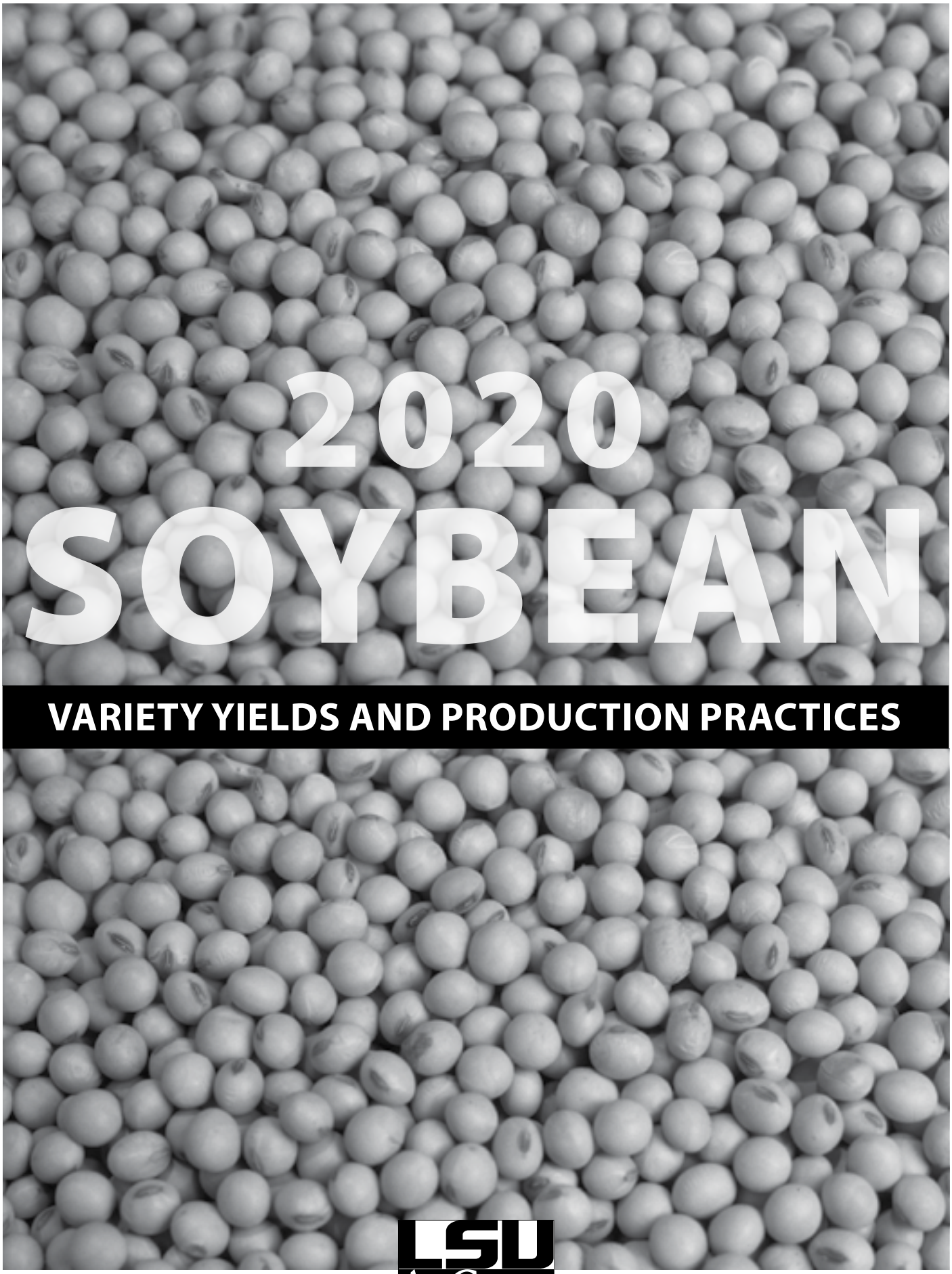

# 2020 SOYBEAN

## VARIETY YIELDS AND PRODUCTION PRACTICES

LSU AgCenter
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# 2020 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 comparing multiple varieties from varying seed companies. The official variety trials (OVT) are small-plot trials that evaluate a large number of varieties side by side. Because of the size of these trials and the equipment required to maintain and harvest small plots, these trials are only conducted at a handful of locations, typically at one of the LSU AgCenter research stations. The core block program is designed to evaluate a reduced number of soybean varieties in large plots located across the state. The main strength of this program is the ability to include a large number of locations. Twenty-six plots were planted in 2019; however, just 19 of the original locations were harvested because of the poor conditions that plagued the state during the 2019 growing season. Because of the limitation of the number of varieties in the core block program, it is important that growers consider the OVT for a complete evaluation of the available varieties. It is also important that growers consider the data from the core block program to help determine variety performance in a location most similar to their farm sites. We would advise growers to make all variety decisions based on multiyear and multi-environment 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.

## 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 2020. 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, three-cornered alfalfa hoppers, beetles and several Lepidopteran defoliators (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, MGIV soybeans will have more damage than MGV 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 the 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

Table 2 indicates the approximate days to maturity from emergence of varieties if planted at the optimum time. 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. Though not included in the tables in this guide, plant heights from small plot trials are available at LSUAgCenter.com.

### *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.

### *Phosphorous*

Phosphorous 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 (P2O5) 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 (K2O) is required by soybeans as phosphate, (P2O5) and about twice as much potash (K2O) is removed in the seed as phosphate (P2O5). Soybeans remove about 1.4 pounds of potash (K2O) 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 Six Louisiana Locations.**

| Variety | Central Station | Rice Station | Dean Lee | Macon Ridge | Red River | Iberia | Northeast | 2019 Average | 2-Year Average | 3-Year Average |
|---|---|---|---|---|---|---|---|---|---|---|
| A4448X | **47** | **50** | **74** | 49 | **58** | - | **66** | 57 | | |
| CZ 3929GTLL | **48** | 43 | **71** | **62** | **60** | - | 59 | 57 | | |
| CZ 4222LL | **50** | 40 | 67 | **60** | 49 | - | 62 | 55 | 54 | 55 |
| CZ 4308GTLL | **53** | **49** | **72** | **62** | **60** | - | **66** | 60 | 59 | 60 |
| LS3976X | **48** | 39 | 64 | **56** | 47 | - | **69** | 54 | | |
| LS44087XS | **44** | **55** | **76** | **62** | 50 | - | 54 | 57 | | |
| LSX4301XS | **48** | **52** | **75** | **62** | 50 | - | 63 | 58 | | |
| P4265RXS | 42 | **53** | **74** | **64** | **55** | - | **66** | 59 | | |
| P42A96X | **46** | 43 | 63 | 51 | 49 | - | **66** | 53 | | |
| P4444RXS | **51** | **53** | **71** | **67** | **52** | - | **70** | 61 | 58 | 60 |
| S13-10590C | **44** | 38 | 68 | 46 | 42 | - | 47 | 47 | 47 | 48 |
| S13-3851C | 41 | **54** | **75** | **60** | 51 | - | 62 | 57 | 58 | 59 |
| S39-G2X | **45** | **50** | **73** | **58** | 47 | - | **68** | 57 | | |
| S41XS98 | **45** | 40 | **71** | **63** | **56** | - | 62 | 56 | 53 | 55 |
| S44-C7X | **48** | **48** | **71** | **67** | **62** | - | **75** | 62 | | |
| **Average** | 47 | 47 | 71 | 59 | 53 | - | 64 | | | |
| **Other Group 3.0-4.4 Soybean Varieties Included in Louisiana Tests:** | | | | | | | | | | |
| CZ 3841LL | 41 | 31 | 63 | 46 | 44 | - | 55 | 47 | 47 | 48 |
| S13-2743C | 41 | 23 | 66 | 52 | 38 | - | 51 | 45 | 46 | |
| **Average** | 41 | 27 | 64 | 49 | 41 | - | 53 | | | |
| LSD ($p < 0.05$) | 9.57 | 8.09 | 5.43 | 13.02 | 10.40 | - | 9.06 | | | |
| Standard Deviation | 6.73 | 5.69 | 3.82 | 9.16 | - | - | 6.37 | | | |
| CV | 14.61 | 12.72 | 5.45 | 15.76 | 14.30 | - | 10.22 | | | |

*Data from these LSU AgCenter research stations: Dean Lee Research Station, Alexandria; Macon Ridge Research Station, Winnsboro; Northeast Research Station, St. Joseph; Red River Research Station, Bossier; H. Rouse Caffey Rice Research Station, Crowley; Iberia Research Station, New Iberia; and Central Research Station, Baton Rouge.*

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

*Bold- Highest yielding (P=.05) at this location in 2019*

**Iberia had no data*

**Table 2A. MG 3.0-4.4 - Agronomic Data For Soybean Varieties From Various Locations Across Louisiana.**

| Variety | Dean Lee *Maturity*[1] | Rice Station *Maturity*[1] | Dean Lee *FE*[2] | Dean Lee *TS*[3] | Macon Ridge *CLB*[4] |
|---|---|---|---|---|---|
| A4448X | 120 | 125 | 2 | 2 | 1 |
| CZ 3841LL | 109 | 116 | 2 | 2 | 2 |
| CZ 3929GTLL | 121 | 117 | 1 | 2 | 0 |
| CZ 4222LL | 115 | 115 | 3 | 4 | 1 |
| CZ 4308GTLL | 115 | 122 | 1 | 3 | 1 |
| LS3976X | 110 | 117 | 1 | 3 | 2 |
| LS44087XS | 121 | 127 | 3 | 3 | 1 |
| LSX4301XS | 124 | 127 | 1 | 2 | 1 |
| P4265RXS | 124 | 128 | 4 | 3 | 0 |
| P42A96X | 117 | 128 | 1 | 1 | 1 |
| P4444RXS | 121 | 123 | 2 | 2 | 1 |
| S13-10590C | 112 | 123 | 1 | 3 | 3 |
| S13-2743C | 111 | 116 | 2 | 3 | 1 |
| S13-3851C | 122 | 124 | 3 | 3 | 1 |
| S39-G2X | 118 | 123 | 1 | 1 | 4 |
| S41XS98 | 112 | 118 | 3 | 4 | 2 |
| S44-C7X | 125 | 127 | 2 | 2 | 1 |
| Mean | 117 | 122 | 2 | 2 | 1 |
| LSD ($p < 0.05$) | 2.09 | 3.77 | 2.44 | 2.48 | 0.89 |
| Standard Deviation | 1.47 | 2.65 | 1.72 | 1.74 | 0.62 |
| CV | 1.26 | 2.17 | 94.22 | 73.99 | 48.75 |

[1]Maturity (R8 - 95% brown pods; days after emergence)
[2]Frogeye leaf spot (0-9 scale; 0=no disease)
[3]Target spot (0-9 scale; 0=no disease)
[4]Cercospora leaf blight (0-9 scale; 0=no disease)
Dean Lee Research and Extension Center - Alexandria, La.; Macon Ridge Research Station - Winnsboro, La.; H. Rouse Caffey Rice Research Station - Rayne, La.

**Table 1B. Highest Yielding Maturity Group 4.5-4.7 Soybean Varieties From Six Louisiana Locations.**

| Variety | Central Station | Rice Station | Dean Lee | Macon Ridge | Red River | Iberia | Northeast | 2019 Average | 2-Year Average | 3-Year Average |
|---|---|---|---|---|---|---|---|---|---|---|
| A4618X | 49 | **63** | 77 | 61 | 47 | - | 62 | 60 | | |
| AG45X8 | 44 | 52 | 76 | 64 | **58** | - | 74 | 61 | 58 | 60 |
| AG46X0 | 48 | 50 | 75 | 69 | **55** | - | **78** | 62 | | |
| AG46X6 | 52 | **58** | 75 | 67 | 48 | - | **76** | 63 | 60 | 61 |
| AG47X9 | 44 | 51 | **78** | 60 | **58** | - | 74 | 61 | 59 | |
| CZ 4539GTLL | 48 | 47 | 73 | 67 | 46 | - | 66 | 58 | | |
| CZ 45L10LL | 51 | 51 | 69 | 58 | **53** | - | 70 | 59 | | |
| CZ 4649LL | 52 | **56** | 67 | 58 | **61** | - | 61 | 59 | 57 | |
| Delta Grow 45E23 | 44 | 40 | 68 | 62 | 44 | - | **76** | 56 | | |
| Delta Grow 46E29 STS | **58** | **56** | 74 | 67 | **58** | - | 65 | 63 | | |
| Delta Grow 46X25 | **53** | 52 | **81** | 66 | 50 | - | 74 | 62 | | |
| Delta Grow 46X65 | 49 | 48 | 76 | **74** | 49 | - | **82** | 63 | | |
| Delta Grow 47E19 | 50 | **65** | 75 | 68 | **53** | - | 71 | 64 | | |
| Delta Grow 47E25 | 44 | **57** | 75 | 57 | 47 | - | 74 | 59 | | |
| Delta Grow 47X95 | 44 | **60** | 76 | 64 | 45 | - | 72 | 60 | | |
| Go Soy 45GL18 | 47 | 40 | 74 | 62 | **51** | - | 67 | 57 | | |
| Go Soy463E19 | **55** | 53 | **79** | 65 | 46 | - | **80** | 63 | | |
| LS4565XS | 51 | 49 | 74 | **80** | **59** | - | 65 | 63 | 60 | |
| LS4583X | **55** | 49 | **84** | 66 | 50 | - | 71 | 62 | 60 | |
| LS4677X | **55** | **56** | 71 | 65 | **61** | - | 75 | 64 | 59 | |
| LS4798X | 51 | **64** | 71 | 65 | **55** | - | 72 | 63 | | |
| LSX4501X | **54** | **56** | **78** | 65 | 48 | - | 74 | 63 | | |
| LSX4601XS | **57** | 48 | 77 | **73** | **52** | - | **78** | 64 | | |
| LSX4602ES | **56** | 51 | 75 | 69 | **57** | - | 67 | 62 | | |
| LSX4701E | **57** | **64** | 75 | **72** | 50 | - | 74 | 65 | | |
| LXS4503GLX | **56** | 48 | 75 | 63 | 49 | - | 75 | 61 | | |
| P4620RXS | 45 | 48 | 68 | 65 | **52** | - | 72 | 58 | | |
| P46A86X | 50 | **61** | **80** | 65 | 49 | - | **80** | 64 | | |
| P4799RXS | 48 | **57** | 71 | 64 | **52** | - | 67 | 60 | | |
| REV 4679X | 47 | 53 | 76 | 70 | **59** | - | 71 | 63 | | |
| S14-15146R | 38 | 42 | 69 | 51 | **51** | - | 66 | 53 | 53 | |
| S16-14379C | 50 | **56** | **78** | 60 | **56** | - | 65 | 61 | | |
| S45XS37 | **54** | 46 | 76 | 61 | **52** | - | 69 | 60 | 58 | 60 |
| S45XS66 | **57** | **61** | 75 | 60 | **59** | - | 70 | 63 | 59 | |
| S46XS60 | 50 | **56** | 77 | **73** | 50 | - | **78** | 64 | | |
| S47-Y9X | 51 | 48 | 71 | 63 | **54** | - | **79** | 61 | | |
| S47XT20 | 51 | **58** | 71 | 69 | **53** | - | 75 | 63 | | |
| X45-D51 | 47 | **54** | 71 | 62 | 50 | - | 72 | 59 | | |
| X47-D18 | 52 | 53 | 77 | 64 | 42 | - | **76** | 61 | | |
| **Average** | 50 | 53 | 75 | 65 | 52 | - | 72 | | | |
| **Other Group 4.5-4.7 Soybean Varieties Included in Louisiana Tests:** | | | | | | | | | | |
| S13-10592C | 48 | 51 | 66 | 48 | 40 | - | 61 | 52 | 52 | |
| S16-14730C | 44 | 50 | 70 | 56 | 50 | - | 63 | 55 | | |
| **Average** | 46 | 50 | 68 | 52 | 45 | - | 62 | | | |
| LSD ($p < 0.05$) | 5.91 | 11.68 | 6.56 | 9.15 | 10.50 | - | 6.67 | | | |
| Standard Deviation | 4.22 | 8.35 | 4.69 | 6.54 | - | - | 4.76 | | | |
| CV | 8.42 | 15.73 | 6.32 | 10.17 | 12.50 | - | 6.65 | | | |

*Data from these LSU AgCenter research stations: Dean Lee Research Station, Alexandria; Macon Ridge Research Station, Winnsboro; Northeast Research Station, St. Joseph; Red River Research Station, Bossier; H. Rouse Caffey Rice Research Station, Crowley; Iberia Research Station, New Iberia; and Central Research Station, Baton Rouge.*
*All yields expressed in bushels per acre and readjusted to 13% moisture.*
*Bold- Highest yielding (P=.05) at this location in 2019*
**Iberia had no data*

**Table 2B. MG 4.5-4.7 - Agronomic Data For Soybean Varieties From Various Locations Across Louisiana.**

| Variety | Dean Lee *Maturity*[1] | Rice *Maturity*[1] | Dean Lee *FE*[2] | Dean Lee *TS*[3] | Macon Ridge *CLB*[4] |
|---|---|---|---|---|---|
| A4618X | 125 | 128 | 1 | 1 | 2 |
| AG45X8 | 123 | 128 | 1 | 1 | 3 |
| AG46X0 | 129 | 128 | 2 | 1 | 1 |
| AG46X6 | 125 | 128 | 1 | 1 | 2 |
| AG47X9 | 125 | 128 | 1 | 1 | 1 |
| CZ 4539GTLL | 127 | 127 | 1 | 1 | 1 |
| CZ 45L10LL | 128 | 128 | 1 | 1 | 1 |
| CZ 4649LL | 130 | 128 | 1 | 2 | 0 |
| Delta Grow 45E23 | 121 | 123 | 2 | 2 | 2 |
| Delta Grow 46E29 STS | 125 | 128 | 1 | 1 | 2 |
| Delta Grow 46X25 | 125 | 128 | 2 | 2 | 1 |
| Delta Grow 46X65 | 129 | 128 | 1 | 1 | 0 |
| Delta Grow 47E19 | 127 | 128 | 1 | 2 | 2 |
| Delta Grow 47E25 | 127 | 128 | 1 | 2 | 2 |
| Delta Grow 47X95 | 124 | 127 | 1 | 2 | 1 |
| Go Soy 45GL18 | 124 | 126 | 2 | 2 | 2 |
| Go Soy463E19 | 124 | 126 | 1 | 2 | 2 |
| LS4565XS | 127 | 128 | 1 | 1 | 3 |
| LS4583X | 127 | 128 | 1 | 1 | 1 |
| LS4677X | 127 | 128 | 1 | 2 | 3 |
| LS4798X | 129 | 128 | 1 | 1 | 0 |
| LSX4501X | 123 | 128 | 1 | 1 | 1 |
| LSX4601XS | 127 | 128 | 2 | 1 | 2 |
| LSX4602ES | 120 | 128 | 2 | 2 | 1 |
| LSX4701E | 130 | 128 | 1 | 2 | 1 |
| LXS4503GLX | 123 | 127 | 1 | 2 | 2 |
| P4620RXS | 127 | 128 | 0 | 1 | 2 |
| P46A86X | 123 | 127 | 0 | 1 | 1 |
| P4799RXS | 127 | 127 | 1 | 1 | 2 |
| REV 4679X | 122 | 127 | 0 | 1 | 2 |
| S13-10592C | 120 | 128 | 1 | 1 | 1 |
| S14-15146R | 123 | 128 | 1 | 1 | 1 |
| S16-14379C | 129 | 128 | 2 | 2 | 2 |
| S16-14730C | 126 | 128 | 2 | 1 | 1 |
| S45XS37 | 127 | 128 | 1 | 1 | 2 |
| S45XS66 | 127 | 128 | 1 | 2 | 2 |
| S46XS60 | 126 | 127 | 1 | 2 | 2 |
| S47XT20 | 125 | 127 | 2 | 1 | 2 |
| S47-Y9X | 127 | 128 | 1 | 1 | 2 |
| X45-D51 | 122 | 126 | 1 | 2 | 2 |
| X47-D18 | 124 | 126 | 2 | 1 | 1 |
| Mean | 125 | 127 | 1 | 1 | 1 |
| LSD ($p < 0.05$) | 3.30 | 1.40 | 1.74 | 1.23 | 1.09 |
| Standard Deviation | 2.35 | 1.00 | 1.24 | 0.88 | 0.78 |
| CV | 1.88 | 0.79 | 122.89 | 73.87 | 55.50 |

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

[2]Frogeye leaf spot (0-9 scale; 0=no disease)

[3]Target spot (0-9 scale; 0=no disease)

[4]Cercospora leaf blight (0-9 scale; 0=no disease)

Dean Lee Research and Extension Center - Alexandria, La.; Macon Ridge Research Station - Winnsboro, La.; H. Rouse Caffey Rice Research Station - Rayne, La.

**Table 1C. Highest Yielding Maturity Group 4.8-4.9 Soybean Varieties From Six Louisiana Locations.**

| Variety | Central Station | Rice Station | Dean Lee | Macon Ridge | Red River | Iberia | Northeast | 2019 Average | 2-Year Average | 3-Year Average |
|---|---|---|---|---|---|---|---|---|---|---|
| A4950X | **55** | **62** | **81** | **66** | 59 | - | **81** | 67 | | |
| AG48X9 | 52 | **59** | 77 | **67** | 50 | - | **84** | 65 | 59 | |
| AG49X0 | 23 | 45 | 60 | 57 | 50 | - | 71 | 51 | | |
| AGS GS 49X19 | **55** | **54** | 72 | 59 | 62 | - | **80** | 64 | | |
| C4845RX | 48 | **51** | **79** | 60 | 53 | - | **80** | 62 | | |
| CZ 4869X | **57** | **60** | 75 | 57 | 57 | - | 75 | 63 | | |
| CZ 4938LL | 52 | **55** | **79** | 57 | **77** | - | 66 | 64 | 60 | 60 |
| CZ 4979X | **55** | **66** | 75 | 58 | 58 | - | 77 | 65 | | |
| Delta Grow 48E10 | 52 | **66** | 75 | 55 | 62 | - | 78 | 65 | | |
| Delta Grow 48E28 | 51 | **58** | 76 | **61** | 60 | - | **80** | 64 | | |
| Delta Grow 48E39 | **55** | **65** | 77 | **62** | 54 | - | 74 | 65 | | |
| Delta Grow 48X45 | 50 | **61** | **80** | **63** | 53 | - | 77 | 64 | | |
| Delta Grow 48X95 | **60** | **61** | 78 | **64** | 43 | - | 78 | 64 | | |
| Delta Grow 4977LL/STS | **54** | **59** | 66 | 54 | 54 | - | 62 | 58 | | |
| Delta Grow 49X15 | **57** | **53** | 78 | 56 | 61 | - | **79** | 64 | | |
| Go Soy 482E19 | 51 | **50** | 78 | 58 | 56 | - | 77 | 62 | | |
| LGS4899RX | **54** | 47 | **79** | **67** | 57 | - | **83** | 64 | | |
| LGS4931RX | 43 | **53** | 70 | **62** | 56 | - | 78 | 60 | | |
| LS4889XS | **56** | **63** | 73 | 59 | 52 | - | 73 | 63 | | |
| LSX4901X | **57** | **66** | **79** | 60 | 48 | - | 77 | 64 | | |
| P4816RX | 46 | **55** | 78 | **62** | 58 | - | **79** | 63 | 59 | 60 |
| P4821RX | **54** | **53** | **79** | **63** | 53 | - | **82** | 64 | | |
| P4851RX | **57** | **54** | 77 | **61** | 54 | - | 73 | 63 | 57 | 58 |
| P48A60X | **56** | **60** | **87** | 60 | 55 | - | 76 | 66 | 62 | |
| P4999RX | **58** | **63** | **79** | **67** | 44 | - | 76 | 64 | | |
| Petrus Seed 4916 GT | 48 | **56** | 64 | **63** | 62 | - | 70 | 60 | 57 | |
| REV 4927X | **57** | **59** | **79** | 56 | 59 | - | **80** | 65 | | |
| REV 4940X | **54** | **60** | **87** | **66** | 55 | - | **80** | 67 | | |
| S14-15138R | 47 | **61** | 73 | 59 | 51 | - | 69 | 60 | | |
| S48XT56 | **57** | **52** | 77 | **63** | 38 | - | 76 | 60 | 57 | 59 |
| S49-F5X | 53 | **60** | 76 | **61** | 41 | - | **82** | 62 | | |
| S49XS76 | 47 | **60** | 76 | **62** | 54 | - | 76 | 62 | 58 | |
| S49XT39 | 53 | **59** | 74 | 57 | 57 | - | **79** | 63 | 57 | |
| S49XT70 | **57** | **58** | **83** | 60 | 52 | - | 78 | 65 | | |
| X48-D25 | **58** | **56** | **85** | **63** | 52 | - | **79** | 66 | | |
| X49-D67 | **56** | **60** | 78 | 58 | 49 | - | 78 | 63 | | |
| **Average** | 53 | 58 | 77 | 61 | 54 | - | 77 | | | |
| **Other Group 4.8-4.9 Soybean Varieties Included in Louisiana Tests:** | | | | | | | | | | |
| Go Soy 49G16 | 47 | 42 | 67 | 58 | 63 | - | 71 | 58 | 56 | 58 |
| Go Soy Ireane | 49 | 31 | 66 | 55 | 58 | - | 73 | 55 | 52 | 53 |
| **Average** | 48 | 36 | 67 | 57 | 61 | - | 72 | | | |
| LSD ($p < 0.05$) | 6.67 | 16.66 | 8.96 | 6.80 | 11.70 | - | 5.20 | | | |
| Standard Deviation | 4.76 | 11.89 | 6.39 | 4.85 | - | - | 3.71 | | | |
| CV | 9.07 | 21.00 | 8.41 | 8.04 | 15.20 | - | 4.86 | | | |

*Data from these LSU AgCenter research stations: Dean Lee, Alexandria; Macon Ridge, Winnsboro; Northeast, St. Joseph; Red River, Bossier; Rice Research, Crowley; Iberia, New Iberia, and Central Research, Baton Rouge.*

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

*Bold- Highest yielding (P=.05) at this location in 2019*

**Iberia had no data*

**Table 2C. MG 4.8-4.9 - Agronomic Data For Soybean Varieties From Various Locations Across Louisiana.**

| Variety | Dean Lee *Maturity*[1] | Rice Station *Maturity*[1] | Dean Lee FE[2] | Macon Ridge CLB[3] |
|---|---|---|---|---|
| A4950X | 132 | 130 | 2 | 1 |
| AG48X9 | 132 | 130 | 2 | 2 |
| AG49X0 | 135 | 133 | 3 | 2 |
| AGS GS 49X19 | 129 | 133 | 3 | 3 |
| C4845RX | 129 | 132 | 2 | 1 |
| CZ 4869X | 126 | 128 | 1 | 2 |
| CZ 4938LL | 130 | 132 | 5 | 0 |
| CZ 4979X | 130 | 133 | 2 | 3 |
| Delta Grow 48E10 | 126 | 130 | 2 | 1 |
| Delta Grow 48E28 | 129 | 129 | 3 | 2 |
| Delta Grow 48E39 | 128 | 128 | 2 | 2 |
| Delta Grow 48X45 | 131 | 131 | 3 | 2 |
| Delta Grow 48X95 | 127 | 131 | 2 | 1 |
| Delta Grow 4977LL/STS | 126 | 130 | 2 | 0 |
| Delta Grow 49X15 | 130 | 131 | 4 | 3 |
| Go Soy 482E19 | 125 | 128 | 5 | 4 |
| Go Soy 49G16 | 125 | 127 | 2 | 3 |
| Go Soy Ireane | 133 | 127 | 2 | 4 |
| LGS4899RX | 130 | 131 | 4 | 2 |
| LGS4931RX | 130 | 133 | 3 | 3 |
| LS4889XS | 131 | 133 | 3 | 3 |
| LSX4901X | 129 | 129 | 2 | 0 |
| P4816RX | 132 | 133 | 4 | 2 |
| P4821RX | 127 | 133 | 2 | 2 |
| P4851RX | 129 | 133 | 2 | 3 |
| P48A60X | 127 | 132 | 4 | 2 |
| P4999RX | 130 | 131 | 4 | 1 |
| Petrus Seed 4916 GT | 125 | 127 | 3 | 4 |
| REV 4927X | 123 | 128 | 2 | 1 |
| REV 4940X | 133 | 130 | 3 | 2 |
| S14-15138R | 129 | 130 | 2 | 2 |
| S48XT56 | 131 | 131 | 2 | 2 |
| S49-F5X | 127 | 128 | 5 | 2 |
| S49XS76 | 128 | 130 | 4 | 3 |
| S49XT39 | 127 | 132 | 1 | 2 |
| S49XT70 | 128 | 129 | 1 | 1 |
| X48-D25 | 128 | 130 | 3 | 2 |
| X49-D67 | 130 | 132 | 2 | 0 |
| Mean | 129 | 130 | 3 | 2 |
| LSD ($p < 0.05$) | 2.95 | 2.68 | 2.39 | 0.91 |
| Standard Deviation | 2.11 | 1.91 | 1.70 | 0.65 |
| CV | 1.64 | 1.47 | 63.55 | 34.89 |

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

[2]Frogeye leaf spot (0-9 scale; 0=no disease)

[3]Target spot (0-9 scale; 0=no disease)

[4]Cercospora leaf blight (0-9 scale; 0=no disease)

Dean Lee Research and Extension Center - Alexandria, La.; Macon Ridge Research Station - Winnsboro, La.; H. Rouse Caffey Rice Research Station - Rayne, La.

**Table 1D. Highest Yielding Maturity Group 5.0-5.3 Soybean Varieties From Six Louisiana Locations.**

| Variety | Central Station | Rice Station | Dean Lee | Macon Ridge | Red River | Iberia | Northeast | 2019 Average | 2 Year Average | 3 Year Average |
|---|---|---|---|---|---|---|---|---|---|---|
| AG52X9 | 45 | **55** | 61 | **60** | 54 | - | **78** | 59 | | |
| AG53X0 | 50 | **63** | **66** | 54 | 46 | - | 73 | 59 | | |
| AG53X9 | 47 | **58** | **67** | **64** | **56** | - | **77** | 62 | 60 | |
| AGS GS 52X19S | **57** | **57** | 63 | 53 | **67** | - | 74 | 62 | | |
| CZ 5299X | **57** | **66** | **64** | 52 | **62** | - | 74 | 62 | | |
| Delta Grow 52E22 | 50 | **66** | **67** | 55 | 51 | - | 73 | 60 | | |
| Delta Grow 52X05 | **58** | **58** | 62 | 46 | **61** | - | 74 | 60 | | |
| Go Soy 50G17 | 50 | 38 | **67** | **63** | **58** | - | 76 | 59 | 60 | |
| Go Soy 5214GTS | 51 | 36 | **64** | **57** | 53 | - | 73 | 56 | 56 | 57 |
| LS5087X | **58** | **59** | **68** | **57** | 53 | - | 76 | 62 | 62 | |
| LS5386X | **55** | 46 | **64** | **60** | 46 | - | **77** | 58 | | |
| M05201D CONV | 45 | 29 | 62 | **60** | **57** | - | **78** | 55 | 58 | |
| P5016RXS | 44 | 49 | 62 | **58** | 50 | - | 70 | 55 | 56 | 57 |
| P5170RX | **54** | **54** | **68** | **60** | 43 | - | 74 | 59 | | |
| P5226RYS | **56** | **59** | **65** | **63** | **60** | - | 67 | 62 | 65 | |
| P5252RX | 51 | **61** | 63 | 51 | **58** | - | 70 | 59 | 58 | |
| S11-20242C | 52 | 34 | **67** | **58** | **56** | - | 79 | 58 | 62 | |
| S14-9017R | 49 | 47 | **66** | 49 | 50 | - | 66 | 54 | | |
| S51-R3XS | **57** | **55** | **68** | 51 | **57** | - | 74 | 60 | | |
| S52XS39 | **54** | **58** | **64** | 48 | **62** | - | 70 | 59 | | |
| S52XT08 | 52 | 34 | 61 | 54 | 51 | - | **77** | 55 | 56 | |
| S53-F7X | **54** | **55** | 62 | **63** | 53 | - | **83** | 61 | | |
| **Average** | 52 | 52 | 65 | 56 | 55 | - | 74 | | | |
| **Other Group 5.0-5.3 Soybean Varieties Included in Louisiana Tests:** | | | | | | | | | | |
| LSD ($p < 0.05$) | 5.35 | 13.23 | 4.36 | 8.54 | 12.70 | - | 6.16 | | | |
| Standard Deviation | 3.79 | 9.36 | 3.09 | 6.05 | - | - | 4.36 | | | |
| CV | 7.28 | 18.09 | 4.78 | 10.79 | 14.00 | - | 5.88 | | | |

*Data from these LSU AgCenter research stations: Dean Lee, Alexandria; Macon Ridge, Winnsboro; Northeast, St. Joseph; Red River, Bossier; Rice Research, Crowley; Iberia, New Iberia, and Central Research, Baton Rouge.*

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

*Bold- Highest yielding (P=.05) at this location in 2019*

**Iberia had no data*

**Table 2D. MG 5.0-5.3 - Agronomic Data From Various Locations Across Louisiana.**

| Variety | Dean Lee *Maturity*[1] | Rice Station *Maturity*[1] | Dean Lee *TS*[2] | Macon Ridge *CLB*[3] |
|---|---|---|---|---|
| AG52X9 | 132 | 134 | 3 | 2 |
| AG53X0 | 132 | 134 | 2 | 3 |
| AG53X9 | 133 | 133 | 1 | 5 |
| AGS GS 52X19S | 132 | 130 | 2 | 0 |
| CZ 5299X | 132 | 133 | 2 | 0 |
| Delta Grow 52E22 | 130 | 132 | 3 | 4 |
| Delta Grow 52X05 | 131 | 133 | 1 | 1 |
| Go Soy 50G17 | 126 | 127 | 3 | 4 |
| Go Soy 5214GTS | 127 | 128 | 2 | 2 |
| LS5087X | 131 | 133 | 2 | 3 |
| LS5386X | 132 | 133 | 3 | 3 |
| MO5201D CONV | 134 | 129 | 1 | 4 |
| P5016RXS | 128 | 133 | 4 | 4 |
| P5170RX | 129 | 131 | 1 | 2 |
| P5226RYS | 136 | 135 | 2 | 2 |
| P5252RX | 132 | 132 | 2 | 1 |
| S11-20242C | 128 | 128 | 2 | 3 |
| S14-9017R | 135 | 133 | 2 | 3 |
| S51-R3XS | 130 | 131 | 1 | 3 |
| S52XS39 | 131 | 131 | 1 | 0 |
| S52XT08 | 127 | 128 | 3 | 5 |
| S53-F7X | 130 | 132 | 3 | 4 |
| Mean | 131 | 131 | 2 | 3 |
| LSD ($p < 0.05$) | 2.26 | 2.79 | 2.33 | 0.71 |
| Standard Deviation | 1.60 | 1.97 | 1.65 | 0.50 |
| CV | 1.22 | 1.50 | 79.80 | 19.93 |

[1]Maturity (R8 - 95% brown pods; days after emergence)
[2]Frogeye leaf spot (0-9 scale; 0=no disease)
[3]Target spot (0-9 scale; 0=no disease)
[4]Cercospora leaf blight (0-9 scale; 0=no disease)
Dean Lee Research and Extension Center - Alexandria, La.; Macon Ridge Research Station - Winnsboro, La.; H. Rouse Caffey Rice Research Station - Rayne, La.

**Table 1E. Highest Yielding Maturity Group 5.4-6.0 Soybean Varieties From Six Louisiana Locations.**

| Variety | Central Station | Rice Station | Dean Lee | Macon Ridge | Red River | Iberia | Northeast | 2019 Average | 2 Year Average | 3 Year Average |
|---|---|---|---|---|---|---|---|---|---|---|
| A55-D57 | **55** | **42** | 75 | **54** | **67** | - | 79 | 62 | | |
| AG56X8 | 48 | **43** | 73 | 52 | 65 | - | 74 | 59 | 61 | |
| Delta Grow 54X25 | 41 | 28 | 77 | 38 | 62 | - | 71 | 53 | | |
| Delta Grow 5585RR2 | 50 | 36 | 77 | 51 | 62 | - | 77 | 59 | 60 | 59 |
| Go Soy 56C16 | 47 | 37 | 76 | 48 | 56 | - | 78 | 57 | 58 | 58 |
| Go Soy 60G19 | 46 | **52** | 75 | 45 | **66** | - | 69 | 59 | | |
| LS5588X | **54** | **42** | 79 | **53** | **74** | - | 79 | 63 | | |
| P54A54X | **53** | 40 | **85** | **58** | **73** | - | **86** | 66 | 66 | |
| P5554RX | 49 | **44** | 74 | 52 | **72** | - | 76 | 61 | 63 | |
| P5688RX | 50 | 38 | 74 | **53** | 65 | - | 79 | 60 | 62 | |
| REV 5659X | 43 | **43** | 78 | 49 | 61 | - | 77 | 58 | | |
| S13-1955C | 51 | 25 | 78 | 49 | **68** | - | 75 | 58 | 57 | 58 |
| S15-10434C | 50 | 39 | 78 | **53** | **78** | - | 73 | 62 | 62 | |
| S16-3747RY | 50 | 24 | 77 | 51 | **72** | - | 78 | 59 | | |
| S56XT99 | **55** | **43** | 79 | 52 | 60 | - | 77 | 61 | | |
| **Average** | 49 | 39 | 77 | 51 | 67 | - | 77 | | | |
| **Other Group 5.4-6.9 Soybean Varieties Included in Louisiana Tests:** | | | | | | | | | | |
| LSD ($p < 0.05$) | 3.67 | 11.39 | 5.05 | 5.87 | 12.30 | - | 6.59 | | | |
| Standard Deviation | 2.57 | 7.98 | 3.54 | 4.11 | - | - | 4.62 | | | |
| CV | 5.19 | 20.73 | 4.60 | 8.14 | 12.80 | - | 6.03 | | | |

*Data from these LSU AgCenter research stations: Dean Lee, Alexandria; Macon Ridge, Winnsboro; Northeast, St. Joseph; Red River, Bossier; Rice Research, Crowley; Iberia, New Iberia, and Central Research, Baton Rouge.*

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

*Bold- Highest yielding (P=.05) at this location in 2019*

**Iberia had no data*

**Table 2E. MG 5.4-6.0 - Agronomic Data From Various Locations Across Louisiana.**

| Variety | Dean Lee *Maturity*[1] | Rice Station *Maturity*[1] | Dean Lee *TS*[2] | Macon Ridge *CLB*[3] |
|---|---|---|---|---|
| A55-D57 | 133 | 132 | 1 | 3 |
| AG56X8 | 135 | 129 | 2 | 3 |
| Delta Grow 54X25 | 132 | 128 | 2 | 5 |
| Delta Grow 5585RR2 | 133 | 129 | 1 | 3 |
| Go Soy 56C16 | 138 | 131 | 2 | 3 |
| Go Soy 60G19 | 139 | 136 | 2 | 4 |
| LS5588X | 132 | 130 | 1 | 3 |
| P54A54X | 133 | 128 | 2 | 3 |
| P5554RX | 134 | 130 | 1 | 3 |
| P5688RX | 134 | 129 | 2 | 3 |
| REV 5659X | 132 | 129 | 1 | 3 |
| S13-1955C | 134 | 129 | 2 | 5 |
| S15-10434C | 139 | 133 | 1 | 4 |
| S16-3747RY | 139 | 127 | 2 | 4 |
| S56XT99 | 132 | 129 | 2 | 4 |
| Mean | 134 | 130 | 1 | 3 |
| LSD ($p < 0.05$) | 3.41 | 2.36 | 1.67 | 0.95 |
| Standard Deviation | 2.39 | 1.66 | 1.17 | 0.66 |
| CV | 1.78 | 1.28 | 81.77 | 19.69 |

[1]Maturity (R8 - 95% brown pods; days after emergence)
[2]Frogeye leaf spot (0-9 scale; 0=no disease)
[3]Target spot (0-9 scale; 0=no disease)
[4]Cercospora leaf blight (0-9 scale; 0=no disease)
Dean Lee Research and Extension Center - Alexandria, La.; Macon Ridge Research Station - Winnsboro, La.; H. Rouse Caffey Rice Research Station - Rayne, La.

**Table 3A: Summary of Soybean Demonstrations at Locations Identified by Parish. Yield Expressed in Bushels per Acre (13% Moisture).**

| MG III Varieties: | Location by Parish | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Avoyelles | Bossier - 1 | Bossier - 2 | Catahoula | Franklin | Iberia | Madison -1 | Madison - 2 | Point Coupee | Rapides | St. Landry - 1 | St. Landry - 2 |
| AG38X8 | | | | | | 47 | | | | | 32 | 60 |
| CZ 3929GTLL | | | | | | 58 | | | | | | 52 |
| Go Soy 393E19 | | | | | | | | | | | | |
| P42A96X | | | | | | 56 | | | | | | 63 |
| P4444RXS | | | | | | | | | | | | |
| REV 4310X | | | | | | | | | | | | 59 |
| S39-G2X | | | | | | | | | | | | 50 |

**Table 3B: Summary of Soybean Demonstrations at Locations Identified by Parish. Yield Expressed in Bushels per Acre (13% Moisture).**

| MG IV Varieties | Location by Parish | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Avoyelles | Bossier - 1 | Bossier - 2 | Catahoula | Franklin | Iberia | Madison -1 | Madison - 2 | Point Coupee | Rapides | St. Landry - 1 | St. Landry - 2 | W. Carroll - 1 | W. Carroll - 2 |
| AG46X6 | 41 | 35 | 34 | 69 | 38 | | 34 | 82 | 48 | 68 | 46 | | 81 | 72 |
| AGS GS49X19 | 44 | 61 | 46 | 59 | 40 | | 36 | | 49 | 74 | 35 | | 72 | 60 |
| ARMOR 48-D24 | 39 | 34 | 43 | 69 | 45 | | 35 | 74 | 49 | 66 | 40 | | 87 | 46 |
| CZ4539GTLL | 30 | | | | | 50 | | | | 64 | 32 | 43 | | |
| DG 48X45 | 43 | 28 | 43 | 69 | 48 | | 35 | 77 | 41 | 72 | 41 | | 93 | 55 |
| NK Syngenta S49-F5X | 43 | 34 | 36 | 71 | 34 | | 40 | 78 | 48 | 67 | 43 | | 82 | 56 |
| P4620RXS | 48 | 44 | | 70 | 48 | | 41 | 80 | 40 | 73 | 42 | | 82 | 57 |
| P48A60X | 35 | 54 | 49 | 74 | 50 | | 42 | 79 | 47 | 75 | 37 | | 83 | 61 |
| Petrus 4916GT | 32 | 56 | 47 | 58 | 42 | | 36 | | 38 | 64 | 32 | | 64 | 55 |
| REV 4927X | 43 | 42 | 43 | 69 | 41 | | 36 | 72 | 43 | 76 | 38 | | 81 | 75 |
| S49XS76 | 44 | 39 | 31 | 61 | 35 | | 30 | 74 | 52 | 59 | 38 | | 81 | 58 |

**Table 3C: Summary of Soybean Demonstrations at Locations Identified by Parish. Yield Expressed in Bushels per Acre (13% Moisture).**

| MG V Varieties | Location by Parish | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Avoyelles | Bossier - 1 | Bossier - 2 | Catahoula | Franklin | Iberia | Madison -1 | Madison - 2 | Point Coupee | Rapides | St. Landry - 1 | St. Landry - 2 | W. Carroll - 1 | W. Carroll - 2 |
| AG52X9 | 35 | 47 | 37 | | | | | | | 63 | 36 | | | |
| ARMOR 55-D57 | 38 | 53 | 33 | | | | | | | 71 | | | | |
| DG 54X25 | 42 | 36 | 68 | | | | | | | 66 | 35 | | | |
| Go Soy 5214GTS | 41 | 51 | 37 | | | | | | | 67 | 36 | | | |
| P54A54X | 45 | 43 | 39 | | | | | | | 77 | 39 | | | |
| P5688RX | 38 | 50 | 31 | | | | | | | 78 | | | | |
| REV 5659X | 41 | 53 | 32 | | | | | | | 74 | | | | |
| S53-F7X | 38 | 28 | 32 | | | | | | | 78 | 36 | | | |
| S56XT99 | 44 | 44 | 35 | | | | | | | 76 | | | | |

**Table 3C: Summary of Soybean Demonstrations at Locations Identified by Parish. Yield Expressed in Bushels per Acre (13% Moisture).**

| Additional Varieties | Location by Parish | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Avoyelles | Bossier - 1 | Bossier - 2 | Catahoula | Franklin | Iberia | Madison -1 | Madison - 2 | Point Coupee | Rapides | St. Landry - 1 | St. Landry - 2 | W. Carroll - 1 | W. Carroll - 2 |
| AG42X9 | | | | | | 51 | | | | | | 58 | | |
| AG43X0 | | | | | | 56 | | | | | | 56 | | |
| AG43X7 | | | | | | 50 | | | | | | 65 | | |
| AG45X8 | | | | | | 58 | | | | | | | | |
| CZ4869X | | | | 75 | | | | | | | | | | |
| CZ4979X | | | | 68 | | | | | | | | | | |
| Dyna Gro 39XT08 | | | | | | | | | | | | 54 | | |
| Dyna Gro 43XS27 | | | | | | | | | | | | 55 | | |
| P31A22X | | | | | | 44 | | | | | | | | |
| P43A42X | | | | | | 53 | | | | | | 57 | | |
| P44A72BX | | | | | | 52 | | | | | | 63 | | |
| P46A16R | | | | 62 | | | 38 | 83 | | | | | | |
| REV 4349X | | | | | | | | | | | | 62 | | |
| REV 43X19950 | | | | | | | | | | | | 66 | | |
| REX 42X56610 | | | | | | | | | | | | 57 | | |
| S45J3X | | | | | | | | | 56 | | | | | |

**Seed Companies and Varieties.**

| BASF | Bayer | Cropland | Delta Grow Seed | Dyna-Gro Seed | LG Seed | Local Seed | Mission Seed Solutions | Petrus Seed | Pioneer | Progeny Ag Products | Stratton Seed | Syngenta NK Seeds | Terral Seed | University of Missouri |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CZ 3841LL | AG45X8 | A55-D57 | Delta Grow 45E23 | S41XS98 | C4845RX | LS3976X | A4448X | Petrus Seed 4916 GT | P42A96X | P4265RXS | AGS GS 49X19 | S39-G2X | REV 4679X | M05201D CONV |
| CZ 3929GTLL | AG46X0 | X45-D51 | Delta Grow 46E29 STS | S45XS37 | LGS4899RX | LS44087XS | A4618X | | P46A86X | P4444RXS | AGS GS 52X19S | S44-C7X | REV 4927X | S11-20242C |
| CZ 4222LL | AG46X6 | X47-D18 | Delta Grow 46X25 | S45XS66 | LGS4931RX | LS4565XS | A4950X | | P48A60X | P4620RXS | Go Soy 45GL18 | S47-Y9X | REV 4940X | S13-10590C |
| CZ 4308GTLL | AG47X9 | X48-D25 | Delta Grow 46X65 | S46XS60 | | LS4583X | | | P54A54X | P4799RXS | Go Soy 482E19 | S49-F5X | REV 5659X | S13-10592C |
| CZ 4539GTLL | AG48X9 | X49-D67 | Delta Grow 47E19 | S47XT20 | | LS4677X | | | | P4816RX | Go Soy 49G16 | S51-R3XS | | S13-1955C |
| CZ 45L10LL | AG49X0 | | Delta Grow 47E25 | S48XT56 | | LS4798X | | | | P4821RX | Go Soy 50G17 | S53-F7X | | S13-2743C |
| CZ 4649LL | AG52X9 | | Delta Grow 47X95 | S49XS76 | | LS4889XS | | | | P4851RX | Go Soy 5214GTS | | | S13-3851C |
| CZ 4869X | AG53X0 | | Delta Grow 48E10 | S49XT39 | | LS5087X | | | | P4999RX | Go Soy 56C16 | | | S14-15138R |
| CZ 4938LL | AG53X9 | | Delta Grow 48E28 | S49XT70 | | LS5386X | | | | P5016RXS | Go Soy 60G19 | | | S14-15146R |
| CZ 4979X | AG56X8 | | Delta Grow 48E39 | S52XS39 | | LS5588X | | | | P5170RX | Go Soy Ireane | | | S14-9017R |
| CZ 5299X | | | Delta Grow 48X45 | S52XT08 | | LSX4301XS | | | | P5226RYS | Go Soy463E19 | | | S15-10434C |
| | | | Delta Grow 48X95 | S56XT99 | | LSX4501X | | | | P5252RX | | | | S16-14379C |
| | | | Delta Grow 4977LL/STS | | | LSX4601XS | | | | P5554RX | | | | S16-14730C |
| | | | Delta Grow 49X15 | | | LSX4602ES | | | | P5688RX | | | | S16-3747RY |
| | | | Delta Grow 52E22 | | | LSX4701E | | | | | | | | |
| | | | Delta Grow 52X05 | | | LSX4901X | | | | | | | | |
| | | | Delta Grow 54X25 | | | LXS4503GLX | | | | | | | | |
| | | | Delta Grow 5585R2Y | | | | | | | | | | | |

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