

MISSISSIPPI SOYBEAN VARIETY TRIALS, 2019

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MISSISSIPPI'S OFFICIAL VARIETY TRIALS



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NOTICE TO USER

This information bulletin is a summary of research conducted under project number MIS 2348 at several locations in the state (see map). It is intended for farmers, seedsmen, colleagues, cooperators, and sponsors. Interpretation of this data should not be construed as a recommendation or as an endorsement of a specific variety or product.

This report contains data generated as part of the Mississippi Agricultural and Forestry Experiment Station research program. Joint sponsorship by the organizations listed on pages 80–82 is gratefully acknowledged.

Trade names of commercial products used in this report are included only for clarity and understanding. All available names (i.e., trade names, code numbers, chemical names, etc.) of varieties or products used in this research project are listed on pages 80–82.



Mississippi Soybean Variety Trials, 2019

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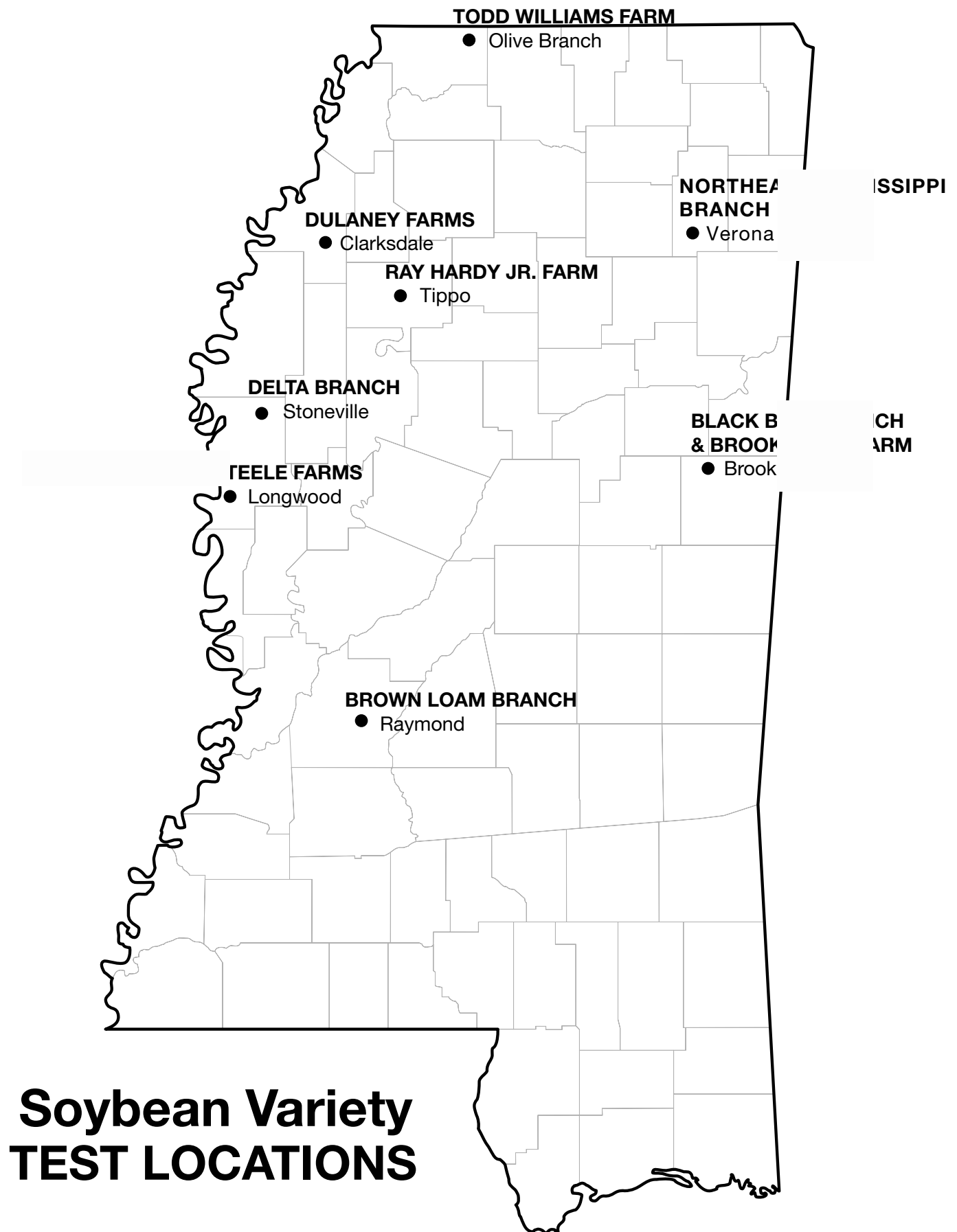
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Find variety trial information online at mafes.msstate.edu/variety-trials.



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Mississippi Soybean Variety Trials, 2019

INTRODUCTION

Procedures

There has been a proliferation of soybean varieties in recent years, and many good varieties are available to Mississippi producers. No single variety is superior, but in some situations, there are varieties that are more specifically adapted than others. Selecting a variety for planting requires knowledge of disease, nematode, and herbicide reactions, as well as the yield performance of each variety on a particular soil type. In many cases, planting the proper varieties will make substantial differences in yield and profitability on a farm. Proper management, including adequate lime, fertilizer, and weed control, is required to produce high yields of any variety, but yields may be limited, even under good management, unless the proper varieties are planted.

Soybean variety trials were conducted at eight locations in 2019 (see map). Commercial seed companies were given the opportunity to enter varieties for testing. Seed of all private entries were supplied by the participating companies. Public varieties were selected by the Technical Advisory Committee for evaluation at each location. The experimental design at each location for each maturity group was a randomized complete block, with three replications of each entry.

Seeding Rate. All seeds were packaged for planting at the rate of nine seeds per foot of row for 30-inch row spacing and at the rate of six seeds per foot for 19-inch row spacing. Plots were planted with a cone planter or vacuum planter, depending on the location. Irrigated plots had four rows, spaced 30 inches apart; nonirrigated plots had three rows, spaced 19 inches apart. All irrigated plots were planted to a plot length of 15 feet by using a planter

with a cable trip system. All nonirrigated plots were planted to a length of 18 feet. Plot ends were trimmed to a uniform length 3 to 4 weeks after emergence.

Cultural Practices. Cultural and pest control practices for optimum yields were followed. Plots were limed and fertilized on the basis of an annual soil test. All seeds were treated with an insecticide/fungicide before planting. Only herbicides currently registered for use on soybean with strict adherence to all label instructions were used in these studies.

Maturity Date. Maturity is considered to be the date when the pods are dry and most of the leaves have dropped. Under most conditions, the stems are also dry.

Yield. An Almaco plot combine was used to harvest each plot. Harvested seed were allowed to dry at ambient temperature to a uniform moisture content before weighing. Weights were converted to yield in bushels per acre (60 pounds per bushel) at 13% moisture.

Plant Height. Plants were measured from the soil to the top extremity, at maturity, and plant height was recorded as the average of the height of plants measured.

Lodging. Lodging was rated and recorded on a scale of 1 = almost all plants erect, 2 = all plants leaning slightly or only a few plants down, 3 = all plants leaning moderately or 25 to 50 percent of plants down, 4 = all plants leaning considerably or 50 to 80 percent of plants down, and 5 = all plants down.

How to Select Varieties

In Problem or Difficult Fields

(1) Identify fields that have had problems in the past. Problems to consider may include diseases, nematodes, or fields that make planting or harvest difficult because of extremely dry or wet conditions. The Mississippi State University Extension Service offers a disease diagnostic service and nematode analysis free of charge.

(2) Use Tables 83 to 90 to select varieties for fields that need disease resistance.

(3) Select varieties using multiyear averages from all available locations. Identify those varieties that have desired pest resistance along with a high yield potential. Use data from a test site or sites with a soil type similar to that where the soybeans will be grown. Consider planting dates and maturity dates that may allow you to avoid historical field problems.

In Nonproblem Fields

(1) Identify the farm's highest yielding fields that have no specific disease problems.

(2) Select varieties with the best yield potential using multiyear averages from all available locations. Use data from a test site or sites with a soil type similar to that where the soybeans will be grown.

(3) Try new varieties on a limited number of acres. Don't abandon older, consistent-performing varieties that are yielding well unless research and experience show an advantage for newer varieties.

Planting Date and Maturity Date

(1) Varieties in Maturity Groups IV and V are recommended. Earlier maturing varieties should be considered for planting where fall seedbed preparation was done the previous year and in fields that are subject to drought stress during the growing season and/or wet soils during the usual harvest period. Later maturing varieties should be considered for planting in fields that are not as prone to drought stress, where irrigation will be used to alleviate drought stress, and for later planting. However, early

planting of all acreage is encouraged to reduce risk from drought and obtain higher yields.

(2) Early-season production is a practice that has been quite successful and consistent for several years. Cool, wet soils at planting may justify the use of a seed treatment that has activity against *Pythium*, since no varieties have resistance to infection and resulting damage from this organism. Most Maturity Group IV soybeans have a narrow growth habit. Given their growth, habit narrow rows are quite advantageous. Early April to early May planting is recommended for early-season production of Group IV varieties. Irrigation allows later planting of early-maturing soybeans; however, the full yield potential may not be realized when planted late. Timely harvest is crucial with early-maturing varieties because dry weather at maturity may promote shattering. There is a wide range in maturity within Group IV soybeans. Determine if an early Group IV or a late Group IV variety, or some acreage of both, will fit into your operation.

(3) Timely planting is crucial for optimum production of all maturity groups of soybeans. An attempt should be made to complete soybean planting as early as possible. Planting of Group V and Group VI can be made in April. Delays in planting will result in reduced yield potential for almost all varieties in all maturity groups.

Herbicide-Resistant Varieties

(1) Evaluate overall performance characteristics of the variety — including yield potential, disease and nematode resistance, maturity date, lodging, etc. — as you would any variety.

(2) Compare these characteristics to other varieties, conventional and herbicide-resistant.

(3) Consider seed premiums, technology fees, and specific weed problems. Determine total cost of conventional and herbicide-resistant-crop weed control programs, and combine this information with factors listed above in choosing a variety.

General Characteristics of Varieties

Soybean varieties differ in significant characteristics that may not affect their performance. Tables 91 to 98 give the general characteristics of most varieties grown in Mississippi.

Pubescence and Hilum Color. Brown (tawny) and gray are the basic pubescence (hair) colors found among varieties. Varying pod-wall colors result in different intensities of mature pod colors. The "eye" of the seed is called a hilum, or point of attachment to the pod, and it differs in color by variety.

Seed Size. There is no relationship between inherited seed size and seed yield. A small-seeded variety may yield as much as or more than a large-seeded variety. The average seed per pound for different varieties is shown in Tables 91 to 98, but this is subject to seasonal variation. Knowing the number of seed per pound is important in determining the amount of seed needed for planting. Fewer pounds are required for small-seeded varieties than for large-seeded varieties. Your county Extension office has a publication (Information Sheet 1194) that deals with seeding rates and plant populations.

Flowering. Varieties of Maturity Group IV generally display an indeterminate growth habit. This means that a large portion of their vegetative growth occurs after the onset of flowering begins. In contrast, varieties of Groups V and VI display a determinate growth habit, where most of the vegetative growth occurs before flowering. The date of first flower will be determined by the time of planting and maturity. For example, a mid-Group IV variety may bloom 3 weeks earlier than a Group V variety, whereas a late Group IV variety may bloom only 1 week earlier than a Group V variety. Soybean flower petals are purple or white. The flower color is controlled strictly by genetics, and only one flower color occurs in a pure variety.

Maturity Group. Within the Maturity Group IV trials, the wide variation in maturity dates is attributed to lack of rigid standards for classifying varieties within a group.

It was decided to subdivide both the Group IV and Group V trials into two maturity groups. All maturity groups were assigned an early- and late-maturity check:

Conventional Test		
Maturity group	Check	
Group IV	S13-3851C	
Group V	S13-1855C	

Roundup Ready Test		
Maturity Group	Early Check	Late Check
Group IV Early	P4444RXS AG55X7	P4444RXS
Group IV Late		DG48X45
Group V Early		

LibertyLink	
Maturity Group	Check
Group IV	DG 4977LL/STS

Use of Data Tables and Summary Statistics

The yield potential of a given variety cannot be measured with complete accuracy. Consequently, replicated plots of all varieties are evaluated for yield, and the yield of a given variety is estimated as the mean of all replicated plots of that variety. Yields may vary from one plot to another, which introduces a certain degree of error to the estimation of yield potential. This natural variation is often responsible for yield differences seen among different varieties. Thus, even if the mean yield of two varieties is numerically different, they are not necessarily significantly different in terms of yield potential. In other words, the ability to measure yield is not precise enough to determine whether such small differences are observed purely by chance or because of superior performance.

The least significant difference (LSD) is an estimate of the smallest difference between two varieties that can be declared to be the result of something other than random variation in a particular trial. Consider the following example for a given trial:

Variety	Yield
Abe	40 bu/A
Bill	35 bu/A
Charlie	31 bu/A
LSD	7 bu/A

The difference between variety Abe and variety Bill is 5 bushels per acre ($40 - 35 = 5$). This difference is smaller than the LSD (7 bushels per acre). Consequently, it is concluded that variety Abe and variety Bill have the same

yield potential, since the observed difference occurred purely due to chance.

The difference between variety Abe and variety Charlie is 9 bushels per acre ($40 - 31 = 9$), which is larger than the LSD (7 bushels per acre). Therefore, it is concluded that the yield potential of variety Abe is superior to that of variety Charlie, since the difference is larger than would be expected purely by chance.

The coefficient of variation (CV) is a measure of the relative precision of a given trial and is used to compare the relative precision of different trials. The CV is generally considered to be an estimate of the amount of unexplained variation in a given trial. This unexplained variation could be the result of variation between plots, with respect to soil type, fertility, insects, diseases, drought stress, etc. In general, the higher the CV, the less precise a given trial is.

The coefficient of determination (R^2) is another measure of the level of precision in a trial and is also used to compare the relative precision of different trials. The R^2 is a measure of the amount of variation that is explained, or accounted for, in a given trial. For example, an R^2 value of 90 percent indicates that 90 percent of the observed variation in the trial has been accounted for, with the remaining 10 percent being unaccounted for. The higher the R^2 value, the more precise the trial. The R^2 is generally considered to be a better measure of precision than is the CV, for comparison of different trials.

Table 1. 2019 Soybean Locations.					
Location	Planting dates	Harvest dates	Soil type	Row spacing	Irrigation
Brooksville (Not Irrigated), Black Belt Branch	5/2	9/24 (all IV's), 10/1 (all V's)	Brooksville silty clay	19"	No
Brooksville (Irrigated)	5/2	10/9 (all groups)	Brooksville silty clay	30"	Yes
Clarksdale (Irrigated)	5/17	10/2 (all groups)	Dundee silty clay and Sharkey clay	30"	Yes
Longwood (Irrigated)	4/30	10/3 (all groups)	Dowling and Sharkey clay	19"	Yes
Olive Branch (Not Irrigated)	5/28	10/10 (all groups)	Collins silt loam	19"	No
Raymond (Not Irrigated), Brown Loam Branch	5/3, replanted 5/22	10/9 (IVE Xtend, IV Enlist), 10/10 (IVL Xtend, IV LL, all V's)	Loring silt loam	19"	No
Stoneville-clay (Not Irrigated), Delta Branch	5/1	9/19 (all groups)	Sharkey clay	19"	No
Stoneville-clay (Irrigated), Delta Branch	4/30, replanted 5/24	11/6 (IVE Xtend, IV Enlist, IV LL) 11/8 (IVL Xtend, all V's)	Sharkey clay	30"	Yes
Stoneville-loam (Irrigated), Delta Branch	4/24	9/19 (IVE Xtend), 10/3 (IVL Xtend, all V's)	Bosket very fine sandy loam	30"	Yes
Tippo (Not Irrigated)	5/1	9/17 (all groups)	Dundee & Tensas silt loam	19"	No
Verona (Not Irrigated), Northeast MS Branch	4/29	9/25 (all IV's), 10/4 (all V's)	Marietta loam and Leeper silty clay loam	19"	No

Table 2. Summary of Yield for Maturity Group IV Early Roundup Ready Xtend for the 2019 Mississippi Soybean Variety Trials.

Brand	Variety	Brooks- ville irr. (clay)	Clarks- dale irr. (clay)	Long- wood irr. (clay)	Stone- ville irr. (clay)	Stone- ville irr. (loam)	Irrigated avg.	Brooks- ville not irr. (clay)	Olive Branch not irr. (loam)	Ray- mond not irr. (loam)	Stone- ville not irr. (clay)	Tippo not irr (loam)	Verona not irr. (clay)	Not irr. avg.	Overall avg.
AgriGold	G4440RX	bu/A 32.8	bu/A 85.6	bu/A 89.3	bu/A 87.9	bu/A 62.1	bu/A 71.6	bu/A 30.9	bu/A 83.2	bu/A 85.0	bu/A 80.7	bu/A 64.6	bu/A 72.6	bu/A 69.5	bu/A 70.4
AgriGold	G4579RX	20.7	83.0	77.5	84.1	62.7	65.6	34.9	69.6	93.8	92.1	63.7	64.8	69.8	67.9
AgriGold	G4605RX	34.3	89.1	88.7	90.9	54.8	71.6	45.2	75.4	74.9	79.2	63.9	61.7	66.7	68.9
Armor	42-D27	24.9	84.4	69.5	85.3	46.1	62.0	38.9	69.4	69.9	78.3	51.9	70.1	63.1	62.6
Armor	44-D92	30.2	80.6	70.6	93.7	45.8	64.2	40.7	52.7	79.5	72.0	54.2	53.0	58.7	61.2
Armor	45-D51	23.7	78.4	78.2	98.5	59.4	67.6	30.1	75.3	97.1	72.2	50.9	53.9	63.3	65.3
Asgrow	AG43X0	24.8	75.5	69.1	97.8	56.9	64.8	42.3	61.7	76.2	58.7	49.4	56.8	57.5	60.8
Asgrow	AG43X8	37.5	86.2	93.6	93.2	54.2	72.9	44.9	66.5	67.5	84.2	61.3	60.6	64.2	68.1
Asgrow	AG45X8	31.9	91.0	83.1	96.0	51.3	70.7	43.4	78.6	68.5	75.0	53.3	48.8	61.3	65.5
Asgrow	AG46X0	40.3	82.8	90.5	101.7	56.9	74.4	42.6	63.7	82.7	88.4	62.6	67.7	67.9	70.9
Asgrow	AG46X6	39.8	93.6	96.6	100.2	60.5	78.1	36.0	80.4	89.3	82.6	63.6	74.3	71.0	74.3
Delta Grow	46X65	38.4	85.4	88.2	99.1	63.5	74.9	43.4	69.6	83.6	76.2	64.1	80.5	69.6	72.0
Delta Grow	46X25	37.9	82.6	71.0	96.4	55.4	68.6	37.3	71.5	82.2	71.2	54.2	59.5	62.7	65.4
Dyna-Gro	S45XS37	25.8	92.1	92.4	92.7	54.2	71.5	37.9	73.7	90.0	93.0	55.3	63.6	68.9	70.1
Dyna-Gro	S45XS66	24.8	93.8	96.5	102.7	60.2	75.6	41.6	79.9	74.9	83.9	63.3	67.6	68.5	71.8
Dyna-Gro	S46XS60	39.8	81.3	73.3	96.8	51.0	68.4	47.0	61.9	87.0	70.9	62.6	74.7	67.3	67.8
Great Heart	GT-4255XS	30.8	77.3	70.5	94.3	51.6	64.9	39.7	43.2	74.5	67.8	56.2	49.0	55.1	59.5
Great Heart	GT-4616X	25.0	85.9	75.8	93.2	53.8	66.8	43.6	60.7	76.5	77.1	55.4	65.9	63.2	64.8
Great Heart	GT-4677XS	42.8	80.9	76.5	100.0	63.1	72.6	40.7	81.2	72.2	69.3	62.3	77.0	67.1	69.6
LG Seeds	LGS4420RX	21.9	81.2	74.6	85.9	53.5	63.4	38.2	67.2	71.8	80.8	52.3	65.0	62.6	63.0
Local Seed	LS3976X	28.3	76.8	60.8	84.4	37.2	57.5	36.7	77.9	68.2	65.4	52.6	65.6	61.1	59.4
Local Seed	LS4299XS	24.0	75.6	68.0	93.5	51.1	62.4	38.5	56.4	81.6	78.4	54.5	60.3	61.6	62.0
Local Seed	LS4407X	33.8	84.2	85.4	94.8	56.4	70.9	33.1	68.6	76.0	78.2	62.1	69.1	64.5	67.4
Local Seed	LS4487XS	15.9	82.9	73.7	89.5	60.0	64.4	36.4	69.4	68.3	84.0	64.1	63.4	64.3	64.3
Local Seed	LS4565XS	36.7	85.7	73.7	90.0	59.5	69.1	45.5	60.5	86.2	81.9	60.0	58.4	65.4	67.1
Local Seed	LS4583X	37.1	80.9	79.7	96.5	55.9	70.0	45.0	68.8	83.4	76.1	61.0	73.5	68.0	68.9
Local Seed	LS4677X	26.6	80.5	78.0	90.1	55.2	66.1	36.6	78.7	85.4	86.3	62.2	61.0	68.4	67.3
Local Seed	LS4795XS	39.8	81.7	83.2	97.4	60.8	72.6	41.2	74.8	85.9	72.6	65.9	81.1	70.2	71.3
Mission Seed Solutions	A4448X	38.0	83.1	89.0	92.2	57.3	71.9	42.1	71.1	90.6	85.5	61.2	73.7	70.7	71.3
Mission Seed Solutions	A4618X	22.8	83.0	83.2	90.9	64.2	68.8	45.8	78.9	92.0	90.3	64.4	65.7	72.9	71.0
MorSoy	MS 4616 RXT	35.3	93.2	84.2	92.7	60.2	73.1	43.8	72.2	86.3	85.5	64.5	66.0	69.7	71.3
NK Brand	S39-G2X	28.8	74.5	65.6	92.0	46.3	61.4	40.3	65.4	67.6	65.1	50.6	66.9	59.3	60.3
NK Brand	S44-C7X	26.7	88.3	80.7	96.4	57.6	70.0	30.6	83.6	83.6	82.4	56.6	58.9	65.9	67.8
Pioneer	P42A96X	26.2	81.1	63.8	87.9	49.9	61.8	28.7	52.3	67.3	73.5	48.5	38.7	51.5	56.2
Pioneer	P44A72BX	31.4	79.6	79.3	96.2	52.7	67.8	33.0	57.9	85.2	84.9	54.0	69.3	64.0	65.8
Pioneer	P46A57BX	40.8	82.6	79.1	95.6	49.9	69.6	30.8	76.7	83.7	78.6	54.6	61.8	64.4	66.7
Progeny Ag	P4620RXS	27.4	87.0	73.7	92.4	52.5	66.6	40.6	48.4	83.6	68.0	57.1	62.0	59.9	63.0
Progeny Ag	P4255RX	20.0	83.7	61.8	87.0	36.9	57.9	37.9	59.2	74.1	61.9	52.3	57.2	57.1	57.4
Progeny Ag	P4265RXS	32.1	78.4	63.5	88.9	50.3	62.6	39.2	55.0	79.9	66.4	53.0	60.8	59.1	60.7
Progeny Ag	P4444RXS	40.1	80.6	81.1	95.6	60.3	71.5	46.1	75.5	79.3	70.4	63.7	68.8	67.3	69.2
Terral	REV 4679X	35.4	84.3	87.9	90.3	50.2	69.6	46.4	76.8	83.3	87.2	54.1	70.7	69.8	69.7
Mean		31.1	83.4	78.6	93.3	54.7	68.2	39.4	68.6	80.2	77.5	58.1	64.4	64.7	66.3
CV		20.2	4.9	7.5	7.6	8.3		20.4	13.0	13.9	6.9	10.0	15.0		
LSD		10.2	6.6	9.6	NS	9.1		NS	14.5	18.1	10.8	9.4	15.7		
R ²		65.8	69.1	81.9	49.0	79.8		38.2	66.4	58.9	83.3	55.1	65.6		
Error df		80	80	80	80	40		80	80	80	40	80	80		

**Table 3. Summary of 2-Year Yields for Maturity Group IV Early
Roundup Ready Xtend for the 2018 and 2019 Mississippi Soybean Variety Trials.**

Brand	Variety	Brooks- ville irr. (clay)	Clarks- dale irr. (clay)	Long- wood irr. (clay)	Stone- ville irr. (loam)	Stone- ville irr. (clay)	Irrigated avg.	Brooks- ville not irr. (clay)	Olive Branch not irr. (loam)	Ray- mond not irr. (loam)	Stone- ville not irr. (clay)	Tippo not irr. (loam)	Verona not irr. (loam)	Not irr. avg.	Overall avg.
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>
AgriGold	G4440RX	59.7	92.2	77.3	81.7	72.6	76.7	44.9	80.6	82.4	65.4	51.4	80.6	72.1	71.7
AgriGold	G4579RX	51.5	86.2	84.4	82.3	70.1	74.9	50.4	75.6	87.8	74.6	53.9	73.3	73.1	71.8
AgriGold	G4605RX	58.0	90.5	83.9	83.2	66.2	76.4	53.3	78.2	78.2	70.6	51.4	74.7	70.6	71.7
Armor	42-D27	54.0	83.0	78.5	80.3	60.2	71.2	47.3	77.8	66.1	58.7	48.0	79.7	66.0	66.7
Asgrow	AG43X8	57.6	90.6	94.9	82.0	67.8	78.6	49.6	75.9	68.6	70.3	50.9	67.3	66.6	70.5
Asgrow	AG45X8	61.4	93.6	85.8	88.2	66.6	79.1	51.1	88.0	72.1	56.6	47.1	70.8	66.9	71.0
Asgrow	AG46X6	66.7	98.6	90.8	93.0	76.2	85.0	50.1	84.6	82.2	70.9	54.3	78.5	74.1	76.9
Delta Grow	DG 46X25	59.8	91.7	85.4	92.5	68.9	79.7	52.1	76.8	91.7	68.3	47.0	71.4	71.0	73.2
Dyna-Gro	S45XS37	55.0	93.3	93.5	87.9	68.9	79.7	49.8	84.2	85.7	69.6	46.0	76.1	72.3	73.6
Dyna-Gro	S45XS66	55.2	96.0	81.9	91.8	72.3	79.5	49.1	81.9	71.6	74.0	51.3	75.6	70.9	72.8
Local Seed	LS4487XS	49.6	89.4	73.4	85.0	72.1	73.9	49.1	81.3	74.8	73.1	54.9	72.7	71.4	70.5
Local Seed	LS4565XS	62.2	86.6	80.2	89.7	69.1	77.5	49.7	81.4	85.7	70.3	53.9	78.0	73.9	73.3
Local Seed	LS4583X	63.8	92.6	80.4	91.9	70.2	79.8	52.8	79.2	86.5	69.7	51.0	80.1	73.3	74.4
Local Seed	LS4677X	55.2	89.2	85.9	89.7	70.1	78.0	49.9	86.7	83.2	71.1	52.4	82.6	75.2	74.2
Mission Seed Solutions	A4618X	52.8	84.7	86.0	83.3	71.1	75.6	52.5	84.5	92.3	73.2	55.3	75.5	76.2	73.8
MorSoy	MS 4616 RXT	62.1	96.1	79.0	84.9	74.2	79.3	53.6	75.6	90.6	71.7	56.7	77.7	74.5	74.8
Pioneer	P42A96X	52.3	88.6	79.4	84.9	64.1	73.9	40.4	68.8	71.2	60.9	45.6	61.2	61.5	65.2
Pioneer	P46A57BX	63.5	91.2	87.4	89.8	66.6	79.7	45.6	84.7	81.2	66.6	48.0	73.3	70.8	72.5
Progeny Ag	P4620RXS	58.5	91.1	68.0	87.1	68.8	74.7	51.6	64.1	85.6	63.6	49.2	74.6	67.4	69.3
Progeny Ag	P4255RX	50.5	84.7	72.1	80.1	56.4	68.8	45.0	71.1	73.0	53.8	47.0	72.5	63.5	64.2
Progeny Ag	P4444RXS	61.0	89.8	91.3	85.7	70.1	79.6	50.4	79.0	78.2	61.9	50.2	77.5	69.4	72.3
Terral	REV 4679X	59.5	90.3	85.9	89.5	67.7	78.6	50.0	79.6	76.8	71.4	46.6	79.9	70.9	72.5
Overall mean		57.7	90.5	83.0	86.6	68.7	77.3	49.5	79.1	80.2	67.6	50.6	75.2	70.5	71.7

**Table 4. Summary of 3-Year Yields for Maturity Group IV Early
Roundup Ready Xtend for the 2017, 2018, and 2019 Mississippi Soybean Variety Trials.**

Brand	Variety	Brooks- ville irr. (clay)	Clarks- dale irr. (clay)	Long- wood irr. (clay)	Stone- ville irr. (loam)	Stone- ville irr. (clay)	Irrigated avg.	Brooks- ville not irr. (clay)	Olive Branch not irr. (loam)	Ray- mond not irr. (loam)	Stone- ville not irr. (clay)	Tippo not irr. (loam)	Not irr. avg.	Overall average
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>
AgriGold	G4440RX	57.8	74.7	81.7	79.7	71.0	73.0	52.9	84.7	82.1	72.4	45.8	67.6	70.3
Asgrow	AG45X8	56.9	87.7	89.8	85.7	75.8	79.2	54.3	88.6	75.8	64.8	41.9	65.1	72.1
Asgrow	AG46X6	58.0	90.9	93.3	88.3	79.2	82.0	54.7	85.4	87.0	79.2	46.8	70.6	76.3
Dyna-Gro	S45XS37	52.7	88.0	94.0	85.0	77.0	79.3	53.7	85.2	87.3	76.2	41.3	68.7	74.0
Dyna-Gro	S45XS66	55.2	91.5	86.8	84.9	71.8	78.0	60.5	81.0	80.9	79.1	45.5	69.4	73.7
MorSoy	MS 4616 RXT	59.2	88.6	84.8	81.1	72.5	77.3	57.5	80.8	92.3	77.2	48.7	71.3	74.3
Progeny Ag	P4620RXS	55.2	86.1	79.9	83.3	66.6	74.2	57.9	71.2	89.8	72.6	45.1	67.3	70.8
Progeny Ag	P4255RX	48.4	66.0	76.8	77.3	70.2	67.7	49.7	75.6	75.0	63.1	40.8	60.8	64.3
Progeny Ag	P4444RXS	57.8	83.0	89.2	83.5	82.5	79.2	59.9	81.7	80.2	70.6	43.0	67.1	73.1
Overall mean		55.7	84.1	86.3	83.2	74.1	76.7	55.7	81.6	83.4	72.8	44.3	67.5	72.1

Table 5. Summary of Yield for Maturity Group IV Late Roundup Ready Xtend for the 2019 Mississippi Soybean Variety Trials.

Brand	Variety	Brooks- ville irr. (clay)	Clarks- dale irr. (clay)	Long- wood irr. (clay)	Stone- ville irr. (loam)	Stone- ville irr. (lcay)	Irrigated avg.	Brooks- ville not irr. (clay)	Olive Branch not irr. (loam)	Ray- mond not irr. (loam)	Stone- ville not irr. (clay)	Tippo not irr (loam)	Verona not irr. (clay)	Not irr. avg.	Overall avg.
AgriGold	G4815RX	bu/A 40.0	bu/A 88.0	bu/A 68.0	bu/A 91.8	bu/A 55.7	bu/A 68.7	bu/A 43.3	bu/A 79.0	bu/A 79.3	bu/A 77.4	bu/A 64.4	bu/A 63.8	bu/A 67.9	bu/A 68.3
AGS	GS47X19	47.6	86.6	87.6	84.6	61.4	73.6	31.9	76.8	83.4	67.2	68.0	89.6	69.5	71.3
AGS	GS49X19	53.2	86.3	86.9	102.3	65.3	78.8	34.7	85.5	83.5	75.0	65.3	75.0	69.8	73.9
Armor	47-D18	38.6	84.4	87.9	102.4	57.5	74.2	42.0	70.3	78.7	109.1	64.9	76.7	73.6	73.9
Armor	47-D85	50.4	81.0	78.7	86.1	63.1	71.9	40.5	83.7	87.0	80.3	63.4	77.2	72.0	71.9
Armor	48-D25	45.9	90.1	88.7	91.1	62.7	75.7	40.9	79.9	76.3	83.5	69.0	72.4	70.4	72.8
Armor	49-D67	49.4	86.0	96.2	97.5	67.3	79.3	39.9	80.5	88.5	80.2	75.2	79.8	74.0	76.4
Asgrow	AG47X9	31.1	88.7	78.9	89.9	60.8	69.9	36.3	80.5	78.5	74.4	65.5	61.0	66.1	67.8
Asgrow	AG48X9	50.7	91.4	90.5	96.6	70.1	79.9	46.1	80.5	83.4	74.8	64.4	90.8	73.3	76.3
Asgrow	AG49X9	42.6	88.3	81.8	92.5	59.2	72.9	43.9	68.7	74.1	73.9	70.8	67.6	66.5	69.4
Credenz	CZ 4869X	36.6	83.9	83.6	93.2	59.1	71.3	35.6	71.5	79.2	66.8	57.2	67.2	62.9	66.7
Credenz	CZ 4979X	58.9	87.9	98.1	90.3	73.0	81.6	36.2	85.4	94.7	79.9	68.8	82.2	74.5	77.8
Delta Grow	47X95	44.5	89.4	85.6	101.3	57.1	75.6	38.5	68.0	82.7	71.2	64.2	67.4	65.3	70.0
Delta Grow	48X05	50.1	88.1	97.1	91.2	56.2	76.5	38.1	81.3	85.1	75.6	67.2	83.7	71.8	74.0
Delta Grow	48X95	37.4	85.5	79.2	93.7	57.5	70.6	57.7	84.9	89.7	84.4	75.1	74.5	77.7	74.5
Delta Grow	49X15	59.4	86.3	88.5	97.8	62.7	78.9	49.0	78.1	88.8	76.9	68.7	86.2	74.6	76.6
Delta Grow	DG 48X45	48.6	93.0	95.7	96.3	60.4	78.8	55.2	75.6	85.0	78.9	63.4	87.5	74.3	76.3
DONMARIO	47X01	50.1	85.6	91.5	98.4	58.2	76.7	38.4	82.1	81.4	63.8	67.6	80.3	68.9	72.5
DONMARIO	DM 49x13	43.3	88.3	93.0	93.9	63.6	76.4	56.6	80.7	83.9	80.7	63.6	80.9	74.4	75.3
Dyna-Gro	S47XT20	55.3	85.9	89.5	93.3	64.7	77.8	44.6	87.8	91.2	74.7	75.1	83.4	76.1	76.9
Dyna-Gro	S48XT56	46.6	93.4	96.5	91.1	63.3	78.2	47.4	87.2	78.5	79.2	61.4	84.2	73.0	75.3
Dyna-Gro	S49XT39	53.4	81.9	84.8	91.1	68.4	75.9	40.4	83.9	81.1	59.7	71.4	83.0	69.9	72.6
Dyna-Gro	S49XT70	44.0	86.7	87.7	98.8	65.2	76.5	50.6	78.5	77.0	74.8	74.3	77.3	72.1	74.1
Great Heart	GT-4764XS	38.8	88.4	75.2	92.1	58.9	70.7	41.3	76.8	87.4	64.9	61.6	66.9	66.5	68.4
Great Heart	GT-4802X	51.4	85.1	94.0	92.6	61.6	77.0	25.8	80.7	90.2	68.8	64.9	85.2	69.3	72.8
Great Heart	GT-4833XS	46.8	84.4	93.1	95.0	65.3	76.9	43.1	88.1	95.0	49.9	65.6	76.0	69.6	72.9
Great Heart	GT-4979X	46.9	92.0	94.2	96.9	64.2	78.9	43.3	83.0	81.8	70.1	68.4	80.3	71.1	74.6
LG Seeds	C4845RX	45.1	92.0	79.4	96.5	61.1	74.8	36.7	82.1	85.5	84.0	64.4	75.1	71.3	72.9
LG Seeds	LGS4899RX	44.2	85.8	80.0	96.1	60.7	73.4	41.1	80.5	78.8	78.1	74.4	75.8	71.4	72.3
LG Seeds	LGS4931RX	38.0	84.6	79.2	94.8	60.5	71.4	44.0	78.4	83.6	73.0	64.3	71.6	69.1	70.2
Local Seed	LS4798X	48.0	84.5	88.1	84.3	59.6	72.9	37.7	86.1	85.6	70.4	62.5	77.5	70.0	71.3
Local Seed	LS4889XS	37.5	83.5	97.9	94.1	68.7	76.3	50.5	89.7	92.3	73.9	64.9	68.7	73.3	74.7
Local Seed	LS4894X	48.0	86.8	92.4	94.9	56.5	75.7	36.7	83.5	80.4	63.6	72.3	77.3	69.0	72.0
Local Seed	LSX4901X	46.5	85.7	95.3	93.2	64.1	77.0	45.5	82.4	85.1	84.6	71.3	75.1	74.0	75.4
Mission Seed Solutions	A4950X	45.2	90.1	92.3	97.3	55.5	76.1	43.6	71.7	89.2	69.4	68.4	85.4	71.3	73.5
MorSoy	MS 4846 RXT	46.1	92.6	92.2	96.1	61.4	77.7	52.3	91.2	86.9	79.4	70.0	88.1	78.0	77.9
NK Brand	S47-Y9X	44.5	89.6	82.2	96.7	61.5	74.9	43.6	74.3	83.4	78.9	66.7	78.5	70.9	72.7
NK Brand	S49-F5X	43.1	85.2	92.6	96.2	63.8	76.2	51.6	84.0	77.2	84.0	63.6	63.5	70.6	73.1
Pioneer	P48A60X	38.5	87.1	83.1	90.0	59.8	71.7	40.0	90.6	91.6	79.2	61.3	63.0	70.9	71.3
Progeny Ag	P4799RXS	29.3	85.7	84.6	89.2	57.7	69.3	39.4	82.1	84.6	57.3	70.3	74.3	68.0	68.6
Progeny Ag	P4816RX	48.8	91.3	87.1	86.5	60.1	74.8	44.8	78.5	87.7	75.4	64.2	84.5	72.5	73.6
Progeny Ag	P4821RX	44.8	91.5	83.5	88.7	63.2	74.3	39.0	83.2	87.7	52.3	67.3	66.1	65.9	69.8
Progeny Ag	P4851RX	53.5	89.1	104.1	92.6	64.6	80.8	39.5	69.4	83.0	76.7	74.0	83.1	71.0	75.4
Progeny Ag	P4999RX	40.5	86.3	79.1	97.7	61.3	73.0	38.3	81.2	89.6	63.4	75.8	79.9	71.4	72.1
Terral Seed	REV 4927X	45.8	90.2	86.2	89.2	68.3	76.0	47.5	76.8	82.4	76.7	70.4	76.2	71.7	73.6
Terral Seed	REV 4940X	45.7	81.6	91.8	94.8	61.9	75.2	39.1	79.8	85.2	79.1	59.0	72.1	69.1	71.8
USG	7470XTS	42.9	84.9	77.5	93.5	56.1	71.0	36.9	75.6	78.9	75.9	69.8	69.6	67.8	69.2
USG	7489XTS	48.4	90.5	90.2	100.3	63.0	78.5	43.1	81.2	81.1	71.3	65.6	84.9	71.2	74.5
USG	7496XTS	35.1	81.4	69.1	90.4	59.2	67.0	44.6	73.4	74.9	64.7	63.4	56.5	62.9	64.8
Mean		45.3	87.3	87.4	93.8	61.9	75.1	42.4	80.3	84.1	74.0	67.2	76.5	70.7	72.7
CV		13.0	4.0	8.7	9.9	5.5		14.8	10.8	11.1	16.4	8.5	12.8		
LSD		9.6	5.7	12.3	NS	6.8		10.2	NS	NS	NS	9.3	15.9		
R ²		64.7	61.0	65.0	24.2	74.2		62.8	55.3	60.2	56.7	50.9	61.9		
Error df		96	96	96	96	48		96	96	96	47	96	96		

**Table 6. Summary of 2-Year Yields for Maturity Group IV Late
Roundup Ready Xtend for the 2018 and 2019 Mississippi Soybean Variety Trials.**

Brand	Variety	Brooks- ville irr. (clay)	Clarks- dale irr. (clay)	Long- wood irr. (clay)	Stone- ville irr. (loam)	Stone- ville irr. (clay)	Irrigated avg.	Brooks- ville not irr. (clay)	Olive Branch not irr. (loam)	Ray- mond not irr. (loam)	Stone- ville not irr. (clay)	Tippo not irr. (loam)	Verona not irr. (loam)	Not irr. avg.	Overall avg.
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>
Asgrow	AG47X9	58.8	89.9	85.0	90.6	75.5	80.0	54.6	85.0	70.8	64.0	53.9	74.4	67.1	73.0
Asgrow	AG48X9	73.0	94.1	92.5	90.2	80.2	86.0	53.1	86.8	80.6	72.0	53.0	93.3	73.2	79.0
Asgrow	AG49X9	69.8	89.9	87.7	86.9	75.6	82.0	49.7	79.0	77.0	69.4	55.6	80.2	68.5	74.6
Delta Grow	DG 48X45	68.7	92.1	100.0	91.0	74.3	85.2	57.2	81.5	77.5	77.2	54.8	88.5	72.8	78.4
Dyna-Gro	S48XT56	69.7	94.1	94.0	85.8	73.7	83.5	56.2	88.5	66.0	74.4	50.6	89.1	70.8	76.6
Dyna-Gro	S49XT39	72.9	88.7	96.1	87.2	76.5	84.3	52.9	87.2	77.7	64.9	57.7	90.9	71.9	77.5
Great Heart	GT-4833XS	66.8	90.5	96.2	84.6	67.1	81.0	58.3	85.5	86.2	61.3	54.8	89.3	72.5	76.4
Great Heart	GT-4979X	69.4	96.4	100.0	88.9	75.3	86.0	54.0	83.6	78.6	72.4	54.5	87.9	71.8	78.3
Local Seed	LS4889XS	60.8	90.9	99.8	91.3	72.8	83.1	60.5	89.9	94.8	76.0	57.0	87.3	77.6	80.1
Mission Seed Solutions	A4950X	69.5	94.9	89.4	92.1	71.4	83.5	54.1	76.7	90.4	72.9	53.2	90.8	73.0	77.8
MorSoy	MS 4846 RXT	71.5	91.4	93.1	88.9	76.1	84.2	52.8	94.4	79.0	79.5	58.8	87.1	75.3	79.3
Pioneer	P48A60X	65.4	90.5	84.0	86.2	75.3	80.3	53.1	93.4	84.1	71.9	51.7	78.3	72.1	75.8
Progeny Ag	P4799RXS	58.3	89.2	87.4	87.3	68.5	78.2	53.2	82.5	78.7	62.0	58.5	82.1	69.5	73.4
Progeny Ag	P4816RX	69.5	93.2	91.4	83.6	75.3	82.6	53.6	85.1	75.5	75.4	55.2	86.8	72.0	76.8
Progeny Ag	P4851RX	73.8	94.9	103.6	92.7	72.5	87.5	55.7	80.0	78.2	68.7	56.1	89.2	71.3	78.7
Terral Seed	REV 4927X	68.6	98.6	87.2	87.3	77.9	83.9	62.6	87.2	79.0	70.6	56.8	87.3	73.9	78.5
USG	7489XTS	66.9	90.9	92.0	91.5	76.6	83.6	54.6	85.6	69.8	73.7	57.2	85.5	71.1	76.8
USG	7496XTS	64.5	89.5	83.9	87.7	70.7	79.3	59.2	84.7	79.6	68.6	51.7	71.4	69.2	73.8
Overall mean		67.7	92.2	92.4	88.6	74.2	83.0	55.3	85.4	79.1	70.8	55.1	85.5	71.9	76.9

**Table 7. Summary of 3-Year Yields for Maturity Group IV Late
Roundup Ready Xtend for the 2017, 2018, and 2019 Mississippi Soybean Variety Trials.**

Brand	Variety	Brooks- ville irr. (clay)	Clarks- dale irr. (clay)	Long- wood irr. (clay)	Stone- ville irr. (loam)	Stone- ville irr. (clay)	Irrigated avg.	Brooks- ville not irr. (clay)	Olive Branch not irr. (loam)	Ray- mond not irr. (loam)	Stone- ville not irr. (clay)	Tippo not irr. (loam)	Not irr. avg.	Overall avg.
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>
Delta Grow	DG 48X45	66.5	91.1	101.2	87.0	77.7	84.7	61.8	86.2	85.6	79.6	50.0	72.7	78.7
Dyna-Gro	S48XT56	64.1	92.0	97.8	82.7	74.7	82.2	57.8	88.6	75.1	81.7	43.9	69.4	75.8
MorSoy	MS 4846 RXT	67.0	90.8	99.8	83.9	79.3	84.1	58.9	96.3	90.0	85.3	50.6	76.2	80.2
Progeny Ag	P4799RXS	55.0	87.3	87.7	84.0	70.4	76.9	56.4	88.8	87.0	69.2	52.0	70.7	73.8
Progeny Ag	P4816RX	60.7	90.9	97.3	82.8	76.3	81.6	56.3	90.5	85.1	80.2	49.8	72.4	77.0
Progeny Ag	P4851RX	68.2	91.8	104.8	89.7	77.3	86.4	59.7	86.2	91.7	75.0	45.9	71.7	79.0
Terral Seed	REV 4927X	63.2	90.5	89.8	86.5	79.7	81.9	66.4	87.7	88.4	80.1	49.6	74.4	78.2
USG	7496XTS	56.0	84.9	82.6	83.2	71.8	75.7	64.5	85.7	82.1	67.6	50.0	70.0	72.8
Overall mean	62.6	89.9	95.1	84.9	75.9	81.7	60.2	88.7	85.6	77.3	49.0	72.2	76.9	

Table 8. Summary of Yield for Maturity Group IV Enlist or Roundup Ready for the 2019 Mississippi Soybean Variety Trials.

Brand	Variety	Brooks- ville irr. (clay)	Long- wood irr. (clay)	Stone- ville irr. (loam)	Stone- ville irr. (clay)	Irrigated avg.	Brooks- ville not irr. (clay)	Olive Branch not irr. (loam)	Ray- mond not irr. (loam)	Stone- ville not irr. (clay)	Verona not irr. (loam)	Not irr. avg.	Overall avg.
Delta Grow	45E23	35.7	61.1	88.8	49.7	58.8	32.6	68.5	79.4	64.9	60.7	61.2	60.1
Delta Grow	46E29	27.8	69.7	96.9	56.8	62.8	37.4	74.6	80.7	75.9	71.1	67.9	65.7
Delta Grow	47E19	25.2	69.3	102.7	50.6	61.9	42.5	82.3	79.5	59.1	48.9	62.4	62.2
Delta Grow	47E25	35.9	79.4	90.1	57.5	65.7	35.5	79.3	77.5	74.1	79.9	69.3	67.7
Delta Grow	48E10	34.4	72.6	101.1	52.1	65.1	30.4	75.4	77.9	74.4	66.0	64.8	64.9
Delta Grow	48E28	35.8	69.5	96.2	55.0	64.1	43.0	85.6	95.8	86.4	70.1	76.2	70.8
Delta Grow	48E39	27.7	69.0	98.8	49.7	61.3	43.7	73.7	87.0	87.0	51.9	68.7	65.4
Delta Grow	48E49	39.8	71.9	95.3	54.6	65.4	41.1	75.8	76.3	80.7	76.2	70.0	68.0
Delta Grow	49E29	32.2	78.2	86.5	53.4	62.6	38.5	78.0	78.4	75.6	74.0	68.9	66.1
DONMARIO	DM 48E73	27.3	66.2	94.0	49.2	59.2	37.5	73.9	87.7	80.5	70.9	70.1	65.3
Go Soy	463E19	37.0	74.3	97.5	53.7	65.6	41.5	85.2	94.8	71.8	77.9	74.2	70.4
Go Soy	482E18	20.4	80.9	83.8	47.0	58.0	34.8	87.4	85.3	81.2	59.7	69.7	64.5
Local Seed	Z4596GLS	23.1	68.8	91.8	50.4	58.5	31.8	79.0	80.5	52.7	68.8	62.6	60.8
Local Seed	Z4694E3S	35.8	69.6	95.8	54.7	64.0	41.7	82.9	71.3	57.3	74.8	65.6	64.9
Local Seed	Z4797E3	24.7	68.6	96.9	50.5	60.2	37.5	76.3	77.7	45.4	40.8	55.5	57.6
Petrus Seed	4916 GT	45.3	64.8	84.1	42.3	59.1	47.2	76.3	78.0	44.7	64.2	62.1	60.7
U. of Missouri	S14-15138R	27.5	81.4	87.5	56.8	63.3	42.1	76.7	88.1	65.6	65.2	67.5	65.7
U. of Missouri	S14-15146R	28.3	55.3	88.4	41.0	53.2	39.2	66.7	82.1	66.8	59.5	62.9	58.6
USG	7480ET	30.5	76.7	90.0	45.8	60.7	33.1	77.8	88.8	69.3	68.2	67.4	64.5
Mean		31.3	70.9	93.0	51.1	61.6	38.5	77.7	82.5	69.1	65.7	66.7	64.4
CV		15.2	7.4	6.6	9.7		17.8	10.4	8.3	16.4	12.5		
LSD		7.9	8.7	10.2	10.4		NS	NS	11.4	86.3	13.7		
R ²		74.2	78.8	61.3	65.4		57.7	47.7	76.2	19	78.8		
Error df		38	38	38	19		38	38	38	38			

Table 9. Summary of 2-Year Yields for Maturity Group IV Enlist or Roundup Ready for the 2018 and 2019 Mississippi Soybean Variety Trials.

Brand	Variety	Brooks- ville irr. (clay)	Long- wood irr. (clay)	Stone- ville irr. (loam)	Stone- ville irr. (clay)	Irrigated avg.	Brooks- ville not irr. (clay)	Ray- mond not irr. (loam)	Stone- ville not irr. (clay)	Verona not irr. (loam)	Not irr. avg.	Overall avg.
Petrus Seed	4916 GT	60.9	75.5	77.5	60.6	68.6	57.3	71.0	60.0	75.8	66.0	67.3
U. of Missouri	S14-15138R	51.5	83.2	84.8	67.9	71.9	51.6	81.6	65.8	73.9	68.2	70.1
U. of Missouri	S14-15146R	50.7	76.7	80.3	57.2	66.2	44.1	75.1	58.7	70.6	62.1	64.2
Overall mean		54.4	78.5	80.9	61.9	68.9	51.0	75.9	61.5	73.4	65.5	67.2

Table 10. Summary of 3-Year Yields for Maturity IV Enlist or Roundup Ready for the 2017, 2018, and 2019 Mississippi Soybean Variety Trials.

Brand	Variety	Brooks- ville irr. (clay)	Long- wood irr. (clay)	Stone- ville irr. (loam)	Stone- ville irr. (clay)	Irrigated avg.	Brooks- ville not irr. (clay)	Ray- mond not irr. (loam)	Stone- ville not irr. (clay)	Not irr. avg.	Overall avg.
Petrus Seed	4916 GT	59.7	82.2	75.7	66.9	71.1	63.4	81.7	67.2	70.8	70.9
U. of Missouri	S14-15146R	42.8	79.5	75.1	61.8	64.8	44.3	84.0	62.6	63.6	64.3
Overall mean		51.2	80.8	75.4	64.4	67.9	53.8	82.8	64.9	67.2	67.6

Table 11. Summary of Yield for Maturity Group V Roundup Ready Xtend for the 2019 Mississippi Soybean Variety Trials.

Brand	Variety	Brooks- ville irr. (clay)	Clarks- dale irr. (clay)	Long- wood irr. (clay)	Stone- ville irr. (clay)	Stone- ville irr. (loam)	Irrigated avg.	Brooks- ville not irr. (clay)	Olive Branch not irr. (loam)	Ray- mond not irr. (loam)	Verona not irr. (loam)	Not irr. avg.	Overall avg.
AgriGold	G5000RX	bu/A 28.5	bu/A 83.3	bu/A 82.7	bu/A 84.2	bu/A 64.9	bu/A 68.7	bu/A 43.7	bu/A 84.1	bu/A 78.4	bu/A 65.9	bu/A 68.0	bu/A 68.4
Armor	51-D77	52.8	91.5	98.3	76.9	72.1	78.3	43.2	68.2	90.8	90.3	73.1	76.0
Armor	52-D71	27.1	85.2	86.0	90.5	63.1	70.4	35.5	75.8	88.7	71.2	67.8	69.2
Asgrow	AG52X9	35.1	86.4	86.9	90.5	60.1	71.8	38.1	73.9	86.2	87.7	71.5	71.7
Asgrow	AG53X0	41.0	72.6	84.5	91.0	63.3	70.5	42.7	75.6	88.1	77.1	70.9	70.6
Asgrow	AG53X9	29.0	92.0	77.8	93.7	70.4	72.6	43.5	76.5	88.8	88.1	74.2	73.3
Asgrow	AG55X7	28.3	92.0	72.4	87.6	65.3	69.1	37.7	60.6	75.0	66.7	60.0	65.1
Credenz	CZ 5299X	42.9	90.4	91.5	77.7	67.0	73.9	39.5	66.2	86.5	91.3	70.9	72.6
Delta Grow	52X05	50.1	89.0	86.0	81.2	67.3	74.7	41.9	73.3	71.9	84.2	67.8	71.7
Delta Grow	54X25	23.3	83.7	70.4	84.7	64.1	65.2	45.8	63.9	81.0	74.9	66.4	65.8
Dyna-Gro	S52XS39	43.6	95.7	83.1	78.8	58.1	71.9	43.9	73.3	83.8	92.8	73.5	72.6
Dyna-Gro	S52XT08	30.4	88.8	78.6	81.8	59.7	67.8	36.7	73.8	73.7	55.6	60.0	64.3
Dyna-Gro	S54XT17	39.7	92.5	68.0	83.7	59.6	68.7	45.5	66.1	77.4	84.8	68.4	68.6
Dyna-Gro	S56XT99	48.7	88.0	92.9	76.6	66.1	74.5	37.8	72.0	73.2	84.5	66.9	71.1
Great Heart	GT-5528X	31.3	81.2	54.3	83.1	58.3	61.6	35.7	70.2	74.6	68.6	62.3	61.9
Local Seed	LS5386X	19.5	86.4	80.9	92.7	57.9	67.5	44.3	73.3	88.5	77.8	71.0	69.1
Local Seed	LS5588X	42.3	91.1	77.8	81.9	70.2	72.7	39.9	70.9	69.3	73.1	63.3	68.5
Local Seed	LS5087X	28.6	95.6	88.7	85.0	72.0	74.0	38.1	74.8	87.0	70.4	67.6	71.1
NK Brand	S51-R3XS	25.2	88.8	84.1	103.5	58.2	72.0	38.6	76.4	69.9	69.6	63.6	68.2
NK Brand	S53-F7X	42.5	86.2	78.7	97.5	58.6	72.7	33.5	83.7	81.6	86.9	71.4	72.1
Pioneer	P54A54X	54.4	91.2	90.3	87.9	70.7	78.9	49.4	69.2	79.4	91.0	72.2	75.9
Pioneer	P55A49X	52.3	90.7	80.0	86.1	68.3	75.5	54.3	63.2	69.3	79.1	66.5	71.5
Progeny Ag	P5016RXS	28.7	79.4	64.0	93.1	59.0	64.8	44.6	66.9	79.8	63.9	63.8	64.4
Progeny Ag	P5170RX	35.7	77.3	84.9	87.6	60.8	69.3	40.8	78.1	87.2	76.9	70.7	69.9
Progeny Ag	P5252RX	46.0	90.2	88.1	80.8	67.4	74.5	42.9	75.7	87.5	92.2	74.6	74.5
Progeny Ag	P5554RX	40.7	79.3	71.5	80.3	57.2	65.8	38.0	68.8	70.7	78.4	64.0	65.0
Progeny Ag	P5688RX	52.7	72.3	78.0	79.0	65.0	69.4	35.0	58.8	76.2	89.7	64.9	67.4
Terral Seed	REV 5659X	56.2	87.5	87.8	81.1	64.9	75.5	36.2	74.5	73.9	106.8	72.8	74.3
Mean		38.4	86.7	81.0	85.7	63.9	71.2	41.0	71.7	79.9	80.0	68.1	69.8
CV		19.0	5.8	8.9	7.5	9.4		14.3	9.9	13.4	10.2		
LSD		12.0	8.3	11.8	10.5	NS		9.6	11.7	NS	13.3		
R ²		76.4	69.1	73.4	70.2	56.2		55.4	71.9	57.9	76.7		
Error df		54	54	54	54	27		54	54	54	54		

Table 12. Summary of 2-Year Yields for Maturity Group V Roundup Ready Xtend for the 2018 and 2019 Mississippi Soybean Variety Trials.

Brand	Variety	Brooks- ville irr. (clay)	Clarks- dale irr. (clay)	Long- wood irr. (clay)	Stone- ville irr. (loam)	Stone- ville irr. (clay)	Irrigated avg.	Brooks- ville not irr. (clay)	Olive Branch not irr. (loam)	Ray- mond not irr. (loam)	Verona not irr. (loam)	Not irr. avg.	Overall avg.
AgriGold	G5000RX	bu/A 55.0	bu/A 88.9	bu/A 90.5	bu/A 87.9	bu/A 72.4	bu/A 78.9	bu/A 57.9	bu/A 89.4	bu/A 69.0	bu/A 77.2	bu/A 73.4	bu/A 76.5
Armor	51-D77	72.7	83.1	107.6	78.9	76.2	83.7	61.8	81.6	99.1	87.5	82.5	83.2
Armor	52-D71	53.4	87.3	92.7	88.1	71.5	78.6	56.5	83.1	85.3	81.2	76.5	77.7
Asgrow	AG52X9	63.1	89.2	94.6	97.9	71.6	83.3	52.1	83.6	85.3	87.5	77.1	80.5
Asgrow	AG53X9	50.1	93.3	86.5	89.0	77.1	79.2	56.8	82.0	77.3	85.2	75.3	77.5
Asgrow	AG55X7	50.5	90.1	79.5	85.2	75.6	76.2	48.0	74.1	62.3	63.1	61.9	69.8
Dyna-Gro	S52X539	60.1	90.3	95.4	78.9	69.9	78.9	56.3	81.2	88.8	95.4	80.4	79.6
Dyna-Gro	S52XT08	50.2	89.4	89.5	83.8	73.0	77.2	50.6	82.8	67.8	67.2	67.1	72.7
Dyna-Gro	S56XT99	61.3	87.6	98.0	80.1	77.6	80.9	53.9	83.6	71.9	84.4	73.4	77.6
Local Seed	LS5087X	59.0	95.8	100.9	86.3	80.4	84.5	52.3	88.5	83.8	80.3	76.2	80.8
Progeny Ag	P5016RXS	46.4	84.8	79.8	90.2	68.1	73.9	57.8	83.3	75.3	72.3	72.2	73.1
Progeny Ag	P5252RX	61.3	84.2	101.3	84.1	75.5	81.3	55.9	85.4	94.7	89.3	81.3	81.3
Progeny Ag	P5554RX	63.3	84.3	89.6	82.1	73.2	78.5	53.3	77.8	68.2	77.6	69.2	74.4
Progeny Ag	P5688RX	70.0	76.2	92.1	81.8	75.1	79.1	46.9	78.0	72.6	87.6	71.3	75.6
Overall mean		58.3	87.5	92.7	85.3	74.1	79.6	54.3	82.4	78.7	81.1	74.1	77.2

Table 13. Summary of 3-Year Yields for Maturity Group V Roundup Ready V Xtend for the 2017, 2018, and 2019 Mississippi Soybean Variety Trials.

Brand	Variety	Brooks-ville irr. (clay)	Clarks-dale irr. (clay)	Long-wood irr. (clay)	Stone-ville irr. (loam)	Stone-ville irr. (clay)	Irrigated avg.	Brooks-ville not irr. (clay)	Olive Branch not irr. (loam)	Ray-mond not irr. (loam)	Not irr. avg.	Overall avg.
AgriGold	G5000RX	bu/A 53.5	bu/A 81.3	bu/A 87.7	bu/A 84.1	bu/A 70.7	bu/A 75.5	bu/A 60.4	bu/A 85.8	bu/A 75.9	bu/A 74.0	bu/A 74.9
Asgrow	AG55X7	55.4	84.2	87.1	80.8	76.6	76.8	54.0	78.3	69.5	67.2	73.2
Progeny Ag	P5016RXS	48.0	78.0	73.6	85.3	68.7	70.7	60.6	83.6	80.6	74.9	72.3
Progeny Ag	P5688RX	68.9	60.4	89.2	80.8	73.1	74.5	48.8	83.3	77.0	69.7	72.7
Overall mean		56.5	76.0	84.4	82.8	72.3	74.4	55.9	82.8	75.8	71.5	73.3

Table 14. Summary of Yield for Maturity Group V Enlist or Roundup Ready for the 2019 Mississippi Soybean Variety Trials.

Brand	Variety ¹	Brooks-ville irr. (clay)	Long-wood irr. (clay)	Stone-ville irr. (loam)	Stone-ville irr. (clay)	Irrigated avg.	Brooks-ville not irr. (clay)	Olive Branch not irr. (loam)	Ray-mond not irr. (loam)	Verona not irr. (loam)	Not irr. avg.	Overall avg.
Delta Grow	52E22	bu/A 43.0	bu/A 55.8	bu/A 98.9	bu/A 59.0	bu/A 64.2	bu/A 42.6	bu/A 75.1	bu/A 81.3	bu/A 74.6	bu/A 68.4	bu/A 66.3
Delta Grow	5585 RR2/STS	63.2	60.6	77.3	64.0	66.3	47.3	61.2	71.1	91.7	67.8	67.1
Go Soy	50G17	47.0	68.9	93.3	56.2	66.3	49.3	73.6	76.5	79.0	69.6	68.0
Go Soy	512E18	44.5	38.4	97.3	57.7	59.5	39.5	78.6	69.7	71.8	64.9	62.2
U. of Missouri	S14-9017R	33.6	69.3	109.6	52.5	66.3	35.7	71.4	71.2	56.6	58.7	62.5
U. of Missouri	S16-3747RY *	51.9	71.4	94.5	63.8	70.4	45.1	75.0	77.2	87.7	71.2	70.8
Mean		47.2	60.7	95.2	58.8	65.5	43.2	72.5	74.5	76.9	66.8	66.1
CV		8.7	26.2	7.8	10.2		6.1	9.9	6.7	15.2		
LSD		7.4	NS	13.4	NS		4.8	NS	NS	21.3		
R ²		90.0	48.5	79.1	70.3		88.3	61.6	86.6	65.2		
Error df		10	10	10	5		10	10	10	10		

¹Variety followed by an asterisk indicates an experimental entry.**Table 15. Summary of 2-Year Yields for Maturity Group V Enlist or Roundup Ready for the 2018 and 2019 Mississippi Soybean Variety Trials.**

Brand	Variety	Brooks-ville irr. (clay)	Long-wood irr. (clay)	Stone-ville irr. (loam)	Stone-ville irr. (clay)	Irrigated avg.	Brooks-ville not irr. (clay)	Ray-mond not irr. (loam)	Verona not irr. (loam)	Not irr. avg.	Overall avg.
Go Soy	50G17	bu/A 66.4	bu/A 91.2	bu/A 90.2	bu/A 71.2	bu/A 79.7	bu/A 58.2	bu/A 79.2	bu/A 81.5	bu/A 72.9	bu/A 76.8
U. of Missouri	S14-9017R	54.5	76.2	96.6	66.1	73.3	51.7	63.0	64.9	59.8	67.6
Overall mean		60.4	83.7	93.4	68.6	76.5	54.9	71.1	73.2	66.4	72.2

Table 16. Summary of 3-Year Yields for Maturity Group V Enlist or Roundup Ready for the 2017, 2018, and 2019 Mississippi Soybean Variety Trials.

Brand	Variety	Brooks-ville irr. (clay)	Long-wood irr. (clay)	Stone-ville irr. (loam)	Stone-ville irr. (clay)	Irrigated avg.	Brooks-ville not irr. (clay)	Ray-mond not irr. (loam)	Not irr. avg.	Overall avg.
U. of Missouri	S14-9017R	bu/A 51.8	bu/A 77.7	bu/A 84.4	bu/A 68.6	bu/A 70.6	bu/A 51.5	bu/A 75.0	bu/A 63.3	bu/A 68.2
Overall mean		51.8	77.7	84.4	68.6	70.6	51.5	75.0		68.2

Table 17. Summary of Yield for Maturity Group IV LibertyLink for the 2019 Mississippi Soybean Variety Trials.

Brand	Variety	Longwood irr. (clay)	Stoneville irr. (clay)	Irrigated avg.	Brooksville not irr. (clay)	Raymond not irr. (loam)	Verona not irr. (loam)	Not irr. avg.	Overall avg.
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>
Credenz	CZ 3929GTLL	65.0	51.9	58.5	35.7	58.6	63.8	52.7	55.0
Credenz	CZ 4539GTLL	72.7	44.4	58.6	23.8	65.4	53.1	47.4	51.9
Credenz	CZ 4649LL	76.6	63.0	69.8	41.3	67.6	103.9	70.9	70.5
Delta Grow	DG 4977LL/STS	55.6	55.5	55.6	38.8	59.1	67.8	55.2	55.4
Go Soy	44GL18	51.9	44.4	48.2	25.2	66.3	43.6	45.0	46.3
Go Soy	46GL18	62.0	44.2	53.1	24.7	60.2	51.6	45.5	48.6
Mean		64.0	50.6	57.3	31.6	62.9	64.0	52.8	54.6
CV		15.8	10.8		14.8	11.0	14.3		
LSD		NS	14.0		8.5	NS	16.6		
R ²			79.9		83.6	53.8	89.3		
Error df		10	5		10	10	10		

Table 18. Summary of 2-Year Yields for Maturity Group IV LibertyLink for the 2018 and 2019 Mississippi Soybean Variety Trials.

Brand	Variety	Longwood irr. (clay)	Stoneville irr. (clay)	Irrigated avg.	Brooksville not irr. (clay)	Raymond not irr. (loam)	Verona not irr. (loam)	Not irr. avg.	Overall avg.
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>
Credenz	CZ 4649LL	92.1	69.9	81.0	51.8	81.5	100.2	77.8	79.1
Delta Grow	DG 4977LL/STS	75.8	63.7	69.8	45.4	72.1	71.9	63.1	65.8
Overall mean		84.0	66.8	75.4	48.6	76.8	86.0	70.5	72.4

Table 19. Summary of 3-Year Yields for Maturity Group IV LibertyLink for the 2017, 2018, and 2019 Mississippi Soybean Variety Trials.

Brand	Variety	Longwood irr. (clay)	Stoneville irr. (clay)	Irrigated avg.	Brooksville not irr. (clay)	Raymond not irr. (loam)	Not irr. avg.	Overall avg.
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>
Delta Grow	DG 4977LL/STS	73.4	64.4	68.9	48.2	81.4	64.8	66.8
Overall mean		73.4	64.4	68.9	48.2	81.4	64.8	66.8

Table 20. Summary of Yield for Maturity Group IV Conventional for the 2019 Mississippi Soybean Variety Trials.

Brand	Variety ¹	Brooksville not irr. (clay)	Stoneville irr. (clay)	Overall avg.
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>
Go Soy	48C17S	44.8	60.1	52.4
U. of Missouri	S13-10590C *	26.7	38.0	32.4
U. of Missouri	S13-10592C *	30.3	33.0	31.7
U. of Missouri	S13-2743C	25.4	39.0	32.2
U. of Missouri	S13-3851C	38.0	48.4	43.2
U. of Missouri	S16-14379C *	49.9	49.9	49.9
U. of Missouri	S16-14730C *	44.5	43.7	44.1
Virtue	V 4520 S	36.3	50.9	43.6
Virtue	V 4720 S	37.3	61.2	49.2
Virtue	V 4920 S	38.1	59.6	48.8
Mean		37.1	48.4	42.7
CV		29.5	12.5	
LSD		20.1	13.7	
R ²		66.1	84.5	
Error df		20	10	

¹Variety followed by an asterisk indicates an experimental entry.

Table 21. Summary of 2-Year Yields for Maturity Group IV Conventional for the 2018 and 2019 Mississippi Soybean Variety Trials.

Brand	Variety ¹	Brooksville not irr. (clay)	Stoneville irr. (clay)	Overall avg.
U. of Missouri	S13-10590C *	<i>bu/A</i> 42.0	<i>bu/A</i> 56.1	<i>bu/A</i> 49.0
U. of Missouri	S13-10592C *	47.1	53.5	50.3
U. of Missouri	S13-2743C	38.8	50.9	44.8
U. of Missouri	S13-3851C	50.7	65.4	58.1
Overall mean		44.7	56.5	50.6

¹Variety followed by an asterisk indicates an experimental entry.

Table 22. Summary of 3-Year Yields for Maturity Group IV Conventional for the 2017, 2018, and 2019 Mississippi Soybean Variety Trials.

Brand	Variety ¹	Brooksville not irr. (clay)	Stoneville irr. (clay)	Overall avg.
U. of Missouri	S13-10590C *	<i>bu/A</i> 39.8	<i>bu/A</i> 58.5	<i>bu/A</i> 49.1
U. of Missouri	S13-3851C	51.6	68.1	59.8
Overall mean		45.7	63.3	54.5

Table 23. Summary of Yields for Maturity Group V Conventional for the 2019 Mississippi Soybean Variety Trials.

Brand	Variety ¹	Brooksville not irr. (clay)	Stoneville irr. (clay)	Overall avg.
U. of Missouri	S13-1955C *	<i>bu/A</i> 45.7	<i>bu/A</i> 65.9	<i>bu/A</i> 55.8
U. of Missouri	S11-20242C	41.0	49.4	45.2
U. of Missouri	S15-10434C *	52.1	67.0	59.6
U. of Missouri	M05201D conv	31.9	58.5	45.2
Mean		42.7	60.2	51.4
CV		19.5	6.2	
LSD		NS	11.9	
R ²		74	90.5	
Error df		6	3	

¹Variety followed by an asterisk indicates an experimental entry.

Table 24. Summary of 2-Year Yields for Maturity Group V Conventional for the 2018 and 2019 Mississippi Soybean Variety Trials.

Brand	Variety ¹	Brooksville not irr. (clay)	Stoneville irr. (clay)	Overall avg.
U. of Missouri	S13-1955C *	<i>bu/A</i> 60.4	<i>bu/A</i> 74.2	<i>bu/A</i> 67.3
U. of Missouri	S11-20242C	57.4	67.0	62.2
U. of Missouri	S15-10434C *	62.3	79.8	71.1
U. of Missouri	M05201D conv	54.8	74.4	64.6
Mean		58.7	73.9	66.3
¹ Variety followed by an asterisk indicates an experimental entry.				

Table 25. Summary of 3-Year Yields for Maturity Group V Conventional for the 2017, 2018, and 2019 Mississippi Soybean Variety Trials.

Brand	Variety ¹	Brooksville not irr. (clay)	Stoneville irr. (clay)	Overall avg.
U. of Missouri	S13-1955C *	<i>bu/A</i> 61.4	<i>bu/A</i> 73.6	<i>bu/A</i> 67.5
Overall mean		61.4	73.6	67.5
¹ Variety followed by an asterisk indicates an experimental entry.				

BROOKSVILLE (NOT IRRIGATED), BLACK BELT BRANCH

Crop Summary

The soybean plots were planted into a stale seedbed with adequate soil moisture at planting to ensure good germination. All plots emerged to a good stand. A pro-

longed dry period was observed during midsummer, which resulted in reduced yield potential. All plots were harvested in a timely manner without difficulties.

Planting date . . .May 2

Harvest date . . .IV's on September 24, V's on October 1

Soil typeBrooksville silty clay

Soil pH6.5

Soil fertilityP=M, K=M

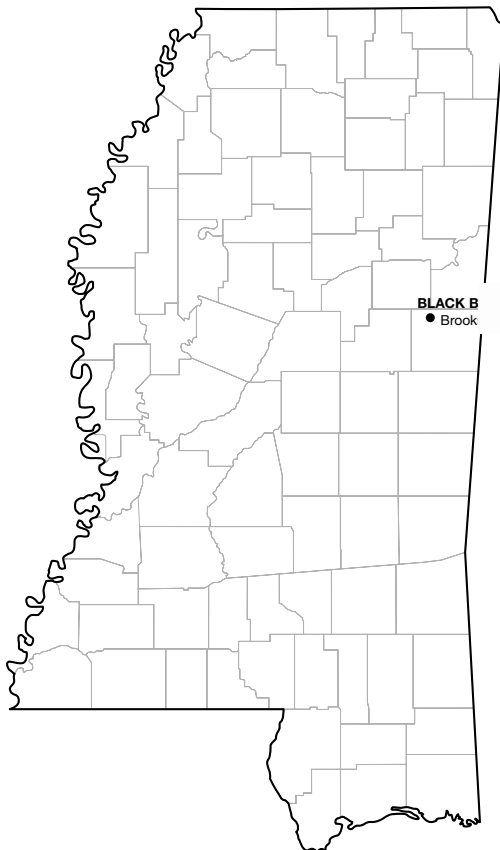
Previous crop . . .Wheat

HerbicidePreemergence — Authority Supreme @ 8 oz/A and Gramoxone @ 32 oz/A on May 2

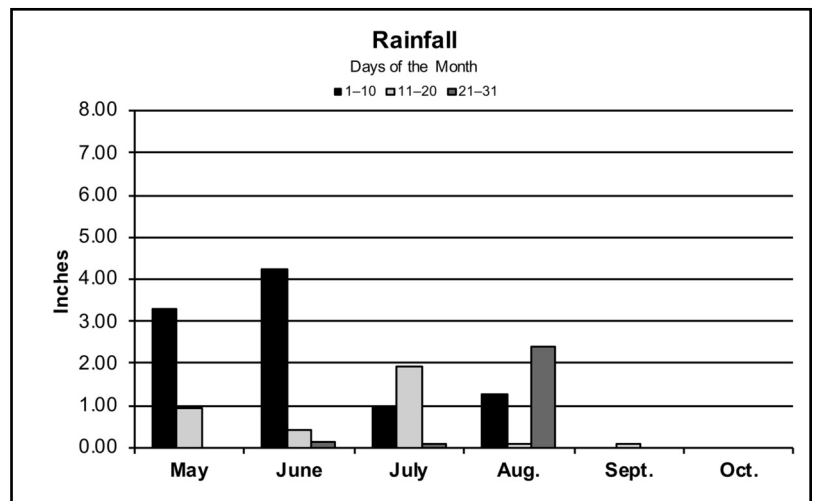
Postemergence — (RR) Roundup PowerMax @ 24 oz/A, FirstRate @ 0.3 oz/A,
and Prefix @ 24 oz/A; (Conv. & LL) SelectMax @ 16 oz/A, FirstRate @ 0.3 oz/A,
and Gramoxone @ 32 oz/A on June 21

FertilizerPreplant — 0-20-20 @ 200 lb/A

InsecticideAcephate @ 0.75 lb/A, Bifenthrin @ 6.4 oz/A, and Intrepid Edge @ 4 oz/A on August 15



CH



Rainfall Summary

	Inches
May	.049
June	4.83
July	.302
August	.379
September	.010
October	.000
Total	12.23

Table 26. Roundup Ready Maturity Group IV Early Xtend Soybean Varieties (Black Belt Station, Brooksville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Dyna-Gro	S46XS60	47.0	—	—	27	1
Terral	REV 4679X	46.4	50.0	—	29	1
Progeny Ag	P4444RXS	46.1	50.4	59.9	32	1
Mission Seed Solutions	A4618X	45.8	52.5	—	32	1
Local Seed	LS4565XS	45.5	49.7	—	35	1
AgriGold	G4605RX	45.2	53.3	—	39	1
Local Seed	LS4583X	45.0	52.8	—	29	1
Asgrow	AG43X8	44.9	49.6	—	33	1
MorSoy	MS 4616 RXT	43.8	53.6	57.5	32	1
Great Heart	GT-4616X	43.6	—	—	29	1
Asgrow	AG45X8	43.4	51.1	54.3	35	1
Delta Grow	46X65	43.4	—	—	27	1
Asgrow	AG46X0	42.6	—	—	32	1
Asgrow	AG43X0	42.3	—	—	33	1
Mission Seed Solutions	A4448X	42.1	—	—	29	1
Dyna-Gro	S45XS66	41.6	49.1	60.5	33	1
Local Seed	LS4795XS	41.2	—	—	27	1
Armor	44-D92	40.7	—	—	30	1
Great Heart	GT-4677XS	40.7	—	—	26	1
Progeny Ag	P4620RXS	40.6	51.6	57.9	34	1
NK Brand	S39-G2X	40.3	—	—	30	1
Great Heart	GT-4255XS	39.7	—	—	24	1
Progeny Ag	P4265RXS	39.2	—	—	30	1
Armor	42-D27	38.9	47.3	—	30	1
Local Seed	LS4299XS	38.5	—	—	33	1
LG Seeds	LGS4420RX	38.2	—	—	26	1
Dyna-Gro	S45XS37	37.9	49.8	53.7	32	1
Progeny Ag	P4255RX	37.9	45.0	49.7	28	1
Delta Grow	DG 46X25	37.3	52.1	—	30	1
Local Seed	LS3976X	36.7	—	—	29	1
Local Seed	LS4677X	36.6	49.9	—	24	1
Local Seed	LS4487XS	36.4	49.1	—	27	1
Asgrow	AG46X6	36.0	50.1	54.7	34	1
AgriGold	G4579RX	34.9	50.4	—	31	1
Local Seed	LS4407X	33.1	—	—	26	1
Pioneer	P44A72BX	33.0	—	—	24	1
AgriGold	G4440RX	30.9	44.9	52.9	28	1
Pioneer	P46A57BX	30.8	45.6	—	28	1
NK Brand	S44-C7X	30.6	—	—	24	1
Armor	45-D51	30.1	—	—	36	1
Pioneer	P42A96X	28.7	40.4	—	26	1
Mean		39.4				
CV		20.4				
LSD		NS				
R ²		38.2				
Error df		80				

Table 27. Roundup Ready Xtend Maturity Group IV Late Soybean Varieties (Black Belt Branch, Brooksville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Delta Grow	48X95	57.7	—	—	30	1
DONMARIO	DM 49x13	56.6	—	—	32	1
Delta Grow	DG 48X45	55.2	57.2	61.8	29	1
MorSoy	MS 4846 RXT	52.3	52.8	58.9	28	1
NK Brand	S49-F5X	51.6	—	—	32	1
Dyna-Gro	S49XT70	50.6	—	—	35	1
Local Seed	LS4889XS	50.5	60.5	—	36	1
Delta Grow	49X15	49.0	—	—	35	1
Terral Seed	REV 4927X	47.5	62.6	66.4	28	1
Dyna-Gro	S48XT56	47.4	56.2	57.8	29	1
Asgrow	AG48X9	46.1	53.1	—	32	1
Local Seed	LSX4901X	45.5	—	—	33	1
Progeny Ag	P4816RX	44.8	53.6	56.3	27	1
Dyna-Gro	S47XT20	44.6	—	—	31	1
USG	7496XTS	44.6	59.2	64.5	32	1
LG Seeds	LGS4931RX	44.0	—	—	29	1
Asgrow	AG49X9	43.9	49.7	—	28	1
NK Brand	S47-Y9X	43.6	—	—	25	1
Mission Seed Solutions	A4950X	43.6	54.1	—	34	1
AgriGold	G4815RX	43.3	—	—	34	1
Great Heart	GT-4979X	43.3	54.0	—	31	1
USG	7489XTS	43.1	54.6	—	27	1
Great Heart	GT-4833XS	43.1	58.3	—	31	1
Armor	47-D18	42.0	—	—	30	1
Great Heart	GT-4764XS	41.3	—	—	33	1
LG Seeds	LGS4899RX	41.1	—	—	25	1
Armor	48-D25	40.9	—	—	28	1
Armor	47-D85	40.5	—	—	32	1
Dyna-Gro	S49XT39	40.4	52.9	—	29	1
Pioneer	P48A60X	40.0	53.1	—	31	1
Armor	49-D67	39.9	—	—	33	1
Progeny Ag	P4851RX	39.5	55.7	59.7	31	1
Progeny Ag	P4799RXS	39.4	53.2	56.4	36	1
Terral Seed	REV 4940X	39.1	—	—	30	1
Progeny Ag	P4821RX	39.0	—	—	30	1
Delta Grow	47X95	38.5	—	—	35	1
DONMARIO	47X01	38.4	—	—	30	1
Progeny Ag	P4999RX	38.3	—	—	32	1
Delta Grow	48X05	38.1	—	—	27	1
Local Seed	LS4798X	37.7	—	—	36	1
USG	7470XTS	36.9	—	—	36	1
Local Seed	LS4894X	36.7	—	—	27	1
LG Seeds	C4845RX	36.7	—	—	29	1
Asgrow	AG47X9	36.3	54.6	—	31	1
Credenz	CZ 4979X	36.2	—	—	33	1
Credenz	CZ 4869X	35.6	—	—	30	1
AGS	GS49X19	34.7	—	—	32	1
AGS	GS47X19	31.9	—	—	28	1
Great Heart	GT-4802X	25.8	—	—	28	1
Mean		42.4				
CV		14.8				
LSD		10.2				
R ²		62.8				
Error df		96				

Table 28. Enlist or Roundup Ready Maturity Group IV Soybean Varieties (Black Belt Station, Brooksville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Petrus Seed	4916 GT	47.2	57.3	63.4	28	1
Delta Grow	48E39	43.7	—	—	29	1
Delta Grow	48E28	43.0	—	—	31	1
Delta Grow	47E19	42.5	—	—	33	1
U. of Missouri	S14-15138R	42.1	51.6	—	34	1
Local Seed	Z4694E3S	41.7	—	—	28	1
Go Soy	463E19	41.5	—	—	35	1
Delta Grow	48E49	41.1	—	—	32	1
Delta Grow	46E29	39.2	—	—	29	1
U. of Missouri	S14-15146R	39.2	44.1	44.3	28	1
Delta Grow	49E29	38.5	—	—	32	1
DONMARIO	DM 48E73	37.5	—	—	29	1
Local Seed	Z4797E3	37.5	—	—	29	1
Delta Grow	46E29	37.4	—	—	32	1
Delta Grow	47E25	35.5	—	—	23	1
Go Soy	482E18	34.8	—	—	29	1
USG	7480ET	33.1	—	—	34	1
Delta Grow	45E23	32.6	—	—	22	1
Local Seed	Z4596GLS	31.8	—	—	31	1
Delta Grow	48E10	30.4	—	—	33	1
Mean		38.5				
CV		17.8				
LSD		NS				
R ²		57.7				
Error df		38				

Table 29. Roundup Ready Maturity Group V Xtend Soybean Varieties (Black Belt Branch, Brooksville)

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Pioneer	P55A49X	54.3	—	—	22	1
Pioneer	P54A54X	49.4	—	—	26	1
Delta Grow	54X25	45.8	—	—	26	1
Dyna-Gro	S54XT17	45.5	—	—	31	1
Progeny Ag	P5016RXS	44.6	57.8	60.6	31	1
Local Seed	LS5386X	44.3	—	—	33	1
Dyna-Gro	S52XS39	43.9	56.3	—	28	1
AgriGold	G5000RX	43.7	57.9	60.4	33	1
Asgrow	AG53X9	43.5	56.8	—	31	1
Armor	51-D77	43.2	61.8	—	33	1
Progeny Ag	P5252RX	42.9	55.9	—	28	1
Asgrow	AG53X0	42.7	—	—	34	1
Delta Grow	52X05	41.9	—	—	31	1
Progeny Ag	P5170RX	40.8	—	—	35	1
Local Seed	LS5588X	39.9	—	—	26	1
Credenz	CZ 5299X	39.5	—	—	30	1
NK Brand	S51-R3XS	38.6	—	—	29	1
Asgrow	AG52X9	38.1	52.1	—	32	1
Local Seed	LS5087X	38.1	52.3	—	30	1
Progeny Ag	P5554RX	38.0	53.3	—	28	1
Dyna-Gro	S56XT99	37.8	53.9	—	30	1
Asgrow	AG55X7	37.7	48.0	54.0	23	1
Dyna-Gro	S52XT08	36.7	50.6	—	28	1
Terral Seed	REV 5659X	36.2	—	—	30	1
Great Heart	GT-5528X	35.7	—	—	25	1
Armor	52-D71	35.5	56.5	—	30	1
Progeny Ag	P5688RX	35.0	46.9	48.8	31	1
NK Brand	S53-F7X	33.5	—	—	32	1
Mean		41.0				
CV		14.3				
LSD		9.6				
R ²		55.4				
Error df		54				

Table 30. Enlist or Roundup Ready Maturity Group V Soybean Varieties (Black Belt Branch, Brooksville).

Brand	Variety ¹	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Go Soy	50G17	49.3	58.2	—	26	1
Delta Grow	5585 RR2/STS	47.3	—	—	31	1
U. of Missouri	S16-3747RY *	45.1	—	—	25	1
Delta Grow	52E22	42.6	—	—	31	1
Go Soy	512E18	39.5	—	—	28	1
U. of Missouri	S14-9017R	35.7	51.7	51.5	29	1
Mean		43.2				
CV		6.1				
LSD		4.8				
R ²		88.3				
Error df		10				

¹Variety followed by an asterisk indicates an experimental entry.

Table 31. Maturity Group IV LibertyLink Nonirrigated Soybean Varieties (Black Belt Branch Station, Brooksville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Credenz	CZ 4649LL	41.3	51.8	—	36	1
Delta Grow	DG 4977LL/STS	38.8	45.4	48.2	33	1
Credenz	CZ 3929GTLL	35.7	—	—	32	1
Go Soy	44GL18	25.2	—	—	29	1
Go Soy	46GL18	24.7	—	—	29	1
Credenz	CZ 4539GTLL	23.8	—	—	30	1
Mean		31.6				
CV		14.8				
LSD		8.5				
R ²		83.6				
Error df		10				

Table 32. Maturity Group IV Conventional Nonirrigated Soybean Varieties (Black Belt Branch, Brooksville).

Brand	Variety ¹	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
U. of Missouri	S16-14379C *	49.9	—	—	31	1
Go Soy	48C17S	44.8	—	—	38	1
U. of Missouri	S16-14730C *	44.5	—	—	29	1
Virtue	V 4920 S	38.1	—	—	27	1
U. of Missouri	S13-3851C	38.0	50.7	51.6	28	1
Virtue	V 4720 S	37.3	—	—	27	1
Virtue	V 4520 S	36.3	—	—	27	1
U. of Missouri	S13-10592C *	30.3	47.1	—	31	1
U. of Missouri	S13-10590C *	26.7	42.0	39.8	34	1
U. of Missouri	S13-2743C	25.4	38.8	—	27	1
Mean		37.1				
CV		29.5				
LSD		20.1				
R ²		66.1				
Error df		20				

¹Variety followed by an asterisk indicates an experimental entry.

Table 33. Maturity Group V Conventional Nonirrigated Soybean Varieties (Black Belt Branch Station, Brooksville).

Brand	Variety ¹	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
U. of Missouri	S15-10434C *	52.1	62.3	—	32	1
U. of Missouri	S13-1955C *	45.7	60.4	61.4	30	1
U. of Missouri	S11-20242C	41.0	57.4	—	38	1
U. of Missouri	MO5201D conv	31.9	54.8	—	24	1
Mean		42.7				
CV		19.5				
LSD		NS				
R ²		74				
Error df		6				
¹ Variety followed by an asterisk indicates an experimental entry.						

Table 34. Roundup Ready Group IV Early Irrigated Xtend Soybean Varieties (Brooksville Farm, Brooksville)

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Great Heart	GT-4677XS	42.8	—	—	30	1
Pioneer	P46A57BX	40.8	63.5	—	32	1
Asgrow	AG46X0	40.3	—	—	29	1
Progeny Ag	P4444RXS	40.1	61.0	57.8	30	1
Local Seed	LS4795XS	39.8	—	—	26	1
Dyna-Gro	S46XS60	39.8	—	—	27	1
Asgrow	AG46X6	39.8	66.7	58.0	28	1
Delta Grow	46X65	38.4	—	—	26	1
Mission Seed Solutions	A4448X	38.0	—	—	38	1
Delta Grow	DG 46X25	37.9	59.8	—	30	1
Asgrow	AG43X8	37.5	57.6	—	27	1
Local Seed	LS4583X	37.1	63.8	—	29	1
Local Seed	LS4565XS	36.7	62.2	—	30	1
Terral	REV 4679X	35.4	59.5	—	25	1
MorSoy	MS 4616 RXT	35.3	62.1	59.2	29	1
AgriGold	G4605RX	34.3	58.0	—	29	1
Local Seed	LS4407X	33.8	—	—	27	1
AgriGold	G4440RX	32.8	59.7	57.8	30	1
Progeny Ag	P4265RXS	32.1	—	—	30	1
Asgrow	AG45X8	31.9	61.4	56.9	23	1
Pioneer	P44A72BX	31.4	—	—	30	1
Great Heart	GT-4255XS	30.8	—	—	30	1
Armor	44-D92	30.2	—	—	28	1
NK Brand	S39-G2X	28.8	—	—	33	1
Local Seed	LS3976X	28.3	—	—	28	1
Progeny Ag	P4620RXS	27.4	58.5	55.2	31	1
NK Brand	S44-C7X	26.7	—	—	29	1
Local Seed	LS4677X	26.6	55.2	—	30	1
Pioneer	P42A96X	26.2	52.3	—	28	1
Dyna-Gro	S45XS37	25.8	55.0	52.7	25	1
Great Heart	GT-4616X	25.0	—	—	27	1
Armor	42-D27	24.9	54.0	—	40	1
Dyna-Gro	S45XS66	24.8	55.2	55.2	30	1
Asgrow	AG43X0	24.8	—	—	26	1
Local Seed	LS4299XS	24.0	—	—	32	1
Armor	45-D51	23.7	—	—	27	1
Mission Seed Solutions	A4618X	22.8	52.8	—	33	1
LG Seeds	LGS4420RX	21.9	—	—	29	1
AgriGold	G4579RX	20.7	51.5	—	37	1
Progeny Ag	P4255RX	20.0	50.5	48.4	32	1
Local Seed	LS4487XS	15.9	49.6	—	25	1
Mean		31.1				
CV		20.2				
LSD		10.2				
R ²		65.8				
Error df		80				

Table 35. Roundup Ready Xtend Maturity Group IV Late Irrigated Soybean Varieties (Brooksville Farm, Brooksville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Delta Grow	49X15	59.4	—	—	36	1
Credenz	CZ 4979X	58.9	—	—	36	1
Dyna-Gro	S47XT20	55.3	—	—	34	1
Progeny Ag	P4851RX	53.5	73.8	68.2	35	1
Dyna-Gro	S49XT39	53.4	72.9	—	34	1
AGS	GS49X19	53.2	—	—	34	1
Great Heart	GT-4802X	51.4	—	—	33	1
Asgrow	AG48X9	50.7	73.0	—	27	1
Armor	47-D85	50.4	—	—	29	1
DONMARIO	47X01	50.1	—	—	32	1
Delta Grow	48X05	50.1	—	—	32	1
Armor	49-D67	49.4	—	—	35	1
Progeny Ag	P4816RX	48.8	69.5	60.7	27	1
Delta Grow	DG 48X45	48.6	68.7	66.5	27	1
USG	7489XTS	48.4	66.9	—	30	1
Local Seed	LS4798X	48.0	—	—	38	1
Local Seed	LS4894X	48.0	—	—	31	1
AGS	GS47X19	47.6	—	—	32	1
Great Heart	GT-4979X	46.9	69.4	—	38	1
Great Heart	GT-4833XS	46.8	66.8	—	36	1
Dyna-Gro	S48XT56	46.6	69.7	64.1	30	1
Local Seed	LSX4901X	46.5	—	—	35	1
MorSoy	MS 4846 RXT	46.1	71.5	67.0	28	1
Armor	48-D25	45.9	—	—	27	1
Terral Seed	REV 4927X	45.8	68.6	63.2	36	1
Terral Seed	REV 4940X	45.7	—	—	29	1
Mission Seed Solutions	A4950X	45.2	69.5	—	36	1
LG Seeds	C4845RX	45.1	—	—	32	1
Progeny Ag	P4821RX	44.8	—	—	31	1
NK Brand	S47-Y9X	44.5	—	—	31	1
Delta Grow	47X95	44.5	—	—	34	1
LG Seeds	LGS4899RX	44.2	—	—	28	1
Dyna-Gro	S49XT70	44.0	—	—	31	1
DONMARIO	DM 49x13	43.3	—	—	34	1
NK Brand	S49-F5X	43.1	—	—	31	1
USG	7470XTS	42.9	—	—	37	1
Asgrow	AG49X9	42.6	69.8	—	30	1
Progeny Ag	P4999RX	40.5	—	—	33	1
AgriGold	G4815RX	40.0	—	—	35	1
Great Heart	GT-4764XS	38.8	—	—	35	1
Armor	47-D18	38.6	—	—	37	1
Pioneer	P48A60X	38.5	65.4	—	28	1
LG Seeds	LGS4931RX	38.0	—	—	33	1
Local Seed	LS4889XS	37.5	60.8	—	37	1
Delta Grow	48X95	37.4	—	—	30	1
Credenz	CZ 4869X	36.6	—	—	32	1
USG	7496XTS	35.1	64.5	56.0	32	1
Asgrow	AG47X9	31.1	58.8	—	32	1
Progeny Ag	P4799RXS	29.3	58.3	55.0	41	1
Mean		45.3				
CV		13.0				
LSD		9.6				
R ²		64.7				
Error df		96				

Table 36. Enlist or Roundup Ready Maturity Group IV Irrigated Soybean Varieties (Brooksville Farm, Brooksville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Petrus Seed	4916 GT	45.3	60.9	59.7	23	1
Delta Grow	48E49	39.8	—	—	29	1
Go Soy	463E19	37.0	—	—	33	1
Delta Grow	47E25	35.9	—	—	27	1
Delta Grow	48E28	35.8	—	—	34	1
Local Seed	Z4694E3S	35.8	—	—	32	1
Delta Grow	45E23	35.7	—	—	26	1
Delta Grow	48E10	34.4	—	—	34	1
Delta Grow	49E29	32.2	—	—	34	1
USG	7480ET	30.5	—	—	32	1
U. of Missouri	S14-15146R	28.3	50.7	42.8	31	1
Delta Grow	46E29	27.8	—	—	33	1
Delta Grow	48E39	27.7	—	—	33	1
U. of Missouri	S14-15138R	27.5	51.5	—	32	1
DONMARIO	DM 48E73	27.3	—	—	30	1
Delta Grow	47E19	25.2	—	—	28	1
Local Seed	Z4797E3	24.7	—	—	30	1
Local Seed	Z4596GLS	23.1	—	—	33	1
Go Soy	482E18	20.4	—	—	26	1
Mean		31.3				
CV		15.2				
LSD		7.9				
R ²		74.2				
Error df		38				

Table 37. Roundup Ready Maturity Group V Xtend Irrigated Soybean Varieties (Brooksville Farm, Brooksville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Terral Seed	REV 5659X	56.2	—	—	26	1
Pioneer	P54A54X	54.4	—	—	18	1
Armor	51-D77	52.8	72.7	—	32	1
Progeny Ag	P5688RX	52.7	70.0	68.9	24	1
Pioneer	P55A49X	52.3	—	—	17	1
Delta Grow	52X05	50.1	—	—	38	1
Dyna-Gro	S56XT99	48.7	61.3	—	27	1
Progeny Ag	P5252RX	46.0	61.3	—	38	1
Dyna-Gro	S52XS39	43.6	60.1	—	38	1
Credenz	CZ 5299X	42.9	—	—	36	1
NK Brand	S53-F7X	42.5	—	—	34	1
Local Seed	LS5588X	42.3	—	—	30	1
Asgrow	AG53X0	41.0	—	—	34	1
Progeny Ag	P5554RX	40.7	63.3	—	25	1
Dyna-Gro	S54XT17	39.7	—	—	27	1
Progeny Ag	P5170RX	35.7	—	—	39	1
Asgrow	AG52X9	35.1	63.1	—	36	1
Great Heart	GT-5528X	31.3	—	—	22	1
Dyna-Gro	S52XT08	30.4	50.2	—	20	1
Asgrow	AG53X9	29.0	50.1	—	32	1
Progeny Ag	P5016RXS	28.7	46.4	48.0	30	1
Local Seed	LS5087X	28.6	59.0	—	38	1
AgriGold	G5000RX	28.5	55.0	53.5	30	1
Asgrow	AG55X7	28.3	50.5	55.4	19	1
Armor	52-D71	27.1	53.4	—	29	1
NK Brand	S51-R3XS	25.2	—	—	28	1
Delta Grow	54X25	23.3	—	—	19	1
Local Seed	LS5386X	19.5	—	—	36	1
Mean		38.4				
CV		19.0				
LSD		12.0				
R ²		76.4				
Error df		54				

Table 38. Enlist or Roundup Ready Maturity Group V Irrigated Soybean Varieties (Brooksville Farm, Brooksville).

Brand	Variety ¹	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Delta Grow	5585 RR2/STS	63.2	—	—	28	1
U. of Missouri	S16-3747RY *	51.9	—	—	21	1
Go Soy	50G17	47.0	66.4	—	20	1
Go Soy	512E18	44.5	—	—	34	1
Delta Grow	52E22	43.0	—	—	33	1
U. of Missouri	S14-9017R	33.6	54.5	51.8	25	1
Mean		47.2				
CV		8.7				
LSD		7.4				
R ²		90.0				
Error df		10				

¹Variety followed by an asterisk indicates an experimental entry.

CLARKSDALE IRRIGATED, DULANEY FARMS

Crop Summary

The soybean plots were planted in mid-May into a stale seedbed with adequate moisture for germination. All plots quickly emerged to a good stand. This location experienced dicamba drift, and, as a result, all nondicamba varieties were omitted from the yield results. Timely

rains and furrow irrigation supplied good soil moisture throughout the growing season. Harvest was completed in a timely manner, and good yields were observed at this location.

Planting date . . . May 17

Harvest date . . . October 2

Soil typeDundee silty clay and Sharkey clay

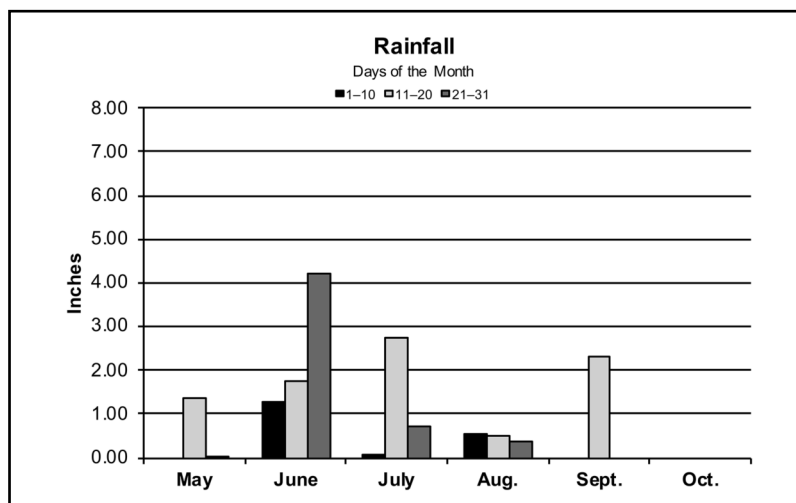
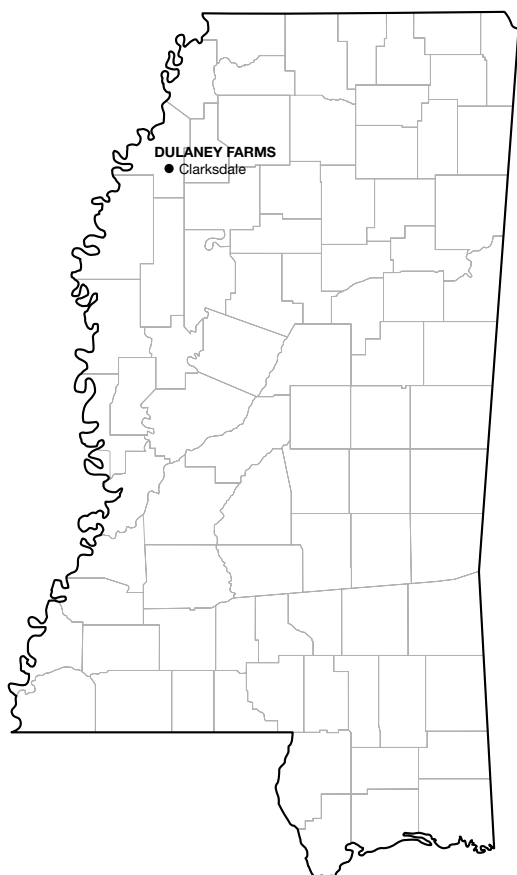
Soil pH6.8

Soil fertilityP=H, K=H

Previous crop . . .Soybeans

HerbicidePreemergence — Authority Supreme @ 8 oz/A and Gramoxone @ 32 oz/A on May 17
Postemergence — Roundup PowerMax @ 32 oz/A, Select Max @ 16 oz/A,
and FirstRate @ 0.3 oz/A

IrrigationFurrow irrigated as needed



Rainfall Summary

	Inches
May	1.38
June	7.28
July	3.50
August	1.43
September	2.31
October	0.00
Total	15.90

Table 39. Roundup Ready Maturity Group IV Early Irrigated Xtend Soybean Varieties (Dulaney Farms, Clarksdale).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Dyna-Gro	S45XS66	93.8	96.0	91.5	42	1
Asgrow	AG46X6	93.6	98.6	90.9	41	1
MorSoy	MS 4616 RXT	93.2	96.1	88.6	42	1
Dyna-Gro	S45XS37	92.1	93.3	88.0	41	1
Asgrow	AG45X8	91.0	93.6	87.7	43	1
AgriGold	G4605RX	89.1	90.5	—	48	1
NK Brand	S44-C7X	88.3	—	—	35	1
Progeny Ag	P4620RXS	87.0	91.1	86.1	41	1
Asgrow	AG43X8	86.2	90.6	—	41	1
Great Heart	GT-4616X	85.9	—	—	35	1
Local Seed	LS4565XS	85.7	86.6	—	39	1
AgriGold	G4440RX	85.6	92.2	74.7	39	1
Delta Grow	46X65	85.4	—	—	36	1
Armor	42-D27	84.4	83.0	—	37	1
Terral	REV 4679X	84.3	90.3	—	38	1
Local Seed	LS4407X	84.2	—	—	38	1
Progeny Ag	P4255RX	83.7	84.7	66.0	38	1
Mission Seed Solutions	A4448X	83.1	—	—	33	1
Mission Seed Solutions	A4618X	83.0	84.7	—	39	1
AgriGold	G4579RX	83.0	86.2	—	40	1
Local Seed	LS4487XS	82.9	89.4	—	41	1
Asgrow	AG46X0	82.8	—	—	35	1
Pioneer	P46A57BX	82.6	91.2	—	37	1
Delta Grow	DG 46X25	82.6	91.7	—	37	1
Local Seed	LS4795XS	81.7	—	—	36	1
Dyna-Gro	S46XS60	81.3	—	—	37	1
LG Seeds	LGS4420RX	81.2	—	—	41	1
Pioneer	P42A96X	81.1	88.6	—	34	1
Local Seed	LS4583X	80.9	92.6	—	37	1
Great Heart	GT-4677XS	80.9	—	—	34	1
Armor	44-D92	80.6	—	—	33	1
Progeny Ag	P4444RXS	80.6	89.8	83.0	34	1
Local Seed	LS4677X	80.5	89.2	—	39	1
Pioneer	P44A72BX	79.6	—	—	42	1
Armor	45-D51	78.4	—	—	36	1
Progeny Ag	P4265RXS	78.4	—	—	37	1
Great Heart	GT-4255XS	77.3	—	—	37	1
Local Seed	LS3976X	76.8	—	—	35	1
Local Seed	LS4299XS	75.6	—	—	37	1
Asgrow	AG43X0	75.5	—	—	38	1
NK Brand	S39-G2X	74.5	—	—	36	1
Mean		83.4				
CV		4.9				
LSD		6.6				
R ²		69.1				
Error df		80				

Table 40. Roundup Ready Xtend Maturity Group IV Late Irrigated Soybean Varieties (Dulaney Farms, Clarksdale).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Dyna-Gro	S48XT56	93.4	94.1	92.0	39	1
Delta Grow	DG 48X45	93.0	92.1	91.1	38	1
MorSoy	MS 4846 RXT	92.6	91.4	90.8	39	1
Great Heart	GT-4979X	92.0	96.4	—	43	1
LG Seeds	C4845RX	92.0	—	—	35	1
Progeny Ag	P4821RX	91.5	—	—	38	1
Asgrow	AG48X9	91.4	94.1	—	38	1
Progeny Ag	P4816RX	91.3	93.2	90.9	36	1
USG	7489XTS	90.5	90.9	—	35	1
Terral Seed	REV 4927X	90.2	98.6	90.5	47	1
Mission Seed Solutions	A4950X	90.1	94.9	—	40	1
Armor	48-D25	90.1	—	—	40	1
NK Brand	S47-Y9X	89.6	—	—	34	1
Delta Grow	47X95	89.4	—	—	40	1
Progeny Ag	P4851RX	89.1	94.9	91.8	40	1
Asgrow	AG47X9	88.7	89.9	—	37	1
Great Heart	GT-4764XS	88.4	—	—	38	1
DONMARIO	DM 49x13	88.3	—	—	44	1
Asgrow	AG49X9	88.3	89.9	—	37	1
Delta Grow	48X05	88.1	—	—	39	1
AgriGold	G4815RX	88.0	—	—	43	1
Credenz	CZ 4979X	87.9	—	—	40	1
Pioneer	P48A60X	87.1	90.5	—	40	1
Local Seed	LS4894X	86.8	—	—	36	1
Dyna-Gro	S49XT70	86.7	—	—	41	1
AGS	GS47X19	86.6	—	—	36	1
AGS	GS49X19	86.3	—	—	44	1
Delta Grow	49X15	86.3	—	—	44	1
Progeny Ag	P4999RX	86.3	—	—	39	1
Armor	49-D67	86.0	—	—	43	1
Dyna-Gro	S47XT20	85.9	—	—	37	1
LG Seeds	LGS4899RX	85.8	—	—	34	1
Local Seed	LSX4901X	85.7	—	—	39	1
Progeny Ag	P4799RXS	85.7	89.2	87.3	46	1
DONMARIO	47X01	85.6	—	—	40	1
Delta Grow	48X95	85.5	—	—	43	1
NK Brand	S49-F5X	85.2	—	—	36	1
Great Heart	GT-4802X	85.1	—	—	40	1
USG	7470XTS	84.9	—	—	39	1
LG Seeds	LGS4931RX	84.6	—	—	42	1
Local Seed	LS4798X	84.5	—	—	46	1
Great Heart	GT-4833XS	84.4	90.5	—	46	1
Armor	47-D18	84.4	—	—	41	1
Credenz	CZ 4869X	83.9	—	—	39	1
Local Seed	LS4889XS	83.5	90.9	—	48	1
Dyna-Gro	S49XT39	81.9	88.7	—	42	1
Terral Seed	REV 4940X	81.6	—	—	36	1
USG	7496XTS	81.4	89.5	84.9	42	1
Armor	47-D85	81.0	—	—	42	1
Mean		87.3				
CV		4.0				
LSD		5.7				
R ²		61.0				
Error df		96				

Table 41. Roundup Ready Maturity Group V Xtend Irrigated Soybean Varieties (Dulaney Farms, Clarksdale).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Dyna-Gro	S52XS39	95.7	90.3	—	43	1
Local Seed	LS5087X	95.6	95.8	—	41	1
Dyna-Gro	S54XT17	92.5	—	—	37	1
Asgrow	AG53X9	92.0	93.3	—	35	1
Asgrow	AG55X7	92.0	90.1	84.2	28	1
Armor	51-D77	91.5	83.1	—	46	1
Pioneer	P54A54X	91.2	—	—	28	1
Local Seed	LS5588X	91.1	—	—	35	1
Pioneer	P55A49X	90.7	—	—	29	1
Credenz	CZ 5299X	90.4	—	—	45	1
Progeny Ag	P5252RX	90.2	84.2	—	45	2
Delta Grow	52X05	89.0	—	—	44	1
NK Brand	S51-R3XS	88.8	—	—	36	1
Dyna-Gro	S52XT08	88.8	89.4	—	27	1
Dyna-Gro	S56XT99	88.0	87.6	—	32	1
Terral Seed	REV 5659X	87.5	—	—	32	1
Local Seed	LS5386X	86.4	—	—	40	1
Asgrow	AG52X9	86.4	89.2	—	41	1
NK Brand	S53-F7X	86.2	—	—	40	1
Armor	52-D71	85.2	87.3	—	39	1
Delta Grow	54X25	83.7	—	—	37	1
AgriGold	G5000RX	83.3	88.9	81.3	36	1
Great Heart	GT-5528X	81.2	—	—	25	1
Progeny Ag	P5016RXS	79.4	84.8	78.0	37	1
Progeny Ag	P5554RX	79.3	84.3	—	29	1
Progeny Ag	P5170RX	77.3	—	—	41	1
Asgrow	AG53X0	72.6	—	—	38	1
Progeny Ag	P5688RX	72.3	76.2	60.4	31	1
Mean		86.7				
CV		5.8				
LSD		8.3				
R ²		69.1				
Error df		54				

LONGWOOD, STEELE FARMS

Crop Summary

The soybean plots were planted in late April into a stale, raised seedbed with good soil moisture for germination. All plots quickly emerged to a good stand. Timely rains, in combination with furrow irrigation, supplied

good soil moisture throughout the growing season. Harvest was completed in a timely manner, and good yields were recorded.

Planting dateApril 30

Harvest dateOctober 3

Soil typeDowling clay and Sharkey clay

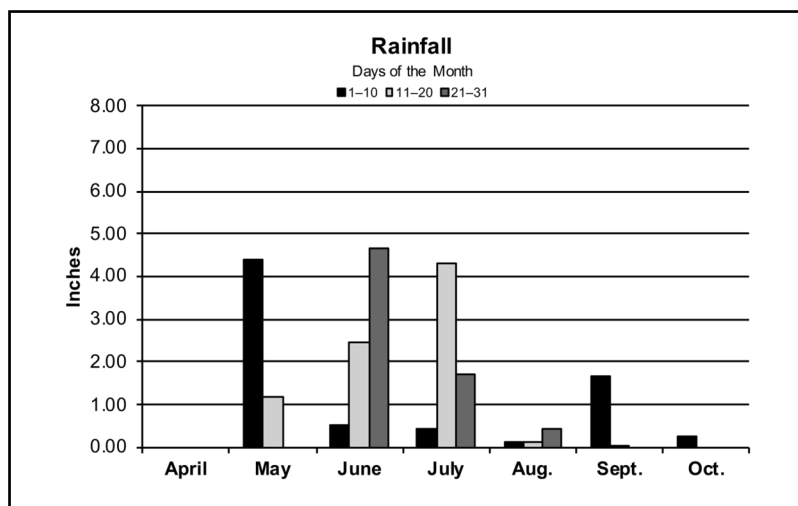
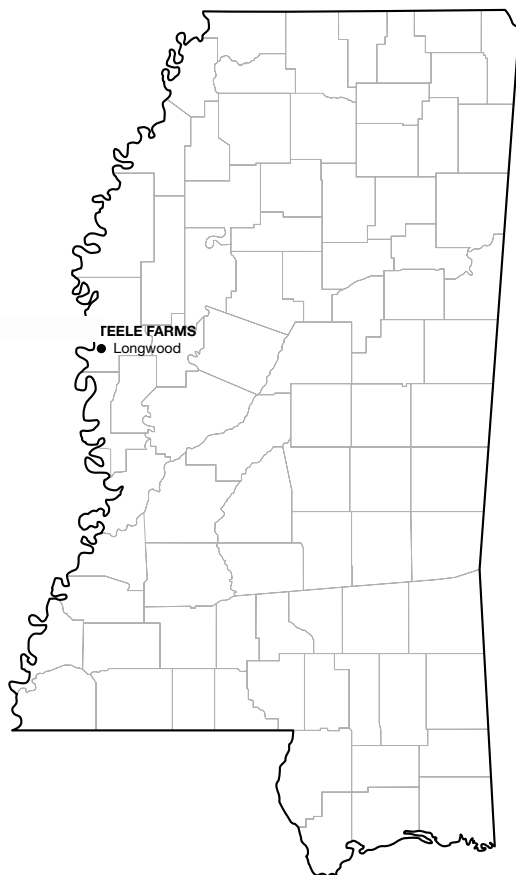
Soil pH7.0

Soil fertilityP=H, K=H

Previous crop ...Rice

HerbicidePreemergence — Authority Supreme @ 8 oz/A and Gramoxone @ 32 oz/A on April 30
Postemergence — Select Max @ 16 oz/A and FirstRate @ 0.3 oz/A

IrrigationFurrow irrigated as needed



Rainfall Summary

	Inches
April .....	.000
May .....	.556
June .....	.763
July .....	.646
August .....	.069
September .....	.174
October .....	.027
Total .....	.2235

Table 42. Roundup Ready Maturity Group IV Early Irrigated Xtend Soybean Varieties (Steele Farms, Longwood).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Asgrow	AG46X6	96.6	90.8	93.3	28	1
Dyna-Gro	S45XS66	96.5	81.9	86.8	33	1
Asgrow	AG43X8	93.6	94.9	—	30	1
Dyna-Gro	S45XS37	92.4	93.5	94.0	30	1
Asgrow	AG46X0	90.5	—	—	26	1
AgriGold	G4440RX	89.3	77.3	81.7	27	1
Mission Seed Solutions	A4448X	89.0	—	—	24	1
AgriGold	G4605RX	88.7	83.9	—	34	1
Delta Grow	46X65	88.2	—	—	28	1
Terral	REV 4679X	87.9	85.9	—	24	1
Local Seed	LS4407X	85.4	—	—	26	1
MorSoy	MS 4616 RXT	84.2	79.0	84.8	31	1
Local Seed	LS4795XS	83.2	—	—	23	1
Mission Seed Solutions	A4618X	83.2	86.0	—	29	1
Asgrow	AG45X8	83.1	85.8	89.8	23	1
Progeny Ag	P4444RXS	81.1	91.3	89.2	27	1
NK Brand	S44-C7X	80.7	—	—	24	1
Local Seed	LS4583X	79.7	80.4	—	27	1
Pioneer	P44A72BX	79.3	—	—	24	1
Pioneer	P46A57BX	79.1	87.4	—	26	1
Armor	45-D51	78.2	—	—	26	1
Local Seed	LS4677X	78.0	85.9	—	28	1
AgriGold	G4579RX	77.5	84.4	—	30	1
Great Heart	GT-4677XS	76.5	—	—	28	1
Great Heart	GT-4616X	75.8	—	—	23	1
LG Seeds	LGS4420RX	74.6	—	—	25	1
Progeny Ag	P4620RXS	73.7	68.0	79.9	28	1
Local Seed	LS4487XS	73.7	73.4	—	27	1
Local Seed	LS4565XS	73.7	80.2	—	29	1
Dyna-Gro	S46XS60	73.3	—	—	21	1
Delta Grow	DG 46X25	71.0	85.4	—	24	1
Armor	44-D92	70.6	—	—	24	1
Great Heart	GT-4255XS	70.5	—	—	24	1
Armor	42-D27	69.5	78.5	—	22	1
Asgrow	AG43X0	69.1	—	—	24	1
Local Seed	LS4299XS	68.0	—	—	24	1
NK Brand	S39-G2X	65.6	—	—	22	1
Pioneer	P42A96X	63.8	79.4	—	23	1
Progeny Ag	P4265RXS	63.5	—	—	28	1
Progeny Ag	P4255RX	61.8	72.1	76.8	21	1
Local Seed	LS3976X	60.8	—	—	24	1
Mean		78.6				
CV		7.5				
LSD		9.6				
R ²		81.9				
Error df		80				

Table 43. Roundup Ready Xtend Maturity Group IV Late Soybean Varieties (Steele Farms, Longwood).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Progeny Ag	P4851RX	104.1	103.6	104.8	27	1
Credenz	CZ 4979X	98.1	—	—	27	1
Local Seed	LS4889XS	97.9	99.8	—	34	1
Delta Grow	48X05	97.1	—	—	29	1
Dyna-Gro	S48XT56	96.5	94.0	97.8	27	1
Armor	49-D67	96.2	—	—	33	1
Delta Grow	DG 48X45	95.7	100.0	101.2	23	1
Local Seed	LSX4901X	95.3	—	—	29	1
Great Heart	GT-4979X	94.2	100.0	—	31	1
Great Heart	GT-4802X	94.0	—	—	30	1
Great Heart	GT-4833XS	93.1	96.2	—	29	1
DONMARIO	DM 49x13	93.0	—	—	30	1
NK Brand	S49-F5X	92.6	—	—	29	1
Local Seed	LS4894X	92.4	—	—	31	1
Mission Seed Solutions	A4950X	92.3	89.4	—	30	1
MorSoy	MS 4846 RXT	92.2	93.1	99.8	26	1
Terral Seed	REV 4940X	91.8	—	—	23	1
DONMARIO	47X01	91.5	—	—	29	1
Asgrow	AG48X9	90.5	92.5	—	28	1
USG	7489XTS	90.2	92.0	—	24	1
Dyna-Gro	S47XT20	89.5	—	—	28	1
Armor	48-D25	88.7	—	—	28	1
Delta Grow	49X15	88.5	—	—	29	1
Local Seed	LS4798X	88.1	—	—	32	1
Armor	47-D18	87.9	—	—	31	1
Dyna-Gro	S49XT70	87.7	—	—	29	1
AGS	GS47X19	87.6	—	—	27	1
Progeny Ag	P4816RX	87.1	91.4	97.3	28	1
AGS	GS49X19	86.9	—	—	25	1
Terral Seed	REV 4927X	86.2	87.2	89.8	31	1
Delta Grow	47X95	85.6	—	—	28	1
Dyna-Gro	S49XT39	84.8	96.1	—	30	1
Progeny Ag	P4799RXS	84.6	87.4	87.7	36	1
Credenz	CZ 4869X	83.6	—	—	30	1
Progeny Ag	P4821RX	83.5	—	—	28	1
Pioneer	P48A60X	83.1	84.0	—	25	1
NK Brand	S47-Y9X	82.2	—	—	26	1
Asgrow	AG49X9	81.8	87.7	—	27	1
LG Seeds	LGS4899RX	80.0	—	—	26	1
LG Seeds	C4845RX	79.4	—	—	28	1
Delta Grow	48X95	79.2	—	—	26	1
LG Seeds	LGS4931RX	79.2	—	—	30	1
Progeny Ag	P4999RX	79.1	—	—	28	1
Asgrow	AG47X9	78.9	85.0	—	24	1
Armor	47-D85	78.7	—	—	27	1
USG	7470XTS	77.5	—	—	28	1
Great Heart	GT-4764XS	75.2	—	—	30	1
USG	7496XTS	69.1	83.9	82.6	28	1
AgriGold	G4815RX	68.0	—	—	24	1
Mean		87.4				
CV		8.7				
LSD		12.3				
R ²		65.0				
Error df		96				

Table 44. Enlist or Roundup Ready Maturity Group IV Soybean Varieties (Steele Farms, Longwood).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
U. of Missouri	S14-15138R	81.4	83.2	—	24	1
Go Soy	482E18	80.9	—	—	23	1
Delta Grow	47E25	79.4	—	—	22	1
Delta Grow	49E29	78.2	—	—	27	1
USG	7480ET	76.7	—	—	29	1
Go Soy	463E19	74.3	—	—	23	1
Delta Grow	48E10	72.6	—	—	30	1
Delta Grow	48E49	71.9	—	—	23	1
Delta Grow	46E29	69.7	—	—	26	1
Local Seed	Z4694E3S	69.6	—	—	25	1
Delta Grow	48E28	69.5	—	—	23	1
Delta Grow	47E19	69.3	—	—	23	1
Delta Grow	48E39	69.0	—	—	23	1
Local Seed	Z4596GLS	68.8	—	—	28	1
Local Seed	Z4797E3	68.6	—	—	26	1
DONMARIO	DM 48E73	66.2	—	—	26	1
Petrus Seed	4916 GT	64.8	75.5	82.2	17	1
Delta Grow	45E23	61.1	—	—	21	1
U. of Missouri	S14-15146R	55.3	76.7	79.5	23	1
Mean		70.9				
CV		7.4				
LSD		8.7				
R ²		78.8				
Error df		38				

Table 45. Roundup Ready Maturity Group V Xtend Irrigated Soybean Varieties (Steele Farms, Longwood).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Armor	51-D77	98.3	107.6	—	34	1
Dyna-Gro	S56XT99	92.9	98.0	—	22	1
Credenz	CZ 5299X	91.5	—	—	33	1
Pioneer	P54A54X	90.3	—	—	18	1
Local Seed	LS5087X	88.7	100.9	—	27	1
Progeny Ag	P5252RX	88.1	101.3	—	34	1
Terral Seed	REV 5659X	87.8	—	—	21	1
Asgrow	AG52X9	86.9	94.6	—	32	1
Armor	52-D71	86.0	92.7	—	27	1
Delta Grow	52X05	86.0	—	—	31	1
Progeny Ag	P5170RX	84.9	—	—	33	1
Asgrow	AG53X0	84.5	—	—	31	1
NK Brand	S51-R3XS	84.1	—	—	27	1
Dyna-Gro	S52XS39	83.1	95.4	—	35	1
AgriGold	G5000RX	82.7	90.5	87.7	26	1
Local Seed	LS5386X	80.9	—	—	26	1
Pioneer	P55A49X	80.0	—	—	13	1
NK Brand	S53-F7X	78.7	—	—	29	1
Dyna-Gro	S52XT08	78.6	89.5	—	19	1
Progeny Ag	P5688RX	78.0	92.1	89.2	20	1
Local Seed	LS5588X	77.8	—	—	20	1
Asgrow	AG53X9	77.8	86.5	—	24	1
Asgrow	AG55X7	72.4	79.5	87.1	13	1
Progeny Ag	P5554RX	71.5	89.6	—	17	1
Delta Grow	54X25	70.4	—	—	20	1
Dyna-Gro	S54XT17	68.0	—	—	19	1
Progeny Ag	P5016RXS	64.0	79.8	73.6	28	1
Great Heart	GT-5528X	54.3	—	—	15	1
Mean		81.0				
CV		8.9				
LSD		11.8				
R ²		73.4				
Error df		54				

Table 46. Enlist or Roundup Ready Maturity Group V Soybean Varieties (Steele Farms, Longwood).

Brand	Variety ¹	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
U. of Missouri	S16-3747RY *	71.4	—	—	16	1
U. of Missouri	S14-9017R	69.3	76.2	77.7	18	1
Go Soy	50G17	68.9	91.2	—	15	1
Delta Grow	5585 RR2/STS	60.6	—	—	18	1
Delta Grow	52E22	55.8	—	—	29	1
Go Soy	512E18	38.4	—	—	26	1
Mean		60.7				
CV		26.2				
LSD		NS				
R ²		48.5				
Error df		10				

¹Variety followed by an asterisk indicates an experimental entry.

Table 47. Maturity Group IV LibertyLink Soybean Varieties (Steele Farms, Longwood).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Credenz	CZ 4649LL	76.6	92.1	73.4	40	1
Credenz	CZ 4539GTLL	72.7	—	—	32	1
Credenz	CZ 3929GTLL	65.0	—	—	24	1
Go Soy	46GL18	62.0	—	—	24	1
Delta Grow	DG 4977LL/STS	55.6	75.8	—	34	1
Go Soy	44GL18	51.9	—	—	22	1
Mean		64.0				
CV		15.8				
LSD		NS				
R ²		59.6				
Error df		10				

OLIVE BRANCH, TODD WILLIAMS FARM

Crop Summary

The soybean plots were planted no-till in late May into soil with moisture optimum for germination and emergence. All plots quickly emerged to a good stand. Rainfall during the growing season supplied enough soil moisture

to provide for the plants' needs throughout the season. Harvest was completed in a timely manner, and good yields were observed.

Planting date . . .May 28

Harvest date . . .October 10

Soil typeCollins silt loam

Soil pH5.9

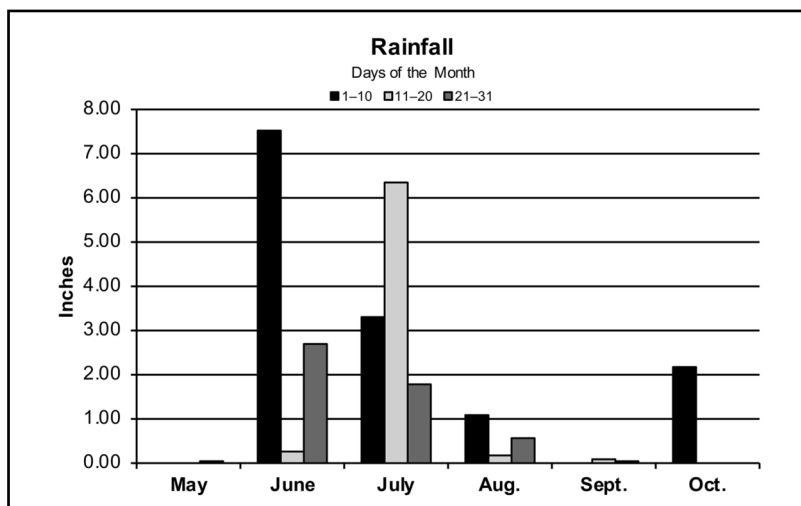
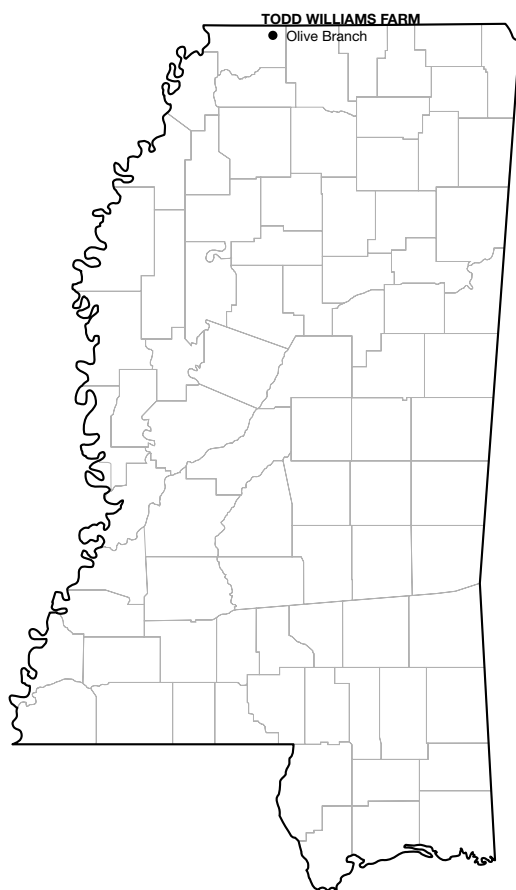
Soil fertilityP=H, K=M

Previous crop . . .Soybeans

FertilizerPreplant — 0-30-90-15S-1B

HerbicidePreemergence — Authority Supreme @ 8 oz/A and Gramoxone @ 32 oz/A on May 28

Postemergence — Roundup PowerMax @ 32 oz/A and Select Max @ 12 oz/A on July 29



Rainfall Summary

	Inches
May . . . . .	.04
June	10.49
July	11.42
August	1.82
September . . . . .	.11
October	2.18
Total	26.06

Table 48. Roundup Ready Maturity Group IV Early Xtend Soybean Varieties (Todd Williams Farm, Olive Branch).

Brand	Variety	Yield			Plant height	Lodging score	Maturity date
		2019	2-yr. avg.	3-yr. avg.			
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>	
NK Brand	S44-C7X	83.6	—	—	33	1	9/19
AgriGold	G4440RX	83.2	80.6	84.7	36	1	9/19
Great Heart	GT-4677XS	81.2	—	—	31	1	9/19
Asgrow	AG46X6	80.4	84.6	85.4	31	1	9/27
Dyna-Gro	S45XS66	79.9	81.9	81.0	33	1	9/19
Mission Seed Solutions	A4618X	78.9	84.5	—	36	1	9/27
Local Seed	LS4677X	78.7	86.7	—	37	1	9/19
Asgrow	AG45X8	78.6	88.0	88.6	27	1	9/27
Local Seed	LS3976X	77.9	—	—	29	1	9/19
Terral	REV 4679X	76.8	79.6	—	28	1	9/19
Pioneer	P46A57BX	76.7	84.7	—	30	1	9/19
Progeny Ag	P4444RXS	75.5	79.0	81.7	30	1	9/19
AgriGold	G4605RX	75.4	78.2	—	36	1	9/19
Armor	45-D51	75.3	—	—	34	1	9/19
Local Seed	LS4795XS	74.8	—	—	29	1	9/27
Dyna-Gro	S45XS37	73.7	84.2	85.2	34	1	9/19
MorSoy	MS 4616 RXT	72.2	75.6	80.8	31	1	9/19
Delta Grow	DG 46X25	71.5	76.8	—	37	1	9/27
Mission Seed Solutions	A4448X	71.1	—	—	31	2	9/19
Delta Grow	46X65	69.6	—	—	28	1	9/19
AgriGold	G4579RX	69.6	75.6	—	32	2	9/27
Armor	42-D27	69.4	77.8	—	32	1	9/19
Local Seed	LS4487XS	69.4	81.3	—	26	1	9/27
Local Seed	LS4583X	68.8	79.2	—	30	1	9/19
Local Seed	LS4407X	68.6	—	—	25	2	9/19
LG Seeds	LGS4420RX	67.2	—	—	30	1	9/19
Asgrow	AG43X8	66.5	75.9	—	29	1	9/27
NK Brand	S39-G2X	65.4	—	—	30	1	9/19
Asgrow	AG46X0	63.7	—	—	26	1	9/27
Dyna-Gro	S46XS60	61.9	—	—	30	1	9/27
Asgrow	AG43X0	61.7	—	—	31	1	9/19
Great Heart	GT-4616X	60.7	—	—	28	1	9/19
Local Seed	LS4565XS	60.5	81.4	—	25	2	9/19
Progeny Ag	P4255RX	59.2	71.1	75.6	33	1	9/19
Pioneer	P44A72BX	57.9	—	—	22	1	9/19
Local Seed	LS4299XS	56.4	—	—	32	1	9/19
Progeny Ag	P4265RXS	55.0	—	—	32	1	9/19
Armor	44-D92	52.7	—	—	29	1	9/19
Pioneer	P42A96X	52.3	68.8	—	24	1	9/19
Progeny Ag	P4620RXS	48.4	64.1	71.2	30	1	9/19
Great Heart	GT-4255XS	43.2	—	—	27	1	9/27
Mean		68.6					
CV		13.0					
LSD		14.5					
R ²		66.4					
Error df		80					

Table 49. Roundup Ready Xtend Maturity Group IV Late Soybean Varieties (Todd Williams Farm, Olive Branch).

Brand	Variety	Yield			Plant height	Lodging score	Maturity date
		2019	2-yr. avg.	3-yr. avg.			
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>	
MorSoy	MS 4846 RXT	91.2	94.4	96.3	38	1	10/1
Pioneer	P48A60X	90.6	93.4	—	35	1	9/27
Local Seed	LS4889XS	89.7	89.9	—	44	3	9/27
Great Heart	GT-4833XS	88.1	85.5	—	42	2	10/1
Dyna-Gro	S47XT20	87.8	—	—	38	1	9/27
Dyna-Gro	S48XT56	87.2	88.5	88.6	36	1	9/27
Local Seed	LS4798X	86.1	—	—	45	2	10/1
AGS	GS49X19	85.5	—	—	41	1	9/27
Credenz	CZ 4979X	85.4	—	—	36	2	9/27
Delta Grow	48X95	84.9	—	—	39	3	9/27
NK Brand	S49-F5X	84.0	—	—	35	1	9/27
Dyna-Gro	S49XT39	83.9	87.2	—	41	2	9/27
Armor	47-D85	83.7	—	—	39	1	9/27
Local Seed	LS4894X	83.5	—	—	37	1	9/27
Progeny Ag	P4821RX	83.2	—	—	36	1	10/1
Great Heart	GT-4979X	83.0	83.6	—	35	1	10/1
Local Seed	LSX4901X	82.4	—	—	38	1	9/27
LG Seeds	C4845RX	82.1	—	—	38	1	9/27
Progeny Ag	P4799RXS	82.1	82.5	88.8	35	1	9/27
DONMARIO	47X01	82.1	—	—	34	2	9/27
Delta Grow	48X05	81.3	—	—	35	1	9/27
USG	7489XTS	81.2	85.6	—	35	1	10/1
Progeny Ag	P4999RX	81.2	—	—	39	2	10/1
DONMARIO	DM 49x13	80.7	—	—	41	1	10/1
Great Heart	GT-4802X	80.7	—	—	30	1	9/27
Asgrow	AG47X9	80.5	85.0	—	39	1	9/27
Armor	49-D67	80.5	—	—	38	1	10/1
LG Seeds	LGS4899RX	80.5	—	—	37	1	9/27
Asgrow	AG48X9	80.5	86.8	—	40	1	9/27
Armor	48-D25	79.9	—	—	34	1	9/27
Terral Seed	REV 4940X	79.8	—	—	36	1	9/27
AgriGold	G4815RX	79.0	—	—	42	1	9/27
Progeny Ag	P4816RX	78.5	85.1	90.5	38	1	10/1
Dyna-Gro	S49XT70	78.5	—	—	39	1	9/27
LG Seeds	LGS4931RX	78.4	—	—	40	1	10/1
Delta Grow	49X15	78.1	—	—	38	3	9/27
Great Heart	GT-4764XS	76.8	—	—	41	1	9/27
Terral Seed	REV 4927X	76.8	87.2	87.7	42	3	9/27
AGS	GS47X19	76.8	—	—	34	1	9/27
Delta Grow	DG 48X45	75.6	81.5	86.2	36	1	9/27
USG	7470XTS	75.6	—	—	40	1	9/27
NK Brand	S47-Y9X	74.3	—	—	34	1	10/1
USG	7496XTS	73.4	84.7	85.7	38	1	10/1
Mission Seed Solutions	A4950X	71.7	76.7	—	36	1	9/27
Credenz	CZ 4869X	71.5	—	—	38	1	9/27
Armor	47-D18	70.3	—	—	40	1	9/27
Progeny Ag	P4851RX	69.4	80.0	86.2	38	3	10/1
Asgrow	AG49X9	68.7	79.0	—	36	1	9/27
Delta Grow	47X95	68.0	—	—	42	1	9/27
Mean		80.3					
CV		10.8					
LSD		NS					
R ²		55.3					
Error df		96					

Table 50. Enlist or Roundup Ready Maturity Group IV Soybean Varieties (Todd Williams Farm, Olive Branch).

Brand	Variety	Yield ¹			Plant height	Lodging score	Maturity date
		2019	2-yr. avg.	3-yr. avg.			
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>	
Go Soy	482E18	87.4	—	—	34	3	9/27
Delta Grow	48E28	85.6	—	—	33	1	9/19
Go Soy	463E19	85.2	—	—	33	1	9/27
Local Seed	Z4694E3S	82.9	—	—	38	1	9/19
Delta Grow	47E19	82.3	—	—	36	1	9/27
Delta Grow	47E25	79.3	—	—	37	1	9/27
Local Seed	Z4596GLS	79.0	—	—	36	1	9/19
Delta Grow	49E29	78.0	—	—	33	1	9/27
USG	7480ET	77.8	—	—	35	1	9/27
U. of Missouri	S14-15138R	76.7	—	—	30	1	9/27
Petrus Seed	4916 GT	76.3	—	—	32	1	9/27
Local Seed	Z4797E3	76.3	—	—	34	1	9/19
Delta Grow	48E49	75.8	—	—	33	1	9/19
Delta Grow	48E10	75.4	—	—	41	1	9/27
Delta Grow	46E29	74.6	—	—	34	1	9/19
DONMARIO	DM 48E73	73.9	—	—	34	1	9/27
Delta Grow	48E39	73.7	—	—	35	1	9/19
Delta Grow	45E23	68.5	—	—	28	1	9/19
U. of Missouri	S14-15146R	66.7	—	—	31	1	9/19
Mean		77.7					
CV		10.4					
LSD		NS					
R ²		47.7					
Error df		38					
¹ No 2-year or 3-year averages.							

Table 51. Roundup Ready Maturity Group V Xtend Soybean Varieties (Todd Williams Farm, Olive Branch).

Brand	Variety	Yield			Plant height	Lodging score	Maturity date
		2019	2-yr. avg.	3-yr. avg.			
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>	
AgriGold	G5000RX	84.1	89.4	85.8	41	1	10/1
NK Brand	S53-F7X	83.7	—	—	40	1	9/27
Progeny Ag	P5170RX	78.1	—	—	44	1	9/27
Asgrow	AG53X9	76.5	82.0	—	36	1	10/1
NK Brand	S51-R3XS	76.4	—	—	32	1	10/1
Armor	52-D71	75.8	83.1	—	41	1	9/27
Progeny Ag	P5252RX	75.7	85.4	—	38	1	9/27
Asgrow	AG53X0	75.6	—	—	40	1	10/1
Local Seed	LS5087X	74.8	88.5	—	36	1	9/27
Terral Seed	REV 5659X	74.5	—	—	35	1	10/1
Asgrow	AG52X9	73.9	83.6	—	39	1	9/27
Dyna-Gro	S52XT08	73.8	82.8	—	31	1	9/27
Dyna-Gro	S52XS39	73.3	81.2	—	37	1	9/27
Local Seed	LS5386X	73.3	—	—	40	1	10/1
Delta Grow	52X05	73.3	—	—	36	1	10/1
Dyna-Gro	S56XT99	72.0	83.6	—	29	1	9/27
Local Seed	LS5588X	70.9	—	—	30	1	9/27
Great Heart	GT-5528X	70.2	—	—	30	1	10/1
Pioneer	P54A54X	69.2	—	—	28	1	10/1
Progeny Ag	P5554RX	68.8	77.8	—	32	1	10/1
Armor	51-D77	68.2	81.6	—	37	1	9/27
Progeny Ag	P5016RXS	66.9	83.3	83.6	39	1	9/27
Credenz	CZ 5299X	66.2	—	—	40	1	10/1
Dyna-Gro	S54XT17	66.1	—	—	34	1	10/1
Delta Grow	54X25	63.9	—	—	29	1	10/1
Pioneer	P55A49X	63.2	—	—	25	1	10/1
Asgrow	AG55X7	60.6	74.1	78.3	27	1	9/27
Progeny Ag	P5688RX	58.8	78.0	83.3	31	1	10/1
Mean		71.7					
CV		9.9					
LSD		11.7					
R ²		71.9					
Error df		54					

Table 52. Enlist or Roundup Ready Maturity Group V Soybean Varieties (Todd Williams Farm, Olive Branch).

Brand	Variety ¹	Yield ²			Plant height	Lodging score	Maturity date
		2019	2-yr. avg.	3-yr. avg.			
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>	
Go Soy	512E18	78.6	—	—	30	1	
Delta Grow	52E22	75.1	—	—	32	1	
U. of Missouri	S16-3747RY *	75.0	—	—	38	1	
Go Soy	50G17	73.6	—	—	33	1	
U. of Missouri	S14-9017R	71.4	—	—	34	1	
Delta Grow	5585 RR2/STS	61.2	—	—	34	1	
Mean		72.5					
CV		9.9					
LSD		NS					
R ²		61.6					
Error df		10					

¹Variety followed by an asterisk indicates an experimental entry.

²No 2-year or 3-year averages.

RAYMOND, BROWN LOAM BRANCH

Crop Summary

The plots were originally planted in early May, but the plot area experienced heavy rainfall immediately following planting that persisted for several days. It saturated the soil and caused significant seedling mortality, so the planting was abandoned. The original planting was

destroyed with Gramoxone and then replanted on May 22. The replant resulted in a good plant stand. Timely rains at critical points during the season supplied ample soil moisture. Good yields were recorded at this location, and harvest was completed in a timely manner.

Planting dateMay 3, replanted May 22

Harvest dateIVE Xtend and IV Enlist on October 9; all other groups on October 10

Soil typeLoring silt loam

Soil pH6.4

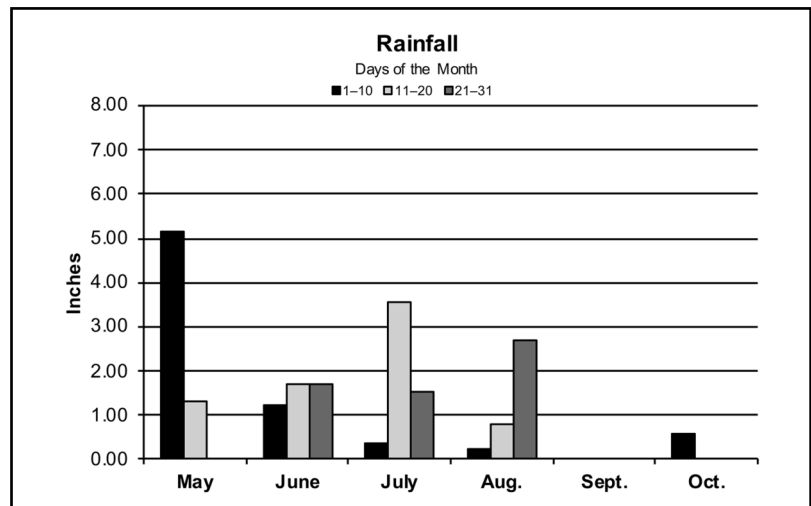
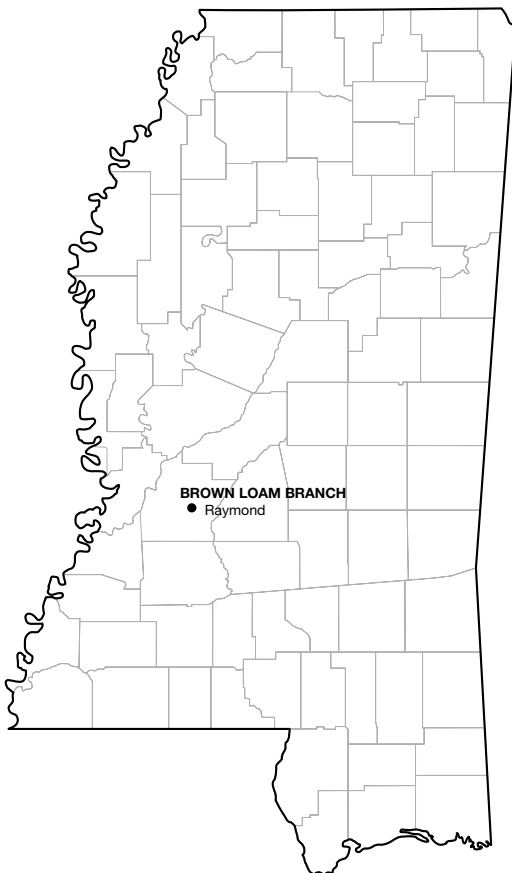
Soil fertilityP=H, K=H

Previous crop . . .Corn

HerbicidePreemergence — Authority Supreme @ 8 oz/A and Gramoxone @ 32 oz/A on May 3; Dual II Magnum @ 32 oz/A and Gramoxone @ 32 oz/A on May 22

Postemergence — (RR) Roundup PowerMax @ 32 oz/A, FirstRate @ 0.3 oz/A, and Prefix @ 24 oz/A on June 19; (LL) Select Max @ 16 oz/A, FirstRate @ 0.3 oz/A, and Prefix @ 24 oz/A on June 19

InsecticideBifenthrin @ 4.5 oz/A on July 12; Bifenthrin @ 4.5 oz/A and Acephate @ 0.5 lb/A on August 2; Bifenthrin @ 6.4 oz/A and Acephate @ 0.75 lb/A on September 5



Rainfall Summary

	Inches
May	.647
June	.464
July	.545
August	.370
September	.000
October	.056
Total	.2082

Table 53. Roundup Ready Maturity Group IV Early Xtend Soybean Varieties (Brown Loam Branch, Raymond).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Armor	45-D51	97.1	—	—	37	1
AgriGold	G4579RX	93.8	87.8	—	41	1
Mission Seed Solutions	A4618X	92.0	92.3	—	41	1
Mission Seed Solutions	A4448X	90.6	—	—	35	1
Dyna-Gro	S45XS37	90.0	85.7	87.3	37	1
Asgrow	AG46X6	89.3	82.2	87.0	35	1
Dyna-Gro	S46XS60	87.0	—	—	31	1
MorSoy	MS 4616 RXT	86.3	90.6	92.3	41	1
Local Seed	LS4565XS	86.2	85.7	—	33	1
Local Seed	LS4795XS	85.9	—	—	35	1
Local Seed	LS4677X	85.4	83.2	—	32	2
Pioneer	P44A72BX	85.2	—	—	31	1
AgriGold	G4440RX	85.0	82.4	82.1	30	1
Pioneer	P46A57BX	83.7	81.2	—	33	1
NK Brand	S44-C7X	83.6	—	—	33	1
Delta Grow	46X65	83.6	—	—	27	1
Progeny Ag	P4620RXS	83.6	85.6	89.8	38	2
Local Seed	LS4583X	83.4	86.5	—	33	1
Terral	REV 4679X	83.3	76.8	—	31	1
Asgrow	AG46X0	82.7	—	—	32	1
Delta Grow	DG 46X25	82.2	91.7	—	27	1
Local Seed	LS4299XS	81.6	—	—	36	1
Progeny Ag	P4265RXS	79.9	—	—	37	1
Armor	44-D92	79.5	—	—	35	1
Progeny Ag	P4444RXS	79.3	78.2	80.2	35	1
Great Heart	GT-4616X	76.5	—	—	29	1
Asgrow	AG43X0	76.2	—	—	33	1
Local Seed	LS4407X	76.0	—	—	35	1
AgriGold	G4605RX	74.9	78.2	—	40	1
Dyna-Gro	S45XS66	74.9	71.6	80.9	37	1
Great Heart	GT-4255XS	74.5	—	—	32	1
Progeny Ag	P4255RX	74.1	73.0	75.0	36	1
Great Heart	GT-4677XS	72.2	—	—	34	1
LG Seeds	LGS4420RX	71.8	—	—	31	1
Armor	42-D27	69.9	66.1	—	34	1
Asgrow	AG45X8	68.5	72.1	75.8	33	1
Local Seed	LS4487XS	68.3	74.8	—	34	2
Local Seed	LS3976X	68.2	—	—	30	
NK Brand	S39-G2X	67.6	—	—	38	1
Asgrow	AG43X8	67.5	68.6	—	34	2
Pioneer	P42A96X	67.3	71.2	—	30	1
Mean		80.2				
CV		13.9				
LSD		18.1				
R ²		58.9				
Error df		80				

Table 54. Roundup Ready Xtend Maturity Group IV Late Soybean Varieties (Brown Loam Branch, Raymond).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Great Heart	GT-4833XS	95.0	86.2	—	37	1
Credenz	CZ 4979X	94.7	—	—	37	1
Local Seed	LS4889XS	92.3	94.8	—	36	2
Pioneer	P48A60X	91.6	84.1	—	34	1
Dyna-Gro	S47XT20	91.2	—	—	33	1
Great Heart	GT-4802X	90.2	—	—	32	1
Delta Grow	48X95	89.7	—	—	35	1
Progeny Ag	P4999RX	89.6	—	—	34	1
Mission Seed Solutions	A4950X	89.2	90.4	—	31	1
Delta Grow	49X15	88.8	—	—	35	1
Armor	49-D67	88.5	—	—	39	1
Progeny Ag	P4816RX	87.7	75.5	85.1	35	1
Progeny Ag	P4821RX	87.7	—	—	36	1
Great Heart	GT-4764XS	87.4	—	—	38	1
Armor	47-D85	87.0	—	—	36	1
MorSoy	MS 4846 RXT	86.9	79.0	90.0	31	1
Local Seed	LS4798X	85.6	—	—	33	2
LG Seeds	C4845RX	85.5	—	—	30	1
Terral Seed	REV 4940X	85.2	—	—	33	1
Delta Grow	48X05	85.1	—	—	35	1
Local Seed	LSX4901X	85.1	—	—	35	1
Delta Grow	DG 48X45	85.0	77.5	85.6	30	1
Progeny Ag	P4799RXS	84.6	78.7	87.0	40	1
DONMARIO	DM 49x13	83.9	—	—	37	1
LG Seeds	LGS4931RX	83.6	—	—	39	1
AGS	GS49X19	83.5	—	—	38	2
Asgrow	AG48X9	83.4	80.6	—	35	1
AGS	GS47X19	83.4	—	—	34	1
NK Brand	S47-Y9X	83.4	—	—	33	1
Progeny Ag	P4851RX	83.0	78.2	91.7	34	3
Delta Grow	47X95	82.7	—	—	33	1
Terral Seed	REV 4927X	82.4	79.0	88.4	37	2
Great Heart	GT-4979X	81.8	78.6	—	32	1
DONMARIO	47X01	81.4	—	—	32	1
USG	7489XTS	81.1	69.8	—	33	1
Dyna-Gro	S49XT39	81.1	77.7	—	36	1
Local Seed	LS4894X	80.4	—	—	30	1
AgriGold	G4815RX	79.3	—	—	35	1
Credenz	CZ 4869X	79.2	—	—	35	1
USG	7470XTS	78.9	—	—	37	1
LG Seeds	LGS4899RX	78.8	—	—	31	1
Armor	47-D18	78.7	—	—	37	1
Dyna-Gro	S48XT56	78.5	66.0	75.1	30	1
Asgrow	AG47X9	78.5	70.8	—	31	1
NK Brand	S49-F5X	77.2	—	—	27	1
Dyna-Gro	S49XT70	77.0	—	—	34	1
Armor	48-D25	76.3	—	—	35	1
USG	7496XTS	74.9	79.6	82.1	37	1
Asgrow	AG49X9	74.1	77.0	—	30	1
Mean		84.1				
CV		11.1				
LSD		NS				
R ²		60.2				
Error df		96				

Table 55. Enlist or Roundup Ready Maturity Group IV Soybean Varieties (Brown Loam Branch, Raymond).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Delta Grow	48E28	95.8	—	—	32	1
Go Soy	463E19	94.8	—	—	37	1
USG	7480ET	88.8	—	—	37	1
U. of Missouri	S14-15138R	88.1	81.6	—	34	1
DONMARIO	DM 48E73	87.7	—	—	33	1
Delta Grow	48E39	87.0	—	—	34	1
Go Soy	482E18	85.3	—	—	34	1
U. of Missouri	S14-15146R	82.1	75.1	84.0	32	1
Delta Grow	46E29	80.7	—	—	37	1
Local Seed	Z4596GLS	80.5	—	—	35	2
Delta Grow	47E19	79.5	—	—	31	1
Delta Grow	45E23	79.4	—	—	31	1
Delta Grow	49E29	78.4	—	—	38	1
Petrus Seed	4916 GT	78.0	71.0	81.7	31	1
Delta Grow	48E10	77.9	—	—	33	1
Local Seed	Z4797E3	77.7	—	—	33	1
Delta Grow	47E25	77.5	—	—	28	1
Delta Grow	48E49	76.3	—	—	35	1
Local Seed	Z4694E3S	71.3	—	—	35	1
Mean		82.5				
CV		8.3				
LSD		11.4				
R ²		76.2				
Error df		38				

Table 56. Roundup Ready Maturity Group V Xtend Soybean Varieties (Brown Loam Branch, Raymond).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Armor	51-D77	90.8	99.1	—	30	1
Asgrow	AG53X9	88.8	77.3	—	31	1
Armor	52-D71	88.7	85.3	—	32	1
Local Seed	LS5386X	88.5	—	—	33	1
Asgrow	AG53X0	88.1	—	—	37	1
Progeny Ag	P5252RX	87.5	94.7	—	36	1
Progeny Ag	P5170RX	87.2	—	—	34	1
Local Seed	LS5087X	87.0	83.8	—	34	1
Credenz	CZ 5299X	86.5	—	—	30	1
Asgrow	AG52X9	86.2	85.3	—	36	1
Dyna-Gro	S52XS39	83.8	88.8	—	34	1
NK Brand	S53-F7X	81.6	—	—	34	1
Delta Grow	54X25	81.0	—	—	26	1
Progeny Ag	P5016RXS	79.8	75.3	80.6	30	1
Pioneer	P54A54X	79.4	—	—	25	1
AgriGold	G5000RX	78.4	69.0	75.9	30	1
Dyna-Gro	S54XT17	77.4	—	—	25	1
Progeny Ag	P5688RX	76.2	72.6	77.0	22	1
Asgrow	AG55X7	75.0	62.3	69.5	20	1
Great Heart	GT-5528X	74.6	—	—	25	1
Terral Seed	REV 5659X	73.9	—	—	29	1
Dyna-Gro	S52XT08	73.7	67.8	—	23	1
Dyna-Gro	S56XT99	73.2	71.9	—	24	1
Delta Grow	52X05	71.9	—	—	36	1
Progeny Ag	P5554RX	70.7	68.2	—	24	1
NK Brand	S51-R3XS	69.9	—	—	27	1
Pioneer	P55A49X	69.3	—	—	23	1
Local Seed	LS5588X	69.3	—	—	22	1
Mean		79.9				
CV		13.4				
LSD		NS				
R ²		57.9				
Error df		54				

Table 57. Enlist or Roundup Ready Maturity Group V Soybean Varieties (Brown Loam Branch, Raymond).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Delta Grow	52E22	81.3	—	—	36	1
U. of Missouri	S16-3747RY *	77.2	—	—	25	1
Go Soy	50G17	76.5	79.2	—	27	1
U. of Missouri	S14-9017R	71.2	63.0	75.0	32	1
Delta Grow	5585 RR2/STS	71.1	—	—	30	1
Go Soy	512E18	69.7	—	—	32	1
Mean		74.5				
CV		6.7				
LSD		NS				
R ²		86.6				
Error df		10				

¹Variety followed by an asterisk indicates an experimental entry.

Table 58. Maturity Group IV LibertyLink Nonirrigated Soybean Varieties (Brown Loam Branch, Raymond).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Credenz	CZ 4649LL	67.6	81.5	—	31	1
Go Soy	44GL18	66.3	—	—	37	1
Credenz	CZ 4539GTLL	65.4	—	—	34	1
Go Soy	46GL18	60.2	—	—	35	1
Delta Grow	DG 4977LL/STS	59.1	72.1	81.4	28	1
Credenz	CZ 3929GTLL	58.6	—	—	29	1
Mean		62.9				
CV		11.0				
LSD		NS				
R ²		53.8				
Error df		10				

STONEVILLE (clay) NONIRRIGATED, DELTA BRANCH

Crop Summary

The dryland plots were planted into a flat seedbed that had been prepared earlier that spring. All plots germinated and quickly emerged to a stand. Timely rainfall during the summer allowed for good soil moisture throughout

the growing season. Harvest was completed in a timely manner, and good yields were observed at this nonirrigated location.

Planting date . . .May 1

Harvest date . . .September 19

Soil typeSharkey clay

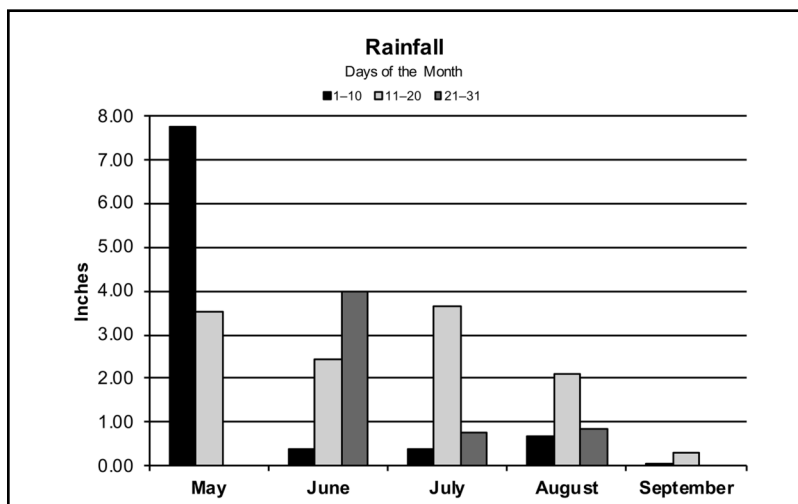
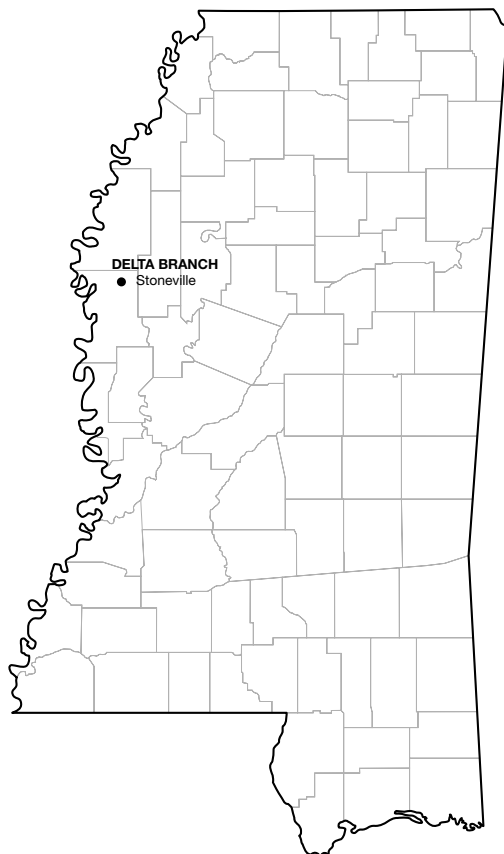
Soil pH7.0

Soil fertilityP=H, K=H

Previous crop . . .Soybean

FertilizerPreplant — 0-20-32 @ 100 lb/A

HerbicidePreemergence — Authority Supreme @ 8 oz/A and Gramoxone @ 32 oz/A on May 1
Postemergence — FirstRate @ 0.3 oz/A, Prefix @ 24 oz/A, and Roundup PowerMax @ 32 oz/A on July 11



Rainfall Summary

	Inches
May	11.28
June	6.77
July	4.77
August	3.62
September	0.32
Total	26.76

Table 59. Roundup Ready Maturity Group IV Early Xtend Soybean Varieties (Delta Branch Stoneville Clay, Not Irrigated).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Dyna-Gro	S45XS37	93.0	69.6	76.2	31	1
AgriGold	G4579RX	92.1	74.6	—	31	1
Mission Seed Solutions	A4618X	90.3	73.2	—	32	1
Asgrow	AG46X0	88.4	—	—	26	1
Terral	REV 4679X	87.2	71.4	—	27	1
Local Seed	LS4677X	86.3	71.1	—	31	1
Mission Seed Solutions	A4448X	85.5	—	—	27	1
MorSoy	MS 4616 RXT	85.5	71.7	77.2	31	1
Pioneer	P44A72BX	84.9	—	—	27	1
Asgrow	AG43X8	84.2	70.3	—	27	1
Local Seed	LS4487XS	84.0	73.1	—	27	1
Dyna-Gro	S45XS66	83.9	74.0	79.1	32	1
Asgrow	AG46X6	82.6	70.9	79.2	28	1
NK Brand	S44-C7X	82.4	—	—	24	1
Local Seed	LS4565XS	81.9	70.3	—	26	1
LG Seeds	LGS4420RX	80.8	—	—	27	1
AgriGold	G4440RX	80.7	65.4	72.4	30	1
AgriGold	G4605RX	79.2	70.6	—	36	1
Pioneer	P46A57BX	78.6	66.6	—	28	1
Local Seed	LS4299XS	78.4	—	—	26	1
Armor	42-D27	78.3	58.7	—	25	1
Local Seed	LS4407X	78.2	—	—	27	1
Great Heart	GT-4616X	77.1	—	—	25	1
Delta Grow	46X65	76.2	—	—	27	1
Local Seed	LS4583X	76.1	69.7	—	26	1
Asgrow	AG45X8	75.0	56.6	64.8	28	1
Pioneer	P42A96X	73.5	60.9	—	27	1
Local Seed	LS4795XS	72.6	—	—	29	1
Armor	45-D51	72.2	—	—	31	1
Armor	44-D92	72.0	—	—	28	1
Delta Grow	DG 46X25	71.2	68.3	—	24	1
Dyna-Gro	S46XS60	70.9	—	—	26	1
Progeny Ag	P4444RXS	70.4	61.9	70.6	26	1
Great Heart	GT-4677XS	69.3	—	—	25	1
Progeny Ag	P4620RXS	68.0	63.6	72.6	32	1
Great Heart	GT-4255XS	67.8	—	—	27	1
Progeny Ag	P4265RXS	66.4	—	—	26	1
Local Seed	LS3976X	65.4	—	—	26	1
NK Brand	S39-G2X	65.1	—	—	26	1
Progeny Ag	P4255RX	61.9	53.8	63.1	27	1
Asgrow	AG43X0	58.7	—	—	24	1
Mean		77.5				
CV		6.9				
LSD		10.8				
R ²		83.3				
Error df		40				

Table 60. Roundup Ready Xtend Maturity Group IV Late Soybean Varieties (Delta Branch Station, Stoneville clay, Stoneville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Armor	47-D18	109.1	—	—	32	1
Local Seed	LSX4901X	84.6	—	—	30	1
Delta Grow	48X95	84.4	—	—	24	1
LG Seeds	C4845RX	84.0	—	—	26	1
NK Brand	S49-F5X	84.0	—	—	28	1
Armor	48-D25	83.5	—	—	32	1
DONMARIO	DM 49x13	80.7	—	—	30	1
Armor	47-D85	80.3	—	—	31	1
Armor	49-D67	80.2	—	—	33	1
Credenz	CZ 4979X	79.9	—	—	27	1
MorSoy	MS 4846 RXT	79.4	79.5	85.3	28	1
Pioneer	P48A60X	79.2	71.9	—	26	1
Dyna-Gro	S48XT56	79.2	74.4	81.7	28	1
Terral Seed	REV 4940X	79.1	—	—	27	1
NK Brand	S47-Y9X	78.9	—	—	25	1
Delta Grow	DG 48X45	78.9	77.2	79.6	23	1
LG Seeds	LGS4899RX	78.1	—	—	23	1
AgriGold	G4815RX	77.4	—	—	27	1
Delta Grow	49X15	76.9	—	—	32	1
Progeny Ag	P4851RX	76.7	68.7	75.0	27	1
Terral Seed	REV 4927X	76.7	70.6	80.1	27	1
USG	7470XTS	75.9	—	—	27	1
Delta Grow	48X05	75.6	—	—	26	1
Progeny Ag	P4816RX	75.4	75.4	80.2	27	1
AGS	GS49X19	75.0	—	—	27	1
Asgrow	AG48X9	74.8	72.0	—	28	1
Dyna-Gro	S49XT70	74.8	—	—	30	1
Dyna-Gro	S47XT20	74.7	—	—	28	1
Asgrow	AG47X9	74.4	64.0	—	25	1
Local Seed	LS4889XS	73.9	76.0	—	32	1
Asgrow	AG49X9	73.9	69.4	—	28	1
LG Seeds	LGS4931RX	73.0	—	—	29	1
USG	7489XTS	71.3	73.7	—	25	1
Delta Grow	47X95	71.2	—	—	30	1
Local Seed	LS4798X	70.4	—	—	35	1
Great Heart	GT-4979X	70.1	72.4	—	28	1
Mission Seed Solutions	A4950X	69.4	72.9	—	29	1
Great Heart	GT-4802X	68.8	—	—	24	1
AGS	GS47X19	67.2	—	—	27	1
Credenz	CZ 4869X	66.8	—	—	31	1
Great Heart	GT-4764XS	64.9	—	—	28	1
USG	7496XTS	64.7	68.6	67.6	28	1
DONMARIO	47X01	63.8	—	—	28	1
Local Seed	LS4894X	63.6	—	—	25	1
Progeny Ag	P4999RX	63.4	—	—	29	1
Dyna-Gro	S49XT39	59.7	64.9	—	28	1
Progeny Ag	P4799RXS	57.3	62.0	69.2	24	1
Progeny Ag	P4821RX	52.3	—	—	28	1
Great Heart	GT-4833XS	49.9	61.3	—	32	1
Mean		74.0				
CV		16.4				
LSD		NS				
R ²		56.7				
Error df		47				

Table 61. Enlist or Roundup Ready Maturity Group IV Soybean Varieties (Delta Branch Station, Stoneville clay, Stoneville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Delta Grow	48E39	87.0	—	—	24	1
Delta Grow	48E28	86.4	—	—	25	1
Go Soy	48E18	81.2	—	—	22	1
Delta Grow	48E49	80.7	—	—	25	1
DONMARIO	DM 48E73	80.5	—	—	25	1
Delta Grow	46E29	75.9	—	—	26	1
Delta Grow	48E10	74.4	—	—	31	1
Delta Grow	47E25	74.1	—	—	26	1
Go Soy	463E19	71.8	—	—	26	1
USG	7480ET	69.3	—	—	28	1
Delta Grow	49E29	67.8	—	—	30	1
U. of Missouri	S14-15146R	66.8	58.7	84.0	23	1
U. of Missouri	S14-15138R	65.6	65.8	—	22	1
Delta Grow	45E23	64.9	—	—	23	1
Delta Grow	47E19	59.1	—	—	24	1
Local Seed	Z4694E3S	57.3	—	—	26	1
Local Seed	Z4596GLS	52.7	—	—	24	1
Local Seed	Z4797E3	45.4	—	—	25	1
Petrus Seed	4916 GT	44.7	60.0	81.7	19	1
Mean		69.1				
CV		11.5				
LSD		16.4				
R ²		86.3				
Error df		19				

STONEVILLE (clay) IRRIGATED, DELTA BRANCH

Crop Summary

The soybean plots were originally planted in late April, but the plot area experienced more than 8 inches of rainfall over a 1-week period. It saturated soils and caused significant seedling mortality, so this planting was abandoned. The original planting was destroyed with Gramoxone and then replanted on May 24. Rainfall and furrow irrigation at

necessary times during the growing season allowed for adequate soil moisture throughout the season. Late-season rains that occurred during the fall delayed harvest until early November. Despite all the weather delays, respectable yields were observed at this location.

Planting dateApril 30, replanted May 24

**Harvest dateIVE Xtend, IV Enlist/RR, IVLL on November 6; IVL Xtend and all V's, all Conv.
on November 8**

Soil typeSharkey clay

Soil pH7.0

Soil fertilityP=H, K=H

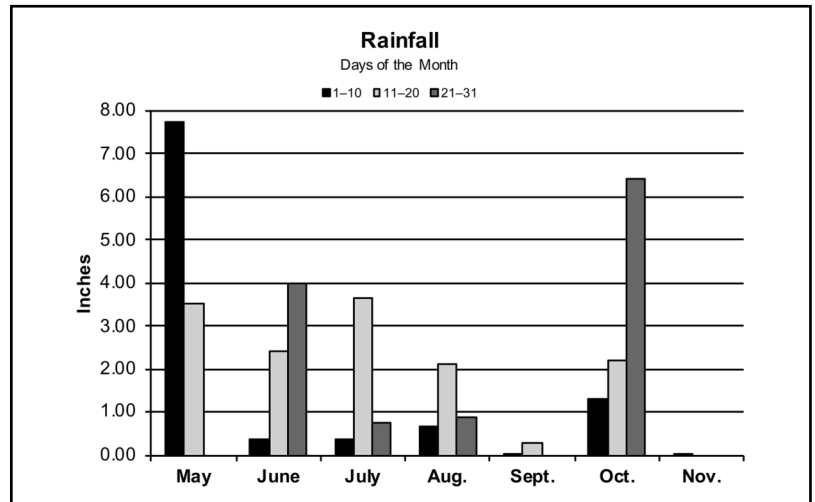
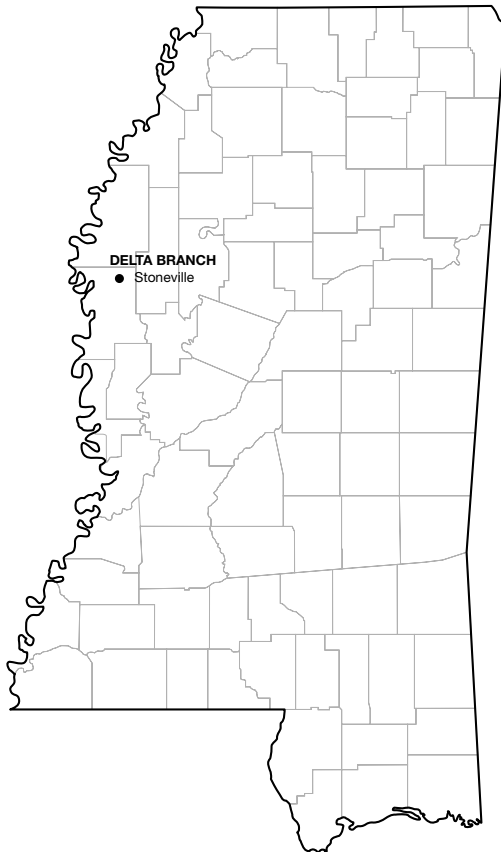
FertilizerPreplant — 0-20-32 @ 100 lb/A

Previous crop . . .Soybeans

IrrigationJune 5, July 29, August 8, August 26, September 6, September 16

**HerbicidePreemergence — Authority Supreme @ 8 oz/A and Gramoxone @ 32 oz/A on April 30;
Dual II Magnum @ 32 oz/A and Gramoxone @ 32 oz/A on May 24**

**Postemergence — (RR) FirstRate @ 0.3 oz/A, Prefix @ 24 oz/A, and Roundup PowerMax
@ 32 oz/A; (LL and Conv.) FirstRate @ 0.3 oz/A, Prefix @ 24 oz/A, and Select Max
@ 16 oz/A on July 11**



Rainfall Summary

	Inches
May	11.28
June	6.77
July	4.77
August	3.62
September	0.32
October	9.87
November	0.01
Total	36.64

Table 62 Roundup Ready Maturity Group IV Early Irrigated Xtend Soybean Varieties (Delta Branch, Stoneville clay).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Mission Seed Solutions	A4618X	64.2	71.1	—	33	1
Delta Grow	46X65	63.5	—	—	30	1
Great Heart	GT-4677XS	63.1	—	—	27	1
AgriGold	G4579RX	62.7	70.1	—	37	1
AgriGold	G4440RX	62.1	72.6	71.0	29	1
Local Seed	LS4795XS	60.8	—	—	28	1
Asgrow	AG46X6	60.5	76.2	79.2	31	1
Progeny Ag	P4444RXS	60.3	70.1	82.5	29	1
Dyna-Gro	S45XS66	60.2	72.3	71.8	30	2
MorSoy	MS 4616 RXT	60.2	74.2	72.5	32	1
Local Seed	LS4487XS	60.0	72.1	—	31	1
Local Seed	LS4565XS	59.5	69.1	—	35	1
Armor	45-D51	59.4	—	—	30	1
NK Brand	S44-C7X	57.6	—	—	26	1
Mission Seed Solutions	A4448X	57.3	—	—	30	1
Asgrow	AG43X0	56.9	—	—	32	1
Asgrow	AG46X0	56.9	—	—	33	1
Local Seed	LS4407X	56.4	—	—	30	2
Local Seed	LS4583X	55.9	70.2	—	31	1
Delta Grow	DG 46X25	55.4	68.9	—	34	1
Local Seed	LS4677X	55.2	70.1	—	30	1
AgriGold	G4605RX	54.8	66.2	—	39	1
Asgrow	AG43X8	54.2	67.8	—	33	2
Dyna-Gro	S45XS37	54.2	68.9	77.0	28	1
Great Heart	GT-4616X	53.8	—	—	29	1
LG Seeds	LGS4420RX	53.5	—	—	32	1
Pioneer	P44A72BX	52.7	—	—	29	2
Progeny Ag	P4620RXS	52.5	68.8	66.6	34	1
Great Heart	GT-4255XS	51.6	—	—	27	1
Asgrow	AG45X8	51.3	66.6	75.8	34	1
Local Seed	LS4299XS	51.1	—	—	29	1
Dyna-Gro	S46XS60	51.0	—	—	24	1
Progeny Ag	P4265RXS	50.3	—	—	25	1
Terral	REV 4679X	50.2	67.7	—	30	1
Pioneer	P46A57BX	49.9	66.6	—	32	1
Pioneer	P42A96X	49.9	64.1	—	30	1
NK Brand	S39-G2X	46.3	—	—	28	1
Armor	42-D27	46.1	60.2	—	25	1
Armor	44-D92	45.8	—	—	27	1
Local Seed	LS3976X	37.2	—	—	27	2
Progeny Ag	P4255RX	36.9	56.4	70.2	22	1
Mean		54.7				
CV		8.3				
LSD		9.1				
R ²		79.8				
Error df		40				

Table 63. Roundup Ready Xtend Maturity Group IV Late Irrigated Soybean Varieties (Delta Branch Station, Stoneville clay, Stoneville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Credenz	CZ 4979X	73.0	—	—	35	3
Asgrow	AG48X9	70.1	80.2	—	33	1
Local Seed	LS4889XS	68.7	72.8	—	37	3
Dyna-Gro	S49XT39	68.4	76.5	—	35	3
Terral Seed	REV 4927X	68.3	77.9	79.7	33	2
Armor	49-D67	67.3	—	—	35	2
Great Heart	GT-4833XS	65.3	67.1	—	44	3
AGS	GS49X19	65.3	—	—	36	3
Dyna-Gro	S49XT70	65.2	—	—	38	2
Dyna-Gro	S47XT20	64.7	—	—	33	2
Progeny Ag	P4851RX	64.6	72.5	77.3	40	3
Great Heart	GT-4979X	64.2	75.3	—	33	2
Local Seed	LSX4901X	64.1	—	—	31	2
NK Brand	S49-F5X	63.8	—	—	33	2
DONMARIO	DM 49x13	63.6	—	—	35	2
Dyna-Gro	S48XT56	63.3	73.7	74.7	31	2
Progeny Ag	P4821RX	63.2	—	—	31	3
Armor	47-D85	63.1	—	—	30	2
USG	7489XTS	63.0	76.6	—	30	1
Delta Grow	49X15	62.7	—	—	32	2
Armor	48-D25	62.7	—	—	32	2
Terral Seed	REV 4940X	61.9	—	—	28	2
Great Heart	GT-4802X	61.6	—	—	34	2
NK Brand	S47-Y9X	61.5	—	—	30	1
MorSoy	MS 4846 RXT	61.4	76.1	79.3	28	1
AGS	GS47X19	61.4	—	—	34	2
Progeny Ag	P4999RX	61.3	—	—	34	2
LG Seeds	C4845RX	61.1	—	—	28	1
Asgrow	AG47X9	60.8	75.5	—	32	1
LG Seeds	LGS4899RX	60.7	—	—	32	1
LG Seeds	LGS4931RX	60.5	—	—	34	2
Delta Grow	DG 48X45	60.4	74.3	77.7	31	1
Progeny Ag	P4816RX	60.1	75.3	76.3	28	1
Pioneer	P48A60X	59.8	75.3	—	28	1
Local Seed	LS4798X	59.6	—	—	34	3
USG	7496XTS	59.2	70.7	71.8	32	1
Asgrow	AG49X9	59.2	75.6	—	31	2
Credenz	CZ 4869X	59.1	—	—	35	2
Great Heart	GT-4764XS	58.9	—	—	39	2
DONMARIO	47X01	58.2	—	—	33	2
Progeny Ag	P4799RXS	57.7	68.5	70.4	34	2
Armor	47-D18	57.5	—	—	32	2
Delta Grow	48X95	57.5	—	—	33	2
Delta Grow	47X95	57.1	—	—	35	2
Local Seed	LS4894X	56.5	—	—	31	3
Delta Grow	48X05	56.2	—	—	31	2
USG	7470XTS	56.1	—	—	37	2
AgriGold	G4815RX	55.7	—	—	34	2
Mission Seed Solutions	A4950X	55.5	71.4	—	32	2
Mean		61.9				
CV		5.5				
LSD		6.8				
R ²		74.2				
Error df		48				

Table 64. Enlist or Roundup Ready Maturity Group IV Irrigated Soybean Varieties (Delta Branch Station, Stoneville clay, Stoneville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Delta Grow	47E25	57.5	—	—	28	1
U. of Missouri	S14-15138R	56.8	67.9	—	29	2
Delta Grow	46E29	56.8	—	—	29	1
Delta Grow	48E28	55.0	—	—	30	1
Local Seed	Z4694E3S	54.7	—	—	30	2
Delta Grow	48E49	54.6	—	—	29	2
Go Soy	463E19	53.7	—	—	28	2
Delta Grow	49E29	53.4	—	—	28	1
Delta Grow	48E10	52.1	—	—	28	1
Delta Grow	47E19	50.6	—	—	24	1
Local Seed	Z4797E3	50.5	—	—	28	1
Local Seed	Z4596GLS	50.4	—	—	31	2
Delta Grow	45E23	49.7	—	—	27	1
Delta Grow	48E39	49.7	—	—	26	1
DONMARIO	DM 48E73	49.2	—	—	28	1
Go Soy	482E18	47.0	—	—	30	2
USG	7480ET	45.8	—	—	28	1
Petrus Seed	4916 GT	42.3	60.6	66.9	21	2
U. of Missouri	S14-15146R	41.0	57.2	61.8	29	1
Mean		51.1				
CV		9.7				
LSD		10.4				
R ²		65.4				
Error df		19				

Table 65. Roundup Ready Maturity Group V Xtend Irrigated Soybean Varieties (Delta Branch Station, Stoneville clay, Stoneville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Armor	51-D77	72.1	76.2	—	36	2
Local Seed	LS5087X	72.0	80.4	—	35	2
Pioneer	P54A54X	70.7	—	—	23	1
Asgrow	AG53X9	70.4	77.1	—	26	2
Local Seed	LS5588X	70.2	—	—	27	1
Pioneer	P55A49X	68.3	—	—	23	1
Progeny Ag	P5252RX	67.4	75.5	—	34	2
Delta Grow	52X05	67.3	—	—	39	2
Credenz	CZ 5299X	67.0	—	—	36	1
Dyna-Gro	S56XT99	66.1	77.6	—	28	1
Asgrow	AG55X7	65.3	75.6	76.6	25	1
Progeny Ag	P5688RX	65.0	75.1	73.1	26	1
AgriGold	G5000RX	64.9	72.4	70.7	33	2
Terral Seed	REV 5659X	64.9	—	—	31	2
Delta Grow	54X25	64.1	—	—	32	1
Asgrow	AG53X0	63.3	—	—	33	2
Armor	52-D71	63.1	71.5	—	36	2
Progeny Ag	P5170RX	60.8	—	—	37	2
Asgrow	AG52X9	60.1	71.6	—	33	1
Dyna-Gro	S52XT08	59.7	73.0	—	25	1
Dyna-Gro	S54XT17	59.6	—	—	31	1
Progeny Ag	P5016RXS	59.0	68.1	68.7	36	1
NK Brand	S53-F7X	58.6	—	—	38	1
Great Heart	GT-5528X	58.3	—	—	26	1
NK Brand	S51-R3XS	58.2	—	—	27	2
Dyna-Gro	S52XS39	58.1	69.9	—	35	1
Local Seed	LS5386X	57.9	—	—	39	1
Progeny Ag	P5554RX	57.2	73.2	—	26	1
Mean		63.9				
CV		9.4				
LSD		NS				
R ²		56.2				
Error df		27				

Table 66. Enlist or Roundup Ready Maturity Group V Irrigated Soybean Varieties (Delta Branch Station, Stoneville clay, Stoneville)

Brand	Variety ¹	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Delta Grow	5585 RR2/STS	64.0	—	—	23	1
U. of Missouri	S16-3747RY *	63.8	—	—	24	1
Delta Grow	52E22	59.0	—	—	32	2
Go Soy	512E18	57.7	—	—	30	2
Go Soy	50G17	56.2	71.2	—	24	2
U. of Missouri	S14-9017R	52.5	66.1	68.6	26	1
Mean		58.8				
CV		10.2				
LSD		NS				
R ²		70.3				
Error df		5				

¹Variety followed by an asterisk indicates an experimental entry.

Table 67. Maturity Group IV LibertyLink Irrigated Soybean Varieties (Delta Branch Station, Stoneville clay, Stoneville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Credenz	CZ 4649LL	63.0	69.9	—	32	1
Delta Grow	DG 4977LL/STS	55.5	63.7	64.4	35	2
Credenz	CZ 3929GTLL	51.9	—	—	28	2
Go Soy	44GL18	44.4	—	—	26	1
Credenz	CZ 4539GTLL	44.4	—	—	28	1
Go Soy	46GL18	44.2	—	—	26	1
Mean		50.6				
CV		10.8				
LSD		14.0				
R ²		79.9				
Error df		5				

Table 68. Maturity Group IV Conventional Irrigated Soybean Varieties (Delta Branch Station, Stoneville clay, Stoneville).

Brand	Variety ¹	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Virtue	V 4720 S	61.2	—	—	28	1
Go Soy	48C17S	60.1	—	—	26	2
Virtue	V 4920 S	59.6	—	—	32	2
Virtue	V 4520 S	50.9	—	—	24	1
U. of Missouri	S16-14379C *	49.9	—	—	33	1
U. of Missouri	S13-3851C	48.4	65.4	68.1	27	1
U. of Missouri	S16-14730C *	43.7	—	—	29	1
U. of Missouri	S13-2743C	39.0	50.9	—	29	1
U. of Missouri	S13-10590C *	38.0	56.1	58.5	28	1
U. of Missouri	S13-10592C *	33.0	53.5	—	27	2
Mean		48.4				
CV		12.5				
LSD		13.7				
R ²		84.5				
Error df		10				

¹Variety followed by an asterisk indicates an experimental entry.

Table 69. Maturity Group V Conventional Soybean Varieties (Delta Branch Station, Stoneville clay, Stoneville).

Brand	Variety ¹	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
U. of Missouri	S15-10434C *	67.0	79.8	—	24	1
U. of Missouri	S13-1955C *	65.9	74.2	73.6	21	1
U. of Missouri	M05201D conv	58.5	74.4	—	19	1
U. of Missouri	S11-20242C	49.4	67.0	—	28	1
Mean		60.2				
CV		6.2				
LSD		11.9				
R ²		90.5				
Error df		3				

¹Variety followed by an asterisk indicates an experimental entry.

STONEVILLE (loam) IRRIGATED, DELTA BRANCH

Crop Summary

The soybean plots were planted into a stale seedbed with adequate soil moisture. All plots quickly germinated and emerged to a good stand. Timely rainfall, in combi-

nation with furrow irrigation, supplied ample soil moisture throughout the growing season. Harvest was completed in a timely manner, and good yields were achieved.

Planting date . . .April 24

Harvest date . . .IVE Xtend on September 19; IVL Xtend, IV Enlist/RR, and all V's on October 3

Soil typeBosket very fine sandy loam

Soil pH6.7

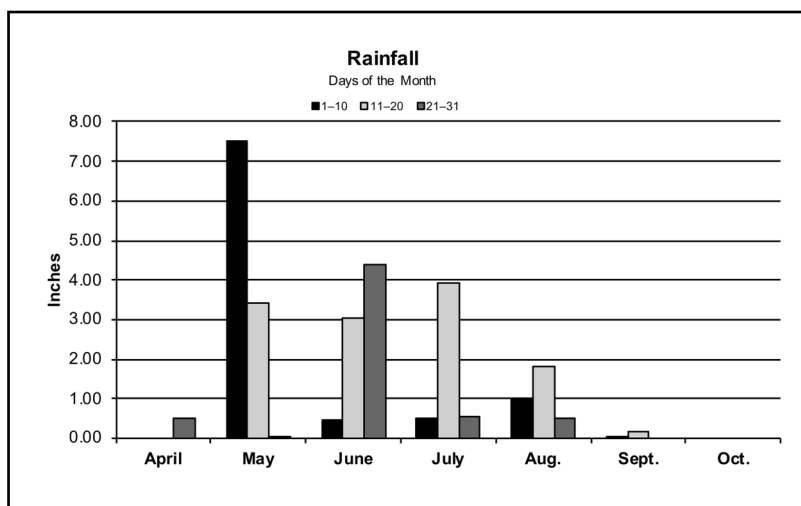
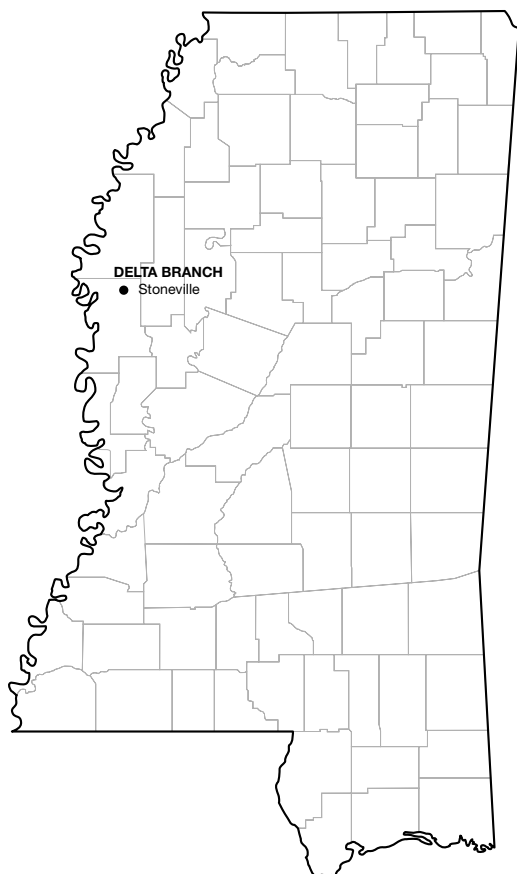
Soil fertilityP=H, K=H

FertilizerPreplant — 0-20-32 @ 100 lb/A

Previous crop . . .Soybeans

HerbicidePreemergence — Authority Supreme @ 8 oz/A and Gramoxone @ 32 oz/A on April 24

IrrigationJune 3, June 14, July 29, August 8



Rainfall Summary

	Inches
April	.051
May	10.94
June	7.87
July	4.99
August	3.33
September	.020
October	.000
Total	27.84

Table 70. Roundup Ready Maturity Group IV Early Irrigated Xtend Soybean Varieties (Delta Branch, Stoneville loam).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Dyna-Gro	S45XS66	102.7	91.8	84.9	36	1
Asgrow	AG46X0	101.7	—	—	39	1
Asgrow	AG46X6	100.2	93.0	88.3	36	1
Great Heart	GT-4677XS	100.0	—	—	37	1
Delta Grow	46X65	99.1	—	—	35	1
Armor	45-D51	98.5	—	—	35	1
Asgrow	AG43X0	97.8	—	—	39	1
Local Seed	LS4795XS	97.4	—	—	34	1
Dyna-Gro	S46XS60	96.8	—	—	36	1
Local Seed	LS4583X	96.5	91.9	—	33	1
NK Brand	S44-C7X	96.4	—	—	28	1
Delta Grow	DG 46X25	96.4	92.5	—	27	1
Pioneer	P44A72BX	96.2	—	—	31	1
Asgrow	AG45X8	96.0	88.2	85.7	35	1
Pioneer	P46A57BX	95.6	89.8	—	37	1
Progeny Ag	P4444RXS	95.6	—	—	33	1
Local Seed	LS4407X	94.8	—	—	37	1
Great Heart	GT-4255XS	94.3	—	—	38	1
Armor	44-D92	93.7	—	—	36	1
Local Seed	LS4299XS	93.5	—	—	37	1
Great Heart	GT-4616X	93.2	—	—	34	1
Asgrow	AG43X8	93.2	82.0	—	37	1
MorSoy	MS 4616 RXT	92.7	84.9	81.1	38	1
Dyna-Gro	S45XS37	92.7	87.9	85.0	36	1
Progeny Ag	P4620RXS	92.4	85.7	83.5	36	2
Mission Seed Solutions	A4448X	92.2	—	—	34	1
NK Brand	S39-G2X	92.0	—	—	36	2
AgriGold	G4605RX	90.9	83.2	—	43	2
Mission Seed Solutions	A4618X	90.9	83.3	—	38	1
Terral	REV 4679X	90.3	89.5	—	33	1
Local Seed	LS4677X	90.1	89.7	—	35	1
Local Seed	LS4565XS	90.0	89.7	—	35	1
Local Seed	LS4487XS	89.5	85.0	—	40	1
Progeny Ag	P4265RXS	88.9	80.1	77.3	33	1
AgriGold	G4440RX	87.9	81.7	79.7	35	1
Pioneer	P42A96X	87.9	84.9	—	26	1
Progeny Ag	P4255RX	87.0	87.1	83.3	36	1
LG Seeds	LGS4420RX	85.9	—	—	35	1
Armor	42-D27	85.3	80.3	—	36	1
Local Seed	LS3976X	84.4	—	—	32	4
AgriGold	G4579RX	84.1	82.3	—	34	1
Mean		93.3				
CV		7.6				
LSD		NS				
R ²		49.0				
Error df		80				

Table 71. Roundup Ready Xtend Maturity Group IV Late Irrigated Soybean Varieties (Delta Branch Station, Stoneville loam, Stoneville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Armor	47-D18	102.4	—	—	40	1
AGS	GS49X19	102.3	—	—	38	1
Delta Grow	47X95	101.3	—	—	42	1
USG	7489XTS	100.3	91.5	—	34	1
Dyna-Gro	S49XT70	98.8	—	—	40	1
DONMARIO	47X01	98.4	—	—	38	1
Delta Grow	49X15	97.8	—	—	40	2
Progeny Ag	P4999RX	97.7	—	—	37	1
Armor	49-D67	97.5	—	—	40	1
Mission Seed Solutions	A4950X	97.3	92.1	—	41	1
Great Heart	GT-4979X	96.9	88.9	—	37	1
NK Brand	S47-Y9X	96.7	—	—	34	1
Asgrow	AG48X9	96.6	90.2	—	34	1
LG Seeds	C4845RX	96.5	—	—	37	1
Delta Grow	DG 48X45	96.3	91.0	87.0	35	1
NK Brand	S49-F5X	96.2	—	—	32	2
LG Seeds	LGS4899RX	96.1	—	—	34	1
MorSoy	MS 4846 RXT	96.1	88.9	83.9	33	1
Great Heart	GT-4833XS	95.0	84.6	—	35	2
Local Seed	LS4894X	94.9	—	—	37	3
Terral Seed	REV 4940X	94.8	—	—	34	1
LG Seeds	LGS4931RX	94.8	—	—	38	1
Local Seed	LS4889XS	94.1	91.3	—	38	4
DONMARIO	DM 49x13	93.9	—	—	38	1
Delta Grow	48X95	93.7	—	—	38	1
USG	7470XTS	93.5	—	—	40	2
Dyna-Gro	S47XT20	93.3	—	—	35	1
Credenz	CZ 4869X	93.2	—	—	38	1
Local Seed	LSX4901X	93.2	—	—	41	1
Great Heart	GT-4802X	92.6	—	—	37	1
Progeny Ag	P4851RX	92.6	92.7	89.7	35	2
Asgrow	AG49X9	92.5	86.9	—	35	1
Great Heart	GT-4764XS	92.1	—	—	37	1
AgriGold	G4815RX	91.8	—	—	35	2
Delta Grow	48X05	91.2	—	—	34	1
Armor	48-D25	91.1	—	—	39	1
Dyna-Gro	S49XT39	91.1	87.2	—	39	2
Dyna-Gro	S48XT56	91.1	85.8	82.7	32	1
USG	7496XTS	90.4	87.7	83.2	38	1
Credenz	CZ 4979X	90.3	—	—	38	1
Pioneer	P48A60X	90.0	86.2	—	33	2
Asgrow	AG47X9	89.9	90.6	—	35	1
Terral Seed	REV 4927X	89.2	87.3	86.5	36	4
Progeny Ag	P4799RXS	89.2	87.3	84.0	41	1
Progeny Ag	P4821RX	88.7	—	—	34	1
Progeny Ag	P4816RX	86.5	83.6	82.8	34	1
Armor	47-D85	86.1	—	—	32	1
AGS	GS47X19	84.6	—	—	36	1
Local Seed	LS4798X	84.3	—	—	39	1
Mean		93.8				
CV		9.9				
LSD		NS				
R ²		24.2				
Error df		96				

Table 72. Enlist or Roundup Ready Maturity Group IV Irrigated Soybean Varieties (Delta Branch Station, Stoneville loam, Stoneville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Delta Grow	47E19	102.7	—	—	33	1
Delta Grow	48E10	101.1	—	—	42	2
Delta Grow	48E39	98.8	—	—	36	1
Go Soy	463E19	97.5	—	—	36	1
Delta Grow	46E29	96.9	—	—	42	2
Local Seed	Z4797E3	96.9	—	—	35	1
Delta Grow	48E28	96.2	—	—	36	1
Local Seed	Z4694E3S	95.8	—	—	34	1
Delta Grow	48E49	95.3	—	—	35	1
DONMARIO	DM 48E73	94.0	—	—	32	1
Local Seed	Z4596GLS	91.8	—	—	35	3
Delta Grow	47E25	90.1	—	—	34	1
USG	7480ET	90.0	—	—	34	2
Delta Grow	45E23	88.8	—	—	32	1
U. of Missouri	S14-15146R	88.4	80.3	75.1	32	1
U. of Missouri	S14-15138R	87.5	84.8	—	30	1
Delta Grow	49E29	86.5	—	—	37	1
Petrus Seed	4916 GT	84.1	77.5	75.7	31	2
Go Soy	482E18	83.8	—	—	35	3
Mean		93.0				
CV		6.6				
LSD		10.2				
R ²		61.3				
Error df		38				

Table 73. Roundup Ready Maturity Group V Xtend Irrigated Soybean Varieties (Delta Branch, Stoneville loam, Stoneville).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
NK Brand	S51-R3XS	103.5	—	—	31	1
NK Brand	S53-F7X	97.5	—	—	40	1
Asgrow	AG53X9	93.7	89.0	—	37	1
Progeny Ag	P5016RXS	93.1	90.2	85.3	39	1
Local Seed	LS5386X	92.7	—	—	40	1
Asgrow	AG53X0	91.0	—	—	42	1
Armor	52-D71	90.5	88.1	—	41	1
Asgrow	AG52X9	90.5	97.9	—	40	1
Pioneer	P54A54X	87.9	—	—	26	1
Asgrow	AG55X7	87.6	85.2	80.8	26	1
Progeny Ag	P5170RX	87.6	—	—	42	1
Pioneer	P55A49X	86.1	—	—	21	1
Local Seed	LS5087X	85.0	86.3	—	38	1
Delta Grow	54X25	84.7	—	—	25	1
AgriGold	G5000RX	84.2	87.9	84.1	37	1
Dyna-Gro	S54XT17	83.7	—	—	29	1
Great Heart	GT-5528X	83.1	—	—	25	1
Local Seed	LS5588X	81.9	—	—	30	1
Dyna-Gro	S52XT08	81.8	83.8	—	25	1
Delta Grow	52X05	81.2	—	—	52	1
Terral Seed	REV 5659X	81.1	—	—	31	1
Progeny Ag	P5252RX	80.8	84.1	—	46	2
Progeny Ag	P5554RX	80.3	82.1	—	25	1
Progeny Ag	P5688RX	79.0	81.8	80.8	30	1
Dyna-Gro	S52XS39	78.8	78.9	—	52	2
Credenz	CZ 5299X	77.7	—	—	48	1
Armor	51-D77	76.9	78.9	—	49	2
Dyna-Gro	S56XT99	76.6	80.1	—	29	1
Mean		85.7				
CV		7.5				
LSD		10.5				
R ²		70.2				
Error df		54				

Table 74. Enlist or Roundup Ready Maturity Group V Soybean Varieties (Delta Branch Station, Stoneville loam, Stoneville).

Brand	Variety ¹	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
U. of Missouri	S14-9017R	109.6	96.6	89.4	31	1
Delta Grow	52E22	98.9	—	—	38	1
Go Soy	512E18	97.3	—	—	36	1
U. of Missouri	S16-3747RY *	94.5	—	—	31	1
Go Soy	50G17	93.3	90.2	—	35	1
Delta Grow	5585 RR2/STS	77.3	—	—	32	1
Mean		95.2				
CV		7.8				
LSD		13.4				
R ²		79.1				
Error df		10				

¹Variety followed by an asterisk indicates an experimental entry.

TIPPO, RAY HARDY JR. FARM

Crop Summary

The plots were planted into a flat seedbed with good soil moisture for germination. All plots quickly emerged to a good stand. Timely rainfall during the growing season supplied ample soil moisture throughout the season.

Good yields were observed at this dryland location. Harvest was completed in a timely manner without difficulty.

Planting dateMay 1

Harvest dateSeptember 17

Soil typeDundee & Tensas silt loam

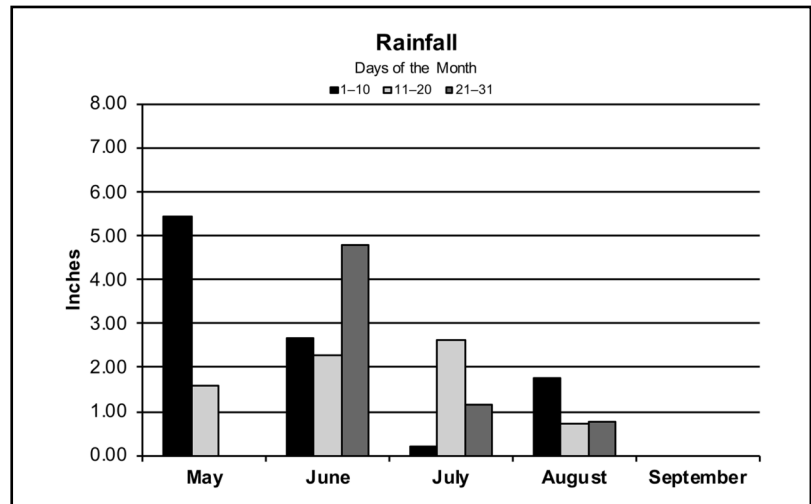
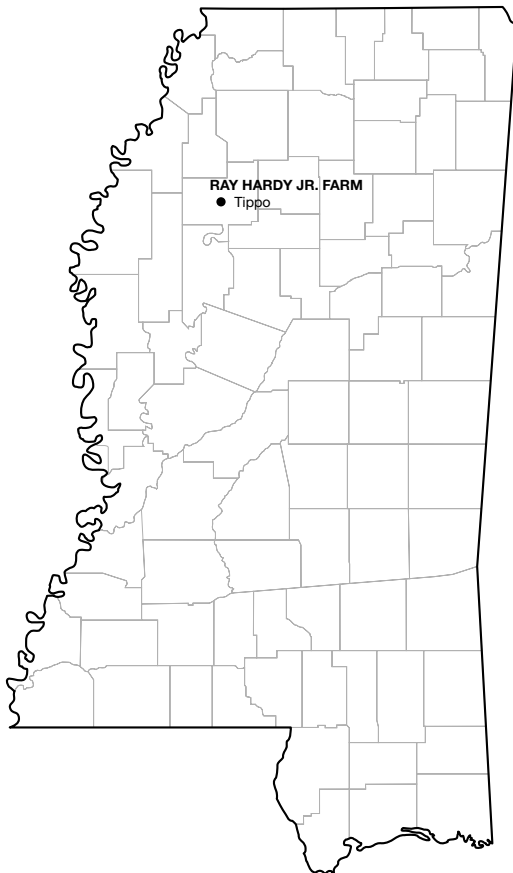
Soil pH6.3

Soil fertilityP=H, K=H

Previous crop . . .Soybeans

HerbicidePreemergence — Authority Supreme @ 8 oz/A and Gramoxone @ 32 oz/A on May 1

InsecticideBrigade @ 6.4 oz/A on August 12



Rainfall Summary

	Inches
May	7.04
June	9.77
July	4.01
August	3.23
September	0.00
Total	24.05

Table 75. Roundup Ready Maturity Group IV Early Xtend Soybean Varieties (Ray Hardy Jr. Farm, Tippo).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Local Seed	LS4795XS	65.9	—	—	30	1
AgriGold	G4440RX	64.6	51.4	45.8	27	1
MorSoy	MS 4616 RXT	64.5	56.7	48.7	30	1
Mission Seed Solutions	A4618X	64.4	55.3	—	33	1
Delta Grow	46X65	64.1	—	—	29	1
Local Seed	LS4487XS	64.1	54.9	—	30	1
AgriGold	G4605RX	63.9	51.4	—	39	1
Progeny Ag	P4444RXS	63.7	50.2	43.0	25	1
AgriGold	G4579RX	63.7	53.9	—	33	1
Asgrow	AG46X6	63.6	54.3	46.8	30	2
Dyna-Gro	S45XS66	63.3	51.3	45.5	29	1
Dyna-Gro	S46XS60	62.6	—	—	28	1
Asgrow	AG46X0	62.6	—	—	26	1
Great Heart	GT-4677XS	62.3	—	—	31	1
Local Seed	LS4677X	62.2	52.4	—	29	1
Local Seed	LS4407X	62.1	—	—	29	1
Asgrow	AG43X8	61.3	50.9	—	30	1
Mission Seed Solutions	A4448X	61.2	—	—	30	1
Local Seed	LS4583X	61.0	51.0	—	29	1
Local Seed	LS4565XS	60.0	53.9	—	30	2
Progeny Ag	P4620RXS	57.1	49.2	45.1	33	1
NK Brand	S44-C7X	56.6	—	—	28	1
Great Heart	GT-4255XS	56.2	—	—	30	1
Great Heart	GT-4616X	55.4	—	—	29	1
Dyna-Gro	S45XS37	55.3	46.0	41.3	30	1
Pioneer	P46A57BX	54.6	48.0	—	28	1
Local Seed	LS4299XS	54.5	—	—	29	1
Armor	44-D92	54.2	—	—	26	1
Delta Grow	DG 46X25	54.2	47.0	—	28	1
Terral	REV 4679X	54.1	46.6	—	27	1
Pioneer	P44A72BX	54.0	—	—	27	1
Asgrow	AG45X8	53.3	47.1	41.9	29	1
Progeny Ag	P4265RXS	53.0	—	—	26	1
Local Seed	LS3976X	52.6	—	—	27	1
LG Seeds	LGS4420RX	52.3	—	—	29	1
Progeny Ag	P4255RX	52.3	47.0	40.8	30	1
Armor	42-D27	51.9	48.0	—	28	1
Armor	45-D51	50.9	—	—	31	1
NK Brand	S39-G2X	50.6	—	—	28	1
Asgrow	AG43X0	49.4	—	—	26	1
Pioneer	P42A96X	48.5	45.6	—	30	1
Mean		58.1				
CV		10.0				
LSD		9.4				
R ²		55.1				
Error df		80				

Table 76. Roundup Ready Xtend Maturity Group IV Late Soybean Varieties (Ray Hardy Jr. Farm, Tippecanoe).

Brand	Variety	Yield			Plant height	Lodging score
		2019	2-yr. avg.	3-yr. avg.		
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>
Progeny Ag	P4999RX	75.8	—	—	36	1
Armor	49-D67	75.2	—	—	34	1
Dyna-Gro	S47XT20	75.1	—	—	35	1
Delta Grow	48X95	75.1	—	—	34	1
LG Seeds	LGS4899RX	74.4	—	—	31	2
Dyna-Gro	S49XT70	74.3	—	—	35	1
Progeny Ag	P4851RX	74.0	56.1	45.9	37	2
Local Seed	LS4894X	72.3	—	—	38	1
Dyna-Gro	S49XT39	71.4	57.7	—	32	1
Local Seed	LSX4901X	71.3	—	—	37	1
Asgrow	AG49X9	70.8	55.6	—	30	2
Terral Seed	REV 4927X	70.4	56.8	49.6	34	1
Progeny Ag	P4799RXS	70.3	58.5	52.0	40	1
MorSoy	MS 4846 RXT	70.0	58.8	50.6	31	1
USG	7470XTS	69.8	—	—	33	1
Armor	48-D25	69.0	—	—	31	1
Credenz	CZ 4979X	68.8	—	—	35	1
Delta Grow	49X15	68.7	—	—	35	2
Great Heart	GT-4979X	68.4	54.5	—	39	1
Mission Seed Solutions	A4950X	68.4	53.2	—	36	1
AGS	GS47X19	68.0	—	—	36	1
DONMARIO	47X01	67.6	—	—	32	1
Progeny Ag	P4821RX	67.3	—	—	35	1
Delta Grow	48X05	67.2	—	—	33	2
NK Brand	S47-Y9X	66.7	—	—	31	1
USG	7489XTS	65.6	57.2	—	27	1
Great Heart	GT-4833XS	65.6	54.8	—	36	1
Asgrow	AG47X9	65.5	53.9	—	31	1
AGS	GS49X19	65.3	—	—	35	1
Local Seed	LS4889XS	64.9	57.0	—	35	1
Great Heart	GT-4802X	64.9	—	—	28	1
Armor	47-D18	64.9	—	—	30	1
Asgrow	AG48X9	64.4	53.0	—	34	1
LG Seeds	C4845RX	64.4	—	—	30	1
AgriGold	G4815RX	64.4	—	—	29	1
LG Seeds	LGS4931RX	64.3	—	—	32	2
Progeny Ag	P4816RX	64.2	55.2	49.8	34	1
Delta Grow	47X95	64.2	—	—	33	1
NK Brand	S49-F5X	63.6	—	—	33	1
DONMARIO	DM 49x13	63.6	—	—	33	1
Armor	47-D85	63.4	—	—	37	1
USG	7496XTS	63.4	51.7	50.0	31	1
Delta Grow	DG 48X45	63.4	54.8	50.0	28	1
Local Seed	LS4798X	62.5	—	—	38	2
Great Heart	GT-4764XS	61.6	—	—	33	1
Dyna-Gro	S48XT56	61.4	50.6	43.9	32	1
Pioneer	P48A60X	61.3	51.7	—	33	1
Terral Seed	REV 4940X	59.0	—	—	31	1
Credenz	CZ 4869X	57.2	—	—	34	1
Mean		67.2				
CV		8.5				
LSD		9.3				
R ²		50.9				
Error df		96				

VERONA, NORTHEAST MISSISSIPPI BRANCH

Crop Summary

The soybean plots were planted into a raised seedbed that had been prepared earlier in the spring. Soil moisture at planting was adequate for germination. All plots quick-

ly emerged to a good stand. Timely rains during the growing season allowed for good soil moisture throughout the season. Harvest was completed in a timely manner.

Planting date ... April 29

Harvest date ... All IV's on September 25; All V's on October 4

Soil type Leeper silty clay loam

Soil pH 6.5

Soil fertility P=H, K=M

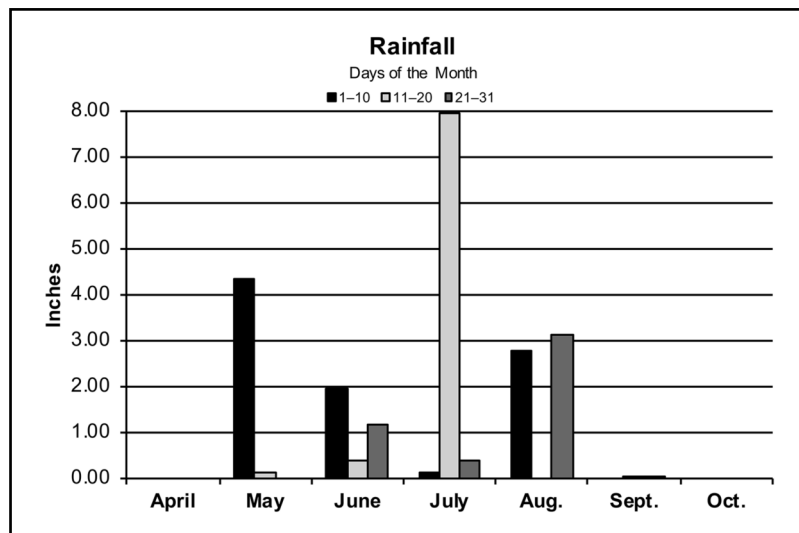
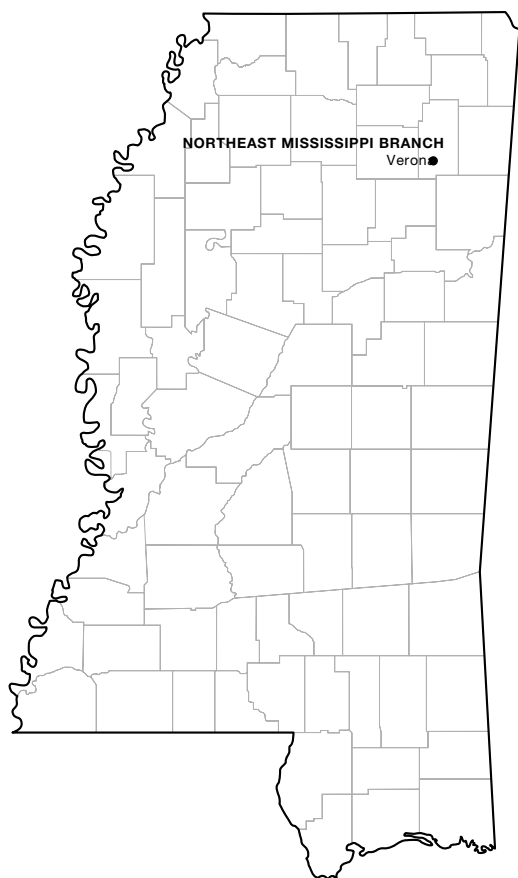
Fertilizer Preplant — 0-30-100 @ 100 lb/A

Previous crop ... Soybeans

Herbicide Preemergence — Authority Supreme @ 8 oz/A and Gramoxone @ 32 oz/A on April 29

Postemergence — (RR) Roundup PowerMax @ 24 oz/A, FirstRate @ 0.3 oz/A, and Prefix @ 24 oz/A on June 21; (LL) SelectMax @ 16 oz/A, FirstRate @ 0.3 oz/A, and Prefix @ 24 oz/A on June 21

Insecticide Acephate @ 0.75 lb/A, Bifenthrin @ 6.4 oz/A, and Intrepid Edge @ 4 oz/A on August 15



Rainfall Summary

	Inches
April	0.00
May	4.47
June	3.53
July	8.43
August	5.90
September	0.04
October	0.00
Total	22.37

Table 77. Roundup Ready Maturity Group IV Early Xtend Soybean Varieties (Northeast MS Branch, Verona).

Brand	Variety	Yield ¹			Plant height	Lodging score	Maturity date
		2019	2-yr. avg.	3-yr. avg.			
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>	
Local Seed	LS4795XS	81.1	—	—	26	1	9/6
Delta Grow	46X65	80.5	—	—	29	1	9/14
Great Heart	GT-4677XS	77.0	—	—	29	1	9/21
Dyna-Gro	S46XS60	74.7	—	—	27	1	9/20
Asgrow	AG46X6	74.3	78.5	—	36	1	9/21
Mission Seed Solutions	A4448X	73.7	—	—	26	1	9/13
Local Seed	LS4583X	73.5	80.1	—	28	1	9/22
AgriGold	G4440RX	72.6	80.6	—	31	1	9/21
Terral	REV 4679X	70.7	79.9	—	33	1	9/17
Armor	42-D27	70.1	79.7	—	26	1	9/5
Pioneer	P44A72BX	69.3	—	—	23	1	9/18
Local Seed	LS4407X	69.1	—	—	30	1	9/21
Progeny Ag	P4444RXS	68.8	77.5	—	28	1	9/18
Asgrow	AG46X0	67.7	—	—	29	1	9/21
Dyna-Gro	S45XS66	67.6	75.6	—	28	1	9/13
NK Brand	S39-G2X	66.9	—	—	30	1	9/6
MorSoy	MS 4616 RXT	66.0	77.7	—	34	1	9/21
Great Heart	GT-4616X	65.9	—	—	28	1	9/12
Mission Seed Solutions	A4618X	65.7	75.5	—	30	1	9/20
Local Seed	LS3976X	65.6	—	—	25	1	9/6
LG Seeds	LGS4420RX	65.0	—	—	29	1	9/21
AgriGold	G4579RX	64.8	73.3	—	32	1	9/24
Dyna-Gro	S45XS37	63.6	76.1	—	30	1	9/21
Local Seed	LS4487XS	63.4	72.7	—	31	1	9/13
Progeny Ag	P4620RXS	62.0	74.6	—	29	1	9/20
Pioneer	P46A57BX	61.8	73.3	—	26	1	9/17
AgriGold	G4605RX	61.7	74.7	—	38	1	9/18
Local Seed	LS4677X	61.0	82.6	—	31	1	9/18
Progeny Ag	P4265RXS	60.8	—	—	28	1	9/23
Asgrow	AG43X8	60.6	67.3	—	27	1	9/18
Local Seed	LS4299XS	60.3	—	—	31	1	9/13
Delta Grow	DG 46X25	59.5	71.4	—	30	1	9/21
NK Brand	S44-C7X	58.9	—	—	26	1	9/13
Local Seed	LS4565XS	58.4	78.0	—	28	1	9/21
Progeny Ag	P4255RX	57.2	72.5	—	27	1	9/9
Asgrow	AG43X0	56.8	—	—	21	1	9/21
Armor	45-D51	53.9	—	—	29	1	9/17
Armor	44-D92	53.0	—	—	28	1	9/17
Great Heart	GT-4255XS	49.0	—	—	27	1	9/21
Asgrow	AG45X8	48.8	70.8	—	27	1	9/18
Pioneer	P42A96X	38.7	61.2	—	27	1	9/18
Mean		64.4					
CV		15.0					
LSD		15.7					
R ²		65.6					
Error df		80					

¹No 3-year average.

Table 78. Roundup Ready Xtend Maturity Group IV Late Soybean Varieties (Northeast MS Branch, Verona).

Brand	Variety	Yield ¹			Plant height	Lodging score	Maturity date
		2019	2-yr. avg.	3-yr. avg.			
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>	
Asgrow	AG48X9	90.8	93.3	—	35	1	9/21
AGS	GS47X19	89.6	—	—	30	1	9/24
MorSoy	MS 4846 RXT	88.1	87.1	—	28	1	9/23
Delta Grow	DG 48X45	87.5	88.5	—	21	1	9/24
Delta Grow	49X15	86.2	—	—	33	1	9/20
Mission Seed Solutions	A4950X	85.4	90.8	—	34	1	9/23
Great Heart	GT-4802X	85.2	—	—	30	1	9/21
USG	7489XTS	84.9	85.5	—	29	1	9/24
Progeny Ag	P4816RX	84.5	86.8	—	28	1	9/24
Dyna-Gro	S48XT56	84.2	89.1	—	28	1	9/24
Delta Grow	48X05	83.7	—	—	33	1	9/20
Dyna-Gro	S47XT20	83.4	—	—	36	1	9/20
Progeny Ag	P4851RX	83.1	89.2	—	36	1	9/21
Dyna-Gro	S49XT39	83.0	90.9	—	37	1	9/18
Credenz	CZ 4979X	82.2	—	—	35	1	9/19
DONMARIO	DM 49x13	80.9	—	—	31	1	9/24
DONMARIO	47X01	80.3	—	—	30	1	9/24
Great Heart	GT-4979X	80.3	87.9	—	37	1	9/24
Progeny Ag	P4999RX	79.9	—	—	33	1	9/24
Armor	49-D67	79.8	—	—	40	1	9/18
NK Brand	S47-Y9X	78.5	—	—	32	1	9/18
Local Seed	LS4798X	77.5	—	—	40	1	9/24
Dyna-Gro	S49XT70	77.3	—	—	32	1	9/20
Local Seed	LS4894X	77.3	—	—	34	1	9/21
Armor	47-D85	77.2	—	—	29	1	9/20
Armor	47-D18	76.7	—	—	32	1	9/17
Terral Seed	REV 4927X	76.2	87.3	—	30	1	9/20
Great Heart	GT-4833XS	76.0	89.3	—	33	1	9/20
LG Seeds	LGS4899RX	75.8	—	—	29	1	9/24
Local Seed	LSX4901X	75.1	—	—	32	1	9/23
LG Seeds	C4845RX	75.1	—	—	29	1	9/24
AGS	GS49X19	75.0	—	—	32	1	9/23
Delta Grow	48X95	74.5	—	—	31	1	9/24
Progeny Ag	P4799RXS	74.3	82.1	—	32	1	9/20
Armor	48-D25	72.4	—	—	30	1	9/21
Terral Seed	REV 4940X	72.1	—	—	26	1	9/18
LG Seeds	LGS4931RX	71.6	—	—	33	1	9/24
USG	7470XTS	69.6	—	—	32	1	9/20
Local Seed	LS4889XS	68.7	87.3	—	34	1	9/24
Asgrow	AG49X9	67.6	80.2	—	24	1	9/18
Delta Grow	47X95	67.4	—	—	32	1	9/17
Credenz	CZ 4869X	67.2	—	—	31	1	9/19
Great Heart	GT-4764XS	66.9	—	—	36	1	9/20
Progeny Ag	P4821RX	66.1	—	—	34	1	9/22
AgriGold	G4815RX	63.8	—	—	32	1	9/20
NK Brand	S49-F5X	63.5	—	—	30	1	9/17
Pioneer	P48A60X	63.0	78.3	—	26	1	9/20
Asgrow	AG47X9	61.0	74.4	—	31	1	9/17
USG	7496XTS	56.5	71.4	—	29	1	9/24
Mean		76.5					
CV		12.8					
LSD		15.9					
R ²		61.9					
Error df		96					

¹No 3-year average.

Table 79. Enlist or Roundup Ready Maturity Group IV Soybean Varieties (Northeast MS Branch, Verona).

Brand	Variety	Yield ¹			Plant height	Lodging score	Maturity date
		2019	2-yr. avg.	3-yr. avg.			
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>	
Delta Grow	47E25	79.9	—	—	27	1	9/21
Go Soy	463E19	77.9	—	—	30	1	9/17
Delta Grow	48E49	76.2	—	—	28	1	9/21
Local Seed	Z4694E3S	74.8	—	—	29	1	9/20
Delta Grow	49E29	74.0	—	—	30	1	9/17
Delta Grow	46E29	71.1	—	—	28	1	9/21
DONMARIO	DM 48E73	70.9	—	—	26	1	9/20
Delta Grow	48E28	70.1	—	—	27	1	9/21
Local Seed	Z4596GLS	68.8	—	—	32	1	9/17
USG	7480ET	68.2	—	—	36	1	9/21
Delta Grow	48E10	66.0	—	—	29	1	9/22
U. of Missouri	S14-15138R	65.2	70.6	—	27	1	9/24
Petrus Seed	4916 GT	64.2	73.9	—	15	1	9/23
Delta Grow	45E23	60.7	—	—	22	1	9/14
Go Soy	482E18	59.7	—	—	22	1	9/14
U. of Missouri	S14-15146R	59.5	—	—	28	1	9/21
Delta Grow	48E39	51.9	—	—	28	1	9/20
Delta Grow	47E19	48.9	—	—	28	1	9/20
Local Seed	Z4797E3	40.8	75.8	—	28	1	9/14
Mean		65.7					
CV		12.5					
LSD		13.7					
R ²		78.8					
Error df		38					
¹ No 3-year average.							

Table 80. Roundup Ready Maturity Group V Xtend Soybean Varieties (Northeast MS Branch, Verona).

Brand	Variety	Yield ¹			Plant height	Lodging score	Maturity date
		2019	2-yr. avg.	3-yr. avg.			
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>	
Terral Seed	REV 5659X	106.8	—	—	25	1	9/27
Dyna-Gro	S52XS39	92.8	95.4	—	38	1	9/27
Progeny Ag	P5252RX	92.2	89.3	—	35	1	9/27
Credenz	CZ 5299X	91.3	—	—	40	1	9/27
Pioneer	P54A54X	91.0	—	—	21	1	9/28
Armor	51-D77	90.3	87.5	—	34	1	9/27
Progeny Ag	P5688RX	89.7	87.6	—	25	1	9/29
Asgrow	AG53X9	88.1	85.2	—	30	1	9/24
Asgrow	AG52X9	87.7	87.5	—	36	1	9/27
NK Brand	S53-F7X	86.9	—	—	36	1	9/27
Dyna-Gro	S54XT17	84.8	—	—	23	1	9/24
Dyna-Gro	S56XT99	84.5	84.4	—	26	1	9/27
Delta Grow	52X05	84.2	—	—	35	1	9/27
Pioneer	P55A49X	79.1	—	—	17	1	9/28
Progeny Ag	P5554RX	78.4	77.6	—	19	1	9/28
Local Seed	LS5386X	77.8	—	—	33	1	9/27
Asgrow	AG53X0	77.1	—	—	38	1	9/24
Progeny Ag	P5170RX	76.9	—	—	32	1	9/21
Delta Grow	54X25	74.9	—	—	22	1	9/24
Local Seed	LS5588X	73.1	—	—	22	1	9/27
Armor	52-D71	71.2	81.2	—	30	1	9/27
Local Seed	LS5087X	70.4	80.3	—	35	1	9/21
NK Brand	S51-R3XS	69.6	—	—	28	1	9/21
Great Heart	GT-5528X	68.6	—	—	26	1	9/21
Asgrow	AG55X7	66.7	63.1	—	20	1	9/21
AgriGold	G5000RX	65.9	77.2	—	30	1	9/27
Progeny Ag	P5016RXS	63.9	72.3	—	32	1	9/21
Dyna-Gro	S52XT08	55.6	67.2	—	20	1	9/21
Mean		80.0					
CV		10.2					
LSD		13.3					
R ²		76.7					
Error df		54					
¹ No 3-year average.							

Table 81. Enlist or Roundup Ready Maturity Group V Soybean Varieties (Northeast MS Branch, Verona).

Brand	Variety ¹	Yield ²			Plant height	Lodging score	Maturity date
		2019	2-yr. avg.	3-yr. avg.			
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>in</i>	<i>1-5</i>	
Delta Grow	5585 RR2/STS	91.7	—	—	27	1	9/24
U. of Missouri	S16-3747RY *	87.7	—	—	33	1	9/21
Go Soy	50G17	79.0	81.5	—	19	1	9/27
Delta Grow	52E22	74.6	—	—	26	1	9/30
Go Soy	512E18	71.8	—	—	23	1	9/30
U. of Missouri	S14-9017R	56.6	64.9	—	30	1	9/24
Mean		76.9					
CV		15.2					
LSD		21.3					
R ²		65.2					
Error df		10					
¹ Variety followed by an asterisk indicates an experimental entry.							
² No 3-year average.							

Table 82. Maturity Group IV LibertyLink Soybean Varieties (Northeast MS Branch, Verona).

Brand	Variety	Yield ¹		
		2019	2-yr. avg.	3-yr. avg.
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>
Credenz	CZ 4649LL	103.9	100.2	—
Delta Grow	DG 4977LL/STS	67.8	71.9	—
Credenz	CZ 3929GTLL	63.8	—	—
Credenz	CZ 4539GTLL	53.1	—	—
Go Soy	46GL18	51.6	—	—
Go Soy	44GL18	43.6	—	—
Mean		64.0		
CV		14.3		
LSD		16.6		
R ²		89.3		
Error df		10		
¹ No 3-year average.				

2019 SOYBEAN VARIETY TRIAL STEM CANKER REPORT

All of the entries in the 2019 variety trials were evaluated for their reaction to the stem canker fungus. Trials consisted of single rows containing each cultivar planted in 10-foot plots and replicated four times. Within each row, eight plants were inoculated with a single toothpick infested with the fungus that causes stem canker (*Diaporthe aspalathi*). Plants were inoculated approximately 8 weeks after planting. Evaluations of stem canker severity were conducted between R6 and R6.5 by observing the stem of each inoculated plant for the presence of a canker. Observations of each variety were conducted using a modified 0–9 scale. Information in each of the following tables contains the analyzed stem canker rating as an average of the response of the inoculated plants for each entry (n=32

observations/entry). In addition, each cultivar includes a stem canker designation: R = resistant, MR = moderately resistant, MS = moderately susceptible, and S = susceptible. In field situations where stem canker has been observed in the past, plant cultivars have been observed to contain resistance to stem canker to reduce the potential yield losses associated with this particular disease. In addition, keep in mind that observations of stem canker tend to be more obvious when the environment is conducive to disease development (see the Clarksdale yield response from 2019). Therefore, over time, and in years when the environment may not be conducive to the development of stem canker, it is possible that stem canker designations could change between years.

Table 83. Response of Maturity Group IV Early Xtend Soybean Cultivars to Stem Canker, 2019.

Cultivar ¹	Stem canker rating ^{2,3}	Cultivar designation ⁴
AgriGold G4440RX (check)	4.5 c	MR
USG 7447XTS (2018 check)	5.9 ab	MS
AgriGold G4579RX	0.1 d	R
AgriGold G4605RX	0.4 d	R
Armor 42-D27	0.1 d	R
Armor 44-D92	0.5 d	R
Armor X45D51	0.5 d	R
Asgrow AG43X0	0.0 d	R
Asgrow AG43X8	0.2 d	R
Asgrow AG45X8	0.2 d	R
Asgrow AG46X0	0.0 d	R
Asgrow AG46X6	0.4 d	R
Delta Grow 46X25	0.4 d	R
Delta Grow 46X65	0.0 d	R
*Dyna-Gro S43XS70	0.1 d	R
Dyna-Gro S45XS37	0.2 d	R
Dyna-Gro S45XS66	0.3 d	R
Dyna-Gro S46XS60	0.0 d	R
Great Heart GT-4255XS	0.2 d	R
Great Heart GT-4616X	0.0 d	R
Great Heart GT-4677XS	0.0 d	R
LG Seeds LGS4420RX	0.2 d	R
Local Seed LS3976X	0.8 d	R
Local Seed LS4487XS	0.1 d	R
Local Seed LS4565XS	0.0 d	R
Local Seed LS4583X	0.1 d	R
Local Seed LS4677X	0.7 d	R
Local Seed LSX4301XS	0.4 d	R
Local Seed LSX4501X	0.9 d	R
Local Seed LSX4601XS	0.0 d	R
Mission Seed A4448X	0.0 d	R
Mission Seed A4618X (MEX4618)	0.1 d	R
Mission Seed Solutions A4447NS	5.4 bc	MS
MorSoy MS 4616	0.2 d	R
NK S39-G2X	0.2 d	R
NK S44-C7X	0.1 d	R
Pioneer P42A96X	0.3 d	R
Pioneer P44A72BX	0.1 d	R
Pioneer P46A57BX	0.2 d	R
Progeny Ag P4255RX	7.0 a	S
Progeny Ag P4265RXS	0.5 d	R
Progeny Ag P4444RXS	0.6 d	R
Progeny Ag P4620RXS	0.2 d	R
Terral REV 4679X	0.0 d	R
LSD (0.05)	1.3	
CV (%)	129.5	
P-value for F-statistic	<0.0001	

¹An asterisk denotes a variety that was supplemented for the purposes of gaining additional information on varieties that may be planted in the Mississippi soybean production system but were not a part of the 2019 MSU OVT program.

²Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0–9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (resistant) was assessed. Ratings were assessed based on the presence of a lesion, whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

³Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD (P=0.05).

⁴By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible, and 7 = Susceptible.

Table 84. Response of Maturity Group IV LibertyLink Soybean Cultivars to Stem Canker, 2019.

Cultivar ¹	Stem canker rating ^{2,3}	Cultivar designation ⁴
Dyna-Gro 4567LL (check)	0.2	R
Credenz CZ 3601 LL (2018 check)	1.6	R
Credenz CZ 3929GTLL	0.5	R
Credenz CZ 4539GTLL	0.7	R
Credenz CZ 4649LL	0.2	R
Delta Grow 4977 LL/STS	0.2	R
Go Soy 44GL18	1.1	R
Go Soy 46GL18	1.8	R
LSD (0.05)	1.6	
CV (%)	141.7	
P-value for F-statistic	0.2787	

¹An asterisk denotes a variety that was supplemented for the purposes of gaining additional information on varieties that may be planted in the Mississippi soybean production system but were not a part of the 2019 MSU OVT program.

²Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0–9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (resistant) was assessed. Ratings were assessed based on the presence of a lesion, whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

³Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD (P=0.05).

⁴By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible, and 7 = Susceptible.

Table 85. Response of Maturity Group IV Conventional Soybean Cultivars to Stem Canker, 2019.

Cultivar ¹	Stem canker rating ^{2,3}	Cultivar designation ⁴
J77-339 (check)	2.1	R
Go Soy 48C17S	1.0	R
Univ. of Missouri S13-10590C	0.7	R
Univ. of Missouri S13-10590C	0.2	R
Univ. of Missouri S13-10592C	0.2	R
Univ. of Missouri S13-1955C	1.2	R
Univ. of Missouri S13-2743C	0.3	R
Univ. of Missouri S13-3851C	1.3	R
Univ. of Missouri S16-14379C	0.1	R
Univ. of Missouri S16-14730C	0.3	R
Virtue V4520S	0.8	R
Virtue V4720S	1.5	R
Virtue V4920S	0.6	R
LSD (0.05)	1.4	
CV (%)	129.9	
P-value for F-statistic	0.1992	

¹An asterisk denotes a variety that was supplemented for the purposes of gaining additional information on varieties that may be planted in the Mississippi soybean production system but were not a part of the 2019 MSU OVT program.

²Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0–9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (resistant) was assessed. Ratings were assessed based on the presence of a lesion, whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

³Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD (P=0.05).

⁴By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible, and 7 = Susceptible.

Table 86. Response of Maturity Group IV RoundUp Ready and Enlist Soybean Cultivars to Stem Canker, 2019.

Cultivar ¹	Stem canker rating ^{2,3}	Cultivar designation ⁴
USG 7447XTS (check)	5.5 a	MS
Mission Seed Solutions A4447NS (2018 check)	5.3 a	MS
Delta Grow 45E23	0.3 c	R
Delta Grow 46E29	1.2 c	R
Delta Grow 46E29	0.2 c	R
Delta Grow 47E19	0.6 c	R
Delta Grow 47E25	0.0 c	R
Delta Grow 48E10	0.2 c	R
Delta Grow 48E28	0.7 c	R
Delta Grow 48E39	0.7 c	R
Delta Grow 48E49	1.6 bc	R
Delta Grow 49E29	0.8 c	R
Don Mario 48D3E	0.3 c	R
Go Soy 463E19	0.1 c	R
*Go Soy 481E19	0.1 c	R
Go Soy 482E18	0.7 c	R
Local Seed LSX4503GLS	1.1 c	R
Local Seed LSX4602ES	0.8 c	R
Local Seed LSX4701E	0.5 c	R
Petrus Seed 4916 GT	3.3 b	MR
*Terral REV 4990E	0.5 c	R
Univ. of Missouri S14-15138R	0.0 c	R
Univ. of Missouri S14-15146R	0.3 c	R
USG 7480ET	0.7 c	R
LSD (0.05)	1.8	
CV (%)	121.5	
P-value for F-statistic	<0.0001	

¹An asterisk denotes a variety that was supplemented for the purposes of gaining additional information on varieties that may be planted in the Mississippi soybean production system but were not a part of the 2019 MSU OVT program.

²Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0–9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (resistant) was assessed. Ratings were assessed based on the presence of a lesion, whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

³Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD (P=0.05).

⁴By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible, and 7 = Susceptible.

Table 87. Response of Maturity Group IV Late Xtend Soybean Cultivars to Stem Canker, 2019.

Cultivar ¹	Stem canker rating ^{2,3}	Cultivar designation ⁴
AgriGold G4990RX (check)	0.0	R
Petrus Seed 4916 GT (2018 check)	2.7	MR
AgriGold G4815RX	0.1	R
AGS GS47X19	1.4	R
*AGS GS48X19	0.1	R
AGS GS49X19	0.1	R
*Armor 49-D66	0.0	R
Armor X47D18	0.0	R
Armor X47D85	0.9	R
Armor X48D25	0.5	R
Armor X49D67	0.0	R
Asgrow AG47X9	0.1	R
Asgrow AG48X9	0.0	R
Asgrow AG49X9	0.0	R
Credenz CZ 4869X	0.3	R
Credenz CZ 4979X	0.2	R
Delta Grow 47X95	0.0	R
Delta Grow 48X05	1.2	R
Delta Grow 48X45	0.5	R
Delta Grow 48X95	0.2	R
Delta Grow 49X15	0.0	R
Don Mario 47X01	0.0	R
Don Mario 49J3X	0.2	R
Dyna-Gro S47XT20	0.7	R
Dyna-Gro S48XT56	0.2	R
Dyna-Gro S49XT39	0.5	R
Dyna-Gro S49XT70	0.0	R
Great Heart Seed GT-4764XS	0.0	R
Great Heart Seed GT-4802X	0.4	R
Great Heart Seed GT-4833XS	0.3	R
Great Heart Seed GT-4979X	0.0	R
LG Seeds C4845RX	0.0	R
LG Seeds LGS4899RX	0.2	R
LG Seeds LGS4931RX	2.2	R
*Local Seed LS4798X	0.0	R
Local Seed LS4889XS	0.5	R
Local Seed LSX4798X	0.0	R
Local Seed LSX4801XS	0.5	R
Local Seed LSX4901X	0.0	R
Mission Seed A4950X (MEX 4908)	0.5	R
MorSoy MS 4846	0.0	R
NK S47-Y9X	0.5	R
NK S49-F5X	0.0	R
Pioneer P48A60X	0.0	R
Progeny Ag P4799RXS	0.0	R
Progeny Ag P4816RX	0.9	R
Progeny Ag P4821RX	0.1	R
Progeny Ag P4851RX	0.3	R
Progeny Ag P4999RX	0.2	R
Terral REV 4927X	0.2	R
Terral REV 4940X	0.0	R
USG 7470XTS	0.0	R
USG 7489XTS	0.2	R
USG 7496XTS	0.2	R
LSD (0.05)	1.4	
CV (%)	327.2	
P-value for F-statistic	0.4803	

¹An asterisk denotes a variety that was supplemented for the purposes of gaining additional information on varieties that may be planted in the Mississippi soybean production system but were not a part of the 2019 MSU OVT program.

²Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0–9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (resistant) was assessed. Ratings were assessed based on the presence of a lesion, whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

³Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD (P=0.05).

⁴By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible, and 7 = Susceptible.

Table 88. Response of Maturity Group V Conventional Soybean Cultivars to Stem Canker, 2019.

Cultivar ¹	Stem canker rating ^{2,3}	Cultivar designation ⁴
J77-339 (check)	1.9 bc	R
Univ. of Missouri M05201D Conv	0.5 c	R
Univ. of Missouri S11-17025	0.2 c	R
Univ. of Missouri S11-20242C	4.4 a	MS
Univ. of Missouri S13-1955C	0.9 c	R
Univ. of Missouri S15-10434C	3.5 ab	MR
LSD (0.05)	2.5	
CV (%)	87.7	
P-value for F-statistic	0.0135	

¹An asterisk denotes a variety that was supplemented for the purposes of gaining additional information on varieties that may be planted in the Mississippi soybean production system but were not a part of the 2019 MSU OVT program.

²Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0–9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (resistant) was assessed. Ratings were assessed based on the presence of a lesion, whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

³Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD (P=0.05).

⁴By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible, and 7 = Susceptible.

Table 89. Response of Maturity Group V Early Xtend Soybean Cultivars to Stem Canker, 2019.

Cultivar ¹	Stem canker rating ^{2,3}	Cultivar designation ⁴
Go Soy 54G16 (check)	0.5	R
Progeny P5688RX (check)	0.4	R
AgriGold G5000RX	0.0	R
*AGS GS52X19S	0.3	R
Armor 51-D77	1.3	R
Armor 52-D71	0.3	R
Asgrow AG52X9	0.5	R
Asgrow AG53X0	0.3	R
Asgrow AG53X9	0.0	R
Asgrow AG55X7	0.0	R
Credenz CZ 5299X	1.5	R
Delta Grow 52X05	1.6	R
Delta Grow 54X25	1.9	R
Dyna-Gro S52XS39 (SX18652XS)	0.3	R
Dyna-Gro S52XT08	0.2	R
Dyna-Gro S54XT17	0.4	R
Dyna-Gro S56XT99	0.7	R
Great Heart Seed GT-5528X	0.0	R
Local Seed LS5087X	0.0	R
Local Seed LS5386X	0.3	R
Local Seed LS5588X	0.7	R
NK S51-R3XS	0.3	R
NK S53-F7X	0.2	R
Pioneer P54A54X	0.7	R
Pioneer P55A49X	0.7	R
*Pioneer P55A59X	1.0	R
Progeny Ag P5016RXS	0.5	R
Progeny Ag P5170RX	0.9	R
Progeny Ag P5252RX	0.0	R
Progeny Ag P5554RX	0.2	R
Progeny Ag P5688RX	2.7	MR
Terral REV 5659X	0.0	R
LSD (0.05)	1.5	
CV (%)	187.2	
P-value for F-statistic	0.1273	

¹An asterisk denotes a variety that was supplemented for the purposes of gaining additional information on varieties that may be planted in the Mississippi soybean production system but were not a part of the 2019 MSU OVT program.

²Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0–9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (resistant) was assessed. Ratings were assessed based on the presence of a lesion, whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

³Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD (P=0.05).

⁴By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible, and 7 = Susceptible.

Table 90. Response of Maturity Group V RoundUp Ready and Enlist Cultivars to Stem Canker, 2019.

Cultivar ¹	Stem canker rating ^{2,3}	Cultivar designation ⁴
Progeny P5688RX (check)	0.5	R
Go Soy 54G16 (check)	0.1	R
Delta Grow 52E22	0.9	R
Delta Grow 5585 RR2/STS	0.4	R
Go Soy 50G17	0.0	R
Go Soy 512E18	0.2	R
*Terral REV 5190E	1.4	R
Univ. of Missouri S14-9017R	0.0	R
Univ. of Missouri S16-3747RY	0.2	R
LSD (0.05)	1.3	
CV (%)	229.2	
P-value for F-statistic	0.4468	

¹An asterisk denotes a variety that was supplemented for the purposes of gaining additional information on varieties that may be planted in the Mississippi soybean production system but were not a part of the 2019 MSU OVT program.

²Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0–9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (resistant) was assessed. Ratings were assessed based on the presence of a lesion, whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

³Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD (P=0.05).

⁴By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible, and 7 = Susceptible.

PLANT CHARACTERISTICS

Table 91. Plant Characteristics of Maturity Group IV Early Xtend Roundup Ready Soybeans.

Brand	Variety	Color				Seeds ¹	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I ²	RM ³
AgriGold	G4440RX	White	Light Tawny	Brown	Black	2700	—	4.4
AgriGold	G4579RX	Purple	Gray	Brown	Black	2768	—	4.5
AgriGold	G4605RX	Purple	Tawny	Tan	Black	2994	—	4.6
AgriGold	G4645RX	Purple	Tan	Tan	Black	—	—	4.6
ARMOR	42-D27	—	—	—	—	3090	—	4.2
ARMOR	44-D92	—	—	—	—	2715	—	4.4
ARMOR	X45D51	—	—	—	—	2927	—	4.5
Asgrow	AG43X8	White	Light Tawny	Brown	Black	2510	—	4.3
Asgrow	AG45X8	Purple	Light Tawny	Brown	Black	2570	—	4.5
Asgrow	AG46X0	Purple	Light Tawny	Tan	Black	3110	—	4.6
Asgrow	AG46X6	Purple	Tan	Brown	Black	2540	—	4.6
Asgrow	AG43X0	—	—	—	—	3210	—	4.3
Delta Grow	46X65 XTEND/STST	Purple	Tan	Light Tawny	Black	2892	I	4.6
Delta Grow	46X25	White	Gray	Tan	Black	2785	I	4.6
Dyna-Gro	S45XS37	White	Tawny	Brown	Black	3079	I	4.5
Dyna-Gro	S46XS60	Purple	Light Tawny	Tan	Black	2878	I	4.6
Dyna-Gro	S45XS66	Purple	Light Tawny	Brown	Black	2748	I	4.5
Great Heart Seed	GT-4677XS	Purple	Light Tawny	Tan	Imp. Black	2960	I	4.6
Great Heart Seed	GT-4616X	White	Light Tawny	Tan	Black	3380	I	4.6
Great Heart Seed	GT-4255XS	Purple	Light Tawny	Tan	Black	2795	I	4.2
Local Seed	LS3976X	—	—	—	—	3253	—	3.9
Local Seed	LSX4301XS	—	—	—	—	2786	—	4.2
Local Seed	LS4487XS	Purple	Tawny	Tan	—	2675	—	4.4
Local Seed	LSX4501X	—	—	—	—	2812	—	4.5
Local Seed	LS4565XS	White	Buff	Tan	—	2798	—	4.5
Local Seed	LS4583X	Purple	Buff	Tan	—	3108	—	4.5
Local Seed	LSX4503GLS	—	—	—	—	2925	—	4.5
Local Seed	LSX4601XS	—	—	—	—	2881	—	4.6
Local Seed	LS4677X	White	Tawny	Tan	—	3322	—	4.6
Local Seed	LSX4602ES	—	—	—	—	2690	—	4.6
Mission Seed	A4448X	Purple	Light Tawny	Brown	Black	2800	—	4.4
Mission Seed	A4618X	Purple	Gray	Brown	Imp. Black	2800	—	4.6
MorSoy	MS 4616	White	Tawny	Brown	Black	—	D/I	4.6
NK Brand	S39-G2X	—	—	—	—	3268	—	3.9
NK Brand	S44-C7X	—	—	—	—	3300	—	4.4
Pioneer	P46A57BX	White	Light Tawny	Brown	Black	2670	I	4.6
Pioneer	P42A96X	White	Light Tawny	Tan	Black	2473	I	4.2
Pioneer	P44A72BX	Purple	Tawny	Tan	Black	3096	I	4.4
Progeny Ag	P4255RX	Purple	Gray	Tan	Imp. Black	2862	—	4.2
Progeny Ag	P4265RXS	—	—	—	—	2708	—	4.2
Progeny Ag	P4444RXS	Purple	Light Tawny	Brown	Black	2464	—	4.4
Progeny Ag	P4620RXS	White	Tan	Brown	Black	2721	—	4.6
Progeny Ag	P4670RX	—	—	—	—	—	—	4.6
REV	4679X	Purple	Tawny	Tan	Black	2768	—	4.6
U. of Missouri	S14-15146R	White	Tawny	Tan	Black	2890	I	4.6

¹Represents an average number of seed per pound; seed may vary according to season and location.

²D = determinate; I = indeterminate.

³Relative Maturity is an indicator of how this variety or line matures in relationship to other varieties or lines. The whole number refers to Maturity Groups IV and V. The decimal numbers convey the relative earliness or lateness. For example, 4.0 is very early in Group IV, while 4.9 is very late in Group IV.

Table 92. Plant Characteristics of Maturity Group IV Late Xtend Roundup Ready Soybeans.

Brand	Variety	Color				Seeds ¹	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I ²	RM ³
AgriGold	G4815RX	Purple	Gray	Brown	Black	3246	—	4.8
AGS	GS47X19	—	—	—	—	2509	—	4.7
AGS	GS49X19	—	—	—	—	2924	—	4.9
ARMOR	X47D18	—	—	—	—	3125	—	4.7
ARMOR	X47D85	—	—	—	—	3056	—	4.7
ARMOR	X48D25	—	—	—	—	2920	—	4.8
ARMOR	X49D67	—	—	—	—	2947	—	4.9
Asgrow	AG47X9	Purple	Light Tawny	Brown	Black	2850	—	4.7
Asgrow	AG48X9	Purple	Light Tawny	Tan	Black	3099	—	4.8
Asgrow	AG49X9	Purple	Light Tawny	Brown	Black	2660	—	4.9
Credenz	CZ 4869X	—	—	—	—	2850	—	4.8
Credenz	CZ 4979X	—	—	—	—	2740	—	4.9
Delta Grow	48X45	Purple	Light Tawny	Tan	Black	2468	I	4.8
Delta Grow	48X95	Purple	Gray	Tan	Imp. Black	2982	I	4.8
Delta Grow	49X15	Purple	Gray	Brown	Imp. Black	2885	I	4.9
Don Mario	47X01	Purple	Light Tan	Tan	Black	3064	D/I	4.7
Don Mario	49J3X	Purple	Light Tan	Tan	Black	2787	D/I	4.9
Dyna-Gro	S47XT20	Purple	Light Tawny	Brown	Black	2973	I	4.7
Dyna-Gro	S48XT56	Purple	Light Tawny	Tan	Black	2436	I	4.8
Dyna-Gro	S49XT39	Purple	Gray	Brown	Imp. Black	2872	I	4.9
Dyna-Gro	S49XT70	White	Light Tawny	Brown	Black	3099	I	4.9
Great Heart Seed	GT-4833XS	Purple	Light Tawny	Tan	Black	3006	I	4.8
Great Heart Seed	GT-4979X	Purple	Light Tawny	Tan	Black	2863	I	4.9
Great Heart Seed	GT-4764XS	Purple	Gray	Brown	Black	3162	I	4.7
Great Heart Seed	GT-4802X	Purple	Light Tawny	Tan	Black	2604	I	4.8
LG Seeds	C4845RX	Purple	Light Tawny	Tan	Black	2476	—	4.8
LG Seeds	LGS4899RX	Purple	Light Tawny	Tan	Black	3033	—	4.8
LG Seeds	LGS4931RX	Purple	Light Tawny	Brown	Black	3138	—	4.9
Local Seed	LS4798X	—	—	—	—	2982	—	4.7
Local Seed	LSX4701E	—	—	—	—	2838	—	4.7
Local Seed	LSX4801X	—	—	—	—	2871	—	4.8
Local Seed	LS4889XS	Purple	Buff	Tan	—	2775	—	4.8
Local Seed	LSX4901X	—	—	—	—	3051	—	4.9
Mission Seed	MEX 4908	Purple	Light Tawny	Tan	Black	2800	—	4.9
Morsoy	MS 4846	Purple	Light Tan	Tan	Black	2700	D/I	4.8
NK Brand	S47-Y9X	—	—	—	—	3100	—	4.7
NK Brand	S49-F5X	—	—	—	—	2872	—	4.9
Pioneer	P48A60X	Purple	Light Tawny	Brown	Black	3152	I	4.8
Progeny Ag	P4799RXS	White	Light Tawny	Brown	Black	2658	—	4.7
Progeny Ag	P4816RX	Purple	Light Tawny	Tan	Black	2240	—	4.8
Progeny Ag	P4821RX	Purple	Tan	Brown	Black	2155	—	4.8
Progeny Ag	P4851RX	Purple	Light Tawny	Brown	Black	2312	—	4.8
Progeny Ag	P4999RX	—	—	—	—	2784	—	4.9
REV	4927X	Purple	Light Tawny	Brown	Black	2701	—	4.9
REV	4940X	—	—	—	—	2534	—	4.9
U. of Missouri	S14-15138R	White	Tawny	Tan	Black	2835	I	4.8
USG	7470XTS	Purple	Purple	Brown	Imp. Black	3175	—	4.7
USG	7489XTS	Purple	Light Tawny	Tan	Black	2586	—	4.8
USG	7496XTS	Purple	Light Tawny	Brown	Black	3042	—	4.9

¹Represents an average number of seed per pound; seed may vary according to season and location.

²D = determinate; I = indeterminate.

³Relative Maturity is an indicator of how this variety or line matures in relationship to other varieties or lines. The whole number refers to Maturity Groups IV and V. The decimal numbers convey the relative earliness or lateness. For example, 4.0 is very early in Group IV, while 4.9 is very late in Group IV.

Table 93. Plant Characteristics of Maturity Group IV Enlist Roundup Ready Soybeans.

Brand	Variety	Color				Seeds ¹	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I ²	RM ³
Delta Grow	45E23	White	Gray	Tan	Buff	3060	I	4.5
Delta Grow	48E39	White	Light Tawny	Brown	Brown	3244	I	4.8
Delta Grow	47E25	Purple	Gray	Brown	Imp. Black	2688	I	4.7
Delta Grow	49E29	White	Gray	Brown	Buff	2973	I	4.9
Delta Grow	48E49	White	Gray	Brown	Black	2760	I	4.8
Don Mario	48D3E	White	Gray	Brown	Black	3978	D/I	4.8
Go Soy	*463E9	—	—	—	—	3530	—	4.6
Go Soy	*482E18	—	—	—	—	2337	—	4.8
Go Soy	46GL19	—	—	—	—	3351	—	4.6
Petrus Seed	4916 GT	Purple	Tawny	Tan	Black	3500	D/I	4.9
USG	7480ET	White	Gray	Brown	Buff	2686	—	4.8

¹Represents an average number of seed per pound; seed may vary according to season and location.

²D = determinate; I = indeterminate.

³Relative Maturity is an indicator of how this variety or line matures in relationship to other varieties or lines. The whole number refers to Maturity Groups IV and V. The decimal numbers convey the relative earliness or lateness. For example, 4.0 is very early in Group IV, while 4.9 is very late in Group IV.

Table 94. Plant Characteristics of Maturity Group V Xtend Soybeans.

Brand	Variety	Color				Seeds ¹	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I ²	RM ³
AgriGold	G5000RX	Purple	Light Tan	Brown	Black	3138	—	5
Asgrow	AG52X9	Purple	Light Tan	Tan	Black	3110	—	5.2
Asgrow	AG53X0	Purple	Light Tan	Brown	Black	3400	—	5.3
Asgrow	AG53X9	Purple	Gray	Tan	Imp. Black	3000	—	5.3
Asgrow	AG55X7	White	Tan	Tan	Black	3431	—	5.5
Credenz	CZ 5299X	—	—	—	—	3035	—	5.2
Delta Grow	52X05	White	Gray	Tan	Buff	3117	—	5.2
Delta Grow	54X25	White	Gray	Tan	Buff	3164	—	5.4
Dyna-Gro	S52XT08	White	Tawny	Brown	Black	3036	D	5.2
Dyna-Gro	S52XS39	White	Gray	Tan	Buff	3422	I	5.2
Dyna-Gro	S54XT17	White	Gray	Tan	Buff	3088	D	5.4
Dyna-Gro	S56XT99	White	Tawny	Tan	Black	2692	D	5.6
Great Heart Seed	GT-5214X	Purple	Tan	Brown	Black	—	I	5.2
Great Heart Seed	GT-5528X	White	Tawny	Tan	Black	3011	D	5.5
Local Seed	LS5087X	Purple	Tawny	Tan	—	2511	—	5
Local Seed	LS5386X	Purple	Tawny	Gray	—	2551	—	5.3
Local Seed	LS5588X	Purple	Tawny	Tan	—	2716	—	5.5
NK Brand	S51-R3XS	—	—	—	—	2971	—	5.1
NK Brand	S53-F7X	—	—	—	—	2686	—	5.3
Pioneer	P55A49X	White	Gray	Brown	Buff	3300	D	5.5
Pioneer	P54A54X	White	Gray	Brown	Buff	2792	D	5.4
Progeny Ag Products	P5016RXS	Purple	Light Tan	Brown	Black	2731	—	5
Progeny Ag Products	P5170RX	—	—	—	—	2924	—	5.1
Progeny Ag Products	P5252RX	White	Gray	Tan	Buff	2847	—	5.2
Progeny Ag Products	P5335RX	—	—	—	—	—	—	5.3
Progeny Ag Products	P5554RX	White	Tan	Tan	Black	2488	—	5.4
Progeny Ag Products	P5688RX	White	Tan	Brown	Black	2507	—	5.6
REV	5659X	—	—	—	—	2675	—	5.6
U. of Missouri	S14-9017R	White	Tawny	Tan	Black	2855	I	5.3
U. of Missouri	S16-3747RY	—	—	—	—	3073	—	5.4

¹Represents an average number of seed per pound; seed may vary according to season and location.

²D = determinate; I = indeterminate.

³Relative Maturity is an indicator of how this variety or line matures in relationship to other varieties or lines. The whole number refers to Maturity Groups IV and V. The decimal numbers convey the relative earliness or lateness. For example, 4.0 is very early in Group IV, while 4.9 is very late in Group IV.

Table 95. Plant Characteristics of Maturity Group V Enlist Roundup Ready Soybeans.

Brand	Variety	Color				Seeds ¹	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I ²	RM ³
ARMOR	51-D77	—	—	—	—	2855	—	5.1
ARMOR	52-D71	—	—	—	—	2671	—	5.2
Delta Grow	52E22	White	Gray	Brown	Imp. Black	2846	I	5.2
Delta Grow	5585 RR2/STS	Purple	Tawny	Tan	Brown	2570	—	5.5
Go Soy	*512E18	—	—	—	—	3001	—	5.1
Go Soy	50G17	—	—	—	—	3122	—	5

¹Represents an average number of seed per pound; seed may vary according to season and location.

²D = determinate; I = indeterminate.

³Relative Maturity is an indicator of how this variety or line matures in relationship to other varieties or lines. The whole number refers to Maturity Groups IV and V. The decimal numbers convey the relative earliness or lateness. For example, 4.0 is very early in Group IV, while 4.9 is very late in Group IV.

Table 96. Plant Characteristics of Maturity Group IV LibertyLink Soybeans.

Brand	Variety	Color				Seeds ¹	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I ²	RM ³
Credenz	CZ 3660GTLL	—	—	—	—	—	—	3.6
Credenz	CZ 3929GTLL	—	—	—	—	2700	—	3.9
Credenz	CZ 4539GTLL	—	—	—	—	2880	—	4.5
Credenz	CZ 4649LL	—	—	—	—	2760	—	4.6
Delta Grow	4977 LL/STS	Purple	Gray	Tan	Imperfect Black	2540	I	4.9
Go Soy	44GL18	—	—	—	—	3185	—	4.4
Go Soy	46GL18	—	—	—	—	3351	—	4.6

¹Represents an average number of seed per pound; seed may vary according to season and location.

²D = determinate; I = indeterminate.

³Relative Maturity is an indicator of how this variety or line matures in relationship to other varieties or lines. The whole number refers to Maturity Groups IV and V. The decimal numbers convey the relative earliness or lateness. For example, 4.0 is very early in Group IV, while 4.9 is very late in Group IV.

Table 97. Plant Characteristics of Maturity Group IV Conventional Soybeans.

Brand	Variety	Color				Seeds ¹	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I ²	RM ³
Go Soy	48C17S	—	—	—	—	2481	—	4.8
U. of Missouri	S13-2743C	White	Gray	Tan	Buff	2965	I	4.1
U. of Missouri	S13-10590C	White	Tawny	Tan	Black	2820	I	4.3
U. of Missouri	S13-3851C	Purple	Tawny	Tan	Black	3290	I	4.4
U. of Missouri	S10592C	White	Tawny	Tan	Black	2820	I	4.5
U. of Missouri	S16-14730C	—	—	—	—	2930	—	4.5
U. of Missouri	S16-14379C	—	—	—	—	2707	—	4.7
Virtue	V45206S	White	Light Tan	Tan	Black	3265	D/I	4.5
Virtue	V47205S	White	Light Tan	Tan	Black	3198	D/I	4.7
Virtue	V49203S	White	Light Tan	Tan	Black	3030	D/I	4.9

¹Represents an average number of seed per pound; seed may vary according to season and location.

²D = determinate; I = indeterminate.

³Relative Maturity is an indicator of how this variety or line matures in relationship to other varieties or lines. The whole number refers to Maturity Groups IV and V. The decimal numbers convey the relative earliness or lateness. For example, 4.0 is very early in Group IV, while 4.9 is very late in Group IV.

Table 98. Plant Characteristics of Maturity Group V Conventional Soybeans.

Brand	Variety	Color				Seeds ¹	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I ²	RM ³
U. of Missouri	S11-20242C	White	Tawny	Tan	Black	3520	D/I	5.1
U. of Missouri	M05201D CONV	White	Light Tawny	Tan	Black	3265	D	5.3
U. of Missouri	S13-1955C	White	Tawny	Tan	Black	3195	D	5.5
U. of Missouri	S15-10434C	Purple	Tawny	Tan	Black	3750	—	5.5

¹Represents an average number of seed per pound; seed may vary according to season and location.

²D = determinate; I = indeterminate.

³Relative Maturity is an indicator of how this variety or line matures in relationship to other varieties or lines. The whole number refers to Maturity Groups IV and V. The decimal numbers convey the relative earliness or lateness. For example, 4.0 is very early in Group IV, while 4.9 is very late in Group IV.

Public Varieties Entered

University of Missouri

S13-2743C

S13-10590C

S13-3851C

S13-10592C

S14-15146R

S14-15138R

S11-20242C

M05201D CONV

S14-9017R

S13-1955C

S15-10434C

S16-14730C

S16-14379C

S16-3747RY

Seed Treatment – INOVATE

Commercial Varieties Entered

Company	Variety				Seed treatment
Armor Seed 183 Pennsylvania Ave. Waldenburg, AR 72475	Armor	42-D27	Armor	52-D71	DEFEND XTRA
	Armor	44-D92			
	Armor	X45D51			
	Armor	X47D85			
	Armor	X47D18			
	Armor	X48D25			
	Armor	X49D67			
	Armor	51-D77			
BASF	Credenz	CZ 3929GTLL			—
	Credenz	CZ 4539GTLL			
	Credenz	CZ 4649LL			
	Credenz	CZ 4869X			
	Credenz	CZ 4979X			
	Credenz	CZ 5299X			
Petrus Seed & Grain Co. 4100 Hanson Rd. Hazen, AR 72064	Petrus Seed	4916 GT			—
Delta Grow Seed P.O. Box 219 England, AR 72046	Delta Grow	45E23*	Delta Grow	46X65 XTEND/STST	CrusierMAXX
	Delta Grow	46X25	Delta Grow	47E19*	
	Delta Grow	48X25	Delta Grow	48E39*	
	Delta Grow	48X95	Delta Grow	48E49*	
	Delta Grow	49X15	Delta Grow	47E25*	
	Delta Grow	52X05	Delta Grow	49E29*	
	Delta Grow	54X25	Delta Grow	52E22*	
	Delta Grow	46E29*	Delta Grow	48E28*	
	Delta Grow	48X05	Delta Grow	48E10*	
	Delta Grow	4977 LL/STS	Delta Grow	46E29*	
	Delta Grow	5585 RR2/STS	Delta Grow	47X95*	
	Nutrien Ag Solutions/Dyna-Gro Seed 254 U.S. Hwy. 72 West Collierville, TN 38014	Dyna-Gro	S45XS37	Dyna-Gro		S56XT99	Equity VIP
Dyna-Gro		S45XS66			
Dyna-Gro		S46XS60			
Dyna-Gro		S47XT20			
Dyna-Gro		S48XT56			
Dyna-Gro		S49XT39			
Dyna-Gro		S49XT70			
Dyna-Gro		S52XT08			
Dyna-Gro		S52XS39			
Dyna-Gro		S54XT17			
Great Heart Seed 220 West Washington St. Paris, IL 61944	Great Heart Seed	GT-4833XS	Great Heart Seed Great Heart Seed	GT-5528X GT-4616X GT-4802X	Great Start Max
	Great Heart Seed	GT-4979X			
	Great Heart Seed	GT-4677XS			
	Great Heart Seed	GT-4764XS			
	Great Heart Seed	GT-4255XS			
Bayer Crop Science 800 N. Lindbergh Blvd. St. Louis, MO 63167	Asgrow	AG43X8	Asgrow Asgrow	AG55X7 AG43X0	F+I=NEM
	Asgrow	AG45X8			
	Asgrow	AG46X0			
	Asgrow	AG46X6			
	Asgrow	AG47X9			
	Asgrow	AG48X9			
	Asgrow	AG49X9			
	Asgrow	AG52X9			
	Asgrow	AG53X0			
	Asgrow	AG53X9			
Progeny Ag Products 1529 Hwy. 193 Wynne, AR 72396	Progeny	P4255RX	Progeny Progeny Progeny	P5252RX P5554RX P5688RX	P600, Votivo, Trilex 2000, iLevo
	Progeny	P4265RXS			
	Progeny	P4444RXS			
	Progeny	P4620RXS			
	Progeny	P4799RXS			
	Progeny	P4816RX			
	Progeny	P4821RX			
	Progeny	P4851RX			
	Progeny	P4999RX			
	Progeny	P5016RXS			
Progeny	P5170RX				

Dupont Pioneer 59 Greif Parkway, Suite 200 Delaware, OH 43015	Pioneer Pioneer Pioneer Pioneer Pioneer	P42A96X P44A72BX P46A57BX P48A60X P54A54X	Pioneer	P55A49X	LumiGEN
Stratton Seed Company 1530 Hwy. 79 South Stuttgart, AR 72160	Go Soy Go Soy Go Soy Go Soy Go Soy Go Soy Go Soy	43C17S 50G17 *46E19 482E18* 512E18* 44GL18 46GL18	AGS AGS	GS47X19 GS49X19	CMV
Terral Seed 117 Ellington Dr. Rayville, LA 71269	Terral Terral Terral Terral	REV 4679X REV 4940X REV 4927X REV 5659X			—
UniSouth Genetics 3205-C Hwy. 46 South Dickson, TN 37055	USG USG USG USG	7480ET 7470XTS 7489XT 7496XTS			Ipconazole/Metalaxyl/ Thiabendazole
AgriGold Hybrids 5381 Akin Rd. St. Francisville, IL 62460	AgriGold AgriGold AgriGold	G4440RX G4579RX G4605RX	AgriGold AgriGold	G4815RX G5000RX	AgriShield F+I
SeedKoz 1725 Windward Concourse Suite 410 Alpharetta, GA 30005	MorSoy MorSoy	MS 4616 MS 4846			—
Mission Seed Solutions 516 N. Sharpe Ave. Cleveland, MS 38732	Mission Seed Solutions Mission Seed Solutions Mission Seed Solutions	A4448X A4618X A4950X			Revize PBI
GDM Seeds 4003 Commercial Center Dr. Marion, AR 72364	Virtue Virtue Virtue	V45206S V47205S V49203S	Don Mario Don Mario Don Mario	47X01 49J3X 48D3E	—
Local Seed Company 802 Rozelle St. Memphis, TN 38104	Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co	LS3976X LSX4301XS LS4487XS LSX4801X LS5386X LS4889XS LSX4501X LS4565XS LS4583X	Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co	LSX4503GLS LSX4601XS LS4677X LSX4901X LS5588X LS5087X LSX4602ES LS4798X LSX4701E	—
NK Seeds 5210 State Road 945 Hickory, KY 42051	NK Seeds NK Seeds NK Seeds NK Seeds NK Seeds NK Seeds	S39-G2 S44-C7X S47-Y9X S49-F5X S51-R3XS S53-F7X			Clariva Complete + Mertect
LG Seeds 1122 East 169th St. Wesfield, IN 46074	LG Seeds LG Seeds LG Seeds LG Seeds LG Seeds	LGS4597RX LGS4682RX C4845RX LGS4899RX LGS4931RX LGS4420RX			AgriShield F+I+Ilevo



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George M. Hopper, Director

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