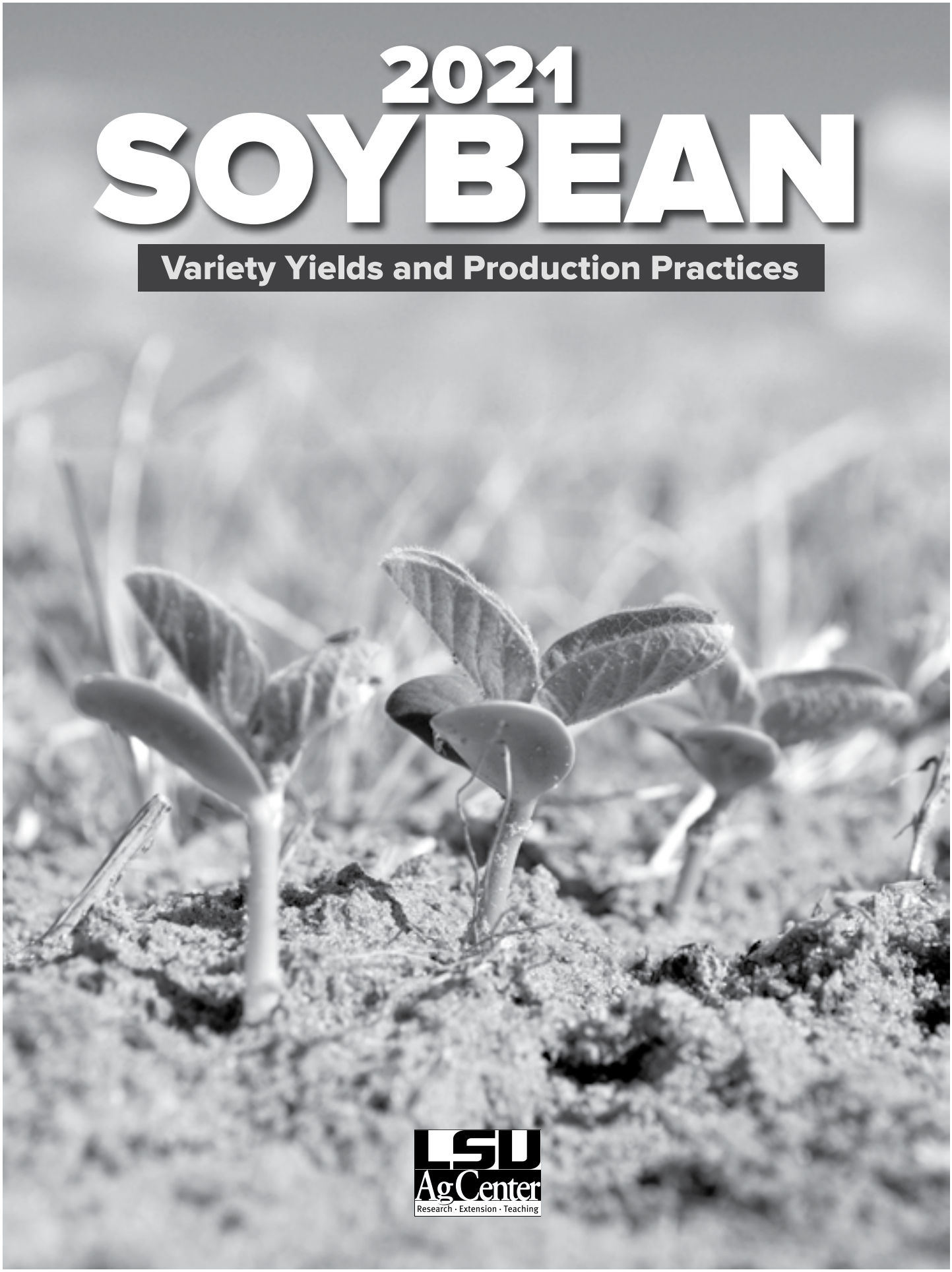
2021 SOYBEAN

Variety Yields and Production Practices



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2021 Soybean Variety Yields and Production Practices

Soybean production guidelines are prepared by LSU AgCenter cooperating personnel from Louisiana Agricultural Experiment Station researchers and by Louisiana Cooperative Extension Service specialists.

Variety Selection

Variety selection is not a decision to be made lightly as it is the most important decision facing a producer going into the season. No other input can radically change the yield potential to the extent that variety selection can. This decision can be daunting, but through the LSU AgCenter, producers do have information at their disposal to improve this decision-making process.

Fortunately, growers in Louisiana have two types of multi-environment data to use when selecting varieties. The official variety trials (OVT) are small-plot trials that evaluate many varieties side by side. The 2020 OVT evaluated 154 varieties entered by 16 seed companies and two university soybean breeding programs. The varieties consisted of several different herbicide technologies, and the maturity groups range from 3.7 to 6.0. The trial was replicated at seven research stations across the state in different soil types, including fine sandy loam, silt loam, silty clay and clay.

In addition to the OVT, the LSU AgCenter collaborates with soybean producers to evaluate soybean varieties directly on farms. For these core-block demonstration plots, LSU AgCenter parish agents cooperate with the producers to plant, maintain and harvest strip trials submitted by seed companies and university soybean breeding programs. These demonstrations provide valuable yield data from local growing conditions and agronomic practices. The core block program is designed to evaluate a reduced number

of soybean varieties in large plots located across the state. In some cases, observations from these large plots can result in identification of varieties that are resistant to a number of soilborne maladies. Eleven seed companies and two university soybean breeding programs submitted varieties for the 2020 core-block demonstrations. Eighteen demonstrations were planted across 11 parishes. The demonstrations were divided by maturity group (MG). A demonstration consisted of varieties with a MG of 3.7 to 4.4; 4.5 to 4.9; or 5.0 to 5.6. The numbers of varieties submitted for each MG were seven (MG 3.7 to 4.4), 20 (MG 4.5 to 4.9) and 16 (MG 5.0 to 5.6).

Evaluating the OVT and the core-block demonstrations will allow producers to select from the large number of varieties in the OVT and from varieties tested in environments similar to their farm sites. We would advise growers to make all variety decisions based on multiyear and multienvironment data and to identify stable varieties that perform well over a range of environments.

For best use of this guide, we recommend judging variety yield results by looking at what we call performance and stability. Performance refers to identifying the varieties that are high yielding in environments that best represent your local farm. Stability refers to the performance of a variety across multiple environments across the state. It is important for growers to consider both of these factors when making variety decisions.

Soybean Core Block Locations

Avoyelles (3), Beauregard (2), Catahoula, E. Carroll, Madison, Natchitoches, Pointe Coupee (2), Richland, St. James (2), St. Landry (2), W. Carroll (2)

Other Varietal Characteristics

Variety yield potential is an important trait in selecting a variety, but other varietal characteristics should also be considered. How these criteria rank in importance to the grower may vary from one grower to the next and may vary from one field to the next. Several of these criteria for variety selection are discussed below.

Herbicide Tolerance and Weed Management Programs

Six different herbicide tolerances are available in soybean in 2021. They are Roundup Ready, Enlist, Liberty Link, Liberty Link GT27, STS/BOLT and Xtend. Roundup Ready is tolerant to glyphosate; Enlist is tolerant to glyphosate, glufosinate, and 2,4-D choline; Liberty Link is tolerant to glufosinate; Liberty Link GT27 is tolerant to glyphosate and glufosinate; STS/BOLT is tolerant to glyphosate and higher rates of Classic and other ALS-herbicides; and Xtend is tolerant to glyphosate and dicamba. If multiple herbicide technologies are utilized by a producer, they should be careful in their planning because there is no cross tolerance among the varieties. For example, dicamba should only be applied to Xtend varieties, and 2,4-D choline should only be applied to Enlist varieties. Regardless of the herbicide-tolerant technology utilized, application of a residual herbicide prior to soybean emergence followed by a post-emergence application of a residual herbicide that is tank-mixed with a nonselective herbicide is the best strategy to manage herbicide-resistant weeds. Furthermore, research has shown that maintaining soybean weed-free for the first five weeks after emergence can maximize yield.

Disease Resistance

Varieties of soybeans differ in susceptibility to diseases and nematodes. Aerial blight is an important foliar disease south of Alexandria but can occur in other parishes during wet seasons. Cercospora leaf blight has become a major disease problem throughout the state. Frogeye leaf spot has been an annual occurrence for the past several years. These, and other foliar diseases, may cause significant yield losses and harvest delays. Soil-borne diseases may also be a problem in any given year. Sudden death syndrome (SDS) has been confirmed in Louisiana, but it is considered a rare occurrence. A soil-borne disease with similar foliar symptoms as SDS known as taproot decline has recently been confirmed by pathologists and is likely the most prevalent issue in the state. Phytophthora root rot is an isolated issue and is more prevalent in clay or poorly drained soils. Root-knot nematodes are prevalent in sandy soils and can be an annual problem in certain areas. When these and other diseases occur in official variety trials, ratings are conducted to identify potential sources of resistance, making variety selection the most economical way for producers to manage diseases.

Insects

Soybeans are damaged by a diverse insect pest complex of stink bugs, threecornered alfalfa hoppers, beetles, several Lepidopteran defoliators and pod feeders (soybean loopers, velvetbean caterpillars, green cloverworms and corn earworms) from plant emergence until harvest. Soybeans can compensate for considerable insect injury; however, high pest populations can cause severe yield reductions or total crop loss. To reduce yield loss, fields should be scouted weekly using a shake sheet or sweep net, and applications of the proper insecticide materials should be made when action thresholds have been met. Soybean varieties can differ in their ability to tolerate various insect pests, and those that are less tolerant should be scouted more often.

Scouting fields is especially important for locating the most damaging soybean pest in Louisiana, the redbanded stink bug. This pest feeds only on legumes; thus, earlier maturing varieties have the most potential for stink bug damage. In general, MG IV soybeans will have more damage than MG V at pod initiation, and seed set begins earlier and lasts longer. This results in longer exposure to stink bugs over time, resulting in greater opportunities for stink bug injury. As a rule, scouting for redbanded stink bugs should begin at R2 and occur every five days, if possible. Failure to detect early populations can result in missed opportunities for control. As a reminder, the action threshold for the redbanded stink bug is 16 insects per 100 sweeps.

For several years, we have screened high-yielding, commercially available soybean varieties for susceptibility to stink bugs to provide agents, consultants and growers information on what to expect from stink bug pressure. No varieties are currently available that provide immunity from stink bugs. Many commercial varieties, however, provide excellent yields under varied growing conditions that are highly susceptible to stink bugs.

Salt-Chloride Tolerance

Soybeans under continuous irrigation may be subjected to high levels of salts or chlorides from well or surface water. Observations from several years at the Macon Ridge Research Station at Winnsboro have made it possible to pinpoint varieties that have resistance or sensitivity to the problem. The problem shows up as leaf scorching and usually occurs shortly after irrigation water is applied. When choosing varieties to be utilized in irrigated systems, excluders (those varieties that can tolerate high chloride levels) should be chosen. However, yield potential of both excluders and includers (those varieties that cannot tolerate high chloride levels) will be reduced in soils with high chloride levels.

Maturity

There is a certain amount of overlap in maturity between groups within the state. Environmental conditions, especially drought and pest pressure, can cause variation in maturity. Most varieties within a group mature in the following range when planted at recommended times:

- Very early maturity (MG 3.0-4.5): Aug. 10 – Aug. 19
- Early maturity (MG 4.5-4.9): Aug. 20 – Sept. 10
- Medium maturity (MG 5+): Sept. 11 – Oct. 1

Where large acreages are involved, varieties of differing maturity should be selected to stagger the harvest and avoid losses from shattering and poor quality.

Lower Pod Height

Pod height is especially important in rough, poorly drained soils and new ground. It is important for all varieties to set pods a reasonable distance above the soil surface to aid in harvestability.

Poor Drainage

Many soybeans in Louisiana are planted on heavy clay soils with poor internal drainage. Research has determined that certain varieties are superior to others under these conditions. Consult results from the St. Joseph Sharkey clay test to select varieties for tolerance to poor drainage. Planting on raised beds is desirable where drainage is less than optimal.

Lodging Resistance

Soybean varieties are more likely to lodge if a population of more than six plants per foot of row is present and if grown on a highly fertile soil. Tall varieties tend to lodge more severely than short ones. When lodging occurs, seed quality and yield are affected. A lodged field is more susceptible to disease and reduces harvest efficiency.

Plant Height

Plant height varies according to growing conditions, planting date, soil type and variety. If canopy closure has been a problem, a taller variety should be selected or a closer row spacing should be adopted. On highly fertile soil, too much growth is sometimes a problem, and a shorter variety is the better choice.

Seed Quality

Poor seed quality is more often found in early maturing varieties. Poor quality is especially true for indeterminate varieties that do not mature uniformly. However, in wet harvest seasons when temperatures and humidity remain high, seed quality issues can often be observed for most varieties. Poor seed quality occurs when fields are not harvested when ready or under heavy disease pressure. When poor conditions occur between physiological maturity (maximum dry matter accumulation) and harvest, chances increase for a decline in seed quality.

Cultural Practices

Lime and Molybdenum

Availability of most plant nutrients is typically greatest in soils with a pH of 5.8 to 7.0. When the soil pH drops below 5.2 on sandy loam and silt loam soils, and below 5.0 on clay soils, manganese toxicity may occur. When the soil pH drops below 5.0, aluminum toxicity may also occur. Soil testing should be conducted on a regular basis, and agricultural lime should be used to correct low pH soils to proper levels.

In extreme cases, manganese toxicity is expressed as a stunted plant with crinkled leaves. In milder cases, manganese toxicity may result in reduced yields even when visible symptoms are not present. Aluminum toxicity typically affects the roots, resulting in short, thick roots, a condition known as club root. Manganese and aluminum toxicities can be controlled by keeping the soil pH above the critical levels.

Molybdenum is a critical component of the nitrogenase complex that fixes atmospheric nitrogen into a usable form for the soybean plant. Molybdenum is a nutrient needed by soybeans in small quantities. Although our soils typically have enough molybdenum for optimal growth, molybdenum is less available to plants as the soil becomes more acidic. At soil pH below 6.2, molybdenum should be applied as seed treatment at planting. However, if a commercial inoculum is needed and is applied as a seed treatment, molybdenum should not be applied as a seed treatment. The molybdenum salt will reduce the viability of the inoculum and will result in poor nodulation.

Nitrogen

Soybeans need large quantities of nitrogen. Soybeans remove about 4 pounds of nitrogen in each harvested bushel. Fortunately, soybeans are legumes and can obtain most of their nitrogen from the atmosphere. They accomplish this with the aid of the bacterium *Rhizobium japonicum*. These bacteria use soybean roots as a livable environment and form nodules on soybean roots that capture nitrogen from the atmosphere and fix it into a usable form. Seed should be inoculated with *Rhizobium japonicum* bacteria in soils with no recent history of soybeans or when conditions have reduced bacteria survival.

Phosphorus

Phosphorus is critical in the early stages of soybean growth. It stimulates root growth, is essential in the storage and transfer of energy throughout the plant and is an important component of several biochemicals that control plant growth and development. Phosphorus is concentrated in the seed and strongly affects seed formation. Soybeans remove about 0.8 of a pound of phosphate (P_2O_5) per bushel in the harvested portion of the crop.

Phosphorus deficiencies are not easily observed. Usually no striking visual symptoms indicate phosphorus deficiency in soybeans. The most common characteristics of phosphorus-deficient soybean plants are stunted growth and reduced yields.

Phosphorus fertilization rates should be based on soil test results. Soil pH affects the availability of phosphorus, which is most available to soybeans when the soil pH is between 6.0 and 7.0.

Potassium

Potassium is essential in the growth and development of soybeans and is indirectly related to many plant cell functions. Some 60 enzymes require the presence of potassium, and plants with adequate amounts of potassium are better able to resist diseases than potassium-deficient plants. About four times as much potash (K_2O) is required by soybeans as phosphate, (P_2O_5) and about twice as much potash (K_2O) is removed in the seed as phosphate (P_2O_5). Soybeans remove about 1.4 pounds of potash (K_2O) per bushel in the harvested portion of the plant.

Potassium deficiency symptoms are fairly easy to diagnose when they are severe enough to be seen visually and will usually occur on the lower leaves during pod fill as margins (edges) of the leaves appear necrotic (dead and brown). Severe potassium deficiencies can greatly reduce yields. Potassium fertilizer rates should be based on soil test results.

Early Planting

Soybeans should not be planted until soil temperature reaches 60 degrees Fahrenheit. Because emergence may also be affected by cool soil temperatures after planting, early planting decisions should also consider the forecast up to seven days after planting. Adequate soil temperatures are often observed in April but can vary by location and year. Maturity Group IV and indeterminate Group V varieties do best in April plantings. Research in north Louisiana has shown instances of high yields for Group IV and V planted in mid-to-late March. In these cases, daily average soil temperatures were generally at or above 60 degrees Fahrenheit at planting. A few (especially determinate types) may be sensitive to planting before early May. Narrow row spacing may be beneficial when planting early because of the potential of reduced plant height. Always use a base fungicide seed treatment when planting early and conditions are less than favorable.

Late Planting

When planting is delayed until June 15 or later, the amount of vegetative growth that the plant produces becomes more critical. It is important to choose varieties that grow rapidly in a short time. When blooming starts, most vegetative growth ceases in determinate varieties. Maturity Group V soybeans should be used when planting after June 1. When planting late, seeding rates should be increased to compensate for reduced vegetative growth.

Seeding Rate

Plant populations that are too dense reduce yields, encourage diseases and lodging, and increase seed cost. When calibrating planters, use seed-per-foot as your guide rather than pounds of seed per acre. In the following table, the estimated pounds per acre should be used only to calculate how much seed to buy. Because of varietal difference in seed size, as well as seasonal variation within lots of the same variety, planting rates can be misleading if expressed in pounds per acre. The following rates are recommended:

Row Width (Inches)	Seed/Row Foot	Plants/ Row Foot	Population in 1,000s
36-40	8-9	6-8	78-104
30-32	6-7	4-5	78-104
20-24	5-6	4-5	104-130
7-10	4-5	3	104-130
Broadcast	5-6/sq. ft.	3/sq. ft.	150
Late planting	6-7/sq. ft.	4/sq. ft.	200

Planting Dates

Because weather conditions are different from year to year, seeding dates can be affected by environmental conditions. Early or late planting can cause a reduction in plant height in many varieties. Generally, late plantings have less chance of success unless irrigation is available or optimal weather and timely rains occur throughout the growing season. A general rule is that half a bushel per day is lost for every day that planting is delayed past the first week of June.

Optimal seeding dates for each maturity group planted in Louisiana are:

- Group III: April 15 – May 10
- Group IV: April 15 – May 10
- Group V: March 25 – May 5
- Group VI (not typically recommended in Louisiana): March 25 – April 30

Row Spacing

Varieties respond differently to row spacing. The most important consideration is that the canopy be closed as quickly as possible to avoid late-season weed problems and to maximize the amount of light captured. Research has shown that narrow row spacing (30 inches or fewer) may outyield wide row spacing in some environments.

Depth of Seeding

Plant only deep enough to get the seed in moist soil. On sandy or silt loam soils, plant only 1 inch deep if moisture is available. On clay soils, plant 1 to 2 inches deep, depending on moisture conditions. Rolling the soil, especially clays, after planting will help obtain a stand by conserving moisture.

Table 1A. Highest Yielding Maturity Group 3.0-4.4 Soybean Varieties From Various Louisiana Locations.

Variety	Central Station	Rice Station	Dean Lee	Macon Ridge	Red River	Northeast	Iberia	2020 Average[1]	2-Year Average	3-Year Average
Mission Seed Solutions A4448X	**65**	19	60	**57**	**39**	**72**	**47**	60	59	
BASF CZ 3930GTLL	60	23	65	**57**	**37**	64	**47**	58		
BASF CZ 4280X	57	20	**67**	53	**36**	68	38	57		
BASF CZ 4341X	62	24	63	**56**	31	67	**50**	60		
BASF CZ 4410GTLL	**65**	18	60	51	28	**71**	41	58		
BASF CZ 4241GTLL	52	29	**69**	**61**	28	59	35	55		
Dyna-Gro S43XS70	**68**	22	**68**	**59**	**36**	**76**	39	62		
Local Seed LS4407X	**67**	20	60	51	**47**	69	**50**	59		
Pioneer P39A58X	60	25	58	53	24	**73**	28	55		
Pioneer P42A96X	61	19	63	**56**	31	**69**	28	56	55	
Progeny 4241E3	60	26	**72**	**57**	31	**70**	**44**	61		
Progeny 4265RXS	**67**	28	64	**55**	32	**75**	39	60	60	
Progeny 4444RXS	**68**	27	59	**57**	35	**73**	41	59	60	58
Univ. of Missouri S15-10879C	57	25	59	**55**	29	68	41	56		
NK (Syngenta) S39-G2X	61	27	**67**	**59**	32	69	**46**	60	59	
NK (Syngenta) S42-B9XS	53	23	62	53	27	**71**	38	56		
NK (Syngenta) S44-C7X	56	25	63	**56**	33	**72**	41	57	60	
NSGA Sitzer 4.1	40	**38**	57	42	24	57	34	46		
Average	60	24	63	55	32	69	40			
Other Group 3.0-4.4 Soybean Varieties Included in Louisiana Tests:										
Local Seed LS3976X	55	25	59	53	24	64	36	54	54	
Univ. of Missouri SA14-9653	42	27	50	43	20	57	26	43		
Univ. of Missouri Show Me Soy 3901C	42	26	49	42	16	57	33	44		
Average	46	26	53	46	20	59	32			
Soil Type	silt Loam	silt loam	silt loam	silt loam	sandy loam	Sharkey clay	silty clay			
LSD (p<0.05)	4.644	6.85	7.1409	6.502	11.78	6.7448	8.00			
Standard Deviation	3.286	4.85	5.0503	4.601	8.34	4.7732	5.66			
CV	5.59	19.78	8.12	8.53	27.06	7.02	14.27			

The 2020 OVT Trial was planted at these LSU AgCenter research stations: Dean Lee, Alexandria; Macon Ridge, Winnsboro; Northeast, St. Joseph; Red River, Bossier City; Rice Research, Crowley; Iberia, New Iberia; and Central Research, Baton Rouge. Data was lost at some locations due to environmental conditions (e.g., hurricanes Laura and Delta).

All yields expressed in bushels per acre and readjusted to 13% moisture.

Bold – Highest yielding (p<0.05) at this location in 2020.

[1]Variety average from five research stations: Central, Dean Lee, Macon Ridge, Northeast and Iberia.

Table 1B. MG 3.0-4.4 — Agronomic Data From Various Locations Across Louisiana.

Variety	Rice Station Maturity[1]	Dean Lee Maturity[1]	Macon Ridge Maturity[1]	North East Maturity[1]	Iberia Maturity[1]	Average Maturity[2]	Average Plant Height[2]	Average Lodging[2]	Northeast Shattering[3]
Mission Seed Solutions A4448X	109	124	113	116	123	117	34	2	1
BASF CZ 3930GTLL	106	119	113	113	129	116	34	2	3
BASF CZ 4280X	107	119	109	115	125	115	33	2	1
BASF CZ 4341X	107	120	109	112	127	115	35	2	1
BASF CZ 4410GTLL	108	122	119	117	128	119	36	3	1
BASF CZ 4241GTLL	107	119	109	109	133	115	32	2	2
Dyna-Gro S43XS70	108	122	119	118	131	120	35	2	1
Local Seed LS3976X	104	116	109	105	123	111	32	2	1
Local Seed LS4407X	109	126	119	123	132	122	35	2	1
Pioneer P39A58X	103	115	113	105	134	114	31	1	2
Pioneer P42A96X	106	121	113	105	136	116	35	1	1
Progeny 4241E3	107	121	109	114	126	115	31	1	2
Progeny 4265RXS	108	123	119	116	131	119	34	2	1
Progeny 4444RXS	109	124	119	118	126	119	35	2	1
Univ. of Missouri S15-10879C	106	117	109	106	125	112	34	2	1
NK (Syngenta) S39-G2X	106	118	109	108	123	113	35	2	2
NK (Syngenta) S42-B9XS	107	119	109	108	134	115	32	1	1
NK (Syngenta) S44-C7X	108	124	119	121	131	121	32	2	1
Univ. of Missouri SA14-9653	102	114	109	103	123	110	28	2	7
Univ. of Missouri Show Me Soy 3901C	103	113	113	105	124	112	29	1	4
NSGA Sitzer 4.1	107	119	119	104	134	116	30	2	6
Average	106	119	113	111	128				

[1]Maturity (R8 - 95% brown pods; days after planting).
[2]Maturity, plant height and lodging averaged across locations.
[3]Shattering from Northeast Research Station due to a delayed harvest (1-9: 1 = no shattering, 9 = all plants shattering).

Table 1C. MG 3.0-4.4 — Abiotic and Biotic Stress Tolerance.

Variety	Macon Ridge Salt[1]	Central Station TS[2]	Dean Lee TS[2]	Central Station SR[3]	Dean Lee SR[4]	Central Station AB[5]	Dean Lee CLB[6]	Northeast CLB[6]	Macon Ridge TRD[7]
Mission Seed Solutions A4448X	3.2	0.8	6.0	2.0			0.8	4.0	2.5
BASF CZ 3930GTLL	3.3	0.5	2.0	2.8			1.0	1.7	5.5
BASF CZ 4280X	2.5	0.0	2.5	1.8		x	1.0	2.0	3.2
BASF CZ 4341X	3.0	0.0	6.5	2.3			1.0	3.2	2.4
BASF CZ 4410GTLL	3.5	0.5	1.8	1.8			1.8	2.8	4.7
BASF CZ 4241GTLL	2.2	1.5	3.0	3.0			1.5	1.7	3.2
Dyna-Gro S43XS70	5.8	1.8	6.8	2.3			1.3	4.2	2.6
Local Seed LS3976X	4.2	1.3	2.5	2.3		x	4.8	0.7	3.0
Local Seed LS4407X	1.8	0.0	2.3	1.8		x	0.3	1.8	1.9
Pioneer P39A58X	4.5	1.3	3.8	2.8			5.8	1.0	3.9
Pioneer P42A96X	1.3	0.3	2.5	3.0	x		2.3	3.2	3.8
Progeny 4241E3	2.8	0.0	2.3	2.0		x	1.5	1.5	2.9
Progeny 4265RXS	0.7	1.3	7.8	2.5			1.0	4.0	1.9
Progeny 4444RXS	2.7	1.0	6.0	2.3			1.0	3.0	2.2
Univ. of Missouri S15-10879C	6.0	0.8	2.5	1.8		x	2.7	1.8	3.9
NK (Syngenta) S39-G2X	3.3	0.8	6.8	2.8		x	1.5	2.3	3.4
NK (Syngenta) S42-B9XS	4.8	0.3	4.5	2.5		x	3.3	2.8	3.8
NK (Syngenta) S44-C7X	3.0	0.3	1.8	2.5	x		0.7	3.5	2.7
Univ. of Missouri SA14-9653	4.0	2.3	4.8	2.8		x		0.2	3.4
Univ. of Missouri Show Me Soy 3901C	2.0	1.8	0.8	2.3		x	5.0	0.5	2.8
NSGA Sitzer 4.1	0.0	1.3	2.0	3.0		x	2.0	1.7	3.4
LSD (p<0.05)	3.42	1.42	1.69	0.65	-	-	1.40	0.92	1.50 - 1.95
Standard Deviation	2.05	1.00	1.19	0.46	-	-	0.98	0.56	1.92t
CV	69.94	122.62	32.76	19.07	-	-	51.24	25.20	18.61t

[1]Salt (0-9 scale): 0=no stress; 5=50% affected; 9=completely affected.
[2]Target Spot (TS) (0-9 scale): 0 =no disease; 5=50% affected; 9=completely defoliated.
[3]Southern Rust (SR) (0-3 scale): 0=no disease; 1=low; 3=high.
[4]Southern Rust (SR) Observed in at least one plot rep.
[5]Aerial Blight (AB): Observed in at least one plot rep.
[6]Cercospora Leaf Blight (CLB) (0-9 scale): 0=no disease; 5=20-40% foliar symptoms/20% defoliation; 9=completely defoliated.
[7]Tap Root Decline (TRD)(0-9 scale): 0=no disease; 9=all plants showing symptoms.

Table 2A. Highest Yielding Maturity Group 4.5-4.7 Soybean Varieties From Various Louisiana Locations.

Variety	Central Station	Rice Station	Dean Lee	Macon Ridge	Red River	Northeast	Iberia	2020 Average[1]	2-Year Average	3-Year Average
Mission Seed Solutions A4618X	69	15	**64**	52	**45**	**72**	50	61	61	
Bayer AG45X8	58		57	53	**40**	68	45	56	59	57
Bayer AG46X0	66	15	62	**53**	**40**	**70**	**54**	61	62	
Bayer AG46X6	65		**65**	49	34	**74**	**56**	62	63	60
Bayer AG47X9	56	16	60	**54**	34	66	42	56	59	58
Stratton Seed AGS GS47X19	66	17	**63**	51	**46**	**80**	**52**	62		
Armor 46-D09	69		59	51	**42**	67	**52**	60		
BASF CZ 4570X	62		**66**	47	**37**	66	51	59		
BASF CZ 4600X	63		61	42	**39**	66	48	56		
BASF CZ 4730X	64	15	**65**	52	**43**	60	51	58		
BASF CZ 4770X	66		62	46	**44**	65	**53**	58		
BASF CZ 4701GTLL	61	15	**64**	52	30	66	45	58		
DeltaGrow 45E10	**70**	14	**64**	**55**	36	66	46	60		
DeltaGrow 46X65/STS	**74**		**65**	**59**	**38**	64	51	62	63	
DeltaGrow 47E20/STS	66	**19**	**63**	51	29	64	49	59		
DeltaGrow 47E80/STS	61		62	51	**38**	64	42	56		
DeltaGrow 47X95	67		**68**	45	**39**	**71**	50	60	60	
GDM Seeds DM 45X61	60	15	58	52	**45**	66	47	56		
Dyna-Gro S45XS37	64	16	59	52	**40**	68	39	57	59	58
Dyna-Gro S45XS66	63	**20**	58	50	**42**	66	43	56	60	58
Dyna-Gro S46XS60	68		**64**	**54**	37	67	51	61	63	
Dyna-Gro S47XT20	68	14	**65**	50	**49**	61	**54**	60	62	
Stratton Go Soy 463E20S	62	**20**	58	52	34	68	51	58		
Local Seed LS4565XS	58	**18**	59	52	**40**	64	40	55	59	58
Local Seed LS4795XS	**76**	14	**65**	**55**	35	64	**53**	63		
Local Seed LS4607XS	59	17	59	49	**49**	51	47	53		
Local Seed LS4706GL	64	**20**	**66**	**56**	29	67	51	61		
Pioneer P46A86X	68	**19**	**65**	**59**	**39**	**73**	**54**	64	64	
Progeny 4620RXS	64	15	61	**54**	**45**	63	40	57	58	57
Progeny 4682E3	66	18	**66**	47	**39**	69	**55**	61		
Progeny 4775E3S	67	**21**	**64**	50	**38**	65	51	59		
Univ. of Missouri S15-5904RY	63	**18**	62	49	**41**	**71**	47	58		
Univ. of Missouri S16-14730C	59	17	58	49	30	**70**	42	56	56	
Univ. of Missouri S16-5540R	65	16	**66**	50	**40**	59	49	58		
NK (Syngenta) S47-Y9X	62	**19**	**68**	**56**	32	**71**	50	61	61	
Local Seed ZS4694E3S	61	17	**63**	48	**38**	69	**52**	59		
Average	64	17	63	51	39	67	49			
Other Group 4.5-4.7 Soybean Varieties Included in Louisiana Tests:										
DeltaGrow 46X05/STS	67	15	60	45	35	67	46	57		
Petrus Seed 4619 GTS	57	15	58	47	34	65	44	54		
Progeny 4505RXS	60	15	62	52	32	67	41	56		
Progeny 4700RXS	61		61	51	36	67	47	58		
Average	61	15	60	49	34	66	45			
Soil Type	silt loam	silt loam	silt loam	silt loam	sandy loam	Sharkey clay	silty clay			
LSD (p<0.05)	6.90	2.52	6.07	5.64	12.75	10.91	4.62			
Standard Deviation	4.93	1.79	4.34	4.03	9.11	7.80	3.30			
CV	7.67	10.72	6.96	7.89	23.97	11.69	6.84			

The 2020 OVT Trial was planted at these LSU AgCenter research stations: Dean Lee, Alexandria; Macon Ridge, Winnsboro; Northeast, St. Joseph; Red River, Bossier City; Rice Research, Crowley; Iberia, New Iberia, and Central Research, Baton Rouge. Data was lost at some locations due to environmental conditions (e.g., hurricanes Laura and Delta).

All yields expressed in bushels per acre and readjusted to 13% moisture.

Bold – Highest yielding (p<0.05) at this location in 2020.

[1]Variety average from five research stations: Central, Dean Lee, Macon Ridge, Northeast and Iberia.

Table 2B. MG 4.5-4.7 — Agronomic Data From Various Locations Across Louisiana.

Variety	Rice Station Maturity[1]	Dean Lee Maturity[1]	Macon Ridge Maturity[1]	Northeast Maturity[1]	Iberia Maturity[1]	Average Maturity[2]	Average Plant Height[2]	Average Lodging[2]
Mission Seed Solutions A4618X	111	131	126	120	130	123	37	2
Bayer AG45X8	111	130	119	121	130	122	33	2
Bayer AG46X0	113	128	122	121	128	122	34	2
Bayer AG46X6	111	129	126	123	131	124	34	2
Bayer AG47X9	112	129	126	121	133	124	34	2
Stratton Seed AGS GS47X19	113	130	126	126	135	126	36	2
Armor 46-D09	113	130	128	125	129	125	38	2
BASF CZ 4570X	111	83	119	122	134	114	35	2
BASF CZ 4600X	113	129	129	121	132	125	35	2
BASF CZ 4730X	113	128	126	120	130	123	35	2
BASF CZ 4770X	112	131	128	128	132	126	34	2
BASF CZ 4701GTLL	111	126	122	118	126	120	32	1
DeltaGrow 45E10	112	127	119	120	128	121	32	2
DeltaGrow 46X05/STS	112	130	126	125	128	124	35	2
DeltaGrow 46X65/STS	111	126	122	122	127	122	34	3
DeltaGrow 47E20/STS	111	126	122	118	125	120	37	2
DeltaGrow 47E80/STS	111	127	122	120	125	121	34	3
DeltaGrow 47X95	112	132	126	127	134	126	37	3
GDM Seeds DM 45X61	111	129	119	120	131	122	38	3
Dyna-Gro S45XS37	113	128	126	121	131	124	37	3
Dyna-Gro S45XS66	111	130	126	119	131	123	38	3
Dyna-Gro S46XS60	111	127	122	119	129	122	34	2
Dyna-Gro S47XT20	112	130	124	121	129	123	36	2
Stratton Go Soy 463E20S	112	127	122	119	124	121	39	3
Local Seed LS4565XS	113	128	126	124	129	124	36	3
Local Seed LS4795XS	112	127	122	122	129	122	34	2
Local Seed LS4607XS	113	129	126	123	129	124	37	2
Local Seed LS4706GL	110	126	122	118	126	120	33	2
Pioneer P46A86X	111	126	128	120	130	123	39	3
Petrus Seed 4619 GTS	113	127	129	120	128	123	32	2
Progeny 4505RXS	112	128	129	119	133	124	36	3
Progeny 4620RXS	113	129	133	119	133	125	37	3
Progeny 4682E3	111	130	129	113	129	122	36	2
Progeny 4700RXS	112	129	128	121	128	123	35	3
Progeny 4775E3S	112	125	122	119	124	120	39	3
Univ. of Missouri S15-5904RY	112	128	119	120	128	121	36	2
Univ. of Missouri S16-14730C	113	127	124	119	130	123	36	2
Univ. of Missouri S16-5540R	112	128	129	123	124	123	30	2
NK (Syngenta) S47-Y9X	114	129	128	122	130	124	34	2
Local Seed ZS4694E3S	112	125	122	122	126	121	34	2
Average	112	127	125	121	129			

[1]Maturity (R8 - 95% brown pods; days after planting).
[2]Maturity, plant height and lodging averaged across locations.

Table 2C. MG 4.5-4.7 — Abiotic and Biotic Stress Tolerance.

Variety	Macon Ridge Salt[1]	Central Station TS[2]	Dean Lee TS[2]	Central Station SR[3]	Central Station AB[4]	Dean Lee AB[4]	Dean Lee CLB[5]	Macon Ridge CLB[5]	Northeast CLB[5]	Macon Ridge TRD[6]
Mission Seed Solutions A4618X	1.5	1.5	5.3	0.5	x		6.9	4.0	4.2	3.0
Bayer AG45X8	4.5	0.0	0.5	1.0			6.1	5.8	3.0	3.8
Bayer AG46X0	2.2	0.0	2.0	0.8			6.1	4.8	4.0	3.0
Bayer AG46X6	0.0	0.3	2.0	0.8			6.5	3.8	3.3	3.0
Bayer AG47X9	3.5	0.3	1.0	0.8			6.0	6.2	2.8	3.8
Stratton Seed AGS GS47X19	1.2	0.3	2.8	0.5	x		5.8	4.8	1.7	3.0
Armor 46-D09	3.0	0.0	2.5	0.5			6.0	3.7	2.5	2.8
BASF CZ 4570X	1.3	0.0	2.3	0.3			6.1	5.3	1.7	3.8
BASF CZ 4600X	0.8	0.0	2.3	0.5			6.1	6.3	3.3	3.5
BASF CZ 4730X	0.7	0.0	1.3	0.3			5.9	4.8	4.7	3.0
BASF CZ 4770X	0.5	0.0	2.0	0.0	x		5.8	3.8	1.5	2.3
BASF CZ4701GTLL	1.2	0.0	0.8	0.5	x		6.4	4.8	4.3	3.0
DeltaGrow 45E10	2.5	0.3	1.8	1.0			6.3	5.8	2.3	2.8
DeltaGrow 46X05/STS	2.0	0.0	2.5	0.5	x		5.9	4.5	2.5	1.5
DeltaGrow 46X65/STS	0.0	0.0	3.0	0.8	x		6.9	5.0	3.0	3.5
DeltaGrow 47E20/STS	0.0	0.3	3.3	0.3	x		6.9	4.8	3.5	3.5
DeltaGrow 47E80/STS	2.8	0.8	2.5	1.0			6.8	6.5	3.3	1.3
DeltaGrow 47X95	2.5	0.3	2.0	0.3			5.6	4.8	2.2	2.3
GDM Seeds DM 45X61	3.0	0.8	2.8	0.8			6.1	5.7	2.8	4.5
Dyna-Gro S45XS37	0.0	1.0	2.0	1.3		x	6.5	4.8	4.0	4.0
Dyna-Gro S45XS66	4.3	0.0	4.0	1.0			6.4	5.2	2.7	3.5
Dyna-Gro S46XS60	0.7	0.8	2.5	0.8			7.1	3.8	3.8	3.5
Dyna-Gro S47XT20	0.2	0.0	2.3	1.0			5.8	5.3	4.3	3.0
Stratton Go Soy 463E20S	1.2	0.3	3.8	0.8		x	6.9	4.3	4.0	3.3
Local Seed LS4565XS	1.0	0.0	2.0	1.8			6.3	5.8	3.7	3.0
Local Seed LS4795XS	1.3	0.0	2.8	1.0			7.1	4.0	3.7	3.5
Local Seed LS4607XS	1.2	0.0	2.5	1.0			5.9	6.0	3.3	3.3
Local Seed LS4706GL	2.3	0.5	2.5	0.8	x		6.9	5.5	4.0	2.8
Pioneer P46A86X	0.5	0.3	2.0	1.0			6.5	3.2	3.0	4.4
Petrus Seed 4619 GTS	1.0	0.3	3.0	0.5	x		7.5	4.8	4.2	3.8
Progeny 4505RXS	2.3	0.0	2.5	0.8			5.8	4.5	2.8	2.8
Progeny 4620RXS	0.0	0.0	2.5	1.3			7.0	6.3	4.3	2.3
Progeny 4682E3	5.3	0.3	1.5	1.0			5.8	5.8	2.7	3.0
Progeny 4700RXS	2.0	0.3	3.0	1.0			5.8	5.5	2.8	3.5
Progeny 4775E3S	0.5	0.0	3.5	0.5			7.1	3.7	4.0	3.3
Univ. of Missouri S15-5904RY	0.0	0.5	3.0	1.3			7.1	5.3	3.5	3.0
Univ. of Missouri S16-14730C	0.0	0.0	3.5	0.5			7.1	5.7	3.5	3.8
Univ. of Missouri S16-5540R	4.5	0.0	3.0	0.3			5.5	4.5	4.2	2.8
NK (Syngenta) S47-Y9X	0.0	0.3	1.8	0.8	x	x	6.6	5.0	4.0	5.0
Local Seed ZS4694E3S	0.2	0.0	4.5	0.5	x		7.0	2.8	3.8	3.3
LSD (p<0.05)	2.31	0.83	1.10	0.62			0.93	6.08	0.97	1.55
Standard Deviation	1.42	0.59	0.79	0.44			0.67	3.74	0.60	1.11
CV	89.29	269.43	32.18	60.23			10.38	71.46	18.06	34.34

[1]Salt (0-9 scale): 0=no stress; 5=50% affected; 9=completely affected.
[2]Target Spot (TS) (0-9 scale): 0 =no disease; 5=50% affected; 9=completely defoliated.
[3]Southern Rust (SR) (0-3 scale): 0=no disease; 1=low; 3=high.
[4]Aerial Blight (AB): Observed in at least one plot rep.
[5]Cercospora Leaf Blight (CLB) (0-9 scale): 0=no disease; 5=20-40% foliar symptoms/20% defoliation; 9=completely defoliated.
[6]Tap Root Decline (TRD)(0-9 scale): 0=no disease; 9=all plants showing symptoms.

Table 3A. Highest Yielding Maturity Group 4.8-4.9 Soybean Varieties From Various Louisiana Locations.

Variety	Central Station	Rice Station	Dean Lee	Macon Ridge	Red River	Northeast	Iberia	2020 Avg[1]	2-Year Avg	3 -Year Avg
Mission Seed Solutions A4828X	65	25	61	49	34	59	**42**	55		
Mission Seed Solutions A4950X	**67**	21	**65**	51	40	60	**38**	57	62	
Bayer AG48X9	**73**	17	**66**	50	**44**	59	**35**	57	61	59
Armor 48-D25	67	18	**70**	**57**	43	56	**35**	57		
Armor 48-E81	64	15	**66**	**55**	32	60	30	55		
Armor 49-D14	67	20	**67**	49	**44**	63	**36**	56		
BASF CZ 4810X	**68**	18	**68**	50	**50**	52	**35**	55		
BASF CZ 4869X	66	15	**67**	53	**45**	59	31	55	59	
BASF CZ 4979X	**70**	17	**66**	46	**44**	53	31	53	59	
DeltaGrow 48E10	61	17	63	45	**47**	57	**37**	53	59	
DeltaGrow 48X05	**70**	**25**	**66**	48	**47**	62	**40**	57		
DeltaGrow 48X45	62	18	**69**	**54**	38	63	28	55	60	58
DeltaGrow 49E00/STS	63	18	**65**	**56**	37	58	31	55		
DeltaGrow 49X15	66	**29**	62	46	40	58	28	52	58	
DeltaGrow 49X25	**68**		59	40	30	52	22	48		
GDM DM 49X13	66	23	**67**	50	**50**	64	31	56		
Dyna-Gro S48XT56	63	17	**70**	**55**	41	**67**	30	57	59	57
Dyna-Gro S48XT90	67	21	64	49	**47**	62	34	55		
Dyna-Gro S49XT70	60		**67**	51	36	62	**35**	55	60	
Stratton Go Soy 481E19	65	24	**66**	47	**48**	55	32	53		
Stratton Go Soy 49G16	62	23	**67**	50	**46**	50	28	52	55	55
Stratton Go Soy GT Ireane	44	16	60	51	**48**	52	28	47	51	50
Great Heart Seed GT-4828X	64	20	**66**	49	32	59	32	54		
Great Heart Seed GT-4979X	66	21	**71**	51	**44**	61	**37**	57		
Local Seed LS4806XS	**72**	**28**	**69**	**57**	28	58	**36**	58		
Local Seed LS4999X	64	20	**67**	49	31	60	**37**	55		
Pioneer P48A60X	63	23	**72**	**58**	41	61	33	57	62	60
Pioneer P49T62E	59	22	64	52	42	**73**	34	56		
Petrus Seed 4916 GT	65	20	**66**	52	**45**	56	30	54		
Progeny 4816RX	62	**26**	**72**	**57**	36	**67**	32	58	61	58
Progeny 4821RX	65	18	**70**	50	34	65	**35**	57	61	
Progeny 4851RX	61	**27**	54	52	32	65	28	52	58	55
Progeny 4902E3	66	17	**68**	43	**47**	62	34	54		
Progeny 4908E3S	65	**29**	61	42	**44**	49	**39**	51		
Progeny 4970RX	**67**	18	**70**	47	**48**	62	**37**	57		
Progeny 5016RXS	62	16	56	46	29	56	**35**	51		
Univ. of Missouri S15-3772RY	61	17	**66**	47	42	65	**37**	55		
Univ. of Missouri S16-7875C	**69**	**31**	64	50	**50**	53	**39**	55		
Univ. of Missouri S16-7922C	**71**	23	**66**	53	**56**	56	**41**	57		
Univ. of Missouri S16-11644C	65	21	65	48	**50**	57	**35**	54		
Univ. of Missouri S16-14379C	64	23	61	44	42	57	**37**	53		
NK (Syngenta) S49-F5X	67	17	**70**	53	42	62	**37**	58	60	
UniSouth Genetics USG 7489XT	61		**67**	51	37	**65**	28	54		
UniSouth Genetics USG 7496XTS	63	17	60	43	33	52	**40**	51		
Average	65	21	66	50	41	59	34			
Other Group 4.8-4.9 Soybean Varieties Included in Louisiana Tests:										
BASF CZ 4941X	57	18	59	43	38	39	30	46		
DeltaGrow 48E49/STS	58	14	60	51	30	58	29	51		
Progeny 4807E3S	60	19	60	52	31	58	31	52		
Average	58	17	60	49	33	52	30			
Soil Type	silt loam	silt loam	silt loam	silt loam	sandy loam	Sharkey clay	silty clay			
LSD (p<0.05)	6.07	5.56	6.96	5.24	11.8	8.03	7.74			
Standard Deviation	4.35	3.98	4.98	3.75	8.46	5.74	5.54			
CV	6.74	19.44	7.59	7.52	21	9.77	16.36			

The 2020 OVT Trial was planted at these LSU AgCenter research stations: Dean Lee, Alexandria; Macon Ridge, Winnsboro; Northeast, St. Joseph; Red River, Bossier City; Rice Research, Crowley; Iberia, New Iberia, and Central Research, Baton Rouge. Data was lost at some locations due to environmental conditions (e.g., hurricanes Laura and Delta).

All yields expressed in bushels per acre and readjusted to 13% moisture.

Bold – Highest yielding (p<0.05) at this location in 2020

[1]Variety average from five research stations: Central, Dean Lee, Macon Ridge, Northeast and Iberia.

Table 3B. MG 4.8-4.9 — Agronomic Data From Various Locations Across Louisiana.

Variety	Rice Station Maturity[1]	Dean Lee Maturity[1]	Macon Ridge Maturity[1]	Northeast Maturity[1]	Iberia Maturity[1]	Average Maturity[2]	Average Plant Height[2]	Average Lodging[2]
Mission Seed Solutions A4828X	121	133	126	123	121	125	41	4
Mission Seed Solutions A4950X	119	131	129	122	124	125	39	3
Bayer AG48X9	119	131	122	120	122	123	36	2
Armor 48-D25	120	131	126	122	121	124	36	2
Armor 48-E81	116	131	122	120	124	123	33	2
Armor 49-D14	119	133	128	122	123	125	37	3
BASF CZ 4810X	117	133	122	120	120	122	35	2
BASF CZ 4869X	119	128	122	117	121	121	35	2
BASF CZ 4979X	117	133	126	121	123	124	37	3
BASF CZ 4941X	121	133	129	123	124	126	37	2
DeltaGrow 48E10	119	130	126	120	122	123	36	2
DeltaGrow 48E49/STS	118	128	122	120	121	122	33	2
DeltaGrow 48X05	118	133	126	122	124	125	36	3
DeltaGrow 48X45	120	133	126	122	126	125	33	2
DeltaGrow 49E00/STS	117	131	122	122	124	123	32	2
DeltaGrow 49X15	119	132	129	120	126	125	38	3
DeltaGrow 49X25	119	133	128	127	120	125	38	3
GDM DM 49X13	122	133	129	125	122	126	37	3
Dyna-Gro S48XT56	119	132	129	121	125	125	34	2
Dyna-Gro S48XT90	119	132	128	122	123	125	36	3
Dyna-Gro S49XT70	117	133	126	123	124	125	37	2
Stratton Go Soy 481E19	118	131	124	120	121	123	37	2
Stratton Go Soy 49G16	118	127	128	118	120	122	32	2
Stratton Go Soy GT Ireane	120	133	126	126	126	126	29	1
Great Heart Seed GT-4828X	118	133	122	120	125	124	39	2
Great Heart Seed GT-4979X	119	133	128	123	123	125	38	3
Local Seed LS4806XS	121	130	126	120	122	124	35	2
Local Seed LS4999X	117	131	128	121	123	124	38	2
Pioneer P48A60X	118	130	122	118	124	122	35	2
Pioneer P49T62E	118	130	122	122	118	122	34	2
Petrus Seed 4916 GT	119	128	126	120	119	122	32	2
Progeny 4807E3S	118	128	126	117	119	122	33	3
Progeny 4816RX	119	133	126	121	126	125	34	2
Progeny 4821RX	119	133	126	121	123	124	35	3
Progeny 4851RX	119	130	122	118	122	122	39	4
Progeny 4902E3	117	132	129	122	121	124	36	3
Progeny 4908E3S	120	129	122	118	122	122	42	3
Progeny 4970RX	119	133	126	125	124	125	36	3
Progeny 5016RXS	119	133	122	121	122	123	38	2
Univ. of Missouri S15-3772RY	121	133	131	125	124	127	36	3
Univ. of Missouri S16-11644C	120	133	129	127	123	126	29	2
Univ. of Missouri S16-14379C	119	132	129	122	121	125	39	3
Univ. of Missouri S16-7875C	120	131	129	123	123	125	29	2
Univ. of Missouri S16-7922C	121	131	129	123	121	125	32	2
NK (Syngenta) S49-F5X	118	131	122	120	123	123	34	2
UniSouth Genetics USG 7489XT	119	132	126	122	126	125	33	2
UniSouth Genetics USG 7496XTS	120	132	122	123	121	124	37	2
Average	119	131	126	121	122			

[1]Maturity (R8 - 95% brown pods; days after planting).
[2]Maturity, plant height and lodging averaged across locations.

Table 3C. MG 4.8-4.9 — Abiotic and Biotic Stress Tolerance.

Variety	Macon Ridge Salt[1]	Central Station TS[2]	Dean Lee TS[2]	Central Station SR[3]	Dean Lee SR[4]	Central Station AB[5]	Dean Lee CLB[6]	Northeast CLB[6]	Macon Ridge CLB[6]	Macon Ridge TRD[7]
Mission Seed Solutions A4828X	2.2	0.0	3.8	2.0			4.9	3.2	5.2	3.5
Mission Seed Solutions A4950X	1.5	0.0	2.0	1.3			4.1	1.0	3.5	2.8
Bayer AG48X9	0.7	0.0	2.5	1.0			6.0	3.2	2.8	3.3
Armor 48-D25	1.2	0.0	3.8	1.5			5.8	3.3	4.5	2.3
Armor 48-E81	6.7	0.0	2.3	1.0			4.9	3.7	5.7	2.8
Armor 49-D14	1.3	0.0	2.8	1.0			4.6	2.0	4.0	3.3
BASF CZ 4810X	1.5	0.0	6.1	1.0			6.1	3.2	3.8	3.8
BASF CZ 4869X	4.5	0.0	2.3	1.8			7.5	4.5	2.8	3.0
BASF CZ 4979X	3.0	0.3	1.5	0.5			5.1	3.2	5.2	3.3
BASF CZ 4941X	1.0	0.3	1.0	1.3			5.3	4.2	5.5	3.8
DeltaGrow 48E10	1.7	0.0	2.5	0.8			5.0	3.5	4.7	5.0
DeltaGrow 48E49/STS	1.8	0.0	3.3	1.8		x	7.8	4.3	3.3	4.8
DeltaGrow 48X05	1.7	0.0	2.8	1.0			4.9	2.2	4.2	3.3
DeltaGrow 48X45	1.3	0.0	2.0	1.5			5.4	3.5	4.5	3.8
DeltaGrow 49E00/STS	1.3	0.0	2.0	1.0		x	4.3	4.0	5.3	3.5
DeltaGrow 49X15	2.7	0.0	2.3	0.8			4.6	3.3	4.8	4.0
DeltaGrow 49X25	1.3	0.0	1.5	2.0	x		4.8	4.0	5.7	2.0
GDM DM 49X13	1.0	0.0	1.8	0.8		x	4.6	1.3	3.8	4.3
Dyna-Gro S48XT56	1.2	0.0	1.8	1.0	x		5.1	4.0	3.5	3.8
Dyna-Gro S48XT90	1.0	0.0	1.5	1.0			4.6	1.5	3.8	3.8
Dyna-Gro S49XT70	1.7	0.0	3.0	1.0			4.1	2.5	2.5	4.3
Stratton Go Soy 481E19	1.5	0.0	3.3	0.8			5.5	3.7	4.8	3.5
Stratton Go Soy 49G16	0.2	0.0	3.5	1.8			4.8	4.2	4.0	2.3
Stratton Go Soy GT Ireane	2.7	0.0	1.8	0.8		x	4.3	5.2	4.8	2.8
Great Heart Seed GT-4828X	1.7	0.0	2.5	1.5	x		6.1	3.2	2.8	4.3
Great Heart Seed GT-4979X	3.7	0.0	2.3	1.3			4.1	1.0	3.7	3.5
Local Seed LS4806XS	0.0	0.0	3.5	1.5			6.0	4.0	4.2	3.0
Local Seed LS4999X	0.7	0.0	3.3	1.8			5.3	2.5	3.2	3.3
Pioneer P48A60X	1.0	0.0	2.8	2.0			6.4	3.8	3.3	3.0
Pioneer P49T62E	0.3	0.3	2.8	0.8			4.5	4.2	3.8	4.3
Petrus Seed 4916 GT	0.2	0.0	3.5	1.8			5.5	4.2	4.2	2.8
Progeny 4807E3S	3.3	0.0	3.0	1.3			6.3	4.0	4.3	3.5
Progeny 4816RX	1.7	0.0	1.8	1.5			4.9	3.2	5.0	3.3
Progeny 4821RX	0.3	0.0	2.0	0.8			4.6	3.3	3.7	2.3
Progeny 4851RX	0.3	0.0	3.8	2.0			5.1	3.0	4.5	2.8
Progeny 4902E3	0.0	0.0	1.3	1.0			5.1	2.7	2.8	3.5
Progeny 4908E3S	1.0	0.0	5.8	1.0			5.0	1.7	4.0	3.0
Progeny 4970RX	1.0	0.0	1.8	0.8			4.4	1.7	4.0	2.8
Progeny 5016RXS	2.0	0.0	1.8	1.5			5.3	4.2	5.2	3.5
Univ. of Missouri S15-3772RY	0.0	0.5	2.5	0.8			4.1	3.2	3.3	4.0
Univ. of Missouri S16-11644C	1.0	0.0	2.3	0.8			3.8	4.3	4.0	3.5
Univ. of Missouri S16-14379C		0.0	2.3	1.0			4.8	2.3	5.5	4.0
Univ. of Missouri S16-7875C	2.0	0.3	3.3	1.5			4.8	3.5	3.5	3.3
Univ. of Missouri S16-7922C	2.5	0.0	2.3	0.8	x		4.3	2.5	2.7	2.8
NK (Syngenta) S49-F5X	0.0	0.0	1.8	1.5	x		6.0	4.0	3.8	3.5
UniSouth Genetics USG 7489XT	0.0	0.0	1.0	1.3		x	4.5	3.5	3.8	4.0
UniSouth Genetics USG 7496XTS	0.8	0.0	1.3	1.8			5.3	4.2	6.0	3.8
LSD (p<0.05)	2.876	0.22	1.273	0.67			0.927	0.956	1.605	1.54
Standard Deviation	1.772	0.16	0.911	0.48			0.663	0.59	0.99	1.11
CV	121.92	520.3	36.46	38.7			12.97	18.51	24.23	32.35

[1]Salt (0-9 scale): 0=no stress; 5=50% affected; 9=completely affected.
[2]Target Spot (TS) (0-9 scale): 0 =no disease; 5=50% affected; 9=completely defoliated.
[3]Southern Rust (SR) (0-3 scale): 0=no disease; 1=low; 3=high.
[4]Southern Rust (SR) Observed in at least one plot rep.
[5]Aerial Blight (AB): Observed in at least one plot rep.
[6]Cercospora Leaf Blight (CLB) (0-9 scale): 0=no disease; 5=20-40% foliar symptoms/20% defoliation; 9=completely defoliated.
[7]Tap Root Decline (TRD)(0-9 scale): 0=no disease; 9=all plants showing symptoms.

Table 4A. Highest Yielding Maturity Group 5.0-5.3 Soybean Varieties From Six Louisiana Locations.

Variety	Central Station	Dean Lee	Macon Ridge	Red River	Northeast	Iberia	2020 Avg.[1]	2-Year Avg.	3-Year Avg.
Armor 51-E53	68	64	43	38	54	**42**	54		
Bayer AG52X9	61	**68**	49	**45**	**64**	36	55	57	59
Bayer AG53X0	66	**73**	50	36	**66**	33	58	59	
Bayer AG53X9	62	**72**	**52**	**48**	**68**	34	58	60	59
BASF CZ 5000X	67	**67**	42	38	**64**	34	55		
BASF CZ 5251X	61	67	50	**46**	**64**	36	56		
BASF CZ 5299X	60	**72**	41	**40**	60	40	55	59	
DeltaGrow 51E60	65	65	49	29	**66**	34	56		
DeltaGrow 52E22	64	**67**	44	31	61	34	54	57	
DeltaGrow 52X05/STS	60	61	38	31	**65**	32	51	56	
Dyna-Gro S52XS39	64	63	38	**46**	60	40	53	56	
GDM DM 59E01	58	58	40	**43**	60	**47**	53		
Stratton AGS GS52X19S	63	62	40	**45**	62	39	53	58	
Stratton Go Soy 50G17	67	**72**	51	**43**	56	38	57	58	59
Stratton Go Soy 512E21	63	65	48	**40**	**65**	37	56		
Stratton Go Soy 5214GTS	62	**67**	49	39	57	37	55	56	56
Local Seed LS5009XS	64	66	**56**	36	**63**	**43**	58		
Local Seed LS5087X	64	**72**	**51**	**39**	**66**	36	58	60	60
Local Seed LS5386X	60	66	44	**41**	**68**	33	54	56	
Local Seed ZS5098E3S	64	58	42	**40**	52	**41**	51		
Pioneer P53A67X	**75**	**73**	**52**	**51**	**67**	35	60		
Petrus Seed 5319 GT	57	65	45	32	**62**	34	53		
Progeny 5170RX	61	66	47	33	**66**	25	53	56	
Progeny 5211E3	56	**67**	44	**39**	60	37	53		
Progeny 5252RX	56	**67**	39	**42**	**63**	**41**	53	56	56
Univ. of Arkansas R15-1587	64	62	49	**47**	60	36	54		
Univ. of Missouri S16-11651C	**70**	**68**	**53**	**43**	**63**	36	58		
Univ. of Missouri S16-15170C	56	65	46	**44**	**64**	29	52		
Univ. of Missouri S16-3739RY	68	**69**	46	**42**	55	33	54		
Univ. of Missouri S16-3747RY	**72**	67	48	**47**	56	34	55		
NK (Syngenta) S51-R3XS	59	63	**52**	35	**69**	33	55	58	
Dyna-Gro S52XT91	64	**68**	47	**46**	61	40	56		
Average	63	66	46	40	62	36			
Other Group 5.0-5.3 Varieties Included in Louisiana Tests:									
DeltaGrow 52E15/STS	66	64	38	36	57	33	52		
Univ. of Missouri S16-15809C	62	64	41	32	49	34	50		
NK (Syngenta) S53-F7X	56	65	46	34	62	39	53	57	
Average	61	64	42	34	56	35			
Soil Type	silt loam	silt loam	silt loam	sandy loam	Sharkey clay	silty clay			
LSD (p<0.05)	4.65	6.74	4.31	11.51	6.43	7.13			
Standard Deviation	3.32	4.80	3.07	8.21	4.58	5.09			
CV	5.26	7.24	6.68	20.61	7.44	14.09			

The 2020 OVT Trial was planted at these LSU AgCenter research stations: Dean Lee, Alexandria; Macon Ridge, Winnsboro; Northeast, St. Joseph; Red River, Bossier City; Rice Research, Crowley; Iberia, New Iberia, and Central Research, Baton Rouge. Data was lost at some locations due to environmental conditions (e.g., hurricanes Laura and Delta).

All yields expressed in bushels per acre and readjusted to 13% moisture.

Bold – Highest yielding (p<0.05) at this location in 2020.

[1]Variety average from five research stations: Central, Dean Lee, Macon Ridge, Northeast and Iberia.

Table 4B. MG 5.0-5.3 — Agronomic Data From Various Locations Across Louisiana.

Variety	Dean Lee Maturity[1]	Macon Ridge Maturity[1]	Northeast Maturity[1]	Iberia Maturity[1]	Average Maturity[2]	Average Plant Height[2]	Average Lodging[2]
Bayer AG52X9	132	129	122	122	126	41	2
Bayer AG53X0	131	131	127	123	128	42	2
Bayer AG53X9	133	126	123	124	126	34	2
Stratton AGS GS52X19S	133	131	129	122	129	44	3
Armor 51-E53	129	122	119	120	122	46	3
BASF CZ 5000X	133	126	124	122	126	38	3
BASF CZ 5251X	135	129	124	123	128	36	2
BASF CZ 5299X	133	128	128	122	128	44	3
DeltaGrow 51E60	133	133	123	121	127	40	3
DeltaGrow 52E15/STS	131	129	120	121	125	45	3
DeltaGrow 52E22	132	122	123	121	124	38	3
DeltaGrow 52X05/STS	132	131	129	122	128	44	3
GDM DM 59E01	134	133	127	123	129	45	4
Stratton Go Soy 50G17	130	126	120	121	124	34	2
Stratton Go Soy 512E21	134	129	124	121	127	38	3
Stratton Go Soy 5214GTS	132	129	122	119	125	38	3
Local Seed LS5009XS	132	122	125	124	126	40	3
Local Seed LS5087X	132	128	125	124	127	40	2
Local Seed LS5386X	132	133	129	123	129	38	2
Pioneer P53A67X	132	128	122	120	125	28	2
Petrus Seed 5319 GT	135	131	127	124	129	34	2
Progeny 5170RX	134	128	123	122	127	40	3
Progeny 5211E3	135	129	124	121	127	38	3
Progeny 5252RX	131	131	127	122	128	45	3
Univ. of Arkansas R15-1587	131	126	127	123	127	29	1
Univ. of Missouri S16-11651C	131	133	127	124	129	34	2
Univ. of Missouri S16-15170C	133	131	128	125	129	38	2
Univ. of Missouri S16-15809C	132	133	124	122	128	36	2
Univ. of Missouri S16-3739RY	134	133	124	121	128	32	2
Univ. of Missouri S16-3747RY	134	129	123	122	127	35	2
NK (Syngenta) S51-R3XS	131	126	123	122	125	35	3
Dyna-Gro S52XS39	134	131	128	122	129	43	3
Dyna-Gro S52XT91	133	126	124	122	126	36	1
NK (Syngenta) S53-F7X	132	129	127	121	127	38	2
Local Seed ZS5098E3S	130	126	119	121	124	45	3
Average	132	129	125	122			

[1]Maturity (R8 - 95% brown pods; days after planting).
[2]Maturity, plant height and lodging averaged across locations.

Table 4C. MG 5.0-5.3 — Abiotic and Biotic Stress Tolerance.

Variety	Macon Ridge Salt[1]	Central Station TS[2]	Dean Lee TS[2]	Central Station SR[3]	Dean Lee SR[3]	Central Station AB[4]	Dean Lee CLB[5]	Northeast CLB[5]	Macon Ridge CLB[5]	Macon Ridge TRD[6]
Bayer AG52X9	2.33	0	0.3	0.8	0		4.63	3.5	3.83	3.5
Bayer AG53X0	4	1.5	5	2	1		4.63	2.33	4.33	3.5
Bayer AG53X9	3.5	0.3	0.8	1.3	0.3		4.75	4.17	5.67	3
Stratton AGS GS52X19S	0.67	0.3	2.3	0	1		3.75	1.33	2.5	2.5
Armor 51-E53	3.5	1	6	1	0		4.5	1.5	3.5	3.3
BASF CZ 5000X	1.67	0.3	0.3	1	0.5		4.88	1.17	4	3
BASF CZ 5251X	2.5	0.5	3	1.8	0.3		4	2.33	4.33	3.8
BASF CZ 5299X	1.17	0	1.8	0	0.3		3.13	0.83	2	2.3
DeltaGrow 51E60	1.83	0	0.5	1.3	0.5	x	5	2.83	3.67	3
DeltaGrow 52E15/STS	2	1	5.8	1.3	0.5		4.5	1.33	3.83	2.5
DeltaGrow 52E22	1.17	0.5	2.8	1.5	1		4.5	2.33	2.5	1.8
DeltaGrow 52X05/STS	0.33	0	2	0	0.5	x	3.25	0.67	2.17	2.5
GDM DM 59E01	1	0	3.3	0.5	0		3.38	0.67	2.83	4.3
Stratton Go Soy 50G17	1.17	1.3	1.5	2.5	2.5		4.88	2.83	3.5	3.3
Stratton Go Soy 512E21	1	0	0.5	1.5	1.3		5.25	1.67	2.5	4.3
Stratton Go Soy 5214GTS	1.25	0	0.5	2.3	0.5		4.25	3.17	3.17	3.5
Local Seed LS5009XS	1.33	0.3	4	1.8	0.5		4.75	2.5	3.83	1.3
Local Seed LS5087X	2.5	0	0.8	1.5	1.3		4.38	1.17	2.83	3
Local Seed LS5386X	2	0	1.3	1.3	0.3		4.63	2.33	3	2.5
Pioneer P53A67X	3.67	0	0.8	3	1.5		5	4	5.17	4.3
Petrus Seed 5319 GT	1.33	1.3	0.8	1.5	0.8		5	4	6.17	4
Progeny 5170RX	2.5	0.3	5.3	1.3	0.5		3.88	1.17	2.67	3
Progeny 5211E3	1.17	0.5	1.8	1	0.5		4.38	2.5	2.67	3.5
Progeny 5252RX	0.67	0	1	0	0.3		3.13	2	2.33	2.8
Univ. of Arkansas R15-1587	1.67	0	0.5	2.8	1		4.25	4.33	5.17	3
Univ. of Missouri S16-11651C	0	0	0.8	2	0.5		3.75	3	3.83	3
Univ. of Missouri S16-15170C	2.25	1	4.5	1.8	0.3		4.13	2.33	3.17	1.5
Univ. of Missouri S16-15809C	1	0.8	1.5	2.3	1.3		4.38	3.17	4.33	3
Univ. of Missouri S16-3739RY	1.33	0	2	2.8	2		4.38	4.83	5.5	4
Univ. of Missouri S16-3747RY	0.83	2	1.3	2.8	3		5.25	4.5	5.5	2.5
NK (Syngenta) S51-R3XS	2.25	0.3	1	2.3	1.8	x	5.88	2.33	3.17	3.3
Dyna-Gro S52XS39	1.67	0	1.8	0.5	1		3	0.33	2.67	3.3
Dyna-Gro S52XT91	3.67	2	5	1.8	0.3	x	4.38	3.17	3.67	2.8
NK (Syngenta) S53-F7X	2.5	0	0.3	2	0.8		4.75	3.83	5	3.3
Local Seed ZS5098E3S	2.17	1.8	5.5	1.5	0.5		5.38	2.17	3	3.8
LSD (p<0.05)	2.77	1.14	1.67	0.65	0.93		0.76	1.08	1.22	1.55
Standard deviation	1.70	0.81	1.19	0.46	0.66		0.54	0.66	0.75	1.11
CV	93.44	170.01	55.24	31.22	83.23		12.28	26.77	20.45	36.02

[1]Salt (0-9 scale): 0=no stress; 5=50% affected; 9=completely affected.
[2]Target Spot (TS) (0-9 scale): 0 =no disease; 5=50% affected; 9=completely defoliated.
[3]Southern Rust (SR) (0-3 scale): 0=no disease; 1=low; 3=high.
[4]Aerial Blight (AB): Observed in at least one plot rep.
[5]Cercospora Leaf Blight (CLB) (0-9 scale): 0=no disease; 5=20-40% foliar symptoms/20% defoliation; 9=completely defoliated.
[6]Tap Root Decline (TRD)(0-9 scale): 0=no disease; 9=all plants showing symptoms.

Table 5A. Highest Yielding Maturity Group 5.4-6.0 Soybean Varieties From Six Louisiana Locations.

Variety	Central Station	Dean Lee	Macon Ridge	Red River	Northeast	Iberia	2020 Avg.[1]	2-Year Avg.	3-Year Avg.
Bayer AG56X8	63	66	41	44	58	**45**	53	56	58
DeltaGrow 54X25	67	62	**46**	36	51	39	50	54	
Delta Grow 5585RR2	65	61	41	35	49	**45**	49		
Dyna-Gro S56XT99	64	65	40	40	52	**46**	51	56	
BASF CZ 5700X	47	50	22	**47**	45	40	42		
Pioneer P54A54X	**78**	**73**	**51**	**53**	**58**	**49**	60	63	64
Progeny 5554RX	65	67	39	42	53	**50**	52	57	59
Univ. of Arkansas R13-13997	70	69	**49**	**48**	**64**	43	57		
Univ. of Arkansas R13-14635RR	62	63	36	44	51	**49**	51		
Univ. of Arkansas R16-1445	65	68	43	**46**	53	43	53		
Average	64	64	41	44	53	45			
Other Group 5.4-6.0 Soybean Varieties in Louisiana Tests:									
BASF CZ 6020X	42	42	22	45	35	40	38		
Soil Type	silt loam	silt loam	silt loam	sandy loam	Sharkey clay	silty clay			
LSD (p<0.05)	4.37	3.61	4.63	7.01	6.03	5.82			
Standard Deviation	3.03	2.50	3.21	4.86	4.17	4.03			
CV	4.85	4.01	8.20	11.11	8.05	9.07			

The 2020 OVT Trial was planted at these LSU AgCenter research stations: Dean Lee, Alexandria; Macon Ridge, Winnsboro; Northeast, St. Joseph; Red River, Bossier City; Rice Research, Crowley; Iberia, New Iberia, and Central Research, Baton Rouge. Data was lost at some locations due to environmental conditions (e.g., hurricanes Laura and Delta).

All yields expressed in bushels per acre and readjusted to 13% moisture.

Bold – Highest yielding (p<0.05) at this location in 2020.

[1]Variety average from six research stations: Central, Dean Lee, Macon Ridge, Red River, Northeast and Iberia.

Table 5B. MG 5.4-6.0 — Agronomic Data From Various Locations Across Louisiana.

Variety	Dean Lee Maturity[1]	Macon Ridge Maturity[1]	Northeast Maturity[1]	Iberia Maturity[1]	Average Maturity[2]	Average Plant Height[2]	Average Lodging[2]	Dean Lee Green Stems[3]	Macon Ridge Green Stems[3]
Delta Grow 5585RR2	138	131	127	126	130	28	1		
Bayer AG56X8	137	129	123	129	130	32	2		
BASF CZ 5700X	143	136	135	129	136	31	1	x	x
BASF CZ 6020X	143	140	135	131	137	31	1	x	x
DeltaGrow 54X25	135	126	123	124	127	29	2		
Pioneer P54A54X	134	131	124	126	129	29	2		
Progeny 5554RX	137	133	123	126	130	30	2		
Univ. of Arkansas R13-13997	138	133	127	126	131	31	2		
Univ. of Arkansas R13-14635RR	135	129	123	126	128	41	2	x	
Univ. of Arkansas R16-1445	136	133	128	126	131	31	2		
Dyna-Gro S56XT99	137	133	123	128	130	32	2		
Average	137	132	126	127					

[1]Maturity (R8 - 95% brown pods; days after planting).

[2]Maturity, plant height, and lodging averaged across locations.

[3]Green Stem observation from Dean Lee and Macon Ridge Research Stations.

Table 5C. MG 5.4-6.0 — Abiotic and Biotic Stress Tolerance.

Variety	Macon Ridge Salt[1]	Dean Lee TS[2]	Central Station SR[3]	Dean Lee SR[3]	Central Station AB[4]	Dean Lee CLB[5]	Northeast CLB[5]	Macon Ridge CLB[5]	Macon Ridge TRD[6]
Delta Grow 5585RR2	0.83	0.5	2.8	1.5		4	3.67	3.25	2.8
Bayer AG56X8	1.17	0.8	2.8	2.5		5	3.83	5	3.3
BASF CZ 5700X	0.67	1	2.3	1		4.13	4.5	5.25	3.3
BASF CZ 6020X	0	0.8	2.5	1.3	x	3.88	4.33	4.13	3.3
DeltaGrow 54X25	1.25	0.5	2.8	2.8		6	4.17	5.38	3.3
Pioneer P54A54X	0	0.3	2.5	2.3		5.25	3	4.13	4
Progeny 5554RX	1	2.5	2.8	2.3		5.13	4	3.88	3.8
Univ. of Arkansas R13-13997		1.8	1.8	1.3		4.38	4.33	4	2
Univ. of Arkansas R13-14635RR	1.67	2.8	2.5	1		3.75	1.67	5.75	3.3
Univ. of Arkansas R16-1445	1.5	1	1.8	1.3		4	2.67	2.63	4
Dyna-Gro S56XT99	0	0.8	3	2.8		5.63	4	4.38	2.3
LSD (p<0.05)	2.647	1.78	0.68	0.83		0.761	1.155	1.091	1.29
Standard Deviation	1.529	1.24	0.47	0.57		0.527	0.678	0.756	0.89
CV	189.17	108.7	19.12	32.01		11.34	18.57	17.4	28

[1]Salt (0-9 scale): 0=no stress; 5=50% affected; 9=completely affected.
[2]Target Spot (TS) (0-9 scale): 0 =no disease; 5=50% affected; 9=completely defoliated.
[3]Southern Rust (SR) (0-3 scale): 0=no disease; 1=low; 3=high.
[4]Aerial Blight (AB): Observed in at least one plot rep.
[5]Cercospora Leaf Blight (CLB) (0-9 scale): 0=no disease; 5=20-40% foliar symptoms/20% defoliation; 9=completely defoliated.
[6]Tap Root Decline (TRD)(0-9 scale): 0=no disease; 9=all plants showing symptoms.

Table 6. Summary of Soybean Core-Block Demonstrations. The Demonstration Location Identified by Parish. Yields Expressed in Bushels per Acre (13% Moisture).

Table 6A. MG 3.0-4.4 Varieties.

	St. Landry
BASF CZ 3930GTLL	52
BASF CZ 4410GTLL	61
Local Seed Company LS3976X	50
NK (Syngenta) S39-G2X	56
Pioneer P42A96X	50
University of Missouri SA14-9653	53
University of Missouri Show Me Soy 3901C	54
Average	**54**
Soil Type	Silt Loam

Table 6B. MG 4.5-4.9 Varieties.

	Avoyelles	Beauregard	Catahoula	East Carroll	Madison	Pointe Coupee -1	Pointe Coupee - 2	Richland	St. Landry	West Carroll - 1	West Carroll - 2	Variety Average
Armor 48-D25	57	49				60	57	53	51	66	75	**58**
Armor 49-D14	65	39				58	53	52	48	71	81	**58**
BASF CZ 4570X	58	47				58	50	51	47	59	81	**56**
BASF CZ 4979X	61		41	53	79	63	57	53	43	62	72	**58**
Bayer CropScience AG48X9	60	52	54	62	83	63	57	54	49	61	73	**61**
DeltaGrow Seed 46X65/STS	63	52				69	44	55	53	64	82	**60**
DeltaGrow Seed 48E49/STS	57	41	54	49	79	56	44		49		73	**56**
Dyna-Gro S46XS60	61	53		59	84	60	52	55	51	62		**60**
Dyna-Gro S48XT90	63	44	52	66	78	57	38	58	48	57	83	**59**
Local Seed Company LS4795XS	63	49		55		66	51	42		68	74	**59**
Local Seed Company LS4999X	62		58	56		63	59	53		63	78	**61**
NK (Syngenta) S49-F5X	67		64			68	56	61	49	67	81	**64**
Petrus Seed Co. 4916 GT	54					58	37		41			**48**
Pioneer P46A86X	74	54		60	83	70	23	59	54	70	83	**63**
Pioneer P48A60X	60	56		60	87	69	55	64	53	51	75	**63**
Progeny Ag 4821RX	62	48	62	56	81	65	54	53	52	49	88	**61**
Progeny Ag 4970RX	63			60	74	59	57	52	46	54	74	**60**
Stratton Seed Co. AGS GS47X19	64	47				59	48	56	48	61	76	**57**
Stratton Seed Co. Soy 481E19	63	42				59	50		46	61		**53**
University of Missouri S14-15138GT		45		52	75	55	49		46			**54**
Location Average	**62**	**48**	**55**	**57**	**80**	**62**	**50**	**55**	**49**	**62**	**78**	
Soil Type	Silty Clay	Silt Loam	Silt Loam	Loamy Clay	Silt Loam	Clay	Silt Loam	Clay	Clay Loam	Clay	Silty-Clay Loam	

Table 6C. MG 5.0-6.0 Varieties.

	Avoyelles-1	Beauregard	Variety Average
Armor 54-D33	42	49	**45**
Armor 55-D57	55	47	**51**
BASF CZ 5000X	49	43	**46**
BASF CZ 5299X		45	**45**
Bayer CropScience AG53X0	55	42	**49**
DeltaGrow Seed 52E22	39		**39**
DeltaGrow Seed 52X05	54		**54**
Dyna-Gro S56XT99	49	40	**45**
Local Seed Company LS5009XS	49	46	**47**
Local Seed Company LS5087X	44	45	**45**
NK (Syngenta) S53-F7X	50	37	**44**
Pioneer P54A54X	51	42	**46**
Progeny Ag 5252RX	48	43	**45**
Progeny Ag P5554RX	46		**46**
Stratton Seed Company 5214GTS	49	40	**44**
University of Missouri S16-15170C		45	**45**
Location Average	**49**	**43**	
Soil Type	Silt Loam	Silt Loam	

Seed Companies and Varieties.

BASF	Bayer CropScience	Delta Grow Seed	Dyna-Gro	GDMSeeds	Great Heart Seed	Local Seed	Mission Seed Solutions	NK (Syngenta)	Petrus Seed
CZ 3930GTLL	AG45X8	DeltaGrow 45E10	Dyna-Gro S43XS70	DM 45X61	GT-4828X	LS3976X	A4448X	S39-G2X	Petrus Seed 4619 GTS
CZ4241GTLL	AG46X6	DeltaGrow 46X05/STS	Dyna-Gro S45XS37	DM 49X13	GT-4979X	LS4407X	A4618X	S42-B9XS	Petrus Seed 4916 GT
CZ 4280X	AG46X0	DeltaGrow 46X65/STS	Dyna-Gro S45XS66	DM 59E01		LS4565XS	A4828X	S44-C7X	Petrus Seed 5319 GT
CZ 4341X	AG47X9	DeltaGrow 47E20/STS	Dyna-Gro S46XS60			ZS4694E3S	A4950X	S47-Y9X	
CZ 4410GTLL	AG48X9	DeltaGrow 47E80/STS	Dyna-Gro S47XT20			LS4607XS		S49-F5X	
CZ 4570X	AG52X9	DeltaGrow 47X95	Dyna-Gro S48XT56			LS4706GL		S51-R3XS	
CZ 4600X	AG53X9	DeltaGrow 48E10	Dyna-Gro S48XT90			LS4795XS		S53-F7X	
CZ4701GTLL	AG53X0	DeltaGrow 48E49/STS	Dyna-Gro S49XT70			LS4806XS			
CZ 4730X	AG56X8	DeltaGrow 48X05	S52XS39			LS4999X			
CZ 4770X		DeltaGrow 48X45	S52XT91			LS5087X			
CZ 4810X		DeltaGrow 49E00/STS	S56XT99			LS5009XS			
CZ 4869X		DeltaGrow 49X15				ZS5098E3S			
CZ4941X		DeltaGrow 49X25				LS5386X			
CZ 4979X		DeltaGrow 51E60							
CZ 5000X		DeltaGrow 52E15/STS							
CZ 5299X		DeltaGrow 52E22							
CZ 5251X		DeltaGrow 52X05/STS							
CZ 5700X		DeltaGrow 54X25							
CZ 6020X		5585RR2							

Seed Companies and Varieties (cont.).

Pioneer	Progeny Ag	Stratton Seed	Natural Soybean and Grain Alliance	UniSouth Genetics	University of Arkansas	University of Missouri	WinField United
P39A58X	Progeny 4265RXS	Go Soy 463E20S	Sitzer 4.1	USG 7489XT	R15-1587	S15-10879C	Armor 46-D09
P42A96X	Progeny 4241E3	AGS GS47X19		USG 7496XTS	R13-14635RR	S15-5904RY	Armor 48-D25
P46A86X	Progeny 4444RXS	Go Soy 481E19			R16-1445	S16-5540R	Armor 48-E81
P48A60X	Progeny 4505RXS	Go Soy GT Ireane			R13-13997	S16-14730C	Armor 49-D14
P49T62E	Progeny 4620RXS	Go Soy 49G16				S15-3772RY	Armor 51-E53
P53A67X	Progeny 4682E3	Go Soy 50G17				S16-14379C	
P54A54X	Progeny 4700RXS	Go Soy 512E21				S16-7875C	
	Progeny 4775E3S	Go Soy 5214GTS				S16-11644C	
	Progeny 4816RX	AGS GS52X19S				S16-7922C	
	Progeny 4821RX					S16-3747RY	
	Progeny 4851RX					S16-3739RY	
	Progeny 4807E3S					S16-15809C	
	Progeny 4970RX					S16-11651C	
	Progeny 5016RXS					S16-15170C	
	Progeny 4902E3					SA14-9653	
	Progeny 4908E3S					Show Me Soy 3901C	
	Progeny 5170RX						
	Progeny 5252RX						
	Progeny 5211E3						
	Progeny 5554RX						

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