviation		0.5	2.47	20.54	0.77	0.6117	0.980	380.0	1.4992	0.5420	1242.6	0.14	18.5	11.3
CV		0.6	7.30	29.99	24.14	5.6819	2.408	5.8	2.6964	0.7535	29.0	11.12	34.8	123.6
N Timing														
Single pre-flood	138 lb ai/a	90 NS	34.6 NS	69.4 NS	3.2 NS	10.6 NS	40.9 NS	6337 b	55.8 a	71.9 b	4363 NS	1.25 NS	55 NS	11 NS
2-way split (7-days apart)	138 lb ai/a	90 NS	33.5 NS	71.5 NS	3.3 NS	10.8 NS	40.6 NS	6532 ab	54.5 b	71.6 b	4091 NS	1.20 NS	49 NS	8 NS
2-way split (14-days apart)	138 lb ai/a	90 NS	33.7 NS	63.8 NS	3.0 NS	11.0 NS	40.9 NS	6583 a	56.4 a	72.2 a	4179 NS	1.27 NS	53 NS	9 NS
3-way split	138 lb ai/a	90 NS	33.4 NS	69.4 NS	3.2 NS	10.7 NS	40.5 NS	6680 a	55.7 a	71.9 ab	4502 NS	1.20 NS	54 NS	9 NS
LSD P=.10		0.3	1.47	12.21	0.46	0.3635	0.583	226.3	0.8925	0.3227	739.8	0.08143	11.0	6.7
Standard Deviation		0.5	2.47	20.54	0.77	0.6117	0.980	380.0	1.4992	0.5420	1242.6	0.13678	18.5	11.3
CV		0.6	7.30	29.99	24.14	5.6819	2.408	5.8	2.6964	0.7535	29.0	11.12405	34.8	123.6

Table 55-B. Evaluation of SUPERU® fertilizer in a furrow-irrigated rice production system. Factorial ANOVA results of the interaction of N source and time of application on agronomics. H. Rouse Caffey Rice Research Station, 2020.

		50% Heading (emergence) days	Height Height inches	Lodging Lodging %	Lodging Lodge rate 0-5	Moisture %	Test Weight Test Wt. lb/bu	Yield lb/A	Milling Head %	Milling Total %	Biomass-dry Abvgrd - lb/A 50% HD	Tissue N Abvgrd - % N 50% HD		N Uptake total - lb/A 50% HD	NUE (N recovery eff) % of total N applied
N Source x N Timing															
Urea Single pre-flood	138 lb ai/a	90 NS	33.3 NS	75.0 NS	3.3 NS	10.6 NS	40.7 NS	5956 NS	55.2 NS	71.8 cd	4796 NS	1.2650	NS	63 NS	14 NS
Urea + Agrotain Advanced Single pre-flood	138 lb ai/a	90 NS	36.8 NS	67.5 NS	3.0 NS	10.6 NS	41.0 NS	6617 NS	56.3 NS	72.3 abc	4491 NS	1.2400	NS	55 NS	9 NS
SuperU Single pre-flood	138 lb ai/a	90 NS	34.5 NS	67.5 NS	3.3 NS	10.9 NS	40.6 NS	6463 NS	56.5 NS	71.7 cde	4557 NS	1.2125	NS	57 NS	12 NS
Urea + Anvol Single pre-flood	138 lb ai/a	90 NS	34.0 NS	67.5 NS	3.3 NS	10.5 NS	41.2 NS	6312 NS	55.1 NS	71.8 cd	3608 NS	1.2675	NS	47 NS	7 NS
Urea 2-way split(7-days apart)	138 lb ai/a	91 NS	34.3 NS	62.5 NS	3.3 NS	10.7 NS	40.8 NS	6364 NS	54.5 NS	71.6 cde	4408 NS	1.1153	NS	49 NS	5 NS
Urea + Agrotain Advanced 2-way split(7-days apart)	138 lb ai/a	90 NS	34.3 NS	85.0 NS	3.5 NS	10.7 NS	40.9 NS	6565 NS	55.4 NS	71.7 cde	5048 NS	1.3000	NS	66 NS	17 NS
SuperU 2-way split(7-days apart)	138 lb ai/a	89 NS	32.7 NS	63.3 NS	3.0 NS	11.1 NS	40.9 NS	6804 NS	53.9 NS	72.1 abc	3639 NS	1.2067	NS	44 NS	5 NS
Urea + Anvol 2-way split(7-days apart)	138 lb ai/a	90 NS	32.8 NS	75.0 NS	3.5 NS	10.8 NS	39.8 NS	6396 NS	54.5 NS	71.1 e	3271 NS	1.1725	NS	39 NS	5 NS
Urea 2-way split (14-days apart)	138 lb ai/a	90 NS	34.5 NS	65.0 NS	2.3 NS	11.1 NS	40.8 NS	6358 NS	54.6 NS	71.5 de	4428 NS	1.2975	NS	58 NS	12 NS
Urea + Agrotain Advanced 2-way split (14-days apart)	138 lb ai/a	90 NS	35.0 NS	57.5 NS	3.3 NS	10.7 NS	40.8 NS	6522 NS	57.2 NS	72.7 a	4152 NS	1.2450	NS	51 NS	6 NS
SuperU 2-way split (14-days apart)	138 lb ai/a	90 NS	32.0 NS	57.5 NS	3.0 NS	10.8 NS	40.9 NS	6856 NS	56.6 NS	72.6 ab	3410 NS	1.3025	NS	43 NS	4 NS
Urea + Anvol 2-way split (14-days apart)	138 lb ai/a	90 NS	33.3 NS	75.0 NS	3.5 NS	11.3 NS	41.1 NS	6594 NS	57.1 NS	72.3 abc	4725 NS	1.2300	NS	59 NS	12 NS
Urea 3-way split	138 lb ai/a	90 NS	31.5 NS	52.5 NS	3.0 NS	11.0 NS	39.8 NS	6624 NS	55.8 NS	72.0 bcd	4020 NS	1.1433	NS	45 NS	4 NS
Urea + Agrotain Advanced 3-way split	138 lb ai/a	90 NS	33.7 NS	80.0 NS	3.0 NS	10.5 NS	40.9 NS	6606 NS	55.6 NS	71.8 cd	5599 NS	1.2500	NS	71 NS	20 NS
SuperU 3-way split	138 lb ai/a	90 NS	33.5 NS	72.5 NS	3.3 NS	10.3 NS	40.8 NS	6794 NS	55.1 NS	71.9 cd	4125 NS	1.2300	NS	51 NS	6 NS
Urea + Anvol 3-way split	138 lb ai/a	90 NS	34.8 NS	72.5 NS	3.5 NS	11.0 NS	40.5 NS	6695 NS	56.1 NS	72.1 a-d	4264 NS	1.1950	NS	51 NS	7 NS
LSD P=.10		0.6	2.93	24.41	0.91	0.7271	1.165	452.7	1.7850	0.6453	1479.6	0.16285		22.0	13.4
Standard Deviation		0.5	2.47	20.54	0.77	0.6117	0.980	380.0	1.4992	0.5420	1242.6	0.13678		18.5	11.3
CV		0.6	7.30	29.99	24.14	5.6819	2.408	5.8	2.6964	0.7535	29.0	11.12405		34.8	123.6

Table 55-C. Evaluation of SUPERU® fertilizer in a furrow-irrigated rice production system. ANOVA results of the of all treatments including the untreated check. H. Rouse Caffey Rice Research Station, 2020.

		50% Heading (emergence) days	Height Height inches	Lodging Lodging %	Lodging Lodge rate 0-5	Moisture %	Test Weight Test Wt. lb/bu	Yield lb/A	Milling Head %	Milling Total %	Biomass-dry Abvgrd - lb/A 50% HD	Tissue N Abvgrd - % N 50% HD	N Uptake total - lb/A 50% HD	RE (N recovery eff) % of total N applied
Urea Single pre-flood	138 lb ai/a	90	33.3	75.0	3.3	10.6	40.7	5956	55.2	71.8	4796	1.27	63	14 NS
Urea 2-way split(7-days apart)	138 lb ai/a	91 NS	34.3 NS	62.5 NS	3.3 NS	10.7 NS	40.8 NS	6364 NS	54.5 de	71.6 cde	4408 NS	1.12 NS	49 NS	5 NS
Urea 2-way split (14-days apart)	138 lb ai/a	90 NS	34.5 NS	65.0 NS	2.3 NS	11.1 NS	40.8 NS	6358 NS	54.6 de	71.5 de	4428 NS	1.30 NS	58 NS	12 NS
Urea 3-way split	138 lb ai/a	90 NS	31.5 NS	52.5 NS	3.0 NS	11.0 NS	39.8 NS	6624 NS	55.8 a-d	72.0 bcd	4020 NS	1.14 NS	45 NS	4 NS
Urea + Agrotain Advanced Single pre-flood	138 lb ai/a	90 NS	36.8 NS	67.5 NS	3.0 NS	10.6 NS	41.0 NS	6617 NS	56.3 a-d	72.3 abc	4491 NS	1.24 NS	55 NS	9 NS
Urea + Agrotain Advanced 2-way split(7-days apart)	138 lb ai/a	90 NS	34.3 NS	85.0 NS	3.5 NS	10.7 NS	40.9 NS	6565 NS	55.4 b-e	71.7 cde	5048 NS	1.30 NS	66 NS	17 NS
Urea + Agrotain Advanced 2-way split (14-days apart)	138 lb ai/a	90 NS	35.0 NS	57.5 NS	3.3 NS	10.7 NS	40.8 NS	6522 NS	57.2 a	72.7 a	4152 NS	1.25 NS	51 NS	6 NS
Urea + Agrotain Advanced 3-way split	138 lb ai/a	90 NS	33.7 NS	80.0 NS	3.0 NS	10.5 NS	40.9 NS	6606 NS	55.6 a-e	71.8 cd	5599 NS	1.25 NS	71 NS	20 NS
SuperU Single pre-flood	138 lb ai/a	90 NS	34.5 NS	67.5 NS	3.3 NS	10.9 NS	40.6 NS	6463 NS	56.5 abc	71.7 cde	4557 NS	1.21 NS	57 NS	12 NS
SuperU 2-way split(7-days apart)	138 lb ai/a	89 NS	32.7 NS	63.3 NS	3.0 NS	11.1 NS	40.9 NS	6804 NS	53.9 e	72.1 abc	3639 NS	1.21 NS	44 NS	5 NS
SuperU 2-way split (14-days apart)	138 lb ai/a	90 NS	32.0 NS	57.5 NS	3.0 NS	10.8 NS	40.9 NS	6856 NS	56.6 abc	72.6 ab	3410 NS	1.30 NS	43 NS	4 NS
SuperU 3-way split	138 lb ai/a	90 NS	33.5 NS	72.5 NS	3.3 NS	10.3 NS	40.8 NS	6794 NS	55.1 cde	71.9 cd	4125 NS	1.23 NS	51 NS	6 NS
Urea + Anvol Single pre-flood	138 lb ai/a	90 NS	34.0 NS	67.5 NS	3.3 NS	10.5 NS	41.2 NS	6312 NS	55.1 cde	71.8 cd	3608 NS	1.27 NS	47 NS	7 NS
Urea + Anvol 2-way split(7-days apart)	138 lb ai/a	90 NS	32.8 NS	75.0 NS	3.5 NS	10.8 NS	39.8 NS	6396 NS	54.5 de	71.1 e	3271 NS	1.17 NS	39 NS	5 NS
Urea + Anvol 2-way split (14-days apart)	138 lb ai/a	90 NS	33.3 NS	75.0 NS	3.5 NS	11.3 NS	41.1 NS	6594 NS	57.1 ab	72.3 abc	4725 NS	1.23 NS	59 NS	12 NS
Urea + Anvol 3-way split	138 lb ai/a	90 NS	34.8 NS	72.5 NS	3.5 NS	11.0 NS	40.5 NS	6695 NS	56.1 a-d	72.1 a-d	4264 NS	1.20 NS	51 NS	7 NS
No N	0 lb ai/a	90 NS	32.8 NS	65.0 NS	2.8 NS	10.4 NS	40.9 NS	6655 NS	55.7 a-d	72.2 abc	4225 NS	1.18 NS	50 NS	5 NS
LSD P=.10		0.6	3.1	23.5	0.9	0.7	1.2	384	1.8	0.64	1449	0.15	19.9	11.4
Standard Deviation		0.5	2.6	19.8	0.8	0.6	1.0	322	1.5	0.54	1216	0.12	16.7	9.6
CV		0.57	7.6	29.1	24.0	5.72	2.4	5	2.8	0.75	29	9.98	32.0	112.7

Evaluation of SuperU Fertilizer in a Furrow Irrigation System – St Joseph, LA, 2020.

Experiment number ..... : 20-SJ-34D

Site and design ..... :
- **Location/Cooperator** ..... : St. Joseph, LA
- **Tillage type** ..... :
- **Experimental design** ..... :
- **Number of reps** ..... :
- **Plot size** ..... :
- **Row width/rows per plot** ..... :

Soil type ..... : Crowley silt loam
- **% organic matter** ..... :2.38%
- **pH** ..... : 6.7
- **Extractable nutrients ppm** ..... :

Crop/Variety ..... : Rice / CLXL745
- **Planting method/date** ..... : Drill seeded / May 4
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... :
- **Harvest date** ..... : Sept. 4
- **Ratoon harvest date** ..... :

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : June 3, June 10, June 17

Water management ..... : Underground irrigation
- **Flush** ..... : May 5, July 15, July 24, Aug. 3, Aug. 6, Aug. 10, Aug. 18,
- **Flood** ..... :
- **Drain** ..... :
- **Ratoon Flood** ..... :
- **Ratoon Drain** ..... :

Pest management ..... :
- **Herbicides** ..... :4 oz. Newpath, 35 oz. Prowl, 16 oz. Facet, May 27
- **Insecticides** ..... :
- **Fungicides** ..... :

Table 56-A. Evaluation of SuperU fertilizer in a furrow irrigated rice production system. Factorial ANOVA of the main effects of N source and time of application on agronomics. St. Joseph, LA, 2020.

		Plant Pop sq ft.	50% Heading days (from emergence)	Height inches	Moisture %	Lodging 1-5	Test Weigh lb/bu	Yield lb/A	Milling		Biomass Abvgrd-dry lb/A	Tissue N Abvgrd-50% Heading %	N Uptake total 50% Heading lb/A	RE (N recovery eff) % of total applied
									Head %	Total %				
N Source														
Urea	138 lb ai/a	5.3 a	74.4 NS	66.3 NS	21.0 NS	5.0 NS	36.9 NS	11,142 NS	62.0 NS	73.9 NS	10,792 NS	2.3 b	243.0 NS	95.7 a
Urea + Agrotain Advanced	138 lb ai/a	4.0 b	74.9 NS	42.0 NS	21.7 NS	5.0 NS	37.0 NS	10,137 NS	62.6 NS	74.3 NS	10,000 NS	2.3 b	228.0 NS	90.0 ab
SuperU	138 lb ai/a	4.5 b	74.8 NS	43.1 NS	21.4 NS	5.0 NS	36.9 NS	11,228 NS	62.5 NS	73.8 NS	9,742 NS	2.4 a	238.0 NS	96.3 a
Urea + Anvol	138 lb ai/a	4.5 b	74.6 NS	42.3 NS	20.9 NS	5.0 NS	36.8 NS	10,322 NS	62.8 NS	74.1 NS	9,441 NS	2.2 b	204.0 NS	83.5 b
LSD P=.10		0.7	0.7	28.1	0.9	.	1.1	1,282	1.7	0.4	1,421	0.1	36.8	8.8
Standard Deviation		1.1	1.1	47.4	1.6	0.0	1.8	2,159	2.8	0.6	2,392	0.2	62.1	14.9
CV		25.1	1.5	97.8	7.3	0.0	5.0	20	4.5	0.9	24	10.4	27.2	16.3
N Timing														
Single pre-flood	138 lb ai/a	4.4 NS	74.6 NS	42.6 NS	21.6 NS	5.0 NS	36.5 NS	11,352 NS	63.0 NS	74.2 NS	10,108 NS	2.3 a	235.0 NS	92.4 NS
2-way split (7-days apart)	138 lb ai/a	4.7 NS	74.1 NS	42.1 NS	21.2 NS	5.0 NS	37.0 NS	10,216 NS	62.5 NS	74.1 NS	9,661 NS	2.1 b	205.0 NS	87.7 NS
2-way split (14-days apart)	138 lb ai/a	4.5 NS	74.9 NS	42.6 NS	21.3 NS	5.0 NS	37.3 NS	10,776 NS	62.4 NS	74.0 NS	10,289 NS	2.3 a	239.0 NS	92.6 NS
3-way split	138 lb ai/a	4.7 NS	75.0 NS	66.3 NS	20.9 NS	5.0 NS	36.8 NS	10,486 NS	62.0 NS	73.8 NS	9,917 NS	2.3 a	233.0 NS	92.9 NS
LSD P=.10		0.7	0.7	28.1	0.9	.	1.1	1,282	1.7	0.4	1,421	0.1	36.8	8.8
Standard Deviation		1.1	1.1	47.4	1.6	0.0	1.8	2,159	2.8	0.6	2,392	0.2	62.1	14.9
CV		25.1	1.5	97.8	7.3	0.0	5.0	20	4.5	0.9	24	10.4	27.2	16.3

Table 56-B. Evaluation of SuperU fertilizer in a furrow irrigated rice production system. Factorial ANOVA of the interaction of N source and time of application on agronomics. St. Joseph, LA, 2020.

		Plant Pop sq ft.	50% Heading days (from emergence)	Height inches	Moisture %	Lodging 1-5	Test Weigh lb/bu	Yield lb/A	Milling		Biomass Abvgrd- lb/A dry	Tissue N Abvgrd- % 50% Heading	N Uptake total lb/A 50% Heading	RE (N recovery eff) % of total applied
									Head %	Total %				
N Source x N Timing														
Urea Single pre-flood	138 lb ai/a	6.0 NS	74.5 NS	42.8 NS	20.7 NS	5.0 NS	36.5 NS	11,968 NS	62.6 NS	74.1 NS	10,456 NS	2.2 NS	234.0 NS	92.0 NS
Urea + Agrotain Advanced Single pre-flood	138 lb ai/a	3.8 NS	75.3 NS	42.3 NS	23.2 NS	5.0 NS	35.4 NS	10,579 NS	63.6 NS	74.4 NS	9,866 NS	2.4 NS	238.0 NS	87.8 NS
SuperU Single pre-flood	138 lb ai/a	4.5 NS	75.0 NS	43.8 NS	22.0 NS	5.0 NS	36.2 NS	12,683 NS	62.1 NS	73.9 NS	10,422 NS	2.4 NS	253.0 NS	100.0 NS
Urea + Anvol Single pre-flood	138 lb ai/a	3.4 NS	73.8 NS	41.8 NS	20.5 NS	5.0 NS	38.0 NS	10,178 NS	63.6 NS	74.2 NS	9,687 NS	2.2 NS	216.0 NS	89.6 NS
Urea 2-way split (7-days apart)	138 lb ai/a	4.4 NS	72.8 NS	41.8 NS	21.2 NS	5.0 NS	37.4 NS	10,690 NS	63.4 NS	74.1 NS	11,442 NS	2.1 NS	236.0 NS	96.2 NS
Urea + Agrotain Advanced 2-way split (7-days apart)	138 lb ai/a	3.9 NS	74.8 NS	42.0 NS	21.5 NS	5.0 NS	35.9 NS	9,892 NS	61.9 NS	74.2 NS	9,584 NS	2.0 NS	191.0 NS	79.8 NS
SuperU 2-way split (7-days apart)	138 lb ai/a	5.3 NS	74.3 NS	43.5 NS	21.1 NS	5.0 NS	37.0 NS	11,010 NS	63.1 NS	74.1 NS	8,531 NS	2.3 NS	201.0 NS	86.7 NS
Urea + Anvol 2-way split (7-days apart)	138 lb ai/a	5.0 NS	74.8 NS	41.3 NS	20.8 NS	5.0 NS	37.7 NS	9,271 NS	61.4 NS	74.1 NS	9,086 NS	2.1 NS	193.0 NS	88.0 NS
Urea 2-way split (14-days apart)	138 lb ai/a	5.0 NS	75.0 NS	43.3 NS	21.4 NS	5.0 NS	36.7 NS	11,526 NS	61.7 NS	73.8 NS	10,239 NS	2.4 NS	241.0 NS	94.4 NS
Urea + Agrotain Advanced 2-way split (14-days apart)	138 lb ai/a	4.6 NS	74.8 NS	42.3 NS	21.4 NS	5.0 NS	38.2 NS	10,152 NS	62.5 NS	74.5 NS	11,122 NS	2.2 NS	251.0 NS	95.4 NS
SuperU 2-way split (14-days apart)	138 lb ai/a	3.7 NS	75.0 NS	42.3 NS	21.2 NS	5.0 NS	37.6 NS	10,566 NS	61.4 NS	73.5 NS	9,343 NS	2.5 NS	235.0 NS	98.5 NS
Urea + Anvol 2-way split (14-days apart)	138 lb ai/a	4.8 NS	75.0 NS	42.8 NS	21.0 NS	5.0 NS	36.5 NS	10,862 NS	64.1 NS	74.3 NS	10,453 NS	2.2 NS	227.0 NS	81.9 NS
Urea 3-way split	138 lb ai/a	5.5 NS	75.3 NS	### NS	20.5 NS	5.0 NS	37.0 NS	10,385 NS	60.1 NS	73.5 NS	11,031 NS	2.4 NS	261.0 NS	100.0 NS
Urea + Agrotain Advanced 3-way split	138 lb ai/a	3.8 NS	75.0 NS	41.5 NS	20.8 NS	5.0 NS	38.2 NS	9,924 NS	62.5 NS	74.2 NS	9,427 NS	2.5 NS	231.0 NS	97.1 NS
SuperU 3-way split	138 lb ai/a	4.5 NS	75.0 NS	42.8 NS	21.1 NS	5.0 NS	36.8 NS	10,655 NS	63.3 NS	73.8 NS	10,673 NS	2.5 NS	260.0 NS	99.9 NS
Urea + Anvol 3-way split	138 lb ai/a	5.0 NS	74.8 NS	43.5 NS	21.3 NS	5.0 NS	35.1 NS	10,978 NS	62.0 NS	73.6 NS	8,538 NS	2.1 NS	180.0 NS	74.5 NS
LSD P=.10		1.4	1.4	56.2	1.8	.	2.2	2,563	3.3	0.7	2,841	0.3	73.7	17.7
Standard Deviation		1.1	1.1	47.4	1.6	0.0	1.8	2,159	2.8	0.6	2,392	0.2	62.1	14.9
CV		25.1	1.5	97.8	7.3	0.0	5.0	20	4.5	0.9	24	10.4	27.2	16.3

Table 56-C. Evaluation of SuperU fertilizer in a furrow irrigated rice production system. ANOVA results of all treatments including the untreated check on agronomics. St. Joseph, LA, 2020.

		Plant Pop sq ft.	50% Heading days (from emergence)	Height inches	Moisture %	Lodging 1-5	Test Weight lb/bu	Yield lb/A	Milling		Biomass Abvgrd- lb/A dry	Tissue N Abvgrd- % 50% Heading	N Uptake total lb/A 50% Heading	RE (N recovery eff) % of total applied
									Head %	Total %				
Urea Single pre-flood	138 lb ai/a	6.0	74.5	42.8	20.7	5.0	36.5	19.0	62.6	74.1	10,456	2.24	234	92.0
Urea 2-way split (7-days apart)	138 lb ai/a	4.4 NS	72.8 c	41.8 NS	21.2 b	5.0 a	37.4 bcd	17.0 NS	63.4 NS	74.1 a-d	11,442 NS	2.06 d	236 ab	96.2 abc
Urea 2-way split (14-days apart)	138 lb ai/a	5.0 NS	75.0 ab	43.3 NS	21.4 ab	5.0 a	36.7 b-e	18.3 NS	61.7 NS	73.8 bcd	10,239 NS	2.36 abc	241 ab	94.4 abc
Urea 3-way split	138 lb ai/a	5.5 NS	75.3 a	137.3 NS	20.5 b	5.0 a	37.0 b-e	16.5 NS	60.1 NS	73.5 d	11,031 NS	2.38 abc	261 a	100.0 a
Urea + Agrotain Advanced Single pre-flood	138 lb ai/a	3.8 NS	75.3 a	42.3 NS	23.2 a	5.0 a	35.4 de	16.8 NS	63.6 NS	74.4 ab	9,866 NS	2.39 abc	238 ab	87.8 a-d
Urea + Agrotain Advanced 2-way split (7-days apart)	138 lb ai/a	3.9 NS	74.8 ab	42.0 NS	21.5 ab	5.0 a	35.9 cde	15.7 NS	61.9 NS	74.2 a-d	9,584 NS	2.00 d	191 ab	79.8 cd
Urea + Agrotain Advanced 2-way split (14-days apart)	138 lb ai/a	4.6 NS	74.8 ab	42.3 NS	21.4 ab	5.0 a	38.2 b	16.1 NS	62.5 NS	74.5 a	11,122 NS	2.23 bcd	251 ab	95.4 abc
Urea + Agrotain Advanced 3-way split	138 lb ai/a	3.8 NS	75.0 ab	41.5 NS	20.8 b	5.0 a	38.2 b	15.8 NS	62.5 NS	74.2 a-d	9,427 NS	2.45 ab	231 ab	97.1 abc
SuperU Single pre-flood	138 lb ai/a	4.5 NS	75.0 ab	43.8 NS	22.0 ab	5.0 a	36.2 b-e	20.1 NS	62.1 NS	73.9 a-d	10,422 NS	2.42 ab	253 a	100.0 a
SuperU 2-way split (7-days apart)	138 lb ai/a	5.3 NS	74.3 ab	43.5 NS	21.1 b	5.0 a	37.0 b-e	17.5 NS	63.1 NS	74.1 a-d	8,531 NS	2.35 abc	201 ab	86.7 a-d
SuperU 2-way split (14-days apart)	138 lb ai/a	3.7 NS	75.0 ab	42.3 NS	21.2 b	5.0 a	37.6 bcd	16.8 NS	61.4 NS	73.5 d	9,343 NS	2.52 a	235 ab	98.5 ab
SuperU 3-way split	138 lb ai/a	4.5 NS	75.0 ab	42.8 NS	21.1 b	5.0 a	36.8 b-e	16.9 NS	63.3 NS	73.8 bcd	10,673 NS	2.45 ab	260 a	99.9 a
Urea + Anvol Single pre-flood	138 lb ai/a	3.4 NS	73.8 bc	41.8 NS	20.5 b	5.0 a	38.0 bc	16.2 NS	63.6 NS	74.2 abc	9,687 NS	2.21 bcd	216 ab	89.6 a-d
Urea + Anvol 2-way split (7-days apart)	138 lb ai/a	5.0 NS	74.8 ab	41.3 NS	20.8 b	5.0 a	37.7 bc	14.7 NS	61.4 NS	74.1 a-d	9,086 NS	2.12 cd	193 ab	88.0 a-d
Urea + Anvol 2-way split (14-days apart)	138 lb ai/a	4.8 NS	75.0 ab	42.8 NS	21.0 b	5.0 a	36.5 b-e	17.2 NS	64.1 NS	74.3 ab	10,453 NS	2.18 bcd	227 ab	81.9 bcd
Urea + Anvol 3-way split	138 lb ai/a	5.0 NS	74.8 ab	43.5 NS	21.3 b	5.0 a	35.1 e	17.4 NS	62.0 NS	73.6 cd	8,538 NS	2.11 cd	180 b	74.5 d
No N	0 lb ai/a	4.0 NS	69.0 d	33.3 NS	14.3 c	1.0 b	40.8 a	11.6 NS	58.2 NS	72.1 e	6,402 NS	0.93 e	60 c	3.8 e
LSD P=.10		1.4	1.3	56.2	1.9	.	2.2	4.0	3.3	0.69	2726	0.28	71.3	17.4
Standard Deviation		1.1	1.1	47.3	1.6	0.00	1.8	3.4	2.8	0.59	2296	0.24	60.0	14.7
CV		25.8	1.5	99.0	7.5	0.0	5.0	20.6	4.5	0.79	24	10.76	27.64	17.1

CL153 Response to Nitrogen Fertilizer Rate in a Furrow Irrigation System – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-34D

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.43
- **pH** ..... : 7.55
- **Extractable nutrients ppm** ..... : Ca-1,258; Cu-1.46; Mg-248; P-8.3; K-62; Na-83; S-9.2; Zn-7.1

Crop/Variety ..... : Rice / CL153
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 30
- **Ratoon harvest date** ..... : Oct. 29

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... :
- **Flood** ..... :
- **Drain** ..... :
- **Ratoon Flood** ..... :
- **Ratoon Drain** ..... :

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 57. CL153 response to N fertilizer rate in a furrow irrigation system. H. Rouse Caffey Rice Research Station.

Crop Name			Rice		Rice		Rice		Rice		Rice	
Description			Plant-hd		Emer-hd		Tip of Panicle					
Rating Date							7/30/2020		7/30/2020		7/30/2020	
Rating Type			50% HD		50% HD		Height		Moist		Yield	
Rating Unit			days		days		in		%		lb/A	
Crop Stage Majority			Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage									
1	UREA	0	4-5 leaf	101.0	cd	93.0	cd	23.0	b	14.7	a	2633	d
2	UREA	90	4-5 leaf	100.5	d	92.5	d	26.3	a	14.0	a	4818	c
3	UREA	120	4-5 leaf	101.5	bc	93.5	bc	27.0	a	14.7	a	5409	bc
4	UREA	150	4-5 leaf	102.5	a	94.5	a	28.5	a	14.9	a	5874	ab
5	UREA	180	4-5 leaf	102.3	ab	94.3	ab	29.0	a	14.5	a	6539	a
6	UREA	210	4-5 leaf	102.8	a	94.8	a	27.5	a	14.9	a	6422	a
LSD P=.05				0.78		0.78		3.19		0.92		788.7	
Standard Deviation				0.52		0.52		2.12		0.61		523.3	
CV				0.51		0.55		7.88		4.17		9.91	
Treatment F				12.000		12.000		4.096		1.165		30.611	
Treatment Prob(F)				0.0001		0.0001		0.0152		0.3710		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

CL153 Response to Nitrogen Fertilizer Application Timing
In a Furrow Irrigation System – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-34E

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.43
- **pH** ..... : 7.55
- **Extractable nutrients ppm** ..... : Ca-1,258; Cu-1.46; Mg-248; P-8.3; K-62; Na-83; S-9.2; Zn-7.1

Crop/Variety ..... : Rice / CL153
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 30
- **Ratoon Harvest date** ..... : NA

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16

Water management ..... : Underground irrigation
- **Flush** ..... :
- **Flood** ..... :
- **Drain** ..... :
- **Ratoon flood** ..... :
- **Ratoon drain** ..... :

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  2 qt/A Rice Beaux + 2 oz/A Permit, May 14
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 58. CL153 response to N fertilizer application timing in a furrow irrigation system. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle						Biomass		Tissue N		N Uptake			
Rating Date								7/30/2020		7/30/2020											
Part Rated														Abvgrd		Abvgrd		Total			
Rating Type				50% HD		50% HD		Height		Yield		Milling (%)		50% HD		50% HD					
Rating Unit				days		days		in		lb/A		Head	Total	lb/A		% N		lb/A			
Crop Stage Majority				Main		Main		Main		Main		Main	Main	Main		Main		Main			
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage																		
1	120 lb N/A			101.3	bc	93.3	bc	27.0	d	5253	c	62.20	c	73.52	b	2924	a	1.50	bc	44	a
	Single Pre-flood	120	4-LEAF																		
2	120 lb N/A			101.8	abc	93.8	abc	27.8	cd	5424	c	63.29	bc	73.56	b	3159	a	1.35	cd	42	ab
	2-way split (7-day)	60	4-LEAF																		
	2-way split (7-day)	60	4-LEAF+7D																		
3	120 lb N/A			101.3	bc	93.3	bc	28.3	bcd	6169	b	63.10	bc	73.69	b	3933	a	1.44	bc	56	a
	2-way split (14-day)	60	4-LEAF																		
	2-way split (14-day)	60	4-LEAF+14D																		
4	120 lb N/A			102.0	ab	94.0	ab	29.3	abc	5931	b	63.21	bc	73.58	b	2786	a	1.41	bc	39	ab
	3-way (7 day)	40	4-LEAF																		
	3-way (14 day)	40	4-LEAF+7D																		
	3-way (21 day)	40	4-LEAF+14D																		
5	165 lb N/A			102.3	a	94.3	a	29.3	abc	6182	b	65.63	a	73.98	ab	3741	a	1.60	ab	60	a
	Single Pre-flood	165																			
6	165 lb N/A			102.3	a	94.3	a	29.5	abc	6090	b	64.48	ab	73.87	b	3507	a	1.58	ab	57	a
	2-way split (7-day)	82.5	4-LEAF																		
	2-way split (7-day)	82.5	4-LEAF+7D																		
7	165 lb N/A			101.8	abc	93.8	abc	30.0	ab	7201	a	64.44	ab	74.49	a	3862	a	1.70	a	66	a
	2-way split (14-day)	82.5	4-LEAF																		
	2-way split (14-day)	82.5	4-LEAF+14D																		
8	165 lb N/A			102.3	a	94.3	a	30.3	a	6705	a	64.47	ab	73.74	b	3990	a	1.72	a	69	a
	3-way (7 day)	55	4-LEAF																		
	3-way (14 day)	55	4-LEAF+7D																		
	3-way (21 day)	55	4-LEAF+14D																		
9	0 N			101.0	c	93.0	c	24.3	e	2444	d	62.93	bc	72.65	c	979	b	1.21	d	12	b
LSD P=.05				0.77		0.77		1.94		505.9		1.782		0.610		1774		0.195		31.1	
Standard Deviation				0.53		0.53		1.33		346.6		1.221		0.418		1215		0.134		21.3	
CV				0.52		0.56		4.69		6.07		1.92		0.57		37.9		8.93		43.04	
Treatment F				3.347		3.347		7.980		61.574		3.044		5.435		2.427		6.297		2.756	
Treatment Prob(F)				0.0102		0.0102		0.0001		0.0001		0.0164		0.0006		0.0444		0.0002		0.0259	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

CLXL745 Response to Nitrogen Fertilizer Rate in a Delayed Flood System – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-33A

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.15
- **Extractable nutrients ppm** ..... : Ca-1,200; Cu-1.45; Mg-233; P-5.8; K-57; Na-84; S-7.4; Zn-6.9

Crop/Variety ..... : Rice / CLXL745
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 29
- **Ratoon Harvest date** ..... : NA

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16

Water management ..... : Underground irrigation
- **Flush** ..... : April 7
- **Flood** ..... : April 24
- **Drain** ..... : July 10
- **Ratoon flood** ..... : NA
- **Ratoon drain** ..... : NA

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 59. CLXL745 response to N fertilizer rate in a delayed flood system. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								7/29/2020		7/29/2020		7/29/2020	
Rating Type				50% HD		50% HD		Height		Moist		Yield	
Rating Unit				days		days		in		%		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Timing										
1	UREA	0	4-5 leaf	90.3	d	82.3	d	30.5	b	12.30	d	5128	c
2	UREA	90	4-5 leaf	93.3	c	85.3	c	39.0	a	13.23	cd	11567	b
3	UREA	120	4-5 leaf	93.5	bc	85.5	bc	39.5	a	13.58	bc	11814	ab
4	UREA	150	4-5 leaf	93.3	c	85.3	c	39.3	a	14.85	a	12580	a
5	UREA	180	4-5 leaf	94.3	ab	86.3	ab	39.5	a	14.30	ab	12434	ab
6	UREA	210	4-5 leaf	94.5	a	86.5	a	38.5	a	14.23	ab	12584	a
LSD P=.05				0.84		0.84		2.81		0.931		968.7	
Standard Deviation				0.56		0.56		1.87		0.617		642.8	
CV				0.6		0.65		4.95		4.49		5.83	
Treatment F				29.786		29.786		14.469		8.703		82.336	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0005		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of SuperU Fertilizer in a Delayed Flood System – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-33C

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 6
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.15
- **Extractable nutrients ppm** ..... : Ca-1,200; Cu-1.45; Mg-233; P-5.8; K-57; Na-84; S-7.4; Zn-6.9

Crop/Variety ..... : Rice / CLXL745
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 29
- **Ratoon Harvest date** ..... : NA

Seed treatment/cwt ..... : **Hybrids:**
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide)
Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16

Water management ..... : Underground irrigation
- **Flush** ..... : April 7
- **Flood** ..... : April 24
- **Drain** ..... : July 10
- **Ratoon flood** ..... : NA
- **Ratoon drain** ..... : NA

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 60. Evaluation of SuperU fertilizer in a delayed flood system. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle			
Rating Date								7/29/2020		7/29/2020	
Rating Type				50% HD		50% HD		Height		Yield	
Rating Unit				days		days		in		lb/A	
Crop Stage Majority				Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage								
1	Urea			94.7	a	86.7	a	37.0	ab	11658	ab
	Single pre-flood	138	4-LEAF								
2	Urea	69	4-LEAF	92.7	cde	84.7	cde	34.3	bc	10217	de
	2-way split (7-days apart)	69	4-LEAF + 7								
3	Urea	69	4-LEAF	92.7	cde	84.7	cde	35.0	ab	9905	ef
	2-way split (14-days apart)	69	4-LEAF + 14								
4	Urea	46	4-LEAF	92.3	de	84.3	de	35.0	ab	9008	g
	3-way split	46	4-LEAF + 7								
		46	4-LEAF + 14								
5	Urea + Agrotain Advanced	138	4-LEAF	93.7	b	85.7	b	38.0	a	11433	ab
	Single pre-flood										
6	Urea + Agrotain Advanced	69	4-LEAF	93.3	bc	85.3	bc	37.0	ab	11129	bc
	2-way split (7-days apart)	69	4-LEAF + 7								
7	Urea + Agrotain Advanced	69	4-LEAF	92.7	cde	84.7	cde	35.7	ab	9973	ef
	2-way split (14-days apart)	69	4-LEAF + 14								
8	Urea + Agrotain Advanced	46	4-LEAF	92.3	de	84.3	de	35.3	ab	9500	fg
	3-way split	46	4-LEAF + 7								
		46	4-LEAF + 14								
9	SuperU	138	4-LEAF	93.3	bc	85.3	bc	38.0	a	11934	a
	Single pre-flood										
10	SuperU	69	4-LEAF	93.0	bcd	85.0	bcd	36.3	ab	10560	cd
	2-way split (7-days apart)	69	4-LEAF + 7								
11	SuperU	69	4-LEAF	92.7	cde	84.7	cde	37.0	ab	10108	de
	2-way split (14-days apart)	69	4-LEAF + 14								
12	SuperU	46	4-LEAF	92.0	e	84.0	e	36.0	ab	9137	g
	3-way split	46	4-LEAF + 7								
		46	4-LEAF + 14								
13	Urea + Anvol	138	4-LEAF	93.7	b	85.7	b	36.7	ab	11638	ab
	Single pre-flood										
14	Urea + Anvol	69	4-LEAF	92.3	de	84.3	de	36.7	ab	10364	de
	2-way split (7-days apart)	69	4-LEAF + 7								
15	Urea + Anvol	69	4-LEAF	93.0	bcd	85.0	bcd	34.0	bc	10300	de
	2-way split (14-days apart)	69	4-LEAF + 14								
16	Urea + Anvol	46	4-LEAF	93.0	bcd	85.0	bcd	36.3	ab	8947	g
	3-way split	46	4-LEAF + 7								
		46	4-LEAF + 14								
17	No N	0		90.0	f	82.0	f	31.3	c	4781	h
LSD P=.05				0.98		0.98		3.31		583.5	
Standard Deviation				0.59		0.59		1.99		350.9	
CV				0.63		0.69		5.54		3.5	
Treatment F				8.100		8.100		2.035		66.123	
Treatment Prob(F)				0.0001		0.0001		0.0426		0.0001	

Continued.

Table 60. Continued.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Biomass		Tissue N		N Uptake					
Part Rated				Abvgrd		Abvgrd		Total					
Rating Type				50% HD		50% HD		50% HD		Milling (%)			
Rating Unit				lb/A		% N		lb/A		Head		Total	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	Urea Single pre-flood	138	4-LEAF	8462	ab	1.31	a	112	ab	61.44	a	73.36	a
2	Urea 2-way split (7-days apart)	69 69	4-LEAF 4-LEAF + 7	7019	ab	0.95	bcd	66	de	55.06	cde	72.45	cd
3	Urea 2-way split (14-days apart)	69 69	4-LEAF 4-LEAF + 14	7636	ab	0.93	bcd	70	de	54.64	c-f	72.43	cd
4	Urea 3-way split	46 46 46	4-LEAF 4-LEAF + 7 4-LEAF + 14	6448	b	0.90	bcd	57	e	51.84	f	72.07	d
5	Urea + Agrotain Advanced Single pre-flood	138	4-LEAF	8084	ab	1.36	a	108	abc	61.92	a	73.61	a
6	Urea + Agrotain Advanced 2-way split (7-days apart)	69 69	4-LEAF 4-LEAF + 7	8015	ab	1.01	bc	81	cde	55.13	cde	72.51	cd
7	Urea + Agrotain Advanced 2-way split (14-days apart)	69 69	4-LEAF 4-LEAF + 14	7566	ab	0.97	bcd	73	de	55.15	cde	72.52	cd
8	Urea + Agrotain Advanced 3-way split	46 46 46	4-LEAF 4-LEAF + 7 4-LEAF + 14	6887	ab	0.83	cd	57	e	53.26	def	72.24	cd
9	SuperU Single pre-flood	138	4-LEAF	8871	a	1.38	a	123	a	62.06	a	72.69	bc
10	SuperU 2-way split (7-days apart)	69 69	4-LEAF 4-LEAF + 7	7038	ab	1.09	b	75	de	56.01	bcd	72.71	bc
11	SuperU 2-way split (14-days apart)	69 69	4-LEAF 4-LEAF + 14	7843	ab	0.99	bcd	78	de	57.51	bc	73.14	ab
12	SuperU 3-way split	46 46 46	4-LEAF 4-LEAF + 7 4-LEAF + 14	6816	ab	0.82	cd	56	e	52.91	def	72.17	cd
13	Urea + Anvol Single pre-flood	138	4-LEAF	7798	ab	1.04	b	81	cde	61.94	a	73.37	a
14	Urea + Anvol 2-way split (7-days apart)	69 69	4-LEAF 4-LEAF + 7	8496	ab	1.00	bcd	85	bcd	55.54	cde	72.45	cd
15	Urea + Anvol 2-way split (14-days apart)	69 69	4-LEAF 4-LEAF + 14	6948	ab	0.96	bcd	68	de	58.90	ab	73.13	ab
16	Urea + Anvol 3-way split	46 46 46	4-LEAF 4-LEAF + 7 4-LEAF + 14	7222	ab	0.81	d	58	e	52.73	ef	72.51	cd
17	No N	0		3392	c	0.82	cd	28	f	54.63	c-f	72.05	d
LSD P=.05				2141		0.193		26.8		3.182		0.595	
Standard Deviation				1287		0.116		16.1		1.913		0.358	
CV				17.57		11.52		21.45		3.39		0.49	
Treatment F				2.690		7.311		6.243		9.955		5.402	
Treatment Prob(F)				0.0084		0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Table 61. Two-way table for the evaluation of SuperU fertilizer in a delayed flood system. H. Rouse Caffey Rice Research Station.

Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage	Rice Plant-hd 50% HD days Main		Rice Emer-hd 50% HD days Main		Rice Tip of Panicle 7/29/2020 Height in Main		Rice 7/29/2020 Yield lb/A Main	
TABLE OF A (N Source) MEANS											
1	Urea			93.1	a	85.1	a	35.3	a	10197	a
2	Urea + Agrotain Advanced			93.0	a	85.0	a	36.5	a	10509	a
3	SuperU			92.8	a	84.8	a	36.8	a	10435	a
4	Urea + Anvol			93.0	a	85.0	a	35.9	a	10312	a
P				0.6		0.6		0.3		0.1509	
LSD P=.05				0.50		0.50		1.64		287.3	
TABLE OF B (N Timing) MEANS											
1	Single pre-flood	138	4-LEAF	93.8	a	85.8	a	37.4	a	11666	a
2	2-way split (7-days apart)	69	4-LEAF	92.8	b	84.8	b	36.1	a	10567	b
2		69	4-LEAF + 7								
3	2-way split (14-days apart)	69	4-LEAF	92.8	b	84.8	b	35.4	a	10072	c
3		69	4-LEAF + 14								
4	3-way split	46	4-LEAF	92.4	b	84.4	b	35.7	a	9148	d
4		46	4-LEAF + 7								
4		46	4-LEAF + 14								
P				0.0001		0.0001		0.082		0.0001	
LSD P=.05				0.50		0.50		1.64		287.3	
TABLE OF A (N Source) B (N Timing) MEANS											
1	Urea			94.7	a	86.7	a	37.0	a	11658	a
1	Single pre-flood	138	4-LEAF								
2	Urea + Agrotain Advanced			93.7	a	85.7	a	38.0	a	11433	a
1	Single pre-flood	138	4-LEAF								
3	SuperU			93.3	a	85.3	a	38.0	a	11934	a
1	Single pre-flood	138	4-LEAF								
4	Urea + Anvol			93.7	a	85.7	a	36.7	a	11638	a
1	Single pre-flood	138	4-LEAF								

Continued.

Table 61. Continued.

Crop Name				Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle			
Rating Date								7/29/2020		7/29/2020	
Rating Type				50% HD		50% HD		Height		Yield	
Rating Unit				days		days		in		lb/A	
Crop Stage Majority				Main		Main		Main		Main	
TABLE OF A (N Source) B (N Timing) MEANS (continued)											
1	Urea	69	4-LEAF	92.7	a	84.7	a	34.3	a	10217	a
2	2-way split (7-days apart)	69	4-LEAF + 7								
2	Urea + Agrotain Advanced	69	4-LEAF	93.3	a	85.3	a	37.0	a	11129	a
2	2-way split (7-days apart)	69	4-LEAF + 7								
3	SuperU	69	4-LEAF	93.0	a	85.0	a	36.3	a	10560	a
2	2-way split (7-days apart)	69	4-LEAF + 7								
4	Urea + Anvol	69	4-LEAF	92.3	a	84.3	a	36.7	a	10364	a
2	2-way split (7-days apart)	69	4-LEAF + 7								
1	Urea	69	4-LEAF	92.7	a	84.7	a	35.0	a	9905	a
3	2-way split (14-days apart)	69	4-LEAF + 14								
2	Urea + Agrotain Advanced	69	4-LEAF	92.7	a	84.7	a	35.7	a	9973	a
3	2-way split (14-days apart)	69	4-LEAF + 14								
3	SuperU	69	4-LEAF	92.7	a	84.7	a	37.0	a	10108	a
3	2-way split (14-days apart)	69	4-LEAF + 14								
4	Urea + Anvol	69	4-LEAF	93.0	a	85.0	a	34.0	a	10300	a
3	2-way split (14-days apart)	69	4-LEAF + 14								
1	Urea	46	4-LEAF	92.3	a	84.3	a	35.0	a	9008	a
4	3-way split	46	4-LEAF + 7								
4		46	4-LEAF + 14								
2	Urea + Agrotain Advanced	46	4-LEAF	92.3	a	84.3	a	35.3	a	9500	a
4	3-way split	46	4-LEAF + 7								
4		46	4-LEAF + 14								
3	SuperU	46	4-LEAF	92.0	a	84.0	a	36.0	a	9137	a
4	3-way split	46	4-LEAF + 7								
4		46	4-LEAF + 14								
4	Urea + Anvol	46	4-LEAF	93.0	a	85.0	a	36.3	a	8947	a
4	3-way split	46	4-LEAF + 7								
4		46	4-LEAF + 14								
P				0.121		0.121		0.829		0.1021	
LSD P=.05				1.01		1.01		3.28		574.5	
Standard Deviation				0.60		0.60		1.97		344.5	
CV				0.65		0.71		5.44		3.3	

Continued.

Table 61. Continued.

Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage	Rice Bimass Abvgrd 50% HD lb/A Main		Rice Tissue N Abvgrd 50% HD % N Main		Rice N Uptake Total 50% HD lb/A Main		Rice Milling (%) Head Main		Rice Milling (%) Total Main	
TABLE OF A (N Source) MEANS													
1	Urea			7391	a	1.02	a	76	a	55.75	a	72.58	a
2	Urea + Agrotain Advanced			7638	a	1.04	a	80	a	56.37	a	72.72	a
3	SuperU			7642	a	1.07	a	83	a	57.12	a	72.68	a
4	Urea + Anvol			7616	a	0.95	a	73	a	57.28	a	72.87	a
P				0.958		0.117		0.507		0.207		0.293	
LSD P=.05				1091		0.098		13.8		1.615		0.299	
TABLE OF B (N Timing) MEANS													
1	Single pre-flood	138	4-LEAF	8304	a	1.2708	a	106	a	61.842	a	73.260	a
2	2-way split (7-days apart)	69	4-LEAF	7642	a	1.0107	b	77	b	55.437	b	72.529	bc
2		69	4-LEAF + 7										
3	2-way split (14-days apart)	69	4-LEAF	7498	a	0.9623	b	72	b	56.551	b	72.806	b
3		69	4-LEAF + 14										
4	3-way split	46	4-LEAF	6843	a	0.8379	c	57	c	52.683	c	72.251	c
4		46	4-LEAF + 7										
4		46	4-LEAF + 14										
P				0.0771		0.0001		0.0001		0.0001		0.0001	
LSD P=.05				1091.1		0.09841		13.8		1.6150		0.2994	
TABLE OF A (N Source) B (N Timing) MEANS													
1	Urea			8462	a	1.3067	a	112	a	61.443	a	73.363	a
1	Single pre-flood	138	4-LEAF										
2	Urea + Agrotain Advanced			8084	a	1.3567	a	108	a	61.923	a	73.613	a
1	Single pre-flood	138	4-LEAF										
3	SuperU			8871	a	1.3800	a	123	a	62.060	a	72.693	bc
1	Single pre-flood	138	4-LEAF										
4	Urea + Anvol			7798	a	1.0400	a	81	a	61.940	a	73.370	a
1	Single pre-flood	138	4-LEAF										

Continued.

Table 61. Continued.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Bimass		Tissue N		N Uptake					
Part Rated				Abvgrd		Abvgrd		Total					
Rating Type				50% HD		50% HD		50% HD		Milling (%)			
Rating Unit				lb/A		% N		lb/A		Head		Total	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
2	2-way split (7-days apart)	69	4-LEAF + 7										
1	Urea	69	4-LEAF	7636	a	0.93	a	70	a	54.643	a	72.433	cd
3	2-way split (14-days apart)	69	4-LEAF + 14										
2	Urea + Agrotain Advanced	69	4-LEAF	7566	a	0.97	a	73	a	55.153	a	72.520	cd
3	2-way split (14-days apart)	69	4-LEAF + 14										
3	SuperU	69	4-LEAF	7843	a	0.99	a	78	a	57.510	a	73.140	ab
3	2-way split (14-days apart)	69	4-LEAF + 14										
4	Urea + Anvol	69	4-LEAF	6948	a	0.96	a	68	a	58.897	a	73.130	ab
3	2-way split (14-days apart)	69	4-LEAF + 14										
1	Urea	46	4-LEAF	6448	a	0.90	a	57	a	51.837	a	72.073	d
4	3-way split	46	4-LEAF + 7										
4		46	4-LEAF + 14										
2	Urea + Agrotain Advanced	46	4-LEAF	6887	a	0.83	a	57	a	53.257	a	72.243	cd
4	3-way split	46	4-LEAF + 7										
4		46	4-LEAF + 14										
3	SuperU	46	4-LEAF	6816	a	0.82	a	56	a	52.907	a	72.173	cd
4	3-way split	46	4-LEAF + 7										
4		46	4-LEAF + 14										
4	Urea + Anvol	46	4-LEAF	7222	a	0.81	a	58	a	52.733	a	72.513	cd
4	3-way split	46	4-LEAF + 7										
4		46	4-LEAF + 14										
P				0.823		0.210		0.318		0.7051		0.0417	
LSD P=.05				2182.2		0.1968		27.5		3.2300		0.5989	
Standard Deviation				1308.6		0.1180		16.5		1.9370		0.3592	
CV				17.3		11.57		21.1		3.4206		0.4939	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

CL153 Response to Nitrogen Fertilizer Rate in a Delayed Flood System – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-33D

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.15
- **Extractable nutrients ppm** ..... : Ca-1,200; Cu-1.45; Mg-233; P-5.8; K-57.3; Na-84; S-7.4; Zn-6.9

Crop/Variety ..... : Rice / CL153
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 29
- **Ratoon harvest date** ..... : November 2

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 7
- **Flood** ..... : April 24
- **Drain** ..... : July 10
- **Ratoon Flood** ..... : Aug. Aug. 6
- **Ratoon Drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 62. CL153 response to nitrogen fertilizer rate in a delayed flood system. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/29/2020		7/29/2020		11/2/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UREA	0	4-5 leaf	98.0	b	90.0	b	25.8	c	3447	c	1838	a	5285	c
2	UREA	90	4-5 leaf	100.0	a	92.0	a	32.8	b	9747	b	1842	a	11648	b
3	UREA	120	4-5 leaf	100.0	a	92.0	a	33.3	ab	10185	b	1546	b	11735	b
4	UREA	150	4-5 leaf	101.0	a	93.0	a	36.3	a	11422	a	1490	b	12912	a
5	UREA	180	4-5 leaf	101.0	a	93.0	a	35.5	ab	11318	a	1299	b	12617	a
6	UREA	210	4-5 leaf	101.0	a	93.0	a	35.3	ab	11662	a	1373	b	13035	a
LSD P=.05				1.54		1.54		3.02		464.5		287.9		566.7	
Standard Deviation				1.02		1.02		2.00		308.2		188.5		371.0	
CV				1.02		1.11		6.05		3.2		12.05		3.31	
Treatment F				5.234		5.234		14.822		410.507		5.968		254.515	
Treatment Prob(F)				0.0056		0.0056		0.0001		0.0001		0.0044		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

CL153 Response to Nitrogen Fertilizer Application Timing
In a Delayed Flood System – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-33E

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.33
- **pH** ..... : 7.59
- **Extractable nutrients ppm** ..... : Ca-1,400; Cu-1.56; Mg-234; P-7.4; K-59; Na-89; S-7.4; Zn-7.6

Crop/Variety ..... : Rice / CL153
- **Planting method/date** ..... : Drill seeded / March 13
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : Aug. 3
- **Ratoon Harvest date** ..... : NA

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon flood** ..... : NA
- **Ratoon drain** ..... : NA

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 63. CL153 response to nitrogen fertilizer application timing in a delayed flood system. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle			
Rating Date								8/3/2020		8/3/2020	
Rating Type				50% HD		50% HD		Height		Yield	
Rating Unit				days		days		in		lb/A	
Crop Stage Majority				Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage								
1	120 lb N/A			100.8	a	92.8	a	31.3	ab	10167	b
	Single Pre-flood	120	4-LEAF								
2	120 lb N/A			99.5	b	91.5	b	30.0	b	7885	d
	2-way split (7-day)	60	4-LEAF								
	2-way split (7-day)	60	4-LEAF+7D								
3	120 lb N/A			99.3	bc	91.3	bc	30.0	b	7542	de
	2-way split (14-day)	60	4-LEAF								
	2-way split (14-day)	60	4-LEAF+14D								
4	120 lb N/A			98.8	c	90.8	c	30.0	b	6408	f
	3-way (7 day)	40	4-LEAF								
	3-way (14 day)	40	4-LEAF+7D								
	3-way (21 day)	40	4-LEAF+14D								
5	165 lb N/A			100.8	a	92.8	a	33.5	a	11061	a
	Single Pre-flood	165									
6	165 lb N/A			100.3	a	92.3	a	31.5	ab	8989	c
	2-way split (7-day)	82.5	4-LEAF								
	2-way split (7-day)	82.5	4-LEAF+7D								
7	165 lb N/A			100.3	a	92.3	a	32.3	ab	8745	c
	2-way split (14-day)	82.5	4-LEAF								
	2-way split (14-day)	82.5	4-LEAF+14D								
8	165 lb N/A			99.5	b	91.5	b	31.3	ab	7405	e
	3-way (7 day)	55	4-LEAF								
	3-way (14 day)	55	4-LEAF+7D								
	3-way (21 day)	55	4-LEAF+14D								
9	0 N			99.0	bc	91.0	bc	26.5	c	2957	g
LSD P=.05				0.63		0.63		2.31		411.0	
Standard Deviation				0.43		0.43		1.58		281.7	
CV				0.43		0.47		5.16		3.56	
Treatment F				11.815		11.815		6.091		277.668	
Treatment Prob(F)				0.0001		0.0001		0.0003		0.0001	

Continued.

Table 63. Continued.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Biomass		Tissue N		N Uptake					
Part Rated				Abvgrd		Abvgrd		Total					
Rating Type				50% HD		50% HD		50% HD		Milling (%)			
Rating Unit				lb/A		% N		lb/A		Head		Total	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	120 lb N/A			6477	a	1.3600	b	88	b	61.52	a	72.35	a
	Single Pre-flood	120	4-LEAF										
2	120 lb N/A			5911	ab	1.0975	cd	65	cd	53.04	c	71.64	bc
	2-way split (7-day)	60	4-LEAF										
	2-way split (7-day)	60	4-LEAF+7D										
3	120 lb N/A			5587	bc	1.0230	de	57	de	52.25	cd	71.44	cd
	2-way split (14-day)	60	4-LEAF										
	2-way split (14-day)	60	4-LEAF+14D										
4	120 lb N/A			4750	c	0.9280	e	44	e	49.68	d	71.04	de
	3-way (7 day)	40	4-LEAF										
	3-way (14 day)	40	4-LEAF+7D										
	3-way (21 day)	40	4-LEAF+14D										
5	165 lb N/A			5933	ab	1.7875	a	105	a	63.56	a	72.59	a
	Single Pre-flood	165											
6	165 lb N/A			5822	ab	1.2123	bc	70	cd	57.93	b	72.16	ab
	2-way split (7-day)	82.5	4-LEAF										
	2-way split (7-day)	82.5	4-LEAF+7D										
7	165 lb N/A			5475	bc	1.3250	b	72	c	56.79	b	71.75	bc
	2-way split (14-day)	82.5	4-LEAF										
	2-way split (14-day)	82.5	4-LEAF+14D										
8	165 lb N/A			5715	ab	1.0750	cde	62	cd	52.15	cd	71.20	cd
	3-way (7 day)	55	4-LEAF										
	3-way (14 day)	55	4-LEAF+7D										
	3-way (21 day)	55	4-LEAF+14D										
9	0 N			2460	d	0.7315	f	18	f	45.54	e	70.50	e
LSD P=.05				853.1		0.16302		14.6		2.7661		0.5765	
Standard Deviation				584.5		0.11145		10.0		1.8954		0.3950	
CV				10.93		9.52		15.51		3.46		0.55	
Treatment F				16.194		29.383		24.366		36.754		11.540	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Nitrogen Rate and Timing on Nitrogen Uptake, Nitrogen Use Efficiency, and Grain Yield – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-31

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.15
- **Extractable nutrients** ppm ..... : Ca-1,200; Cu-1.45; Mg-233; P-5.8; K-57.3; Na-84; S-7.4; Zn-6.9

Crop/Variety ..... : Rice / CL153
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 29
- **Ratoon harvest date** ..... : Nov. 2

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 7
- **Flood** ..... : April 24
- **Drain** ..... : July 10
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 64. Evaluation of N rate and timing on N uptake, NUE, and grain yield. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/29/2020		7/29/2020		11/2/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
1	UTC 0 N	0		96.0	b	88.0	b	25.8	cd	3477	d	1736	a	5213	d
2	UREA SPF	138	1 DPreF	100.0	a	92.0	a	33.8	a	11221	a	1795	a	13016	a
3	UREA SPostF	138	1 DPostF	96.0	b	88.0	b	26.5	bcd	5690	b	1933	a	7623	b
4	UREA 2/3	92	1 DPostF	96.0	b	88.0	b	26.3	bcd	4753	c	1723	a	6476	c
	UREA 1/3	46	3 DpostF												
5	UREA 2/3	92	1 DpostF	96.0	b	88.0	b	26.3	bcd	4269	cd	1774	a	6042	cd
	UREA 1/3	46	5 DpostF												
6	UREA 2/3	92	1 DpostF	96.0	b	88.0	b	26.0	bcd	4304	cd	1741	a	6045	cd
	UREA 1/3	46	10 DpostF												
7	UREA 1/2	69	1 DPostF	96.0	b	88.0	b	27.0	bc	4128	cd	1610	a	5738	cd
	UREA 1/2	69	3 DpostF												
8	UREA 1/2	69	1 DpostF	96.0	b	88.0	b	27.8	b	4914	bc	1834	a	6747	bc
	UREA 1/2	69	5 DpostF												
9	UREA 1/2	69	1 DpostF	96.0	b	88.0	b	25.3	cd	4876	bc	1456	a	6332	c
	UREA 1/2	69	10 DpostF												
10	UREA 1/3	46	1 DPostF	96.0	b	88.0	b	25.8	cd	4739	c	1840	a	6579	c
	UREA 2/3	92	3 DpostF												
11	UREA 1/3	46	1 DpostF	96.0	b	88.0	b	25.0	d	4135	cd	1622	a	5757	cd
	UREA 2/3	92	5 DpostF												
12	UREA 1/3	46	1 DpostF	96.0	b	88.0	b	26.0	bcd	4730	c	1830	a	6560	c
	UREA 2/3	92	10 DpostF												
LSD P=.05				N/A		N/A		1.80		888.3		356.3		1026.2	
Standard Deviation				0.00		0.00		1.25		617.5		247.7		713.3	
CV				0.0		0.0		4.67		12.1		14.22		10.42	
Treatment F				0.000		0.000		13.755		42.080		1.071		32.592	
Treatment Prob(F)				1.0000		1.0000		0.0001		0.0001		0.4128		0.0001	

N/A= Could not calculate LSD (% mean diff) because error mean square = 0.

Table 64. Continued.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Tissue		Tissue N		N Uptake		N fert Eff.		N fert Eff.	
Part Rated				Abvgrd -		50% HD		50% HD		50% HD		50% HD	
Rating Type				biomass-dry		Abvgrd -		total N		by block		by mean	
Rating Unit				lb/A		% N		lb/A		%		%	
Crop Stage Majority				Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage										
1	UTC 0 N	0		2926	d	0.73	c	21	c	0	c	0	c
2	UREA SPF	138	1 DPreF	8047	a	1.46	a	118	a	70	a	70	a
3	UREA SPostF	138	1 DPostF	4387	bc	0.78	bc	34	b	9	b	9	b
4	UREA 2/3	92	1 DPostF	4581	bc	0.80	bc	37	b	11	b	11	b
	UREA 1/3	46	3 DpostF										
5	UREA 2/3	92	1 DpostF	4584	bc	0.77	c	36	b	10	b	10	b
	UREA 1/3	46	5 DpostF										
6	UREA 2/3	92	1 DpostF	3817	cd	0.75	c	29	bc	6	bc	6	bc
	UREA 1/3	46	10 DpostF										
7	UREA 1/2	69	1 DPostF	3979	bc	0.76	c	30	bc	6	bc	6	bc
	UREA 1/2	69	3 DpostF										
8	UREA 1/2	69	1 DpostF	4551	bc	0.79	bc	36	b	11	b	11	b
	UREA 1/2	69	5 DpostF										
9	UREA 1/2	69	1 DpostF	3859	c	0.76	c	29	bc	6	bc	6	bc
	UREA 1/2	69	10 DpostF										
10	UREA 1/3	46	1 DPostF	4783	b	0.78	bc	38	b	12	b	12	b
	UREA 2/3	92	3 DpostF										
11	UREA 1/3	46	1 DpostF	4081	bc	0.84	b	34	b	10	b	10	b
	UREA 2/3	92	5 DpostF										
12	UREA 1/3	46	1 DpostF	4092	bc	0.79	bc	32	b	8	b	8	b
	UREA 2/3	92	10 DpostF										
LSD P=.05				911.9		0.069		10.6		7.7		7.6	
Standard Deviation				633.8		0.048		7.3		5.3		5.3	
CV				14.17		5.72		18.55		40.15		39.89	
Treatment F				15.067		69.816		46.968		46.854		47.462	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Water Management and N fertilizer Application Practices on Grain Yield – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-29

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.32
- **pH** ..... : 7.86
- **Extractable nutrients ppm** ..... : Ca-1,447; Cu-1.44; Mg-241; P-5.5; K-64; Na-57; S-6.2; Zn-6.1

Crop/Variety ..... : Rice / CL153/CLXL745
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 33/10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 21
- **Harvest date** ..... : July 31
- **Ratoon Harvest date** ..... : Oct. 29

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt
Hybrids:
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide), Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 7
- **Flood** ..... : April 23
- **Drain** ..... : July 13
- **Ratoon flood** ..... : Aug. 6
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Comments: May 11- Drained AWD and Aerobic Bays

Table 65. Evaluation of water management practices on agronomic data and yield. H. Rouse Caffey Rice Research Station.

Crop Name			Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description			Plant-hd		Emer-hd		Tip of Panicle											
Rating Date							7/31/2020						7/31/2020		10/29/2020			
Rating Type			50% HD		50% HD		Height		Lodge				Yield		Yield		Total Yield	
Rating Unit			days		days		in		% plot		rate		lb/A		lb/A		lb/A	
Crop Stage Majority			Main		Main		Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage															
1	Delayed flood/CL153			100.0	ghi	92.0	ghi	27.0	f-i	0.0	c	0.0	d	3067	fgh	1523	a	4622	d
	0 N/A	0																	
2	Delayed flood/CL153			101.3	e-h	93.3	e-h	35.3	ab	0.0	c	0.0	d	10338	a	551	c-g	10888	a
	150 lb N/A	150	PF																
3	Delayed flood/CL153			99.3	hi	91.3	hi	33.5	bc	0.0	c	0.0	d	9651	ab	918	b	10570	a
	100/50 lb N/A	150	PF/PI																
4	Delayed flood/CL153			100.0	ghi	92.0	ghi	34.8	ab	0.0	c	0.0	d	7499	d	719	b-f	8218	c
	80/35/35 lb N/A	150	PF/PI/Boot																
5	Delayed flood/CLXL745			92.0	k	84.0	k	33.3	bcd	0.0	c	0.0	d	3006	f-i	1270	a	4275	de
	0 N/A	0																	
6	Delayed flood/CLXL745			95.5	j	87.5	j	37.5	a	80.0	b	3.5	b	9440	ab	476	e-h	9916	ab
	150 lb N/A	150	PF																
7	Delayed flood/CLXL745			94.8	j	86.8	j	38.0	a	100.0	a	4.0	a	8089	cd	316	g-k	8404	c
	100/50 lb N/A	150	PF/PI																
8	Delayed flood/CLXL745			94.5	j	86.5	j	36.5	ab	100.0	a	3.8	ab	8556	bcd	496	d-h	9052	bc
	80/35/35 lb N/A	150	PF/PI/Boot																
9	AWD/CL153			99.0	i	91.0	i	25.5	hi	0.0	c	0.0	d	2493	g-j	665	b-f	3158	efg
	0 N/A	0																	
10	AWD/CL153			103.0	cde	95.0	cde	31.3	cde	0.0	c	0.0	d	7868	cd	301	g-k	8169	c
	150 lb N/A	150	PF																
11	AWD/CL153			102.3	c-f	94.3	c-f	30.0	def	0.0	c	0.0	d	8192	cd	195	ijk	8387	c
	100/50 lb N/A	150	PF/PI																
12	AWD/CL153			100.8	f-i	92.8	f-i	31.3	cde	0.0	c	0.0	d	7861	cd	265	h-k	8126	c
	80/35/35 lb N/A	150	PF/PI/Boot																

Continued.

Table 65. Continued.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle											
Rating Date								7/31/2020						7/31/2020		10/29/2020			
Rating Type				50% HD		50% HD		Height		Lodge				Yield		Yield		Total Yield	
Rating Unit				days		days		in		% plot		rate		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage																
13	AWD/CLXL745 0 N/A	0		91.0	k	83.0	k	29.3	efg	0.0	c	0.0	d	3556	efg	613	c-f	4169	def
14	AWD/CLXL745 150 lb N/A	150	PF	98.8	i	90.8	i	35.8	ab	85.0	b	2.8	c	8954	bc	141	k	9095	bc
15	AWD/CLXL745 100/50 lb N/A	150	PF/PI	96.0	j	88.0	j	33.8	bc	97.5	a	3.5	b	8499	bcd	193	jk	8693	bc
16	AWD/CLXL745 80/35/35 lb N/A	150	PF/PI/Boot	95.8	j	87.8	j	36.5	ab	80.0	b	2.5	c	8783	bc	174	jk	8958	bc
17	Aerobic/CL153 0 N/A	0		103.5	cd	95.5	cd	21.0	k	0.0	c	0.0	d	1669	j	441	f-j	2110	g
18	Aerobic/CL153 150 lb N/A	150	PF	108.3	a	100.3	a	24.3	ijk	0.0	c	0.0	d	1865	ij	755	b-e	2620	g
19	Aerobic/CL153 100/50 lb N/A	150	PF/PI	107.3	ab	99.3	ab	24.8	ij	0.0	c	0.0	d	2163	hij	610	c-f	2773	g
20	Aerobic/CL153 80/35/35 lb N/A	150	PF/PI/Boot	106.0	b	98.0	b	22.0	jk	0.0	c	0.0	d	2255	hij	767	bcd	3022	efg
21	Aerobic/CLXL745 0 N/A	0		94.5	j	86.5	j	24.3	ijk	0.0	c	0.0	d	2470	g-j	474	f-i	2944	fg
22	Aerobic/CLXL745 150 lb N/A	150	PF	106.5	ab	98.5	ab	26.3	ghi	0.0	c	0.0	d	3813	ef	711	b-f	4524	d
23	Aerobic/CLXL745 100/50 lb N/A	150	PF/PI	103.8	c	95.8	c	27.3	f-i	0.0	c	0.0	d	4487	e	802	bc	5289	d
24	Aerobic/CLXL745 80/35/35 lb N/A	150	PF/PI/Boot	101.5	d-g	93.5	d-g	28.3	e-h	0.0	c	0.0	d	4756	e	704	b-f	5459	d
LSD P=.05				2.01		2.01		3.33		7.87		0.42		1201.2		279.9		1299.4	
Standard Deviation				1.42		1.42		2.36		5.58		0.30		851.1		198.4		920.6	
CV				1.43		1.55		7.79		24.68		35.63		14.66		33.82		14.4	
Treatment F				45.775		45.775		19.313		208.313		102.000		50.955		11.511		39.267	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Table 66. Evaluation of the main effects of water management, variety, and application timing and their interactions on rice agronomics. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle									
Rating Date								7/31/2020						7/31/2020		10/29/2020		
Rating Type				50% HD		50% HD		Height		Lodge				Yield		Yield		Total Yield	
Rating Unit				days		days		in		% plot		rate		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage																
TABLE OF A (Water Management) MEANS																			
1	Delayed flood			97.2	c	89.2	c	34.5	a	35.0	a	1.4	a	7456	a	784	a	8243	a
2	Alternate Wet and Dry			98.3	b	90.3	b	31.7	b	32.8	a	1.1	b	7026	b	318	c	7344	b
3	Aerobic			103.9	a	95.9	a	24.8	c	0.0	b	0.0	c	2935	c	658	b	3593	c
P				0.0001		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	
LSD P=.05				0.71		0.71		1.18		2.78		0.15		424.7		98.9		459.4	
TABLE OF B (Variety) MEANS																			
1	CL153			102.5	a	94.5	a	28.4	b	0.0	b	0.0	b	5410	b	643	a	6055	b
2	CLXL745			97.0	b	89.0	b	32.2	a	45.2	a	1.7	a	6201	a	531	b	6732	a
P				0.0001		0.0001		0.0001		0.0001		0.0001		0.0001		0.0074		0.0006	
LSD P=.05				0.58		0.58		0.96		2.27		0.12		346.8		80.8		375.1	
TABLE OF C (Fertilizer) MEANS																			
1	0 N/A	0		96.7	c	88.7	c	26.7	b	0.0	c	0.0	c	2710	b	831	a	3546	b
2	150 lb N/A	150	PF	102.2	a	94.2	a	31.7	a	27.5	b	1.0	b	7046	a	489	b	7535	a
3	100/50 lb N/A	150	PF/'PI	100.5	b	92.5	b	31.2	a	32.9	a	1.3	a	6847	a	506	b	7353	a
4	80/35/35 lb N/A	150	PF/PI/Boot	99.8	b	91.8	b	31.5	a	30.0	ab	1.0	b	6618	a	521	b	7139	a
P				0.0001		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	
LSD P=.05				0.82		0.82		1.36		3.21		0.17		490.4		114.3		530.5	

Continued.

Table 66. Continued.

Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage	Rice Plant-hd 50% HD days Main		Rice Emer-hd 50% HD days Main		Rice Tip of Panicle 7/31/2020 Height in Main		Rice Lodge % plot Main		Rice Lodge rate Main		Rice 7/31/2020 Yield lb/A Main		Rice 10/29/2020 Yield lb/A Ratoon		Rice Total Yield lb/A MC + RC	
TABLE OF A (Water Management) B (Variety) MEANS																			
1	Delayed flood			100.1	a	92.1	a	32.6	a	0.0	c	0.0	c	7639	a	928	a	8574	a
1	CL153																		
2	Alternate Wet and Dry			101.3	a	93.3	a	29.5	a	0.0	c	0.0	c	6603	b	356	c	6960	c
1	CL153																		
3	Aerobic			106.3	a	98.3	a	23.0	a	0.0	c	0.0	c	1988	d	643	b	2631	e
1	CL153																		
1	Delayed flood			94.2	a	86.2	a	36.3	a	70.0	a	2.8	a	7273	a	639	b	7912	b
2	CLXL745																		
2	Alternate Wet and Dry			95.4	a	87.4	a	33.8	a	65.6	b	2.2	b	7448	a	280	c	7729	b
2	CLXL745																		
3	Aerobic			101.6	a	93.6	a	26.5	a	0.0	c	0.0	c	3882	c	673	b	4554	d
2	CLXL745																		
P				0.1487		0.1487		0.772		0.0001		0.0001		0.0001		0.007		0.0001	
LSD P=.05				1.00		1.00		1.67		3.93		0.21		600.6		139.9		649.7	
TABLE OF B (Variety) C (Fertilizer) MEANS																			
1	CL153			100.8	c	92.8	c	24.5	a	0.0	d	0.0	c	2410	a	876	a	3297	a
1	0 N/A	0																	
2	CLXL745			92.5	e	84.5	e	28.9	a	0.0	d	0.0	c	3011	a	786	a	3796	a
1	0 N/A	0																	
1	CL153			104.2	a	96.2	a	30.3	a	0.0	d	0.0	c	6690	a	536	a	7226	a
2	150 lb N/A	150	PF																
2	CLXL745			100.3	c	92.3	c	33.2	a	55.0	c	2.1	b	7402	a	443	a	7845	a
2	150 lb N/A	150	PF																
1	CL153			102.9	b	94.9	b	29.4	a	0.0	d	0.0	c	6669	a	574	a	7243	a
3	100/50 lb N/A	150	PF/PI																
2	CLXL745			98.2	d	90.2	d	33.0	a	65.8	a	2.5	a	7025	a	437	a	7462	a
3	100/50 lb N/A	150	PF/PI																
1	CL153			102.3	b	94.3	b	29.3	a	0.0	d	0.0	c	5871	a	584	a	6455	a
4	80/35/35 lb N/A	150	PF/PI/Boot																
2	CLXL745			97.3	d	89.3	d	33.8	a	60.0	b	2.1	b	7365	a	458	a	7823	a
4	80/35/35 lb N/A	150	PF/PI/Boot																
P				0.0001		0.0001		0.6379		0.0001		0.0001		0.122		0.9688		0.1745	
LSD P=.05				1.16		1.16		1.92		4.54		0.24		693.5		161.6		750.2	

Continued.

Table 66. Continued.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle									
Rating Date								7/31/2020				7/31/2020		10/29/2020			
Rating Type				50% HD		50% HD		Height		Lodge		Yield		Yield		Total Yield	
Rating Unit				days		days		in		% plot	rate	lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main	Main	Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage														
TABLE OF A (Water Management) C (Fertilizer) MEANS																	
1	Delayed flood			96.0	gh	88.0	gh	30.1	a	0.0	c	0.0	c	3036	c	1396	a	4449	d
1	0 N/A	0															
2	Alternate Wet and Dry			95.0	h	87.0	h	27.4	a	0.0	c	0.0	c	3025	c	639	bcd	3663	d
1	0 N/A	0															
3	Aerobic			99.0	e	91.0	e	22.6	a	0.0	c	0.0	c	2069	d	458	d	2527	e
1	0 N/A	0															
1	Delayed flood			98.4	ef	90.4	ef	36.4	a	40.0	b	1.8	a	9889	a	513	cd	10402	a
2	150 lb N/A	150	PF														
2	Alternate Wet and Dry			100.9	d	92.9	d	33.5	a	42.5	b	1.4	b	8411	b	221	e	8632	bc
2	150 lb N/A	150	PF														
3	Aerobic			107.4	a	99.4	a	25.3	a	0.0	c	0.0	c	2839	cd	733	b	3572	d
2	150 lb N/A	150	PF														
1	Delayed flood			97.0	fg	89.0	fg	35.8	a	50.0	a	2.0	a	8870	b	617	bcd	9487	ab
3	100/50 lb N/A	150	PF/PI														
2	Alternate Wet and Dry			99.1	e	91.1	e	31.9	a	48.8	a	1.8	a	8346	b	194	e	8540	c
3	100/50 lb N/A	150	PF/PI														
3	Aerobic			105.5	b	97.5	b	26.0	a	0.0	c	0.0	c	3325	c	706	bc	4031	d
3	100/50 lb N/A	150	PF/PI														
1	Delayed flood			97.3	fg	89.3	fg	35.6	a	50.0	a	1.9	a	8027	b	608	bcd	8635	bc
4	80/35/35 lb N/A	150	PF/PI/Boot														
2	Alternate Wet and Dry			98.3	ef	90.3	ef	33.9	a	40.0	b	1.3	b	8322	b	220	e	8542	c
4	80/35/35 lb N/A	150	PF/PI/Boot														
3	Aerobic			103.8	c	95.8	c	25.1	a	0.0	c	0.0	c	3505	c	735	b	4240	d
4	80/35/35 lb N/A	150	PF/PI/Boot														
P				0.0001		0.0001		0.1467		0.0001		0.0001		0.0001		0.0001	
LSD P=.05				1.42		1.42		2.36		5.56		0.30		849.4		197.9		918.8	

Continued.

Table 66. Continued.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle											
Rating Date								7/31/2020						7/31/2020		10/29/2020			
Rating Type				50% HD		50% HD		Height		Lodge				Yield		Yield		Total Yield	
Rating Unit				days		days		in		% plot		rate		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage																
TABLE OF A (Water Management) B (Variety) C (Fertilizer) MEANS																			
1	Delayed flood/CL153			100.0	a	92.0	a	27.0	a	0.0	c	0.0	d	3067	a	1523	a	4622	a
1	0 N/A	0																	
2	AWD/CL153			99.0	a	91.0	a	25.5	a	0.0	c	0.0	d	2493	a	665	a	3158	a
1	0 N/A	0																	
3	Aerobic/CL153			103.5	a	95.5	a	21.0	a	0.0	c	0.0	d	1669	a	441	a	2110	a
1	0 N/A	0																	
1	Delayed flood/CLXL745			92.0	a	84.0	a	33.3	a	0.0	c	0.0	d	3006	a	1270	a	4275	a
1	0 N/A	0																	
2	AWD/CLXL745			91.0	a	83.0	a	29.3	a	0.0	c	0.0	d	3556	a	613	a	4169	a
1	0 N/A	0																	
3	Aerobic/CLXL745			94.5	a	86.5	a	24.3	a	0.0	c	0.0	d	2470	a	474	a	2944	a
1	0 N/A	0																	
1	Delayed flood/CL153			101.3	a	93.3	a	35.3	a	0.0	c	0.0	d	10338	a	551	a	10888	a
2	150 lb N/A	150	PF																
2	AWD/CL153			103.0	a	95.0	a	31.3	a	0.0	c	0.0	d	7868	a	301	a	8169	a
2	150 lb N/A	150	PF																
3	Aerobic/CL153			108.3	a	100.3	a	24.3	a	0.0	c	0.0	d	1865	a	755	a	2620	a
2	150 lb N/A	150	PF																
1	Delayed flood/CLXL745			95.5	a	87.5	a	37.5	a	80.0	b	3.5	b	9440	a	476	a	9916	a
2	150 lb N/A	150	PF																
2	AWD/CLXL745			98.8	a	90.8	a	35.8	a	85.0	b	2.8	c	8954	a	141	a	9095	a
2	150 lb N/A	150	PF																
3	Aerobic/CLXL745			106.5	a	98.5	a	26.3	a	0.0	c	0.0	d	3813	a	711	a	4524	a
2	150 lb N/A	150	PF																

Continued.

Table 66. Continued.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle									
Rating Date								7/31/2020						7/31/2020		10/29/2020		
Rating Type				50% HD		50% HD		Height		Lodge				Yield		Yield		Total Yield
Rating Unit				days		days		in		% plot		rate		lb/A		lb/A		lb/A
Crop Stage Majority				Main		Main		Main		Main		Main		Main		Ratoon		MC + RC
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage															
1	Delayed flood			99.3	a	91.3	a	33.5	a	0.0	c	0.0	d	9651	a	918	a	10570	a
3	100/50 lb N/A	150	PF/PI															
2	AWD/CL153			102.3	a	94.3	a	30.0	a	0.0	c	0.0	d	8192	a	195	a	8387	a
3	100/50 lb N/A	150	PF/PI															
3	Aerobic/CL153			107.3	a	99.3	a	24.8	a	0.0	c	0.0	d	2163	a	610	a	2773	a
3	100/50 lb N/A	150	PF/PI															
1	Delayed flood/CLXL745			94.8	a	86.8	a	38.0	a	100.0	a	4.0	a	8089	a	316	a	8404	a
3	100/50 lb N/A	150	PF/PI															
2	AWD/CLXL745			96.0	a	88.0	a	33.8	a	97.5	a	3.5	b	8499	a	193	a	8693	a
3	100/50 lb N/A	150	PF/PI															
3	Aerobic/CLXL745			103.8	a	95.8	a	27.3	a	0.0	c	0.0	d	4487	a	802	a	5289	a
3	100/50 lb N/A	150	PF/PI															
1	Delayed flood/CL153			100.0	a	92.0	a	34.8	a	0.0	c	0.0	d	7499	a	719	a	8218	a
4	80/35/35 lb N/A	150	PF/PI/Boot															
2	AWD/CL153			100.8	a	92.8	a	31.3	a	0.0	c	0.0	d	7861	a	265	a	8126	a
4	80/35/35 lb N/A	150	PF/PI/Boot															
3	Aerobic/CL153			106.0	a	98.0	a	22.0	a	0.0	c	0.0	d	2255	a	767	a	3022	a
4	80/35/35 lb N/A	150	PF/PI/Boot															
1	Delayed flood/CLXL745			94.5	a	86.5	a	36.5	a	100.0	a	3.8	ab	8556	a	496	a	9052	a
4	80/35/35 lb N/A	150	PF/PI/Boot															
2	AWD/CLXL745			95.8	a	87.8	a	36.5	a	80.0	b	2.5	c	8783	a	174	a	8958	a
4	80/35/35 lb N/A	150	PF/PI/Boot															
3	Aerobic/CLXL745			101.5	a	93.5	a	28.3	a	0.0	c	0.0	d	4756	a	704	a	5459	a
4	80/35/35 lb N/A	150	PF/PI/Boot															
P				0.1844		0.1844		0.2975		0.0001		0.0001		0.1223		0.1348		0.108	
LSD P=.05				2.01		2.01		3.33		7.87		0.42		1201.2		279.9		1299.4	
Standard Deviation				1.42		1.42		2.36		5.58		0.30		851.1		198.4		920.6	
CV				1.43		1.55		7.79		24.68		35.63		14.7		33.8		14.4	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of ProGibb Application Timing on Main and Ratoon Crop Yield with and without Stubble Management – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-21

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.32
- **Extractable nutrients ppm** ..... : Ca-1,446; Cu-1.73; Mg-276; P-7.7; K-64.5; Na-86; S-9.0; Zn-7.4

Crop/Variety ..... : Rice / CL153
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : Aug. 3
- **Ratoon harvest date** ..... : Nov. 3

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
120 lb N/A 46-0-0, April 21
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct.16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 67. Evaluation of ProGibb application timing on main and ratoon crop yield with and without stubble management. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								8/3/2020		8/3/2020		11/3/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority/Min/Max				Main		Main		Main		Main		Ratoon		MC+RC	
Trt. No.	Treatment Name	Rate (oz/A)	Growth Stage												
1	Normal cut (16 inch) Without ProGibb			100.0	a	92.0	a	35.3	a	10301	a	1558	c	11859	a
2	Normal cut (16 inch) ProGibb 4 oz	4	Softdough	100.0	a	92.0	a	34.0	a	9898	a	2053	ab	11951	a
3	Normal cut (16 inch) ProGibb 6 oz	6	Softdough	100.0	a	92.0	a	34.8	a	9642	a	2016	b	11658	a
4	Bush hog (8 inch) Without ProGibb			100.0	a	92.0	a	34.5	a	10429	a	1304	c	11733	a
5	Bush hog (8 inch) ProGibb 4 oz	4	Softdough	100.0	a	92.0	a	35.3	a	9801	a	2314	a	12114	a
6	Bush hog (8 inch) ProGibb 6 oz	6	Softdough	100.0	a	92.0	a	35.3	a	10134	a	2224	ab	12357	a
LSD P=.05				NA		NA		1.85		708.8		296.8		849.4	
Standard Deviation				0.00		0.00		1.23		470.3		196.9		563.6	
CV				0.0		0.0		3.53		4.69		10.3		4.72	
Treatment F				0.000		0.000		0.706		1.681		16.180		0.839	
Treatment Prob(F)				1.0000		1.0000		0.6280		0.1997		0.0001		0.5424	

NA = Could not calculate LSD (% mean diff) because error mean square = 0.
Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Table 68. Two-way comparison of ProGibb application timing on yield with and without stubble management. H. Rouse Caffey Rice Research Station.

Trt. No.	Treatment Name	Rate (oz/A)	Growth Stage	Rice Plant-hd 50% HD days Main		Rice Emer-hd 50% HD days Main		Rice Tip of Panicle 8/3/2020 Height in Main		Rice 8/3/2020 Yield lb/A Main		Rice 11/3/2020 Yield lb/A Ratoon		Rice Total Yield lb/A MC+RC	
TABLE OF A (Stubble height) MEANS															
1	Normal cut (16 inch)			100.0	a	92.0	a	34.7	a	9947	a	1876	a	11823	a
2	Bush hog (8 inch)			100.0	a	92.0	a	35.0	a	10121	a	1947	a	12068	a
P				1.0		1.0		0.5		0.3782		0.3899		0.3028	
LSD P=.05				NA		NA		1.07		409.2		171.3		490.4	
TABLE OF B (Pesticide) MEANS															
1	Without ProGibb			100.0	a	92.0	a	34.9	a	10365	a	1431	b	11796	a
2	ProGibb 4 oz	4	Softdough	100.0	a	92.0	a	34.6	a	9849	a	2183	a	12033	a
3	ProGibb 6 oz	6	Softdough	100.0	a	92.0	a	35.0	a	9888	a	2120	a	12008	a
P				1.0		1.0		0.8		0.0807		0.0001		0.6619	
LSD P=.05				NA		NA		1.31		501.2		209.9		600.6	
TABLE OF A (Stubble height) B (Pesticide) MEANS															
1	Normal cut (16 inch)			100.0	a	92.0	a	35.3	a	10301	a	1558	c	11859	a
1	Without ProGibb														
2	Bush hog (8 inch)			100.0	a	92.0	a	34.5	a	10429	a	1304	c	11733	a
1	Without ProGibb														
1	Normal cut (16 inch)			100.0	a	92.0	a	34.0	a	9898	a	2053	ab	11951	a
2	ProGibb 4 oz	4	Softdough												
2	Bush hog (8 inch)			100.0	a	92.0	a	35.3	a	9801	a	2314	a	12114	a
2	ProGibb 4 oz	4	Softdough												
1	Normal cut (16 inch)			100.0	a	92.0	a	34.8	a	9642	a	2016	b	11658	a
3	ProGibb 6 oz	6	Softdough												
2	Bush hog (8 inch)			100.0	a	92.0	a	35.3	a	10134	a	2224	ab	12357	a
3	ProGibb 6 oz	6	Softdough												
P				1		1		0.2887		0.4678		0.0372		0.3569	
LSD P=.05				NA		NA		1.85		708.8		296.8		849.4	
Standard Deviation				0.00		0.00		1.23		470.3		196.9		563.6	
CV				0.00		0.00		3.53		4.7		10.3		4.7	

NA = Could not calculate LSD (% mean diff) because error mean square = 0.
Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of ProGibb Application Timing on Main and Ratoon Crop Yield of CL153 – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-22

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.32
- **Extractable nutrients ppm** ..... : Ca-1,446; Cu-1.73; Mg-276; P-7.7; K-64.5; Na-86; S-9.0; Zn-7.4

Crop/Variety ..... : Rice / CL153
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : Aug. 3
- **Ratoon harvest date** ..... : November 3

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
120 lb N/A 46-0-0, April 21
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 69. Evaluation of ProGibb application timing on main and ratoon crop yield of CL153. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle					
Rating Date								8/3/2020		8/3/2020		11/3/2020	
Rating Type				50% HD		50% HD		Height		Yield		Yield	Total Yield
Rating Unit				days		days		in		lb/A		lb/A	lb/A
Crop Stage Majority				Main		Main		Main		Main		Ratoon	MC + RC
Trt. No.	Treatment Name	Rate (oz/A)	Growth Stage										
1	Without ProGibb			100.0	a	92.0	a	34.3	a	10426	a	1433 c	11859 a
2	ProGibb 4 oz @ Milk	4	Milk	100.0	a	92.0	a	35.8	a	9974	bc	2187 a	12160 a
3	ProGibb 4 oz @ soft dough	4	Soft dough	100.0	a	92.0	a	34.3	a	9786	c	2048 ab	11835 a
4	ProGibb 4 oz @ drain	4	Drain	100.0	a	92.0	a	34.8	a	10422	a	1792 b	12214 a
5	ProGibb 4 oz @ after harvest	4	2 WAHarvest	100.0	a	92.0	a	35.5	a	10286	ab	2143 a	12429 a
6	ProGibb 4 oz @ soft dough	4	Soft dough	100.0	a	92.0	a	34.8	a	9903	bc	2341 a	12244 a
	Karate	2	Soft dough										
LSD P=.05				NA		NA		2.96		417.3		301.4	618.4
Standard Deviation				0.00		0.00		1.97		276.9		200.0	410.3
CV				0.0		0.0		5.64		2.73		10.04	3.38
Treatment F				0.000		0.000		0.408		4.083		10.766	1.288
Treatment Prob(F)				1.0000		1.0000		0.8361		0.0154		0.0002	0.3203

NA = Could not calculate LSD (% mean diff) because error mean square = 0.
Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Stubble Management and Nitrogen Rate for Ratoon Crop of Long-Grain Rice Varieties CLL17, RT7521, and PVL02 – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-24

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.32
- **Extractable nutrients ppm** ..... : Ca-1,446; Cu-1.73; Mg-276; P-7.7; K-64.5; Na-86; S-9.0; Zn-7.4

Crop/Variety ..... : Rice / CLL17, RT7521, PVL02
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33/10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 31
- **Ratoon harvest date** ..... : Nov. 3

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt
Hybrids:
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide), Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
150 lb N/A 46-0-0, April 21

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 70. Evaluation of stubble management and nitrogen rate for ratoon crop of long-grain rice varieties CLL17, RT7521, and PVL02. H. Rouse Caffey Rice Research Station.

Crop Name			Rice		Rice		Rice		Rice		Rice		Rice	
Description			Plant-hd		Emer-hd		Tip of Panicle							
Rating Date							7/31/2020		7/31/2020		11/3/2020			
Rating Type			50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit			days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority			Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)												
1	Normal cut CLL17	0	101.0	a	93.0	a	37.0	gh	11442	fg	1178	lmn	12619	jkl
2	Normal cut CLL17	30	101.0	a	93.0	a	39.5	b-h	11572	efg	1670	g-j	13242	g-j
3	Normal cut UREA	60	101.0	a	93.0	a	40.5	a-f	11728	c-g	2215	c-f	13943	d-g
4	Normal cut CLL17	90	101.0	a	93.0	a	38.0	e-h	11606	efg	2412	bcd	14019	def
5	Normal cut CLL17	120	101.0	a	93.0	a	37.8	fgh	11510	fg	2509	abc	14019	def
6	Normal cut CLL17	150	101.0	a	93.0	a	38.3	d-h	11937	b-f	2569	abc	14506	a-d
7	Normal cut RT7521	0	97.0	b	89.0	b	42.8	a	12516	ab	1126	mn	13642	e-h
8	Normal cut RT7521	30	97.0	b	89.0	b	40.5	a-f	12330	abc	1600	h-k	13931	d-g
9	Normal cut RT7521	60	97.0	b	89.0	b	42.0	abc	12650	a	1882	f-i	14532	a-d
10	Normal cut RT7521	90	97.0	b	89.0	b	41.3	a-d	12267	a-d	2299	cde	14566	a-d
11	Normal cut RT7521	120	97.0	b	89.0	b	40.8	a-f	12436	ab	2579	abc	15015	a
12	Normal cut RT7521	150	97.0	b	89.0	b	42.0	abc	11985	b-f	2516	abc	14501	a-d
13	Normal cut PVL02	0	101.0	a	93.0	a	39.0	c-h	10234	ij	505	o	10739	op
14	Normal cut PVL02	30	101.0	a	93.0	a	40.8	a-f	10056	j	1261	k-n	11317	m-p
15	Normal cut PVL02	60	101.0	a	93.0	a	41.3	a-d	10070	j	1459	j-m	11529	mn
16	Normal cut PVL02	90	101.0	a	93.0	a	40.0	a-g	10001	j	1513	i-l	11515	mn
17	Normal cut PVL02	120	101.0	a	93.0	a	40.0	a-g	9887	j	1536	i-l	11422	mno
18	Normal cut PVL02	150	101.0	a	93.0	a	40.8	a-f	9851	j	1566	h-k	11416	mno
19	Bush hog 8" CLL17	0	101.0	a	93.0	a	41.5	abc	11517	fg	1253	k-n	12769	ijk
20	Bush hog 8" CLL17	30	101.0	a	93.0	a	41.3	a-d	11720	d-g	1746	g-j	13466	f-i

Continued.

Table 70. Continued.

Crop Name			Rice		Rice		Rice		Rice		Rice		Rice	
Description			Plant-hd		Emer-hd		Tip of Panicle							
Rating Date							7/31/2020		7/31/2020		11/3/2020			
Rating Type			50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit			days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority			Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)												
21	Bush hog 8" CLL17	60	101.0	a	93.0	a	37.3	gh	11702	d-g	2271	cde	13973	def
22	Bush hog 8" CLL17	90	101.0	a	93.0	a	37.8	fgh	11619	efg	2499	abc	14118	c-f
23	Bush hog 8" CLL17	120	101.0	a	93.0	a	39.8	a-g	11139	gh	2733	ab	13873	d-g
24	Bush hog 8" CLL17	150	101.0	a	93.0	a	36.5	h	11749	c-f	2589	abc	14338	a-e
25	Bush hog 8" RT7521	0	97.0	b	89.0	b	41.3	a-d	11954	b-f	1066	n	13020	h-k
26	Bush hog 8" RT7521	30	97.0	b	89.0	b	42.8	a	12595	a	1652	hij	14246	b-e
27	Bush hog 8" RT7521	60	97.0	b	89.0	b	42.5	ab	12437	ab	2037	d-g	14474	a-d
28	Bush hog 8" RT7521	90	97.0	b	89.0	b	41.0	a-e	12044	a-f	2302	cde	14346	a-e
29	Bush hog 8" RT7521	120	97.0	b	89.0	b	42.5	ab	12448	ab	2350	cd	14798	abc
30	Bush hog 8" RT7521	150	97.0	b	89.0	b	39.8	a-g	12128	a-e	2808	a	14936	ab
31	Bush hog 8" PVL02	0	101.0	a	93.0	a	40.5	a-f	10048	j	623	o	10671	p
32	Bush hog 8" PVL02	30	101.0	a	93.0	a	42.0	abc	10041	j	1160	lmn	11202	nop
33	Bush hog 8" PVL02	60	101.0	a	93.0	a	41.5	abc	9999	j	1566	h-k	11566	mn
34	Bush hog 8" PVL02	90	101.0	a	93.0	a	40.8	a-f	10221	ij	1806	g-j	12027	lm
35	Bush hog 8" PVL02	120	101.0	a	93.0	a	41.3	a-d	10811	hi	2035	d-g	12846	ijk
36	Bush hog 8" PVL02	150	101.0	a	93.0	a	42.8	a	10414	ij	1934	e-h	12348	kl
LSD P=.05			NA		NA		3.05		608.7		379.1		712.8	
Standard Deviation			0.00		0.00		2.17		434.2		270.4		508.4	
CV			0.0		0.0		5.38		3.82		14.56		3.85	
Treatment F			0.000		0.000		2.544		19.075		19.868		27.954	
Treatment Prob(F)			1.0000		1.0000		0.0001		0.0001		0.0001		0.0001	

NA = Could not calculate LSD (% mean diff) because error mean square = 0.
Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Table 71. Two-way table for the evaluation of stubble management and N rate for ratoon crop of long-grain rice varieties CLL17, RT7521, and PVL02. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/31/2020		7/31/2020		11/3/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
TABLE OF A (Cultural Practice) MEANS															
1	Normal cut			99.7	a	91.7	a	40.1	a	11338	a	1800	b	13137	a
2	Bush hog 8"			99.7	a	91.7	a	40.7	a	11366	a	1913	a	13279	a
P				1.000		1.000		0.110		0.697		0.014		0.098	
LSD P=.05				NA		NA		0.72		143.5		89.3		168.0	
TABLE OF B (Variety) MEANS															
1	CLL17			101.0	a	93.0	a	38.8	b	11603	b	2137	a	13740	b
2	RT7521			97.0	b	89.0	b	41.6	a	12316	a	2018	b	14334	a
3	PVL02			101.0	a	93.0	a	40.9	a	10136	c	1414	c	11550	c
P				1.000		1.000		0.0001		0.0001		0.0001		0.0001	
LSD P=.05				NA		NA		0.88		175.7		109.4		205.8	
TABLE OF C (Fertility) MEANS															
1	UREA	0		99.7	a	91.7	a	40.3	a	11285	a	958	e	12243	d
2	UREA	30	Ratoon-PF	99.7	a	91.7	a	41.1	a	11386	a	1515	d	12901	c
3	UREA	60	Ratoon-PF	99.7	a	91.7	a	40.8	a	11431	a	1905	c	13336	b
4	UREA	90	Ratoon-PF	99.7	a	91.7	a	39.8	a	11293	a	2139	b	13432	ab
5	UREA	120	Ratoon-PF	99.7	a	91.7	a	40.3	a	11372	a	2290	ab	13662	a
6	UREA	150	Ratoon-PF	99.7	a	91.7	a	40.0	a	11344	a	2330	a	13674	a
P				1.000		1.000		0.281		0.846		0.0001		0.0001	
LSD P=.05				NA		NA		1.24		248.5		154.7		291.0	
TABLE OF A (Cultural Practice) B (Variety) MEANS															
1	Normal cut			101.0	a	93.0	a	38.5	a	11633	a	2092	a	13725	b
1	CLL17														
2	Bush hog 8"			101.0	a	93.0	a	39.0	a	11574	a	2182	a	13756	b
1	CLL17														
1	Normal cut			97.0	b	89.0	b	41.5	a	12364	a	2000	a	14364	a
2	RT7521														
2	Bush hog 8"			97.0	b	89.0	b	41.6	a	12268	a	2036	a	14303	a
2	RT7521														
1	Normal cut			101.0	a	93.0	a	40.3	a	10016	a	1307	a	11323	d
3	PVL02														
2	Bush hog 8"			101.0	a	93.0	a	41.5	a	10256	a	1521	a	11776	c
3	PVL02														
P				1.000		1.000		0.471		0.122		0.257		0.0341	
LSD P=.05				NA		NA		1.24		248.5		154.7		291.0	

Continued.

Table 71. Continued.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/31/2020		7/31/2020		11/3/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
TABLE OF A (Cultural Practice) C (Fertility) MEANS															
1	Normal cut			99.7	a	91.7	a	39.6	a	11397	a	936	a	12333	a
1	UREA	0													
2	Bush hog 8"			99.7	a	91.7	a	41.1	a	11173	a	981	a	12153	a
1	UREA	0													
1	Normal cut			99.7	a	91.7	a	40.3	a	11320	a	1510	a	12830	a
2	UREA	30	Ratoon-PF												
2	Bush hog 8"			99.7	a	91.7	a	42.0	a	11452	a	1519	a	12971	a
2	UREA	30	Ratoon-PF												
1	Normal cut			99.7	a	91.7	a	41.3	a	11483	a	1852	a	13335	a
3	UREA	60	Ratoon-PF												
2	Bush hog 8"			99.7	a	91.7	a	40.4	a	11379	a	1958	a	13337	a
3	UREA	60	Ratoon-PF												
1	Normal cut			99.7	a	91.7	a	39.8	a	11292	a	2075	a	13366	a
4	UREA	90	Ratoon-PF												
2	Bush hog 8"			99.7	a	91.7	a	39.8	a	11295	a	2202	a	13497	a
4	UREA	90	Ratoon-PF												
1	Normal cut			99.7	a	91.7	a	39.5	a	11277	a	2208	a	13485	a
5	UREA	120	Ratoon-PF												
2	Bush hog 8"			99.7	a	91.7	a	41.2	a	11466	a	2373	a	13839	a
5	UREA	120	Ratoon-PF												
1	Normal cut			99.7	a	91.7	a	40.3	a	11258	a	2217	a	13474	a
6	UREA	150	Ratoon-PF												
2	Bush hog 8"			99.7	a	91.7	a	39.7	a	11430	a	2444	a	13874	a
6	UREA	150	Ratoon-PF												
P				1.000		1.000		0.113		0.4931		0.7628		0.3713	
LSD P=.05				NA		NA		1.76		351.5		218.8		411.6	

Continued.

Table 71. Continued.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/31/2020		7/31/2020		11/3/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
TABLE OF B (Variety) C (Fertility) MEANS															
1	CLL17			101.0	a	93.0	a	39.3	a	11479	a	1215	a	12694	a
1	UREA	0													
2	RT7521			97.0	b	89.0	b	42.0	a	12235	a	1096	a	13331	a
1	UREA	0													
3	PVL02			101.0	a	93.0	a	39.8	a	10141	a	564	a	10705	a
1	UREA	0													
1	CLL17			101.0	a	93.0	a	40.4	a	11646	a	1708	a	13354	a
2	UREA	30	Ratoon-PF												
2	RT7521			97.0	b	89.0	b	41.6	a	12463	a	1626	a	14089	a
2	UREA	30	Ratoon-PF												
3	PVL02			101.0	a	93.0	a	41.4	a	10048	a	1211	a	11259	a
2	UREA	30	Ratoon-PF												
1	CLL17			101.0	a	93.0	a	38.9	a	11715	a	2243	a	13958	a
3	UREA	60	Ratoon-PF												
2	RT7521			97.0	b	89.0	b	42.3	a	12543	a	1959	a	14503	a
3	UREA	60	Ratoon-PF												
3	PVL02			101.0	a	93.0	a	41.4	a	10035	a	1513	a	11548	a
3	UREA	60	Ratoon-PF												
1	CLL17			101.0	a	93.0	a	37.9	a	11613	a	2456	a	14068	a
4	UREA	90	Ratoon-PF												
2	RT7521			97.0	b	89.0	b	41.1	a	12156	a	2301	a	14456	a
4	UREA	90	Ratoon-PF												
3	PVL02			101.0	a	93.0	a	40.4	a	10111	a	1660	a	11771	a
4	UREA	90	Ratoon-PF												
1	CLL17			101.0	a	93.0	a	38.8	a	11325	a	2621	a	13946	a
5	UREA	120	Ratoon-PF												
2	RT7521			97.0	b	89.0	b	41.6	a	12442	a	2465	a	14906	a
5	UREA	120	Ratoon-PF												
3	PVL02			101.0	a	93.0	a	40.6	a	10349	a	1785	a	12134	a
5	UREA	120	Ratoon-PF												
1	CLL17			101.0	a	93.0	a	37.4	a	11843	a	2579	a	14422	a
6	UREA	150	Ratoon-PF												
2	RT7521			97.0	b	89.0	b	40.9	a	12057	a	2662	a	14719	a
6	UREA	150	Ratoon-PF												
3	PVL02			101.0	a	93.0	a	41.8	a	10132	a	1750	a	11882	a
6	UREA	150	Ratoon-PF												
P				1.000		1.000		0.437		0.126		0.3082		0.6691	
LSD P=.05				NA		NA		2.15		430.4		268.0		504.0	

Continued.

Table 71. Continued.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/31/2020		7/31/2020		11/3/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)	Growth Stage												
TABLE OF A (Cultural Practice) B (Variety) C (Fertility) MEANS															
1	Normal cut	0		101.0	a	93.0	a	37.0	a	11442	a	1178	a	12619	a
1	CLL17														
2	Bush hog 8"	0		101.0	a	93.0	a	41.5	a	11517	a	1253	a	12769	a
1	CLL17														
1	Normal cut	0		97.0	b	89.0	b	42.8	a	12516	a	1126	a	13642	a
2	RT7521														
2	Bush hog 8"	0		97.0	b	89.0	b	41.3	a	11954	a	1066	a	13020	a
2	RT7521														
1	Normal cut	0		101.0	a	93.0	a	39.0	a	10234	a	505	a	10739	a
3	PVL02														
2	Bush hog 8"	0		101.0	a	93.0	a	40.5	a	10048	a	623	a	10671	a
3	PVL02														
1	Normal cut	30	Ratoon-PF	101.0	a	93.0	a	39.5	a	11572	a	1670	a	13242	a
1	CLL17														
2	Bush hog 8"	30	Ratoon-PF	101.0	a	93.0	a	41.3	a	11720	a	1746	a	13466	a
1	CLL17														
1	Normal cut	30	Ratoon-PF	97.0	b	89.0	b	40.5	a	12330	a	1600	a	13931	a
2	RT7521														
2	Bush hog 8"	30	Ratoon-PF	97.0	b	89.0	b	42.8	a	12595	a	1652	a	14246	a
2	RT7521														
1	Normal cut	30	Ratoon-PF	101.0	a	93.0	a	40.8	a	10056	a	1261	a	11317	a
3	PVL02														
2	Bush hog 8"	30	Ratoon-PF	101.0	a	93.0	a	42.0	a	10041	a	1160	a	11202	a
3	PVL02														
1	Normal cut	60	Ratoon-PF	101.0	a	93.0	a	40.5	a	11728	a	2215	a	13943	a
1	CLL17														
2	Bush hog 8"	60	Ratoon-PF	101.0	a	93.0	a	37.3	a	11702	a	2271	a	13973	a
1	CLL17														
1	Normal cut	60	Ratoon-PF	97.0	b	89.0	b	42.0	a	12650	a	1882	a	14532	a
2	RT7521														
2	Bush hog 8"	60	Ratoon-PF	97.0	b	89.0	b	42.5	a	12437	a	2037	a	14474	a
2	RT7521														
1	Normal cut	60	Ratoon-PF	101.0	a	93.0	a	41.3	a	10070	a	1459	a	11529	a
3	PVL02														
2	Bush hog 8"	60	Ratoon-PF	101.0	a	93.0	a	41.5	a	9999	a	1566	a	11566	a
3	PVL02														
1	Normal cut	90	Ratoon-PF	101.0	a	93.0	a	38.0	a	11606	a	2412	a	14019	a
1	CLL17														
2	Bush hog 8"	90	Ratoon-PF	101.0	a	93.0	a	37.8	a	11619	a	2499	a	14118	a
1	CLL17														

Continued.

Table 71. Continued.

Crop Name				Rice		Rice		Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle							
Rating Date								7/31/2020		7/31/2020		11/3/2020			
Rating Type				50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit				days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority				Main		Main		Main		Main		Ratoon		MC + RC	
Trt No.	Treatment Name	Rate (lb N/A)	Growth Stage												
TABLE OF A (Cultural Practice) B (Variety) C (Fertility) MEANS (continued)															
1	Normal cut	90	Ratoon-PF	97.0	b	89.0	b	41.3	a	12267	a	2299	a	14566	a
2	RT7521														
2	Bush hog 8"	90	Ratoon-PF	97.0	b	89.0	b	41.0	a	12044	a	2302	a	14346	a
2	RT7521														
1	Normal cut	90	Ratoon-PF	101.0	a	93.0	a	40.0	a	10001	a	1513	a	11515	a
3	PVL02														
2	Bush hog 8"	90	Ratoon-PF	101.0	a	93.0	a	40.8	a	10221	a	1806	a	12027	a
3	PVL02														
1	Normal cut	120	Ratoon-PF	101.0	a	93.0	a	37.8	a	11510	a	2509	a	14019	a
1	CLL17														
2	Bush hog 8"	120	Ratoon-PF	101.0	a	93.0	a	39.8	a	11139	a	2733	a	13873	a
1	CLL17														
1	Normal cut	120	Ratoon-PF	97.0	b	89.0	b	40.8	a	12436	a	2579	a	15015	a
2	RT7521														
2	Bush hog 8"	120	Ratoon-PF	97.0	b	89.0	b	42.5	a	12448	a	2350	a	14798	a
2	RT7521														
1	Normal cut	120	Ratoon-PF	101.0	a	93.0	a	40.0	a	9887	a	1536	a	11422	a
3	PVL02														
2	Bush hog 8"	120	Ratoon-PF	101.0	a	93.0	a	41.3	a	10811	a	2035	a	12846	a
3	PVL02														
1	Normal cut	150	Ratoon-PF	101.0	a	93.0	a	38.3	a	11937	a	2569	a	14506	a
1	CLL17														
2	Bush hog 8"	150	Ratoon-PF	101.0	a	93.0	a	36.5	a	11749	a	2589	a	14338	a
1	CLL17														
1	Normal cut	150	Ratoon-PF	97.0	b	89.0	b	42.0	a	11985	a	2516	a	14501	a
2	RT7521														
2	Bush hog 8"	150	Ratoon-PF	97.0	b	89.0	b	39.8	a	12128	a	2808	a	14936	a
2	RT7521														
1	Normal cut	150	Ratoon-PF	101.0	a	93.0	a	40.8	a	9851	a	1566	a	11416	a
3	PVL02														
2	Bush hog 8"	150	Ratoon-PF	101.0	a	93.0	a	42.8	a	10414	a	1934	a	12348	a
3	PVL02														
P				1.000		1.000		0.149		0.304		0.5531		0.1055	
LSD P=.05				NA		NA		3.05		608.7		379.1		712.8	
Standard Deviation				0.00		0.00		2.17		434.2		270.4		508.4	
CV				0.00		0.00		5.38		3.8		14.6		3.8	

NA = Could not calculate LSD (% mean diff) because error mean square = 0.
Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Desiccant (potassium chlorate) Timing, Stubble Management and Milling Quality for CLXL745 and CL111 – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-25

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.32
- **Extractable nutrients ppm** ..... : Ca-1,446; Cu-1.73; Mg-276; P-7.7; K-64.5; Na-86; S-9.0; Zn-7.4

Crop/Variety ..... : Rice / CL111, CLXL745
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33/10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 31
- **Ratoon harvest date** ..... : Nov. 3

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt
Hybrids:
Apron (fungicide)
Dynasty (fungicide)
Fludioxonil (fungicide)(Maxim)
Gibberellic Acid
Vibrance (fungicide)
Cruiser (insecticide), Zinc
AV-1011 (bird repellent) – 18.3 oz
Dermacor – 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
120 lb N/A 46-0-0, April 21
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct.16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 72. Evaluation of Desiccant Timing, Stubble Management, and Milling Quality for CLXL745 and CL111. H. Rouse Caffey Rice Research Station.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Plant-hd		Emer-hd		Tip of Panicle															
Rating Date						7/31/2020		7/31/2020		7/31/2020		7/31/2020		11/3/2020							
Rating Type		50% HD		50% HD		Height		Lodge				Yield		Yield		Total Yield		Milling (%)			
Rating Unit		days		days		in		% plot		rate		lb/A		lb/A		lb/A		Head		Total	
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Ratoon		MC + RC					
Trt. No.	Treatment Name																				
1	CLXL745/Normal cut 14 days pre harvest	93.0	b	85.0	b	39.3	a	87.5	a	3.3	a	9635	a	1269	cde	10904	a	56.70	d	72.44	f
2	CLXL745/Bush hog 8" 14 days pre harvest	93.0	b	85.0	b	38.8	a	70.0	a	2.8	ab	9164	a	1076	e	10239	a	57.88	d	72.80	ef
3	CLXL745/Normal cut 7 days pre harvest	93.0	b	85.0	b	38.0	ab	67.5	ab	2.8	ab	10465	a	997	e	11462	a	60.24	c	73.44	de
4	CLXL745/Bush hog 8" 7 days pre harvest	93.0	b	85.0	b	40.3	a	60.0	ab	2.3	b	7730	a	1054	e	8784	a	60.98	c	73.88	bcd
5	CLXL745/Normal cut 1-day pre harvest	93.0	b	85.0	b	39.8	a	37.5	b	1.5	c	10771	a	1163	de	11934	a	60.59	c	73.43	de
6	CLXL745/Bush hog 8" 1-day pre harvest	93.0	b	85.0	b	39.0	a	57.5	ab	2.5	b	9960	a	1012	e	10973	a	60.77	c	73.73	cd
7	CL111/Normal cut Normal cut	99.0	a	91.0	a	35.3	c	0.0	c	0.0	d	9345	a	1537	bc	10881	a	64.40	b	73.68	cd
8	CL111/Bush hog 8" 14 days pre harvest	99.0	a	91.0	a	35.8	bc	0.0	c	0.0	d	11916	a	1695	ab	13611	a	64.39	b	74.07	a-d
9	CL111/Normal cut 7 days pre harvest	99.0	a	91.0	a	35.3	c	0.0	c	0.0	d	9713	a	1469	bcd	11182	a	65.43	ab	74.25	abc
10	CL111/Bush hog 8" 7 days pre harvest	99.0	a	91.0	a	36.0	bc	0.0	c	0.0	d	10252	a	1645	ab	11897	a	66.06	a	74.55	ab
11	CL111/Normal cut 1-day pre harvest	99.0	a	91.0	a	36.0	bc	0.0	c	0.0	d	9687	a	1889	a	11576	a	66.33	a	74.65	a
12	CL111/Bush hog 8" 1-day pre harvest	99.0	a	91.0	a	35.3	c	0.0	c	0.0	d	9916	a	1898	a	11814	a	66.19	a	74.48	ab
LSD P=.05		NA		NA		2.35		30.28		0.59		3013.7		324.4		2968.1		1.363		0.693	
Standard Deviation		0.00		0.00		1.63		21.05		0.41		2094.8		225.5		2063.2		0.945		0.480	
CV		0.0		0.0		4.37		66.46		32.66		21.2		16.2		18.3		1.51		0.65	
Treatment F		0.000		0.000		5.775		10.994		44.727		0.910		9.066		1.227		51.184		8.139	
Treatment Prob(F)		1.0000		1.0000		0.0001		0.0001		0.0001		0.5422		0.0001		0.3086		0.0001		0.0001	

NA = Could not calculate LSD (% mean diff) because error mean square = 0.
Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Table 73. Two-way table for the desiccant timing, stubble management, and milling for CLXL745 and CL111. H. Rouse Caffey Rice Research Station.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Plant-hd		Emer-hd		Tip of Panicle															
Rating Date						7/31/2020		7/31/2020		7/31/2020		7/31/2020		11/3/2020							
Rating Type		50% HD		50% HD		Height		Lodge				Yield		Yield		Total Yield		Milling (%)			
Rating Unit		days		days		in		% plot		rate		lb/A		lb/A		lb/A		Head		Total	
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Ratoon		MC + RC					
Trt. No.	Treatment Name																				
TABLE OF A (Variety) MEANS																					
1	CLXL745	93.0	b	85.0	b	39.2	a	63.3	a	2.5	a	9621	a	1095	b	10716	a	59.53	b	73.29	b
2	CL111	99.0	a	91.0	a	35.6	b	0.0	b	0.0	b	10138	a	1689	a	11827	a	65.47	a	74.28	a
P		1.00		1.00		0.0001		0.0001		0.0001		0.398		0.0001		0.071		0.0001		0.0001	
LSD P=.05		NA		NA		0.96		12.36		0.24		1230.3		132.4		1211.7		0.557		0.283	
TABLE OF B (Timing of Application) MEANS																					
1	14 days pre harvest	96.0	a	88.0	a	37.3	a	39.4	a	1.5	a	10015	a	1394	a	11409	a	60.84	b	73.25	b
2	7 days pre harvest	96.0	a	88.0	a	37.4	a	31.9	a	1.3	ab	9540	a	1291	a	10831	a	63.18	a	74.03	a
3	1-day pre harvest	96.0	a	88.0	a	37.5	a	23.8	a	1.0	b	10083	a	1491	a	11574	a	63.47	a	74.07	a
P		1.000		1.000		0.911		0.126		0.006		0.729		0.567		0.570		0.0001		0.0001	
LSD P=.05		NA		NA		1.17		15.14		0.29		1507		162.2		1484		0.682		0.346	
TABLE OF C (Cultural Practice) MEANS																					
1	Normal cut	96.0	a	88.0	a	37.3	a	32.1	a	1.3	a	9936	a	1387	a	11323	a	62.28	a	73.65	a
2	Bush hog 8"	96.0	a	88.0	a	37.5	a	31.3	a	1.3	a	9823	a	1397	a	11220	a	62.71	a	73.92	a
P		1.00		1.00		0.60		0.89		1.00		0.853		0.885		0.863		0.125		0.060	
LSD P=.05		NA		NA		0.96		12.36		0.24		1230		132.4		1212		0.557		0.283	
TABLE OF A (Variety) B (Timing of Application) MEANS																					
1	CLXL745	93.0	b	85.0	b	39.0	a	78.8	a	3.0	a	9399	a	1172	a	10572	a	57.29	d	72.62	a
1	14 days pre harvest																				
2	CL111	99.0	a	91.0	a	35.5	a	0.0	a	0.0	d	10630	a	1616	a	12246	a	64.39	b	73.88	a
1	14 days pre harvest																				
1	CLXL745	93.0	b	85.0	b	39.1	a	63.8	a	2.5	b	9097	a	1025	a	10123	a	60.61	c	73.66	a
2	7 days pre harvest																				
2	CL111	99.0	a	91.0	a	35.6	a	0.0	a	0.0	d	9983	a	1557	a	11540	a	65.75	a	74.40	a
2	7 days pre harvest																				
1	CLXL745	93.0	b	85.0	b	39.4	a	47.5	a	2.0	c	10365	a	1088	a	11453	a	60.68	c	73.58	a
3	1-day pre harvest																				
2	CL111	99.0	a	91.0	a	35.6	a	0.0	a	0.0	d	9801	a	1894	a	11695	a	66.26	a	74.56	a
3	1-day pre harvest																				
P		1.00		1.00		0.969		0.126		0.006		0.446		0.074		0.583		0.015		0.319	
LSD P=.05		NA		NA		1.66		21.41		0.42		2131		229.4		2099		0.964		0.490	

Continued.

Table 73. Continued.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Plant-hd		Emer-hd		Tip of Panicle															
Rating Date						7/31/2020		7/31/2020		7/31/2020		7/31/2020		11/3/2020							
Rating Type		50% HD		50% HD		Height		Lodge				Yield		Yield		Total Yield		Milling (%)			
Rating Unit		days		days		in		% plot		rate		lb/A		lb/A		lb/A		Head		Total	
Crop Stage Majority		Main		Main		Main		Main		Main		Main		Ratoon		MC + RC					
Trt. No.	Treatment Name																				
TABLE OF A (Variety) C (Cultural Practice) MEANS																					
1	CLXL745	93.0	b	85.0	b	39.0	a	64.2	a	2.5	a	10290	a	1143	a	11433	ab	59.18	a	73.10	a
1	Normal cut																				
2	CL111	99.0	a	91.0	a	35.5	a	0.0	a	0.0	a	9582	a	1631	a	11213	ab	65.39	a	74.19	a
1	Normal cut																				
1	CLXL745	93.0	b	85.0	b	39.3	a	62.5	a	2.5	a	8951	a	1047	a	9999	b	59.88	a	73.47	a
2	Bush hog 8"																				
2	CL111	99.0	a	91.0	a	35.7	a	0.0	a	0.0	a	10695	a	1746	a	12441	a	65.55	a	74.37	a
2	Bush hog 8"																				
P		1.00		1.00		0.861		0.892		1.000		0.051		0.116		0.032		0.330		0.485	
LSD P=.05		NA		NA		1.36		17.48		0.34		1739.9		187.3		1714		0.7871		0.4000	
TABLE OF B (Timing of Application) C (Cultural Practice) MEANS																					
1	14 days pre harvest	96.0	a	88.0	a	37.3	a	43.8	a	1.6	a	9490	a	1403	a	10893	a	60.55	a	73.06	a
1	Normal cut																				
2	7 days pre harvest	96.0	a	88.0	a	36.6	a	33.8	a	1.4	ab	10089	a	1233	a	11322	a	62.84	a	73.84	a
1	Normal cut																				
3	1-day pre harvest	96.0	a	88.0	a	37.9	a	18.8	a	0.8	c	10229	a	1526	a	11755	a	63.46	a	74.04	a
1	Normal cut																				
1	14 days pre harvest	96.0	a	88.0	a	37.3	a	35.0	a	1.4	ab	10540	a	1385	a	11925	a	61.13	a	73.43	a
2	Bush hog 8"																				
2	7 days pre harvest	96.0	a	88.0	a	38.1	a	30.0	a	1.1	bc	8991	a	1349	a	10340	a	63.52	a	74.22	a
2	Bush hog 8"																				
3	1-day pre harvest	96.0	a	88.0	a	37.1	a	28.8	a	1.3	ab	9938	a	1455	a	11393	a	63.48	a	74.11	a
2	Bush hog 8"																				
P		1.00		1.00		0.155		0.436		0.019		0.353		0.488		0.379		0.568		0.587	
LSD P=.05		NA		NA		1.66		21.41		0.42		2131.0		229.4		2098.8		0.9640		0.4899	

Continued.

Table 73. Continued.

Trt. No.	Treatment Name	Rice Plant-hd 50% HD days Main		Rice Emer-hd 50% HD days Main		Rice Tip of Panicle 7/31/2020 Height in Main		Rice 7/31/2020 Lodge % plot Main		Rice 7/31/2020 Lodge rate Main		Rice 7/31/2020 Yield lb/A Main		Rice 11/3/2020 Yield lb/A Ratoon		Rice Total Yield lb/A MC + RC		Rice Milling (%) Head		Rice Milling (%) Total	
TABLE OF A (Variety) B (Timing of Application) C (Cultural Practice) MEANS																					
1	CLXL745/Normal cut	93.0	b	85.0	b	39.3	a	87.5	a	3.3	a	9635	a	1269	a	10904	a	56.70	a	72.44	a
1	14 days pre harvest																				
2	CL111/Normal cut	99.0	a	91.0	a	35.3	a	0.0	a	0.0	d	9345	a	1537	a	10881	a	64.40	a	73.68	a
1	14 days pre harvest																				
1	CLXL745/Normal cut	93.0	b	85.0	b	38.0	a	67.5	a	2.8	ab	10465	a	997	a	11462	a	60.24	a	73.44	a
2	7 days pre harvest																				
2	CL111/Normal cut	99.0	a	91.0	a	35.3	a	0.0	a	0.0	d	9713	a	1469	a	11182	a	65.43	a	74.25	a
2	7 days pre harvest																				
1	CLXL745/Normal cut	93.0	b	85.0	b	39.8	a	37.5	a	1.5	c	10771	a	1163	a	11934	a	60.59	a	73.43	a
3	1-day pre harvest																				
2	CL111/Normal cut	99.0	a	91.0	a	36.0	a	0.0	a	0.0	d	9687	a	1889	a	11576	a	66.33	a	74.65	a
3	1-day pre harvest																				
1	CLXL745/Bush hog 8"	93.0	b	85.0	b	38.8	a	70.0	a	2.8	ab	9164	a	1076	a	10239	a	57.88	a	72.80	a
1	14 days pre harvest																				
2	CL111/Bush hog 8"	99.0	a	91.0	a	35.8	a	0.0	a	0.0	d	11916	a	1695	a	13611	a	64.39	a	74.07	a
1	14 days pre harvest																				
1	CLXL745/Bush hog 8"	93.0	b	85.0	b	40.3	a	60.0	a	2.3	b	7730	a	1054	a	8784	a	60.98	a	73.88	a
2	7 days pre harvest																				
2	CL111/Bush hog 8"	99.0	a	91.0	a	36.0	a	0.0	a	0.0	d	10252	a	1645	a	11897	a	66.06	a	74.55	a
2	7 days pre harvest																				
1	CLXL745/Bush hog 8"	93.0	b	85.0	b	39.0	a	57.5	a	2.5	b	9960	a	1012	a	10973	a	60.77	a	73.73	a
3	1-day pre harvest																				
2	CL111/Bush hog 8"	99.0	a	91.0	a	35.3	a	0.0	a	0.0	d	9916	a	1898	a	11814	a	66.19	a	74.48	a
3	1-day pre harvest																				
P		1.00		1.00		0.558		0.436		0.019		0.711		0.741		0.689		0.692		0.757	
LSD P=.05		NA		NA		2.35		30.28		0.59		3013.7		324.4		2968.1		1.3633		0.6928	
Standard Deviation		0.00		0.00		1.63		21.05		0.41		2094.8		225.5		2063.2		0.9453		0.4804	
CV		0.00		0.00		4.37		66.46		32.66		21.2		16.2		18.3		1.5126		0.6511	

NA = Could not calculate LSD (% mean diff) because error mean square = 0.
Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Nitrogen Rate and Stubble Management on Yield of Main and Ratoon Crops for CL153 – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-26

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.32
- **Extractable nutrients ppm** ..... : Ca-1,446; Cu-1.73; Mg-276; P-7.7; K-64.5; Na-86; S-9.0; Zn-7.4

Crop/Variety ..... : Rice / CL153
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 31
- **Ratoon harvest date** ..... : Nov. 3

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 74. Evaluation of N rate and stubble management on yield of main and ratoon crops for CL153. H. Rouse Caffey Rice Research Station

Crop Name			Rice		Rice		Rice		Rice		Rice		Rice	
Description			Plant-hd		Emer-hd		Tip of Panicle							
Rating Date							7/31/2020		7/31/2020		11/3/2020			
Rating Type			50% HD		50% HD		Heights		Yield		Yield		Total Yield	
Rating Unit			days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority			Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)												
1	Normal cut UTC	0	97.0	g	89.0	g	27.3	g	3385	h	2193	a	5577	h
2	Normal cut UREA 30	30	97.0	g	89.0	g	29.3	fg	5404	g	2339	a	7743	g
3	Normal cut UREA 60	60	98.8	f	90.8	f	32.0	cde	7179	f	2096	a	9275	f
4	Normal cut UREA 90	90	99.8	ef	91.8	ef	32.0	cde	8889	e	2033	ab	10922	de
5	Normal cut UREA 120	120	101.0	cde	93.0	cde	32.8	bcd	9170	de	1743	bc	10913	de
6	Normal cut UREA 150	150	101.8	a-d	93.8	a-d	32.8	bcd	9970	bcd	1461	cde	11431	bcd
7	Normal cut UREA 180	180	101.5	a-d	93.5	a-d	35.3	ab	10827	ab	1430	cde	12257	ab
8	Normal cut UREA 210	210	102.8	ab	94.8	ab	36.3	a	10909	a	1458	cde	12366	ab
9	Normal cut UREA 240	240	103.0	a	95.0	a	35.5	a	11241	a	1475	cd	12716	a
10	Bush hog UTC	0	97.0	g	89.0	g	29.3	fg	3171	h	2135	a	5306	h
11	Bush hog UREA 30	30	97.0	g	89.0	g	29.8	efg	5300	g	2204	a	7504	g
12	Bush hog UREA 60	60	98.5	fg	90.5	fg	30.8	def	7344	f	2174	a	9518	f
13	Bush hog UREA 90	90	100.8	de	92.8	de	30.5	def	8485	e	1683	c	10168	ef
14	Bush hog UREA 120	120	101.0	cde	93.0	cde	29.3	fg	9797	cd	1281	def	11078	cde
15	Bush hog UREA 150	150	101.3	b-e	93.3	b-e	32.8	bcd	10577	abc	1264	def	11840	a-d
16	Bush hog UREA 180	180	102.0	a-d	94.0	a-d	34.0	abc	11071	a	1123	ef	12195	ab
17	Bush hog UREA 210	210	102.3	a-d	94.3	a-d	34.0	abc	11178	a	945	f	12123	abc
18	Bush hog UREA 240	240	102.5	abc	94.5	abc	34.5	abc	11199	a	1233	def	12432	ab
LSD P=.05			1.59		1.59		2.66		893.3		348.1		1054.2	
Standard Deviation			1.12		1.12		1.88		629.2		245.2		742.6	
CV			1.12		1.21		5.84		7.3		14.58		7.21	
Treatment F			15.043		15.043		7.413		74.743		12.948		39.975	
Treatment Prob(F)			0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Table 75. Two-way table for the evaluation of N rate and stubble management on yield of main and ratoon crops for CL153. H. Rouse Caffey Rice Research Station.

Crop Name			Rice		Rice		Rice		Rice		Rice		Rice	
Description			Plant-hd		Emer-hd		Tip of Panicle							
Rating Date							7/31/2020		7/31/2020		11/3/2020			
Rating Type			50% HD		50% HD		Heights		Yield		Yield		Total Yield	
Rating Unit			days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority			Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)												
TABLE OF A (Stubble management) MEANS														
1	Normal cut		100.3	a	92.3	a	32.6	a	8552	a	1803	a	10356	a
2	Bush hog		100.3	a	92.3	a	31.6	b	8680	a	1560	b	10240	a
P			0.917		0.917		0.0		0.393		0.0001		0.0001	
LSD P=.05			0.53		0.53		0.89		297.8		116.0		351.4	
TABLE OF B (N rates) MEANS														
1	UTC	0	97.0	f	89.0	f	28.3	e	3278	g	2164	a	5442	g
2	UREA 30	30	97.0	f	89.0	f	29.5	de	5352	f	2271	a	7624	f
3	UREA 60	60	98.6	e	90.6	e	31.4	cd	7262	e	2135	a	9396	e
4	UREA 90	90	100.3	d	92.3	d	31.3	cd	8687	d	1858	b	10545	d
5	UREA 120	120	101.0	cd	93.0	cd	31.0	cd	9483	c	1512	c	10995	cd
6	UREA 150	150	101.5	bc	93.5	bc	32.8	bc	10273	b	1362	cd	11635	bc
7	UREA 180	180	101.8	abc	93.8	abc	34.6	ab	10949	a	1277	cd	12226	ab
8	UREA 210	210	102.5	ab	94.5	ab	35.1	a	11043	a	1202	d	12245	ab
9	UREA 240	240	102.8	a	94.8	a	35.0	a	11220	a	1354	cd	12574	a
P			0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	
LSD P=.05			1.12		1.12		1.88		631.6		246.1		745.4	
TABLE OF A (Stubble management) B (N rates) MEANS														
1	Normal cut		97.0	a	89.0	a	27.3	a	3385	a	2193	a	5577	a
1	UTC	0												
2	Bush hog		97.0	a	89.0	a	29.3	a	3171	a	2135	a	5306	a
1	UTC	0												
1	Normal cut		97.0	a	89.0	a	29.3	a	5404	a	2339	a	7743	a
2	UREA 30	30												
2	Bush hog		97.0	a	89.0	a	29.8	a	5300	a	2204	a	7504	a
2	UREA 30	30												
1	Normal cut		98.8	a	90.8	a	32.0	a	7179	a	2096	a	9275	a
3	UREA 60	60												
2	Bush hog		98.5	a	90.5	a	30.8	a	7344	a	2174	a	9518	a
3	UREA 60	60												

Continued.

Table 75. Continued.

Crop Name			Rice		Rice		Rice		Rice		Rice		Rice	
Description			Plant-hd		Emer-hd		Tip of Panicle							
Rating Date							7/31/2020		7/31/2020		11/3/2020			
Rating Type			50% HD		50% HD		Heights		Yield		Yield		Total Yield	
Rating Unit			days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority			Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)												
TABLE OF A (Stubble management) B (N rates) MEANS (continued)														
1	Normal cut		99.8	a	91.8	a	32.0	a	8889	a	2033	a	10922	a
4	UREA 90	90												
2	Bush hog		100.8	a	92.8	a	30.5	a	8485	a	1683	a	10168	a
4	UREA 90	90												
1	Normal cut		101.0	a	93.0	a	32.8	a	9170	a	1743	a	10913	a
5	UREA 120	120												
2	Bush hog		101.0	a	93.0	a	29.3	a	9797	a	1281	a	11078	a
5	UREA 120	120												
1	Normal cut		101.8	a	93.8	a	32.8	a	9970	a	1461	a	11431	a
6	UREA 150	150												
2	Bush hog		101.3	a	93.3	a	32.8	a	10577	a	1264	a	11840	a
6	UREA 150	150												
1	Normal cut		101.5	a	93.5	a	35.3	a	10827	a	1430	a	12257	a
7	UREA 180	180												
2	Bush hog		102.0	a	94.0	a	34.0	a	11071	a	1123	a	12195	a
7	UREA 180	180												
1	Normal cut		102.8	a	94.8	a	36.3	a	10909	a	1458	a	12366	a
8	UREA 210	210												
2	Bush hog		102.3	a	94.3	a	34.0	a	11178	a	945	a	12123	a
8	UREA 210	210												
1	Normal cut		103.0	a	95.0	a	35.5	a	11241	a	1475	a	12716	a
9	UREA 240	240												
2	Bush hog		102.5	a	94.5	a	34.5	a	11199	a	1233	a	12432	a
9	UREA 240	240												
P			0.909		0.909		0.200		0.750		0.322		0.889	
LSD P=.05			1.59		1.59		2.66		893.3		348.1		1054.2	
Standard Deviation			1.12		1.12		1.88		629.2		245.2		742.6	
CV			1.12		1.21		5.84		7.3		14.6		7.2	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Nitrogen Source and Timing for Ratoon Nitrogen Fertilization – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-27

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.32
- **Extractable nutrients ppm** ..... : Ca-1,446; Cu-1.73; Mg-276; P-7.7; K-64.5; Na-86; S-9.0; Zn-7.4

Crop/Variety ..... : Rice / CL153
- **Planting method/date** ..... : Drill seeded / March 11
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 31
- **Ratoon harvest date** ..... : Nov. 3

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
120 lb N/A 46-0-0, April 21

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon Flood** ..... : Aug. 6
- **Ratoon Drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 76. Evaluation of Nitrogen Source and Timing for Ratoon Nitrogen Fertilization. H. Rouse Caffey Rice Research Station.

Crop Name			Rice		Rice		Rice		Rice		Rice		Rice	
Description			Plant-hd		Emer-hd		Tip of Panicle							
Rating Date							7/31/2020		7/31/2020		11/3/2020			
Rating Type			50% HD		50% HD		Height		Yield		Yield		Total Yield	
Rating Unit			days		days		in		lb/A		lb/A		lb/A	
Crop Stage Majority			Main		Main		Main		Main		Ratoon		MC + RC	
Trt. No.	Treatment Name	Rate (lb N/A)												
1	Urea all at harvest	92	100.0	a	92.0	a	34.0	a	10271	a	1221	a	11492	a
2	Urea all post ratoon flood	92	100.0	a	92.0	a	33.5	a	10172	a	992	a	11164	a
3	Urea 1/2 dry ground before harvest	46	100.0	a	92.0	a	34.3	a	10476	a	1179	a	11655	a
	Urea 1/2 at 7 d Postflood	46												
4	Urea 1/2 after harvest	46	100.0	a	92.0	a	33.0	a	9805	a	1067	a	10872	a
	Urea 1/2 at 7 d Postflood	46												
5	Agrotain all at harvest	92	100.0	a	92.0	a	33.0	a	10334	a	1283	a	11616	a
6	Agrotain all post ratoon flood	92	100.0	a	92.0	a	33.0	a	10330	a	1056	a	11386	a
7	Agrotain 1/2 dry ground before harvest	46	100.0	a	92.0	a	33.8	a	10136	a	1065	a	11201	a
	Agrotain 1/2 at 7 d Postflood	46												
8	Agrotain 1/2 after harvest	46	100.0	a	92.0	a	34.0	a	10263	a	1226	a	11489	a
	Agrotain 1/2 at 7 d Postflood	46												
LSD P=.05			NA		NA		2.25		685.5		215.6		815.1	
Standard Deviation			0.00		0.00		1.53		466.2		146.6		554.3	
CV			0.0		0.0		4.57		4.56		12.91		4.88	
Treatment F			0.000		0.000		0.448		0.728		2.012		0.911	
Treatment Prob(F)			1.0000		1.0000		0.8603		0.6504		0.1016		0.5168	

NA = Could not calculate LSD (% mean diff) because error mean square = 0.
Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Time of Application of Foliar Fertilizers on Rice Yield – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-23

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.15
- **Extractable nutrients ppm** ..... : Ca-1,200; Cu-1.45; Mg-233; P-5.8; K-57.3; Na-84; S-7.4; Zn-6.9

Crop/Variety ..... : Rice / CL153
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 29
- **Ratoon harvest date** ..... : NA

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16

Water management ..... : Underground irrigation
- **Flush** ..... : April 7
- **Flood** ..... : April 24
- **Drain** ..... : July 10
- **Ratoon Flood** ..... : NA
- **Ratoon Drain** ..... : NA

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 77. Evaluation of Time of Application of Foliar Fertilizers on Rice Yield. H. Rouse Caffey Rice Research Station.

Crop Name					Rice		Rice		Rice		Rice		Rice	
Description					Plant-hd		Emer-hd		Tip of Panicle					
Rating Date									7/29/2020		7/29/2020			
Rating Type					50% HD		50% HD		Height		Moist		Yield	
Rating Unit					days		days		in		%		lb/A	
Crop Stage Majority					Main		Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate	Rate Unit	Growth Stage										
1	Untreated				99.8	a	91.8	a	35.0	a	18.0	a	10697	a
2	NutriPak	32	fl oz/a	PREFLOOD	100.0	a	92.0	a	34.0	a	18.3	a	10991	a
	NutriPak	16	fl oz/a	GREEN RING										
3	SulPak 17	16	fl oz/a	PREFLOOD	99.8	a	91.8	a	33.8	a	18.2	a	11302	a
4	NitroUltra	32	fl oz/a	PREFLOOD	99.8	a	91.8	a	34.3	a	18.0	a	10738	a
5	Charge	32	fl oz/a	PREFLOOD	98.8	a	90.8	a	35.3	a	17.8	a	11271	a
6	ValuPak	8	fl oz/a	PREFLOOD	99.8	a	91.8	a	35.5	a	17.9	a	11210	a
	ValuPak	12	fl oz/a	GREEN RING										
7	AGX2020101	64	fl oz/a	PREFLOOD	99.3	a	91.3	a	34.0	a	17.8	a	11140	a
8	NutraK	32	fl oz/a	GREEN RING	99.5	a	91.5	a	35.0	a	18.1	a	11240	a
9	Strike	32	fl oz/a	GREEN RING	99.5	a	91.5	a	34.5	a	18.0	a	10923	a
10	AGX19011	12.8	fl oz/a	GREEN RING	99.5	a	91.5	a	35.0	a	18.0	a	11705	a
LSD P=.05					1.04		1.04		1.95		0.53		833.9	
Standard Deviation					0.71		0.71		1.34		0.36		574.7	
CV					0.72		0.78		3.88		2.02		5.17	
Treatment F					0.957		0.957		0.807		0.756		1.078	
Treatment Prob(F)					0.4954		0.4954		0.6136		0.6563		0.4101	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Urea Treated with NBPT Products (ContaiN, Agrotain, N Fixx, and ContaiN Max) on Rice Grain Yield – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-32

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.44
- **pH** ..... : 7.15
- **Extractable nutrients ppm** ..... : Ca-1,200; Cu-1.45; Mg-233; P-5.8; K-57.3; Na-84; S-7.4; Zn-6.9

Crop/Variety ..... : Rice / CL153
- **Planting method/date** ..... : Drill seeded / March 12
- **Seeding rate/depth** ..... : 33 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : July 29
- **Ratoon harvest date** ..... : NA

Seed treatment/cwt ..... : **Conventional Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16

Water management ..... : Underground irrigation
- **Flush** ..... : April 7
- **Flood** ..... : April 24
- **Drain** ..... : July 10
- **Ratoon Flood** ..... : NA
- **Ratoon Drain** ..... : NA

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 78. Evaluation of Urea Treated with NBPT Products (ContaiN, Agrotain, N Fixx, and ContaiN Max) on Rice Grain Yield. H. Rouse Caffey Rice Research Station.

Crop Name				Rice		Rice		Rice		Rice	
Description				Plant-hd		Emer-hd		Tip of Panicle			
Rating Date								7/29/2020			
Rating Type				50% HD		50% HD		Heights		Yield	
Rating Unit				days		days		in		lb/A	
Crop Stage Majority				Main		Main		Main		Main	
Trt. No.	Treatment Name	Rate (lb N/A)	Appl Timing								
1	Untreated Check	0		96.5	f	88.5	f	25.5	h	3404	h
2	UREA	100	10 DPF	96.8	ef	88.8	ef	27.5	gh	5510	g
3	UREA	150	10 DPF	97.3	de	89.3	de	29.3	fg	6863	f
4	UREA	200	10 DPF	98.8	c	90.8	c	31.3	c-f	7823	de
5	UREA + ContaiN	100	10 DPF	97.3	de	89.3	de	30.3	efg	7254	ef
6	UREA + ContaiN	150	10 DPF	99.0	c	91.0	c	31.0	c-f	9495	c
7	UREA + ContaiN	200	10 DPF	99.8	ab	91.8	ab	34.5	ab	10647	ab
8	UREA + Agrotain Advanced	100	10 DPF	97.3	de	89.3	de	31.3	c-f	7982	de
9	UREA + Agrotain Advanced	150	10 DPF	99.0	c	91.0	c	33.5	a-d	9390	c
10	UREA + Agrotain Advanced	200	10 DPF	100.3	a	92.3	a	33.8	abc	10953	a
11	UREA + N Fixx	100	10 DPF	97.0	ef	89.0	ef	30.5	d-g	8345	d
12	UREA + N Fixx	150	10 DPF	99.0	c	91.0	c	33.3	a-e	9811	bc
13	UREA + N Fixx	200	10 DPF	99.3	bc	91.3	bc	36.0	a	11024	a
14	UREA + ContaiN Max	100	10 DPF	97.8	d	89.8	d	30.3	efg	7473	def
15	UREA + ContaiN Max	150	10 DPF	99.0	c	91.0	c	32.5	b-e	9555	c
16	UREA + ContaiN Max	200	10 DPF	99.8	ab	91.8	ab	34.5	ab	10864	a
LSD P=.05				0.68		0.68		3.17		888.7	
Standard Deviation				0.48		0.48		2.22		624.0	
CV				0.48		0.53		7.05		7.32	
Treatment F				25.896		25.896		6.090		46.662	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Inbred and Hybrid for Nutrien Experimental Varieties (20-Y3-11 and 20-Y3-22) – H. Rouse Caffey Rice Research Station

Experiment number ..... : 20-CM-36 & 37

Site and design ..... :
- **Location/Cooperator** ..... : H. Rouse Caffey Rice Research Station (Crowley Main)
- **Tillage type** ..... : Fall Stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 4.67 x 16 ft
- **Row width/rows per plot** ..... : 8 in / 7

Soil type ..... : Crowley silt loam
- **% organic matter** ..... : 1.33
- **pH** ..... : 7.59
- **Extractable nutrients ppm** ..... : Ca-1,400; Cu-1.56; Mg-234; P-7.4; K-59; Na-89; S-7.4; Zn-7.6

Crop/Variety ..... : Rice / 20-Y3-11 / 20-Y3-22
- **Planting method/date** ..... : Drill seeded / March 13
- **Seeding rate/depth** ..... : 33/10 seeds /ft^2 / 0.75 inches
- **Emergence date** ..... : March 20
- **Harvest date** ..... : Aug. 4
- **Ratoon Harvest date** ..... : Nov. 2

Seed treatment/cwt ..... : **Conventional & Hybrid Varieties:**
Apron (fungicide) – 8.88 ml
Maxim (fungicide) – 0.88 ml
Release (gibberellic acid) – 10 g
Zinc Plus (10% Zn and 4.9% combined sulfur) – 296 ml
AV-1011 (bird repellent) – 18.3 oz
Dermacor- 0.137 lb ai/cwt

Fertilization ..... : 250 lb/A 0-24-24-2.8, March 16
120 lb N/A 46-0-0 + Agrotain, April 21
90 lb N/A 46-0-0, Aug. 5

Water management ..... : Underground irrigation
- **Flush** ..... : April 6
- **Flood** ..... : April 24
- **Drain** ..... : July 13
- **Ratoon flood** ..... : Aug. 6
- **Ratoon drain** ..... : Oct. 16

Pest management ..... :
- **Herbicides** ..... : 1.5 qt/A Glyphosate + 2 oz/A Sharpen + 10 oz/A Command + .25% MOS, March 13
  1 pt/A Prowl H_2O + .33 oz/A Permit, April 3
  1 qt/A Rice Beaux + 2 qt/A Stam + 1.5 oz/A Gambit, April 21
- **Insecticides** ..... : None
- **Fungicides** ..... : 15 oz/A Amistar Top, June 11

Table 79. Evaluation of Inbred and Hybrid for Nutrien Experimental Varieties (20-Y3-11). H. Rouse Caffey Rice Research Station.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Plant-hd		Emer-hd											
Rating Date						8/4/2020		8/4/2020		11/2/2020					
Rating Type		50% HD		50% HD		Height		Yield		Yield		Total Yield		Milling (%)	
Rating Unit		days		days		in		lb/A		lb/A		lb/A		Head	Total
Crop Stage Majority		Main		Main		Main		Main		Ratoon		MC+RC		Main	Main
Trt. No.	Treatment Name														
1	DGL044	112.0	a	104.0	a	34.8	cde	8138	fg	2869	bc	11007	e	64.64	a	72.11	cd
2	DGL263	98.3	f	90.3	f	32.8	e	9905	bc	1661	e	11565	de	55.22	fgh	69.38	g
3	DGL2056	101.3	cd	93.3	cd	37.5	ab	10109	b	4287	a	14397	a	60.17	e	72.76	bc
4	DGL2065	99.3	ef	91.3	ef	32.3	e	9328	cd	1929	de	11257	e	63.43	ab	73.53	a
5	20 DGL336	101.8	c	93.8	c	37.3	abc	8603	ef	2518	b-e	11121	e	54.53	gh	71.60	de
6	20 DGL101	107.5	b	99.5	b	37.3	abc	8456	ef	4063	a	12519	bcd	55.93	fg	71.50	de
7	20 DGL103	107.3	b	99.3	b	37.3	abc	8113	fg	4534	a	12647	bc	56.43	f	71.17	ef
8	20 DGL045	112.0	a	104.0	a	32.3	e	8370	ef	2694	bcd	11064	e	63.29	abc	71.48	de
9	DGL2051	102.0	c	94.0	c	34.0	de	9486	bcd	2054	cde	11540	e	63.22	abc	72.58	bc
10	20 DGL722	101.8	c	93.8	c	29.3	f	7197	h	1801	e	8997	f	61.55	cde	72.30	c
11	20 DGL2053	101.0	cd	93.0	cd	34.3	de	9459	bcd	2308	cde	11767	cde	64.95	a	73.03	ab
12	20 DGL2131	98.0	f	90.0	f	32.8	e	7605	gh	2029	cde	9634	f	61.21	de	73.13	ab
13	CL 153	100.3	de	92.3	de	34.5	de	10107	b	3181	b	13288	b	62.10	bcd	73.19	ab
14	Diamond	101.5	cd	93.5	cd	35.8	bcd	8864	de	2484	b-e	11348	e	52.20	i	70.73	f
15	Gemini 214 CL	98.8	f	90.8	f	39.8	a	11548	a	1835	e	13383	b	53.93	hi	70.97	ef
LSD P=.05		1.27		1.27		2.73		672.0		858.1		973.4		1.744		0.695	
Standard Deviation		0.89		0.89		1.91		470.9		601.4		682.1		1.222		0.487	
CV		0.87		0.94		5.51		5.22		22.41		5.83		2.05		0.68	
Treatment F		107.994		107.994		8.106		23.082		9.738		16.799		50.428		21.697	
Treatment Prob(F)		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

Table 80. Evaluation of inbred and hybrid for Nutrien experimental varieties (20-Y3-11). H. Rouse Caffey Rice Research Station.

Crop Name		Rice		Rice		Rice		Rice		Rice		Rice		Rice	
Description		Plant-hd		Emer-hd											
Rating Date						8/4/2020		8/4/2020		11/2/2020					
Rating Type		50% HD		50% HD		Height		Yield		Yield		Total Yield		Milling (%)	
Rating Unit		days		days		in		lb/A		lb/A		lb/A		Head	Total
Crop Stage Majority		Main		Main		Main		Main		Ratoon		MC+RC		Main	Main
Trt. No.	Treatment Name														
1	20 DGL324	101.8	de	93.8	de	35.0	bcd	8567	cd	1991	efg	10557	cd	52.85 g	71.14 f
2	20 DGL2052	100.8	ef	92.8	ef	34.0	d	9227	bc	3055	b	12282	b	63.04 a	73.01 a
3	20 DGL327	101.8	de	93.8	de	34.8	cd	8467	d	2949	bcd	11416	bc	53.51 fg	71.47 ef
4	20 DGL102	107.8	b	99.8	b	36.3	bc	7373	e	4628	a	12001	b	54.82 ef	71.75 de
5	20 DGL037	105.0	c	97.0	c	34.8	cd	9299	b	3013	bc	12312	ab	60.69 bc	70.97 f
6	20 DGL2132	99.0	g	91.0	g	31.3	f	7466	e	1887	fg	9352	ef	59.41 c	72.78 ab
7	20 DGL274	115.0	a	107.0	a	34.3	cd	6447	f	2522	b-f	8969	fg	57.18 d	68.69 g
8	20 DGL324	101.8	de	93.8	de	35.5	bcd	8008	de	2037	efg	10045	de	53.09 fg	71.41 ef
9	20 DGL2054	102.8	d	94.8	d	37.0	b	9704	b	2326	c-f	12031	b	62.30 ab	72.25 bcd
10	20 DGL2055	107.0	b	99.0	b	33.5	de	9604	b	2614	b-e	12218	b	62.05 ab	71.76 de
11	20 DGL721	102.0	de	94.0	de	30.5	f	6611	f	1522	g	8133	gh	62.09 ab	72.13 cd
12	20 DGL731	102.0	de	94.0	de	31.5	ef	6338	f	1405	g	7742	h	61.59 ab	72.39 bc
13	CL 153	100.8	ef	92.8	ef	34.8	cd	9705	b	2310	def	12015	b	60.52 bc	73.01 a
14	Diamond	102.3	d	94.3	d	34.0	d	8345	d	2252	def	10597	cd	52.08 g	71.14 f
15	Gemini 214 CL	100.0	fg	92.0	fg	40.3	a	11285	a	1970	efg	13255	a	56.63 de	71.99 cde
LSD P=.05		1.26		1.26		2.13		667.5		701.8		953.8		1.914	0.587
Standard Deviation		0.88		0.88		1.49		467.8		491.8		668.4		1.341	0.411
CV		0.85		0.93		4.33		5.55		20.22		6.15		2.31	0.57
Treatment F		83.456		83.456		10.376		36.613		10.227		25.491		35.531	27.041
Treatment Prob(F)		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

ROTATIONAL CROP RESEARCH

M. Kongchum, D.L. Harrell, J.P. Leonards, J.S. Fluitt and J.R. Hartman

INTRODUCTION

The following research focuses on soybean production in southwestern Louisiana. Research topics include the effects of planting date and maturity group on soybean yield, potassium and phosphorus rate, and time of application, and sulfur fertilization rate.

Effects of planting date and maturity group on soybean yield was conducted at the H. Rouse Caffey Rice Research Station (HRCRRS). Soybean potassium and phosphorus rate and time of application were conduct at the HRCRRS and in Calcasieu Parish. Sulfur fertilization rate research was conducted only at the HRCRRS, and zinc fertilization research was conducted in Calcasieu Parish.

A date of planting trial was conducted for the eighth year in 2020. The trial evaluated 11 late Group III and Group IV soybean varieties (P39A58X, LS3976X, LS4407X, Delta Grow 45E10, LS4565XS, Delta Grow 46X05/STS, Delta Grow 48E49/STS, ZS5098E3S, Delta Grow 52E15/STS, Delta Grow 52X05/STS, and Delta Grow 54X25). Actual dates of planting were March 25, April 14, May 5, May 21, June 1, and June 10). Average soybean yield was lower compared to previous years, ranging from 6.6 to 29.1 bu/A, because the trial was hit by two major hurricanes Laura (Aug. 26) and Delta (Oct. 9). Only the first date of planting was harvested before being damaged by the hurricanes.

Small soybean plot trials at the HRCRRS were totally damaged by the hurricanes. However, we were able to harvest the small plot trials in Calcasieu Parish. Soybean yields ranged from 12.5 to 21.7 bu/A.

Evaluation of Date of Planting on Non-Irrigated Soybeans
in Southwest Louisiana – H. Rouse Caffey Rice Research Station (South Unit)

Experiment number ..... : 2020 Soybean Date of Planting at Crowley

Site and design ..... :
- **Location/Cooperator** ..... : Rice Research Station (South Unit)
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 5.33 ft. x 20 ft.
- **Row width/rows per plot** ..... : 16 inch / 4

Soil type ..... : Crowley Silt Loam
- **% organic matter** ..... : 2.28
- **pH** ..... : 5.54
- **Extractable nutrients** ppm ..... : Ca-1,225; Cu-1.33; Mg-200; P-24.7; K-89; Na-57.2; S-10.4; Zn-9.6

Crop/Variety ..... : Soybean / See Treatment Name
- **Planting method** ..... : Drill seeded
- **Planting date** ..... : DOP 1 – March 25
  DOP 2 – April 14
  DOP 3 – May 5
  DOP 4 – May 21
  DOP 5 – June 1
  DOP 6 – June 10

- **Seeding rate/depth** ..... : 130,000 seed/acre / 0.75-1 inch

- **Emergence date** ..... : DOP 1 – April 3
  DOP 2 – April 23
  DOP 3 – May 17
  DOP 4 – May 27
  DOP 5 – June 7
  DOP 6 – June 19

- **Harvest date** ..... : DOP 1 – Aug. 24
  DOP 2 – Sept. 17
  DOP 3 – Sept. 17
  DOP 4 – Oct. 22
  DOP 5 – Oct. 22
  DOP 6 – Oct. 22

Seed treatment/cwt ..... : NA

Fertilization ..... : 250 lb/A 0-24-24-2.7, Oct. 9, 2019

Water management ..... :
- **Flush** ..... : None

Comments: Hurricane Laura Aug. 26
Hurricane Delta Oct. 9

Table 1. Evaluation of date of planting on non-irrigated soybeans in southwest Louisiana. H Rouse Caffey Rice Research Station (South Unit).

Crop Name		Soybeans	Soybeans		Soybeans		Soybeans		Soybeans	
Description		Maturity	Height		Lodging		Moisture		Yield	
Rating Date			10/22/2020		10/22/2020		10/22/2020		10/22/2020	
Rating Unit		days	in		0-5		%		bu/A	
Trt. No.	Treatment Name									
TABLE OF A (Date of Planting) MEANS										
1	DOP-1 (3/25)		18.6	d	0.0	d	13.52	b	21.0	c
2	DOP-2 (4/14)		24.6	b	2.0	b	12.54	d	29.1	a
3	DOP-3 (5/5)		22.9	c	1.0	c	12.66	d	25.3	b
4	DOP-4 (5/21)		22.6	c	2.3	b	13.05	c	6.6	e
5	DOP-5 (6/1)		26.0	a	3.5	a	13.53	b	15.1	d
6	DOP-6 (6/10)		23.0	c	0.0	d	14.24	a	14.1	d
P		NA	0.0001		0.0001		0.00		0.0001	
LSD P=.05			1.07		0.34		0.33		1.81	
TABLE OF B (Group/Variety) MEANS										
1	P39A58X		21.3	cd	1.3	d	12.69	fg	11.0	g
2	LS3976X		20.4	de	1.2	d	12.61	g	11.2	g
3	LS4407X		21.5	cd	0.7	e	13.25	cde	16.4	f
4	Filler (DG48X45)		21.4	cd	1.1	de	13.33	cde	19.2	cde
5	Delta Grow 45E10		20.2	de	0.9	de	13.02	efg	17.2	ef
6	LS4565XS		24.9	b	1.8	bc	12.90	efg	20.5	c
7	Delta Grow 46X05/STS		22.3	c	1.8	bc	13.17	cde	19.9	cd
8	Delta Grow 48E49/STS		21.5	cd	1.9	b	13.10	def	17.5	def
9	ZS5098E3S		28.6	a	2.5	a	13.83	ab	23.3	b
10	Delta Grow 52E15/STS		29.0	a	2.0	ab	14.10	a	26.3	a
11	Delta Grow 52X05/STS		24.8	b	1.4	cd	13.59	bc	20.4	c
12	Delta Grow 54X25		19.5	e	1.1	de	13.50	bcd	19.5	cde
P		NA	0.0001		0.0001		0.00		0.0001	
LSD P=.05			1.51		0.48		0.46		2.56	

Continued.

Table 1. Continued.

Crop Name		Soybeans		Soybeans		Soybeans		Soybeans		Soybeans	
Description		Maturity		Height		Lodging		Moisture		Yield	
Rating Date				10/22/2020		10/22/2020		10/22/2020		10/22/2020	
Rating Unit		days		in		0-5		%		bu/A	
Trt. No.	Treatment Name										
TABLE OF A (Date of Planting) B (Group/Variety) MEANS											
1 1	DOP-1 (3/25) P39A58X	117.5	a	17.0	v-z	0.0	O	13.63	d-n	13.1	u-y
2 1	DOP-2 (4/14) P39A58X	121.8	a	23.3	i-r	1.3	j-n	11.05	v	16.6	p-w
3 1	DOP-3 (5/5) P39A58X	102.0	a	20.3	q-v	2.0	h-k	12.48	o-u	23.5	h-n
4 1	DOP-4 (5/21) P39A58X	92.0	a	20.8	p-u	0.8	l-o	13.01	i-q	3.8	CD
5 1	DOP-5 (6/7) P39A58X	92.0	a	24.8	g-o	3.5	c-f	13.00	i-r	2.9	CD
6 1	DOP-6 (6/19) P39A58X	93.0	a	21.8	n-t	0.0	O	13.00	i-r	6.1	BCD
1 2	DOP-1 (3/25) LS3976X	115.0	a	16.5	w-z	0.0	O	13.05	i-q	16.4	p-w
2 2	DOP-2 (4/14) LS3976X	115.8	a	21.8	n-t	1.8	h-l	11.69	s-v	15.5	p-w
3 2	DOP-3 (5/5) LS3976X	102.0	a	18.5	t-y	1.0	k-o	12.40	p-u	21.4	i-p
4 2	DOP-4 (5/21) LS3976X	92.0	a	20.8	p-u	2.0	h-k	12.60	n-u	2.0	D
5 2	DOP-5 (6/7) LS3976X	92.0	a	22.8	k-r	2.5	f-i	12.94	k-r	3.6	CD
6 2	DOP-6 (6/19) LS3976X	94.3	a	22.0	m-t	0.0	O	13.00	i-r	8.0	y-D
1 3	DOP-1 (3/25) LS4407X	120.0	a	17.8	u-z	0.0	o	12.90	k-r	18.1	m-v
2 3	DOP-2 (4/14) LS4407X	126.0	a	21.8	n-t	0.0	o	12.60	n-u	25.0	e-l
3 3	DOP-3 (5/5) LS4407X	110.8	a	22.3	l-s	0.3	no	13.58	d-o	23.1	h-o
4 3	DOP-4 (5/21) LS4407X	101.5	a	19.8	r-x	1.8	h-l	12.60	n-u	2.5	D
5 3	DOP-5 (6/7) LS4407X	113.8	a	25.0	f-n	2.3	g-j	13.68	d-n	14.6	r-x
6 3	DOP-6 (6/19) LS4407X	117.0	a	22.3	l-s	0.0	o	14.13	c-i	15.3	p-w

Continued.

Table 1. Continued.

Crop Name		Soybeans		Soybeans		Soybeans		Soybeans		Soybeans	
Description		Maturity		Height		Lodging		Moisture		Yield	
Rating Date				10/22/2020		10/22/2020		10/22/2020		10/22/2020	
Rating Unit		days		in		0-5		%		bu/A	
Trt. No.	Treatment Name										
TABLE OF A (Date of Planting) B (Group/Variety) MEANS											
1	DOP-1 (3/25)	128.0	a	16.5	w-z	0.0	o	12.95	k-r	23.6	h-n
4	Filler (DG48X45)										
2	DOP-2 (4/14)	130.5	a	22.8	k-r	0.0	o	12.98	j-r	27.9	d-h
4	Filler (DG48X45)										
3	DOP-3 (5/5)	112.3	a	21.3	o-u	0.3	no	12.95	k-r	30.9	b-f
4	Filler (DG48X45)										
4	DOP-4 (5/21)	104.0	a	21.3	o-u	2.0	h-k	13.00	i-r	6.5	z-D
4	Filler (DG48X45)										
5	DOP-5 (6/7)	116.0	a	24.3	g-p	4.3	a-d	13.80	c-m	12.6	v-z
4	Filler (DG48X45)										
6	DOP-6 (6/19)	118.0	a	22.5	k-r	0.0	o	14.33	c-g	14.0	s-y
4	Filler (DG48X45)										
1	DOP-1 (3/25)	123.3	a	16.3	xyz	0.0	o	13.23	f-q	20.4	j-r
5	Delta Grow 45E10										
2	DOP-2 (4/14)	129.8	a	20.5	q-v	0.5	mno	11.88	r-v	26.2	e-j
5	Delta Grow 45E10										
3	DOP-3 (5/5)	111.0	a	20.0	r-w	0.3	no	13.45	e-p	24.9	f-l
5	Delta Grow 45E10										
4	DOP-4 (5/21)	103.5	a	21.0	p-u	1.3	j-n	12.60	n-u	4.7	CD
5	Delta Grow 45E10										
5	DOP-5 (6/7)	113.5	a	22.8	k-r	3.5	c-f	13.30	f-q	14.3	r-x
5	Delta Grow 45E10										
6	DOP-6 (6/19)	117.0	a	20.5	q-v	0.0	o	13.68	d-n	12.6	v-A
5	Delta Grow 45E10										
1	DOP-1 (3/25)	123.3	a	16.5	w-z	0.0	o	12.88	k-r	20.3	j-r
6	LS4565XS										
2	DOP-2 (4/14)	129.0	a	25.5	f-m	2.3	g-j	12.73	m-t	29.9	c-g
6	LS4565XS										
3	DOP-3 (5/5)	111.0	a	26.0	d-k	1.8	h-l	11.60	tuv	28.8	d-h
6	LS4565XS										
4	DOP-4 (5/21)	104.0	a	26.5	d-j	2.5	f-i	13.00	i-r	7.8	y-D
6	LS4565XS										
5	DOP-5 (6/7)	113.5	a	29.3	b-e	4.3	a-d	13.28	f-q	17.0	o-w
6	LS4565XS										
6	DOP-6 (6/19)	117.0	a	25.8	e-l	0.0	o	13.93	c-k	19.0	l-u
6	LS4565XS										

Continued.

Table 1. Continued.

Crop Name		Soybeans		Soybeans		Soybeans		Soybeans		Soybeans	
Description		Maturity		Height		Lodging		Moisture		Yield	
Rating Date				10/22/2020		10/22/2020		10/22/2020		10/22/2020	
Rating Unit		days		in		0-5		%		bu/A	
Trt. No.	Treatment Name										
TABLE OF A (Date of Planting) B (Group/Variety) MEANS											
1	DOP-1 (3/25)	122.8	a	15.8	yz	0.0	o	13.03	i-q	25.0	f-l
7	Delta Grow 46X05/STS										
2	DOP-2 (4/14)	129.0	a	24.3	g-p	2.8	e-h	12.93	k-r	32.8	bcd
7	Delta Grow 46X05/STS										
3	DOP-3 (5/5)	111.5	a	24.3	g-p	0.8	l-o	12.83	k-r	28.8	d-h
7	Delta Grow 46X05/STS										
4	DOP-4 (5/21)	104.5	a	23.8	h-q	3.5	c-f	12.60	n-u	5.5	BCD
7	Delta Grow 46X05/STS										
5	DOP-5 (6/7)	113.5	a	24.3	g-p	4.0	bcd	13.35	f-q	16.3	p-w
7	Delta Grow 46X05/STS										
6	DOP-6 (6/19	118.0	a	21.3	o-u	0.0	o	14.30	c-g	11.2	w-B
7	Delta Grow 46X05/STS										
1	DOP-1 (3/25)	121.0	a	14.5	z	0.0	o	12.98	j-r	15.5	p-w
8	Delta Grow 48E49/STS										
2	DOP-2 (4/14)	126.8	a	21.0	p-u	1.0	k-o	12.60	n-u	31.2	b-e
8	Delta Grow 48E49/STS										
3	DOP-3 (5/5)	111.3	a	20.5	q-v	0.3	no	13.10	h-q	24.2	g-m
8	Delta Grow 48E49/STS										
4	DOP-4 (5/21)	104.0	a	22.5	k-r	5.3	a	13.00	i-r	4.8	CD
8	Delta Grow 48E49/STS										
5	DOP-5 (6/7)	112.5	a	27.5	c-g	5.0	ab	13.15	h-q	16.1	p-w
8	Delta Grow 48E49/STS										
6	DOP-6 (6/19	117.0	a	23.0	j-r	0.0	o	13.75	c-m	13.3	u-y
8	Delta Grow 48E49/STS										
1	DOP-1 (3/25)	145.0	a	24.8	g-o	0.0	o	13.20	g-q	27.1	d-i
9	ZS5098E3S										
2	DOP-2 (4/14)	132.8	a	30.8	abc	4.3	a-d	13.13	h-q	36.8	ab
9	ZS5098E3S										
3	DOP-3 (5/5)	116.0	a	27.8	c-g	3.3	d-g	12.74	m-s	23.4	h-n
9	ZS5098E3S										
4	DOP-4 (5/21)	115.0	a	27.0	d-h	3.5	c-f	14.20	c-h	12.7	v-z
9	ZS5098E3S										
5	DOP-5 (6/7)	123.0	a	33.0	a	3.8	cde	14.10	c-j	21.1	i-q
9	ZS5098E3S										
6	DOP-6 (6/19)	*		28.5	b-f	0.0	o	15.63	ab	18.5	m-v
9	ZS5098E3S										

Continued.

Table 1. Continued.

Crop Name		Soybeans		Soybeans		Soybeans		Soybeans		Soybeans	
Description		Maturity		Height		Lodging		Moisture		Yield	
Rating Date				10/22/2020		10/22/2020		10/22/2020		10/22/2020	
Rating Unit		days		in		0-5		%		bu/A	
Trt. No.	Treatment Name										
TABLE OF A (Date of Planting) B (Group/Variety) MEANS											
1 10	DOP-1 (3/25) Delta Grow 52E15/STS	145.5	a	26.8	d-i	0.0	o	13.90	c-l	28.3	d-h
2 10	DOP-2 (4/14) Delta Grow 52E15/STS	133.3	a	33.0	a	4.5	abc	13.38	e-q	39.2	a
3 10	DOP-3 (5/5) Delta Grow 52E15/STS	114.8	a	28.5	b-f	2.0	h-k	13.10	h-q	28.4	d-h
4 10	DOP-4 (5/21) Delta Grow 52E15/STS	115.3	a	26.5	d-j	2.3	g-j	13.60	d-o	13.6	t-y
5 10	DOP-5 (6/7) Delta Grow 52E15/STS	123.0	a	32.0	ab	3.3	d-g	14.68	bcd	28.0	d-h
6 10	DOP-6 (6/19) Delta Grow 52E15/STS	*		27.3	c-h	0.0	o	15.98	a	20.2	j-s
1 11	DOP-1 (3/25) Delta Grow 52X05/STS	145.3	a	25.8	e-l	0.0	o	14.50	b-e	25.5	e-k
2 11	DOP-2 (4/14) Delta Grow 52X05/STS	132.0	a	29.5	a-d	4.5	abc	12.78	l-s	35.7	abc
3 11	DOP-3 (5/5) Delta Grow 52X05/STS	117.0	a	25.5	f-m	0.8	l-o	12.25	q-u	17.7	n-v
4 11	DOP-4 (5/21) Delta Grow 52X05/STS	117.8	a	22.8	k-r	1.5	i-m	13.43	e-p	9.0	x-C
5 11	DOP-5 (6/7) Delta Grow 52X05/STS	123.0	a	25.3	f-n	1.5	i-m	13.73	d-n	19.6	k-t
6 11	DOP-6 (6/19) Delta Grow 52X05/STS	*		20.3	q-v	0.0	o	14.88	abc	14.9	q-x
1 12	DOP-1 (3/25) Delta Grow 54X25	146.0	a	15.8	yz	0.0	o	16.00	a	18.3	m-v
2 12	DOP-2 (4/14) Delta Grow 54X25	134.5	a	21.0	p-u	1.0	k-o	12.78	l-s	32.7	bcd
3 12	DOP-3 (5/5) Delta Grow 54X25	117.0	a	19.8	r-x	0.0	o	11.50	uv	28.3	d-h
4 12	DOP-4 (5/21) Delta Grow 54X25	111.0	a	18.8	s-y	1.5	i-m	13.00	i-r	6.3	A-D
5 12	DOP-5 (6/7) Delta Grow 54X25	115.0	a	21.3	o-u	4.3	a-d	13.35	f-q	15.1	p-x
6 12	DOP-6 (6/19) Delta Grow 54X25	*		20.5	q-v	0.0	o	14.35	c-f	16.3	p-w
P		NA		0.0001		0.0001		0.0001		0.0001	
LSD P=.05		3.05		3.71		1.17		1.126		6.27	
Standard Deviation		2.19		2.66		0.84		0.8077		4.50	
CV		1.87		11.59		57.12		6.0925		24.27	

* No maturity data for DOP-1 (Apr 2) due to some plots did not mature.
NA = No Factorial analysis was performed.
Means followed by the same letter or symbol do not significantly differ (P=.05, LS

Evaluation of Potassium (K) Fertilizer Rate of Application on Soybean Yield – Calcasieu Parish

Experiment number ..... : 20-CP-SB01

Site and design ..... :
- **Location/Cooperator** ..... : Calcasieu Parish / Kyle Hensgens
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 5.33 x 20 ft
- **Row width/rows per plot** ..... : 16 in / 4

Soil type ..... : Crowley-Vidrine complex
- **% organic matter** ..... : 1.52 (2019)
- **pH** ..... : 5.72 (2019)
- **Extractable nutrients** ppm ..... : Ca-573; Cu-0.8; Mg-107; P-10.4; K-93; Na-21; S-7.4; Zn-0.92 (2019)

Crop/Variety ..... : Soybean / CZ5299X
- **Planting method/date** ..... : Drill seeded / June 10
- **Seeding rate/depth** ..... : 130,000 seeds /A / 1 inch
- **Emergence date** ..... : June 19
- **Harvest date** ..... : Oct. 26

Fertilization ..... : No blanket application

Water management ..... : NA
- **Flush** ..... : NA

Pest management ..... :
- **Herbicides** ..... : 2 qt/A Roundup + 1% NIS, June 10
1.5 qt/A Roundup + 1.33 pt/A Dual + 1% NIS, June 23
16 oz/A Gramoxone SL 2.0 + .0025% NIS, Oct. 6
- **Insecticides** ..... : 2 oz/A Karate Z, Aug. 20
- **Fungicides** ..... : None

Comments: *Hurricane Laura Aug. 26
Tropical Storm Beta Sept. 21
Hurricane Delta Oct. 9

Table 2. Evaluation of potassium (K) fertilizer rate of application on soybean yield. Calcasieu Parish.

Crop Name				Soybeans		Soybeans		Soybeans		Soybeans		Soybeans	
Description				Maturity		Maturity		Tip of Plant		Moisture		Yield	
Rating Date										10/26/2020		10/26/2020	
Rating Type				Plant-R8		Emerg-R8		Height					
Rating Unit				days		days		in		%		bu/A	
Trt. No.	Treatment Name	Rate (lb K_2O/A)	Growth Stage										
1	Untreated Check	0	ATPLAN	113.0	a	104.0	a	27.8	a	20.4	a	13.5	a
2	Murate of Potash 0-0-60	30	ATPLAN	113.0	a	104.0	a	25.3	a	20.4	a	12.5	a
3	Murate of Potash 0-0-61	60	ATPLAN	113.0	a	104.0	a	28.8	a	20.4	a	14.4	a
4	Murate of Potash 0-0-62	90	ATPLAN	113.0	a	104.0	a	27.3	a	20.8	a	14.8	a
5	Murate of Potash 0-0-63	120	ATPLAN	113.0	a	104.0	a	28.0	a	20.7	a	16.5	a
6	Murate of Potash 0-0-64	150	ATPLAN	113.0	a	104.0	a	28.8	a	20.7	a	15.1	a
LSD P=.05				NA		NA		3.82		0.64		4.40	
Standard Deviation				0.00		0.00		2.53		0.42		2.92	
CV				0.0		0.0		9.17		2.07		20.16	
Treatment F				0.000		0.000		1.055		0.940		0.874	
Treatment Prob(F)				1.0000		1.0000		0.4225		0.4836		0.5217	

N/A = No statistical analysis was performed.
Means followed by the same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Potassium (K) Fertilizer Time of Application on Soybean Yield – Calcasieu Parish

Experiment number ..... : 20-CP-SB02

Site and design ..... :
- **Location/Cooperator** ..... : Calcasieu Parish / Kyle Hensgens
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 5.33 x 20 ft
- **Row width/rows per plot** ..... : 16 in / 4

Soil type ..... : Crowley-Vidrine complex
- **% organic matter** ..... : 1.52 (2019)
- **pH** ..... : 5.72 (2019)
- **Extractable nutrients** ppm ..... : Ca-573; Cu-0.8; Mg-107; P-10.4; K-93; Na-21; S-7.4; Zn-0.92 (2019)

Crop/Variety ..... : Soybean / CZ5299X
- **Planting method/date** ..... : Drill seeded / June 10
- **Seeding rate/depth** ..... : 130,000 seeds /A / 1 inch
- **Emergence date** ..... : June 19
- **Harvest date** ..... : Oct. 26

Fertilization ..... : No blanket application

Water management ..... : NA
- **Flush** ..... : NA

Pest management ..... :
- **Herbicides** ..... : 2 qt/A Roundup + 1% NIS, June 10
1.5 qt/A Roundup + 1.33 pt/A Dual + 1% NIS, June 23
16 oz/A Gramoxone SL 2.0 + .0025% NIS, Oct. 6
- **Insecticides** ..... : 2 oz/A Karate Z, Aug. 20
- **Fungicides** ..... : None

Comments: *Hurricane Laura Aug. 26
Tropical Storm Beta Sept. 21
Hurricane Delta Oct. 9

Table 3. Evaluation of potassium (K) fertilizer time of application on soybean yield. Calcasieu Parish.

Crop Name				Soybeans		Soybeans		Soybeans		Soybeans		Soybeans	
Description				Maturity		Maturity		Tip of Plant		Moisture		Yield	
Rating Date								10/26/2020		10/26/2020		10/26/2020	
Rating Type				Plant-R8		Emerg-R8		Height					
Rating Unit				days		days		in		%		bu/A	
Trt. No.	Treatment Name	Rate (lb K_2O/A)	Growth Stage										
1	Untreated Check	0		113.0	a	104.0	a	30.3	a	20.3	a	16.0	d
2	Muriate of Potash 0-0-60	120	ATPLAN	113.0	a	104.0	a	29.5	a	20.4	a	14.5	d
3	Muriate of Potash 0-0-60	120	V1	113.0	a	104.0	a	29.0	a	20.1	a	17.0	cd
4	Muriate of Potash 0-0-60	120	V3	113.0	a	104.0	a	30.3	a	20.3	a	18.1	bcd
5	Muriate of Potash 0-0-60	120	V5	113.0	a	104.0	a	29.0	a	20.1	a	17.2	bcd
6	Muriate of Potash 0-0-60	120	R1	113.0	a	104.0	a	27.8	a	19.8	a	20.9	ab
7	Muriate of Potash 0-0-60	120	R3	113.0	a	104.0	a	30.0	a	20.4	a	19.9	abc
8	Muriate of Potash 0-0-60	120	R5	113.0	a	104.0	a	32.0	a	20.3	a	22.0	a
9	Muriate of Potash 0-0-60	120	R6	113.0	a	104.0	a	31.0	a	20.2	a	19.8	abc
LSD P=.05				NA		NA		4.20		0.49		3.80	
Standard Deviation				0.00		0.00		2.88		0.34		2.60	
CV				0.0		0.0		9.64		1.67		14.15	
Treatment F				0.000		0.000		0.741		1.134		3.545	
Treatment Prob(F)				1.0000		1.0000		0.6557		0.3771		0.0076	

N/A = No statistical analysis was performed.
Means followed by the same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Phosphorus (P) Fertilizer Rate of Application on Soybean Yield – Calcasieu Parish

Experiment number ..... : 20-CP-SB03

Site and design ..... :
- **Location/Cooperator** ..... : Calcasieu Parish / Kyle Hensgens
- **Tillage type** ..... : Spring stale
- **Experimental design** ..... : Randomized complete block
- **Number of reps** ..... : 4
- **Plot size** ..... : 5.33 x 20 ft
- **Row width/rows per plot** ..... : 16 in / 4

Soil type ..... : Crowley-Vidrine complex
- **% organic matter** ..... : 1.52 (2019)
- **pH** ..... : 5.72 (2019)
- **Extractable nutrients** ppm ..... : Ca-573; Cu-0.8; Mg-107; P-10.4; K-93; Na-21; S-7.4; Zn-0.92 (2019)

Crop/Variety ..... : Soybean / CZ5299X
- **Planting method/date** ..... : Drill seeded / June 10
- **Seeding rate/depth** ..... : 130,000 seeds /A / 1 inch
- **Emergence date** ..... : June 19
- **Harvest date** ..... : Oct. 26

Fertilization ..... : No blanket application

Water management ..... : NA
- **Flush** ..... : NA

Pest management ..... :
- **Herbicides** ..... : 2 qt/A Roundup + 1% NIS, June 10
  1.5 qt/A Roundup + 1.33 pt/A Dual + 1% NIS, June 23
  16 oz/A Gramoxone SL 2.0 + .0025% NIS, Oct. 6
- **Insecticides** ..... : 2 oz/A Karate Z, Aug. 20
- **Fungicides** ..... : None

Comments: *Hurricane Laura Aug. 26
Tropical Storm Beta Sept. 21
Hurricane Delta Oct. 9

Table 4. Evaluation of phosphorus (P) fertilizer rate of application on soybean yield. Calcasieu Parish.

Crop Name				Soybeans		Soybeans		Soybeans		Soybeans		Soybeans	
Description				Maturity		Maturity		Tip of Plant		Moisture		Yield	
Rating Date								10/26/2020		10/26/2020		10/26/2020	
Rating Type				Plant-R8		Emerg-R8		Height					
Rating Unit				days		days		in		%		bu/A	
Trt. No.	Treatment Name	Rate (lb P_2O_5/A)	Growth Stage										
1	Untreated Check	0	ATPLAN	113.0	a	104.0	a	28.0	a	19.4	a	16.2	a
2	Triple superphosphate	30	ATPLAN	113.0	a	104.0	a	29.5	a	19.8	a	17.1	a
3	Triple superphosphate	60	ATPLAN	113.0	a	104.0	a	28.5	a	19.8	a	17.5	a
4	Triple superphosphate	90	ATPLAN	113.0	a	104.0	a	31.3	a	19.8	a	18.8	a
5	Triple superphosphate	120	ATPLAN	113.0	a	104.0	a	30.5	a	19.7	a	19.1	a
6	Triple superphosphate	150	ATPLAN	113.0	a	104.0	a	29.5	a	20.0	a	20.2	a
LSD P=.05				NA		NA		4.81		0.49		3.03	
Standard Deviation				0.00		0.00		3.19		0.33		2.01	
CV				0.0		0.0		10.81		1.65		11.06	
Treatment F				0.000		0.000		0.573		1.555		2.174	
Treatment Prob(F)				1.0000		1.0000		0.7200		0.2323		0.1120	

N/A = No statistical analysis was performed.
Means followed by the same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Phosphorus (P) Fertilizer Time of Application on Soybean Yield – Calcasieu Parish

Experiment number .....: 20-CP-SB04

Site and design .....:
- **Location/Cooperator** .....: Calcasieu Parish / Kyle Hensgens
- **Tillage type**.....: Spring stale
- **Experimental design**.....: Randomized complete block
- **Number of reps** .....: 4
- **Plot size**.....: 5.33 x 20 ft
- **Row width/rows per plot**.....: 16 in / 4

Soil type .....: Crowley-Vidrine complex
- **% organic matter**.....: 1.52 (2019)
- **pH**.....: 5.72 (2019)
- **Extractable nutrients** ppm .....: Ca-573; Cu-0.8; Mg-107; P-10.4; K-93; Na-21; S-7.4; Zn-0.92 (2019)

Crop/Variety .....: Soybean / CZ5299X
- **Planting method/date** .....: Drill seeded / June 10
- **Seeding rate/depth** .....: 130,000 seeds /A / 1 inch
- **Emergence date**.....: June 19
- **Harvest date** .....: Oct. 26

Fertilization.....: No blanket application

Water management .....: NA
- **Flush** .....: NA

Pest management.....:
- **Herbicides**.....: 2 qt/A Roundup + 1% NIS, June 10
1.5 qt/A Roundup + 1.33 pt/A Dual + 1% NIS, June 23
16 oz/A Gramoxone SL 2.0 + .0025% NIS, Oct. 6
- **Insecticides** .....: 2 oz/A Karate Z, Aug.20
- **Fungicides**.....: None

Comments: *Hurricane Laura Aug.26
Tropical Storm Beta Sept.21
Hurricane Delta Oct.9

Table 5. Evaluation of phosphorus (P) fertilizer time of application on soybean yield. Calcasieu Parish.

Crop Name				Soybeans		Soybeans		Soybeans		Soybeans		Soybeans	
Description				Maturity		Maturity		Tip of Plant		Moisture		Yield	
Rating Date								10/26/2020		10/26/2020		10/26/2020	
Rating Type				Plant-R8		Emerg-R8		Height					
Rating Unit				days		days		in		%		bu/A	
Trt. No.	Treatment Name	Rate (lb P_2O_5/A)	Growth Stage										
1	Untreated Check	0		113.0	a	104.0	a	30.0	a	19.1	bcd	16.1	c
2	Triple superphosphate	120	ATPLAN	113.0	a	104.0	a	30.8	a	19.4	ab	16.9	bc
3	Triple superphosphate	120	V1	113.0	a	104.0	a	30.8	a	19.4	ab	19.9	ab
4	Triple superphosphate	120	V3	113.0	a	104.0	a	30.0	a	18.7	d	18.6	abc
5	Triple superphosphate	120	V5	113.0	a	104.0	a	30.0	a	19.6	a	21.3	a
6	Triple superphosphate	120	R1	113.0	a	104.0	a	29.5	a	19.2	abc	21.7	a
7	Triple superphosphate	120	R3	113.0	a	104.0	a	30.5	a	19.3	ab	16.4	c
8	Triple superphosphate	120	R5	113.0	a	104.0	a	30.3	a	19.3	abc	15.4	c
9	Triple superphosphate	120	R6	113.0	a	104.0	a	28.3	a	18.8	cd	17.5	bc
LSD P=.05				NA		NA		3.22		0.52		3.25	
Standard Deviation				0.00		0.00		2.20		0.36		2.22	
CV				0.0		0.0		7.35		1.85		12.22	
Treatment F				0.000		0.000		0.489		2.807		4.276	
Treatment Prob(F)				1.0000		1.0000		0.8519		0.0239		0.0026	

N/A = No statistical analysis was performed.
Means followed by the same letter or symbol do not significantly differ (P=.05, LSD).

Evaluation of Zinc (Zn) Fertilizer Rate of Application on Soybean Yield – Calcasieu Parish

Experiment number .....: 20-CP-SB06

Site and design .....:
- **Location/Cooperator** .....: Calcasieu Parish / Kyle Hensgens
- **Tillage type**.....: Spring stale
- **Experimental design**.....: Randomized complete block
- **Number of reps** .....: 4
- **Plot size**.....: 5.33 x 20 ft
- **Row width/rows per plot**.....: 16 in / 4

Soil type .....: Crowley-Vidrine complex
- **% organic matter**.....: 1.52 (2019)
- **pH**.....: 5.72 (2019)
- **Extractable nutrients** ppm .....: Ca-573; Cu-0.8; Mg-107; P-10.4; K-93; Na-21; S-7.4; Zn-0.92 (2019)

Crop/Variety .....: Soybean / CZ5299X
- **Planting method/date** .....: Drill seeded / June 10
- **Seeding rate/depth**.....: 130,000 seeds /A / 1 inch
- **Emergence date**.....: June 19
- **Harvest date** .....: Oct. 26

Fertilization.....: No blanket application

Water management .....: NA
- **Flush** .....: NA

Pest management.....:
- **Herbicides**.....: 2 qt/A Roundup + 1% NIS, June 10
1.5 qt/A Roundup + 1.33 pt/A Dual + 1% NIS, June 23
16 oz/A Gramoxone SL 2.0 + .0025% NIS, Oct.6
- **Insecticides** .....: 2 oz/A Karate Z, Aug. 20
- **Fungicides**.....: None

Comments: *Hurricane Laura Aug. 26
Tropical Storm Beta Sept. 21
Hurricane Delta Oct. 9

Table 6. Evaluation of zinc (Zn) fertilizer rate of application on soybean yield. Calcasieu Parish.

Crop Name				Soybean		Soybean		Soybean		Soybean		Soybean	
Description				Maturity		Maturity		Tip of Plant		Moisture		Yield	
Rating Date								10/26/2020		10/26/2020		10/26/2020	
Rating Type				Plant-R8		Emerg-R8		Height					
Rating Unit				days		days		in		%		bu/A	
Trt. No.	Treatment Name	Rate (lb Zn/A)	Growth Stage										
1	Untreated Check	0		113.0	a	104.0	a	29.0	a	17.4	a	19.1	a
2	Zinc Sulfate	5	ATPLAN	113.0	a	104.0	a	29.8	a	17.3	a	19.9	a
3	Zinc Sulfate	7.5	ATPLAN	113.0	a	104.0	a	28.5	a	17.3	a	18.6	a
4	Zinc Sulfate	10	ATPLAN	113.0	a	104.0	a	29.3	a	17.8	a	20.8	a
5	Zinc Sulfate	15	ATPLAN	113.0	a	104.0	a	28.8	a	17.1	a	18.3	a
6	Zinc Sulfate	20	ATPLAN	113.0	a	104.0	a	29.0	a	17.6	a	19.7	a
LSD P=.05				NA		NA		3.81		0.67		3.10	
Standard Deviation				0.00		0.00		2.53		0.45		2.06	
CV				0.0		0.0		8.7		2.57		10.62	
Treatment F				0.000		0.000		0.116		1.295		0.797	
Treatment Prob(F)				1.0000		1.0000		0.9869		0.3176		0.5687	

N/A = No statistical analysis was performed.
Means followed by the same letter or symbol do not significantly differ (P=.05, LSD).

RICE DISEASE CONTROL RESEARCH

2020 Rice Disease Control Studies

D. Groth, C. deNux and L. Monte

Introduction

Numerous diseases pose major threats to rice (Oryzae sativa L.) production. In Louisiana, sheath blight (Rhizoctonia solani Kuhn), blast (Pyricularia grisea Sacc.), and narrow brown leaf spot (Cercospora oryzae (Racib.) O. Const.) continue to be the most important rice diseases causing significant yield and quality reductions costing farmers millions of dollars each year. Narrow brown leaf spot developed into a major pest during the 2006 growing season, and since that year, it has been problematic in later-planted rice and second crop production. In 2010 and 2011, the strobilurin fungicide-resistant sheath blight pathogen was detected in Acadia Parish. Recently, in 2012 and 2015, major blast epidemics developed on several major rice varieties causing significant damage. Information is critically needed on these disease pests and their interactions to determine best management practices. Data from inoculated research plots and surveys in farmers' fields suggest that these rice diseases cause an average of 6 to 25% loss each year in yield and quality. Direct losses due to disease include thin stands, lodging, spotted kernels, fewer and smaller grains, reduced milling, and a general reduction in plant efficiency.

Indirect losses include the cost of pesticides used to manage diseases, application costs, and reduced yields associated with special cultural control practices that reduce disease but may not be conducive to producing maximum yields. With present production costs and the lower rice prices, yield and quality losses can represent negative net returns due to rice diseases. Development of effective disease management practices will increase the net returns.

Major goals of the project have been:

1. Monitor changes in the status of rice diseases to identify research needs.
2. Develop and conduct field screening programs to evaluate rice disease resistance.
3. Develop and conduct screening programs to evaluate pesticide efficacy, timing, and rates.
4. Improve disease management strategies for rice blast, sheath blight, bacterial panicle blight, narrow brown leaf spot and other foliar, stem, grain and seedling diseases of rice by integrating scouting techniques, host resistance, cultural management, and pesticides.
5. To conduct disease evaluations in support of southwest Louisiana alternate crops in association with varietal development and evaluation projects, including wheat, soybeans and grain sorghum.

2020 RICE DISEASE NURSERIES

2020 HRCRRS DN-1-4 First Planting

Trial: RRS DN-1-4 Sheath blight and bacterial panicle blight

Location: H. Rouse Caffey Rice Research Station, Crowley, LA

Soil Type: Crowley Silt Loam (pH 6.0, Clay 12%, Silt 71%, Sand 17%, CEC 9.4/kg)

Variety/Seed Rate: Various / ~100 lb./A

Plot Size: one 6 ft row

Planting Method/Date: Drill Seeded/April 15

Fertilization: Pre-flood 46-0-0, June 2

Experimental Design: Randomized complete block design with three to four replications

Water Management: Flushed, April 23; Flooded, June 4; Drained, Aug. 6

Herbicides: Tank-mix Propanil 3 qt/A, May 5
Tank-mix Propanil 3 qt/A, May 12
Tank-mix Rice Beaux 3 qt/A; Proventix 2/3 oz/A; COC .25%, June 1
Drone application, Clincher 21 oz/A, COC 8 oz/A, July 8

Insecticides: Dermacor X-100 seed treatment

Fungicides: None

Inoculation Dates: Rhizoctonia solani culture grown on rice grain/hull mixture, June 19
Bacterial Panicle Blight inoculum prepared in lab applied by sprayer at various dates

Application Equipment: CO_2 backpack sprayer, single-tip hand wand, 20 gal/A

Application Dates: Growth Stage Time Temp Wind RH Clouds Dew

Disease Ratings: See tables 1-8

Drained: Aug. 6

Harvest: N/A

Results: See tables 1-8

Comments: Sheath blight severity was high and bacterial panicle blight severity was moderate.

2020 HRCRRS DN-5-8 Second Planting

Trial: RRS DN-5-8 Rotten Neck Blast

Location: H. Rouse Caffey Rice Research Station, Crowley, LA

Soil Type: Crowley Silt Loam (pH 6.0, Clay 12%, Silt 71%, Sand 17%, CEC 9.4/kg)

Variety/Seed Rate: Various/ ~100 lb./A

Plot Size: one 6 ft row

Planting Method/Date: Drill Seeded/ June 1

Fertilization: Pre-flood 46-0-0, July 9

Experimental Design: Randomized complete block design with three to four replications

Water Management: Flushed, June 19; Flooded, July 10; Drained, Sept. 4

Herbicides: Tank-Mix Propenal 3 quarts/A, June 15
Tank-Mix Propenal 4 quarts/A, June 29
Tank-Mix Rice Beaux 3 quarts/A, Proventix 2/3 oz/A, COC .25%, July 7
Drone application Clincher 21 oz/A, COC 8 oz/A, July 17

Insecticides: Tank-Mix Dermacor 1.75 oz/A, June 8

Fungicides: None

Inoculation Dates: Natural inoculum

Application Equipment: N/A

Application Dates: Growth Stage Time Temp Wind RH Clouds Dew

Disease Ratings: See tables 1-8

Drained: Sept. 4

Harvest: N/A

Results: See tables 1-8

Comments: Blast severity was moderate

Table 1. Disease reaction of various rice varieties and experimental lines to leaf blast, sheath blight (SB), bacterial panicle blight (BPB), and rotten neck blast (RNB), at the H. Rouse Caffey Rice Research Station, Crowley, LA. 2020.

Pest Name	Leaf Blast	SB	BPB	RNB
Rating Date	Jun-30-2020	Aug-17-2020	Aug-17-2020	Sep-11-2020
Rating Type	0-9	0-9	0-9	0-9
Rating Unit	Severity	severity	Severity	Severity
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-30-2020	Aug-17-2020	Aug-17-2020	Sep-11-2020
ARM Action Codes	ET18		AA	AL
Trt No. Treatment Name	1	2	3	4
1 CAFFEY	5.8a-d	5.8d-h	3.5c-f	1.5c-g
2 CHENIERE	5.0b-e	6.2b-f	4.3b-e	2.9a-d
3 CL111	1.0hi	7.4abc	7.6a	0.4efg
4 CL151	5.5a-d	6.8a-d	5.2a-d	3.5abc
5 CL153	0.5hi	8.0a	4.0c-f	0.2fg
6 CL163	5.5a-d	7.6ab	3.1def	3.6abc
7 BEMGAL	6.5abc	6.2b-f	3.0def	4.1abc
8 CL272	7.0ab	6.4b-f	4.4b-e	5.0abc
9 CLJ01	2.8e-i	6.8a-d	7.0ab	0.0g
10 CLL15	1.0hi	6.8a-d	7.6a	0.0g
11 CLM04	6.3a-d	5.6d-i	3.3def	0.0g
12 CL111	0.8hi	7.6ab	7.8a	0.2fg
13 CLXL745	2.3f-i	6.8a-d	2.2efg	0.0g
14 DELLA-2	4.3c-f	6.4b-f	3.7c-f	0.0g
15 DIAMOND	4.0d-g	5.2e-i	3.6c-f	2.0b-e
16 GEMINI214 CL	1.5hi	4.4i	1.2gh	0.0g
17 JAZZMAN	3.0e-h	5.6d-i	6.3abc	0.0g
18 AZZMAN-2	2.3	5.8d-h	4.7b-e	0.3efg
19 JUPITER	5.5a-d	6.6a-e	2.6d-g	0.4efg
20 MERMENTAU	2.3f-i	6.6a-e	4.4b-e	4.4abc
21 PRESIDIO	2.3f-i	6.0c-g	2.5d-g	1.8c-f
22 PVL01	4.0d-g	6.6a-e	2.9def	5.8ab
23 PVL02	6.3a-d	6.4b-f	4.2cde	3.4abc
24 XP753	2.8e-i	4.8ghi	2.7d-g	0.0g
25 THAD	5.0b-e	6.0c-g	4.0c-f	2.6bcd
26 TITAN	6.5abc	6.2b-f	4.8b-e	0.8d-g
27 CLL16	0.5hi	6.6a-e	3.8c-f	0.6efg
28 RT7301 FP	1.5hi	5.0f-i	2.3efg	0.0g
29 RT7321 FP	0.8hi	4.6hi	2.8d-g	0.0g
30 RT7521 FP	1.8ghi	6.2b-f	1.8fgh	0.0g
31 CLL17	0.8hi	7.0a-d	3.6c-f	0.0g
32 PURPLE	0.3i	2.6j	0.8h	0.0g
33 M202	7.5a	8.0a	3.4def	8.0a
LSD P=.05	1.46	0.81	0.82 - 1.93	0.88 - 3.72
Standard Deviation	1.04	0.65	1.75t	0.18t
CV	30.17	10.46	15.77t	64.15t
Levene's F	0.96	0.645	1.157	1.47
Levene's Prob(F)	0.535	0.925	0.279	0.068
Skewness	0.1503	-0.7266*	-0.1792	0.5173*
Kurtosis	-1.2289*	0.6335	0.0279	-1.5565*
Replicate F	0.775	9.393	3.626	1.078
Replicate Prob(F)	0.5109	0.0001	0.0078	0.3704
Treatment F	19.770	14.482	11.029	14.750
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

Table 2. Disease reaction of various rice varieties and experimental lines to leaf blast, sheath blight (SB), bacterial panicle blight (BPB), and rotten neck blast at the H. Rouse Caffey Rice Research Station, Crowley, LA. 2020. (URN Group I).

	Leaf blast	SB	BPB	RNB
Rating Date	Jul-9-2020	Aug-17-2020	Aug-17-2020	Sep-16-2020
Rating Data Type	Severity	Severity	Severity	Severity
Rating Unit	0-9	0-9	0-9	0-9
Data Entry Date	Jul-9-2020	Aug-18-2020	Aug-18-2020	Sep-16-2020
ARM Action Codes	AS			
Trt Treatment No. Name	1	2	3	4
1 IRGA409/RXMT/5/NWBT/3/LBNT/9902//LBLE.....	0.4de	5.8cde	4.0a-d	0.8fg
2 TRNS//CCDR/JEFF/5/9502008A/DREW//CLR20/.....	0.8cde	8.0a	5.8ab	3.3b-f
3 Lemont/Jasmine85/3///LMNT*2/82CAY83//Katy/STBN	3.7bc	6.8a-d	3.5bcd	4.5a-d
4 CCDR/MILL	2.4b-e	5.8cde	4.3a-d	4.3a-e
5RU0801076/5/KATY/NWBT//L201/7402003/3/WLL.....	2.6bcd	5.3de	3.0cd	4.8a-d
6 9502008A/DREW//CLR20/4/9502008A//AR1188/.....	0.4de	7.5ab	5.3abc	1.8efg
7 Lemont/Jasmine 85-220//Francis	3.4bc	5.5cde	4.0a-d	5.0abc
8 4579	0.8cde	3.8f	2.0d	0.0g
9 19991516/19951166/7/LBNT/9902/3/DAWN/9695/...	0.8cde	5.5cde	5.5abc	0.8fg
10 WLLS/CFX18//DREW/CFX18/3/CHNR//CCDR/JEFF	0.4de	7.0abc	5.5abc	2.3d-g
11 Lemont/Jasmine 85-220//Francis	6.0ab	5.5cde	4.0a-d	5.3ab
12 IR64/IR 1321-12	0.2de	3.8f	2.0d	0.8fg
13 CL172/RU1102034	0.0e	7.3abc	2.5d	1.8efg
14 9502008/DREW//CLR20/3/CPRS/KBNT//9502008/....	0.4de	6.8a-d	5.0abc	1.0fg
15 Bowman//Bowman/Te Quing	7.7a	7.0abc	3.0cd	2.5c-g
16 TH771	0.0e	5.0e	2.3d	3.5b-f
1791642//KATY/NWBT/5/RU9201176/4/KATY/NWBT....	6.0ab	6.3b-e	5.5abc	6.5a
18 CL 153	1.3cde	7.3abc	3.3cd	2.3d-g
19 PRESIDIO	3.7bc	6.5a-e	3.5bcd	4.3a-e
20 CL 111	0.6de	7.3abc	6.3a	0.8fg
LSD P=.05	1.31 - 3.00	1.00	1.44	1.66
Standard Deviation	0.41t	0.71	1.02	1.17
CV	27.99t	11.5	25.42	42.0
Levene's F	0.982	1.115	1.058	1.205
Levene's Prob(F)	0.493	0.36	0.415	0.285
Skewness	0.3575	-0.6581*	0.4531	0.0355
Kurtosis	-1.267*	-0.4327	-0.4008	-1.158*
Replicate F	0.131	0.423	4.635	0.398
Replicate Prob(F)	0.9410	0.7370	0.0058	0.7547
Treatment F	10.784	11.076	6.895	10.279
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

Table 3. Disease reaction of various rice varieties and experimental lines to leaf blast, sheath blight (SB), bacterial panicle blight (BPB), and rotten neck blast at the H. Rouse Caffey Rice Research Station, Crowley, LA. 2020. (URN Group II).

Character Rated	Leaf Blast	SB	BPB	RNB
Rating Date	Jul-13-2020	Aug-17-2020	Aug-17-2020	Sep-16-2020
Rating Data Type	Severity	Severity	Severity	Severity
Rating Unit	0-9	0-9	0-9	0-9
Data Entry Date	Jul-13-2020	Aug-18-2020	Aug-18-2020	Sep-16-2020
ARM Action Codes	ER3		AL	
Trt Treatment No. Name	1	2	3	4
21 JPTR/J062	7.3ab	6.3b-g	2.5bc	3.3bcd
22 1002146*4//JZMN/08CLR004	2.3de	7.8a	7.5a	3.3bcd
23 Bowman//Bowman/Te Quing	8.0ab	7.5ab	3.5bc	4.3ab
24 IR64/IR 1321-12	2.0def	5.3g	2.6bc	0.0e
25 ROYJ/RU1501024	0.0g	6.5a-g	4.1abc	0.8de
26 CHNR/6/CPRS/KBNT//9502008/....	3.3d	6.3b-g	2.3bc	4.5ab
27 Bowman/Roy J	6.3bc	7.0a-d	3.3bc	5.3ab
28 WAB 450-11-1-1-P31-HB (NERICA 5)/RSMT	6.0bc	6.0c-g	3.0bc	3.3bcd
29 Lynx	8.7a	7.0a-d	2.9bc	5.0ab
30 TRNS//CCDR/JEFF/3/AR1188/CCDR/...	6.0bc	6.7a-f	5.5ab	6.5a
31 Bowman/Roy J	6.3bc	6.3b-g	2.0c	3.5bc
32 IR64/IR 1321-12	1.0efg	5.7d-g	2.6bc	1.5cde
33 RICO/BNGL//RU0602162/RU0502031	8.3a	7.3abc	7.5a	5.3ab
34 CL131/CHNR/4/CPRS/KBNT//...	0.3fg	7.3abc	4.7abc	3.3bcd
35 Cheniere/Bowman	1.0efg	5.3fg	2.6bc	0.0e
36 AC110DH2/AC108DH2//CHEN	6.0bc	5.3fg	2.2c	4.3ab
37 CL TORO (1202025)	3.0d	6.0c-g	4.4abc	1.3cde
38 WELLS	5.0c	6.3b-g	2.8bc	4.8ab
39 CLL16	0.0g	6.8a-e	2.7bc	1.3cde
40 DIAMOND	6.3bc	5.5efg	3.9abc	4.8ab
LSD P=.05	1.32	0.82	1.39 - 2.69	1.67
Standard Deviation	0.80	0.57	0.12t	1.18
CV	18.23	8.98	18.07t	35.93
Levene's F	1.298	0.465	0.892	0.956
Levene's Prob(F)	0.239	0.965	0.594	0.522
Skewness	-0.1248	-0.0431	0.3279	-0.3391
Kurtosis	-1.3794*	-0.7657	-0.9158	-1.0602
Replicate F	2.000	2.428	0.699	1.013
Replicate Prob(F)	0.1497	0.0768	0.5571	0.3939
Treatment F	41.338	6.837	5.171	10.287
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

Table 4. Disease reaction of various rice varieties and experimental lines to leaf blast, sheath blight (SB), bacterial panicle blight (BPB), and rotten neck blast at the H. Rouse Caffey Rice Research Station, Crowley, LA. 2020. (URN Group III).

Character Rated	Leaf Blast	SB	BPB	RNB
Rating Date	Jul-13-2020	Aug-17-2020	Aug-17-2020	Sep-17-2020
Rating Data Type		Severity	Severity	
Rating Unit	0-9	0-9	0-9	0-9
Data Entry Date	Jul-13-2020	Aug-18-2020	Aug-18-2020	Sep-17-2020
ARM Action Codes	ET5		AS	
Trt Treatment No. Name	1	2	3	4
41 LMNT//82CAY21/CICA8/3/DLMT/4/.....	4.0fg	6.5abc	3.7a-d	2.8abc
42 NPTN//BNGL/CL161/3/NPTN	6.5cd	5.8a-d	2.5cd	2.3bc
43 Rex/Cheniere	7.8ab	6.3a-d	2.5cd	4.3abc
44 CPRS/9901081			6.0a	4.1abc
45 RU1102131/14CSIT203	1.3h	7.0ab	2.4cd	1.5c
46 CPRS/KBNT//9502008/3/CCDR/JEFF/4/MRMT	2.8g	6.3a-d	3.0bcd	4.0abc
47 REX/RU1304122 (IR36/8603006)	6.8bc	6.3a-d	3.4a-d	4.0abc
48 WAB 450-11-1-1-P31-HB (NERICA 5)/RSMT	6.3cd	5.0cd	2.5cd	2.8abc
49 FRNS//WLLS/CL161/7/FRNS/6/LBNT/...	5.5cde	5.5a-d	5.7ab	2.8abc
50 CTHL/4/CPRS/KBNT//9502008/3/CCDR	1.0hi	6.0a-d	3.2a-d	2.5abc
51 Bowman/Roy J	5.0def	5.5a-d	2.4cd	2.8abc
52 043752/0047277/CHEN	6.0cd	6.3a-d	3.7a-d	4.3abc
53 CL271/JPTR	8.0a	5.3bcd	3.0bcd	5.8ab
54 CHNR/MRMT	5.0def	6.5abc	2.7cd	6.3a
55 TAGGART/REX	4.3ef	4.5d	1.9d	2.5abc
56 SABR/CCDR//PRESIDIO	5.0def	4.5d	2.9bcd	4.3abc
57 CL151/JSMN85//CL161	3.8fg	7.3a	3.3a-d	3.5abc
58 CHENIERE	6.0cd	6.0a-d	3.5a-d	3.3abc
59 COCODRIE	3.5fg	5.8a-d	2.7cd	4.0abc
60 CLL17	0.0i	7.0ab	4.9abc	2.3bc
LSD P=.05	1.00	1.06	1.36 - 1.82	2.10
Standard Deviation	0.71	0.75	0.27t	1.48
CV	15.2	12.55	14.06t	42.61
Levene's F	2.801	0.991	0.694	1.213
Levene's Prob(F)	0.002*	0.484	0.801	0.279
Skewness	-0.6351*	-0.3129	0.4016	0.0775
Kurtosis	-0.2539	-0.5135	-0.2334	-0.0976
Replicate F	2.563	0.992	0.356	0.606
Replicate Prob(F)	0.0644	0.4040	0.7849	0.6138
Treatment F	39.588	4.369	3.724	2.570
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0033

Table 5. Disease reaction of various rice varieties and experimental lines to leaf blast, sheath blight (SB), bacterial panicle blight (BPB), and rotten neck blast (RNB) at the H. Rouse Caffey Rice Research Station, Crowley, LA. 2020. (URN Group IV).

Character Rated	Leaf Blast	SB	BPB	RNB
Rating Date	Jul-13-2020	Aug-17-2020	Aug-17-2020	Sep-17-2020
Rating Data Type	Severity	Severity	Severity	
Rating Unit	0-9	0-9	0-9	0-9
Data Entry Date	Jul-13-2020	Aug-18-2020	Aug-18-2020	Sep-17-2020
ARM Action Codes			AS	
Trt Treatment No. Name	1	2	3	4
61 EARL/9902028//RU1202068	8.0a	6.0a-f	4.5ab	4.5a
62 NPTN/JPTR	7.5abc	7.3ab	4.7ab	2.8abc
63 CL131//CL162-616	6.3bcd	7.0abc	4.7ab	2.5abc
64 043752/0047277/CHEN	4.5ef	6.0a-f	3.6b	4.0ab
65 FRNS/CL.WLLS/7/FRNS/6/LBNT/....	3.0fg	5.3def	3.1b	3.5ab
66 CHNR//CCDR/JEFF/3/BASF2-22	6.0cde	7.5a	3.2b	4.3ab
67 Taggart/CL111	4.3ef	6.8a-d	2.7b	3.5ab
68 CL161/CPRS	4.5ef	5.8b-f	3.2b	2.5abc
69 ROYJ/CL142-AR	3.8fg	6.5a-e	2.7b	2.8abc
70 PVL01/CTHL	2.3g	7.3ab	4.2ab	4.3ab
71 BOWMAN/RU1004083 (CL161/PSCL)	3.0fg	6.5a-e	3.1b	2.3abc
72 CL161/CPRS	3.8fg	6.3a-f	2.7b	4.8a
73 LGRU//KATY/STBN/5/LGRU//LMNT....	5.8de	5.5c-f	4.7ab	2.8abc
74 PVL01/CTHL	4.3ef	6.5a-e	2.9b	2.8abc
75 REX/RU1104073	7.8ab	5.5c-f	2.5b	1.0bc
76 IR64/IR 1321-12	0.5h	4.8f	3.2b	0.3c
77 CCDR/L202//TRENASSE	3.3fg	6.3a-f	2.7b	2.8abc
78 JUPITER	6.8a-d	6.8a-d	2.5b	2.5abc
79 ROY J	4.5ef	5.0ef	2.5b	2.5abc
80 TITAN	6.8a-d	6.8a-d	6.7a	3.5ab
LSD P=.05	1.18	0.92	1.39 - 1.82	1.82
Standard Deviation	0.83	0.65	0.26t	1.29
CV	17.26	10.43	12.91t	43.31
Levene's F	1.433	0.974	1.248	0.755
Levene's Prob(F)	0.146	0.502	0.252	0.747
Skewness	-0.178	-0.1983	0.5144	-0.122
Kurtosis	-0.6925	-0.7003	-0.3529	-0.5178
Replicate F	2.870	4.422	0.788	0.572
Replicate Prob(F)	0.0443	0.0074	0.5054	0.6357
Treatment F	22.965	5.640	3.971	2.994
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0007

Table 6. Disease reaction of various rice varieties and experimental lines to leaf blast, sheath blight (SB), bacterial panicle blight (BPB), and rotten neck blast (RNB) at the H. Rouse Caffey Rice Research Station, Crowley, LA. 2020. (URN Group V).

Character Rated	Leaf Blast	SB	BPB	RNB
Rating Date	Jul-13-2020	Aug-18-2020	Aug-18-2020	Sep-17-2020
Rating Unit	0-9	0-9	0-9	0-9
Data Entry Date	Jul-13-2020	Aug-18-2020	Aug-18-2020	Sep-17-2020
ARM Action Codes	ET19		AS	
Trt No. Treatment Name	1	2	3	4
81 FRNS/CL.WLLS/7/FRNS/6/LBNT/....	6.0a-d	5.0bc	4.0abc	4.5a-d
82 LGRU/CLR11/4/9302065/3/CFX29/....	1.0hi	6.5abc	3.9abc	4.0a-e
83 TEMPLETON/RU1201108	0.5i	5.0bc	3.4abc	0.0e
84 RU0302088/CHEN	6.0a-d	5.0bc	2.0bc	5.5ab
85 DMND/8/FRNS//WLLS/CL161/7/....	5.0b-e	6.5abc	4.4abc	6.0a
86 LFTE/BNGL//CFFY	7.0ab	6.0abc	6.5ab	4.5a-d
87 Cheniere/Taggart	4.5cde	5.5abc	1.9c	3.5a-e
88 CPRS/NWBT//KATY/3/CCDR		6.0abc	2.0bc	5.5ab
89 FRNS/CL.WLLS/7/FRNS/6/LBNT/....	6.0a-d	5.5abc	2.9abc	3.0a-e
90 NPTN/JPTR	6.5abc	5.5abc	2.5abc	6.0a
91 REX/CHENIERE	6.0a-d	6.0abc	2.5abc	1.0cde
92 RU0302088/CHEN	6.5abc	6.0abc	1.5c	1.0cde
93 ROYJ/CL142-AR	4.5cde	6.0abc	3.0abc	2.5a-e
94 CFFY/3/BNGL/9502065//EARL	6.0a-d	7.0ab	4.0abc	1.0cde
95 TAGGART/REX	6.5abc	5.0bc	2.0bc	5.5ab
96 CPRS/3/CPRS/NWBT/KATY	5.0b-e	7.0ab	3.0abc	5.0abc
97 JPTR/EARL	6.0a-d	7.0ab	4.0abc	2.0a-e
98 TRNS//TRNS/CL131	0.5i	7.0ab	4.5abc	2.5a-e
99 RSMT//3/MARS/NWRX//TBNT....	1.0hi	6.0abc	3.9abc	0.0e
100 IR64/IR 1321-12	0.0i	4.0c	1.5c	0.0e
101 ROYJ*2/RU1401133	0.5i	5.0bc	2.5abc	1.0cde
102 CL131/3/CPRS/KBNT//9502008A/4/LGRU....	1.5ghi	7.0ab	3.4abc	3.0a-e
103 TEMPLETON/RU1201108	0.0i	6.5abc	3.0abc	1.0cde
104 RU0302088/CHEN	7.0ab	6.5abc	2.0bc	3.5a-e
105 JZMN/RU0701124//RU0401145	3.5efg	5.5abc	4.5abc	0.0e
106 CFX-18//CCDR/9770532DH2/3/CPRS/....	0.5i	8.0a	5.0abc	4.0a-e
107 MERMENTAU/RU1201004	1.5ghi	5.0bc	2.5abc	1.5b-e
108 M202*5/Katy	2.0f-i	8.0a	5.0abc	2.5a-e
109 JZMN/RU0701124//PI632283	4.0def	6.0abc	3.5abc	0.5de
110 CL131/CHNR//TRNS	4.5cde	7.0ab	5.0abc	1.5b-e
111 13ST26 (Priscilla/Cheniere)/MERMENTAU	4.5cde	4.5bc	3.9abc	4.5a-d
112 TH731 (hybrid)	2.0f-i	5.0bc	2.5abc	0.0e
113 EARL/9902028//RU1202068	7.5a	6.0abc	3.5abc	3.0a-e
114 CL153/LKST	3.0e-h	7.0ab	7.0a	3.5a-e
115 REX/RU1102034	2.0f-i	6.5abc	3.9abc	0.0e
116 CPRS/SABR//Drew	0.0i	6.0abc	2.5abc	1.0cde
117 Mo0215035/NIL16_2-1	4.0def	5.0bc	1.5c	2.5a-e
118 RU0601013/Trenasse	0.0i	5.5abc	3.5abc	1.0cde
119 CLM04	6.5abc	5.5abc	4.5abc	2.0a-e

Continued.

Table 6. Continued.

120CLL15	1.5ghi	8.0a	7.0a	0.0e
LSD P=.05	1.33	1.33	1.74 - 2.59	2.15
Standard Deviation	0.66	0.66	0.26t	1.06
CV	18.28	10.9	13.11t	42.89
Levene's F				
Levene's Prob(F)				
Skewness	-0.1034	0.0986	0.2152	0.2629
Kurtosis	-1.4335*	-0.7634	-0.4295	-0.9568
Replicate F	0.030	9.395	0.581	0.044
Replicate Prob(F)	0.8644	0.0040	0.4507	0.8343
Treatment F	29.003	4.280	3.544	6.552
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

Table 7. Disease reaction of various rice varieties and experimental lines to leaf blast, sheath blight (SB), bacterial panicle blight (BPB), and rotten neck blast (RNB) at the H. Rouse Caffey Rice Research Station, Crowley, LA. 2020. (URN Group VI).

Character Rated	Leaf Blast	SB	BPB	RNB
Rating Date	Jul-13-2020	Aug-18-2020	Aug-18-2020	Sep-17-2020
Rating Unit	0-9	0-9	0-9	0-9
Data Entry Date	Jul-13-2020	Aug-18-2020	Aug-18-2020	Sep-17-2020
Trt Treatment No. Name	1	2	3	4
121 RU1102131/14CSIT203	4.0b-f	6.0ab	2.5ab	6.0ab
122 MS4077/CHTL	7.0abc	6.5ab	3.0ab	5.0a-d
123 RU1304194 (RSMT/RXMT/IR36)/MERMENTAU	5.0a-d	7.0ab	2.5ab	7.0a
124 Hayakogane/BALDO	3.0d-h			4.0a-e
125 ROYJ/RU1501127	1.0fgh	5.0ab	3.5ab	1.0de
126 MS4077/CHTL	0.0h	5.5ab	1.0b	1.0de
127 Bowman/Roy J	4.5a-e	5.5ab	2.5ab	2.5b-e
128 AC110DH2/AC108DH2//CYBT	6.0a-d	4.0b	3.0ab	4.5a-d
129 RU1102131/CL172	0.5gh	7.0ab	2.5ab	2.5b-e
130 DREW/5/CPRS/3/9502008A//AR118....	6.0a-d	7.5a	2.5ab	5.5abc
131 RU1102034/RU1304191 (RSMT/RXMT/IR36)	3.0d-h	6.0ab	3.0ab	0.0e
132 CPRS/3/CPRS/NWBT/KATY	7.0abc	6.0ab	2.5ab	5.0a-d
133 JPTR/J062	8.0a	6.5ab	4.0ab	2.5b-e
134 CPRS/KBNT//WLLS/CFX18/3/MBLE/....	7.5ab	6.0ab	3.5ab	1.0de
135 RU1102034/RU1304191 (RSMT/RXMT/IR36)	5.0a-d	5.0ab	1.0b	3.0a-e
136 CPRS/3/CPRS/NWBT/KATY	5.5a-d	6.0ab	2.0ab	1.5cde
137 MRMT/RU1401142	4.0b-f	6.0ab	2.0ab	4.0a-e
138 CCDR/JEFF//CFX26/9702128/3/CL151	6.0a-d	7.0ab	3.5ab	5.5abc
139 REX/SABINE	5.5a-d	6.0ab	3.0ab	2.0b-e
140 Jangseongbyeo/IR 1321-12	0.0h	5.0ab	2.0ab	0.0e
141 ROYJ/2/KBNT/Q36194/7/LBNT/9902/3/DAWN/...	5.5a-d	5.0ab	2.0ab	3.5a-e
142 CL172/CL153	0.5gh	7.0ab	3.5ab	2.5b-e
143 RU1102034/RU1304191 (RSMT/RXMT/IR36)	1.5e-h	7.0ab	3.5ab	2.5b-e
144 CPRS/SABR//Francis	1.0fgh	5.0ab	1.0b	0.0e
145 ROYJ/2/KBNT/Q36194/7/LBNT/9902/3/DAWN/....	7.0abc	6.0ab	2.0ab	2.0b-e
146 CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	3.5c-g	5.0ab	2.0ab	4.0a-e
147 RU1102034/RU1304191 (RSMT/RXMT/IR36)	1.0fgh	6.0ab	4.5ab	2.0b-e
148 CPRS/3/CPRS/NWBT/KATY	5.5a-d			4.0a-e
149 LGRU//KATY/STBN/3/LGRU/4/KBNT/Q36194	3.5c-g	6.0ab	4.0ab	4.5a-d
150 CHTL/CL153	1.0fgh	5.0ab	5.0a	2.0b-e
151 REX/SABINE	7.5ab	6.0ab	4.0ab	3.5a-e
152 FRAN/WELLS//BANKS	6.5a-d	5.5ab	1.5ab	1.0de
153 ROYJ/2/KBNT/Q36194/7/LBNT/9902/....	6.0a-d	5.5ab	3.5ab	4.5a-d
154 CTHL/MRMT	4.5a-e	6.0ab	2.0ab	4.5a-d
155 RU1102034/SABINE	3.5c-g	4.5ab	5.0a	7.0a
156 CPRS/SABR//Gulfmont	5.5a-d	5.0ab	1.5ab	6.0ab
157 (CPRS/KBNT//WELLS-1CFX-118/5/TACAURI....	7.0abc	5.5ab	3.5ab	2.5b-e
158 (CPRS/KBNT//WELLS-1CFX-118/5/TACAURI/...	6.5a-d	6.0ab	2.0ab	4.5a-d
159 CPRS/CCDR (ANTONIO)	4.0b-f	6.5ab	2.5ab	2.5b-e

Continued.

Table 7. Continued.

160 Thad	6.0a-d	6.5ab	2.5ab	5.0a-d
LSD P=.05	1.94	1.55	1.74	2.22
Standard Deviation	0.96	0.76	0.85	1.10
CV	21.84	13.0	30.77	33.39
Levene's F				
Levene's Prob(F)				
Skewness	-0.5197	0.0592	0.3531	0.0364
Kurtosis	-0.7509	-0.5191	-0.7158	-0.7953
Replicate F	3.935	0.204	1.820	1.255
Replicate Prob(F)	0.0546	0.6545	0.1874	0.2694
Treatment F	12.190	2.141	2.944	5.872
Treatment Prob(F)	0.0001	0.0174	0.0016	0.0001

Table 8. Disease reaction of various rice varieties and experimental lines to leaf blast, sheath blight (SB), bacterial panicle blight (BPB), and rotten neck blast (RNB) at the H. Rouse Caffey Rice Research Station, Crowley, LA. 2020. (URN Group VII).

Character Rated	Leaf Blast	SB	BPB	RNB
Rating Date	Jul-13-2020	Aug-18-2020	Aug-18-2020	Sep-17-2020
Rating Unit	0-9	0-9	0-9	0-9
Data Entry Date	Jul-13-2020	Aug-18-2020	Aug-18-2020	Sep-17-2020
ARM Action Codes	ET14		AS	
Trt Treatment No. Name	1	2	3	4
161 DMND/8/FRNS/CL.WLLS/7/FRNS/6/LBNT/....	7.5a	5.0cde	3.0ab	6.5a
162 DREW//CHNR/LMNT/5/9502008A/DREW//....	0.0i	6.0a-e	2.9ab	2.0abc
163 REX/SABINE	6.5ab	6.0a-e	3.4ab	4.0abc
164 CPRS/3/CPRS/NWBT/KATY	6.0abc	5.5b-e	2.5ab	4.5abc
165 RU1001067/RU0602171	6.0abc	7.0abc	6.0a	4.5abc
166 JZMN2/CHTL	2.5e-i	7.0abc	5.4ab	1.5bc
167 REX/SABINE	7.5a	5.0cde	3.8ab	2.0abc
168 CPRS/NWBT//KATY/3/CCDR	6.0abc	6.0a-e	2.3ab	3.5abc
169 ROYJ/RU1501127	1.5f-i	5.5b-e	2.9ab	0.0c
170 CHENIERE//CCDR/JEFF/3/BASF2-22	4.5b-e	7.0abc	2.0ab	2.5abc
171 REX/SABINE	7.0ab	5.5b-e	5.0ab	3.5abc
172 AC110DH2/AC108DH2//CHEN	6.0abc	5.5b-e	2.0ab	4.5abc
173 RU1102034/RU1501024*2	3.0d-h	7.0abc	3.9ab	3.0abc
174 PVL01/CTHL	1.5f-i	7.0abc	3.4ab	2.5abc
175 REX/SABINE	7.0ab	6.0a-e	2.9ab	4.5abc
176 CPRS/CCDR//WELLS	5.5a-d	7.0abc	4.0ab	0.5c
177 ROYJ/2/KBNT/Q36194/ TMPL	0.0i	5.5b-e	2.5ab	1.5bc
178 PVL01/CTHL	3.5c-g	8.0a	2.5ab	5.0abc
179 REX/RU1104073	6.0abc	6.5a-d	3.0ab	3.0abc
180 FRAN/WELLS//BANKS	7.0ab	4.5de	1.5ab	1.5bc
181 KATY/NWBT//L201/7402003/3/WLLS/4/....	2.5e-i	4.5de	1.9ab	1.0c
182CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	4.0b-f	5.5b-e	2.0ab	4.0abc
183 RU1004083/CL152	5.5a-d	6.5a-d	3.4ab	4.0abc
184 CPRS/SABR//MADISON	2.0e-i	6.0a-e	3.0ab	0.5c
185 DMND/LKST	4.5b-e	5.5b-e	2.0ab	1.0c
186 CTHL/MRMT	0.5hi	6.0a-e	3.0ab	2.5abc
187 REX/RU1104073	6.5ab	7.5ab	4.0ab	3.0abc
188 Jangseongbyeo/IR 1321-12	0.0i	5.5b-e	1.0b	0.5c
189 STG11P-04-196/PI632283	3.5c-g	5.0cde	4.5ab	1.0c
190 CPRS/LKST	1.0ghi	6.5a-d	3.5ab	1.5bc
191 Tacauri/RU1004083 (CL161/PSCL)	4.0b-f	6.0a-e	2.0ab	2.5abc
192 CL161/CPRS	5.5a-d			2.0abc
193 248DREW16C-1-3/6/LGRU//KATY/STBN/....	2.0e-i	6.5a-d	3.5ab	2.0abc
194CPRS/KBNT//9502008A/3/CCDR/JEFF/4/MRMT	3.5c-g	6.0a-e	2.9ab	2.5abc
195 REX/RU1104073	5.5a-d	6.5a-d	2.9ab	2.5abc
196 LD 183-3/Jasmine 85	1.0ghi	4.0e	1.0b	0.0c
197 (9502008-A/DREW//CLR120/4/CPRS/KBNT//....	4.0b-f	7.5ab	4.5ab	4.0abc
198(9502008-A/DREW//CLR120/4/CPRS/KBNT//.....	0.0i	6.0a-e	4.0ab	3.0abc
199 PVL02	7.0ab	6.5a-d	4.4ab	5.0abc

Continued.

Table 8. Continued.

200 PVL01	5.5a-d	6.0a-e	3.5ab	6.0ab
LSD P=.05	1.59	1.11	1.94 - 2.81	2.43
Standard Deviation	0.78	0.55	0.31t	1.20
CV	19.31	9.05	16.55t	44.05
Levene's F				
Levene's Prob(F)				
Skewness	-0.3429	-0.0803	0.1425	0.1464
Kurtosis	-1.123*	-0.2955	-0.5178	-0.8293
Replicate F	0.183	0.684	1.486	6.801
Replicate Prob(F)	0.6714	0.4136	0.2307	0.0128
Treatment F	18.797	5.160	1.848	3.665
Treatment Prob(F)	0.0001	0.0001	0.0334	0.0001

Table 9. Disease reaction of various rice varieties and experimental lines to leaf blast, sheath blight (SB), bacterial panicle blight (BPB), and rotten neck blast (RNB) at the H. Rouse Caffey Rice Research Station, Crowley, LA. 2020. (URN Group VIII).

Character Rated	Leaf Blast	SB	BPB	RNB
Rating Date	Jul-13-2020	Aug-18-2020	Aug-18-2020	Sep-17-2020
Rating Unit	0-9	0-9	0-9	0-9
Data Entry Date	Jul-13-2020	Aug-18-2020	Aug-18-2020	Sep-17-2020
Trt Treatment No. Name	1	2	3	4
201 248DREW16C-1-3/6/LGRU//KATY/STBN/.....	0.0i	5.5c-f	2.5a-d	2.0ab
202 CLH161 (hybrid)	2.5d-i	4.0f	1.0d	1.0b
203 (9502008-A/DREW//CLR-120/4/CPRS/....	1.0ghi	7.0abc	5.0a-d	1.5ab
204 Tacauri/RU1104154	3.0c-h	7.5ab	3.5a-d	5.5ab
205 RU0302088/CHEN	5.0a-e	5.0def	2.0bcd	1.0b
206 JZMN/STG05F5-08-104//DLLA2	6.0abc	5.0def	7.0a	2.5ab
207 LAH169 (hybrid)	1.0ghi	6.5a-d	2.5a-d	1.0b
208 (CL111/CHENIERE//CL111/CCDR)-0-125-2-0	0.0i	5.5c-f	5.5a-d	0.5b
209 SABINE/RU1004083 (CL161/PSCL)	6.0abc	7.0abc	2.5a-d	3.5ab
210 RU0302088/CHEN	5.0a-e	5.0def	1.0d	1.5ab
211 811S/RU1701185 (hybrid)	1.0ghi	4.0f	1.0d	0.0b
212 NPTN//BNGL/CL161/3/NPTN	6.0abc	5.0def	3.5a-d	3.5ab
213 LA-141:(CL111/CHENIERE/4/CPRS/...	4.0a-f	6.0b-e	4.0a-d	4.5ab
214 SABINE/RU1104122	4.5a-e	7.0abc	3.5a-d	4.0ab
215 IR64/IR 1321-12	0.0i	6.5a-d	5.5a-d	0.0b
216 WLLS/CL161//TGRT/3/DREW/CL161...	0.5hi	6.0b-e	5.0a-d	1.5ab
217 TGRT/3/TRNS//CCDR/JEFF	3.5b-g	5.5c-f	3.5a-d	2.5ab
218 LA-141:(CL111/CHENIERE/4/CPRS/...	0.0i	7.0abc	5.0a-d	1.5ab
219 REX/RU1104073	5.5a-d	6.0b-e	4.5a-d	2.5ab
220 043752/0047277/CHEN	6.0abc	6.0b-e	5.5a-d	3.5ab
221 RU0401064/TITN	7.0a	6.5a-d	6.0abc	6.5a
222 CTHL/MRMT	1.5f-i	7.0abc	2.5a-d	3.0ab
223 (9502008-A/DREW//CLR-120/4/CPRS/....	2.0e-i	7.0abc	2.5a-d	2.0ab
224 SABINE/RU1104122	5.0a-e	8.0a	3.0a-d	3.5ab
225 RU0302085/4593	4.0a-f	6.0b-e	1.5cd	0.5b
226 IRRD TGRT 30 RADS	3.5b-g	4.5ef	2.0bcd	0.0b
227 CCDR/3/TRNS//CCDR/JEFF	6.0abc	7.0abc	4.0a-d	3.0ab
228 (CPRS/KBNT//WELLS-1CFX-118/....	6.0abc	7.0abc	4.0a-d	3.5ab
229 REX/RU1104073	6.5ab	8.0a	3.0a-d	4.5ab
230 FRAN/WELLS//BANKS	5.5a-d	4.5ef	1.5cd	2.5ab
231 JZMN/RU0701124//TGRT	3.5b-g	5.0def	2.0bcd	2.0ab
232 TRNS//CCDR/JEFF/4/9502008A//.....	6.0abc	6.0b-e	4.5a-d	4.5ab
233 (TRNS//TCL111/CHENIERE)-0-32-1-0	4.5a-e	8.0a	5.5a-d	5.0ab
234 Baldo/RU0201093	6.0abc	6.0b-e	4.0a-d	2.5ab
235 Hayakogane/BALDO	1.5f-i	8.0a	2.0bcd	5.0ab
236 LA-141:(CL111/CHENIERE/4/CPRS/....	6.0abc	6.5a-d	3.5a-d	2.5ab
237 (TRNS//TCL111/CHENIERE)-0-43-1-0	5.0a-e	7.0abc	6.5ab	5.0ab
238 LA-141:(CL111/CHENIERE/4/CPRS/....	4.5a-e	7.0abc	3.0a-d	3.5ab
239 Aroma 17	3.0c-h	5.5c-f	3.5a-d	1.5ab

Continued.

Table 9. Continued.

240 Rex	5.5a-d	5.0def	2.5a-d	3.0ab	
LSD P=.05	1.68	0.98	2.25	2.67	
Standard Deviation	0.83	0.48	1.11	1.32	
CV	21.67	7.81	31.47	49.34	
Levene's F					
Levene's Prob(F)					
Skewness	-0.5363	-0.1252	0.3944	0.2125	
Kurtosis	-0.9328	-0.7883	-0.7088	-0.8292	
Replicate F	0.291	1.348	0.501	0.029	
Replicate Prob(F)	0.5926	0.2545	0.4843	0.8664	
Treatment F	13.901	10.549	4.017	3.025	
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0004	

2020 FUNGICIDE TRIALS

2020 HRCRRS Fungicide Trial Iowa
Syngenta

Trial: RRS Syngenta Fungicide Trial Iowa resistant sheath blight

Location: Iowa, Powell Farm Partners, Johnny Hensgens cooperator

Soil Type:

Variety/Seed Rate: 2026 CLL, CL153 / 33 seed/ft.^{2}

Plot Size: 4 X 16

Planting Method/Date: Drill seeded, May 22

Fertilization: 0-24-24-28 June 9, Preflood K July 1

Experimental Design: Randomized complete block design with four replications

Water Management: Flushed June 16, Flood July 2

Herbicides: Glyphosate 1.5 qt/A, NIS 1 pt./A Feb. 28
Glyphosate 2 qt/A, Sharpen 2 oz/A, Command 6 oz/A, May 9
Stam 2 qt/A, Permit .33 oz/A, Rice Beaux 2 qt/A, June 9
Stam 2 qt/A, Permit .33 oz/A, Rice Beaux 2 qt/A, June 30

Insecticides: Karate 2 oz/A Aug. 20

Fungicides: See table 10

Inoculation Dates: Natural inoculum

Application Equipment: CO_2 backpack sprayer, 3 - tip hand wand, 20 gal/A

Application Dates:	Growth Stage	Time	Temp	Wind	RH	Clouds	Dew
July 31	PD + 7	9:00	84°F	6.5 mph	80%	80%	Moderate
Aug. 7	Late Boot	8:30	80°F	3 mph	89%	0%	Heavy

Disease Ratings: See table 10

Drained: N/A

Harvest: N/A

Results: See Table 10

Comments: Sheath blight severity was high, storm damage prevented harvesting and grain quality evaluations.

Table 10. Effect of fungicide application on sheath blight (SB) development. Calcasieu, Parish, 2020.

Pest Name				Phyto	SB	SB	SB	SB
Rating Date				Aug-6-2020	Aug-13-2020	Sep-8-2020	Sep-24-2020	Sep-8-2020
Rating Type				Severity	Severity	0-9		% Tillers
Rating Unit				%	0-9		0-9	
Trt No.	Treatment Name	Rate	Rate Unit	Appl Timing	1	2	4	9	8
1	Unsprayed				0.0-	5.8a	7.8-	7.5-	76-
2	Amistar Top	15	oz/A	Boot	0.0-	4.3ab	5.3-	5.8-	44-
3	Amistar Top	15	oz/A	PD+7	0.0-	4.0ab	6.8-	6.8-	61-
4	Amistar Top	15	oz/A	PD+7 + Boot	0.0-	4.5ab	7.3-	6.8-	66-
5	Excalia	2	oz/A	PD+7	0.0-	3.5b	6.5-	6.8-	65-
6	Elegia	32	oz/A	Boot	0.0-	4.8ab	6.5-	6.5-	65-
LSD P=.05					.	1.28	1.70	1.68	24.0
Standard Deviation					0.00	0.85	1.13	1.12	15.9
CV					0.0	19.03	16.88	16.73	25.36
Levene's F					0.00	2.20	1.145	0.30	0.925
Levene's Prob(F)					0.00*	0.099	0.373	0.906	0.488
Skewness					.	0.5241	0.1744	0.2546	0.3964
Kurtosis					.	0.3225	-1.071	-0.7607	-0.9943
Replicate F					0.000	0.676	1.579	2.768	2.990
Replicate Prob(F)					1.0000	0.5803	0.2360	0.0780	0.0644
Treatment F					0.000	3.255	2.263	1.018	1.697
Treatment Prob(F)					1.0000	0.0346	0.1011	0.4415	0.1960

2020 HRCRRS Fungicide Trial Iowa
Valent

Trial: RRS Valent Fungicide Trial, Iowa, LA

Location: Iowa, Powell Farm Partners, Johnny Hensgens

Soil Type:

Variety/Seed Rate: 2026 CLL, CL153/ 33 seed/ft.^{2}

Plot Size: 4 X 16

Planting Method/Date: Drill seeded, May 22

Fertilization: 0-24-24-28 June 9, Preflood K July 1

Experimental Design: Randomized complete block design with four replications

Water Management: Flushed June 16, Flood July 2

Herbicides: Glyphosate 1.5 qt/A, NIS 1 pt./A Feb. 28
Glyphosate 2 qt/A, Sharpen 2 oz/A, Command 6 oz/A, May 9
Stam 2 qt/A, Permit .33 oz/A, Rice Beaux 2 qt/A, June 9
Stam 2 qt/A, Permit .33 oz/A, Rice Beaux 2 qt/A, June 30

Insecticides: Karate 2 oz/A Aug. 20

Fungicides: See Table 11

Inoculation Dates: Natural inoculum

Application Equipment: CO_2 backpack sprayer, 3 - tip hand wand, 20 gal/A

Application Dates:	Growth Stage	Time	Temp	Wind	RH	Clouds	Dew
July 31	PD + 7	8:30	84°F	6.5 mph	none	80%	Moderate

Disease Ratings:

Drained: N/A

Harvest: N/A

Results: See Table 11

Comments: Sheath blight severity was high, yield and milling was not determined due to hurricane damage (Added 1% NIS to each treatment in fungicide trials).

Table 11. Effect of fungicide application on sheath blight (SB) development. Calcasieu, Parish, 2020.

Pest Name				Phyto	SB	SB	SB	SB
Rating Date				Aug-6-2020	Aug-13-2020	Sep-8-2020	Sep-24-2020	Sep-8-2020
Rating Type				Severity	Severity			
Rating Unit				%	0-9	0-9	0-9	% Tiller
Trt No.	Treatment Name	Rate	Rate Unit	Appl Timing	1	2	3	8	7
1	Untreated				0.0-	5.5a	7.0-	6.5-	61-
2	Quadris	12	oz/A	PD+7	0.0-	4.5ab	5.8-	5.5-	49-
3	Sercadis	6.8	oz/A	PD+7	0.0-	4.3ab	6.5-	6.8-	53-
4	Amistar Top	14	oz/A	PD+7	0.0-	5.0a	7.3-	7.0-	65-
5	Elegia	32	oz/A	PD+7	0.0-	4.3ab	6.8-	7.0-	59-
6	Excalia	2	oz/A	PD+7	0.0-	3.3b	6.0-	5.3-	46-
7	Excalia	3	oz/A	PD+7	0.0-	3.5b	5.5-	5.3-	41-
LSD P=.05					.	0.90	1.79	1.91	27.5
Standard Deviation					0.00	0.60	1.21	1.29	18.5
CV					0.0	13.98	18.85	20.84	34.83
Levene's F					0.00	0.769	1.244	1.297	1.186
Levene's Prob(F)					0.00*	0.603	0.324	0.301	0.351
Skewness					.	0.1335	-0.1462	0.1521	0.054
Kurtosis					.	-0.8036	-1.1013	-1.3054	-1.138
Replicate F					0.000	2.446	0.484	0.481	0.578
Replicate Prob(F)					1.0000	0.0972	0.6978	0.6997	0.6367
Treatment F					0.000	6.783	1.197	1.593	0.881
Treatment Prob(F)					1.0000	0.0007	0.3522	0.2062	0.5281

2020 HRCRRS Fungicide Trial Iowa
Nichino

Trial: RRS Nichino Fungicide Trial, Iowa, LA

Location: Iowa, Powell Farm Partners, Johnny Hensgens

Soil Type:

Variety/Seed Rate: 2026 CLL, CL153/ 33 seed/ft.^{2}

Plot Size: 4 X 16

Planting Method/Date: Drill seeded, May 22

Fertilization: 0-24-24-28 June 9, Preflood K July 1,

Experimental Design: Randomized complete block design with four replications

Water Management: Flushed June 16, Flood July 2

Herbicides: Glyphosate 1.5 qt/A, NIS 1 pt./A Feb. 28
Glyphosate 2 qt/A, Sharpen 2 oz/A, Command 6 oz/A, May 9
Stam 2 qt/A, Permit .33 oz/A, Rice Beaux 2 qt/A, June 9
Stam 2 qt/A, Permit .33 oz/A, Rice Beaux 2 qt/A, June 30

Insecticides: Karate 2 oz/A Aug. 20

Fungicides: See table 12

Inoculation Dates: Natural Inoculum

Application Equipment: CO_2 backpack sprayer, 3 - tip hand wand, 20 gal/A

Application Dates:	Growth Stage	Time	Temp	Wind	RH	Clouds	Dew
Aug. 7	Late Boot	8:15	80°F	3 mph	89%	0%	Heavy

Disease Ratings: See Table 12

Drained: N/A

Harvest: N/A

Results: See Table 12

Comments: Sheath blight severity was high, yield and milling was not determined due to hurricane damage
(Added 1% NIS to each treatment in fungicide trials)

Table 12. Effect of fungicide application on sheath blight (SB) development. Calcasieu, Parish, 2020.

Pest Name				Phyto	SB	SB	SB	SB
Rating Date				Aug-13-2020	Aug-13-2020	Sep-8-2020	Sep-24-2020	Sep-8-2020
Rating Type				Severity	Severity			
Rating Unit				%	0-9	0-9	0-9	% Tiller
Trt No.	Treatment Name	Rate	Rate Unit	Appl Timing				
1	Untreated				0.0-	6.0a	7.3a	7.8a	75-
2	Sercadis	6.8	oz/A	Boot	0.0-	4.0bc	6.5ab	5.8bc	58-
3	Elegia	32	oz/A	Boot	0.0-	3.8bc	6.2ab	6.8abc	59-
4	Artisan	40	oz/A	Boot	0.0-	3.3c	5.2b	5.3c	40-
5	Quilt Xcel	21	oz/A	Boot	0.0-	5.0ab	7.7a	7.3ab	74-
LSD P=.05					.	1.19	1.36 - 1.57	1.43	26.0
Standard Deviation					0.00	0.77	0.06t	0.93	16.9
CV					0.0	17.48	6.34t	14.21	27.69
Levene's F					0.00	0.25	2.44	0.783	1.53
Levene's Prob(F)					0.00*	0.905	0.092	0.554	0.244
Skewness					.	0.5781	0.1328	0.2458	0.1713
Kurtosis					.	-0.4434	-0.8891	-0.9493	-0.9935
Replicate F					0.000	0.225	0.774	0.519	0.498
Replicate Prob(F)					1.0000	0.8769	0.5307	0.6770	0.6904
Treatment F					0.000	8.155	4.217	4.962	2.953
Treatment Prob(F)					1.0000	0.0020	0.0232	0.0136	0.0651

2020 HRCRRS Smut Trial

Trial: RRS Smut Trial

Location: H. Rouse Caffey Rice Research Station, Crowley, LA

Soil Type: Crowley Silt Loam (pH 6.0, Clay 12%, Silt 71%, Sand 17%, CEC 9.4/kg)

Variety/Seed Rate: 100 lb./A

Plot Size: 4 X 16 ft.

Planting Method/Date: Drill Seeded/ June 2

Fertilization: Pre-flood 46-0-0, July 9

Experimental Design: Randomized complete block design with four replications

Water Management: Flushed, June 19; Flooded, July 10; Drained, Sept. 4

Herbicides: Tank-Mix Propenal 3 quarts/A, June 15
Tank-Mix Propenal 4 quarts/A, June 29
Tank-Mix Rice Beaux 3 quarts/A, Proventiy 2/3 oz/A, .25 % COC, July 7
Drone application Clincher 21 oz/A, 8 oz/A COC, July 17

Insecticides: Tank-Mix Dermacor 1.75 oz/A, June 8

Fungicides: See Table 13

Inoculation Dates: None natural inoculum

Application Equipment: CO_2 backpack sprayer, 3-tip (TJ8002) hand wand, 20 gal/A

Application Dates:	Growth Stage	Time	Temp	Wind	RH	Clouds	Dew
Aug. 11	Boot	8:00	78°F	0	90%	0%	Heavy

Disease Ratings: See Table 13

Drained: Sept. 4

Harvest: Oct. 2

Results: See Table 13

Comments: False smut severity was high. Other diseases were very mild.

Table 13. Effect of fungicide application on false smut development, yield and milling. Rice Research Station Crowley Louisiana, 2020.

Pest Name				False Smut		Milling Head	Milling Total
Rating Date				Sep-11-2020	Oct-2-2020	Oct-5-2020	Oct-5-2020
Rating Type				Infestation	YIELD		
Rating Unit				#heads/plot	LB/A	%	%
Trt No.	Treatment Name	Rate	Rate Unit	Appl Timing	1	8	6	5
1	Unsprayed				48.0a	8978-	60.7-	69.0-
2	Artisan		40oz/A	Boot	2.1b	9397-	58.3-	68.3-
3	Artisan		40oz/A	Boot	0.5b	8574-	58.7-	68.7-
	Tilt		5.3oz/A	Boot				
4	Tilt		6oz/A	Boot	1.2b	10372-	59.0-	68.7-
5	Tilt		10oz/A	Boot	0.4b	9737-	60.0-	69.0-
6	Tilt		16oz/A	Boot	0.4b	9058-	59.3-	68.7-
7	Amistar Top		14oz/A	Boot	1.4b	8748-	58.7-	68.3-
8	Elegia		32oz/A	Boot	27.4a	10317-	59.0-	68.7-
9	Elegia		32oz/A	Boot	2.8b	8995-	58.0-	67.7-
	Top MP		15oz/A	Boot				
10	Top MP		15oz/A	Boot	1.3b	9309-	59.3-	69.3-
LSD P=.05					2.26 - 30.11	1606.3 - 1636.6	2.43	1.22
Standard Deviation					0.29t	0.1t	1.42	0.71
CV					49.4t	1.29t	2.4	1.03
Levene's F					1.621	0.715	0.661	0.303
Levene's Prob(F)					0.156	0.691	0.734	0.965
Skewness					1.0764*	-0.0281	0.0944	-0.3836
Kurtosis					0.1022	3.3183*	-0.8421	-0.0385
Replicate F					0.183	5.954	5.420	16.147
Replicate Prob(F)					0.9068	0.0030	0.0144	0.0001
Treatment F					14.650	1.211	0.923	1.243
Treatment Prob(F)					0.0001	0.3288	0.5284	0.3307

GENETIC MAPPING, BREEDING, AND DEVELOPMENT OF NEW STRATEGIES TO IMPROVE RICE DISEASE MANAGEMENT FOR SHEATH BLIGHT AND BACTERIAL PANICLE BLIGHT

J.H. Ham, J.C. Ontoy, J. Bruno, I. Barphagha and D.E. Groth

Introduction

Bacterial panicle blight (BPB) and sheath blight (SB) are serious disease problems in Louisiana rice production. Bacterial plant pathogens, *Burkholderia glumae* and *Burkholderia gladioli* cause BPB, so fungicides are not as effective and there are fewer antibiotic products that are commercially available to manage this disease. Sheath blight is the fungal disease caused by *Rhizoctonia solani*, which can be managed by fungicide application. However, this disease management practice is costly and carries the risk of fungicide resistance. The main goal of this project is to develop new materials and technologies for the management of these disease problems through various approaches, including genetic studies of disease resistance and trials of new disease-suppressing materials. For this goal, three lines of research activities have been performed in this project; 1) genetic mapping of the quantitative trait loci (QTL) associated with BPB and SB, 2) breeding of disease-resistant lines, and 3) development of new chemical and biological materials.

Research Progress in 2020

Our 2020 research included two major parts: 1) QTL analysis of BPB resistance using the genome sequence data of the Bengal/Jupiter RIL population, and 2) Field trials to test the efficacy of biotic and abiotic materials in suppression of BPB.

I. QTL analysis of BPB resistance with the Bengal/Jupiter RIL population

For genetic/genomic studies and breeding of disease resistance, four recombinant inbred line (RIL) populations derived from the crosses between two disease-resistant rice genotypes (i.e. Jupiter and LM-1) and two disease-susceptible rice genotypes (i.e. Trenasse and Bengal) have been made at their $F_{8:10}$ generation. Each population consists of 288-300 RILs, which is enough number for reliable genetic mapping results. In 2020, we performed a genetic study of BPB mostly with the Bengal/Jupiter RIL population. Phenotyping of the RIL population on the BPB resistance trait was conducted in the rice field for a second time this year, after the first one in 2019. Genome sequence data for the 188 selected RILs of the RIL population were obtained from the genomics core facility of the University of Minnesota for QTL analysis through the genotyping-by-sequencing (GBS) approach. Overall, three sets of data for the BPB resistance phenotypes (i.e. two sets of field data from 2019 and 2020 and one set of greenhouse data from 2019) were used for identification of QTLs associated with BPB resistance.

The 188 RILs selected from the Bengal/Jupiter population for QTL mapping, showed significant ranges of variation in BPB trait in all three sets of disease data (Table1). The parent varieties, Bengal and Jupiter, also showed a significant difference in BPB. In addition, normal distribution patterns were observed from the data sets of 2019 greenhouse (GH) and 2020 field (F) (Figure 1).

Table 1. Basic statistics of the phenotypic traits generated from greenhouse and field.

Dataset	Sample Size	Mean	Variance	Std Error	Skewness	Kurtosis	Minimum	Maximum	Range	W-test	P-value
BPB2019_GH	188	6.6059	1.497	1.2235	-1.6921	4.5364	1	9	8	0.8265	0.00E+00
BPB2019_F	188	6.8114	3.1207	1.7666	-0.2868	-1.0156	3	9	6	0.8777	0.00E+00
BPB2020_F	188	5.877	1.4955	1.2229	-0.6308	-0.1715	3	8	5	0.8805	0.00E+00

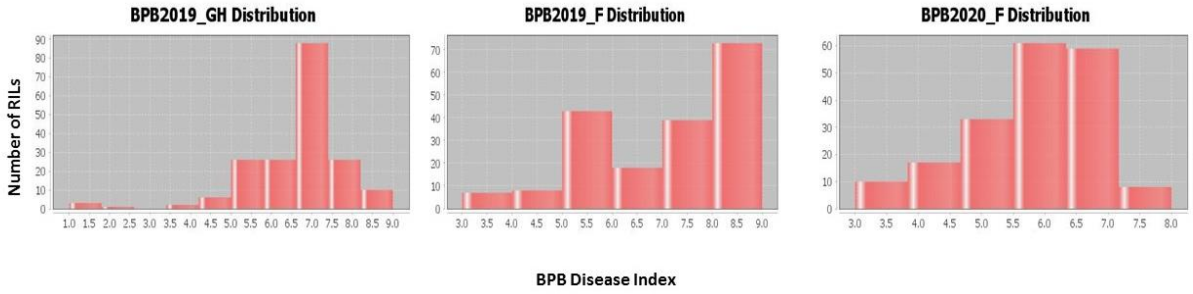


Figure 1. Frequency distributions of the Bengal/Jupiter RIL population for BPB disease score index in three phenotyping trials.

During the phenotyping trials, we have identified six RILs that exhibit stable resistance to BPB (Table 2). These lines showed higher levels of BPB resistance compared to the resistant parent, Jupiter. These RILs are $F_{8:10}$ lines thus considered as good candidates of being a disease resistant variety, as they have been genetically fixed through eight times of generation advancement from single plants.

Table 2. BPB disease scores of the selected RILs of the Bengal/Jupiter RIL population showing superior disease resistance.

	BPB Disease Score		
BJ-F8 RIL#	Greenhouse (2019)	Field (2019)	Field (2020)
2	1.0 ± 0.0	3.0 ± 0.0	3.0 ± 0.0
16	4.3 ± 1.9	3.0 ± 0.0	3.0 ± 0.0
106	5.0 ± 0.0	5.0 ± 0.0	4.0 ± 1.0
124	5.0 ± 1.6	5.0 ± 2.0	5.0 ± 0.0
198	5.7 ± 0.9	5.0 ± 0.0	5.0 ± 0.0
213	4.3 ± 1.9	5.0 ± 0.0	5.0 ± 0.0
227	5.7 ± 0.9	5.0 ± 0.0	5.0 ± 0.0
Jupiter	4.3 ± 0.9	6.0 ± 1.0	5.0 ± 0.0
Bengal	7.0 ± 0.0	8.0 ± 1.0	7.0 ± 0.0

For getting high-throughput DNA sequence data for GBS of the Bengal/Jupiter RIL population, genomic DNA of 188 individual RILs was extracted and sent to the University of Minnesota Genomics Lab. GBS raw reads were generated using Illumina GBS NextSeq 1 x 150 bp with 1.9M reads per sample. Quality of sequence reads of the RILs was examined using FastaQC. The mean quality score was >=30 and read coverage was 25X. Adapter sequences were trimmed with the software Trimmomatic using default parameters. Then, trimmed sequences were mapped to the International Rice Genome Sequence Project (IRGSP) pseudomolecules version 7 of the reference genome of Japonica cultivar, Nipponbare, using BWA-MEM with its default parameter. SAM files were sorted and converted to BAM using Picard tools. Variant calling and generating of variant call format (VCF) were conducted using GATK Haplotypecaller. VCFs were comparatively analyzed by using vcftools. The variant list was separated into SNPs and InDels where the SNPs list was further filtered to generate a list of polymorphic SNPs between Bengal and Jupiter. From 38,855 SNPs, 2,646 polymorphic SNPs were identified between Bengal and Jupiter, using the TASSEL program (Table 3).

Table 3. Variants and SNPs identified from the GBS data of the 188 Bengal/Jupiter RILs.

Chromosome	Length	Variants	Variants rate	Chromosome	Number of Polymorphic SNPS (Q= >25)
1	43,270,923	4,669	9,267	1	610

Continued.

Table 3. Continued.

2	35,937,250	4,124	8,714	2	181
3	36,413,819	3,213	11,333	3	183
4	35,502,694	3,327	10,671	4	385
5	29,958,434	2,129	14,071	5	186
6	31,248,787	3,197	9,774	6	265
7	29,697,621	2,583	11,497	7	203
8	28,443,022	2,600	10,939	8	9
9	23,012,720	2,325	9,897	9	101
10	23,207,287	2,951	7,864	10	32
11	29,021,106	5,140	5,646	11	467
12	27,531,856	2,597	10,601	12	24
Total	**373,245,519**	**38,855**	**9,606**	**Total**	**2,646**

These polymorphic SNPs identified from the GBS analysis were used to build the linkage map and QTL analysis using the QTL IciMapping software v. 4.2.53. Four QTLs associated with BPB scores were detected in chromosomes 1, 8, and 9 from the 2019 greenhouse data, while six QTLs were identified in chromosomes 1, 2, 3, 6, 11, and 12 from the 2019 & 2020 field data (Table 4). However, no QTL was detected twice or more among the three sets of BPB phenotype data. Nevertheless, the QTL identified on the chromosome 3 is overlapped with the QTL previously identified from the Trenasse/Jupiter RIL population (Table 4).

Table 4. QTL analysis of the Bengal/Jupiter RILs using inclusive composite interval mapping.

Trait Name	Chromosome	Position	Left Marker	Right Marker	LOD	PVE(%)
BPB2019_GH	1	660	S01_33090048	S01_35258401	2.8349	3.5027
BPB2019_GH	8	137	S08_4020006	S08_17891195	5.6588	3.4289
BPB2019_GH	9	81	S09_9718644	S09_10362303	25.2657	5.9381
BPB2019_GH	9	83	S09_10406526	S09_10448999	35.2042	9.0497
BPB2019_F	1	769	S01_38847770	S01_38853171	2.527	7.2927
BPB2019_F	2	1148	S02_24278688	S02_24485531	4.6104	1.5376
BPB2019_F	3	53	S03_799841	S03_5369525	3.6558	7.4221
BPB2020_F	6	160	S06_26043651	S06_29657214	3.4995	0.9614
BPB2020_F	11	180	S11_19634936	S11_19948423	3.7259	4.793
BPB2020_F	12	177	S12_20816645	S12_22671010	2.825	4.8829

Candidate genes related to disease resistance or defense system within each QTL were identified based on gene ontology (GO) terms (Tables 5, 6, and 7 for QTLs from each of three datasets, respectively).

Table 5. Disease resistance or defense related genes found in the QTLs associated with BPB resistance in the greenhouse condition in 2019.

Name	GO terms	Description (Direct description or transfer from target)
LOC_Os08g10260	GO:0006952 defense response	NBS-LRR disease resistance protein, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os01g57340	GO:0006952 defense response	rp1, putative, expressed

Continued.

Table 5. Continued.

	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g28540	GO:0006952 defense response	---
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g28460	GO:0006952 defense response	---
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g07774	GO:0006952 defense response	disease resistance protein RPM1, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g09430	GO:0006952 defense response	disease resistance protein RPM1, putative
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g07940	GO:0006952 defense response	disease resistance protein RPM1, putative
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g16120	GO:0006952 defense response	disease resistance protein RPM1, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os01g58530	GO:0006952 defense response	NB-ARC/LRR disease resistance protein, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g20000	GO:0006952 defense response	NB-ARC domain containing protein, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g16460	GO:0006952 defense response	NBS-LRR disease resistance protein, putative
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
	GO:0005515 protein binding	
LOC_Os01g58510	GO:0006952 defense response	NB-ARC domain containing protein
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os01g57280	GO:0006952 defense response	rp1, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g12740	GO:0006952 defense response	disease resistance protein RGA3, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
	GO:0005515 protein binding	

Continued.

Table 5. Continued.

LOC_Os08g28570	GO:0006952 defense response	---
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os01g57870	GO:0006952 defense response	disease resistance protein RPS2, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g24380	GO:0006952 defense response	NB-ARC domain containing protein, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g10430	GO:0006952 defense response	NBS-LRR disease resistance protein, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g07380	GO:0006952 defense response	retrotransposon protein, putative, unclassified, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
	GO:0003676 nucleic acid binding	
	GO:0008270 zinc ion binding	
LOC_Os08g07340	GO:0006952 defense response	mla1, putative
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g28600	GO:0006952 defense response	---
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os01g57270	GO:0006952 defense response	disease resistance RPP13-like protein 1, putative, expresse d
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g13800	GO:0006952 defense response	NB-ARC domain containing protein
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g14830	GO:0006952 defense response	NB-ARC domain containing protein
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g16070	GO:0006952 defense response	NB-ARC domain containing protein
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g07950	GO:0006952 defense response	NB-ARC domain containing protein, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g09110	GO:0006952 defense response	NB-ARC domain containing protein, expressed
	GO:0006915 apoptosis	

Continued.

Table 5. Continued.

	GO:0005524 ATP binding	
LOC_Os08g15880	GO:0006952 defense response	NBS-LRR disease resistance protein, putative
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g28670	GO:0006952 defense response	---
	GO:0009607 response to biotic stimulus	
LOC_Os08g19694	GO:0006952 defense response	NB-ARC domain containing protein, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g07930	GO:0006952 defense response	resistance protein, putative
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g19980	GO:0006952 defense response	NBS-LRR disease resistance protein, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os09g16000	GO:0006952 defense response	---
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
	GO:0005515 protein binding	
LOC_Os08g14850	GO:0006952 defense response	resistance protein, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g07890	GO:0006468 protein amino acid phosphorylation	NB-ARC domain containing protein
	GO:0006915 apoptosis	
	GO:0006952 defense response	
	GO:0004674 protein serine/threonine kinase activity	
	GO:0004713 protein tyrosine kinase activity	
	GO:0005524 ATP binding	
LOC_Os08g07330	GO:0006952 defense response	RGH1A, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os08g10440	GO:0006952 defense response	NBS-LRR disease resistance protein, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os01g57310	GO:0006952 defense response	rp1, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	

Table 6. Disease resistance or defense related genes found in the QTLs associated with BPB resistance in the 2019 field condition.

Name	GO terms	Description (Direct description or transfer from target)
LOC_Os03g03910	GO:0055114 oxidation reduction	---
	GO:0006979 response to oxidative stress	
	GO:0020037 heme binding	
	GO:0004096 catalase activity	
LOC_Os03g10220	GO:0008168 methyltransferase activity	methyladenine glycosylase, putative
	GO:0006284 base-excision repair	
	GO:0032259 methylation	
	GO:0003676 nucleic acid binding	
	GO:0008725 DNA-3-methyladenine glycosylase I activity	
LOC_Os03g03810	GO:0006952 defense response	---
LOC_Os03g05770	GO:0055114 oxidation reduction	---
	GO:0004601 peroxidase activity	
	GO:0020037 heme binding	
	GO:0006979 response to oxidative stress	
LOC_Os03g08900	GO:0006855 multidrug transport	MATE efflux family protein, putative, expressed
	GO:0016020 membrane	
	GO:0015297 antiporter activity	
	GO:0015238 drug transmembrane transporter activity	
LOC_Os03g02939	GO:0055114 oxidation reduction	peroxidase precursor, putative, expressed
	GO:0004601 peroxidase activity	
	GO:0020037 heme binding	
	GO:0006979 response to oxidative stress	
LOC_Os03g02920	GO:0055114 oxidation reduction	peroxidase precursor, putative, expressed
	GO:0004601 peroxidase activity	
	GO:0020037 heme binding	
	GO:0006979 response to oxidative stress	
LOC_Os03g08800	GO:0010038 response to metal ion	CutA, chloroplast precursor, putative, expressed

Table 7. Disease resistance or defense related genes found in the QTLs associated with BPB resistance in the 2020 field condition.

Name	GO terms	Description (Direct description or transfer from target)
LOC_Os06g45690	GO:0006952 defense response	symbiosis-related disease resistance protein, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	

Continued.

Table 7. Continued.

LOC_Os12g36830	GO:0006952 defense response	pathogenesis-related Bet v I family protein, putative, expressed
	GO:0009607 response to biotic stimulus	
LOC_Os06g43670	GO:0006952 defense response	Leucine Rich Repeat family protein, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
	GO:0005515 protein binding	
LOC_Os12g36850	GO:0006952 defense response	pathogenesis-related Bet v I family protein, putative, expressed
	GO:0009607 response to biotic stimulus	
LOC_Os06g47800	GO:0006952 defense response	disease resistance protein RGA3, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os12g36840	GO:0006952 defense response	pathogenesis-related Bet v I family protein, putative, expressed
	GO:0009607 response to biotic stimulus	
LOC_Os12g36880	GO:0006952 defense response	pathogenesis-related Bet v I family protein, putative, expressed
	GO:0009607 response to biotic stimulus	
LOC_Os12g36860	GO:0006952 defense response	pathogenesis-related protein 10, putative, expressed
	GO:0009607 response to biotic stimulus	
LOC_Os12g36720	GO:0006952 defense response	RGH1A, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os12g36730	GO:0006952 defense response	stripe rust resistance protein Yr10, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	
LOC_Os12g36690	GO:0006952 defense response	mla1, putative, expressed
	GO:0006915 apoptosis	
	GO:0005524 ATP binding	

II. Field trials to test the efficacy of biotic and abiotic materials in suppression of BPB and SB

In 2020, the rice cultivars CL111 and Bengal were used to evaluate the efficacy chitosan, ascorbic acid (AA), N-acetyl-L-cysteine (NAC), and the biological agents (A257, REB1044 and RPBNT5) in the field.

Procedures

For the CL111 var., the application of the different treatments and the inoculation of the pathogen, *B. glumae* were conducted during the flowering stage of the rice plants. The treatments imposed were as follow:

T1 - No pathogen inoculation / No treatment
T2 - Pathogen inoculation / No treatment
T3 - Pathogen inoculation / AA (200 uM) before inoculation
T4 – Pathogen inoculation / AA (1 mM) before inoculation
T5 – Pathogen inoculation / Chitosan (0.1%) before inoculation (in 0.1% lactic acid)
T6 – Pathogen inoculation / NAC (200 uM) before inoculation

T7 – Pathogen inoculation / Chitosan (0.1%) + AA (200 uM) before inoculation
T8 – Pathogen inoculation / Chitosan + AA (1 mM) before inoculation
T9 – Pathogen inoculation / 0.1% lactic acid (control for T5)
T10 – Pathogen inoculation / A257 before inoculation
T11 – Pathogen inoculation / REB1044 + RPBNT5 before inoculation
T12 – Pathogen inoculation / REB1044 + RPBNT5 after inoculation
T13 – Pathogen inoculation / AA (200 uM) after inoculation
T14 – Pathogen inoculation / AA (1 mM) after inoculation
T15 – Pathogen inoculation / NAC (200 uM) after inoculation.

Treatments T1 to T11 were applied to the rice plants one day before the inoculation of bacterial panicle blight pathogen *B. glumae*, while treatments T12 to T15 were applied one day after inoculation. One day-old culture of *B. glumae* strain 336gr-1 was used for pathogen inoculation in a form of bacterial suspension at the concentration of ~ 10^8 bacterial cells per ml for spraying onto the plants. All the treated materials were applied by spraying.

The Bengal variety on the other hand, was inoculated with *B. glumae* at the booting stage of the rice plants. Unlike CL111, Bengal plants were inoculated with the pathogen using a metal brush dipped in the inoculum suspension for ensuring pathogen infection through mechanical wounds. The treated materials were applied one day before, or after, pathogen inoculation by spraying like in CL111.

Disease rating was conducted one week after pathogen inoculation for both cultivars using a 0-9 scale scheme from IRRI (2002) with some modifications. The scale indicates: 0 = no damage in panicle, 1 = less than 10% damage in panicle, 3 = 10-30% damage in panicle, 5 = 30-50% damage in panicle, 7 = 50-80% damage in panicle, and 9 = 90-100% damage in panicle. The disease severity was scored every week after the inoculation. Each plot per treatment was divided into 4 quadrants and from these quadrants 4 disease scores were recorded. This experiment was done in a randomized complete block design (RCBD) with four replications/blocks per treatment.

Results

In CL111, T1 (No inoculation / No treatment), T10 (A257 before inoculation) and T12 (B1 + B2 after inoculation) showed less than 10% disease severity at 7 days after inoculation (DAI) (Fig. 2A). At 14 DAI, T1, T10, T12 and T14 (AA (1 mM) after inoculation) showed significantly lower disease severity than other treatments (Fig. 2B). At 21 DAI (Fig. 2C), T1, T10 and T14 showed significantly lower disease severity than other treatments. T10 was most effective in disease suppression (Fig. 2C). Fig. 2D presents disease progress curves for each treatment during the three weeks after pathogen inoculation. All the treatments, except T3 (AA 200 uM before inoculation), showed significant reduction of disease development compared with the non-treated control (T2), among which T10 (A257 before inoculation) and T14 (AA 1 mM after inoculation) were most effective (Fig. 2).

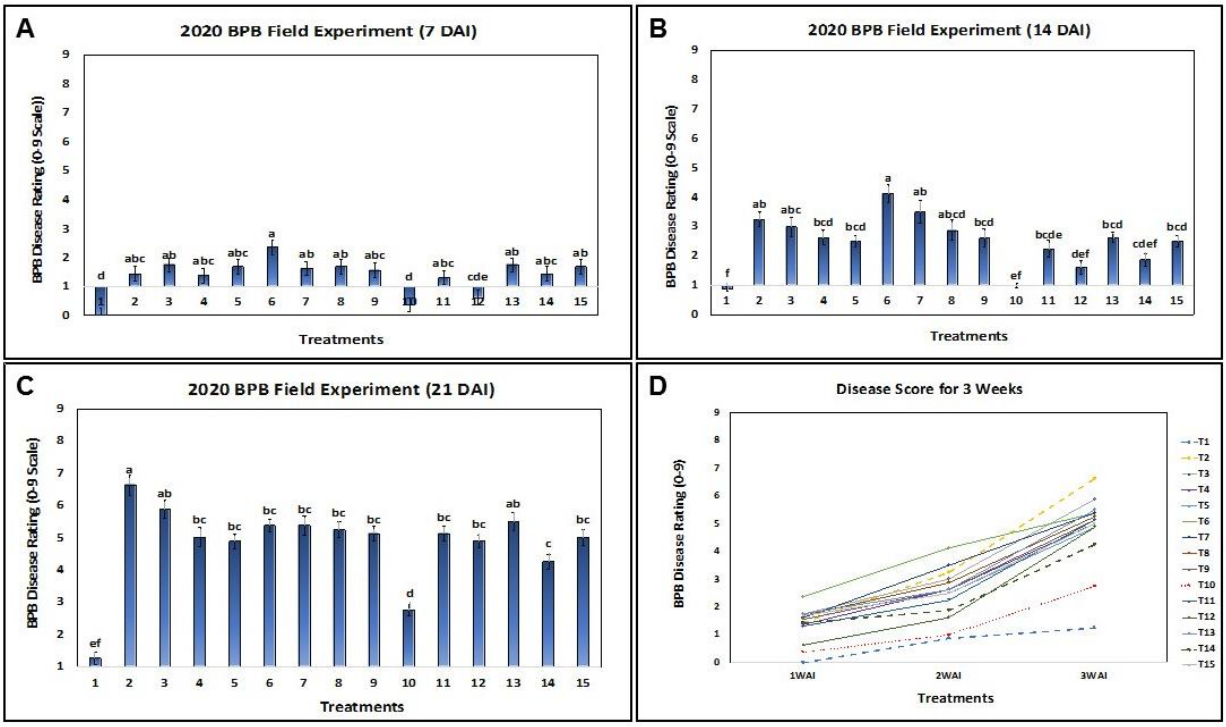


Figure 2. Evaluation of various biotic and abiotic treatments in their BPB suppression efficacy on the rice variety CL 111 in the field condition. Disease severity of bacterial panicle blight was evaluated in the field 7 days after inoculation (DAI) (A), 14 DAI (B) and 21 DAI (C). The disease scores of each treatment, which were recorded for 3 weeks, were also shown (D). Disease severity on the rice panicles was rated using the modified 0-to-9 scale schemes from IRRI (2002). Each error bar indicates standard error from four replications and the letters above individual columns indicate significant differences with $P < 0.05$ according to Fisher's LSD.

In the trial with Bengal varieties, all treatments showed no significant difference at 7 DAI, except for T1 (No inoculation / No treatment) and T2 (pathogen inoculation / No treatment) (Fig. 3A). At 14 DAI, T1, T2, T5, T10 and T15 had significant differences among the treatments. The uninoculated control (T1) had the least disease severity score (1.0), followed by T10 with an average disease score of 2.3. On the other hand, T2 had the highest score of 4.3 (Fig. 3B). At 21 DAI, T1 and T10 showed significant differences among other treatments with a disease severity score of 2.9 and 3.9, respectively. In contrast, the disease of the pathogen inoculation /no treatment control (T2) progressed to an average of 7.3 (Fig. 3C). The 3-week disease severity scores of each treatment (21 DAI) was shown in Fig. 3D, in which the pattern was similar to that of the CL111 variety. Treatment of A257 (T10) was most effective in disease suppression, showing a significantly lower disease score than any other treatments (Fig. 3C). Additionally, all treatments tested in this trial showed significant disease suppression efficacy compared to the pathogen inoculation/no treatment control (T2) (Fig. 3).

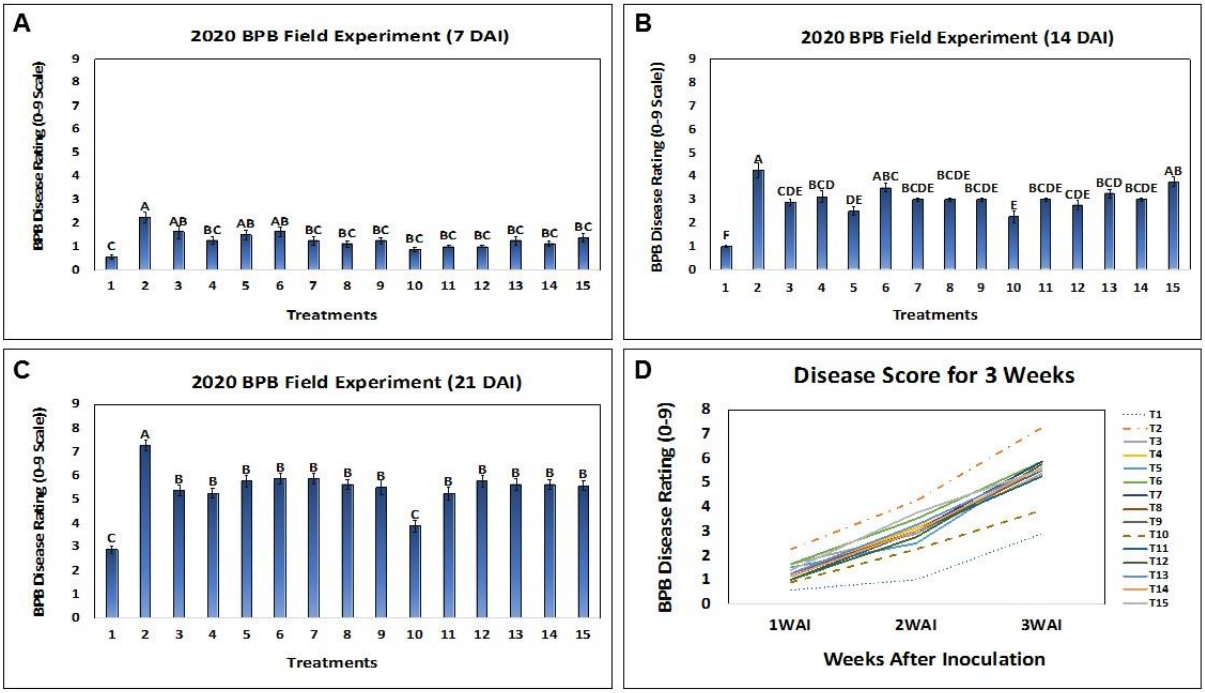


Figure 2. Evaluation of various biotic and abiotic treatments in their BPB suppression efficacy on the rice variety Bengal in the field condition. Disease severity of bacterial panicle blight was evaluated in the field 7 days after inoculation (DAI) (A), 14 DAI (B) and 21 DAI (C). The disease scores of each treatment, which were recorded for 3 weeks, were also shown (D). Disease severity on the rice panicles was rated using the modified 0 to 9 scale schemes from IRRI (2002). Each error bar indicates standard error from four replications and the letters above individual columns indicate significant differences with $P < 0.05$ according to Fisher's LSD.

***Reference for BPB disease score:** IRRI (2002) Standard Evaluation System for Rice. International Rice Research Institute, Los Baños, Philippines.

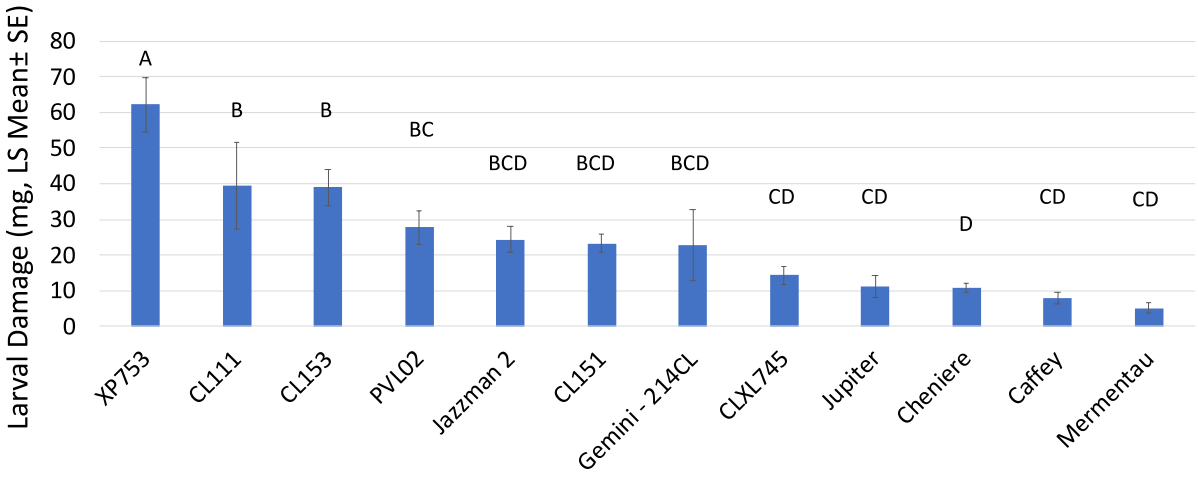
RICE INSECTS RESEARCH

VARIETAL EFFECTS ON STORED RICE PESTS

E.M. Doherty, B.E. Wilson and Q. Sun

Due to fluctuating market prices, rice growers are increasingly using on-site grain bins, and pests of stored rice, like the lesser grain borer and rice weevil, are becoming a larger problem. However, rice varieties are not equally susceptible to stored rice pests. We tested susceptibility to rice weevils across 13 varieties of rice, which included some of the most commonly grown varieties in Louisiana and some recent experimental varieties. Varieties were tempered to 12% moisture content and placed into vials with 10 mixed-sex rice weevils. Each vial contained 24 g of rice and was placed in a growth chamber at 28°C. After 2 weeks, the introduced adults were removed. Progeny that emerged from the were removed every two days, and after 2 months damage to the sample weighed by sieving the sample. One-way ANOVAs and Student's t-tests ($\alpha = 0.05$) were done in JMP 15. Differences among varieties were detected ($F_{11,103} = 6.19$, $p < 0.001$) (Figure 1).

Figure 1. Damage to rice samples (N=312) by rice weevil larvae. Different letters indicate significant differences between varieties.



SCREENING OF ADVANCED RICE LINES IN THE VARIETY DEVELOPMENT PROGRAM FOR SUSCEPTIBILITY TO INSECT PESTS

B.E. Wilson, J.M. Villegas and K.J. Landry

Rice varieties vary in susceptibility to key insect pests, including the rice water weevil (RWW), *Lissorhoptrus oryzophilus*, and the Mexican rice borer (MRB), *Eoreuma loftini*. Determination of the level of susceptibility can help better protect rice varieties to optimize yields. Advanced lines in the Louisiana varietal development program are screened for susceptibility prior to, and shortly after, their commercial release.

Lines screened in 2020 included experimental lines LA2140, PV2074, PV2140, and PV2174, along with recently released CLL17 and PVL02. A known RWW-resistant variety Jefferson and RWW-susceptible varieties such as Jupiter were included as standard controls. Varieties were planted to 0.0016-acre plots on May 28. Two soil cores were collected from each plot on Aug 4, and Aug. 11 for determination of RWW larval infestations. Whiteheads (blanked panicles) caused by MRB were counted September 9. Plots were harvested for yield data on October 22. All data were analyzed with generalized linear mixed models.

RWW infestations differed among cultivars at both sampling dates (Table 1) and were greatest in the susceptible standard, Jupiter. Advanced lines in the Provisia group demonstrated similar levels of RWW resistance to Jefferson. Conversely, the advanced Provisia lines were highly susceptible to MRB and had a 4- to 5-fold greater number of whiteheads than more resistant lines. LA2140 appeared to have intermediate levels of susceptibility to both pests. Rice yields were severely impacted by Hurricane Laura and data are not present.

Table 1. Rice water weevil and stem borer infestations as influenced by rice variety, Crowley, LA, 2020

	RWW larvae/core		Whiteheads/plot
Variety	**4 Aug (±4.8 [SE])**	**11 Aug (±3.7 [SE])**	**(±9.1 [SE])**
Jupiter	44.0 a	41.0 a	3.7 abc
CLL17	30.4 ab	22.8 b	1.5 c
LA2140	29.5 ab	21.0 b	3.7 abc
PVL02	28.0 ab	16.4 b	1.4 c
Jefferson	26.6 b	15.4 b	2.7 bc
PV2074	24.4 b	16.4 b	4.4 ab
PV2178	23.6 b	19.1 b	6.2 a
PV2174	21.0 b	13.1 b	7.5 a
F =	4.20	11.54	5.64
Df =	7, 21	7, 21	7, 21
P =	0.005	<0.001	<0.001

EFFECTS OF SEED TREAMENTS AND FOLIAR INSECTICIDE ON RICE BILLBUG IN LOUISIANA FURROW-IRRIGATED RICE

J.M. Villegas, B.E. Wilson, S.A. Brown and J.T. Copes

The rice billbug is a pest of various crops, including wheat, barley, corn and sugarcane, but has recently become an increasing concern in furrow-irrigated (row rice) in Louisiana. Generally, rice billbug larvae feed at the base of rice plants resulting in plant death in younger rice plants or whiteheads (blank panicles). Not much is known about the control of rice billbug in row rice. A field trial was conducted in 2020 at the LSU AgCenter Northeast Research Station in St. Joseph, Louisiana, to investigate the efficacy of insecticidal seed treatments and foliar applied insecticide against rice billbugs. Hybrid rice cultivar RT7521 FP was planted at a seeding rate of 25 lb/acre on May 1, in plots measuring 6 x 16 ft with two rows at 3-ft spacing. Seeds were treated with two rates (label and 8-fold label rates) of Cruiser 5FS (AI: thiamethoxam), two rates (label and 2-fold label) of Dermacor X-100 (AI: chlorantraniliprole), labeled rates of Fortenza (AI: cyantraniliprole) and NipsIt (AI: clothianidin), a combination of standard rates of Dermacor X-100 and Cruiser5FS, and a combination of standard rates of Fortenza and Cruiser 5FS. In addition to seed treatments, foliar application of Belay (AI: clothianidin) was conducted on July 1, using a CO_2-pressurized backpack sprayer calibrated to deliver 15 gpa at 30 psi. The sprayer was equipped with three Teejet TP11001 nozzles at 8-inch spacing. The insecticide treatments, including the nontreated control, were arranged in a randomized block design with four replicates. Plots were maintained in accordance with recommended fertilization, weed control and other agronomic practices for furrow-irrigated rice production in Louisiana. Plant stand was evaluated a few weeks after planting by counting the number of rice plants in the middle of a row, per plot (10-ft). One root/soil core sample per plot, which contained a minimum of one rice plant with intact roots, were taken on July 1 to determine the densities of rice water weevils. Core samples were processed by washing the soil from roots in sieve mesh buckets that were then placed in basins of saltwater solution. Immature weevils were counted as they floated to the surface. Billbug injury was assessed by recording the total number of whiteheads/blank panicles in each plot at 100% heading on September 4. At grain maturity, entire plots were harvested with a small-plot combine and rough rice grain weights were adjusted to 12% moisture. Data was analyzed separately using generalized linear mixed models with insecticide treatment as fixed effect and block as a random effect using PROC GLIMMIX in SAS. Means were separated using Tukey's HSD.

Plant stands did not differ among treatments (data not shown). Similarly, rice water weevil densities did not differ among treatments, but densities were very low (<1 per core). Insecticide treatments influenced the density of billbug injury (Table 1). Application of Belay, a high rate of Dermacor X-100, and a high rate of Cruiser 5FS resulted in lower whitehead density than untreated or NipsIt plots. Higher yields were observed in plots treated with Belay compared with NipsIt, but there were no differences in yields among other treatments.

Table 1. Rice billbug injury (whiteheads) and rice yield as affected by insecticide treatments, St. Joseph, Louisiana, 2020.

Treatment/formulation	Rate/acre (fl oz)	Whitehead (per m^2)	Yield (kg/ha)
Cruiser 5FS	0.92	2.7abc	9087.8.0ab
Cruiser 5FS	7.36	1.1de	9318.5ab
Dermacor	1.5	2.0bcd	9288.7ab
Dermacor	3	1.3de	9669.1ab
Fortenza	0.87	2.2bcd	9032.3ab
NipsIt	0.48	3.5a	7917.0b
Dermacor + Cruiser 5FS	1.5 + 0.92	1.7cde	9647.7ab
Fortenza + Cruiser 5FS	0.87 + 0.92	3.3ab	9080.7ab
Belay	4.0	0.4e	10433.8a
Nontreated Control	-	3.0abc	9361.8ab
F		13.04	2.67
P		<0.01	0.02

Means within a column followed by the same letter are not significantly different (P>0.05, Tukey's HSD).

MONITORING MEXICAN RICE BORER EXPANSION

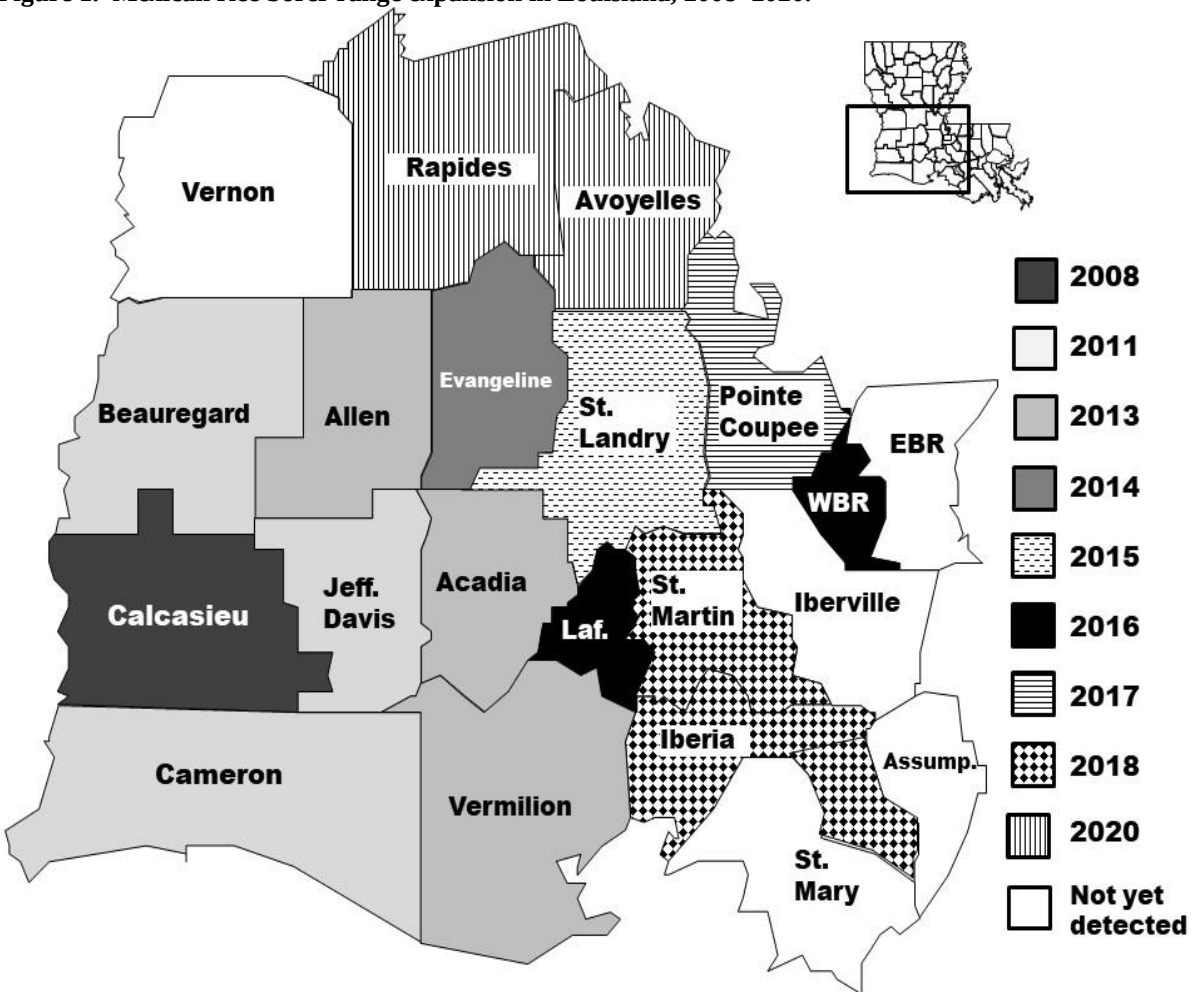
Blake Wilson

The Mexican rice borer (MRB), *Eoreuma loftini* (Lepidoptera: Crambidae), is a damaging pest of sugarcane and rice in Texas, which has been expanding its range eastward along the Gulf Coast since 1980. The pest first reached Louisiana in 2008 and infested rice fields in the western most production regions by 2012. Eastward and northward range expansion is monitored with pheromone traps. These traps attract male moths and are effective at detecting the pest even at very low population densities. The MRB is now present in 16 Louisiana parishes, with new detections made in Rapides and Avoyelles in 2020 (Fig. 1). This expansion is consistent with previous observations indicating eastward movement of approximately 15 miles per year. However, the Rapides Parish finding is the northern-most detection in the U.S. While the species is originally from sub-tropical regions, the northern limit of its distribution is unknown. Further northward expansion towards rice production regions in the Mississippi River Delta is anticipated.

The MRB frequently infests rice in higher numbers in areas where the species has been established for several years. Economically damaging infestations are common in Calcasieu, Cameron, Jefferson Davis and Acadia parishes when the pest is not controlled. Dermacor X-100 seed treatment is effective against MRB and other stem borers. Alternatively, foliar applications of pyrethroids can be effective if timed before larvae are feeding internally in rice stems.

Eradication of the MRB, or prevention of further spread, is not thought to be possible due to the species extensive use of weedy-grass hosts, including johnsongrass and vaseygrass. However, care should be taken to avoid human-mediated introductions. Avoid moving rice straw, sugarcane, hay, or other grass material from infested regions to uninfested regions.

Figure 1. Mexican rice borer range expansion in Louisiana, 2008–2020.



EFFECTS OF PLANTING DATE ON RICE WATER WEEVIL DENSITY AND STEM BORER INJURY

J.M. Villegas, B.E. Wilson, K.J. Landry and M.J. Stout

The rice water weevil is the most destructive, early-season pest of rice in the United States. A complex of stem boring lepidopteran pests has long been reported to attack Louisiana rice, and infestations have been increasing in recent years. This study was conducted to examine the effects of planting date and cultivar on rice water weevil density, stem borer injury (whiteheads) and corresponding impact on rice yields. Field experiments were conducted at the H. Rouse Caffey Rice Research Station (HRCRRS) in Crowley, Louisiana, from 2018 to 2020. Six cultivars grown in Louisiana (CL151, Cheniere, Cocodrie, Jazzman-2, Jupiter and PVL01) were drill-planted in field plots measuring 4.1 × 18 ft with seven rows at 7-inch spacings on six planting dates per year between March 1 and May 31. Plots were left untreated and were laid out following a randomized block design with four blocks and one replicate per block. Permanent flood was established at 4 to 5 weeks after planting. Rice water weevil densities were determined by taking core samples from each plot at 3 to 4 weeks after permanent flood was established. Injury caused by stem borer infestations was assessed by recording the total number of whiteheads at 100% heading. At grain maturity, entire plots were harvested by a small-plot combine and grain weights were adjusted to 12% moisture. Weevil densities, whitehead densities, and yields were analyzed using generalized linear mixed models (SAS PROC GLIMMIX). Prior to analysis, planting dates across years were grouped to March 1–16, March 17–31, April 1–15, April 16–30, May 1–16, and May 17–31. Weevil densities were also analyzed using a repeated-measure model to account for multiple sampling date.

Weevil densities did not vary across planting dates ($F_{5, 46} = 1.82$; $P = 0.13$) (Fig. 1A). Stem borer injury was influenced by planting date ($F_{5, 46} = 4.55$; $P = 0.002$). Whitehead densities increased at later plating dates, particularly those that were planted May 17–31 (Fig. 1B). Rice yields were also influenced by planting date ($F_{5, 36} = 3.07$; $P = 0.02$). Yields were generally lower at later planting dates (Fig. 1C). Consistent with previous studies, Jupiter remained susceptible to the rice water weevil ($F_{5, 46} = 3.6$; $P = 0.008$) (Fig. 2A). There were also differences on stem borer injury among cultivars ($F_{5, 47} = 8.12$; $P < 0.001$). PVL01 appeared to be the most susceptible to stem borers indicated by high whitehead densities observed in this cultivar (Fig. 2B). Yields did not vary among rice cultivar ($F_{5, 34} = 0.42$; $P = 0.89$). Our results suggest substantial reductions in yields, at later planting dates, due to consistently high infestations of rice water weevils and increased pressure of stem borers later in the planting season. Necessary precautions should be taken if a later planting is unavoidable.

Figure 1. Rice water weevil density, whitehead density, and yield as affected by planting date, 2018 – 2020.

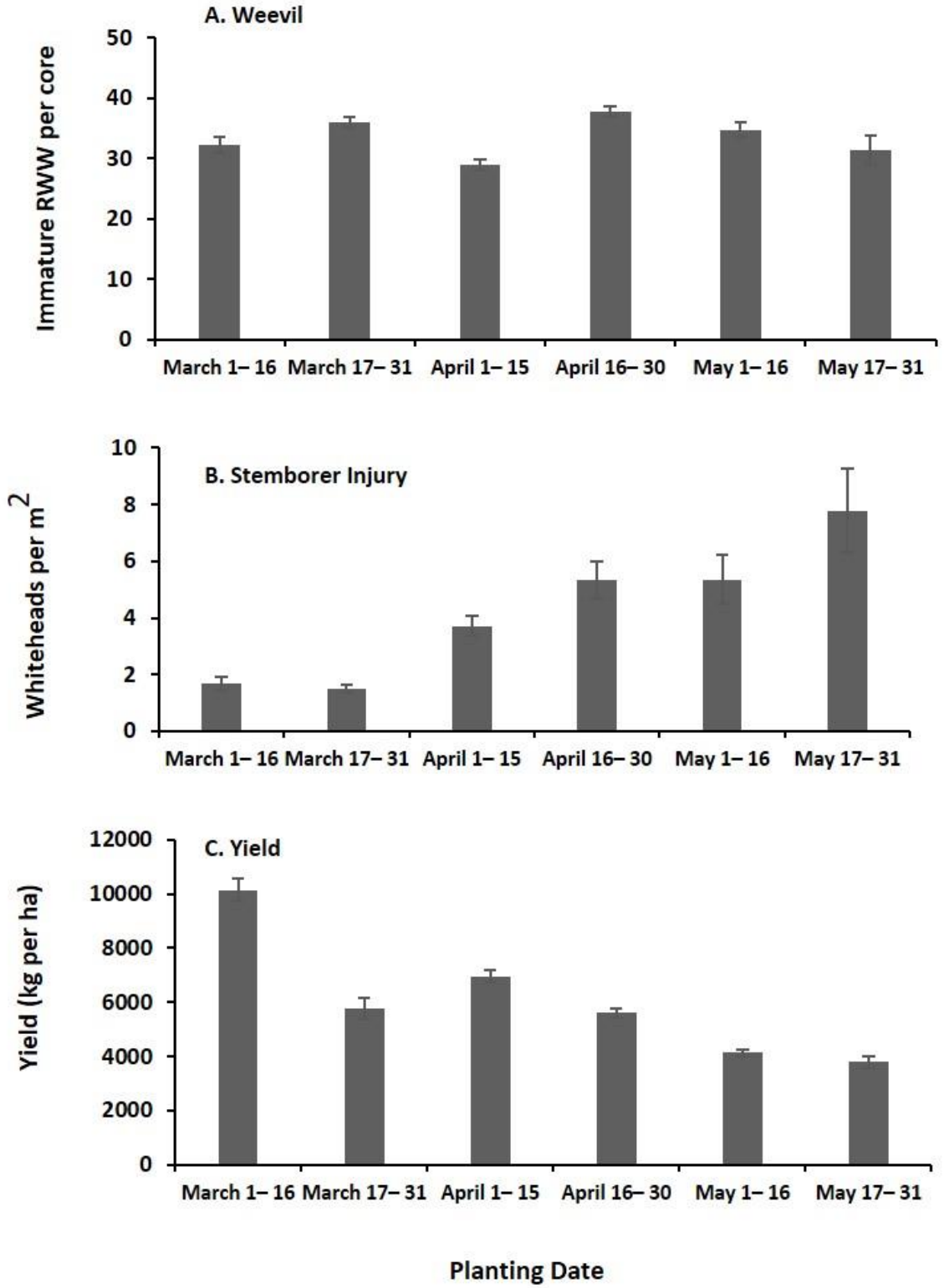
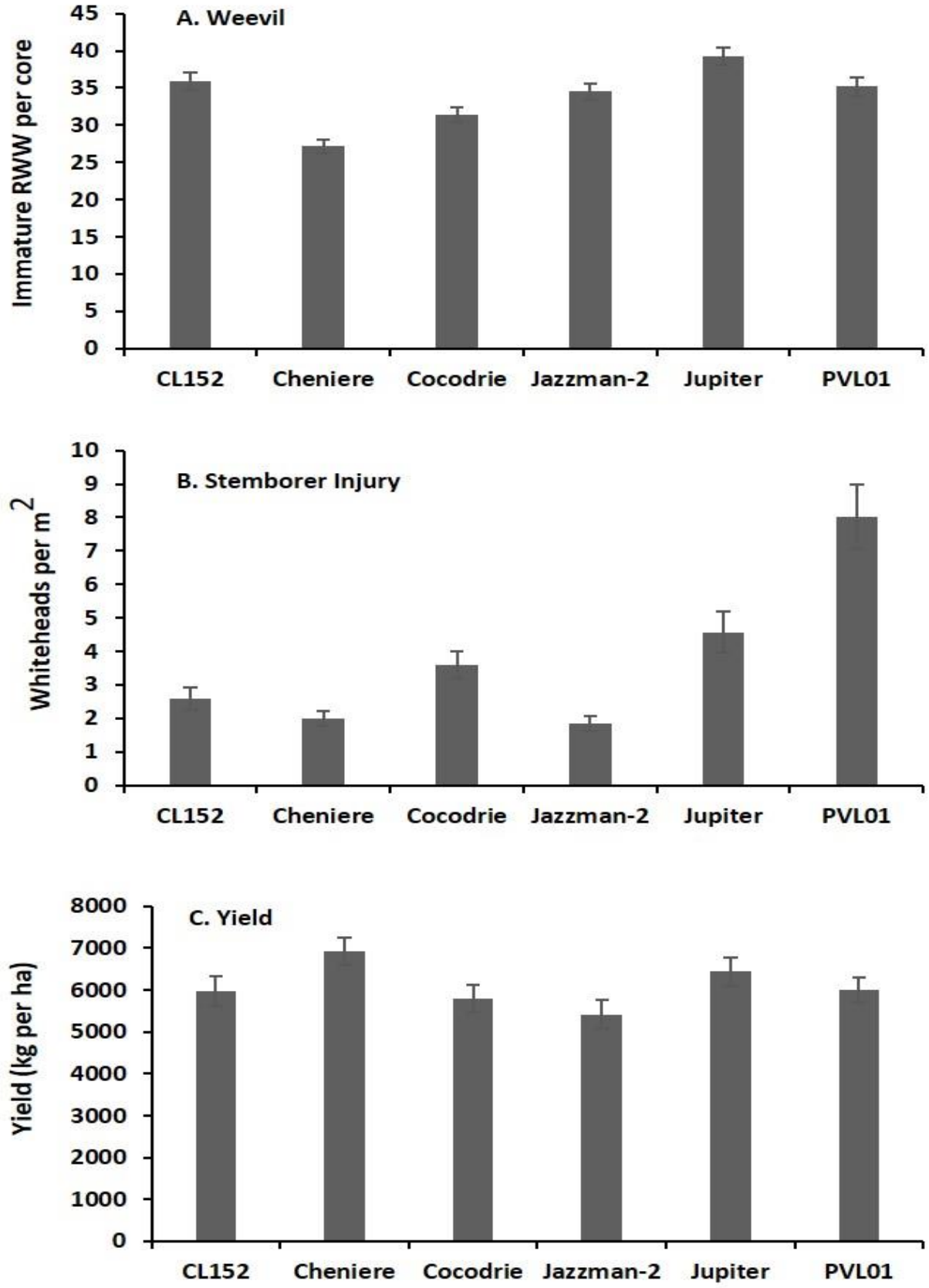


Figure 2. Rice water weevil density, whitehead density, and yield as affected by rice cultivar, 2018 – 2020.



EFFICACY OF SEED TREATMENT COMBINATIONS AGAINST RICE WATER WEEVIL AND STEM BORERS

J.M. Villegas, B.E. Wilson and K.J. Landry

The efficacy of insecticidal seed treatments and their combinations against rice water weevil (RWW) and stem borers was evaluated at the LSU AgCenter H. Rouse Caffey Rice Research Station (HRCRRS) in Crowley, Louisiana, and a producer's field in Iowa, Louisiana, in 2020. In both locations, rice seeds were drill-planted in field plots measuring 4.1 x 18 ft with seven rows at 7-inch spacings. A randomized complete block design was employed with five blocks and one replicate per block. Prior to planting, rice seeds were treated with NipsIt alone, Cruiser Maxx (CM) + Vibrance (V), Cruiser + Vibrance RST (VRST), Cruiser Maxx Rice (CMR) + Vibrance + Dermacor X-100 (Derm), Cruiser Maxx Rice + Vibrance (Vibr) + Fortenza (Fort), Vibrance RST + Fortenza, Dermacor alone, and a nontreated control. Plots were surface irrigated as necessary to facilitate plant growth. Fertilization and other agronomic practices were conducted based on standard recommendations made by the LSU AgCenter. At grain maturity, entire plots were harvested with a small-plot combine and the grain weight was adjusted to 12% moisture. Field plots were harvested in Crowley, but not in Iowa. Table 1 shows the field activities and corresponding dates.

Plant stands (number of rice plants per ft^2) were assessed when rice plants started to tiller. Two 1 x 1 ft square rods were randomly placed in each plot and the number of individual plants inside each square was counted. The number of rice plants was averaged prior to analysis. Densities of immature RWW were evaluated 3 to 5 weeks after permanent flood was established, using a metal core sampler with a diameter of 9.2 cm and a depth of 7.6 cm. At each core sampling date, two root/soil core samples were taken from each plot. The number of RWW larvae in two core samples were averaged to obtain an estimate of larval density in each plot. Stem borer injury was assessed by recording the total number of whiteheads in each plot at 100% heading. Data collected were analyzed separately by location using a generalized linear mixed model (SAS, PROC GLIMMIX) with insecticide seed treatment as a fixed effect and block as a random effect. Means were separated using Tukey's HSD ($\alpha = 0.05$).

Results showed higher plant stands on Nontreated, CM+V, and VRST+Cruiser compared to Derm alone in Crowley trial ($F_{7, 31} = 3.87$; $P = 0.004$) (Fig. 1A), whereas no differences on stand counts were observed among treatments in Iowa trial ($F_{7, 31} = 0.76$; $P = 0.625$) (Fig. 1B). Differences on weevil densities among treatments were observed both in the first ($F_{7, 31} = 5.30$; $P = 0.001$) and the second ($F_{7, 31} = 7.71$; $P < 0.001$) core sampling in the Crowley trial (Fig. 2A). Weevil densities in plots treated with CMR+Vibr+Derm, CMR+Vibr+Fort, and Derm alone were consistently low in both core sampling dates. In the Iowa trial, weevil densities also differed among treatments for both the first ($F_{7, 31} = 3.56$; $P = 0.006$) and the second ($F_{7, 31} = 2.43$; $P = 0.042$) core sampling (Fig. 2B). Weevil densities were generally lower in the following treatments: CMR+Vibr+Derm, CMR+Vibr+Fort, VRST+Fort, and Derm alone. Although stem borer injury was evidently low in CMR+Vibr+Derm and Derm alone in the Crowley trial, results showed no differences among treatments ($F_{7, 31} = 2.04$; $P = 0.081$) (Fig. 3A). Similarly, no differences in whitehead densities were observed in the Iowa trial ($F_{7, 31} = 1.10$; $P = 0.389$) (Fig. 3B). Overall whitehead densities were low in both locations (<1 per m^2). In the Crowley trial, lodging was observed in several plots due to the hurricane. Hence, no differences in yields were observed among treatments ($F_{7, 31} = 0.41$; $P = 0.888$) (data not shown).

Table 1. Field activity and corresponding dates, 2020.

Field Activity	Crowley	Iowa
Planting	April 17	April 24
Stand Count	May 21	June 10
Permanent Flood	June 18	June 9
Core Sampling 1	July 9	June 29
Core Samping 2	July 17	July 13
Whitehead Count	August 18	August 13
Harvest	September 10	-

Figure 1. Stand count as affected by seed treatment combinations, 2020.

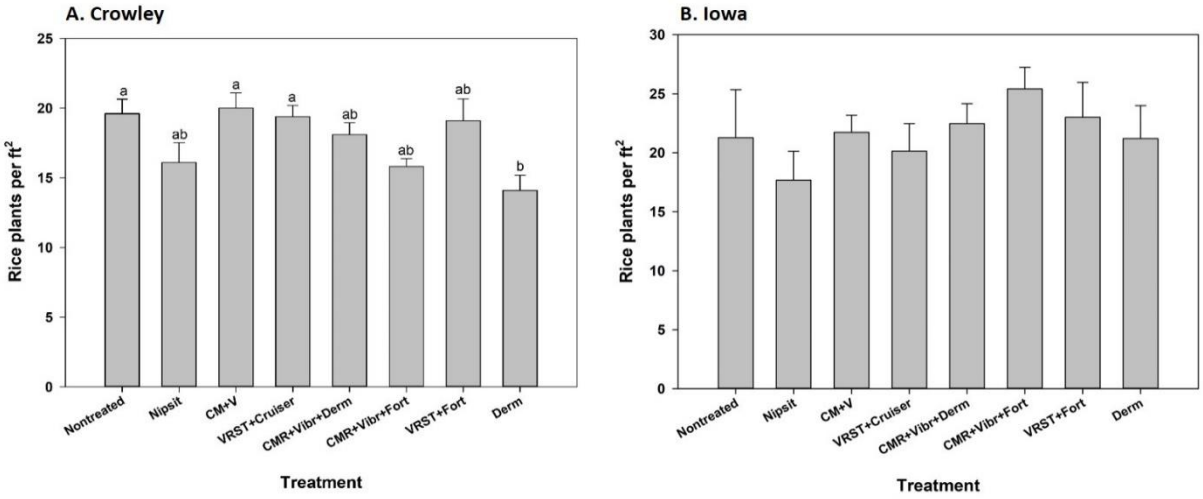


Figure 2. Rice water weevil density as affected by seed treatment combinations, 2020.

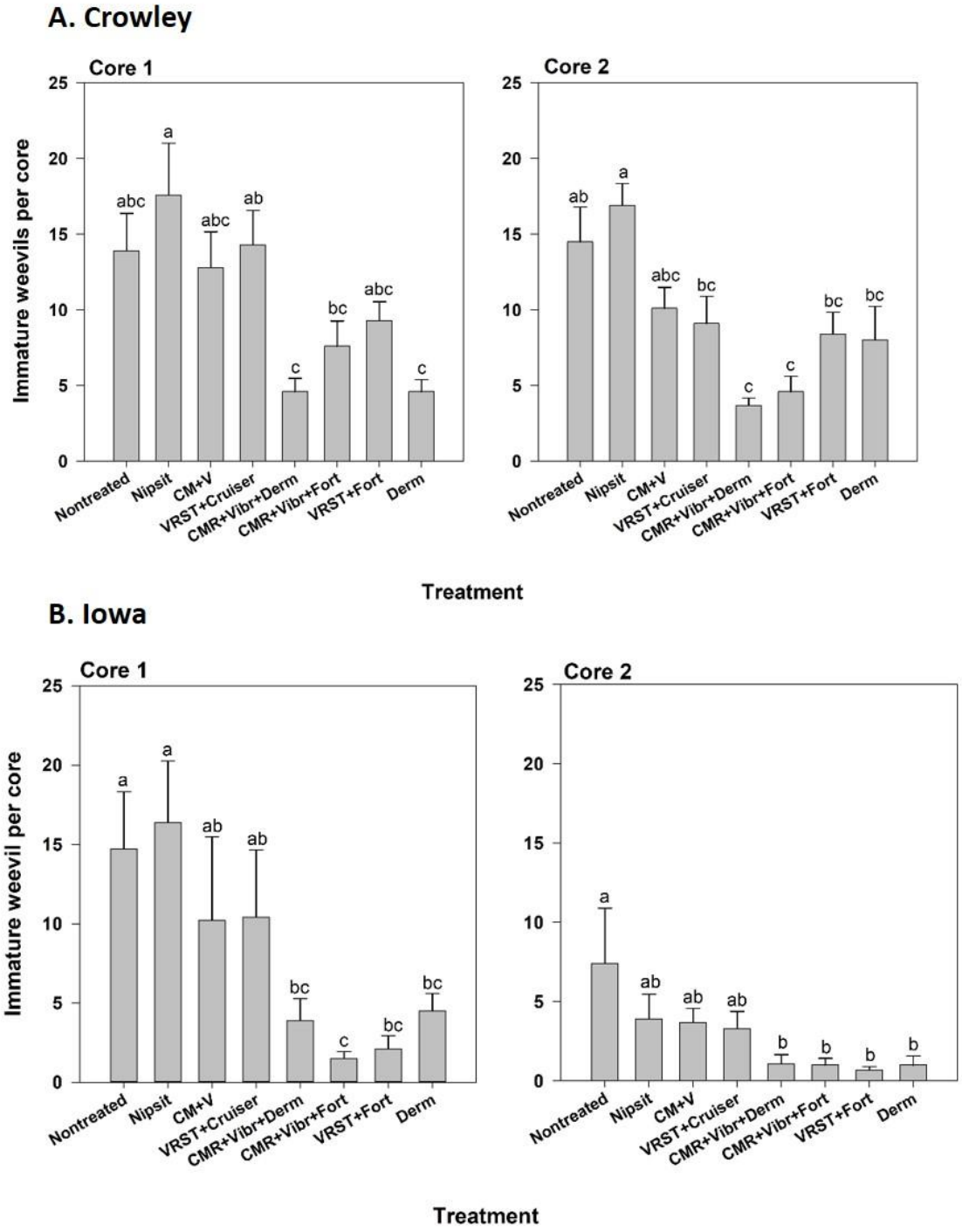
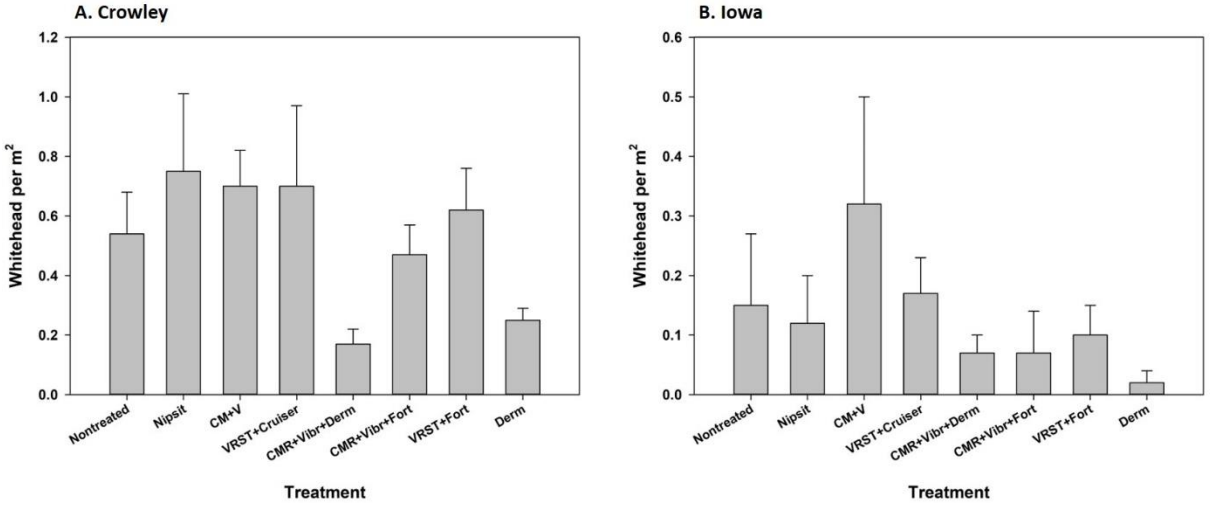


Figure 3. Stem bore injury as affected by seed treatment combinations, 2020.



REGIONAL EXPANSION AND EVALUATION OF POTENTIAL CHEMICAL CONTROL FOR INVASIVE APPLE SNAILS IN SOUTHWEST LOUISIANA

Lucero, J.M. and Wilson, B.E.

The apple snail, *Pomacea maculata*, is a global invasive rice pest. Within the last decade, the apple snail has established itself in Louisiana, but has only recently begun infesting rice farms in the southwestern region. Adult snails have large, brown-green or gold shells and lay large, pink egg masses (Figure 1). Their fast-reproductive rate and voracious appetite allow the snails to reach high population densities in natural bodies of water as well as rice and crawfish ponds. Because of the potential of apple snails to become pests, it is important to determine the locality and abundance of apple snails in Louisiana and study their expansion into rice production systems. In order to determine current apple snail distribution and future range expansion, we set up 47 sites in rice and crawfish ponds surrounding the Mermentau River, Vermilion River and Bayou Lacassine. PVC pipes are placed at each site to assist in monitoring by providing structures for egg masses to be laid on. Sites are monitored monthly, and egg mass and adult sightings are recorded. Spatial analysis with ArcGIS software is being used to map current data, and this data is then used to extrapolate future expansion (Figure 2). Environmental factors such as temperature and water availability were also recorded. Since field research has begun in September 2019, apple snail presence has been confirmed by adult or egg mass sightings at 11 sites so far located in Iberia, Vermilion, Jefferson Davis and Lafayette Parish. As we continuously monitor and expand sampling sites, we expect to elucidate presence and abundance of apple snails.

A laboratory bioassay investigating the potential chemical control that can be used to reduce the expansion of apple snails was performed. Copper sulfate (AgriTec®) was evaluated in two bioassays conducted at the LSU Rice Entomology Lab. Both experiments used 3 copper sulfate dosages (0.63 ppm [L], 1.25 ppm [M], and 2.5 ppm [H] where 2.5 ppm is the standard rate), and a non-treated control in a completely randomized design with 5 replications. Mortality was assessed during a 72-hour period after initial snail exposure to the copper sulfate. An apple snail was considered dead when the snail was out of its shell, and there was no movement from the snail after its flesh was gently probed with a scalpel. Mortality in the control (0-5%) was corrected with the Abott formula. Data was analyzed using general linear mixed models (PROC GLIMMIX, SAS), and Tukey's HSD ($\alpha = 0.05$) was used for the separation of treatment means. The model consisted of "Treatment" and "Time" as fixed effects and "Rep" as a random effect.

Mortality of apple snails was affected by copper sulfate regardless of the dose amount (Figure 3). The statistical results indicated that the various dosages did have an effect in apple snail mortality during the 72-hour period. However, more bioassays need to be conducted to have a better understanding on how well copper sulfate can affect apple snail mortality. Please contact your LSU AgCenter extension office to report expansion of apple snails into new rice and crawfish ponds to assist this research.

Figure 1. Adult apple snails mating in a rice field (*left*), and pink egg mass on a rice plant (*right*)

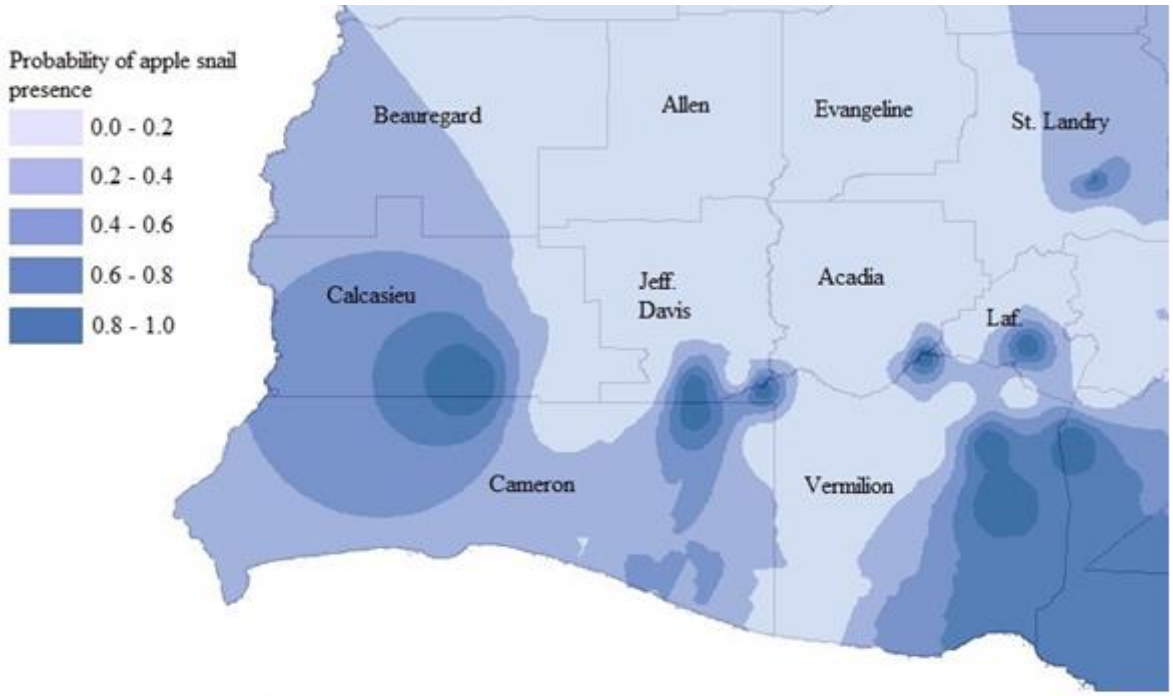
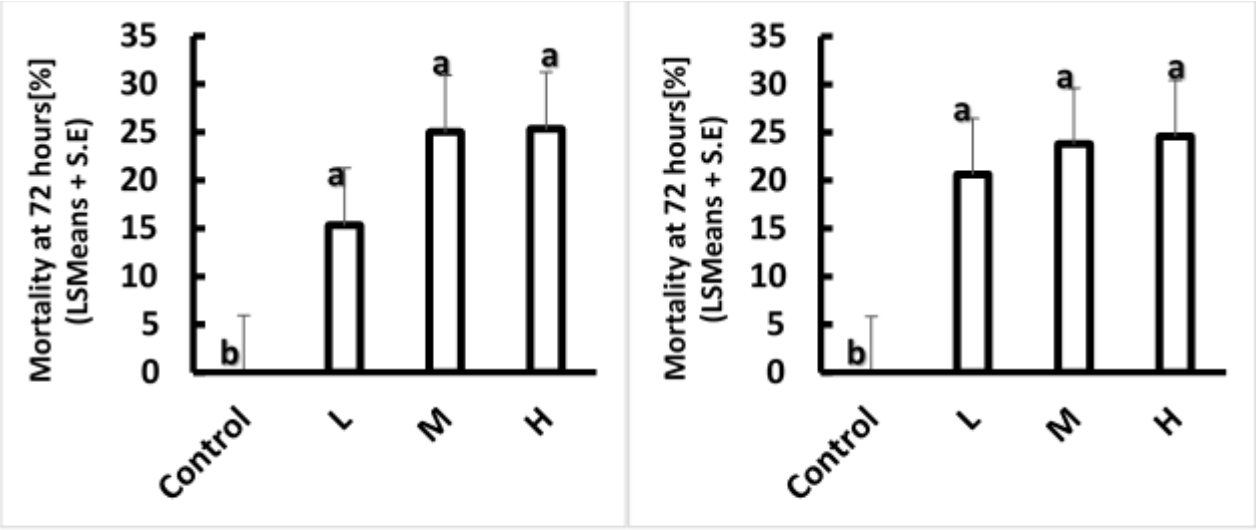


Figure 2. Estimated distribution of apple snails in rice and crawfish production regions of southwest Louisiana as of 2019. Map based on monitoring of 47 rice and crawfish sites in addition to detections provided by the U.S. Geologic Survey.



$F_{3,44}=8.34$, $p=0.0002$ $F_{3,72}=6.80$, $p=0.0004$

Figure 3. Copper sulfate effects in apple snail's mortality.

ASSESSING THE FEASIBILITY OF INTEGRATING CHEMICAL AND CULTURAL CONTROL METHODS FOR IMPROVED MANAGEMENT OF *LISSORHOPTRUS ORYZOPHILUS KUSCHEL* (COLEOPTERA: CURCULIONIDAE) IN LOUISIANA RICE

M.M. Mulcahy, J.M. Villegas, B.E. Wilson, T.E. Reagan, and K.J. Landry

The rice water weevil (RWW), *Lissorhoptrus oryzophilus Kuschel* (Coleoptera: Curculionidae), is the most destructive insect pest of rice in the United States. Insecticidal seed treatments are used throughout Louisiana to pre-emptively control RWW. The insecticidal seed treatment, chlorantraniliprole, is known to be effective against both RWW and lepidopteran stem borers. This has led to chlorantraniliprole being used on the majority of rice acreage in Louisiana. While this seed treatment has been shown to reduce the damage inflicted by RWW, the broad-scale use of chlorantraniliprole may also result in the development of insecticide resistance within targeted pest populations. More research is needed to assess the effectiveness of using insecticides in addition to other integrated pest management (IPM) practices to simultaneously decrease RWW infestations and mitigate resistance development. Field experiments were conducted to evaluate the potential of using cultural control tactics and alternative insecticidal seed treatments to improve the management of RWW according to IPM principles.

Two separate small plot experiments were planted to evaluate the effect of planting date, flood time, and alternative seed treatments on RWW populations and rice yield. The first small plot experiment was planted in March 2020 (early planted rice), and the second was planted in late April 2020 (late-planted rice). All plots were drill-planted with Clearfield variety CL153 at a seeding rate of 60 lb/A. Weeds were managed according to recommended practices. Each experiment was subjected to different flooding regimes and insecticidal seed treatments using a randomized complete block design with four replicates (six plots per rep). An early (21 days after planting) and delayed (42 days after planting) flooding regime was applied to different plots that had been treated with either chlorantraniliprole (Dermacor X-100) or a neonicotinoid (Cruiser 5FS) seed treatment. Cruiser 5FS, was chosen as an alternative to chlorantraniliprole. This was done to assess the feasibility of using Cruiser 5FS with different cultural strategies as a potential tool for preventing resistance against chlorantraniliprole. Untreated rice plots were planted as the control in each small plot experiment. Rice water weevil numbers were measured using two soil core samples per plot at three and four weeks after permanent flooding. Yield data for each plot was collected at harvest. A multifactorial, three-way ANOVA was used to analyze the data (RStudio 4.0). This is the third consecutive year that this experiment has been conducted. The data presented here is for the 2020 growing season only.

According to the ANOVA analyses, there was a statistically significant ($P > 0.05$) three-way interaction between planting date, flooding date, and seed treatment for both RWW density ($F = 4.520$, $P= 0.01170$) and yield ($F = 42.320$, $P < 0.001$). Thus, using different cultural control practices in conjunction with insecticidal seed treatments can have a meaningful impact on RWW management and rice yields. Although late-planted rice had fewer weevils overall than early-planted rice ($P = 0.0014$), planting rice at a later date significantly reduced rice yield ($P < 0.001$). Therefore, it is recommended that farmers plant rice early, even though late planting has RWW management benefits. Post-hoc analyses of the interaction between flood time and seed treatments show that cultural control mechanisms do not provide enough protection to forgo seed treatments altogether. Dermacor X-100 remains the most effective means of controlling RWW populations (Fig. 1). The protection it provided also significantly increased yields in experimental plots (Fig. 2). However, results indicate that a delayed flood can boost the benefits of using Dermacor and significantly decrease weevil damage across treatments. Therefore, it is recommended that farmers use a delayed flood to help manage RWW numbers. Cruiser 5FS provided intermediary protection against RWW infestations (Fig. 1). If rice is managed correctly, Cruiser 5FS can be used to significantly increase yields when compared to untreated rice (Fig. 2). This means that neonicotinoid seed treatments can be successfully used as an alternative to chlorantraniliprole, especially in areas where RWW pressure is lower and in areas where lepidopteran stem borers are not prevalent. This study shows that cultural practices can be integrated with insecticidal seed treatments to improve IPM for RWW control.

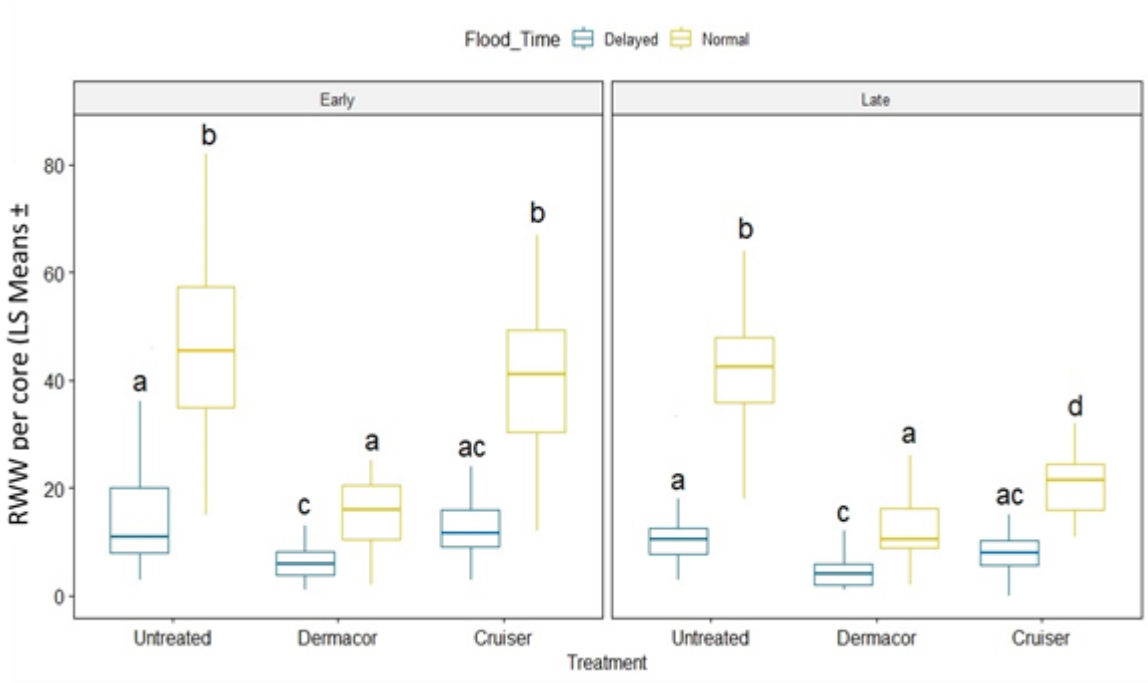


Figure 1: The effect of flood time and insecticidal seed treatment on mean RWW density per soil core in early-planted and late-planted experimental plots, Crowley, Louisiana, 2020 (letters indicate significant differences at P = 0.05).

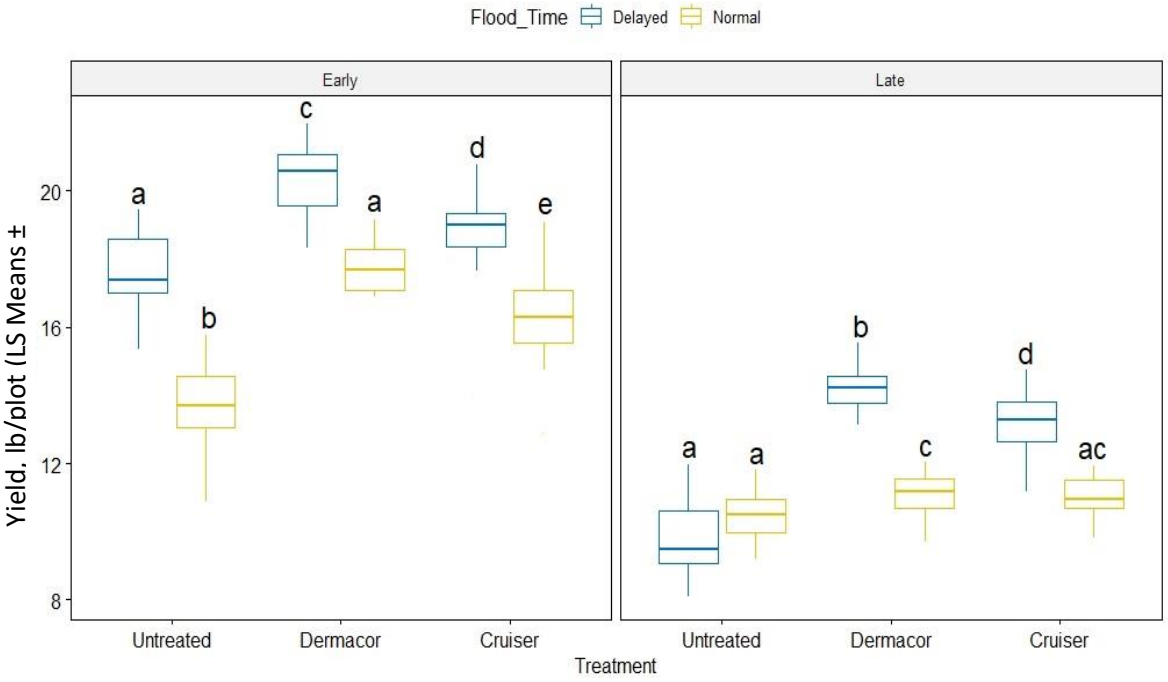


Figure 2: The effect of flood time and insecticidal seed treatment on rice yield in early-planted and late-planted experimental plots, Crowley, Louisiana, 2020 (letters indicate significant differences at P = 0.05)

FOUNDATION SEED RICE PROGRAM

R.E. Zaunbrecher

INTRODUCTION

Foundation seed rice has been produced by the LSU AgCenter's H. Rouse Caffey Rice Research Station (HRCRRS) for distribution to Louisiana farmers since 1949. The HRCRRS's seed rice program was instituted in response to the critical shortage of pure planting stocks that existed during and after World War II. Since its inception, the program has made available to Louisiana growers more than 172,950 cwt. of pedigreed stock of more than 50 rice varieties.

Concurrent with the distribution of pure seed by the HRCRRS, an industry was developed in Louisiana composed of independent seed dealers for farmers to conduct trade in registered and certified classes of pedigreed rice.

Foundation seed rice, the planting stock from which registered and certified seed are produced, is the farmer's link with the work of the plant breeder. It is the product of hybridization and successive generations of selection and testing to establish its value as crop seed and eventually as a commercial commodity. For this reason, foundation seed and the basic stocks from which it is produced must be grown and conditioned in a manner that will ensure that viability is maintained and that it be genetically pure and free from mechanical mixtures or contamination by noxious weeds.

Through the HRCRRS seed program, Louisiana farmers may obtain seed rice of improved varieties developed through the HRCRRS breeding program and of established commercial varieties originating either at Crowley or at research centers in neighboring states.

To fulfill the objectives of the seed program, the HRCRRS uses the personnel, land, machinery, and other facilities needed to plant, harvest, condition, and store its annual seed rice crop. The production of breeder seed, planting stock for the foundation fields, and the maintenance of purity in commercial rice varieties are functions of the seed program. Breeder seed is sometimes grown within fields of foundation rice or in a special nursery set aside for propagating the HRCRRS seed stocks. The nursery also serves as a site for evaluating, purifying, and increasing selections from the HRCRRS breeding program that show promise as new varieties.

The distribution of pedigreed seed rice produced by the HRCRRS is done according to a formula adopted by the Louisiana Seed Rice Growers Association. For each rice-producing parish, the amount of seed allotted is determined by the percentage of the state's total rice acreage grown in that parish during the previous crop year.

Personnel from the Louisiana Cooperative Extension Service, in cooperation with parish committees of the Seed Rice Growers Association, assist in the allocation of foundation seed rice. It is at the parish committee level that the allocation of seed to individual growers is decided. The county agents receive applications for seed rice from growers and handle information and publicity for the pure seed program.

In this state, the official seed-certifying agency for all crops is the Louisiana Department of Agriculture and Forestry (LDAF). The rules and regulations pertaining to the certification of agricultural seeds are part of the Louisiana Seed Law. They are formulated by the Louisiana Seed Commission and enforced by the Agronomic Programs Division of the LDAF. Personnel of the Agronomic Programs Division, operating from district offices, conduct field inspections of growing rice and sampling of bagged rice for laboratory analyses, which consist of purity determinations and germination tests.

PRODUCTION PRACTICES

Each year, the HRCRRS devotes approximately 80 acres of land to the production of foundation seed rice. To eliminate noxious weeds, especially red rice, that can disqualify rice from certification, the fields are fallowed for a 2-year period before planting. This also enables the fields to meet the crop history requirements specified in the seed rice regulations.

Seedbed preparation of foundation fields is done in the fall. Burndown herbicides are applied prior to seeding. The foundation fields are planted into a stale seedbed by means of a 24-runner minimum tillage drill. The breeder stock is planted at rates that may vary from 10 to 100 lb/A. The rice receives a preflood application of urea in which the rate of

nitrogen (N) may vary from 45 to 90 lb/A, as well as basic fertilizer applications based on soil test recommendations. A midseason application of N in rates from 21 to 55 lb/A is also applied.

Seedling grasses and weeds are controlled by means of commercially available herbicides applied by airplane or ground rig. Similarly, aerial applications of insecticides are used to protect the fields from outbreaks of harmful insects.

Roguing of the rice fields for the removal of off-types, varietal mixtures, and noxious weeds begins at the onset of heading and continues until harvest. During this interval, the headed rice is inspected by personnel of the Agronomic Programs Division to determine whether it meets minimum field standards of the certifying agency.

The rice is harvested with a conventional combine and dried in the HRCRRS's eight 21-foot diameter grain bins, equipped with vented drying floors and centrifugal fans with temperature-controlled heaters. The rice is dried to a moisture level of approximately 12%. During the storage period between drying and cleaning, the rice is treated with an insecticide to protect it from stored-grain insects.

Cleaning of foundation and breeder seed usually starts in late October and continues until late December. The rice first moves through an air and screen cleaner that removes chaff, straw and other foreign material, and grades the grain according to width and thickness.

It then flows through three length-grading machines that consist of rotating, indented metal cylinders. The first two remove small grains and broken or dehulled kernels of rice. The third one removes stemmy rice grains that have long awns that are attached to portions of the panicle. In the next phase of cleaning, the rice moves through a machine that performs precision grading of the grain by means of rotating perforated cylinders. This machine is designed to separate medium-grain and/or red rice from long-grain rice. It also removes shriveled and slender kernels from medium-grain rice.

In the final phase of cleaning, the rice moves through a machine that aspirates the grain, removing any chaff, straw, and other foreign material from the conditioned product.

From the cleaning machines, foundation and breeder seed rice are bagged, assigned lot numbers, and placed in storage in the HRCRRS seed rice warehouse where they remain until they are distributed to Louisiana farmers.

The field and laboratory purity standards for foundation seed rice are strict with regard to varietal mixtures and noxious weeds. Therefore, in all phases of production, great care must be exercised to prevent these impurities from contaminating the seed stocks. It is routine procedure at the HRCRRS to partially disassemble all planting and harvesting equipment and to clean it thoroughly with water and/or compressed air before using it in the field. The dryer and cleaning plant, including all elevators and other conveying equipment, are also subjected to meticulous cleaning and inspection before and after use in stubble fields. Therefore, tractors, plows, harrows and land levelers are carefully washed before they enter fallow land. These measures, together with the inspection and roguing, which are done during the growing season, help to ensure that foundation seed is genetically pure and free of mechanical mixtures and noxious weed seeds.

2020 ACTIVITIES

Of the 747 cwt. of foundation seed rice sold in 2020, the varieties and quantities were as follows: Mermentau, 48 cwt.; Caffey, 25 cwt.; Cheniere, 165 cwt.; Jupiter, 174 cwt.; Titan, 45 cwt.; and Della-2, 290 cwt.

The HRCRRS's foundation seed crop in 2020 consisted of 2 acres of Jazzman, 1.5 acres of Titan, 2.5 acres of Mermentau, 4 acres of Della-2, 3 acres of Frontiere, 1.5 acres of Toro-2 and 3.5 acres of Jupiter.

Headrows of Jazzman, Jupiter, Mermentau, Frontiere, Toro-2, Titan and Della-2 were grown for replenishment of breeder seed stock.

RICE PRODUCTION ECONOMICS RESEARCH IN 2020

M.A. Deliberto

The 2020 projected cost and return rice enterprise budgets were developed in December 2019 for alternative rice production systems in Louisiana. One of the research objectives in developing these enterprise budgets is to serve as a farm management planning tool for the upcoming crop year. Projected rice crop enterprise budgets were estimated for six typical rice production systems in the southwestern region of Louisiana, as well as two rice production system alternatives in the northeastern region of the state. For southwest Louisiana, rice enterprise budgets were estimated for: (a) conventional variety rice that is water planted, (b) Clearfield variety rice that is water planted, (c) conventional variety rice that is drill planted, (d) Clearfield variety rice that is drill planted, (e) Clearfield hybrid variety rice that is drill planted, and (f) a ratoon rice crop. For northeast Louisiana, rice crop enterprise budgets were estimated for: (a) conventional variety rice that is drill planted and (b) Clearfield variety rice that is drill planted.

A summary of this enterprise budget analysis for rice production systems in southwest Louisiana is presented in Tables 1-4. The values contained in these tables represent tenant operator net returns above total specified production costs per acre. Direct production costs include expenses for custom farming operation charges, drying, fertilizers, chemicals, labor, fuel, repair and interest on operating capital. Total specified expenses include the direct (variable) production expenses plus fixed costs of ownership on machinery and equipment. The land tenure arrangement assumption that is made in each of the enterprise tables consists of a 70/30 share rental arrangement with the landlord/waterlord financing the irrigation pumping costs. Returns from the rice crop are assumed to be allocated at 70% to the producer and 30% to the landlord/waterlord. Net return estimates for the conventional variety drill-planted production system (Table 1) are based on production cost estimates of $493.19 per acre of variable costs and $596.26 per acre for total specified costs. Net return estimates for the Clearfield variety drill-planted production system (Table 2) are based on production cost estimates of $567.05 per acre of variable costs and $668.65 per acre for total specified costs. Net return estimates for the Clearfield hybrid variety drill-planted production system (Table 3) are based on production cost estimates of $686.29 per acre of variable costs and $783.13 per acre for total specified costs. Net return estimates for the ratoon crop production system (Table 4) are based on production cost estimates of $133.43 per acre of variable costs and $159.66 per acre for total specified costs.

To further assist rice producers in planning for the 2020 crop year, the Projected 2020 Rice Cash Flow Model was developed. The interactive model, programmed in Microsoft® Excel, allows individual rice producers to evaluate the impact on net returns above variable and total (variable plus fixed) production costs for alternative land rental arrangements as well as planting various percentages of available rice base acres. The user enters projected acreage, yield, market price and production cost data for 2020, and the model will automatically generate estimates for net returns above variable and total production costs. Farm program payments relating to the Price Loss Coverage (PLC) Program are also embedded in the model and are included in net return calculations, if triggered.

LOUISIANA RICE RESEARCH VERIFICATION PROGRAM - 2020[1]

D.L. Harrell
Keith A. Fontenot
Ronnie Levy

Introduction

The Louisiana Rice Research Verification Program (LRRVP) began in 1997 in three parishes: Allen, Calcasieu and Jefferson Davis. In 1998, the program was funded and expanded to 10 parishes (Acadia, Avoyelles, East Carroll, Evangeline, Madison, Morehouse, St. Landry and Vermilion). From 1999 to 2019, 146 fields had been included in the verification program. In 2020, the program included four fields (Figure 1) in the parishes of Acadia, Evangeline, Jefferson Davis and Vermilion

The fields were visited on at least a weekly basis by a specialist, extension associate or county agent. Production practice recommendations were made by the specialist, associate, or agent. These recommendations included, but were not limited to, fertilization, weed control, disease control, insect control and water management to a limited degree. The fields were followed from planting to harvest.

Yield data was collected for each of the fields (Table 1). Yields of the first crop averaged 7,584 lb/A, 46.8 bbl/A, and 168 bu/A at 12% moisture. This is the 12th highest ranked overall yield of the verification program in the 23 years that the program has been conducted.

Economic data continue to reveal large production cost differences between growers. It also is clear that more needs to be done to help farmers reduce production costs (Table 2). Harvest and water costs remain the most elusive to capture and are often underestimated by all parties involved in the verification field.

The program continues to provide an accurate evaluation of current recommendations and insight into other areas of research. The educational value of the program to all concerned (farmers, researchers, consultants, and extension personnel) increases each year.

[1] This project is supported in part by funding provided by rice producers through their check-off contributions to the Louisiana Rice Research Board.

Figure 1. Verification Parishes in 2020.

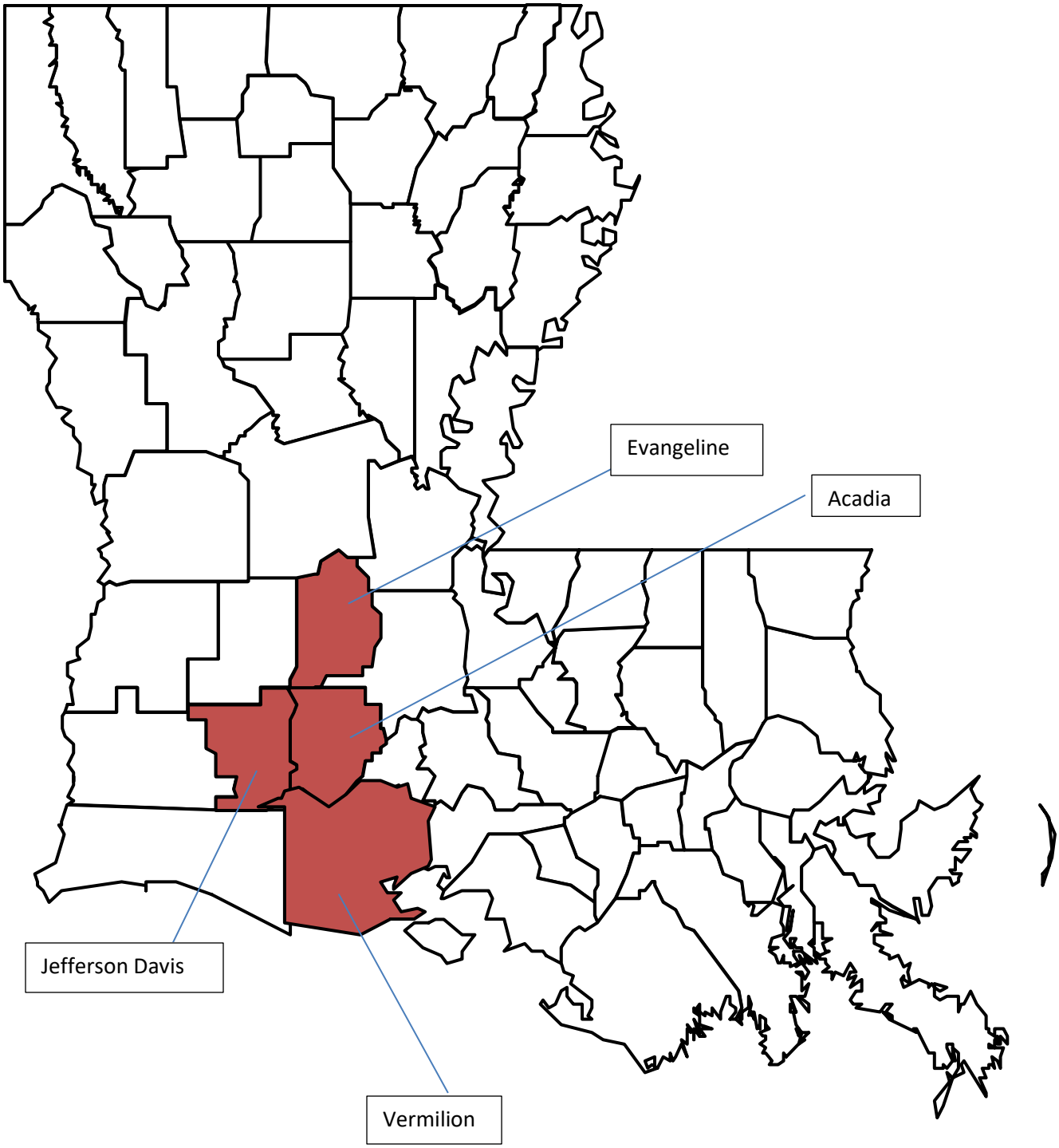


Table 1. Yields of Verification Fields in 2020.

Parish	Acres	Variety	Cwt/A green	Bbl/A green	Bu/A green	Cwt/A dry	Bbl/A dry	Bu/A dry
Acadia	42	CLXL 7321	92.17	56.9	204.8	88.49	54.6	197
Evangeline	46	Cheniere	68.78	42.4	153	65.06	40.16	144.5
Jeff Davis	9.5	Jupiter	71.05	43.8	158	67.22	41.5	149
Vermilion	30	CL 153	N/A	N/A	N/A	77.27	47.7	171
Total Acres	127.5							

Table 2. 2020 Louisiana Rice Research Verification Program Yield, Milling, and Economic Summary.

Parish	Variety	Yield at 12% Moisture (cwt/A)	Milling (% Whole / % Total)	Variable Costs ($/A)[1]	Cost of Production ($/cwt)[2]	Return on Variable Costs ($/A)[1,2]
Acadia	CLXL 7321	88.49	58.4/71	698.77	7.89	363.00
Evangeline	Cheniere	65.06	66.3/72	486.60	7.48	294.12
Jeff Davis	Jupiter	67.22	63.7/69	563.68	8.39	216.07
Vermilion	CL 153	77.27	41.4/65.4	498.46	6.45	429.14

[1] Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transporting, drying, storing, or fixed costs.

[2] This value was obtained using a selling price of $12.00/cwt for Long Grain and $11.60 for Medium Grain.

ACADIA PARISH

This 42-acre field received a soil test recommended basic fertilizer application of 300 pounds of 0-16-30 the week prior to being planted. An aerial application of 25 pounds of Dermacor X-100 treated CLXL 7321 was flown into clear water on March 13. The stand was excellent with no drift and was uniform across the field. Germination and seedling vigor were excellent and would set the stage for this field's growth throughout the season. There were no setbacks or delays in reaching any of the plant growth stages.

Weed control was accomplished early with 6 oz. of Command impregnated on the basic fertilizer. This was followed by two applications of a Newpath and Permit mix which kept the field virtually weed free.

Beside the early basic fertilizer application, the field received a tillering application of 100 pounds of ammonium sulfate, an application of 300 pounds of urea at permanent flood, and a slightly delayed green ring application of 100 pounds of urea. The green ring application was slightly delayed for plants to better utilize the early application of urea. No color change or stress was evident in plants indicating an earlier need. Our total pounds of nitrogen on the field reached 205 pounds, which was very well utilized by the plants, with no visible lodging at harvest.

No disease was observed in the field; however, a prophylactic fungicide application was made just prior to the 50% heading growth stage. The field was checked and swept for stink bugs from the heading stage to maturity, with no economic threshold reached. Stink bug population was very low.

Draining for harvest began on July 10 with a planned slow drain for the crawfish stocked in the field. The field was visited twice between drain and harvest to check maturity and field conditions for harvest.

This field was problem free from germination to harvest. A large part of this excellent performance was the very efficient way in which the cooperating producers carried out all recommended practices and procedures. Even with tropical storms, rains and one tornado which destroyed some of their farm structures, flood water depth was maintained, and all practices were performed in a timely manner.

Harvest was on July 31 when a sample showed moisture at 15.3%.

Yields were as follows: 92.18 cwt/A, 56.9 bbl/A, or 205 bu/A. Adjusted to 12% moisture, totals were 88.49 cwt/A, 54.6 bbl/A, or 197 bu/A.

ACADIA PARISH

Cooperator: Jonathan Rockett
Agent: Jeremy Hebert
Consultant:
Field Size: 42 acres

Cultural Practices

Variety: CLXL 7321
Method of Planting: Clearwater
Water Management: Delayed flood
Seeding Rate: 25 lb/A
Date of Planting: March 13
Date of Emergence: March 21

Growth and Development

Stage	Observation Date
Green Ring	May 9
PD	May 19
50% Heading	June 14
Drain for Harvest	July 10
Harvest	July 31

Yield, Milling, and Economic Data

	Yield at 12% Moisture (cwt/A)	Milling Yield (% Whole / % Total)	Variable Costs ($/A)[1]	Cost of Production ($/cwt)[1]	Return on Variable Costs ($/A)[1,2]
First Crop	88.49	58.4/71	698.77	7.89	363.00

[1] Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transportation, drying, storage, or fixed costs.
[2] This value was obtained using a selling price of $12.00/cwt.

Fertilization

Date	Source	Rate (lb/A)	N (lb/A)	P (lb/A)	K (lb/A)	S (lb/A)	Zn (lb/A)
March 7	0-16-30	300	0	48	90	0	0
April 2	Am Sul	100	21	0	0	24	0
April 16	46-0-0	300	138	0	0	0	0
May 15	46-0-0	100	46	0	0	0	0
Total			205	48	90	24	0

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Sedge, Grasses	March 7	6 oz Command
	March 28	4 oz Newpath + 0.33 oz Permit + ENC micronutrient
	April 16	5 oz Newpath + 0.33 oz Permit

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
Prophylactic	June 8	20.3 oz A-Frame, Generic Quilt XL + 17.7 oz Headset

Insect Management

Insects Present	Date of Treatment Decision	Recommendation
	March 13	Dermacor X-100

Comments:

The (ENC) and Headset additives were decisions made by the producer, and not recommended.

ACADIA PARISH

Item	Description	Cost/A	Acres	Total
Herbicide Burndown				$0.00
Application Cost-Herbicide				$0.00
Field Work, Discing, etc.	Disked in Fall	$8.67	42	$364.14
Water Leveling, Bed Leveling, etc.				$0.00
Ditching	Ditches Made	$1.15	42	$48.30
Seed	CLXL 7321 @ 25#/A	$173.00	42	$7,266.00
Seed Treatment (If Separate)	Dermacor + Fungicide + Kickstart			$0.00
Planting	Aerial Applicator	$9.25	42	$388.50
Fertilizer	300# 00-16-30-24	$63.25	42	$2,656.50
Application Cost - Fertilizer	Aerial Applicator	$27.22	42	$1,143.24
Herbicide	6 oz Command	$6.09	42	$255.78
Application Cost - Herbicide	Command impregnated on Fertilizer			$0.00
Herbicide	4 oz Newpath + .33 oz Permit + ENC Micronutrients	$23.37	42	$981.54
Application Cost - Herbicide	Aerial Applicator	$11.43	42	$480.06
Fertilizer	100# Ammonium Sulfate	$15.75	42	$661.50
Application Cost - Fertilizer	Aerial Applicator	$8.20	42	$344.40
Fertilizer	300# Urea	$47.40	42	$1,990.80
Application Cost - Fertilizer	Aerial Applicator	$20.70	42	$869.40
Herbicide	5 oz Newpath + .33 oz Permit	$22.48	42	$944.16
Application Cost - Fertilizer	Aerial Applicator	$9.50	42	$399.00
Fertilizer	100# Urea	$15.80	42	$663.60
Application Cost - Fertilizer	Aerial Applicator	$8.20	42	$344.40
Fungicide	20.3 oz A-Frame + 17.7 oz Headset	$29.80	42	$1,251.60
Application Cost - Fungicide	Aerial Application	$9.80	42	$411.60
Fungicide				$0.00
Application Cost - Fungicide				$0.00
Fungicide				$0.00
Application Cost - Insecticide				$0.00
Harvest - Cart with Tractor		$6.86	42	$288.12
Harvest - Combine		$49.97	42	$2,098.74
Water Cost		$130.88	42	$5,496.96
				$0.00
First Crop Totals		**$698.77**		**$29,348.34**

Ratoon Crop

Item	Description	Cost/A	Acres	Total
Ratoon Crop Manipulation				$0.00
Ratoon Crop Fertilizer				$0.00
Ratoon Fertilizer Application Cost				$0.00
Ratoon Crop Water Cost				$0.00
Ratoon Crop Harvest Cost				$0.00
Ratoon Crop Harvest Combine				$0.00
Ratoon Crop Totals				**$0.00**

Total for Crop and Ratoon **$698.77** **$29,348.34**

EVANGELINE PARISH

This 46-acre field was burned down using 32 oz. of glyphosate plus .50 oz of First Shot herbicide per acre applied by ground rig. On March 27 after cultivating, 250 pounds of 0-23-30 fertilizer was applied and harrowed in. Eighty pounds per acre of Dermacor X-100 treated Cheniere seed was dry broadcast by air into the prepared seedbed on April 3, followed by harrowing. A ground rig applied 8 oz. of Command herbicide per acre followed by a ditching tractor for drainage. Rice emerged on April 11 with a very uniform stand. Leaf bleaching was observed from the command application, but the vigorous stand of plants quickly grew out of it. 200 pounds of 33-0-0 fertilizer was applied followed by an application of 2 pints of Prowl + 3 quarts of propanil and 0.50 oz of Permit at tillering on May 5. The flood followed these applications. On May 19, rice water weevil pruning of roots in the top two cuts of the field was noticed. Water was lowered in those areas and plant roots recovered within two weeks. After root recovery, 125 pounds of urea was applied across the entire field to encourage continued root development and plant growth. The bottom cuts of the field reached green ring on June 2, with top cuts being delayed by a few days. On June 10, due to tropical storm rainfall delay, the final nitrogen application was made applying 75 pounds of 38-0-0.

On June 24th, scattered sheath blight lesions were first observed in the mid to upper canopy. Water level was maintained, and disease movement observed with a plan to apply fungicide just prior to boot split. On June 30, prior to boot split, 21 oz. of Avaris fungicide was applied.

Rice stink bugs were detected in the field from heading through flowering stages, but below treatment levels. On July 28, the decision made based on plant maturity, crawfish in the field, and weather predictions to allow a slow drain of the field.

Harvest was on Aug. 14 with moisture at 16.8%. Yields were as follows: 68.78 cwt/A, 42.4 bbl/A, or 153 bu/A. Adjusted to 12% moisture, totals were 65.06 cwt/A, 40.16 bbl/A, or 144.5 bu/A.

EVANGELINE PARISH

Cooperator: Jeremy Craton
Agent: Todd Fontenot
Consultant:
Field Size: 46

Cultural Practices

Variety: Cheniere
Seeding Rate: 80 lb/A
Method of Planting: Dry Broadcast by air/ harrowed in
Date of Planting: April 3
Water Management: Pin- point
Date of Emergence: April 11

Growth and Development

Stage	Observation Date
Green Ring	June 2
PD	June 9
50% Heading	July 7
Drain for Harvest	July 28
Harvest	August 14

Yield, Milling, and Economic Data

	Yield at 12% Moisture (cwt/A)	Milling Yield (% Whole / % Total)	Variable Costs ($/A)[1,3]	Cost of Production ($/cwt)[1,3]	Return on Variable Costs ($/A)[1,2,3]
First Crop	65.06	66.3/72	486.60	7.48	294.12

[1]Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transportation, drying, storage, or fixed costs.
[2]This value was obtained using a selling price of $12.00/cwt.

Fertilization

Date	Source	Rate (lb/A)	N (lb/A)	P (lb/A)	K (lb/A)	S (lb/A)	ZN (lb/A)
March 25	0-23-30	250	0	58	60	0	0
May 5	33-0-0	125	58	0	0	0	0
May 20	46-0-0	125	58	0	0	0	0
June 10	38-0-0	75	29	0	0	0	0
Totals			145	58	60	0	0

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Burndown	March 5	36 oz Roundup + 0.50 oz Firstshot
At Planting	April 3	8 oz Command
Barnyard Grass, Sprangletop, Sedges	May 5	32 oz Prowl + 3 qt Propanil + 0.50 oz Permit

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
Sheath blight	June 30	21 oz generic Quilt + 8 ozPenetrator

Insect Management

Insects Present	Date of Treatment Decision	Recommendation
	At Planting	Dermacor X-100

EVANGELINE PARISH

Item	Description	Cost/A	Acres	Total
Herbicide Burndown	36 oz RoundUp + .50 oz Firstshot	$14.55	46	$669.30
Application Cost-Herbicide	Ground Rig 90 ft Boom	$2.77	46	$127.42
Field Work, Discing, etc.	Disced Once - 350 HP Tractor + 36 ft Disc	$9.55	46	$439.30
Water Leveling, Bed Leveling, etc.	Harrow Twice - 350 HP Tractor + 36 ft Harrow	$17.14	46	$788.44
Ditching	100 HP Tractor + Ditcher	$1.15	46	$52.90
Seed	Cheniere @ 80 lb/A	$24.40	46	$1,122.40
Seed Treatment (If Separate)	Dermacor X-100 + Apron Fungicide	$25.56	46	$1,175.76
Planting	Aerial Applicator	$10.91	46	$501.86
Fertilizer	250 lb/A of 0-23-30	$40.25	46	$1,851.50
Application Cost - Fertilizer	Ground Rig	$8.00	46	$368.00
Herbicide	8 oz Command	$9.20	46	$423.20
Application Cost - Herbicide	Ground Rig - 90 ft Boom	$2.77	46	$127.42
Herbicide	2 pt Prowl + 3 qt Propanil + .50 oz Permit	$42.32	46	$1,946.72
Application Cost - Herbicide	Aerial Applicator	$8.00	46	$368.00
Fertilizer	200 lb/A of 33-0-0	$33.00	46	$1,518.00
Application Cost - Fertilizer	Aerial Applicator	$8.46	46	$389.16
Fertilizer	125 lb/A of Urea	$23.31	46	$1,072.26
Application Cost - Fertilizer	Aerial Applicator	$8.61	46	$396.06
Fertilizer	75 lb/A of 38-0-0	$12.98	46	$597.08
Application Cost - Fertilizer	Aerial Applicator	$8.61	46	$396.06
Fungicide	21 oz Avaris + 8 oz Penetrator	$25.49	46	$1,172.54
Application Cost - Fungicide	Aerial Applicator	$9.31	46	$428.26
Harvest - Cart 1 with Tractor	300 HP Tractor + Grain Cart	$6.86	46	$315.56
Harvest - Cart 2 with Tractor				$0.00
Harvest - Combine 1	Rice Combine + 25 Foot Header	$50.00	46	$2,300.00
Harvest - Combine 2				$0.00
Water Costs	Electric Motor Well	$83.40	46	$3,836.40
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
First Crop Totals				**$22,383.60**

Ratoon Crop

Item	Description	Cost/A	Acres	Total
Ratoon Crop Manipulation				$0.00
Ratoon Crop Fertilizer				$0.00
Ratoon Fertilizer Application Cost				$0.00
Ratoon Crop Water Cost				$0.00
Ratoon Crop Harvest Cost				$0.00
Ratoon Crop Harvest Combine				$0.00
Ratoon Crop Totals				**$0.00**

Total for Crop and Ratoon	**$0.00**	**$22,383.60**

JEFFERSON DAVIS PARISH

This verification field was a 9.5-acre cut of a 92-acre field. A burn-down application of 32 oz of Glyphosate Plus was applied by air in mid-March. Due to previous weed and grass problems, the field was disked twice then harrowed. Two hundred fifty pounds of 0-26-26 fertilizer, impregnated with 8 oz of Command herbicide was applied per acre prior to flood. Field was water planted on April 17, with Dermacor X-100 treated Jupiter seed at the rate of 135 lb/acre.

On April 30, five inches of rain fell covering the 2-3 leaf seedling rice. Slow draining allowed the plants to recover successfully but did delay the early nitrogen application. There was some damage in adjoining cuts where the water level was deep, and ducks pulled up entire plants in an area covering about 0.5 acre. Duck salad and sedge were apparent in the field as well as grasses and goose weed. Gambit herbicide was applied at 1.75 oz/Afor weed control.

On May 11, 150 lbs/A of 40-0-0 fertilizer was applied, followed by another 125 lbs/A of 46-0-24 in two weeks. During this period, issues with grasshoppers feeding on leaf tips, as well as some increased adult rice water weevil leaf feeding occurred. Rainfall also caused fluctuations in water levels during the first week of June. Red rice and sedge were observed in some areas. On June 8, at green ring, 100 lbs/A of 40-0-0 was applied. This resulted in a total of 158 lbs/A of nitrogen for this crop.

On June 22, suspected leaf blast lesions were pulled, which were confirmed as leaf blast by Dr. Don Groth. It was decided to apply a full application of 19 oz of Stratego on July 11 at boot split. Excellent control of the disease was observed. Rice heading in the field was monitored for rice stink bugs for the next four weeks with no treatable population found.

On Aug. 10, the decision to slow drain field was made. Harvest was anticipated in about 3 weeks. That decision was accelerated when two hurricanes (Marco & Laura) in the Gulf of Mexico threatened landfall in Southwest La. Harvest was on Aug. 22 when a sample showed moisture at 16.8%. Yields were as follows: 71.05 cwt/A, 43.8 bbl/A, or 158 bu/A. Adjusted to 12% moisture, totals were 67.22 cwt/A, 41.5 bbl/A, or 149 bu/A.

JEFFERSON DAVIS PARISH

Cooperator: Dylan Benoit
Agent: Jimmy Meaux
Consultant: Chet Marcantel
Field Size: 9.5 acres

Cultural Practices

Variety: Jupiter
Method of Planting: Water
Water Management: Pin- Point flood
Seeding Rate: 135 lb/A
Date of Planting: April 17
Date of Emergence: April 27

Growth and Development

Stage	Observation Date
Green Ring	June 8
PD	June 13
50% Heading	July 11
Drain for Harvest	Aug. 7
Harvest	Aug. 22

Yield, Milling, and Economic Data

	Yield at 12% Moisture (cwt/A)	Milling Yield (% Whole / % Total)	Variable Costs ($/A)[1]	Cost of Production ($/cwt)[1]	Return on Variable Costs ($/A)[1,2,]
First Crop	67.22	63.7/69.6	563.68	8.39	216.07

[1] Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transportation, drying, storage, or fixed costs.
[2] This value was obtained using a selling price of $11.60/cwt for medium grain.

Fertilization

Date	Source	Rate (lb/A)	N (lb/A)	P (lb/A)	K (lb/A)	S (lb/A)	ZN (lb/A)
April 9	0-26-26-0-4	250	0	65	65	0	10
May 11	40%	150	60	0	0	0	0
May 26	46-0-24	125	58	0	30	0	0
June 8	40 %	100	40	0	0	0	0
Season Total			158	65	95	0	10

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Burndown	March 26	64 oz Roundup
Grasses, sedge, duck salad, Alligator weed	May 26	1.75 oz Gambit
Aquatics & Gooseweed	July 11	0.75 oz Aim

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
Very light sheath blight	July 11	19 oz Stratego

Insect Management

Insects Present	Date of Treatment Decision	Recommendation
Rice Water Weevil	Seed treatment April 17	Dermacor X-100

Comments: Harvest moved up earlier than planned due to hurricanes in Gulf of Mexico.

JEFFERSON DAVIS PARISH

Item	Description	Cost/A	Acres	Total
Herbicide Burndown	32 oz RoundUp	$5.00	9.5	$47.50
Application Cost-Herbicide	Ground Rig	$9.00	9.5	$85.50
Field Work, Discing, etc.	Shanked Once - 350 HP Tractor + 36 Ft Shank	$9.55	9.5	$90.73
Water Leveling, Bed Leveling, etc.	Harrow Once - 350 HP Tractor + 36 Ft Harrow	$8.40	9.5	$79.80
Ditching	150 HP Tractor + Ditcher	$1.15	9.5	$10.93
Seed	Jupiter @ 135 lb/A + Dermacor X-100	$69.27	9.5	$658.07
Seed Treatment (If Separate)				$0.00
Planting	Aerial Applicator	$10.90	9.5	$103.55
Fertilizer	250 lb/A of 0-26-26 + 10 lb Zinc + 8 oz Command	$63.00	9.5	$598.50
Application Cost - Fertilizer	Aerial Applicator	$14.40	9.5	$136.80
Herbicide	1.75 oz Gambit	$24.76	9.5	$235.22
Application Cost - Herbicide	Aerial Applicator	$8.15	9.5	$77.43
Herbicide	.75 oz Aim	$4.60	9.5	$43.70
Application Cost - Herbicide	Aerial Applicator	$8.00	9.5	$76.00
Fertilizer	150 lb/A of 40-0-0	$25.62	9.5	$243.39
Application Cost - Fertilizer	Aerial Applicator	$9.20	9.5	$87.40
Fertilizer	125 lb/A of 46-0-24	$26.25	9.5	$249.38
Application Cost - Fertilizer	Aerial Applicator	$9.10	9.5	$86.45
Fertilizer	100 lb/A of 40-0-0	$17.18	9.5	$163.21
Application Cost - Fertilizer	Aerial Applicator	$9.00	9.5	$85.50
Fungicide	19 oz Stratego + 64 oz Sovereign + .75 oz Aim	$33.79	9.5	$321.01
Application Cost - Fungicide	Aerial Applicator	$9.65	9.5	$91.68
Harvest - Cart 1 with Tractor	350 HP Tractor + Grain Cart	$6.86	9.5	$65.17
Harvest - Cart 2 with Tractor				$0.00
Harvest - Combine 1		$49.97	9.5	$474.72
Harvest - Combine 2				$0.00
Water Costs		$130.88	9.5	$1,243.36
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
First Crop Totals		**$563.68**		**$5,354.96**

Ratoon Crop

Item	Description	Cost/A	Acres	Total
Ratoon Crop Manipulation				$0.00
Ratoon Crop Fertilizer				$0.00
Ratoon Fertilizer Application Cost				$0.00
Ratoon Crop Water Cost				$0.00
Ratoon Crop Harvest Cost				$0.00
Ratoon Crop Harvest Combine				$0.00
Ratoon Crop Totals				**$0.00**

Total for Crop and Ratoon	**$563.68**		**$5,354.96**

VERMILION PARISH

The 32-acre rice field was disked and laser leveled, prior to planting. Field preparation proved to be beneficial in water management and early seedling growth. Basic fertilizer included 150 lbs/A of phosphate and 60 lbs/A of potash just prior to flood. CL153 was water planted on April 13 at 65 lbs/A. Seedling vigor was good, which produced a uniform stand of rice by the 2 to 3 leaf stage.

Noticeable weeds in the field included sedges, jointvetch, hemp sesbania, dayflower and grasses. The decision was made to use 6 oz of Newpath plus 0.66 oz of Permit for weeds in the field. Control was excellent. One week later 100 lbs/A of urea plus Agrotain was applied to the slightly yellowed rice, followed with a shallow flood. Seven days later the rice was tillering and had excellent color and growth. The following week water levels were low to non-existent on the high side of the field. The rice tillered well and had excellent color. Weed pressure began showing up in areas of water loss. Recommended 125 lbs/A of urea and reestablishment of uniform flood across field. One week later, some plants were approaching green ring.

Plant roots were excellent with a good uniform green color in all plant leaves. On June 5, the field reached green ring stage with plants in good to excellent condition. Recommended 100 lbs/A of urea, which was applied on June 10 due to delays with aerial applicator. From panicle differentiation until June 29 the field was checked weekly for disease and any other issues with the plants. Light grasshopper feeding and a few rice water weevil adult feeding scars were observed. One small area of sheath blight was observed during the mid to late boot stage.

The producer wanted to make a prophylactic fungicide application for kernel smut, as this had been an issue in previous crop seasons, so on June 30, 10 ounces of Tilt fungicide was applied. Rice stink bug levels did reach economic threshold levels for two weeks in a row following heading. As this is a rice and crawfish rotational field, no recommendation to control stinkbugs was made.

On July 27th, although some of the field edges were still slightly green, the decision was made to drain the field for harvest. Harvest yields were as follows 77.27 cwt/A, 47.7 bbl/A, or 171 bu/A with a 12% moisture.

VERMILION PARISH

Cooperator: Aaron Lee
Agent: Andrew Granger, Jeremy Hebert
Consultant: None
Field Size: 30 acres

Cultural Practices

Variety: CL 153
Method of Planting: Water
Water Management: Delayed Flood
Seeding Rate: 65 lb/A
Date of Planting: April 13
Date of Emergence: April 20

Growth and Development

Stage	Observation Date
Green Ring	June 5
PD	June 10
50% Heading	June 29
Drain for Harvest	July 27
Harvest	August 19

Yield, Milling, and Economic Data

	Yield at 12% Moisture (cwt/A)	Milling Yield (% Whole / % Total)	Variable Costs ($/A)[1]	Cost of Production ($/cwt)[1]	Return on Variable Costs ($/A)[1,2]
First Crop	77.27	41.4/65.4	498.46	6.45	429.14

[1]Costs captured are from land preparation to getting the crop to the truck. They do not include land rent, transportation, drying, storage, or fixed costs.
[2]This value was obtained using a selling price of $12.00/cwt.

Fertilization

Date	Source	Rate (lb/A)	N (lb/A)	P (lb/A)	K (lb/A)	Zn (lb/A)	S (lb/A)
March 28	0-46-30	150	0	150	60	0	0
May 14	46-0-0	100	46	0	0	0	0
June 1	46-0-0	125	58	0	0	0	0
June 10	46-0-0	100	46	0	0	0	0
Season Total			150	150	60	0	0

Weed Management

Weeds Present	Date of Treatment Decision	Recommendation
Sedge, Grasses, Jointvetch, hemp sesbania, dayflower	May 2	6 oz Newpath + 0.66 oz Permit

Disease Management

Diseases Present	Date of Treatment Decision	Recommendation
Kernel Smut Prevention	June 30	10 oz Stratego

Note: Recommendation made due to severe kernel smut pressure in adjoining field last season.

Insect Management

Insects Present	Date of Treatment Decision	Recommendation

Note: Rice/crawfish rotation field, rice stink bug levels were over threshold from 7/13-7/20, no application made.

VERMILION PARISH

Item	Description	Cost/A	Acres	Total
Herbicide Burndown				$0.00
Application Cost-Herbicide				$0.00
Field Work, Discing, etc.	Disc Twice 300 HP Tractor + 26 ft Disk	$21.42	32	$685.44
Water Leveling, Bed Leveling, etc.	Laser Level 300 HP Tractor + 32 ft Level	$37.52	32	$1,200.64
Ditching	125 HP Tractor + Ditcher	$1.34	32	$42.88
Seed	CL 153 @ 65 lb/A + Fungicide	$65.04	32	$2,081.28
Seed Treatment (If Separate)				$0.00
Planting	Aerial Applicator	$8.71	32	$278.72
Fertilizer	150 lb/A of 0-46-30	$37.80	32	$1,209.60
Application Cost - Fertilizer	300 HP Tractor + Spreader Cart	$4.50	32	$144.00
Herbicide	6 oz Newpath + 0.66 oz Permit	$27.08	32	$866.56
Application Cost - Herbicide	Aerial Applicator	$10.07	32	$322.24
Herbicide				$0.00
Application Cost - Herbicide				$0.00
Fertilizer	100 lb/A of 46-0--0 Urea	$17.25	32	$552.00
Application Cost - Fertilizer	Aerial Applicator	$8.10	32	$259.20
Fertilizer	125lb/A of 46-0-0 Urea	$21.56	32	$689.92
Application Cost - Fertilizer	Aerial Applicator	$8.25	32	$264.00
Fertilizer	100 lb/A of 46-0-0 Urea	$17.25	32	$552.00
Application Cost - Fertilizer	Aerial Applicator	$8.10	32	$259.20
Fungicide	10 oz Tilt	$8.56	32	$273.92
Application Cost - Fungicide	Aerial Application	$8.20	32	$262.40
Harvest - Cart 1 with Tractor		$6.86	32	$219.52
Harvest - Cart 2 with Tractor				$0.00
Harvest - Combine 1		$49.97	32	$1,599.04
Harvest - Combine 2				$0.00
Water Costs		$130.88	32	$4,188.16
				$0.00
				$0.00
				$0.00
				$0.00
First Crop Totals		**$498.46**		**$15,950.72**

Ratoon Crop

Item	Description	Cost/A	Acres	Total
Ratoon Crop Manipulation				$0.00
Ratoon Crop Fertilizer				$0.00
Ratoon Fertilizer Application Cost				$0.00
Ratoon Crop Water Cost				$0.00
Ratoon Crop Harvest Cost				$0.00
Ratoon Crop Harvest Combine				$0.00
Ratoon Crop Totals				**$0.00**

Total for Crop and Ratoon	**$498.46**	**$15,950.72**

Table 1. Summary of Management Practices and Economic Data per Acre for 2020 Verification Fields.

Parish	Planting Method	Rice Variety	Planting Date	Water Management	Seed Costs $/A	Insecticide Seed Treatment Costs $/A	Herbicide Costs $/A	Herbicide App. Costs $/A
Acadia	Water	CLXL-7321	3/13	Delayed	151	22.00	51.94	20.93
Evangeline	Dry broadcast by air	Cheniere	4/3	Delayed	27.96	22.00	51.52	10.77
Jeff Davis	Water	Jupiter	4/17	Pin- Point	47.27	22.00	42.44	25.15
Vermilion	Water	CL-153	4/13	Pin- Point	65.04	0	27.08	10.07

Table 1. Continued. Summary of Management Practices and Economic Data per Acre for 2020 Verification Fields.

Parish	Fertilizer Costs $/A	Fertilizer App. Costs $/A	Fungicide Costs $/A	Fungicide App. Costs $/A	Insecticide Costs $/A[1]	Insecticide App. Costs $/A	Water Costs $/A
Acadia	142.20	64.32	29.80	9.80	N/A	N/A	130.88
Evangeline	109.54	33.68	25.49	9.31	N/A	N/A	83.40
Jeff Davis	132.05	41.70	33.79	9.65	N/A	N/A	130.88
Vermilion	93.86	28.95	8.56	8.20	N/A	N/A	130.00

[1] Does not include insecticide seed treatment.

Table 2. Summary of Management Practices and Economic Data for 2020 Verification Fields.

Parish	Harvest Date	Yield at 12% Moisture[1]			Milling % % Whole/% Total	Variable Costs ($/A)	Cost of Production ($/cwt)	Return on Variable Costs ($/A)[1]
		cwt	bbls	bu				
Acadia	July 31	88.49	54.6	197	58.4/71	698.77	7.89	363.00
Evangeline	Aug 14	65.06	40.16	144.5	66.3/72	486.60	7.48	294.12
Jeff Davis	Aug 22	67.22	41.5	149	63.7/69.6	563.68	8.39	216.07
Vermilion	Aug 19	77.30	47.7	171	41.4/65.4	498.46	6.45	429.14

[1]Value obtained using selling price of $12.00/cwt long grain, $11.60/cwt medium grain.

Table 3. Twenty Three-Year Louisiana Rice Research Verification Summary.

1998 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Acadia*	53.0	32.8	118.1	5,314
Avoyelles	32.5	42.9	154.4	6,950
Calcasieu*	60.0	34.1	122.8	5,524
East Carroll	33.9	41.1	148.0	6,658
Evangeline	33.0	42.9	154.4	6,950
Jefferson Davis*	61.8	37.3	134.3	6,043
Madison	36.6	39.0	140.4	6,318
Morehouse	63.0	33.8	121.7	5,476
St. Landry	37.1	38.2	137.5	6,188
Vermilion	16.7	29.4	105.8	4,763
TOTALS	**427.6**	**37.2**	**133.7**	**6,018**

* Yield includes second crop.

1999 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Acadia*	31.1	37.4	134.6	6,059
Avoyelles	32.5	46.6	167.8	7,549
Calcasieu	49.3	34.6	124.6	5,605
Catahoula	30.4	33.4	120.2	5,411
East Carroll	36.1	47.0	169.2	7,614
Evangeline	22.3	43.1	155.2	6,982
Jefferson Davis*	26.6	30.8	110.9	4,990
Madison	38.1	39.0	140.4	6,318
St. Landry	30.1	38.8	139.7	6,286
Vermilion	23.8	36.5	131.4	5,913
TOTALS	**320.3**	**38.7**	**139.4**	**6,273**

* Yield includes second crop.

2000 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Acadia	53.3	39.4	141.8	6,383
Avoyelles	63.2	36.7	132.1	5,945
Calcasieu	22.1	25.1	90.4	4,066
Catahoula	39.6	36.4	131.0	5,897
East Carroll	45.1	49.1	176.8	7,956
Evangeline	19.9	38.2	137.5	6,188
Jefferson Davis	30.6	26.7	96.1	4,325
Morehouse	27.7	28.3	101.9	4,585
St. Landry	70.7	39.2	141.1	6,350
Vermilion*	21.6	37.7	135.7	6,107
TOTALS	**393.8**	**35.7**	**128.4**	**5,780**

* Yield includes second crop.

Continued.

Table 3. Continued.

2001 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Acadia*	60.6	50.8	182.9	8,230
Allen	41.6	35.1	126.4	5,686
Avoyelles	63.2	38.1	137.2	6,172
Calcasieu*	61.9	39.4	142.0	6,388
Concordia	79.6	36.1	130.1	5,853
Evangeline*	20.8	52.7	189.7	8,538
Jefferson Davis*	21.6	57.3	206.4	9,289
Richland	65.9	46.0	165.5	7,447
St. Landry*	40.6	51.1	184.0	8,282
Vermilion*	33.3	52.4	188.7	8,493
TOTALS	**489.1**	**45.9**	**165.3**	**7,438**

* Yield includes second crop.

2002 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Acadia*	38.4	49.8	179.3	8,068
Allen*	25.1	46.0	165.6	7,452
Avoyelles	37.4	49.9	179.6	8,084
Beauregard*	49.5	53.1	191.2	8,602
Calcasieu*	41.4	42.4	152.6	6,869
Concordia	67.6	48.2	173.5	7,808
Evangeline	42.0	37.6	135.4	6,091
Jefferson Davis*	31.7	45.0	162.0	7,290
Richland	35.8	42.1	151.5	6,819
St. Landry	32.7	48.8	175.7	7,906
Vermilion*	32.0	49.8	179.4	8,072
TOTALS	**433.6**	**46.6**	**167.8**	**7,551**

* Yield includes second crop.

2003 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Acadia	57.2	44.0	158.4	7,128
Allen*	35.7	46.1	166.0	7,469
Avoyelles	37.4	50.1	180.4	8,116
Beauregard*	45.7	48.7	175.2	7,884
Concordia	79.5	49.2	177.1	7,970
Evangeline*	48.4	44.5	160.2	7,209
Jefferson Davis*	52.9	28.7	103.3	4,649
Richland	40.2	44.7	160.8	7,234
St. Landry*	32.7	61.1	220.0	9,898
Vermilion*	33.0	40.0	144.0	6,480
TOTALS	**462.7**	**45.7**	**164.5**	**7,404**

* Yield includes second crop.

Continued.

Table 3. Continued.

2004 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Allen*	53.2	40.9	147.1	6,620
Avoyelles	33.3	32.8	118.0	5,307
Beauregard*	21.8	42.5	153.3	6,899
Concordia	82.3	36.0	130.0	5,843
East Carroll	54.8	45.8	165.0	7,427
Evangeline	30.7	34.8	125.2	5,638
Jefferson Davis*	42.3	38.5	138.6	6,237
Natchitoches	47.2	44.1	158.8	7,144
St. Landry*	60.1	65.1	234.3	10,543
Vermilion*	30.0	42.1	151.6	6,824
TOTALS	**455.7**	**42.3**	**152.2**	**6,848**

* Yield includes second crop.

2005 Verification Acres and Yields*				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Acadia	28.9	39.6	143.8	6,427
Allen	76.7	25.6	92.0	4,140
Avoyelles	32.1	35.9	129.3	5,819
Calcasieu	49.0	51.0	184.0	8,282
Concordia	60.5	43.0	156.0	7,003
East Carroll	30.4	47.9	172.7	7,771
Evangeline	30.0	37.1	133.6	6,014
Jefferson Davis	39.2	32.5	117.0	5,264
Natchitoches	30.0	43.3	156.0	7,022
Richland	47.4	49.2	177.2	7,974
St. Landry	61.7	47.5	170.9	7,689
Vermilion	52.8	40.9	147.3	6,631
TOTALS	**538.7**	**41.1**	**148.3**	**6,670**

* No ratoon crop was harvested in the verification program in 2005.

2006 Verification Acres and Yields*				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Avoyelles	41.8	43.0	155.0	6,972
Concordia	54.7	50.8	183.0	8,237
East Carroll	60.4	44.5	150.0	7,210
Evangeline	29.4	32.3	116.0	5,227
Jefferson Davis	21.5	43.8	157.8	6,000
St. Landry	40.9	36.8	132.5	5,962
Vermilion	29.6	37.0	133.3	7,100
West Carroll	50.1	53.1	191.2	8,603
TOTALS	**328.4**	**43.4**	**156.4**	**7,040**

* No ratoon crop was harvested in the verification program in 2005.

Continued.

Table 3. Continued.

2007 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Avoyelles	40.9	56.7	204	9,187
Concordia	53.8	53.6	193	8,680
East Carroll	23.0	49.0	176	7,917
Evangeline – St. Landry	33.9	50.1	180	8,122
Jefferson Davis*	38.9	55.8	201	9,046
Vermilion*	36.6	46.0	166	7,451
West Carroll	40.2	45.4	164	7,356
TOTALS	**267.3**	**51.2**	**184**	**8,293**

* Yield includes second crop.

2008 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Avoyelles	40.9	47	170	7,657
Calcasieu*	55.1	51	183	8,247
Concordia	54.7	44	160	7,178
Evangeline	46.4	42	152	6,840
Madison	41.5	51	182	8,208
Jefferson Davis*	37.7	52	189	8,481
St. Landry	60.2	48	173	7,801
Vermilion*	51.1	70	252	11,359
TOTALS	**387.6**	**51**	**183**	**8,228**

* Yield includes second crop.

2009 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Acadia*	56.6	70.9	255.3	11,489
Avoyelles	28.6	50.7	182.5	8,214
Calcasieu*	41.7	58.1	209.3	9,418
Concordia	57.0	49.6	178.6	8,035
East Carroll	33.6	41.3	148.7	6,692
Evangeline*	22.5	61.7	222.2	9,999
Madison	29.0	50.4	181.5	8,168
St. Landry	49.4	49.3	177.5	7,987
Vermilion*	41.5	66.9	241.0	10,843
TOTALS	**359.9**	**56.0**	**201.7**	**9,078**

* Yield includes second crop.

Continued.

Table 3. Continued.

2010 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Avoyelles	41.8	49.7	179.0	8,057
Jefferson Davis*	35.8	67.5	243.1	10,941
St. Landry	31.3	44.3	159.4	7,171
TOTALS	**108.9**	**54.0**	**194.4**	**8,750**

* Yield includes second crop.

2011 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Allen	23.2	48.1	173.3	7,799
Cameron[1]	17.6	57.6	207.4	9,332[1]
Madison	10.5[2]	57.9	208.5	9,382
St. Landry	45.7	42.5	153.1	6,890
Vermilion	24.0	54.0	194.5	8,754
TOTALS	**121.0**	**49.4**	**177.9**	**8,005**

[1] Yield includes second crop.
[2] Yield calculated on 10.5 acres, total field acres 73.4.

2012 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Allen	30.7	45.6	164.2	7,391
Cameron[1]	35.7	42.3	152.4	6,858
Concordia	37.4	45.2	162.7	7,321
St. Landry[1]	44.1	64.9	233.6	10,510
Vermilion	16.5	44.1	158.6	7,137
TOTALS	**164.4**	**49.8**	**179.3**	**8,071**

[1] Yield includes second crop.

2013 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Evangeline	38.0	51.7	186.0	8,368
Jeff Davis[1]	39.3	65.1	234.2	10,541
St. Landry[1]	52.4	75.2	270.7	12,183
Vermilion	17.3	36.4	131.1	5,898
W. Carroll	34.5	65.3	235.2	10,582
TOTALS	**181.5**	**62.5**	**225.0**	**10,125**

[1] Yield includes second crop.

Table 3. Continued.

Table 3. Continued.

2014 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Concordia	23.0	48.5	174.8	7,865
Evangeline	20.7	46.2	166.3	7,483
Jeff Davis[1]	42.6	83.8	301.6	13,574
Vermilion[1]				
W. Carroll	32.2	51.4	185.1	8,329
TOTALS	**118.5**			**9,931**

[1] Yield includes second crop.

2015 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Acadia [1]	40.5	85.5	308	13,867
Cameron [1]	45	65	233	10,522
Concordia	18	52	189	8,487
Vermilion	39.2	40	145	6,529
W. Carroll	36.5	56	202	9,089
TOTALS	**179.2**	**61**	**219.9**	**9,908**

[1] Yield includes second crop.

2016 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Acadia [1]	45	74.34	267.6	12,040
Cameron [1]	25	61.5	221.4	9,960
Concordia	18	48.9	176	7,930
Vermilion[2]	18			
Richland	24	42	151	6,902
TOTALS[3]	**112**	**60.4**	**217**	**9,814**

[1] Yield includes second crop.
[2] Not harvested due to flood.
[3]Harveste acres only

2017 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Avoyelles	31.6	35.12	137.23	6,475
Calcasieu[1]	19.5	54.79	197.3	8,887
East Carroll	5[2]	59.8	215.75	9,709
Richland	32.7	52.25	188.12	8,465
Morehouse	34.4	65.8	237	10,667
TOTALS	**123.2**	**52.3**	**191.28**	**8,686**

[1] Yield includes second crop.
[2] Yield calculated on 5 acres, total field area 90 acres.
Continued.

Table 3. Continued.

2018 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Avoyelles	31	46.47	167.2	7528
Calcasieu[1]	16.9	47.7	171.3	7730
East Carroll	6[2]	56.2	202.6	9117
Vermilion	30	49.2	177.2	7978
TOTALS	**83.9**	**48.3**	**174.1**	**7843**

[1] Yield includes second crop.
[2] Yield calculated on 6 acres, total field area 90 acres.

2019 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Acadia	8	37.4	134.6	6060
Evangeline	31	37.4	134.6	6060
Jeff Davis[1]	18	54.1	194.6	8766
Morehouse	13	38.9	140.2	6309
TOTALS	**70**	**41.96**	**151**	**6244**

[1] Yield includes second crop.

2020 Verification Acres and Yields				
		Yield at 12% Moisture		
Parish	**Acres**	**Barrels/A**	**Bushels/A**	**Pounds/A**
Acadia	42	54.6	197	8849
Evangeline	46	40.16	144.5	6506
Jeff Davis	9.5	41.5	149	6722
Vermilion	32	47.7	171	7727
TOTALS	**129.5**	**45.99**	**165.3**	**7451**

1998 – 2020 Rice Research Verification Yield Summary

Verification Totals			Verification Parish Totals[1]		
Year	**Acres**	**Pounds/A**	**Acres**	**Pounds/A**	**Difference**
1998	427.6	6,018	475,103	5,052	966
1999	320.3	6,273	444,015	5,502	771
2000	393.8	5,780	385,824	5,620	160
2001	489.1	7,438	412,286	5,794	1,644
2002	433.6	7,551	412,630	5,764	1,787
2003	462.7	7,404	327,843	5,843	1,561
2004	455.7	6,848	311,606	5,582	1,266
2005	538.7	6,670	402,759	6,165	505
2006	328.4	7,040	185,249	5,644	1,396
2007	267.3	8,293	183,357	6,501	1,792
2008	387.6	8,228	258,845	6,047	2,181
2009	359.9	9,078	246,793	6,715	2,363
2010	108.9	8,750	125,856	6,488	2,262
2011	121.0	8,005	110,236	6,175	1,830
2012	164.4	8,071	109,823	6,043	2,028
2013	181.5	10,125	202,366	7,524	2,602
2014	118.5	9,931	194,761	7,541	2,390
2015	179.2	9,908	149,888	6,860	3,048
2016	112	9,814	159,514	6,549	3,265
2017	123.2	8,686	50,176	7,482	1,204
2018	83.9	7,843	77,214	6,580	1,263
2019	70	6,801	241,093	6098	471
2020	129.5	7,584	*	*	*
Totals	**6,063.6**		**48,258,047**		

* Not available at press time.

[1] Verification Parish Totals derived by participating parish acreage multiplied by average parish yield (taken from Ag Summary), add totals, and divide by participating parish total acreage to get lb/A.

STATION PERSONNEL

Donald E. Groth, Professor	**Resident Coordinator**
Kimberly G. Guidry	Accounting Specialist 1
Carol D. LeDoux	Administrative Program Specialist-A
Donna L. Sonnier	Custodian 1
Roxanne A. Trahan[1]	Administrative Coordinator 3
Raymond R. Dilly, Jr.	Safety Coordinator/Research Associate
Adam N. Famoso[2], Assistant Professor	**Rice Breeding**
Brijesh Angira	**Assistant Professor-Research**
Karen F. Bearb	Research Associate/Coordinator
Valerie B. Dartez[3]	Research Associate
Jennifer D. Dartez	Research Farm Specialist 2
Gavin J. Guidry[4]	Research Associate/Specialist
Christopher Hernandez	Postdoctoral Researcher
Joseph John, II[5]	Research Associate Specialist
Brady L. Williams	Research Farm Specialist 2
Christopher K. Addison[6]	Graduate Assistant
Tommaso Cerioli	Graduate Assistant
Raul Guerra	Graduate Assistant
Donald E. Groth, Professor	**Rice Pathology**
Caitlyn deNux[7]	Research Associate/Specialist
Laura L. Monte	Research Farm Specialist 2
Dustin L. Harrell, Professor/Research Coordinator	**Rice Agronomy/Rotational Crops/Extension**
Jacob S. Fluitt	Research Associate/Specialist
Jason R. Hartman	Research Farm Specialist 1
James P. Leonards	Research Associate/Specialist
Anna E. Coker[8]	Graduate Assistant
Wipada Butsai[9]	Graduate Assistant
Manoch Kongchum, Assistant Professor-Research	**Rice Agronomy/Rotational Crops**
William J. Leonards, Jr., Research Associate/Coordinator/Manager[10]	**Farm Management**
Brent Theunissen, Research Associate/Coordinator/Manager[11]	**Farm Management**
Brandon J. Frey	Research Farm Manager
Brian D. Broussard[12]	Research Farm Supervisor
Paul A. Miller	Research Farm Specialist 1
Jimmy D. Pellerin	Research Farm Specialist 2
Thomas J. Reed	Research Farm Specialist 2
Ty Henderson[13]	Research Farm Specialist 1

[1] Appointed 02/17/2020.
[2] Promoted to Associate Professor 07/01/2020.
[3] Promoted from Admin. Coordinator III to Research Associate 01/01/2020
[4] Resigned 11/13/2020.
[5] Appointed 01/02/2020.
[6] Separated 03/06/2020.
[7] Appointed 01/09/2020.
[8] Graduated 05/2020.
[9] Graduated 05/2020.
[10] Retired 03/31/2020.
[11] Promoted 04/01/2020.
[12] Retired 08/23/2020.
[13] Appointed 09/28/2020.

STATION PERSONNEL
(Continued)

Mark G. Shirley, Agent ---------- Aquaculture

John J. Sonnier	Research Farm Specialist 2

James H. Oard, Professor---------- Rice Hybrid Breeding

Weiki Li	Visiting Scientist
Tara L. Roy	Research Farm Specialist 1
Jessica L. Thornton	Research Associate/Specialist
Anna H. Borjas Artica	Graduate Assistant
Paola Mosquera	Graduate Assistant
Democrito Banay Rebong II	Graduate Assistant

Dean J. LeJeune, Research Farm Maintenance Manager ---------- Maintenance Department

Nathan T. Breaux[14]	Maintenance Repairer 1
Justin P. Sarver	Maintenance Repairer 2

Blake E. Wilson, Assistant Professor ---------- Rice Entomology

Kim J. Landry	Research Associate/Specialist

Herry S. Utomo, Professor---------- Marker-Assisted Selection Breeding/Biotechnology

Hayden J. Dugas	Research Farm Specialist 1
Gretchen M. Zaunbrecher	Research Associate/Specialist
Hein Zaw[15]	Graduate Assistant

Ida Wenefrida, Associate Professor-Research---------- Biotechnology

Richard E. Zaunbrecher, Research Associate/Coordinator ---------- Foundation Seed Rice

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[14]Promoted to Maintenance Repairer II 09/2020.
[15]Graduated March 2020.

LSU AGCENTER CAMPUS PERSONNEL

LSU AgCenter personnel conducting research at the H. Rouse Caffey Rice Research Station include the following:

Michael A. Deliberto, Assistant Professor for Research ---------- **Economics**
Department of Agricultural Economics and Agribusiness

Jong Hyun Ham, Associate Professor ---------- **Rice Diseases**
Department of Plant Pathology and Crop Physiology

Inderjit K. Barphagha	Research Associate
Jobelle Bruno	Graduate Assistant
John Ontoy	Graduate Assistant

Michael E. Salassi, Professor ---------- **Economics**
Department of Agricultural Economics and Agribusiness

Michael J. Stout, Professor ---------- **Rice Entomology**
Department of Entomology

Blake E. Wilson	Assistant Professor
Megan M. Mulcahy	Graduate Assistant
James M.P. Villegas	Research Associate

Eric P. Webster, Professor---------- **Rice Weed Control**
School of Plant, Environmental and Soil Sciences

Benjamin M. McKnight	Postdoctoral Researcher
Samer Y. Rustom, Jr.	Graduate Assistant
David C. Walker	Graduate Assistant
L. Connor Webster	Graduate Assistant

COOPERATING PERSONNEL

Cooperating personnel on research projects at the H. Rouse Caffey Rice Research Station include the following:

Niranjan Baisakh ---------- **Rice Breeding**
School of Plant, Environmental and Soil Sciences
Louisiana State University Agricultural Center

Steve A. Harrison ---------- **Wheat, Oats, and Coastal Erosion Control**
School of Plant, Environmental and Soil Sciences
Louisiana State University Agricultural Center

Boyd Padgett - Interim ---------- **Soybeans**
Dean Lee Research and Extension Center
Louisiana State University Agricultural Center

Anthony Rivera ---------- **Rice Breeding**
University of Puerto Rico Research & Extension Center
Lajas, Puerto Rico

Aaron P. Smith ---------- **Rice Breeding**
Department of Biological Sciences
Louisiana State University

Prasanta K. Subudhi ---------- **Rice Breeding**
School of Plant, Environmental and Soil Sciences
Louisiana State University Agricultural Center

Brenda Tubaña ---------- **Rice Fertilization**
School of Plant, Environmental and Soil Sciences
Louisiana State University Agricultural Center

William F. Futch ----------**Bird Control**
USDA Animal Damage Control
Crowley, Louisiana

Visit our website: www.LSUAgCenter.com

William B. Richardson, LSU Vice President for Agriculture
Louisiana State University Agricultural Center
Louisiana Agricultural Experiment Station
Louisiana Cooperative Extension Service
LSU College of Agriculture

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