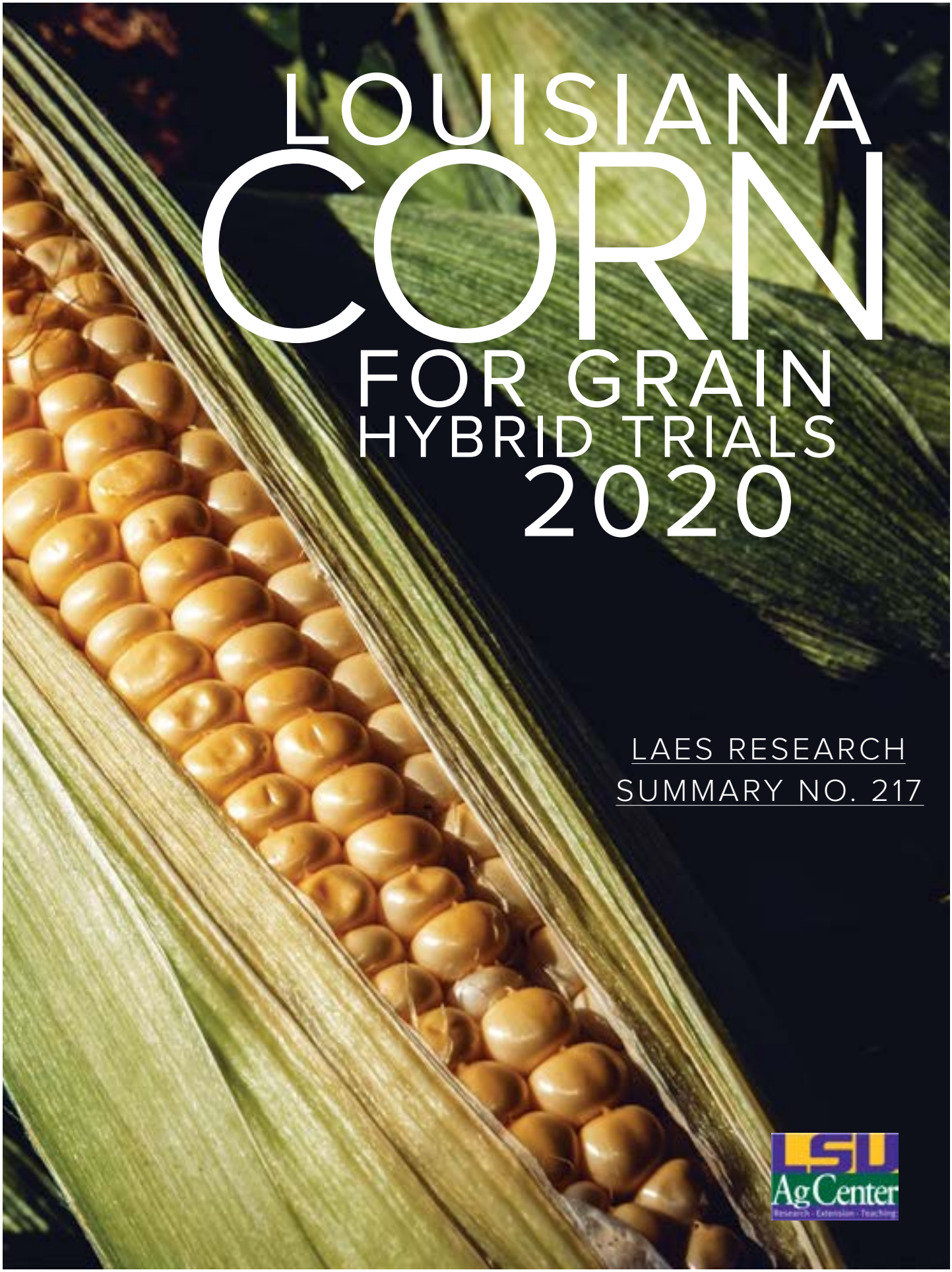


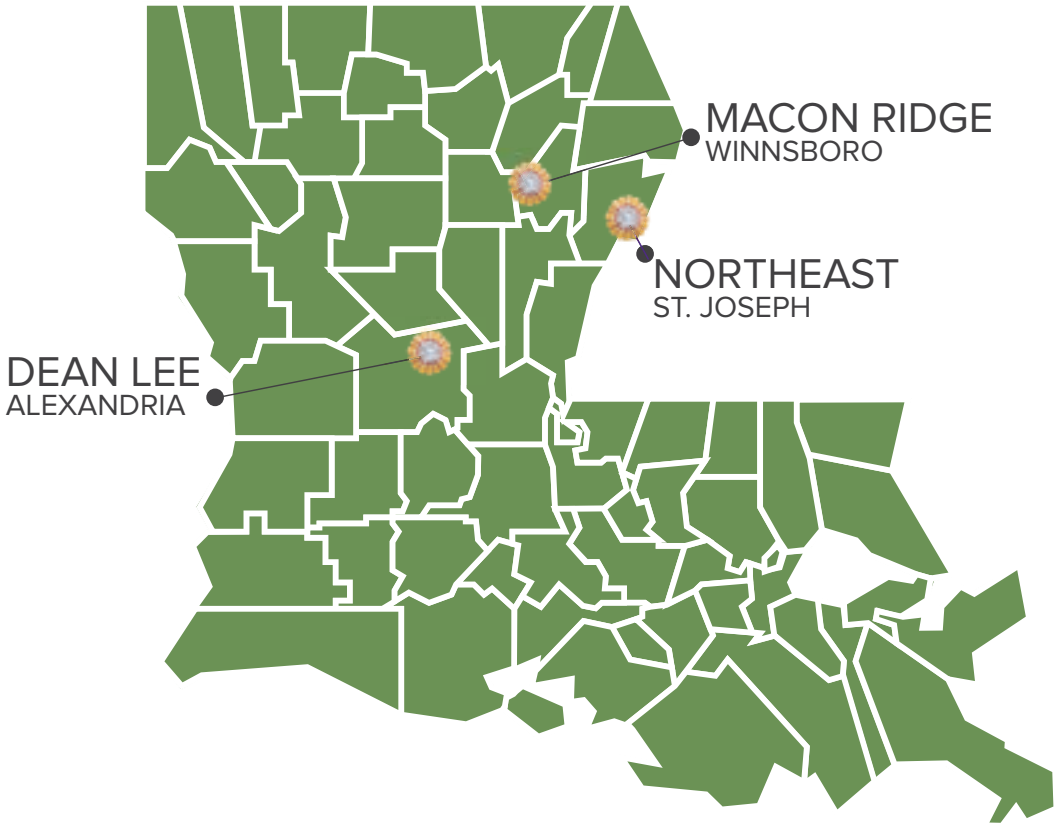
LOUISIANA CORN FOR GRAIN HYBRID TRIALS 2020

LAES RESEARCH SUMMARY NO. 217

LSU AgCenter
Research · Extension · Teaching

TABLE OF CONTENTS

CORN HYBRID TEST LOCATIONS



INTRODUCTION

The performance of corn hybrids is evaluated annually in official hybrid trials (OHTs) by LSU AgCenter researchers. The purpose of these trials is to provide Louisiana growers, seedsmen, county agents and consultants with unbiased performance data for commercial corn hybrids submitted for evaluation by private companies. Selection of superior hybrids that are well adapted for a given region is essential for maximizing yield and profit. In 2020, 53 corn hybrids were entered by commercial seed companies. Locations of these trials included the Dean Lee Research and Extension Center, Alexandria; Northeast Research Station, St. Joseph; and Macon Ridge Research Station, Winnsboro (Table 1).

Table 1. Agronomic milestones for corn hybrid trials by location, 2020.

Location	Soil type	Irrigation	Row spacing	Planting date	Harvest date
Alexandria (AX)	Coushatta silt loam	Nonirrigated	38”	3/18/20	8/20/20
St. Joseph (SJ-sl)	Commerce silt loam	Furrow	40”	3/17/20	8/13/20
St. Joseph (SJ-c)	Sharkey clay	Furrow	40”	3/16/20	8/18/20
Winnsboro (WN)	Gigger silt loam	Furrow	40”	3/18/20	8/17/20

SUGGESTIONS FOR SELECTING HYBRIDS

Hybrid selection is one of the most important decisions for producers, and there are many different hybrids available on the market. Soil conditions, irrigation practices and cultural practices vary among growers throughout the state; consequently, hybrid performance also varies based on soil type, irrigation, planting date, environmental conditions and location.

Yield is usually the most important trait considered by producers when selecting hybrids; however, maturity, stay-green, lodging, shuck cover, ear placement, disease and insect resistance also need to be considered. Yield data from multiple locations will offer clues as to hybrid performance consistency.

Hybrid maturity is rated using relative maturity (RM) or growing degree day (GDD) rating systems. These two methods are based on the number of days or degree days required for physiological maturity. Louisiana producers can grow early, mid-, and full-season hybrids, with 112-day to 121-day hybrids producing the best yields. Full-season hybrids do not consistently out-yield mid-season hybrids. It appears there is more variability in yield among hybrids within a given RM rating than there is between maturity groups.

Hybrids that stay green later into their maturity usually retain better stalk strength and have less lodging potential. Shuck cover is important for protecting the ear and kernels from weathering and fungi. When planted late during the recommended window, hybrids will grow taller because of higher day and night temperatures and resulting internode elongation. Therefore, ear placement will be higher when compared to earlier planting dates, which may increase lodging potential. Consider planting a hybrid that has a low ear placement late during the planting season.

Corn hybrids have different insect and herbicide traits conferred by biotechnology and should be chosen based on the best fit for your production system. More information regarding available transgenic traits for insect and weed control are available in the Insect Pest Management Guide and Suggested Chemical Weed Control Guide.

Select several hybrids that are consistently top performers over multiple locations or years within a region. Consistency over multiple environments is important because environmental conditions vary annually.

PROCEDURES

The experimental design at each location was a randomized complete block design with four to five replications. Measured traits and rating scales are defined in Table 2. Analyses of variance and least significant differences (LSD) were calculated only if differences existed at the 90% confidence level. If differences were significant, an LSD at the 10% probability level was calculated. If the LSD (0.10) for yield in a trial is 10 bushels per acre, there is a 10% chance that two hybrids with a reported yield difference of 10 bushels per acre are genetically equal and a 90% probability they have differences in genetic potential in that particular environment. LSD values are influenced by how well soil fertility, stand establishment, plot length, harvest efficiency, and other variables are controlled and by the number of replications for each hybrid. The letters NS are used in the text and tables to indicate lack of significance (not significantly different) at the 10% probability level. The coefficient of variation (CV) reflects the magnitude of experimental error (random variation not accounted for by hybrids and replications) in relation to the trial mean. A high CV means that relative differences among hybrids were not consistent among replications, which reduces the precision of the test.

Table 2. Corn traits and rating scales used in the LSU AgCenter Official Hybrid Trials, 2020.

Trait	Abbreviation	Description
Yield	YLD	Grain yield, bu/a, adjusted to 15.5% moisture
Grain moisture	GM	Grain moisture at harvest (%)
Test weight	TW	Volume weight of grain (lb/bu)
Plant population	PP	Plant population (No./A)
Mid-silking date	MS	Silking date of 50% of plants, in days after planting (DAP)
Plant height	PH	Height from ground to the flag leaf (in)
Ear height	EH	Height from ground to where primary ear attaches to the plant (in)
Husk cover	HC	Visual rating of how well kernels are covered, 1=closed and 3=open husk
Lodging	LO	Lodging at harvest (%)
Northern corn leaf blight	NCLB	Northern corn leaf blight rating; 0=none, 9=severe
Southern rust	SR	Southern rust rating; 0=none, 9=severe

Yield data across locations for 2020 is summarized in Table 3. For individual locations, a summary of agronomic milestones is listed prior to the data (Tables 4-7). Contact information for participating seed companies is detailed in Table 8.

Table 3. Yield performance of hybrids across locations, 2020.

Brand	Hybrid	AX[1]	SJ-sl	SJ-c	WN	AVG
BH Genetics	BH 8721 VT2P	161.1	246.1	235.8	212.5	213.9
LG	LG 68C59	165.6	236.0	255.5	198.3	213.9
Winfield United	CP 5335/VT2P	160.4	236.3	247.4	208.4	213.1
DeKalb	DKC 67-44	162.1	229.2	254.6	198.4	211.1
Dyna-Gro	D54VC14	165.2	228.1	251.5	196.7	210.4
Local	LC1577 VT2P	156.2	250.3	242.1	189.9	209.6
BH Genetics	X19027 SS	155.4	248.4	255.6	178.4	209.5
Winfield United	CP 5550/VT2P	166.8	236.3	244.0	189.5	209.2
Winfield United	X19115B/VT2P	161.2	235.1	260.6	174.2	207.8
Progeny	PGY9117VT2P	160.4	238.8	230.1	200.4	207.4
Pioneer	P1870YHR	167.0	236.7	247.8	178.1	207.4
Dyna-Gro	D57VC51	165.2	224.8	249.2	190.4	207.4
Mission	AV7516 Q	154.9	224.1	254.2	195.1	207.1
Winfield United	CP 5370/VT2P	169.1	241.2	245.9	172.0	207.1
Dyna-Gro	D55VC80	163.7	244.0	241.7	178.4	207.0
Local	LCX17-21 VT2P	159.1	242.0	254.2	169.8	206.3
Mission	A1477 DGVT2P	160.9	237.4	244.9	181.1	206.1
Local	LC1898 TC	151.4	236.0	247.4	188.8	205.9
Pioneer	P1903YHR	156.4	222.4	237.3	205.7	205.5
DeKalb	DKC 68-69	138.6	246.2	246.8	189.0	205.2
LG	LG 66C44VT2PRO	151.5	229.1	250.4	184.9	204.0
BH Genetics	X18053 VT2P	157.2	233.5	238.7	185.6	203.8
DeKalb	DKC 70-27	149.1	238.1	253.1	173.6	203.5
Pioneer	P1464VYHR	166.7	222.8	240.7	182.0	203.1
Local	LC1497 DGVT2P	152.4	232.5	235.1	190.9	202.7
Progeny	PGY9114VT2P	162.1	228.6	242.2	174.5	201.9
Progeny	PGY8116SS	156.7	227.5	245.3	177.4	201.7
DeKalb	DKC 65-95	157.4	241.6	249.4	157.7	201.5
Dyna-Gro	D58VC65	163.5	229.9	239.0	173.3	201.4
Mission	A1257 VT2P	166.5	228.8	229.4	179.7	201.1
DeKalb	DKC 65-99	158.1	238.0	238.3	169.0	200.9
LG	LG 68C22VT2PRO	147.4	235.9	240.6	176.8	200.2
Progeny	PGY2015VT2P	160.7	227.2	236.6	173.5	199.5
Local	LC1307TC	167.5	218.9	257.9	152.3	199.2

Brand	Hybrid	AX[1]	SJ-sl	SJ-c	WN	AVG
Dyna-Gro	D57VC17	138.0	230.3	252.3	175.0	198.9
Winfield United	CP 5340/VT2P	164.8	213.8	228.7	184.1	197.9
Pioneer	P1828YHR	155.3	234.8	236.6	163.1	197.5
Mission	A1657 VT2P	145.1	227.5	233.6	182.4	197.2
Local	LC1697 VT2P	152.8	238.1	238.5	157.9	196.8
Local	LC1398 VT2P	157.3	227.5	245.8	156.1	196.7
Local	LC1289 VT2P	155.3	233.4	230.1	167.4	196.6
Local	LC1407VT2P	147.6	217.7	236.8	180.5	195.7
Local	LC1987 VT2P	141.5	240.3	240.2	158.2	195.1
Local	LCX15-20VT2P	130.0	232.7	245.6	171.0	194.8
DeKalb	DKC 66-75	142.9	222.0	242.6	171.3	194.7
Pioneer	P1077YHR	144.9	216.1	232.4	185.2	194.7
Dyna-Gro	D53VC33	152.8	212.9	232.0	178.5	194.1
Local	LC1806VT2P	138.3	228.2	225.1	183.8	193.9
Mission	A1798 VT2P	147.6	214.0	222.9	186.7	192.8
LG	LG 66C32VT2PRO	157.5	233.0	228.1	152.5	192.8
Mission	AV8216 YHB	145.5	212.7	224.4	181.3	191.0
Mission	A1548 DGVT2P	144.7	211.4	234.4	171.7	190.6
DeKalb	DKC 66-18	147.3	224.3	221.5	164.0	189.3
Average		154.4	230.8	241.5	179.5	
CV, %		8.8	6.5	5.7	9.7	
LSD (0.10)		15.9	15.7	16.1	20.3	

[1]AX=Alexandria; SJ-sl=St. Joseph (silt loam); SJ-c=St. Joseph (clay); WN=Winnsboro; and AVG=average.

DEAN LEE RESEARCH AND EXTENSION CENTER ALEXANDRIA

Soil type: Coushatta silt loam
Soil pH: 8.0
Tillage: Conventional
Previous crop: Soybeans
Row width: 38"
Seeding rate: 36,000
Planting date: 3/18/2020
Irrigation: No
Pre-plant fertilizer: 0-60-60
Post-plant fertilizer: 200-0-0-13
Herbicide applications: Pre-emerge: Atrazine 4L + Medal II
Herbicide applications: Post-emerge: Atrazine 4L + Glyphosate
Harvest date: 8/20/2020
Harvested plot size: 2 rows by 50 feet
Experimental design: RCBD
Replications: 5

Table 4. Official corn hybrid trial results, Alexandria, 2020.

Brand	Hybrid	YLD[1]	GM	TW	PP	MS	PH	EH	HC	LO
Winfield United	CP 5370/VT2P	169.1	12.6	57.8	34,768	73.8	78.8	33.7	1.5	1.0
Local	LC1307TC	167.5	12.8	57.3	26,721	71.8	79.2	34.1	1.8	1.7
Pioneer	P1870YHR	167.0	14.0	58.2	30,298	75.0	83.0	34.3	1.0	0.6
Winfield United	CP 5550/VT2P	166.8	13.0	56.8	31,433	72.8	75.9	33.7	1.0	0.3
Pioneer	P1464VYHR	166.7	12.5	57.1	31,983	75.0	82.4	35.1	1.0	1.1
Mission	A1257 VT2P	166.5	13.2	57.6	33,083	71.5	74.7	31.9	1.3	0.5
LG	LG 68C59	165.6	12.8	55.9	33,393	75.0	84.8	33.3	1.0	2.2
Dyna-Gro	D57VC51	165.2	14.0	58.3	32,395	74.8	76.7	32.9	1.3	3.9
Dyna-Gro	D54VC14	165.2	13.6	58.4	32,086	72.0	72.9	30.0	1.8	0.8
Winfield United	CP 5340/VT2P	164.8	12.6	57.6	29,197	73.3	74.3	30.9	1.5	3.2
Dyna-Gro	D55VC80	163.7	13.1	57.9	29,060	75.0	80.2	35.9	1.0	0.1
Dyna-Gro	D58VC65	163.5	13.6	58.6	30,126	73.3	72.6	29.3	1.3	0.5
DeKalb	DKC 67-44	162.1	13.2	58.7	30,297	72.0	79.6	34.6	2.3	0.8
Progeny	PGY9114VT2P	162.1	13.6	58.9	30,917	71.5	74.9	30.4	1.5	1.3
Winfield United	X19115B/VT2P	161.2	13.0	57.9	29,335	74.8	80.5	34.4	1.0	0.9
BH Genetics	BH 8721 VT2P	161.1	13.3	59.3	32,567	74.0	77.7	33.3	1.3	0.1
Mission	A1477 DGVT2P	160.9	12.8	56.4	32,877	71.0	79.3	35.6	1.0	0.8
Progeny	PGY2015VT2P	160.7	13.8	59.0	31,673	72.5	82.4	33.8	1.0	0.5
Progeny	PGY9117VT2P	160.4	13.3	58.8	28,028	74.3	76.7	32.1	2.0	2.4
Winfield United	CP 5335/VT2P	160.4	13.9	58.1	31,983	72.3	75.9	31.2	1.0	0.0
Local	LCX17-21 VT2P	159.1	14.9	60.3	27,753	75.5	80.8	37.2	1.3	0.1
DeKalb	DKC 65-99	158.1	13.4	58.4	28,613	73.8	73.7	31.8	1.3	2.8
LG	LG 66C32VT2PRO	157.5	13.0	58.5	28,819	71.5	67.4	30.1	1.0	0.8
DeKalb	DKC 65-95	157.4	13.7	59.2	30,573	74.0	78.4	33.4	1.8	2.0
Local	LC1398 VT2P	157.3	13.3	57.6	30,951	73.8	78.7	34.7	1.3	0.1
BH Genetics	X18053 VT2P	157.2	13.6	58.1	28,819	74.0	95.7	35.4	1.3	0.7
Progeny	PGY8116SS	156.7	13.6	59.9	27,168	74.3	78.6	36.9	1.0	0.2
Pioneer	P1903YHR	156.4	13.3	56.2	30,951	75.0	83.7	31.2	1.0	0.3
Local	LC1577 VT2P	156.2	12.8	58.0	26,996	73.3	71.5	29.0	1.5	0.6
BH Genetics	X19027 SS	155.4	14.4	60.6	29,369	75.3	80.5	36.0	1.0	2.9
Pioneer	P1828YHR	155.3	13.3	56.9	30,916	75.8	81.2	30.2	1.5	0.9
Local	LC1289 VT2P	155.3	12.7	57.4	34,390	72.0	74.7	31.5	1.0	2.1
Mission	AV7516 Q	154.9	14.4	59.7	33,324	74.0	80.6	30.2	1.0	0.2
Local	LC1697 VT2P	152.8	13.2	59.0	27,168	72.8	78.2	34.9	2.5	0.6
Dyna-Gro	D53VC33	152.8	12.2	57.1	31,020	72.8	76.6	31.4	1.0	1.3
Local	LC1497 DGVT2P	152.4	12.4	56.7	30,710	75.0	80.3	34.9	1.5	1.4
LG	LG 66C44VT2PRO	151.5	12.5	57.3	27,099	75.0	79.1	34.9	1.5	0.3
Local	LC1898 TC	151.4	12.9	58.8	31,260	74.8	81.3	33.7	1.3	1.3
DeKalb	DKC 70-27	149.1	14.0	59.3	26,136	74.8	80.6	35.4	1.0	0.5
Local	LC1407VT2P	147.6	13.0	58.4	29,472	74.0	78.9	34.5	1.8	2.2
Mission	A1798 VT2P	147.6	13.7	57.6	28,887	72.0	73.3	33.1	1.3	0.1
LG Seed	LG 68C22VT2PRO	147.4	14.2	60.2	25,930	75.0	82.0	35.2	1.0	2.6
DeKalb	DKC 66-18	147.3	12.9	57.1	27,684	74.5	76.3	30.9	1.0	3.1
Mission	AV8216 YHB	145.5	12.9	57.3	35,250	73.3	82.9	30.8	1.3	0.6
Mission	A1657 VT2P	145.1	13.3	58.5	28,509	74.0	78.7	34.4	1.0	0.7
Pioneer	P1077YHR	144.9	12.1	56.1	30,607	74.0	73.4	28.5	1.3	2.3
Mission	A1548 DGVT2P	144.7	13.2	57.6	30,229	74.5	76.9	32.1	1.0	3.4
DeKalb	DKC 66-75	142.9	13.2	57.3	22,353	73.3	80.1	34.0	1.8	2.0
Local	LC1987 VT2P	141.5	13.9	59.4	27,134	74.8	77.3	31.2	1.3	1.0
DeKalb	DKC 68-69	138.6	14.1	58.7	21,047	75.0	79.4	32.8	1.0	0.0
Local	LC1806VT2P	138.3	13.9	59.2	28,337	73.5	72.8	31.3	1.0	4.8
Dyna-Gro	D57VC17	138.0	13.3	59.0	27,065	72.8	78.7	34.0	2.0	0.3
Local	LCX15-20VT2P	130.0	13.0	58.7	30,779	74.5	77.5	33.2	1.8	3.0
Average		154.4	13.3	58.1	29,715	73.7	78.4	32.9	1.29	1.3
CV, %		8.8	4.7	1.4	9.4	1.7	7.4	7.1	39.7	159.5
LSD (0.10)		15.9	0.7	0.9	3,252	1.4	6.8	2.7	0.6	NS

Numbers shaded within a column are not significantly different from the numerically greatest value.

NORTHEAST
RESEARCH STATION
ST. JOSEPH
(SILT LOAM SOIL)

Soil type: Commerce silt loam
Soil pH: 7.3
Tillage: Reduced
Previous crop: Cotton
Row width: 40"
Seeding rate: 36,000
Planting date: 3/16/2020
Irrigation: Yes
Pre-plant fertilizer: 3-13-20 (200 lb/A
Post-plant fertilizer: 250 units N
Herbicide applications: Burndown Cinch ATZ 45 oz + Gramaxone 22 Oz; Pre-emerge Roundup Powermax 1 qt/a + Atrazine 1 QT/a; Post-emerge Atrazine 1 Qt + Dual Magnum 1.3 pt + Roundup Powermax 22 oz/a
Harvest date: 8/18/2020
Harvested plot size: 2 rows by 32 feet
Experimental design: RCBD
Replications: 4

Table 5. Official corn hybrid trial results, St. Joseph-silt loam, 2020.

Brand	Hybrid	YLD	GM	TW	PP	MS	PH	EH	HC	LO
Local	LC1577 VT2P	250.3	14.4	60.2	36,448	71.2	72.2	37.8	1.6	31.0
BH Genetics	X19027 SS	248.4	15.0	61.3	34,229	76.6	82.8	46.0	1.0	7.4
DeKalb	DKC 68-69	246.2	15.4	60.3	30,533	72.0	82.0	42.2	1.6	1.2
BH Genetics	BH 8721 VT2P	246.1	15.1	59.8	32,514	72.2	81.8	41.4	1.0	35.0
Dyna-Gro	D55VC80	244.0	14.7	58.4	34,204	73.6	80.6	44.0	1.6	1.0
Local	LCX17-21 VT2P	242.0	14.9	61.4	31,391	76.4	81.0	45.4	1.2	2.0
DeKalb	DKC 65-95	241.6	14.6	60.3	33,090	72.6	78.4	39.8	1.6	1.6
Winfield United	CP 5370/VT2P	241.2	14.1	58.9	35,587	74.0	80.2	42.6	1.4	0.4
Local	LC1987 VT2P	240.3	15.1	60.4	32,168	74.0	81.6	43.0	1.4	0.6
Progeny	PGY9117VT2P	238.8	15.3	59.7	31,661	70.8	81.4	42.0	2.2	2.8
DeKalb	DKC 70-27	238.1	15.5	60.2	32,421	73.8	82.2	42.6	1.2	1.2
Local	LC1697 VT2P	238.1	14.6	60.4	31,113	71.8	81.0	44.6	1.4	1.2
DeKalb	DKC 65-99	238.0	14.6	59.3	32,284	71.2	75.4	37.6	1.4	1.8
Mission	A1477 DGVT2P	237.4	14.7	57.9	30,091	72.0	81.4	42.4	1.8	3.0
Pioneer	P1870YHR	236.7	15.4	60.1	34,507	76.2	84.8	44.4	1.4	10.6
Winfield United	CP 5550/VT2P	236.3	14.5	58.0	33,585	72.4	80.6	41.8	1.0	0.4
Winfield United	CP 5335/VT2P	236.3	14.5	59.2	33,873	71.2	79.2	39.8	1.2	0.6
LG	LG 68C59	236.0	14.8	57.9	35,252	75.6	83.2	42.8	1.0	11.4
Local	LC1898 TC	236.0	14.5	60.2	34,003	73.0	80.6	44.0	1.2	0.4
LG	LG 68C22VT2PRO	235.9	14.6	61.2	31,804	75.6	79.8	43.4	1.2	4.4
Winfield United	X19115B/VT2P	235.1	14.8	59.0	36,104	74.2	80.4	44.4	1.4	1.0
Pioneer	P1828YHR	234.8	15.2	59.5	32,942	74.8	83.2	43.6	1.2	15.8
BH Genetics	X18053 VT2P	233.5	15.1	59.6	32,385	74.0	73.4	43.6	1.4	0.4
Local	LC1289 VT2P	233.4	14.2	58.5	31,294	71.8	79.0	41.0	1.8	3.2
LG	LG 66C32VT2PRO	233.0	14.6	59.8	31,766	70.8	74.8	37.8	1.4	22.4
Local	LCX15-20VT2P	232.7	14.2	61.5	34,505	72.0	79.0	40.2	1.4	10.4
Local	LC1497 DGVT2P	232.5	13.9	58.1	33,757	72.0	80.2	42.6	1.6	0.0
Dyna-Gro	D57VC17	230.3	14.3	60.7	31,660	71.8	76.6	43.2	1.8	2.4
Dyna-Gro	D58VC65	229.9	14.4	60.3	33,130	71.6	77.0	39.8	1.6	11.4
DeKalb	DKC 67-44	229.2	14.6	60.5	35,491	70.8	82.2	42.6	1.4	1.8
LG	LG 66C44VT2PRO	229.1	15.0	58.9	31,670	71.8	80.0	41.6	1.8	1.0
Mission	A1257 VT2P	228.8	14.1	58.8	31,997	70.2	75.8	38.2	1.8	4.8
Progeny	PGY9114VT2P	228.6	14.7	59.4	33,130	69.4	76.6	38.8	2.0	7.2
Local	LC1806VT2P	228.2	14.9	60.6	32,292	71.6	77.8	39.6	1.0	11.4
Dyna-Gro	D54VC14	228.1	14.5	60.6	29,966	70.8	74.6	39.2	1.4	11.0
Mission	A1657 VT2P	227.5	14.8	58.8	31,154	71.2	82.2	43.8	1.0	1.4
Progeny	PGY8116SS	227.5	14.5	60.4	31,053	73.4	77.8	40.6	1.8	0.0
Local	LC1398 VT2P	227.5	14.3	58.8	31,368	72.2	78.8	42.8	2.0	0.0
Progeny	PGY2015VT2P	227.2	14.5	59.2	33,931	73.8	80.2	42.8	2.2	3.6
Dyna-Gro	D57VC51	224.8	16.3	59.2	32,420	75.8	81.0	40.6	1.2	2.2
DeKalb	DKC 66-18	224.3	15.0	59.6	32,646	72.4	78.4	39.4	1.4	1.2
Mission	AV7516 Q	224.1	15.5	60.4	32,638	73.6	79.2	37.8	1.4	4.8
Pioneer	P1464VYHR	222.8	14.2	58.6	31,929	74.8	80.6	41.6	1.2	26.6
Pioneer	P1903YHR	222.4	15.5	58.0	32,534	75.2	81.6	40.6	1.4	2.6
DeKalb	DKC 66-75	222.0	14.7	58.7	33,912	73.6	79.6	41.6	1.6	1.4
Local	LC1307TC	218.9	14.2	59.2	33,606	70.8	78.4	41.2	1.6	8.0
Local	LC1407VT2P	217.7	14.7	59.5	29,734	72.4	79.2	42.4	1.6	0.8
Pioneer	P1077YHR	216.1	14.2	59.2	31,753	70.6	79.4	39.0	1.2	20.2
Mission	A1798 VT2P	214.0	15.5	59.3	34,704	72.0	77.4	40.4	1.0	2.4
Winfield United	CP 5340/VT2P	213.8	14.0	59.2	32,204	71.8	77.0	39.4	2.0	59.6
Dyna-Gro	D53VC33	212.9	14.6	58.9	31,722	70.6	74.6	38.2	1.6	9.4
Mission	AV8216 YHB	212.7	14.4	59.2	32,696	72.6	84.4	43.8	2.0	3.8
Mission	A1548 DGVT2P	211.4	14.7	59.0	35,636	71.8	78.6	41.2	1.2	2.2
Average		230.8	14.7	59.6	32,718	72.7	79.6	41.5	1.5	7.09
CV, %		6.5	3.2	1.2	10.3	2.3	4.7	7.0	39.8	164.3
LSD (0.10)		15.7	0.5	0.8	NS	1.7	3.9	3.0	0.62	12.17

Numbers shaded within a column are not significantly different from the numerically greatest value.

NORTHEAST
RESEARCH STATION
ST. JOSEPH
(CLAY SOIL)

Soil type: Sharkey clay
Soil pH: 6
Tillage: Reduced
Previous crop: Cotton
Row width: 40"
Seeding rate: 36,000
Planting date: 3/17/2020
Irrigation: Yes
Pre-plant fertilizer: 3-13-20 (200 lb/A)
Post-plant fertilizer: 265 units N
Herbicide applications: Burndown Cinch ATZ 45 oz + Gramaxone 22 Oz; Pre-emerge Roundup Powermax 1 qt/a + Atrazine 1 QT/a; Post-emerge Atrazine 1 Qt + Dual Magnum 1.3 pt + Roundup Powermax 22 oz/a
Harvest date: 8/13/2020
Harvested plot size: 2 rows by 32 feet
Experimental design: RCBD
Replications: 4

Table 6. Official corn hybrid trial results, St. Joseph-clay, 2020.

Brand	Hybrid	YLD	GM	TW	PP	MS	PH	EH	HC	LO
Winfield United	X19115B/VT2P	260.6	14.0	59.3	36,359	71.5	80.8	37.3	1.3	0.0
Local	LC1307TC	257.9	13.8	58.9	39,252	70.3	77.5	39.3	1.0	1.3
BH Genetics	X19027 SS	255.6	14.3	59.8	33,984	74.3	84.0	42.3	1.5	0.0
LG	LG 68C59	255.5	14.7	58.1	34,913	72.5	84.5	38.5	1.0	2.0
DeKalb	DKC 67-44	254.6	13.6	61.3	32,538	69.0	82.0	39.3	1.0	0.8
Local	LCX17-21 VT2P	254.2	14.0	60.9	34,294	73.0	82.5	41.3	1.8	0.0
Mission	AV7516 Q	254.2	14.3	60.1	38,838	71.8	82.0	39.0	2.3	0.3
DeKalb	DKC 70-27	253.1	14.5	60.8	32,331	70.8	81.0	38.0	1.0	0.0
Dyna-Gro	D57VC17	252.3	13.6	60.9	35,223	71.3	77.5	37.8	1.5	0.0
Dyna-Gro	D54VC14	251.5	13.4	60.4	35,533	68.3	75.8	35.0	2.0	0.8
LG	LG 66C44VT2PRO	250.4	14.2	60.0	32,641	70.0	79.8	38.3	1.3	0.0
DeKalb	DKC 65-95	249.4	13.7	60.9	31,711	70.3	79.3	36.3	1.3	0.0
Dyna-Gro	D57VC51	249.2	14.4	60.2	35,223	72.3	82.3	39.5	1.3	0.5
Pioneer	P1870YHR	247.8	14.1	60.8	36,153	72.8	83.0	38.3	1.5	0.8
Winfield United	CP 5335/VT2P	247.4	13.3	60.4	34,913	69.8	79.0	36.5	1.0	0.5
Local	LC1898 TC	247.4	13.7	60.9	32,538	70.8	80.5	39.8	1.0	0.0
DeKalb	DKC 68-69	246.8	14.5	61.4	32,538	70.5	78.8	35.5	1.3	0.3
Winfield United	CP 5370/VT2P	245.9	13.3	60.0	35,430	71.0	81.0	38.5	2.0	0.0
Local	LC1398 VT2P	245.8	13.8	58.4	33,880	69.5	80.8	42.0	1.8	0.0
Local	LCX15-20VT2P	245.6	13.6	61.1	37,496	69.0	80.8	40.5	1.3	0.5
Progeny	PGY8116SS	245.3	13.5	60.7	33,984	72.0	79.5	42.0	1.5	0.8
Mission	A1477 DGVT2P	244.9	13.9	58.2	35,946	70.0	80.8	41.0	1.8	0.0
Winfield United	CP 5550/VT2P	244.0	13.8	59.0	35,843	69.5	77.8	37.5	1.0	0.5
DeKalb	DKC 66-75	242.6	13.5	59.6	34,397	70.3	80.0	38.0	2.0	0.0
Progeny	PGY9114VT2P	242.2	13.5	60.9	31,091	68.5	75.8	34.8	1.5	0.8
Local	LC1577 VT2P	242.1	13.5	60.3	34,913	69.3	74.0	35.3	1.5	3.5
Dyna-Gro	D55VC80	241.7	14.6	59.2	34,190	71.3	83.0	40.0	1.5	0.0
Pioneer	P1464VYHR	240.7	13.6	59.5	35,533	73.8	79.0	40.3	1.0	0.8
LG	LG 68C22VT2PRO	240.6	13.9	61.5	32,124	71.3	79.3	38.3	1.3	0.8
Local	LC1987 VT2P	240.2	14.0	60.9	35,327	70.8	83.0	39.3	1.8	1.3
Dyna-Gro	D58VC65	239.0	13.7	60.8	33,880	69.3	76.0	35.5	1.3	1.8
BH Genetics	X18053 VT2P	238.7	14.5	59.9	33,364	70.3	78.3	36.5	1.3	0.0
Local	LC1697 VT2P	238.5	13.6	60.6	35,636	69.8	79.5	38.3	1.8	1.0
DeKalb	DKC 65-99	238.3	13.9	60.2	35,843	70.0	77.8	36.0	1.0	0.8
Pioneer	P1903YHR	237.3	15.2	58.4	35,326	71.5	83.5	40.3	1.3	1.3
Local	LC1407VT2P	236.8	13.9	59.4	34,500	71.8	81.5	37.8	1.8	0.0
Progeny	PGY2015VT2P	236.6	14.0	59.5	33,260	71.0	78.3	38.3	1.5	0.0
Pioneer	P1828YHR	236.6	14.2	59.6	34,087	72.3	82.0	37.5	2.0	0.0
BH Genetics	BH 8721 VT2P	235.8	14.6	60.6	35,740	71.3	78.0	36.8	1.8	1.8
Local	LC1497 DGVT2P	235.1	14.2	56.9	37,083	70.0	76.3	36.3	2.0	0.0
Mission	A1548 DGVT2P	234.4	14.0	59.0	32,331	69.3	78.3	38.0	1.3	0.5
Mission	A1657 VT2P	233.6	13.7	59.9	34,914	69.8	78.5	40.5	1.0	0.0
Pioneer	P1077YHR	232.4	13.6	59.4	31,918	69.5	75.3	35.0	1.5	0.3
Dyna-Gro	D53VC33	232.0	13.6	59.0	37,702	69.0	78.3	35.8	1.3	0.0
Local	LC1289 VT2P	230.1	13.5	60.1	34,294	70.3	76.8	35.5	2.0	0.3
Progeny	PGY9117VT2P	230.1	14.9	59.7	35,326	71.3	79.5	37.5	2.0	0.0
Mission	A1257 VT2P	229.4	13.7	59.5	34,500	70.0	75.8	36.0	1.5	0.3
Winfield United	CP 5340/VT2P	228.7	13.1	59.9	33,571	70.0	75.5	37.3	1.0	27.0
LG	LG 66C32VT2PRO	228.1	13.6	60.0	34,810	68.5	73.5	36.3	1.5	0.5
Local	LC1806VT2P	225.1	13.8	60.9	33,467	70.5	77.3	39.3	1.3	1.3
Mission	AV8216 YHB	224.4	13.0	60.4	35,533	69.8	83.8	40.0	2.3	6.8
Mission	A1798 VT2P	222.9	14.4	60.0	32,951	70.5	78.8	39.0	1.3	0.5
DeKalb	DKC 66-18	221.5	13.9	59.7	34,603	70.0	75.8	34.3	1.5	2.5
Average		241.5	13.9	60	34,681	70.6	79.5	38.0	1.5	1.1
CV, %		5.7	2.9	1.9	11.2	1.6	2.8	5.4	35.8	350
LSD (0.10)		16.1	0.5	1.3	NS	1.4	2.6	2.4	0.6	4.7

Numbers shaded within a column are not significantly different from the numerically greatest value.

MACON RIDGE RESEARCH STATION WINNSBORO

Soil type: Gigger silt loam
Soil pH: 6.9
Tillage: Minimum
Previous crop: Soybean
Row width: 40"
Seeding rate: 36,000
Planting date: 3/18/2020
Irrigation: Yes
Pre-plant fertilizer: 50 lb P2O5/acre, 50 lb K2O/acre
Post-plant fertilizer: 220-0-0-20
Herbicide applications: Burndown (Round-up @ 32oz/A and 2,4-D @ 16oz/A); Pre-emerged (Atrazine @ 48oz/A and Dual @16oz/A); In-season (Atrazine @ 32oz/A and Round-up @ 32oz/A)
Harvest date: 8/17/2020
Harvested plot size: 2 rows by 30 feet
Experimental design: RCBD
Replications: 4

Table 7. Official corn hybrid trial results, Winnsboro, 2020.

Brand	Hybrid	YLD	GM	TW	PP	PH	EH	HC	NCLB	NCLB	SR
BH Genetics	BH 8721 VT2P	212.5	16.1	61.1	32,327	85.0	35.3	1.8	0.8	2.0	0.9
Winfield United	CP 5335/VT2P	208.4	16.1	59.5	29,388	83.8	33.8	1.8	0.3	0.8	1.3
Pioneer	P1903YHR	205.7	17.5	59.2	29,388	74.8	37.5	1.5	1.5	4.1	1.4
Progeny	PGY9117VT2P	200.4	16.8	60.4	30,531	84.3	37.3	2.0	0.9	2.3	1.1
DeKalb	DKC 67-44	198.4	15.7	60.4	30,858	88.8	36.5	2.0	0.3	0.5	1.4
LG	LG 68C59	198.3	18.5	58.5	32,491	89.0	36.5	2.0	1.5	2.8	0.8
Dyna-Gro	D54VC14	196.7	14.8	60.2	30,694	83.8	33.8	1.8	1.4	3.3	1.0
Mission	AV7516 Q	195.1	16.6	61.4	29,552	85.8	37.5	2.5	1.1	4.3	0.8
Local	LC1497 DGVT2P	190.9	14.1	58.3	30,531	85.5	34.3	2.0	0.3	1.0	1.5
Dyna-Gro	D57VC51	190.4	17.6	59.9	31,021	85.3	33.8	2.0	1.1	2.4	0.3
Local	LC1577 VT2P	189.9	15.6	60.3	29,225	85.3	35.8	1.8	1.0	2.0	1.0
Winfield United	CP 5550/VT2P	189.5	15.9	57.9	29,552	85.8	35.5	1.8	0.4	0.9	1.0
DeKalb	DKC 68-69	189.0	17.6	60.7	28,572	87.5	35.5	2.0	0.5	1.4	0.3
Local	LC1898 TC	188.8	15.7	60.2	29,388	87.3	34.5	2.0	0.3	0.5	0.3
Mission	A1798 VT2P	186.7	16.9	59.2	29,552	86.5	37.0	2.0	1.1	2.1	1.0
BH Genetics	X18053 VT2P	185.6	16.4	59.8	31,348	86.8	35.8	2.0	0.8	1.5	1.0
Pioneer	P1077YHR	185.2	14.9	59.8	31,348	84.5	36.5	2.0	1.1	3.4	1.8
LG	LG 66C44VT2PRO	184.9	16.1	59.4	31,511	86.3	35.0	2.0	0.3	0.5	0.8
Winfield United	CP 5340/VT2P	184.1	14.9	59.6	29,389	86.0	36.5	2.3	0.0	0.8	2.5
Local	LC1806VT2P	183.8	15.0	61.1	28,898	85.8	36.8	2.3	0.8	1.0	0.5
Mission	A1657 VT2P	182.4	16.7	59.7	28,898	85.0	34.3	2.0	0.8	1.3	0.6
Pioneer	P1464VYHR	182.0	15.4	59.3	30,368	83.3	34.0	2.0	2.8	5.0	1.3
Mission	AV8216 YHB	181.3	15.9	59.9	32,001	88.8	31.3	2.0	1.1	1.4	0.5
Mission	A1477 DGVT2P	181.1	15.4	58.7	29,878	87.3	33.5	1.8	0.5	1.6	1.3
Local	LC1407VT2P	180.5	16.0	60.2	30,858	86.3	36.0	2.0	0.3	0.3	1.0
Mission	A1257 VT2P	179.7	15.1	59.1	27,919	85.5	35.8	2.0	0.3	1.0	2.5
Dyna-Gro	D53VC33	178.5	15.2	59.0	28,572	85.3	34.0	1.8	0.3	1.0	1.0
BH Genetics	X19027 SS	178.4	16.0	61.3	28,572	86.8	35.0	2.3	0.3	0.5	0.8
Dyna-Gro	D55VC80	178.4	16.3	59.5	28,735	85.8	38.8	2.0	0.0	0.4	1.0
Pioneer	P1870YHR	178.1	17.3	60.5	31,348	87.3	36.8	2.0	3.1	5.3	0.3
Progeny	PGY8116SS	177.4	15.6	61.4	30,858	84.3	35.5	1.8	0.3	0.6	2.4
LG	LG 68C22VT2PRO	176.8	16.1	60.3	31,511	85.3	36.3	2.0	0.5	1.1	0.9
Dyna-Gro	D57VC17	175.0	16.0	60.7	30,368	84.5	36.0	1.5	0.0	0.5	0.5
Progeny	PGY9114VT2P	174.5	15.7	60.7	29,715	86.0	35.5	2.0	1.1	2.9	0.5
Winfield United	X19115B/VT2P	174.2	16.5	59.4	27,919	86.8	36.5	2.0	0.0	0.8	0.5
DeKalb	DKC 70-27	173.6	16.6	60.2	29,388	88.8	35.0	2.0	0.3	0.8	0.8
Progeny	PGY2015VT2P	173.5	15.4	60.5	31,511	87.5	37.3	2.0	0.8	1.4	0.5
Dyna-Gro	D58VC65	173.3	16.3	60.2	27,592	84.5	34.8	2.0	1.3	3.0	0.8
Winfield United	CP 5370/VT2P	172.0	15.3	58.6	30,694	85.8	34.0	1.8	0.3	1.0	0.9
Mission	A1548 DGVT2P	171.7	16.3	59.4	29,552	86.0	34.5	2.0	0.5	0.5	1.0
DeKalb	DKC 66-75	171.3	15.4	59.1	30,205	85.8	34.5	1.5	0.0	0.5	0.3
Local	LCX15-20VT2P	171.0	15.2	61.5	31,511	85.5	36.3	2.3	0.5	1.0	0.4
Local	LCX17-21 VT2P	169.8	16.4	61.3	30,041	86.8	33.0	1.8	0.8	0.6	1.4
DeKalb	DKC 65-99	169.0	16.3	59.2	26,123	85.5	33.8	2.0	0.3	0.5	0.8
Local	LC1289 VT2P	167.4	15.6	58.8	27,919	85.3	33.8	2.0	0.5	1.5	1.3
DeKalb	DKC 66-18	164.0	15.5	58.8	27,593	87.0	34.5	1.8	0.8	1.1	0.6
Pioneer	P1828YHR	163.1	17.2	59.5	28,082	88.5	36.5	2.0	4.3	6.5	0.3
Local	LC1987 VT2P	158.2	16.8	59.9	30,205	85.8	34.8	1.8	1.0	0.8	0.6
Local	LC1697 VT2P	157.9	16.0	60.9	27,429	85.3	34.8	2.0	0.8	1.0	0.5
DeKalb	DKC 65-95	157.7	16.8	59.0	27,756	85.0	35.3	1.8	0.9	1.3	1.3
Local	LC1398 VT2P	156.1	16.6	59.3	27,756	85.0	35.5	2.0	0.3	0.3	1.0
LG	LG 66C32VT2PRO	152.5	14.7	60.0	26,776	85.8	35.5	2.0	1.1	2.4	1.8
Local	LC1307TC	152.3	15.1	58.0	29,715	86.5	35.8	2.0	0.5	1.5	1.3
Average		179.5	16	59.8	29,678	85.9	35.3	1.9	0.8	1.6	0.9
CV, %		9.7	4.8	1.0	8.8	5.3	7.5	20.0	113.2	91.7	103.4
LSD (0.10)		20.3	0.9	0.7	NS	NS	NS	NS	0.7	0.9	1.1

Table 8. Participating seed companies and contact information.

Company	Representative	E-mail	Phone Number
Bayer CropScience	Blake Edwards	blake.edwards@bayer.com	662-820-6804
BH Genetics	Travis Janak	travisj@bhgenetics.com	361-771-2755
Dyna-Gro	Joe Pankey	joe.pankey@nutrien.com	318-381-3280
LG Seeds	Dan Mitchell	dan.mitchell@lgseeds.com	812-457-3132
Local Seed	Bradley Taylor	bradley.taylor@localseed.com	662-402-1502
Mission Seed	Bryan Olivi	bryan.olivi@pinnacleag.com	662-719-8685
Pioneer	Derek Scroggs	derek.scroggs@pioneer.com	318-542-6051
Progeny	Brian Murray	bmurray@progenyag.com	870-208-4428
Winfield United	Corey Wright	cdwright@landolakes.com	318-498-9141

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Myra Purvis, Research Associate
Dustin Ezell, Research Associate

Dean Lee Research and Extension Center
Dan D. Fromme, Professor/State Grain Sorghum Specialist (retired)
Daniel Stephenson, Professor/State Weed Specialist
Boyd Padgett, Professor/Plant Pathologist
Sebe Brown, Assistant Professor/Extension Entomologist
Keith Shannon, Research Associate

Northeast Research Station
Josh Copes, Assistant Professor/Agronomic Systems and Field Crop Production
Marcie Mathews, Research Associate

Red River Research Station
William Waltman, Research Associate
Blair Buckley, Professor/Soybean Breeder

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