MISSISSIPPI SOYBEAN
VARIETY TRIALS, 2018

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MISSISSIPPI'S OFFICIAL VARIETY TRIALS

MISSISSIPPI STATE UNIVERSITY™
MS AGRICULTURAL AND
FORESTRY EXPERIMENT STATION

Mississippi Soybean Variety Trials, 2018

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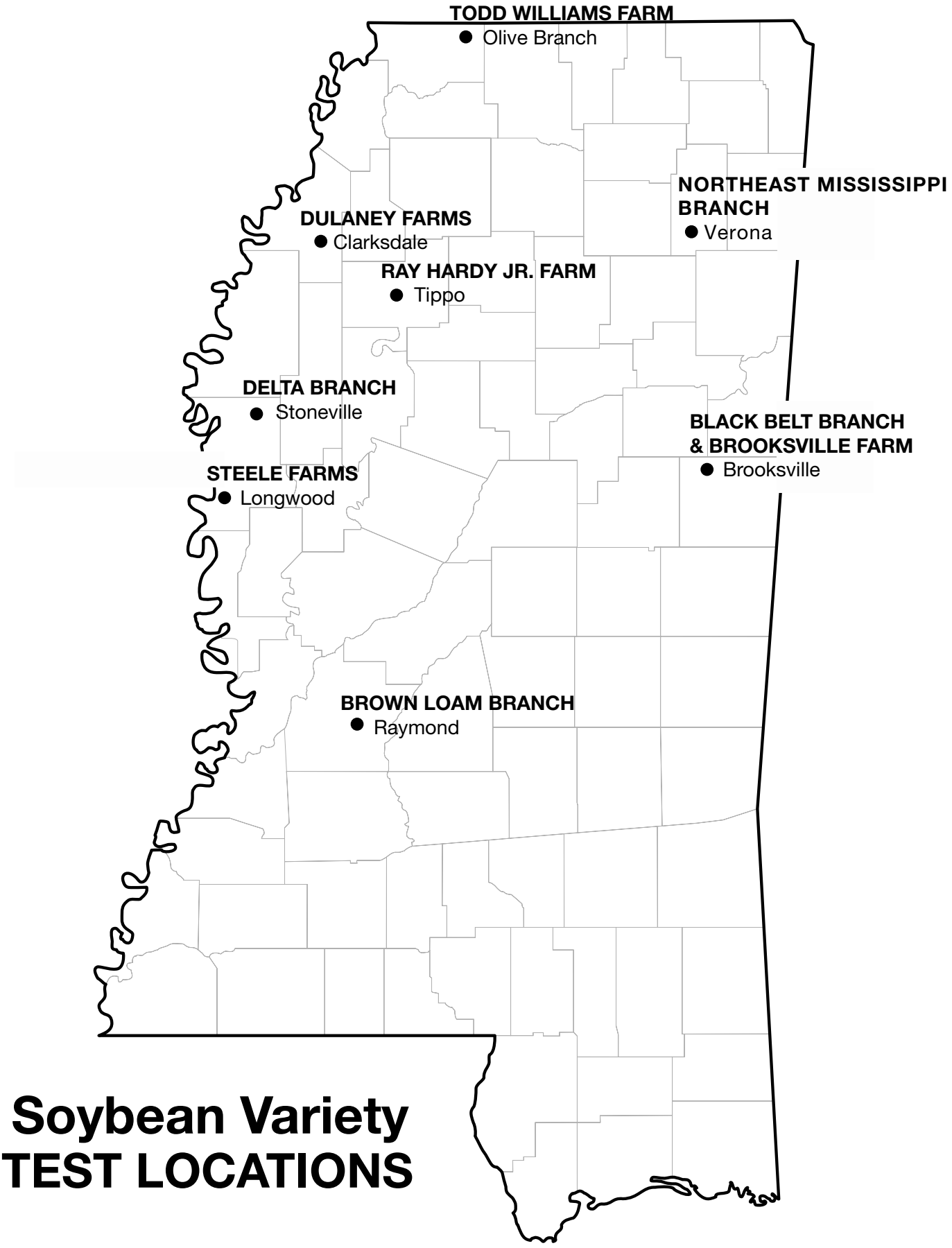
Find variety trial information online at ***mafes.msstate.edu/variety-trials***.



Soybean Variety TEST LOCATIONS

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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 2018 (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. 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 79 to 86 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 68 to 75 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 87 to 94, 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 roup	Check
Group IV	AG4632
Group V	52A94

Roundup Ready Test

Maturity Group	Early Check	Late Check
Group IV Early		AG4632
Group IV Late	AG4632	P4900RY
Group V Early	52A94	S57RY26
Group V Late	S57RY26	

LibertyLink

Maturity Group	Check
Group IV	P 4930LL
Group V	CZ 5150 LL

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. 2018 Soybean Locations.

Location	Planting date	Harvest dates	Soil type	Row spacing	Irrigation
1. Brooksville Station	4/20	All groups on September 18	Brooksville silty clay	19”	No
2. Brooksville Farm	5/4	All groups on September 20	Brooksville silty clay	30”	Yes
3. Clarksdale	5/2	All groups on October 5	Alligator clay and Sharkey clay	30”	Yes
4. Longwood	5/1	All groups on October 4	Sharkey clay	19”	Yes
5. Olive Branch	5/10	All groups on October 12	Collins silt loam	19”	No
6. Raymond	4/20	IVE, IVL RR, and IV LL on September 19; VE, VL RR, and V LL on October 3	Loring silt loam	19”	No
7. Stoneville (clay)	5/1	IVE RR on September 21; IVL RR on October 8	Sharkey clay	19”	No
8. Stoneville (clay)	5/8	All groups on October 8	Sharkey clay	30”	Yes
9. Stoneville (loam)	4/19	All groups on October 2	Bosket and Commerce very fine sandy loam	30”	Yes
10. Tippo	5/1	All groups on September 20	Dundee, and Tensas silt loam	19”	No
11. Verona	5/3	IVE RR, and IV LL on September 21; IVL, VE, VL RR and V LL on October 3	Leeper silty clay	19”	No

Table 2. Summary of Yield for Group IV Early Roundup Ready for the 2018 Mississippi Soybean Variety Trials.

Brand	Variety[1]	Brooksville irr. (clay)	Clarksdale irr. (clay)[2]	Longwood irr. (clay)	Stoneville irr. (clay)	Stoneville irr. (loam)	Irrigated avg.	Brooksville not irr. (clay)	Olive Branch not irr. (loam)[2]	Raymond not irr. (loam)	Stoneville not irr. (clay)	Tippo not irr (loam)	Verona not irr. (clay)	Not irr. avg.	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
AgriGold	G4440RX	86.6	98.9	65.2	83.0	75.5	81.8	58.9	78.1	79.7	50.0	38.3	88.7	65.6	73.0
AgriGold	G4579RX	82.3	89.4	91.4	77.6	80.6	84.3	65.9	81.6	81.8	57.1	44.2	81.9	68.8	75.8
AgriGold	G4605RX	81.7	91.9	79.0	77.6	75.4	81.1	61.4	81.1	81.6	61.9	39.0	87.7	68.8	74.4
AGS	GS46X17	81.5	86.1	93.0	82.3	80.6	84.7	51.2	83.4	69.6	50.1	43.7	82.1	63.4	73.1
Armor	42-D27	83.1	81.6	87.5	74.4	75.3	80.4	55.8	86.2	62.3	39.1	44.1	89.3	62.8	70.8
Armor	X45D50 *	84.8	101.7	97.1	84.6	76.3	88.9	65.5	86.5	83.7	60.0	40.2	88.0	70.7	78.9
Armor	X46D63 *	82.9	88.8	84.0	75.7	77.6	81.8	62.7	82.9	70.0	58.0	43.8	78.1	65.9	73.1
Asgrow	AG42X9	83.5	93.7	72.7	82.0	66.5	79.7	55.8	97.5	73.1	53.7	36.8	91.5	68.0	73.3
Asgrow	AG43X7	86.9	94.2	88.9	81.8	73.5	85.0	58.8	85.9	82.0	52.3	45.5	87.3	68.6	76.1
Asgrow	AG43X8	77.7	95.1	96.2	81.3	70.8	84.2	54.3	85.4	69.6	56.4	40.4	74.0	63.3	72.8
Asgrow	AG45X8	91.0	96.3	88.5	81.8	80.4	87.6	58.7	97.4	75.6	38.2	40.8	92.8	67.2	76.5
Asgrow	AG46X6	93.6	103.5	84.9	91.9	85.8	92.0	64.2	88.9	75.0	59.1	45.0	82.7	69.2	79.5
Croplan	RX 4217 S	69.4	81.9	81.0	69.6	66.1	73.6	47.6	70.8	65.8	39.2	31.9	72.9	54.7	63.3
Croplan	RX 4500 S	86.7	99.5	89.2	88.9	88.2	90.5	63.5	89.0	79.2	52.8	44.9	92.3	70.3	79.5
Croplan	RX4687S	92.1	89.4	97.0	81.1	79.6	87.8	58.4	89.0	78.4	68.0	43.3	100.1	72.9	79.7
Delta Grow	4670RR2	85.3	—	85.8	81.7	81.3	83.5	61.6	—	78.1	56.9	40.3	74.6	62.3	71.7
Delta Grow	DG 46X25RR2 Xtend	81.8	100.8	99.8	82.5	88.6	90.7	66.8	82.0	101.2	65.5	39.8	83.3	73.1	81.1
Dyna-Gro	S41XS98	85.0	89.2	81.0	81.1	72.4	81.7	51.9	103.0	55.0	39.2	38.4	78.1	60.9	70.4
Dyna-Gro	S45XS37	84.2	94.4	94.7	83.7	83.0	88.0	61.7	94.8	81.4	46.2	36.7	88.7	68.3	77.2
Dyna-Gro	S45XS66	85.6	98.2	67.3	84.5	81.0	83.3	56.6	84.0	68.3	64.1	39.3	83.6	66.0	73.9
Dyna-Gro	SX18845XT *	87.7	102.1	76.4	86.8	84.1	87.5	67.0	88.5	75.2	53.1	39.9	90.6	69.1	77.4
Great Heart	GT-4628X	80.1	92.9	65.6	75.3	75.3	77.8	57.4	78.5	78.9	58.8	35.0	80.6	64.9	70.8
Great Heart	GT-4685XS	83.7	88.1	87.3	79.5	73.8	82.5	56.7	74.7	59.2	54.9	40.9	83.1	61.6	71.1
Local Seed Co	LS4487XS	83.4	95.9	73.1	84.3	80.5	83.5	61.8	93.3	81.4	62.2	45.8	82.1	71.1	76.7
Local Seed Co	LS4565XS	87.7	87.4	86.7	78.6	89.5	86.0	53.8	102.3	85.3	58.6	47.9	97.6	74.3	79.6
Local Seed Co	LS4583X	90.5	104.3	81.0	84.4	87.3	89.5	60.7	89.6	89.5	63.2	41.1	86.8	71.8	79.9
Local Seed Co	LS4677X	83.7	98.0	93.9	84.9	89.2	89.9	63.2	94.7	80.9	55.9	42.6	104.1	73.6	81.0
Local Seed Co	LS4689X	80.6	94.6	84.0	80.0	77.0	83.2	50.6	83.7	81.9	53.0	42.6	80.6	65.4	73.5
Mission Seed Solutions	A4447NSXR2	82.6	95.7	91.7	80.3	76.6	85.4	60.8	84.1	76.6	71.1	48.8	97.8	73.2	78.7
Mission Seed Solutions	A4608X	86.9	93.9	84.8	82.1	77.3	85.0	55.0	79.9	82.5	59.8	38.2	93.5	68.1	75.8
Mission Seed Solutions	A4637NSXR2	86.4	94.2	85.7	85.1	83.0	86.9	58.1	80.9	70.2	52.2	36.9	82.7	63.5	74.1
Mission Seed Solutions	A4618X	82.7	86.4	88.9	78.0	75.7	82.4	59.3	90.1	92.6	56.0	46.3	85.3	71.6	76.5
MorSoy	MS 4426 RXT	85.2	94.8	89.8	84.0	79.8	86.7	52.5	82.6	75.9	54.3	37.2	82.9	64.2	74.5
MorSoy	MS 4616 RXT	88.9	99.0	73.8	88.2	77.1	85.4	63.4	79.0	94.9	58.0	49.0	89.4	72.3	78.3
NK Brand	S43-V3X	82.2	90.2	89.1	78.6	70.5	82.1	50.8	90.3	58.7	44.4	35.3	89.3	61.5	70.9
NK Seeds	S45-J3X	87.7	95.6	85.0	86.0	78.8	86.6	57.1	85.8	81.7	50.6	47.6	91.8	69.1	77.1
NK Seeds	S45-K5X	82.5	95.8	87.9	83.7	87.7	87.5	59.4	90.7	78.5	54.5	46.6	95.6	70.9	78.4
Pioneer	P42A96X	78.4	96.1	94.9	78.4	81.9	85.9	52.2	85.3	75.2	48.3	42.8	83.6	64.6	74.3
Pioneer	P46A16R	86.4	—	95.5	87.8	85.5	88.8	54.6	—	76.1	64.4	34.4	97.3	65.3	75.8
Pioneer	P46A57BX	86.2	99.8	95.8	83.2	84.0	89.8	60.5	92.7	78.6	54.7	41.4	84.8	68.8	78.3
Progeny	P4255RX	81.1	85.6	82.3	76.0	73.2	79.6	52.1	83.1	72.0	45.6	41.6	87.8	63.7	70.9
Progeny	P4444RXS	81.9	99.1	101.6	79.8	75.8	87.7	54.8	82.5	77.1	53.4	36.7	86.1	65.1	75.4
Progeny	P4620RXS	89.7	95.1	62.2	85.1	81.8	82.8	62.6	79.8	87.7	59.3	41.3	87.3	69.7	75.6
Progeny	P4570RXS	86.1	88.5	83.7	76.8	75.9	82.2	51.3	78.5	78.8	61.7	42.2	79.6	65.3	73.0
Progeny	P4318RX	72.6	82.5	77.4	66.2	61.6	72.1	42.7	71.1	60.4	39.8	34.1	79.7	54.6	62.5
Terral	REV 4679X *	83.5	96.3	83.9	85.2	88.7	87.5	53.5	82.3	70.4	55.7	39.2	89.1	65.0	75.3
U. of Missouri	S14-15146R *	73.1	—	98.1	73.5	72.3	79.3	49.0	—	68.1	50.5	40.7	81.8	58.0	67.5
USG	7447XTS	87.7	93.5	71.2	77.7	76.4	81.3	54.7	82.2	69.6	58.4	38.8	73.5	62.9	71.2
Mean		84.0	93.8	85.6	81.1	78.7	84.5	57.4	85.8	76.4	54.7	41.1	86.2	66.7	74.8
CV		4.9	5.3	10.2	5.3	9.5		11.7	11.9	13.1	11.5	11.7	13.8		
LSD (0.05)		6.7	8.1	14.1	6.9	12.1		10.9	NS	16.2	10.2	7.8	19.3		
R^2		65.9	67.1	71.7	67.1	56.5		57.6	72.7	59.8	69.7	52.8	35.8		
Error DF		94	88	94	94	94		94	88	94	94	94	94		

[1]Variety followed by an asterisk indicates an experimental entry.
[2]Varieties lacking the Xtend trait were omitted from these locations due to uncertainty of exposure and timing of dicamba drift occurrence.

Table 3. Summary of 2-Year Yields for Maturity Group IV Early Roundup Ready for the 2017 and 2018 Mississippi Soybean Variety Trials.

Brand	Variety	Brooksville irr.	Clarksdale[1]	Longwood	Stoneville irr. (clay)	Stoneville irr. (loam)	Irrigated avg.	Brooksville not irr.	Olive Branch not irr.[1]	Raymond not irr.	Stoneville not irr.	Tippo not irr.	Not irr. avg.	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
AgriGold	G4440RX	70.3	69.2	77.8	84.3	75.6	75.4	63.8	85.4	80.6	68.2	36.4	66.9	71.2
AGS	GS46X17	58.6	75.1	91.8	83.5	81.3	78.1	55.3	78.6	79.5	71.4	37.2	64.4	71.2
Asgrow	AG43X7	68.9	86.4	90.6	84.5	72.2	80.5	62.9	84.9	80.3	71.5	37.2	67.4	73.9
Asgrow	AG45X8	69.4	86.1	93.1	84.6	80.6	82.8	59.7	93.6	79.5	59.8	36.2	65.8	74.3
Asgrow	AG46X6	67.2	89.6	91.7	92.1	82.4	84.6	64.0	87.9	85.8	77.4	38.4	70.7	77.7
Delta Grow	4670RR2	65.4	—	87.1	83.4	80.7	79.1	64.4	—	82.2	74.4	38.3	64.9	72.0
Dyna-Gro	S45XS37	66.2	85.9	94.9	82.8	81.2	82.2	61.6	90.9	85.9	67.8	34.2	68.1	75.1
Dyna-Gro	S45XS66	70.5	90.3	81.9	86.2	76.0	81.0	69.9	81.6	84.0	76.6	36.6	69.7	75.4
MorSoy	MS 4616 RXT	71.2	86.3	85.1	85.9	75.3	80.8	64.4	85.2	95.2	73.0	40.8	71.7	76.2
NK Brand	S43-V3X	62.4	79.4	91.1	81.2	71.8	77.2	57.8	81.9	62.5	62.6	29.3	58.8	68.0
NK Seeds	S45-K5X	61.6	83.3	89.7	85.2	82.2	80.4	58.6	87.0	86.5	67.3	38.9	67.7	74.0
Progeny	P4255RX	62.6	57.1	84.3	83.7	72.4	72.0	55.7	83.8	75.4	63.7	35.0	62.7	67.4
Progeny	P4444RXS	66.7	84.2	93.3	82.6	77.5	80.9	66.8	84.7	80.7	70.7	32.7	67.1	74.0
Progeny	P4620RXS	69.1	85.6	83.0	85.0	78.7	80.3	66.6	82.6	92.9	74.9	39.1	71.2	75.8
Overall Mean		66.4	81.4	88.2	84.6	77.7	79.7	62.3	85.2	82.2	70.0	36.5	66.9	73.3

[1]No 2-year averages for Xtend varieties at these locations.

Table 4. Summary of 3-Year Yields for Maturity Group IV Early Roundup Ready for the 2016, 2017, and 2018 Mississippi Soybean Variety Trials.

Brand	Variety[1]	Brooksville irr.	Clarksdale irr.	Longwood irr.	Stoneville irr. (clay)	Stoneville irr. (loam)	Irrigated avg.	Brooksville not irr.	Olive Branch not irr.	Stoneville not irr.	Tippo not irr.	Not irr. avg.	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
Asgrow	AG46X6	—	—	—	87.8	80.0	83.9	58.1	—	76.9	—	67.5	75.7
Delta Grow	4670RR2	68.5	—	84.7	77.8	77.0	77.0	60.0	—	71.4	35.8	55.8	67.9
Dyna-Gro	S45XS66	—	—	—	82.1	74.9	78.5	63.5	—	74.4	—	69.0	73.7
Progeny	P4620RXS	—	—	—	79.2	77.0	78.1	59.4	—	69.7	—	64.5	71.3
Overall Mean		68.5	—	84.7	81.7	77.3		60.3	—	73.1	35.8	64.2	72.2

[1]No 3-year average for certain varieties at these locations.

Table 5. Summary of Yield for Group IV Late Roundup Ready for the 2018 Mississippi Soybean Variety Trials.

Brand	Variety[1]	Brooksville irr. (clay)	Clarksdale irr. (clay)[2]	Longwood irr. (clay)	Stoneville irr. (clay)	Stoneville irr. (loam)	Irrigated avg.	Brooksville not irr. (clay)	Olive Branch not irr. (loam)[2]	Raymond not irr. (loam)	Stoneville not irr. (clay)	Tippo not irr (loam)	Verona not irr. (clay)	Not irr. avg.	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
AgriGold	G4995RX	86.7	99.5	83.1	88.3	93.1	90.1	66.6	92.3	79.9	70.0	42.3	94.3	74.3	81.5
AGS	GS 48X18	86.6	96.5	85.7	84.3	92.2	89.1	63.5	93.1	68.0	61.2	46.6	95.4	71.3	79.4
Armor	X47D22 *	89.3	82.4	82.7	88.1	92.2	86.9	60.3	91.7	66.0	61.6	44.8	99.1	70.6	78.0
Armor	X48D02 *	87.5	98.1	96.6	76.5	84.2	88.6	63.1	98.7	86.4	77.1	42.9	101.1	78.2	82.9
Armor	X49D31 *	86.2	90.2	112.5	91.7	77.6	91.6	68.5	90.1	80.1	75.7	40.7	93.9	74.8	82.5
Asgrow	AG47X9	86.6	91.1	91.2	90.1	91.3	90.1	72.8	89.5	63.2	53.6	42.3	87.7	68.2	78.1
Asgrow	AG48X9	95.3	96.9	94.5	90.2	83.7	92.1	60.2	93.1	77.8	69.2	41.7	95.9	73.0	81.7
Asgrow	AG49X9	97.0	91.5	93.6	92.1	81.4	91.1	55.5	89.3	79.8	64.9	40.5	92.7	70.5	79.8
Croplan	RX4825	96.8	98.9	93.3	90.7	80.2	92.0	59.8	100.6	67.2	76.0	46.6	98.4	74.8	82.6
Croplan	RX4927	89.6	95.6	98.1	84.4	77.1	89.0	65.8	93.8	79.1	69.9	45.1	99.5	75.6	81.7
Delta Grow	DG 4790RR2	91.6	—	81.6	80.6	84.1	84.5	70.5	—	76.5	66.3	42.5	91.6	69.5	76.1
Delta Grow	DG 48X45RR2 Xtend	88.8	91.2	104.3	88.2	85.6	91.6	59.2	87.3	70.0	75.4	46.1	89.4	71.2	80.5
Dyna-Gro	S48XT56	92.8	94.9	91.5	84.1	80.6	88.8	65.0	89.9	53.6	69.7	39.7	94.0	68.6	77.8
Dyna-Gro	S49XT39	92.3	95.5	107.5	84.6	83.4	92.7	65.4	90.5	74.3	70.2	44.0	98.8	73.9	82.4
GoSoy	49G16	75.6	—	89.1	79.2	90.6	83.6	62.6	—	78.9	83.9	48.2	92.7	73.3	77.9
Great Heart Seed	GT-4809X	87.4	93.4	94.7	85.4	81.3	88.4	61.5	86.1	78.1	62.8	37.8	83.6	68.3	77.5
Great Heart Seed	GT-4833XS	86.8	96.6	99.3	68.8	74.3	85.2	73.4	82.8	77.5	72.7	43.9	102.6	75.5	79.9
Great Heart Seed	GT-4979X	92.0	100.8	105.8	86.4	80.9	93.2	64.6	84.2	75.3	74.6	40.6	95.5	72.5	81.9
Great Heart Seed	GT-4721X	93.5	96.0	86.9	86.2	82.9	89.1	59.9	80.8	70.8	64.3	44.0	96.0	69.3	78.3
Local Seed Co	AV47W2X	86.7	97.6	85.3	83.1	88.9	88.3	60.2	82.9	76.5	61.3	41.3	93.1	69.2	77.9
Local Seed Co	AV49W3X	91.2	97.4	87.6	86.9	78.4	88.3	65.5	87.2	83.5	66.6	47.0	103.6	75.5	81.3
Local Seed Co	LS4889XS	84.2	98.2	101.7	76.9	88.6	89.9	70.5	90.2	97.3	78.0	49.1	105.9	81.8	85.5
Local Seed Co	LS4966X	87.3	88.5	88.9	87.5	92.7	89.0	69.3	87.8	68.2	77.5	48.0	99.8	75.1	81.4
Local Seed Co	LS4968XS	87.4	81.3	89.3	81.2	94.0	86.6	59.2	92.8	81.4	72.2	45.1	89.7	73.4	79.4
Local Seed Co	LS4988X	82.2	96.2	92.1	80.9	78.9	86.1	67.4	87.9	84.3	65.7	39.5	93.8	73.1	79.0
Mission Seed Solutions	A4828X	88.1	89.9	102.4	71.3	88.7	88.1	66.9	88.3	72.2	75.3	39.2	96.0	73.0	79.8
Mission Seed Solutions	A4950X	93.8	99.6	86.5	87.3	87.0	90.8	64.7	81.7	91.7	76.4	38.1	96.2	74.8	82.1
MorSoy	MS 4846 RXT	96.9	90.3	93.9	90.7	81.7	90.7	53.2	97.6	71.2	79.6	47.5	86.1	72.5	80.8
NK Brand	S48-R2X	85.0	87.3	76.1	78.6	87.1	82.8	62.1	94.5	64.0	52.4	40.2	90.5	67.3	74.3
Petrus Seed	479 GTS	67.4	—	61.3	70.7	84.6	71.0	48.8	—	59.1	51.5	37.3	81.7	55.7	62.5
Petrus Seed	4916 GT	76.5	—	86.2	79.0	71.0	78.2	67.3	—	64.0	75.3	48.4	87.5	68.5	72.8
Pioneer	P48A60X	92.3	93.8	85.0	90.7	82.3	88.8	66.2	96.2	76.6	64.7	42.0	93.7	73.2	80.3
Progeny	P4757RY	88.4	—	87.6	86.4	83.7	86.5	60.8	—	74.6	59.3	43.4	94.5	66.5	75.4
Progeny	P4799RXS	87.4	92.8	90.2	79.4	85.4	87.1	67.1	83.0	72.8	66.7	46.7	90.0	71.0	78.3
Progeny	P4816RX	90.2	95.0	95.7	90.5	80.6	90.4	62.4	91.8	63.3	75.5	46.2	89.1	71.4	80.0
Progeny	P4944RX	88.7	90.3	87.3	80.1	83.3	85.9	64.9	77.5	77.0	60.9	36.9	96.7	69.0	76.7
Progeny	P4851RX	94.2	100.7	103.1	80.5	92.8	94.2	71.9	90.7	73.5	60.7	38.3	95.3	71.7	82.0
Progeny	P4955RX	89.4	99.3	98.8	86.5	92.1	93.2	73.1	87.5	76.8	70.7	36.3	103.6	74.7	83.1
Terral	REV 48A26	83.7	—	92.2	82.9	87.6	86.6	61.0	—	70.5	64.1	43.0	100.3	67.8	76.1
Terral	REV 47A98	91.0	—	88.2	90.6	82.3	88.0	57.5	—	71.6	60.9	43.3	90.3	64.7	75.1
Terral	REV 4857X	86.2	93.2	95.2	84.8	79.6	87.8	58.9	79.2	68.2	58.3	37.0	85.4	64.5	75.1
Terral	REV 4927X	91.3	107.1	88.2	87.5	85.5	91.9	77.6	97.5	75.6	64.5	43.3	98.4	76.1	83.3
U. of Missouri	S14-9051R *	74.4	—	66.5	74.1	81.0	74.0	62.0	—	60.4	47.1	42.9	78.2	58.1	65.2
U. of Missouri	S14-9051R	75.5	—	85.0	79.1	82.1	80.4	61.1	—	75.1	66.1	43.8	82.6	65.7	72.3
USG	7489XT	85.3	91.3	93.8	90.2	82.7	88.7	66.1	90.0	58.4	76.2	48.8	86.1	70.9	79.0
USG	7496XTS	93.9	97.6	98.6	82.2	85.1	91.5	73.8	95.9	84.4	72.5	40.0	86.3	75.5	82.8
Mean		87.9	94.5	91.5	83.8	84.2	87.9	64.3	89.0	73.7	67.8	42.9	93.4	71.2	
CV		5.5	9.8	8.1	6.0	11.9		12.8	9.5	14.2	7.3	10.3	8.6		
LSD (0.05)		7.9	NS	11.9	8.2	NS		NS	NS	17.0	8.0	7.2	13.0		
R^2		72.2	34.7	78.2	67.3	30.9		45.0	79.6	58.5	82.2	60.8	57.9		
Error DF		90	72	90	90	90		90	72	90	90	90	90		

[1]Variety followed by an asterisk indicates an experimental entry.
[2]Varieties lacking the Xtend trait were omitted from these locations due to uncertainty of exposure and timing of dicamba drift occurrence.

Table 6. Summary of 2-Year Yields for Maturity Group IV Late Roundup Ready for the 2017 and 2018 Mississippi Soybean Variety Trials.

Brand	Variety	Brooks-ville irr.	Clarks-dale[1]	Long-wood	Stone-ville irr. (clay)	Stone-ville irr. (loam)	Irrigated avg.	Brooks-ville not irr.	Olive Branch not irr.[1]	Raymond not irr.	Stone-ville not irr.	Tippo not irr.	Not irr. avg.	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
Croplan	RX4825	73.3	92.4	97.2	85.3	79.2	85.5	61.4	97.2	89.2	82.2	41.0	74.2	79.8
Delta Grow	DG 4790RR2	67.1	—	87.8	79.2	79.6	78.4	67.7	—	93.3	71.6	38.7	67.8	73.1
Delta Grow	DG 48X45RR2 Xtend	75.4	90.1	103.9	86.4	82.3	87.6	65.1	91.5	86.0	80.0	43.3	73.2	80.4
Dyna-Gro	S48XT56	72.8	91.3	98.4	80.3	78.5	84.3	63.0	89.3	73.4	82.9	35.2	68.7	76.5
GoSoy	49G16	65.1	—	91.0	77.9	81.7	78.9	66.1	—	87.7	85.8	46.3	71.5	75.2
Great Heart Seed	GT-4721X	76.2	91.4	92.0	84.1	82.8	85.3	63.0	88.3	84.9	81.9	38.1	71.2	78.3
MorSoy	MS 4846 RXT	77.4	89.9	103.6	88.2	77.7	87.4	62.2	98.9	91.6	88.2	40.9	76.3	81.9
NK Brand	S48-R2X	65.1	81.7	83.2	74.7	84.9	77.9	61.5	97.9	79.0	69.8	35.0	68.6	73.3
Petrus Seed	479 GTS	50.2	—	69.7	71.2	75.8	66.7	52.6	—	70.5	63.0	34.2	55.1	60.9
Petrus Seed	4916 GT	66.9	—	90.9	79.2	71.4	77.1	71.6	—	83.5	78.4	44.2	69.4	73.3
Progeny	P4757RY	63.9	—	90.2	81.8	83.2	79.8	65.8	—	89.1	70.0	41.9	66.7	73.2
Progeny	P4799RXS	67.9	88.1	89.3	76.7	81.4	80.7	65.0	92.2	88.2	75.2	42.8	72.7	76.7
Progeny	P4816RX	66.6	90.7	102.4	84.4	80.9	85.0	62.0	96.5	83.8	82.6	42.6	73.5	79.2
Progeny	P4851RX	75.5	93.2	105.2	83.7	88.2	89.2	69.9	94.6	96.1	74.2	31.8	73.3	81.2
Terral	REV 48A26	64.3	—	89.1	78.2	84.0	78.9	66.9	—	85.6	79.4	38.2	67.5	73.2
Terral	REV 4857X	71.5	88.4	99.7	83.9	79.1	84.5	65.2	86.2	89.8	73.1	30.8	69.0	76.8
Terral	REV 4927X	71.9	90.7	91.6	85.4	85.1	84.9	75.8	93.1	91.5	81.7	39.3	76.3	80.6
USG	7496XTS	66.5	86.6	89.4	78.1	79.5	80.0	74.4	91.9	85.8	69.1	43.3	72.9	76.5
Overall Mean		68.8	89.5	93.0	81.0	80.9	81.8	65.5	93.1	86.0	77.2	39.3	70.4	76.1

[1]No 2-year averages for Xtend varieties at these locations.

Table 7. Summary of 3-Year Yields for Maturity Group IV Late Roundup Ready for the 2016, 2017, and 2018 Mississippi Soybean Variety Trials.

Brand	Variety	Brooksville irr. (clay)[1]	Stoneville irr. (clay)	Stoneville irr. (loam)	Irrigated avg.	Brooksville not irr.	Stoneville not irr.	Tippo not irr.	Not irr. avg.	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
Delta Grow	DG 4790RR2	71.7	73.1	78.9	74.6	59.3	71.6	42.5	57.8	66.2
Delta Grow	DG 48X45RR2 Xtend	—	77.8	80.5	79.1	59.4	73.4	—	66.4	72.8
Dyna-Gro	S48XT56	—	73.4	75.6	74.5	56.7	75.6	—	66.2	70.3
GoSoy	49G16	65.2	71.2	78.2	71.5	59.1	79.7	50.5	63.1	67.3
Progeny	P4757RY	69.7	75.5	80.0	75.1	59.9	68.2	41.1	56.4	65.7
Progeny	P4799RXS	—	71.0	80.6	75.8	57.8	71.0	—	64.4	70.1
Progeny	P4816RX	—	76.5	78.5	77.5	55.6	75.2	—	65.4	71.4
Terral	REV 48A26	70.0	75.1	84.0	76.4	60.3	75.4	39.5	58.4	67.4
USG	7496XTS	—	72.2	80.2	76.2	65.1	66.9	—	66.0	71.1
Overall Mean	69.1	74.0	79.6	75.6	59.3	73.0	43.4	62.7	69.2	

[1]No 2-year averages for Xtend varieties at these locations.

Table 8. Summary of Yield for Group V Early Roundup Ready for the 2018 Mississippi Soybean Variety Trials.

Brand	Variety[1]	Brooksville irr.	Clarksdale irr.[2]	Longwood irr.	Stoneville irr. (clay)	Stoneville irr. (loam)	Irrigation avg.	Brooksville not irr.	Olive Branch not irr.[2]	Raymond not irr.	Verona not irr.	Not irr. avg.	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
AgriGold	G5000RX	81.4	94.5	98.4	79.8	91.6	89.2	72.0	94.7	59.6	88.5	78.7	84.5
AgriGold	G5288RX	84.6	91.2	96.3	84.0	98.0	90.8	66.4	88.4	70.6	93.2	79.6	85.8
AGS	GS 51X18S	77.2	94.4	99.4	85.3	88.0	88.9	56.2	84.7	76.6	93.2	77.7	83.9
Armor	X50D13	71.9	88.1	116.8	79.3	85.4	88.3	67.8	87.2	82.8	88.1	81.5	85.3
Armor	X51D77	92.7	74.8	116.9	80.2	80.8	89.1	80.4	95.0	107.4	84.7	91.9	90.3
Armor	X52D71	79.6	89.5	99.3	79.8	85.7	86.8	77.4	90.3	82.0	91.2	85.2	86.1
Armor	X55D57	85.5	82.5	109.3	90.9	90.5	91.7	67.0	91.7	83.0	86.7	82.1	87.5
Asgrow	AG52X9	91.2	91.9	102.2	83.0	105.2	94.7	66.1	93.3	84.4	87.3	82.8	89.4
Asgrow	AG53X9	71.1	94.5	95.2	83.7	84.4	85.8	70.1	87.4	65.9	82.3	76.4	81.6
Asgrow	AG54X9	86.3	89.5	94.0	85.0	78.8	86.7	60.1	86.5	64.4	76.2	71.8	80.1
Asgrow	AG55X7	72.6	88.3	86.7	86.0	82.8	83.3	58.2	87.7	49.6	59.4	63.8	74.6
Croplan	RX 5016 S	79.9	92.6	92.1	75.0	78.4	83.6	64.3	89.9	58.1	77.7	72.5	78.7
Delta Grow	DG 5170 RR2/STS	82.3	—	116.9	84.2	94.9	94.6	70.1	—	82.7	84.0	78.9	87.9
Delta Grow	DG 52X15 Xtend	88.6	94.4	103.5	79.9	92.3	91.7	67.9	90.8	74.5	87.7	80.2	86.6
Dyna-Gro	S52XT08	70.1	90.1	100.3	86.4	85.7	86.5	64.5	91.7	62.0	78.8	74.2	81.1
Dyna-Gro	S56XT99	73.9	87.2	103.1	89.0	83.7	87.4	70.0	95.1	70.6	84.3	80.0	84.1
Dyna-Gro	SX18652XS	76.5	84.8	107.8	81.7	79.0	86.0	68.6	89.1	93.9	97.9	87.4	86.6
Dyna-Gro	SX18854XT	83.5	77.9	82.0	76.0	76.3	79.1	58.2	87.1	72.6	74.8	73.2	76.5
GoSoy	50G17	85.7	—	113.6	86.2	87.2	93.1	67.0	—	81.9	84.0	77.6	86.5
GoSoy	54G16	62.6	—	89.1	73.7	66.2	72.9	56.8	—	56.2	67.1	60.0	67.4
Great Heart Seed	GT-5324X	83.1	87.3	97.8	84.5	90.8	88.7	57.1	86.0	62.0	73.1	69.5	80.2
Local Seed Co	LS5087X	89.5	96.0	113.2	88.7	87.6	95.0	66.4	102.2	80.5	90.3	84.9	90.5
NK Seeds	S50-G9XS	83.7	93.6	95.1	84.4	84.5	88.3	62.5	84.6	58.5	85.5	72.8	81.4
Pioneer	P54A75X	66.9	85.0	96.8	82.6	83.7	83.0	60.5	77.0	44.7	63.6	61.5	73.4
Progeny Ag	P 5016RXS	64.1	90.1	95.6	77.3	87.3	82.9	71.1	99.6	70.9	80.7	80.6	81.8
Progeny Ag	P5688RX	87.4	80.2	106.2	85.2	84.6	88.7	58.9	97.1	69.1	85.5	77.7	83.8
Progeny Ag	P5018RX	82.9	88.5	108.9	83.0	85.2	89.7	64.4	90.1	63.4	92.7	77.6	84.3
Progeny Ag	P5226RYS	70.7	—	111.4	88.7	95.6	91.6	75.7	—	87.3	90.2	84.4	88.5
Progeny Ag	P5252RX	76.6	78.1	114.5	83.5	87.4	88.0	68.9	95.0	101.9	86.4	88.1	88.0
Progeny Ag	P5279RXS	81.2	85.8	103.1	79.2	87.5	87.4	65.0	94.0	82.5	89.1	82.6	85.3
Progeny Ag	P5554RX	86.0	89.3	107.7	89.2	83.8	91.2	68.7	86.8	65.7	76.7	74.5	83.8
Terral Seed	REV 51A56	81.2	—	93.0	77.3	75.0	81.6	64.2	—	68.4	86.9	73.2	78.0
Terral Seed	REV 55A67	82.5	—	104.4	84.0	94.1	91.3	71.7	—	61.8	82.1	71.8	82.9
Terral Seed	REV 56A58	83.9	—	100.0	88.2	84.1	89.1	60.1	—	75.8	76.3	70.7	81.2
Terral Seed	REV 52A98	84.6	—	101.2	87.7	87.8	90.3	64.8	—	73.7	84.6	74.4	83.5
U. of Arkansas	R14-14797 RR	80.9	—	97.6	80.5	86.9	86.5	78.7	—	85.5	96.7	87.0	86.7
U. of Missouri	S14-9017R	75.3	—	83.2	79.7	83.6	80.4	67.7	—	54.8	73.1	65.2	73.9
Mean		79.9	87.8	101.5	83.1	85.9		66.2	90.4	72.9	83.1		
CV		8.9	5.0	7.7	5.4	8.7		9.9	12.8	14.2	12.2		
LSD (0.05)		11.5	7.2	12.7	7.3	12.2		10.8	NS	16.8	16.5		
R^2		62.1	73.2	70.9	58.1	60.7		58.1	28.5	76.0	61.5		
Error DF		72	52	72	72	72		72	52	72	72		

[1]Variety followed by an asterisk indicates an experimental entry.
[2]Varieties lacking the Xtend trait were omitted from these locations due to uncertainty of exposure and timing of dicamba drift occurrence.

Table 9. Summary of 2-Year Yields for Maturity Group V Early Roundup Ready for the 2017 and 2018 Mississippi Soybean Variety Trials.

Brand	Variety	Brooksville irr.	Clarkdale irr.[1]	Longwood irr.	Stoneville irr. (clay)	Stoneville irr. (loam)	Irrigated avg.	Brooksville not irr.	Olive Branch not irr.[1]	Raymond not irr.	Not irr. avg.	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
AgriGold	G5000RX	66.0	80.2	90.2	73.6	84.1	78.8	68.7	86.7	74.7	76.7	78.0
Asgrow	AG55X7	69.0	80.2	94.5	82.3	77.4	80.7	62.1	87.2	66.7	72.0	77.4
Delta Grow	DG 5170 RR2/STS	68.1	—	103.6	79.5	91.5	85.7	68.3	—	84.2	76.3	82.5
GoSoy	54G16	57.0	—	81.3	66.9	64.3	67.4	53.7	—	62.7	58.2	64.3
Great Heart Seed	GT-5324X	67.7	78.4	92.4	77.3	83.6	79.9	59.1	82.3	70.8	70.7	76.5
Progeny Ag	P 5016RXS	57.6	77.4	78.4	73.6	81.4	73.7	68.5	91.9	81.1	80.5	76.2
Progeny Ag	P5688RX	77.0	54.5	94.7	77.2	81.7	77.0	55.7	95.6	77.5	76.2	76.7
Terral Seed	REV 51A56	66.2	—	87.0	75.1	74.9	75.8	51.5	—	83.3	67.4	73.0
Terral Seed	REV 55A67	72.2	—	97.5	75.9	78.9	81.1	68.3	—	69.1	68.7	77.0
Terral Seed	REV 56A58	73.5	—	88.1	81.6	80.6	81.0	62.9	—	89.0	75.9	79.3
U. of Arkansas	R14-14797 RR	63.7	—	89.1	75.3	80.9	77.2	64.9	—	92.2	78.6	77.7
Overall Mean		67.1	74.2	90.6	76.2	79.9	78.0	62.2	88.7	77.4	72.8	76.2

[1]No 2-year averages for Xtend varieties at these locations.

Table 10. Summary of 3-Year Yields for the Maturity Group V Early Roundup Ready for the 2016, 2017, and 2018 Mississippi Soybean Variety Trials.

Brand	Variety	Brooksville irr. (clay)	Clarksdale irr. (clay)[1]	Longwood irr. (clay)	Stoneville irr. (clay)	Stoneville irr. (loam)	Irrigated avg.	Brooksville not irr.	Olive Branch not irr.[1]	Not irr. avg.	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
Delta Grow	DG 5170 RR2/STS	70.4	—	90.2	76.5	88.4	81.4	62.1	—	62.1	77.5
Progeny Ag	P 5016RXS	—	—	—	70.0	81.7	75.8	60.2	—	60.2	70.6
Terral Seed	REV 51A56	69.1	—	79.9	72.4	75.4	74.2	48.4	—	48.4	69.0
Overall Mean		69.8		85.1	73.0	81.8	77.1	56.9		56.9	72.4

[1]No 3-year average for certain varieties at these locations.

Table 11. Summary of Yield for Group V Late Roundup Ready for the 2018 Mississippi Soybean Variety Trials.

Brand	Variety	Brooksville irr.	Clarksdale irr.[1]	Longwood irr.	Stoneville irr. (clay)	Stoneville irr. (loam)	Irrigation avg.	Brooksville not irr.	Olive Branch not irr.[1]	Raymond not irr.	Verona not irr.	Not irr. avg.	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
USG	75B75R	93.4	67.7	110.3	83.1	81.4	87.2	72.7	97.6	96.5	84.9	87.9	87.5
Progeny	P5752RY	90.8	—	92.6	82.1	85.4	87.7	66.7	—	72.3	78.6	72.5	81.2
Mean		92.1	67.7	101.5	82.6	83.4	87.5	69.7	97.6	84.4	81.7		84.4
CV		7.1	—	3.2	3.4	5.0		8.6	—	13.9	5.5		
LSD		NS	—	11.5	NS	NS		NS	—	NS	NS		
R^2		58.8	—	97.3	82.8	81.1		65.7	—	80.0	69.3		
Error DF		2	—	2	2	2		2	—	2	2		

[1]Varieties lacking the Xtend trait were omitted from these locations due to uncertainty of exposure and timing of dicamba drift occurrence.

Table 12. Summary of 2-Year Yields for Maturity Group V Late Roundup Ready for the 2017 and 2018 Mississippi Soybean Variety Trials.

Brand	Variety	Brooksville irr.	Clarkdale irr.[1]	Longwood irr.	Stoneville irr. (clay)	Stoneville irr. (loam)	Irrigated avg.	Brooksville not irr.	Olive Branch not irr.[1]	Raymond not irr.	Not irr. avg.	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
USG	75B75R	77.5	66.0	98.2	71.6	77.9	78.3	68.2	90.4	89.8	82.8	80.0
Progeny	P5752RY	73.9	—	90.6	72.3	77.7	78.6	61.6	—	80.5	71.0	76.1
Overall Mean		75.7	66.0	94.4	71.9	77.8	78.4	64.9	90.4	85.1	76.9	78.0

[1]No 2-year averages for Xtend varieties at these locations.

Table 13. Summary of 3-Year Yields for Maturity Group V Late Roundup Ready for the 2016, 2017, and 2018 Mississippi Soybean Variety Trials.

Brand	Variety	Brooksville irr. (clay)	Clarksdale irr. (clay)[1]	Longwood irr. (clay)	Stoneville irr. (clay)	Stoneville irr. (loam)	Irrigated avg.	Brooksville not irr.	Olive Branch not irr.[1]	Not irr. avg.	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
USG	75B75R	76.6	62.6	84.3	68.1	74.6	73.2	62.3	94.7	78.5	74.8
Progeny	P5752RY	73.0	—	81.2	69.0	69.6	73.2	57.9	—	57.9	70.1
Overall Mean		74.8	62.6	82.8	68.6	72.1	73.2	60.1	94.7	68.2	72.5

[1]No 2-year averages for Xtend varieties at these locations.

Table 14. Summary of Yield for Group IV LibertyLink for the 2018 Mississippi Soybean Variety Trials.

Brand	Variety[1]	Longwood irr. (clay)	Stoneville irr. (clay)	Irr. avg.	Brooksville not irr. (clay)	Raymond not irr. (loam)	Verona not irr. (clay)	Not irr. avg.	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
Credenz	CZ 3601 LL	58.3	72.2	65.3	38.2	48.1	64.6	50.3	56.3
Credenz	CZ 3841 LL	57.2	66.4	61.8	41.0	45.8	70.2	52.4	56.1
Credenz	CZ 4105 LL	56.8	68.9	62.8	39.6	53.5	70.1	54.4	57.8
Credenz	CZ 4222 LL	82.6	78.0	80.3	50.0	51.4	77.4	59.6	67.9
Credenz	CZ 4308 LL	74.0	79.5	76.8	51.4	61.5	89.0	67.3	71.1
Credenz	CZ 4540LL	86.7	73.8	80.2	55.2	66.1	81.1	67.5	72.6
Credenz	CZ 4548 LL	85.4	70.9	78.1	52.1	74.8	87.8	71.6	74.2
Credenz	CZ 4649 LL	107.6	76.9	92.2	62.4	95.5	96.4	84.7	87.7
Credenz	CZ 4748 LL	105.5	68.5	87.0	63.2	86.7	100.4	83.4	84.9
Credenz	CZ 4820 LL	104.6	73.5	89.0	58.1	87.8	105.0	83.6	85.8
Credenz	CZ 4918 LL	97.1	84.7	90.9	56.7	79.7	90.8	75.8	81.8
Credenz	CZ 4938 LL	110.5	70.1	90.3	55.0	95.9	85.2	78.7	83.4
Delta Grow	DG 4582 LL/STS	78.7	74.6	76.7	51.8	72.0	85.4	69.7	72.5
Delta Grow	DG 4977LL/STS	95.9	72.0	84.0	52.0	85.1	76.0	71.0	76.2
Dyna-Gro	S45LL97	89.8	76.1	82.9	52.0	71.3	87.5	70.3	75.3
Dyna-Gro	S49LL34	106.7	80.0	93.4	54.2	107.3	83.2	81.6	86.3
Pioneer	P44A08L	68.8	78.7	73.8	54.5	65.0	91.0	70.1	71.6
Pioneer	P47A76L	87.7	79.7	83.7	60.8	79.7	90.2	76.9	79.6
Terral	REV 46L99 *	91.8	75.6	83.7	60.2	67.6	102.7	76.8	79.6
Terral	REV 47L38	82.1	81.2	81.6	53.0	78.3	100.3	77.2	79.0
Terral	REV 49L88 *	87.9	85.5	86.7	77.2	83.0	101.1	87.1	86.9
Mean		87.9	75.7	81.8	55.0	75.4	88.5	73.0	76.5
CV		7.5	8.6		12.8	12.8	8.7		
LSD (0.05)		10.7	10.8		11.5	15.7	12.5		
R^2		91.3	50.2		70.5	8.3	79.1		
Error DF		40	40		40	40	40		

[1]Variety followed by an asterisk indicates an experimental entry.

Table 15. Summary of 2-Year Yields for Maturity Group IV LibertyLink for the 2017 and 2018 Mississippi Soybean Variety Trials.

Brand	Variety[1]	Longwood irr. (clay)	Stoneville irr. (clay)	Irrigated average	Brooksville not irr. (clay)	Raymond not irr. (loam)	Not irr. average		Overall average
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*		*bu/A*
Credenz	CZ 3841 LL	65.1	68.7	66.9	37.8	56.2	47.0		56.9
Credenz	CZ 4105 LL	64.6	68.0	66.3	36.8	59.8	48.3		57.3
Credenz	CZ 4222 LL	82.2	75.5	78.9	44.8	65.7	55.2		67.1
Credenz	CZ 4308 LL	78.8	77.6	78.2	44.1	76.3	60.2		69.2
Credenz	CZ 4540LL	83.0	70.5	76.7	49.3	80.0	64.6		70.7
Credenz	CZ 4548 LL	82.0	70.5	76.2	47.4	88.3	67.8		72.0
Credenz	CZ 4748 LL	91.2	66.3	78.8	51.2	90.1	70.6		74.7
Credenz	CZ 4820 LL	92.2	70.8	81.5	54.3	83.6	68.9		75.2
Credenz	CZ 4918 LL	90.3	80.6	85.5	54.4	87.0	70.7		78.1
Credenz	CZ 4938 LL	93.5	65.8	79.7	53.5	92.7	73.1		76.4
Delta Grow	DG 4977LL/STS	82.2	68.8	75.5	52.9	92.5	72.7		74.1
Dyna-Gro	S45LL97	86.8	74.3	80.5	48.6	73.5	61.1		70.8
Dyna-Gro	S49LL34	98.0	75.7	86.9	57.6	110.5	84.1		85.5
Terral	REV 49L88 *	86.9	81.2	84.1	70.2	91.8	81.0		82.5
Overall Mean		84.1	72.5	78.3	50.2	82.0	66.1		72.2

[1]Variety followed by an asterisk indicates an experimental entry.

Table 16. Summary of 3-Year Yields for Maturity Group IV LibertyLink for the 2016, 2017, and 2018 Mississippi Soybean Variety Trials.

Brand	Variety	Longwood irr. (clay)	Stoneville irr. (clay)	Irrigated average	Brooksville not irr. (clay)	Overall average	
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	
Credenz	CZ 4105 LL	58.7	63.1	60.9	34.5	52.1	
Credenz	CZ 4222 LL	71.7	72.3	72.0	43.6	62.5	
Credenz	CZ 4540 LL	77.6	69.5	73.6	49.5	65.6	
Credenz	CZ 4748 LL	79.6	66.3	72.9	52.4	66.1	
Delta Grow	DG 4977LL/STS	75.2	68.7	72.0	53.8	65.9	
Dyna-Gro	S49LL34	88.0	75.6	81.8	57.7	73.7	
Overall Mean		75.2	69.2	72.2	48.6	64.3	

Table 17. Summary of Yield for Group V LibertyLink for the 2018 Mississippi Soybean Variety Trials.

Brand	Variety	Longwood irr. (clay)	Stoneville irr. (clay)	Irr. avg.	Brooksville not irr. (clay)	Raymond not irr. (loam)	Verona not irr. (clay)	Not irr. avg.		Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*		*bu/A*
Credenz	CZ 5147 LL	89.6	76.9	83.3	70.4	83.2	93.3	82.3		82.7
Credenz	CZ 5242 LL	96.7	76.5	86.6	70.5	103.9	96.2	90.2		88.8
Credenz	CZ 5150 LL	107.1	76.6	91.8	65.5	77.6	89.5	77.5		83.2
Credenz	CZ 5445 LL	86.8	80.0	83.4	69.5	81.4	91.9	80.9		81.9
Credenz	CZ 5225 LL	95.6	79.8	87.7	75.0	92.8	90.2	86.0		86.7
Credenz	CZ 5328 LL	91.7	80.6	86.1	67.1	66.4	88.8	74.1		78.9
Mean		94.6	78.4	86.5	69.7	84.2	91.7	81.9		83.7
CV		15.0	2.8		6.5	16.2	6.4			
LSD (0.05)		NS	NS		NS	NS	NS			
R^2		31.6	74.2		49.1	60.4	58.8			
Error DF		10	10		10	10	10			

Table 18. Summary of 2-Year Yields for Maturity Group V LibertyLink for the 2017 and 2018 Mississippi Soybean Variety Trials.

Brand	Variety	Longwood irr. (clay)	Stoneville irr. (clay)	Irrigated average	Brooksville not irr. (clay)	Raymond not irr. (loam)	Not irr. average		Overall average
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*		*bu/A*
Credenz	CZ 5147 LL	82.7	71.7	77.2	64.7	74.3	69.5		73.4
Credenz	CZ 5242 LL	85.8	69.5	77.6	59.1	90.3	74.7		76.2
Credenz	CZ 5150 LL	88.0	69.3	78.6	59.8	70.0	64.9		71.8
Overall Mean		85.5	70.2	77.8	61.2	78.2	69.7		73.8

Table 19. Summary of 3-Year Yields for Maturity Group V LibertyLink for the 2016, 2017, and 2018 Mississippi Soybean Variety Trials.

Brand	Variety	Longwood irr. (clay)	Stoneville irr. (clay)	Irrigated average	Brooksville not irr. (clay)	Overall average
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*
Credenz	CZ 5147 LL	71.7	98.9	85.3	60.1	76.9
Credenz	CZ 5242 LL	80.8	95.5	88.2	56.9	77.7
Credenz	CZ 5150 LL	81.6	96.2	88.9	56.9	78.2
Overall Mean		78.0	96.8	87.4	58.0	77.6

Table 20. Summary of Yield for Maturity Group IV Conventional for the 2018 Mississippi Soybean Variety Trials.

Brand	Variety[1]	Stoneville irr. (clay)	Brooksville not irr.	Overall average
		bu/A	*bu/A*	*bu/A*
GoSoy	43C17S	65.9	43.7	54.8
GoSoy	E4510S	72.8	49.0	60.9
GoSoy	Ireane	79.7	66.7	73.2
U. of Missouri	S13-10590C *	74.2	57.3	65.7
U. of Missouri	S13-10592C *	74.1	63.9	69.0
U. of Missouri	S13-2743C *	62.7	52.3	57.5
U. of Missouri	S13-3851C	82.4	63.5	72.9
VIRTUE EX203	2987331	90.0	67.0	78.5
VIRTUE EX206	2987416	88.8	59.8	74.3
Mean		76.7	58.1	67.4
CV		6.7	12.1	
LSD (0.05)		8.9	12.2	
R^2		84.2	70.5	
Error DF		16	16	

[1]Variety followed by an asterisk indicates an experimental entry.

Table 21. Summary of 2-Year Yields for Maturity Group IV Conventional for the 2017 and 2018 Mississippi Soybean Variety Trials.

Brand	Variety[1]	Stoneville (Delta) irr.	Brooksville (Hills) not irr.	Overall average
		bu/A	*bu/A*	*bu/A*
GoSoy	Ireane	74.5	57.7	66.1
U. of Missouri	S13-10590C *	68.7	46.3	57.5
U. of Missouri	S13-2743C *	67.1	40.5	53.8
U. of Missouri	S13-3851C	77.9	58.4	68.1
Overall Mean		72.1	50.7	61.4

[1]Variety followed by an asterisk indicates an experimental entry.

Table 22. Summary of the 3-Year Yields for the Maturity Group IV Conventional for the 2016, 2017, and 2018 Mississippi Soybean Variety Trials.

Brand	Variety	Stoneville irr. (clay)	Brooksville not irr. (clay)	Overall average
		bu/A	*bu/A*	*bu/A*
GoSoy	Ireane	74.9	54.7	64.8

Table 23. Summary of Yield for Group V Conventional for the 2018 Mississippi Soybean Variety Trials.

Brand	Variety[1]	Stoneville irr. (clay)	Brooksville not irr. (clay)	Overall average
		bu/A	*bu/A*	*bu/A*
GoSoy	51C17	82.9	59.9	71.4
GoSoy	53C16	83.5	63.1	73.3
GoSoy	56C16	88.1	71.3	79.7
U. of Missouri	M05201D CONV	90.3	77.7	84.0
U. of Missouri	S11-20242C	84.5	73.7	79.1
U. of Missouri	S13-1955C *	82.6	75.1	78.8
U. of Missouri	S15-10434C *	92.7	72.4	82.5
Mean		87.0	72.2	78.4
CV		3.1	10.7	
LSD		4.8	NS	
R^2		77.7	61.9	
Error DF		12	12	

[1]Variety followed by an asterisk indicates an experimental entry.

Table 24. Summary of 2-Year Yields for Maturity Group V Conventional for the 2017 and 2018 Mississippi Soybean Variety Trials.

Brand	Variety[1]	Stoneville irr. (clay)	Brooksville not irr. (clay)	Overall average
		bu/A	*bu/A*	*bu/A*
GoSoy	56C16	79.2	59.6	69.4
U. of Missouri	S13-1955C *	77.5	69.2	73.4
Overall Mean		78.4	64.4	71.4

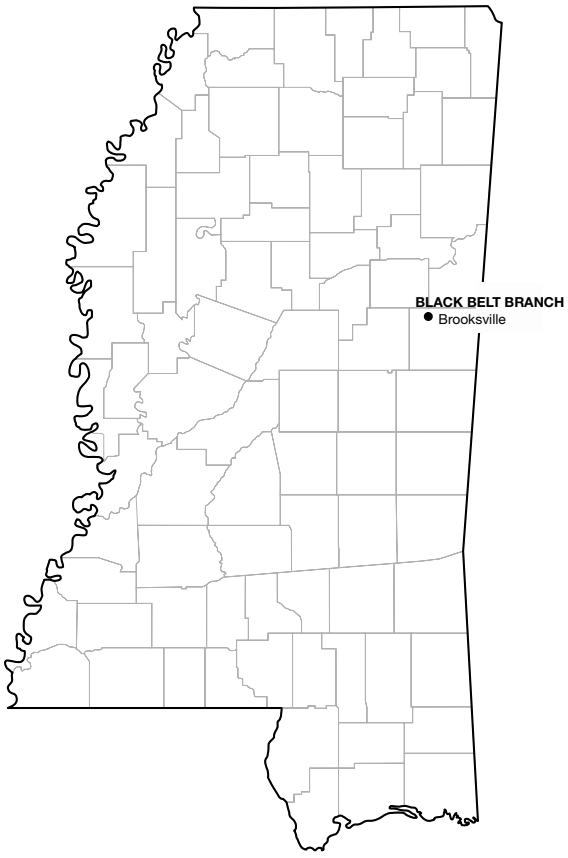
[1]Variety followed by an asterisk indicates an experimental entry.

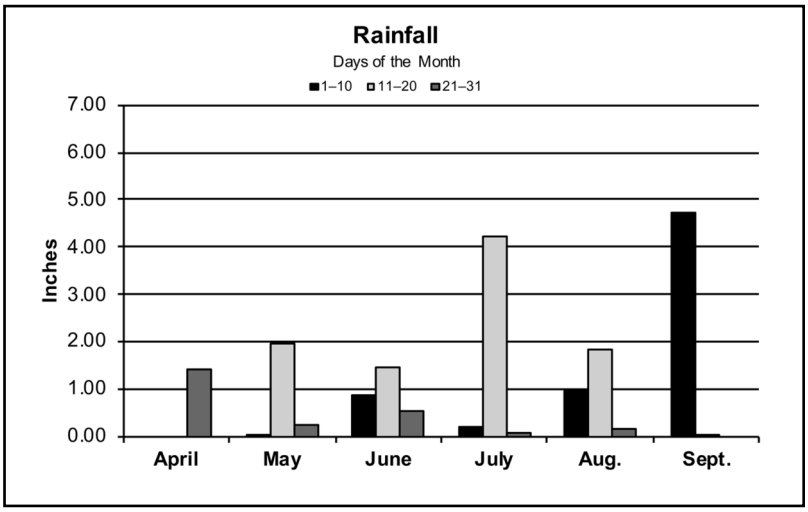
BROOKSVILLE, BLACK BELT BRANCH

Crop Summary

Soybean plots were planted into a stale seedbed that had been prepared the previous fall. Adequate soil moisture was present at the time of planting to allow for germination. All plots emerged to a good stand. Despite a dry period during the midseason, good dryland yields were seen at this location due to some timely rainfall that occurred during the growing season. Harvest was completed in a timely manner with no difficulties.

Planting date . . .April 20
Harvest date . . . .September 18
Soil type . . . . . .Brooksville silty clay
Soil pH 6.9
Soil fertility . . . . .P=M, K=M
Previous crop . . .Wheat
Herbicide . . . . . .Preemergence — Authority MTZ @ 12 oz/A, Gramoxone @ 32 oz/A, Dual II Magnum @ 24 oz/A, and Zidua @ 2 oz/A on April 20
Postemergence —
Roundup Ready – Roundup Powermax @ 32 oz/A, Prefix @ 24 oz/A, and Firstrate @ 0.4 oz/A on June 4
LibertyLink – Liberty @ 32 oz/A, Prefix @ 24 oz/A, and Firstrate @ 0.4 oz/A on June 4
Conventional – Section (clethodim) @ 12 oz/A, Prefix @ 24 oz/A, and Firstrate @ 0.4 oz/A on June 4
Fertilizer . . . . . .Preplant — 0-20-20 @ 300 lb/A





Rainfall Summary

	Inches
April	1.41
May	2.20
June	2.84
July	4.52
August	2.99
September	4.77
Total	18.73

Table 25. Roundup Ready Maturity Group IV Early Nonirrigated Soybean Varieties (Black Belt Branch Station, Brooksville).

Brand	Variety[1]	Yield			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Dyna-Gro	SX18845XT *	67.0	—	—	9/1	32	1
Delta Grow	DG 46X25RR2 Xtend	66.8	—	—	9/1	33	1
AgriGold	G4579RX	65.9	—	—	9/2	34	1
Armor	X45D50 *	65.5	—	—	9/1	32	1
Asgrow	AG46X6	64.2	64.0	58.1	9/3	28	1
Croplan	RX 4500 S	63.5	—	—	9/4	37	1
MorSoy	MS 4616 RXT	63.4	64.4	—	9/4	34	1
Local Seed Co	LS4677X	63.2	—	—	9/3	34	1
Armor	X46D63 *	62.7	—	—	9/1	33	1
Progeny	P4620RXS	62.6	66.6	59.4	9/4	32	1
Local Seed Co	LS4487XS	61.8	—	—	9/4	30	1
Dyna-Gro	S45XS37	61.7	61.6	—	9/1	36	1
Delta Grow	4670RR2	61.6	64.4	60.0	8/29	36	1
AgriGold	G4605RX	61.4	—	—	8/29	42	1
Mission Seed Solutions	A4447NSXR2	60.8	—	—	9/2	35	1
Local Seed Co	LS4583X	60.7	—	—	9/3	32	1
Pioneer	P46A57BX	60.5	—	—	8/22	31	1
NK Seeds	S45-K5X	59.4	58.6	—	8/25	30	1
Mission Seed Solutions	A4618X	59.3	—	—	9/3	31	1
AgriGold	G4440RX	58.9	63.8	—	9/1	32	1
Asgrow	AG43X7	58.8	62.9	—	8/28	33	1
Asgrow	AG45X8	58.7	59.7	—	8/28	33	1
Croplan	RX4687S	58.4	—	—	9/2	33	1
Mission Seed Solutions	A4637NSXR2	58.1	—	—	8/29	33	1
Great Heart	GT-4628X	57.4	—	—	8/28	41	1
NK Seeds	S45-J3X	57.1	—	—	8/26	26	1
Great Heart	GT-4685XS	56.7	—	—	8/28	37	1
Dyna-Gro	S45XS66	56.6	69.9	63.5	9/1	33	1
Armor	42-D27	55.8	—	—	8/21	32	1
Asgrow	AG42X9	55.8	—	—	8/28	36	1
Mission Seed Solutions	A4608X	55.0	—	—	8/28	41	1
Progeny	P4444RXS	54.8	66.8	—	8/26	26	1
USG	7447XTS	54.7	—	—	8/29	33	1
Pioneer	P46A16R	54.6	—	—	8/27	34	1
Asgrow	AG43X8	54.3	—	—	8/29	34	1
Local Seed Co	LS4565XS	53.8	—	—	9/4	31	1
Terral	REV 4679X *	53.5	—	—	8/24	29	1
MorSoy	MS 4426 RXT	52.5	—	—	9/3	34	1
Pioneer	P42A96X	52.2	—	—	8/18	30	1
Progeny	P4255RX	52.1	55.7	—	8/22	29	1
Dyna-Gro	S41XS98	51.9	—	—	8/19	31	1
Progeny	P4750 RYS	51.3	—	—	9/4	27	1
AGS	GS46X17	51.2	55.3	—	8/28	25	1
NK Brand	S43-V3X	50.8	57.8	—	8/25	28	1
Local Seed Co	LS4689X	50.6	—	—	8/28	38	1
U. of Missouri	S14-15146R *	49.0	—	—	9/2	28	1
Croplan	RX 4217 S	47.6	—	—	8/24	33	1
Progeny	P4318RX	42.7	—	—	8/23	31	1
Mean		57.4					
CV		11.7					
LSD (0.05)		10.89					
R^2		57.55					
Error DF		94					

[1]Variety followed by an asterisk indicates an experimental entry.

Table 26. Roundup Ready Maturity Group IV Late Nonirrigated Soybean Varieties (Black Belt Branch Station, Brooksville).

Brand	Variety[1]	Yield			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Terral	REV 4927X	77.6	75.8	—	9/1	36	1
USG	7496XTS	73.8	74.4	65.1	9/1	34	1
Great Heart Seed	GT-4833XS	73.4	—	—	8/30	35	1
Progeny	P4955RX	73.1	—	—	9/1	38	1
Asgrow	AG47X9	72.8	—	—	9/4	31	1
Progeny	P4851RX	71.9	69.9	—	9/1	38	1
Delta Grow	DG 4790RR2	70.5	67.7	59.3	9/11	36	1
Local Seed Co	LS4889XS	70.5	—	—	9/5	34	1
Local Seed Co	LS4966X	69.3	—	—	9/2	29	1
Armor	X49D31 *	68.5	—	—	9/3	32	1
Local Seed Co	LS4988X	67.4	—	—	9/2	29	1
Petrus Seed	4916 GT	67.3	71.6	—	9/6	31	1
Progeny	P4799RXS	67.1	65.0	57.8	9/1	38	1
Mission Seed Solutions	A4828X	66.9	—	—	9/6	36	1
AgriGold	G4995RX	66.6	—	—	9/16	35	1
Pioneer	P48A60X	66.2	—	—	8/27	29	1
USG	7489XT	66.1	—	—	9/5	30	1
Croplan	RX4927	65.8	—	—	9/1	33	1
Local Seed Co	AV49W3X	65.5	—	—	9/1	31	1
Dyna-Gro	S49XT39	65.4	—	—	9/5	37	1
Dyna-Gro	S48XT56	65.0	63.0	56.7	9/11	28	1
Progeny	P4944RX	64.9	—	—	9/1	28	1
Mission Seed Solutions	A4950X	64.7	—	—	9/4	33	1
Great Heart Seed	GT-4979X	64.6	—	—	9/6	37	1
AGS	GS 48X18	63.5	—	—	9/3	33	1
Armor	X48D02 *	63.1	—	—	9/4	33	1
GoSoy	49G16	62.6	66.1	59.1	9/8	29	1
Progeny	P4816RX	62.4	62.0	55.6	9/2	26	1
NK Brand	S48-R2X	62.1	61.5	—	9/3	34	1
U. of Missouri	S14-9051R *	62.0	—	—	8/25	30	1
Great Heart Seed	GT-4809X	61.5	—	—	9/6	34	1
U. of Missouri	S14-9051R	61.1	—	—	9/2	33	1
Terral	REV 48A26	61.0	66.9	60.3	9/1	30	1
Progeny	P4757RY	60.8	65.8	59.9	9/7	29	1
Armor	X47D22 *	60.3	—	—	9/3	31	1
Local Seed Co	AV47W2X	60.2	—	—	9/3	29	1
Asgrow	AG48X9	60.2	—	—	9/1	27	1
Great Heart Seed	GT-4721X	59.9	63.0	—	8/29	35	1
Croplan	RX4825	59.8	61.4	—	9/1	27	1
Local Seed Co	LS4968XS	59.2	—	—	9/6	33	1
Delta Grow	DG 48X45RR2 Xtend	59.2	65.1	59.4	9/5	29	1
Terral	REV 4857X	58.9	65.2	—	9/1	33	1
Terral	REV 47A98	57.5	—	—	9/2	32	1
Asgrow	AG49X9	55.5	—	—	9/5	27	1
MorSoy	MS 4846 RXT	53.2	62.2	—	9/3	27	1
Petrus Seed	479 GTS	48.8	52.6	—	8/23	32	1
Mean		64.3					
CV		12.84					
LSD (0.05)		NS					
R^2		45					
Error DF		90					

[1]Variety followed by an asterisk indicates an experimental entry.

Table 27. Roundup Ready Maturity Group V Early Nonirrigated Soybean Varieties (Black Belt Branch Station, Brooksville).

Brand	Variety[1]	Yield			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Armor	X51D77	80.4	—	—	9/13	39	1
U. of Arkansas	R14-14797 RR	78.7	64.9	—	9/13	33	1
Armor	X52D71	77.4	—	—	9/11	35	1
Progeny Ag	P5226RYS	75.7	—	—	9/9	36	1
AgriGold	G5000RX	72.0	68.7	—	9/1	34	1
Terral Seed	REV 55A67	71.7	68.3	—	9/13	26	1
Progeny Ag	P 5016RXS	71.1	68.5	60.2	9/3	33	1
Asgrow	AG53X9	70.1	—	—	9/4	28	1
Delta Grow	DG 5170 RR2/STS	70.1	68.3	62.1	9/5	42	1
Dyna-Gro	S56XT99	70.0	—	—	9/7	33	1
Progeny Ag	P5252RX	68.9	—	—	9/10	33	1
Progeny Ag	P5554RX	68.7	—	—	9/13	26	1
Dyna-Gro	SX18652XS	68.6	—	—	9/5	34	1
Delta Grow	DG 52X15 Xtend	67.9	—	—	9/3	35	1
Armor	X50D13	67.8	—	—	9/5	36	1
U. of Missouri	S14-9017R	67.7	—	—	9/12	23	1
GoSoy	50G17	67.0	—	—	9/6	26	1
Armor	X55D57	67.0	—	—	9/10	30	1
Local Seed Co	LS5087X	66.4	—	—	9/4	37	1
AgriGold	G5288RX	66.4	—	—	9/5	34	1
Asgrow	AG52X9	66.1	—	—	9/3	30	1
Progeny Ag	P5279RXS	65.0	—	—	9/11	33	1
Terral Seed	REV 52A98	64.8	—	—	9/1	33	1
Dyna-Gro	S52XT08	64.5	—	—	8/30	26	1
Progeny Ag	P5018RX	64.4	—	—	9/6	31	1
Croplan	RX 5016 S	64.3	—	—	8/30	31	1
Terral Seed	REV 51A56	64.2	51.5	48.4	9/2	29	1
NK Seeds	S50-G9XS	62.5	—	—	9/4	33	1
Pioneer	P54A75X	60.5	—	—	9/14	19	1
Terral Seed	REV 56A58	60.1	62.9	—	9/6	27	1
Asgrow	AG54X9	60.1	—	—	9/4	26	1
Progeny Ag	P5688RX	58.9	55.7	—	9/13	31	1
Asgrow	AG55X7	58.2	62.1	—	9/5	23	1
Dyna-Gro	SX18854XT	58.2	—	—	9/4	22	1
Great Heart Seed	GT-5324X	57.1	59.1	—	8/30	22	1
GoSoy	54G16	56.8	53.7	—	9/9	27	1
AGS	GS 51X18S	56.2	—	—	9/2	30	1
Mean		66.4					
CV		9.94					
LSD (0.05)		10.75					
R^2		58.12					
Error DF		72					

[1]Variety followed by an asterisk indicates an experimental entry.

Table 28. Roundup Ready Maturity Group V Late Nonirrigated Soybean Varieties (Black Belt Branch Station, Brooksville).

Brand	Variety	Yield			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
USG	75B75R	72.65	68.2	62.3	9/13	32	1
Progeny	P5752RY	66.71	61.6	57.9	9/12	29	1
Mean		69.7					
CV		8.64					
LSD		NS					
R^2		65.72					
Error DF		2					

Table 29. Maturity Group IV LibertyLink Nonirrigated Soybean Varieties (Black Belt Branch Station, Brooksville).

Brand	Variety[1]	Yield			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Terral	REV 49L88 *	77.2	70.2	—	9/1	32	1
Credenz	CZ 4748 LL	63.2	51.2	52.4	8/25	33	1
Credenz	CZ 4649 LL	62.4	—	—	8/30	32	1
Pioneer	P47A76L	60.8	—	—	8/29	29	1
Terral	REV 46L99 *	60.2	—	—	8/30	31	1
Credenz	CZ 4820 LL	58.1	54.3	—	8/25	33	1
Credenz	CZ 4918 LL	56.7	54.4	—	8/25	32	1
Credenz	CZ 4540 LL	55.2	49.3	49.5	8/29	34	1
Credenz	CZ 4938 LL	55.0	53.5	—	9/1	36	1
Pioneer	P44A08L	54.5	—	—	8/24	29	1
Dyna-Gro	S49LL34	54.2	57.6	57.7	8/28	36	1
Terral	REV 47L38	53.0	—	—	8/25	27	1
Credenz	CZ 4548 LL	52.1	47.4	—	8/26	35	1
Dyna-Gro	S45LL97	52.0	48.6	—	8/27	32	1
Delta Grow	DG 4977LL/STS	52.0	52.9	53.8	9/5	38	1
Delta Grow	DG 4582 LL/STS	51.8	—	—	8/24	27	1
Credenz	CZ 4308 LL	51.4	44.1	—	9/1	35	1
Credenz	CZ 4222 LL	50.0	44.8	43.6	8/24	29	1
Credenz	CZ 3841 LL	41.0	37.8	—	8/24	30	1
Credenz	CZ 4105 LL	39.6	36.8	34.5	8/24	28	1
Credenz	CZ 3601 LL	38.2	—	—	8/24	28	1
Mean		54.2					
CV		12.8					
LSD (0.05)		11.45					
R^2		70.53					
Error DF		40					

[1]Variety followed by an asterisk indicates an experimental entry.

Table 30. Maturity Group V LibertyLink Nonirrigated Soybean Varieties (Black Belt Branch Station, Brooksville).

Brand	Variety	Yield			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Credenz	CZ 5225 LL	75.0	—	—	9/6	26	1
Credenz	CZ 5242 LL	70.5	59.1	56.9	9/11	43	1
Credenz	CZ 5147 LL	70.4	64.7	60.1	9/6	24	1
Credenz	CZ 5445 LL	69.5	—	—	9/9	28	1
Credenz	CZ 5328 LL	67.1	—	—	9/9	31	1
Credenz	CZ 5150 LL	65.5	59.8	56.9	9/3	33	1
Mean		69.7					
CV		6.5					
LSD (0.05)		NS					
R^2		49.1					
Error DF		10					

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

Brand	Variety[1]	Yield			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
VIRTUE EX203	2987331	67.0	—	—	8/18	19	1
GoSoy	Ireane	66.7	57.7	54.7	9/6	23	1
U. of Missouri	S13-10592C *	63.9	—	—	8/29	30	1
U. of Missouri	S13-3851C	63.5	58.4	—	8/28	27	1
VIRTUE EX206	2987416	59.8	—	—	9/2	29	1
U. of Missouri	S13-10590C *	57.3	46.3	—	9/27	28	1
U. of Missouri	S13-2743C *	52.3	40.5	—	8/19	32	1
GoSoy	E4510S	49.0	—	—	8/29	28	1
GoSoy	43C17S	43.7	—	—	8/19	28	1
Mean		58.1					
CV		12.1					
LSD (0.05)		12.2					
R^2		70.5					
Error DF		16					

[1]Variety followed by an asterisk indicates an experimental entry.

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

Brand	Variety[1]	Yield			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.[2]			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
U. of Missouri	M05201D CONV	77.7	—	—	9/10	25	1
U. of Missouri	S13-1955C *	75.1	69.2	—	9/11	33	1
U. of Missouri	S11-20242C	73.7	—	—	9/2	38	1
U. of Missouri	S15-10434C *	72.4	—	—	9/14	24	1
GoSoy	56C16	71.3	59.6	—	9/13	35	1
GoSoy	53C16	63.1	—	—	9/9	25	1
GoSoy	51C17	59.9	—	—	9/2	27	1
Mean		70.5					
CV		10.7					
LSD		NS					
R^2		61.9					
Error DF		12					

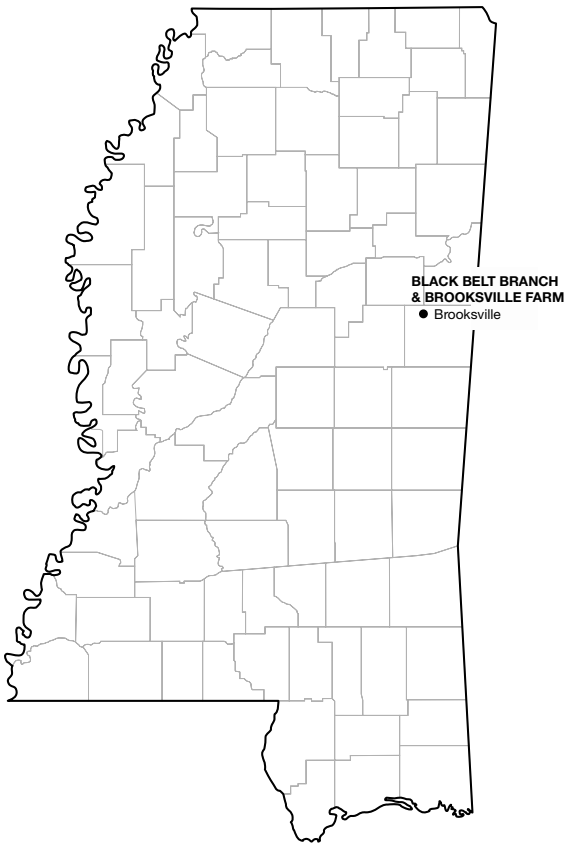
[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 3-year average.

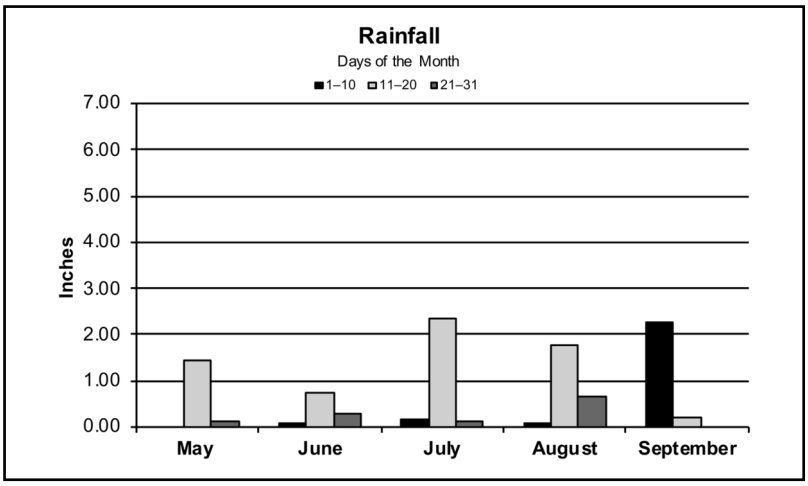
BROOKSVILLE, BROOKSVILLE FARM

Crop Summary

Soybean plots were planted into a stale seedbed with adequate moisture for germination. All plots came up to a good stand. Midsummer was hot and very dry at this location. Timely irrigation events allowed for ample soil moisture throughout the season. Harvest was completed in a timely manner and good yields were observed at this location.

Planting date . . . . . **May 4**
Harvest date . . . . . **September 20**
Soil type . . . . . **Brooksville silty clay**
Soil pH **6.2**
Soil fertility . . . . . **P=M, K=M**
Previous crop . . . . . **Cotton**
Fertilizer . . . . . **Preplant — 0-0-60 @ 125 lb/A, and Broiler litter @ 2 tons/A**
Herbicide . . . . . **Burndown — Roundup PowerMAX @ 25.6 oz/A, Barrage @ 12.8 oz/A, and Leadoff @ 1.5 oz/A on February 23**
Preemergence — Authority MTZ @ 12 oz/A, Gramoxone @ 32 oz/A, Dual II Magnum @ 24 oz/A, and Zidua @ 2 oz/A on May 4
Postemergence — Roundup PowerMAX @ 25.6 oz/A and Resource @ 3.5 oz/A on May 15; Roundup PowerMAX @ 32 oz/A and Prefix @ 32 oz/A on May 31
Fungicide/Insecticide . . . **Dimilin @ 2 oz/A and Avaris @ 10 oz/A on July 20**
Irrigation . . . . . **June 11 (1/2”), June 26 (3/4”), July 2 (3/4”), July 6 (3/4”), July 13 (3/4”), July 30 (3/4”), August 6 (3/4”)**





Rainfall Summary

	Inches
May	1.56
June	1.08
July	2.60
August	2.48
September	2.44
Total	10.16

Table 33. Roundup Ready Maturity Group IV Early Irrigated Soybean Varieties (Brooksville Farm, Brooksville).

Brand	Variety[1]	Yield[2]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Asgrow	AG46X6	93.6	67.2	—	9/12	37	1
Croplan	RX4687S	92.1	—	—	9/7	44	1
Asgrow	AG45X8	91.0	69.4	—	9/9	36	1
Local Seed Co	LS4583X	90.5	—	—	9/9	43	1
Progeny	P4620RXS	89.7	69.1	—	9/13	42	1
MorSoy	MS 4616 RXT	88.9	71.2	—	9/5	42	1
Dyna-Gro	SX18845XT *	87.7	—	—	9/8	38	1
USG	7447XTS	87.7	—	—	9/11	43	1
Local Seed Co	LS4565XS	87.7	—	—	9/6	42	1
NK Seeds	S45-J3X	87.7	—	—	9/3	30	1
Mission Seed Solutions	A4608X	86.9	—	—	9/6	52	1
Asgrow	AG43X7	86.9	68.9	—	9/4	38	1
Croplan	RX 4500 S	86.7	—	—	9/6	44	1
AgriGold	G4440RX	86.6	70.3	—	9/6	40	1
Pioneer	P46A16R	86.4	—	—	9/4	41	1
Mission Seed Solutions	A4637NSXR2	86.4	—	—	9/5	41	1
Pioneer	P46A57BX	86.2	—	—	9/4	43	1
Progeny	P4750 RYS	86.1	—	—	9/2	41	1
Dyna-Gro	S45XS66	85.6	70.5	—	9/11	37	1
Delta Grow	4670RR2	85.3	65.4	68.5	9/5	45	1
MorSoy	MS 4426 RXT	85.2	—	—	9/3	40	1
Dyna-Gro	S41XS98	85.0	—	—	9/2	32	1
Armor	X45D50 *	84.8	—	—	9/10	38	1
Dyna-Gro	S45XS37	84.2	66.2	—	9/11	43	1
Local Seed Co	LS4677X	83.7	—	—	9/3	43	1
Great Heart	GT-4685XS	83.7	—	—	9/7	43	1
Terral	REV 4679X *	83.5	—	—	9/5	39	1
Asgrow	AG42X9	83.5	—	—	9/4	40	1
Local Seed Co	LS4487XS	83.4	—	—	9/6	41	1
Armor	42-D27	83.1	—	—	9/2	32	1
Armor	X46D63 *	82.9	—	—	9/13	40	1
Mission Seed Solutions	A4618X	82.7	—	—	9/13	43	1
Mission Seed Solutions	A4447NSXR2	82.6	—	—	9/11	43	1
NK Seeds	S45-K5X	82.5	61.6	—	9/2	33	1
AgriGold	G4579RX	82.3	—	—	9/11	42	1
NK Brand	S43-V3X	82.2	62.4	—	9/6	36	1
Progeny	P4444RXS	81.9	66.7	—	9/3	34	1
Delta Grow	DG 46X25RR2 Xtend	81.8	—	—	9/7	38	1
AgriGold	G4605RX	81.7	—	—	9/6	51	1
AGS	GS46X17	81.5	58.6	—	9/8	32	1
Progeny	P4255RX	81.1	62.6	—	9/3	39	1
Local Seed Co	LS4689X	80.6	—	—	9/8	50	1
Great Heart	GT-4628X	80.1	—	—	9/5	52	1
Pioneer	P42A96X	78.4	—	—	9/5	38	1
Asgrow	AG43X8	77.7	—	—	9/4	41	1
U. of Missouri	S14-15146R *	73.1	—	—	9/6	33	1
Progeny	P4318RX	72.6	—	—	9/3	45	1
Croplan	RX 4217 S	69.4	—	—	9/3	44	2
Mean		84.0					
CV		4.9					
LSD (0.05)		6.7					
R^2		65.9					
Error DF		94					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]Varieties lacking the Xtend trait were omitted from these locations due to uncertainty of exposure and timing of dicamba drift occurrence.

Table 34. Roundup Ready Maturity Group IV Late Irrigated Soybean Varieties (Brooksville Farm, Brooksville).

Brand	Variety[1]	Yield			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Asgrow	AG49X9	97.0	—	—	9/15	37	1
MorSoy	MS 4846 RXT	96.9	77.4	—	9/15	35	1
Croplan	RX4825	96.8	73.3	—	9/16	38	1
Asgrow	AG48X9	95.3	—	—	9/11	39	1
Progeny	P4851RX	94.2	75.5	—	9/10	39	1
USG	7496XTS	93.9	66.5	—	9/14	44	1
Mission Seed Solutions	MEX4908 *	93.8	—	—	9/16	44	1
Great Heart Seed	GT-4721X	93.5	76.2	—	9/6	40	3
Dyna-Gro	S48XT56	92.8	72.8	—	9/14	38	1
Dyna-Gro	S49XT39	92.3	—	—	9/11	43	1
Pioneer	P48A60X	92.3	—	—	9/7	39	1
Great Heart Seed	GT-4979X	92.0	—	—	9/15	43	1
Delta Grow	DG 4790RR2	91.6	67.1	71.7	9/7	41	1
Terral	REV 4927X	91.3	71.9	—	9/4	43	1
Local Seed Co	AV49W3X	91.2	—	—	9/4	44	1
Terral	REV 47A98	91.0	—	—	9/6	37	1
Progeny	P4816RX	90.2	66.6	—	9/15	37	1
Croplan	RX4927	89.6	—	—	9/7	42	1
Progeny	P4955RX	89.4	—	—	9/12	43	1
Armor	X47D22 *	89.3	—	—	9/6	38	1
Delta Grow	DG 48X45RR2 Xtend	88.8	75.4	—	9/15	36	1
Progeny	P4944RX	88.7	—	—	9/11	37	1
Progeny	P4757RY	88.4	63.9	69.7	9/7	42	1
Mission Seed Solutions	MEX4808 *	88.1	—	—	9/12	46	1
Armor	X48D02 *	87.5	—	—	9/11	43	1
Progeny	P4799RXS	87.4	67.9	—	9/12	40	1
Local Seed Co	LS4968XS	87.4	—	—	9/14	38	1
Great Heart Seed	GT-4809X	87.4	—	—	9/1	45	1
Local Seed Co	LS4966X	87.3	—	—	9/16	39	1
Great Heart Seed	GT-4833XS	86.8	—	—	9/12	50	2
Local Seed Co	AV47W2X	86.7	—	—	9/12	39	1
AgriGold	G4995RX	86.7	—	—	9/13	43	2
AGS	GS 48X18	86.6	—	—	9/6	42	2
Asgrow	AG47X9	86.6	—	—	9/11	39	1
Armor	X49D31 *	86.2	—	—	9/13	50	2
Terral	REV 4857X	86.2	71.5	—	9/6	41	1
USG	7489XT	85.3	—	—	9/15	38	1
NK Brand	S48-R2X	85.0	65.1	—	9/7	38	1
Local Seed Co	LS4889XS	84.2	—	—	9/12	42	2
Terral	REV 48A26	83.7	64.3	70.0	9/5	36	1
Local Seed Co	LS4988X	82.2	—	—	9/6	39	1
Petrus Seed	4916 GT	76.5	66.9	—	9/14	31	1
GoSoy	49G16	75.6	65.1	65.2	9/8	35	1
U. of Missouri	S14-9051R	75.5	—	—	9/7	36	1
U. of Missouri	S14-9051R *	74.4	—	—	9/4	35	1
Petrus Seed	479 GTS	67.4	50.2	—	9/4	41	1
Mean		87.8					
CV		5.51					
LSD (0.05)		7.85					
R^2		72.15					
Error DF		90					

[1]Variety followed by an asterisk indicates an experimental entry.

Table 35. Roundup Ready Maturity Group V Early Irrigated Soybean Varieties (Brooksville Farm, Brooksville).

Brand	Variety[1]	Yield			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Armor	X51D77	92.7	—	—	9/16	48	1
Asgrow	AG52X9	91.2	—	—	9/15	42	1
Local Seed Co	LS5087X	89.5	—	—	9/13	43	2
Delta Grow	DG 52X15 Xtend	88.6	—	—	9/13	42	1
Progeny Ag	P5688RX	87.4	77.0	—	9/19	30	1
Asgrow	AG54X9	86.3	—	—	9/18	30	1
Progeny Ag	P5554RX	86.0	—	—	9/18	30	1
GoSoy	50G17	85.7	—	—	9/14	35	1
Armor	X55D57	85.5	—	—	9/19	33	1
AgriGold	G5288RX	84.6	—	—	9/17	48	2
Terral Seed	REV 52A98	84.6	—	—	9/3	35	1
Terral Seed	REV 56A58	83.9	73.5	—	9/18	39	1
NK Seeds	S50-G9XS	83.7	—	—	9/14	43	2
Dyna-Gro	SX18854XT	83.5	—	—	9/15	27	1
Great Heart Seed	GT-5324X	83.1	67.7	—	9/12	25	1
Progeny Ag	P5018RX	82.9	—	—	9/12	45	1
Terral Seed	REV 55A67	82.5	72.2	—	9/18	34	1
Delta Grow	DG 5170 RR2/STS	82.3	68.1	70.4	9/18	44	2
AgriGold	G5000RX	81.4	66.0	—	9/14	46	1
Terral Seed	REV 51A56	81.2	66.2	69.1	9/5	38	1
Progeny Ag	P5279RXS	81.2	—	—	9/9	45	1
U. of Arkansas	R14-14797 RR	80.9	63.7	—	9/17	39	1
Croplan	RX 5016 S	79.9	—	—	9/13	41	1
Armor	X52D71	79.6	—	—	9/15	42	1
AGS	GS 51X18S	77.2	—	—	9/13	37	1
Progeny Ag	P5252RX	76.6	—	—	9/17	48	1
Dyna-Gro	SX18652XS	76.5	—	—	9/13	50	1
U. of Missouri	S14-9017R	75.3	—	—	9/18	32	1
Dyna-Gro	S56XT99	73.9	—	—	9/17	37	1
Asgrow	AG55X7	72.6	69.0	—	9/18	26	1
Armor	X50D13	71.9	—	—	9/14	46	2
Asgrow	AG53X9	71.1	—	—	9/12	41	1
Progeny Ag	P5226RYS	70.7	—	—	9/14	48	2
Dyna-Gro	S52XT08	70.1	—	—	9/14	27	1
Pioneer	P54A75X	66.9	—	—	9/14	31	1
Progeny Ag	P 5016RXS	64.1	57.6	—	9/13	46	1
GoSoy	54G16	62.6	57.0	—	9/13	29	1
Mean		79.9					
CV		8.86					
LSD (0.05)		11.53					
R^2		62.06					
Error DF		72					

[1]Variety followed by an asterisk indicates an experimental entry.

Table 36. Roundup Ready Maturity Group V Late Irrigated Soybean Varieties (Brooksville Farm, Brooksville).

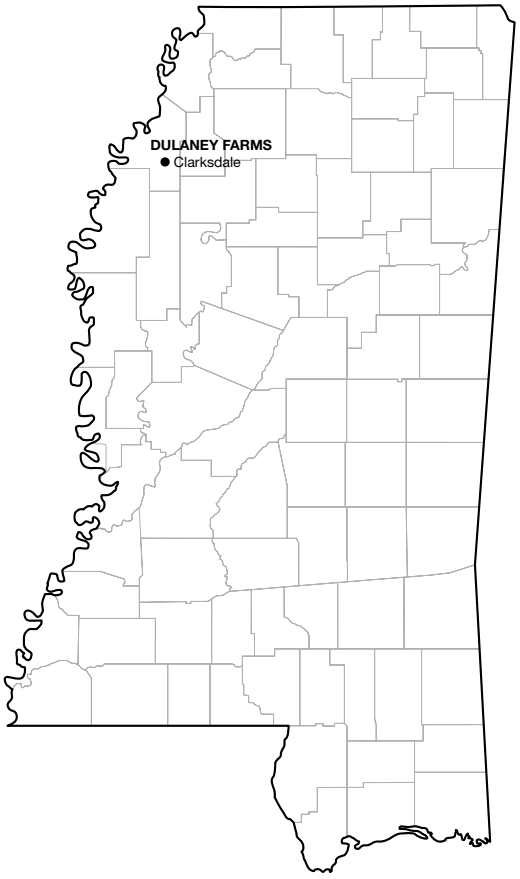
Brand	Variety	Yield			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
USG	75B75R	93.4	77.5	76.6	9/22	30	1
Progeny	P5752RY	90.8	73.9	73.0	9/22	32	1
Mean		92.1					
CV		7.1					
LSD		NS					
R^2		58.8					
Error DF		2					

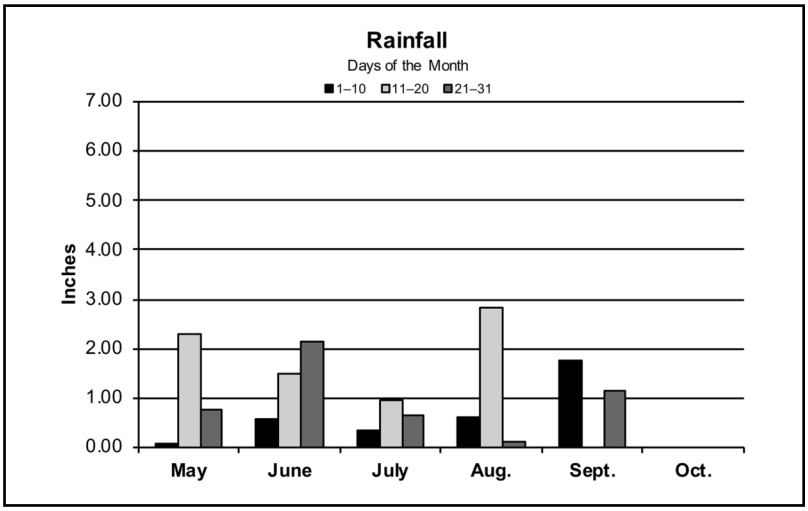
CLARKSDALE IRRIGATED, DULANEY FARMS

Crop Summary

Plots were planted into a stale seedbed prepared the previous fall. There was adequate moisture at planting for germination and seedling emergence. All plots emerged to a good stand. Herbicide drift during the season caused considerable visual damage to all varieties that did not possess the Xtend trait. As a result of this uncontrollable damage, all non-Xtend varieties were excluded from the harvest results. Rainfall and furrow irrigation allowed sufficient soil moisture throughout the growing season, and good yields were observed on the varieties not affected by herbicide drift. Harvest was completed without difficulty and in a timely manner.

Planting date . . .May 2
Harvest date . . . .October 5
Soil type . . . . . .Alligator clay, Sharkey clay, and Forestdale silty clay
Soil pH 7.0
Soil fertility . . . . .P=M, K=H
Previous crop . . .Soybeans
Herbicide . . . . . .Preemergence — Authority MTZ @ 12 oz/A, Dual II Magnum @ 24 oz/A, and Zidua @ 2 oz/A on May 2
Postemergence — Select @ 16 oz/A on July 2
Irrigation . . . . . .Furrow irrigated as needed





Rainfall Summary

	Inches
May	3.14
June	4.20
July	1.97
August	3.56
September	2.92
October	0.00
Total	15.79

Table 37. Roundup Ready Maturity Group IV Early Irrigated Soybean Varieties (Dulaney Farms, Coahoma County).

Brand	Variety[1]	Yield[2]			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Local Seed Co	LS4583X	104.3	—	—	38	1
Asgrow	AG46X6	103.5	89.6	—	39	1
Dyna-Gro	SX18845XT *	102.1	—	—	38	1
Armor	X45D50 *	101.7	—	—	40	1
Delta Grow	DG 46X25RR2 Xtend	100.8	—	—	38	1
Pioneer	P46A57BX	99.8	—	—	36	1
Croplan	RX 4500 S	99.5	—	—	37	1
Progeny	P4444RXS	99.1	84.2	—	32	1
MorSoy	MS 4616 RXT	99.0	86.3	—	39	1
AgriGold	G4440RX	98.9	69.2	—	38	1
Dyna-Gro	S45XS66	98.2	90.3	—	38	1
Local Seed Co	LS4677X	98.0	—	—	40	2
Terral	REV 4679X *	96.3	—	—	31	1
Asgrow	AG45X8	96.3	86.1	—	35	1
Pioneer	P42A96X	96.1	—	—	36	1
Local Seed Co	LS4487XS	95.9	—	—	44	1
NK Seeds	S45-K5X	95.8	83.3	—	30	1
Mission Seed Solutions	A4447NSXR2	95.7	—	—	43	1
NK Seeds	S45-J3X	95.6	—	—	32	1
Progeny	P4620RXS	95.1	85.6	—	39	1
Asgrow	AG43X8	95.1	—	—	37	1
MorSoy	MS 4426 RXT	94.8	—	—	40	1
Local Seed Co	LS4689X	94.6	—	—	48	1
Dyna-Gro	S45XS37	94.4	85.9	—	33	1
Asgrow	AG43X7	94.2	86.4	—	39	1
Mission Seed Solutions	A4637NSXR2	94.2	—	—	42	1
Mission Seed Solutions	A4608X	93.9	—	—	44	1
Asgrow	AG42X9	93.7	—	—	43	1
USG	7447XTS	93.5	—	—	38	1
Great Heart	GT-4628X	92.9	—	—	41	2
AgriGold	G4605RX	91.9	—	—	43	2
NK Brand	S43-V3X	90.2	79.4	—	35	1
AgriGold	G4579RX	89.4	—	—	39	1
Croplan	RX4687S	89.4	—	—	43	2
Dyna-Gro	S41XS98	89.2	—	—	35	1
Armor	X46D63 *	88.8	—	—	38	1
Progeny	P4750 RYS	88.5	—	—	40	1
Great Heart	GT-4685XS	88.1	—	—	37	1
Local Seed Co	LS4565XS	87.4	—	—	39	1
Mission Seed Solutions	A4618X	86.4	—	—	42	1
AGS	GS46X17	86.1	75.1	—	32	1
Progeny	P4255RX	85.6	57.1	—	38	1
Progeny	P4318RX	82.5	—	—	39	2
Croplan	RX 4217 S	81.9	—	—	38	3
Armor	42-D27	81.6	—	—	32	1
U. of Missouri	S14-15146R *	—	—	—	27	1
Pioneer	P46A16R	—	—	—	19	1
Delta Grow	4670RR2	—	—	—	19	1
Mean		93.8				
CV		5.3				
LSD (0.05)		8.1				
R^2		67.1				
Error DF		88				

[1]Variety followed by an asterisk indicates an experimental entry.
[2]Varieties lacking the Xtend trait were omitted from this location in 2018 due to uncertainty of exposure and timing of dicamba drift.

Table 38. Roundup Ready Maturity Group IV Late Irrigated Soybean Varieties (Dulaney Farms, Coahoma County).

Brand	Variety[1]	Yield[2]			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Terral	REV 4927X	107.1	90.7	—	36	1
Great Heart Seed	GT-4979X	100.8	—	—	41	1
Progeny	P4851RX	100.7	93.2	—	40	2
Mission Seed Solutions	MEX4908 *	99.6	—	—	44	2
AgriGold	G4995RX	99.5	—	—	43	1
Progeny	P4955RX	99.3	—	—	38	1
Croplan	RX4825	98.9	92.4	—	41	2
Local Seed Co	LS4889XS	98.2	—	—	40	1
Armor	X48D02 *	98.1	—	—	40	2
USG	7496XTS	97.6	86.6	—	43	1
Local Seed Co	AV47W2X	97.6	—	—	37	1
Local Seed Co	AV49W3X	97.4	—	—	35	2
Asgrow	AG48X9	96.9	—	—	49	2
Great Heart Seed	GT-4833XS	96.6	—	—	39	1
AGS	GS 48X18	96.5	—	—	39	2
Local Seed Co	LS4988X	96.2	—	—	43	2
Great Heart Seed	GT-4721X	96.0	91.4	—	35	1
Croplan	RX4927	95.6	—	—	39	1
Dyna-Gro	S49XT39	95.5	—	—	38	1
Progeny	P4816RX	95.0	90.7	—	36	1
Dyna-Gro	S48XT56	94.9	91.3	—	43	1
Pioneer	P48A60X	93.8	—	—	32	1
Great Heart Seed	GT-4809X	93.4	—	—	37	2
Terral	REV 4857X	93.2	88.4	—	48	1
Progeny	P4799RXS	92.8	88.1	—	32	1
Asgrow	AG49X9	91.5	—	—	43	1
USG	7489XT	91.3	—	—	39	1
Delta Grow	DG 48X45RR2 Xtend	91.2	90.1	—	33	1
Asgrow	AG47X9	91.1	—	—	39	3
MorSoy	MS 4846 RXT	90.3	89.9	—	28	1
Progeny	P4944RX	90.3	—	—	28	1
Armor	X49D31 *	90.2	—	—	37	1
Mission Seed Solutions	A4828X	89.9	—	—	34	2
Local Seed Co	LS4966X	88.5	—	—	43	2
NK Brand	S48-R2X	87.3	81.7	—	40	1
Armor	X47D22 *	82.4	—	—	37	2
Local Seed Co	LS4968XS	81.3	—	—	40	2
Mean		94.5				
CV		9.77				
LSD (0.05)		NS				
R^2		34.69				
Error DF		72				

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 3-year average.

Table 39. Roundup Ready Maturity Group V Early Irrigated Soybean Varieties (Dulaney Farms, Coahoma County).

Brand	Variety[1]	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Local Seed Co	LS5087X	96.0	—	—	49	2
AgriGold	G5000RX	94.5	80.2	—	43	1
Asgrow	AG53X9	94.5	—	—	39	1
AGS	GS 51X18S	94.4	—	—	38	1
Delta Grow	DG 52X15 Xtend	94.4	—	—	48	3
NK Seeds	S50-G9XS	93.6	—	—	39	3
Croplan	RX 5016 S	92.6	—	—	46	1
Asgrow	AG52X9	91.9	—	—	46	2
AgriGold	G5288RX	91.2	—	—	47	2
Dyna-Gro	S52XT08	90.1	—	—	32	1
Progeny Ag	P 5016RXS	90.1	77.4	—	44	1
Asgrow	AG54X9	89.5	—	—	31	1
Armor	X52D71	89.5	—	—	43	1
Progeny Ag	P5554RX	89.3	—	—	33	1
Progeny Ag	P5018RX	88.5	—	—	45	3
Asgrow	AG55X7	88.3	80.2	—	25	1
Armor	X50D13	88.1	—	—	45	2
Great Heart Seed	GT-5324X	87.3	78.4	—	23	1
Dyna-Gro	S56XT99	87.2	—	—	34	1
Progeny Ag	P5279RXS	85.8	—	—	47	2
Pioneer	P54A75X	85.0	—	—	28	1
Dyna-Gro	SX18652XS	84.8	—	—	45	1
Armor	X55D57	82.5	—	—	36	1
Progeny Ag	P5688RX	80.2	54.5	—	33	1
Progeny Ag	P5252RX	78.1	—	—	50	3
Dyna-Gro	SX18854XT	77.9	—	—	31	1
Armor	X51D77	74.8	—	—	47	2
Mean		88.2				
CV		4.97				
LSD (0.05)		7.18				
R^2		73.23				
Error DF		52				

[1]Variety followed by an asterisk indicates an experimental entry.

Table 40. Roundup Ready Maturity Group V Late Irrigated Soybean Varieties (Dulaney Farms, Coahoma County).

Brand	Variety[1]	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
USG	75B75R	67.73	66.0	62.6	20	1
Progeny	P5752RY	—	—	—	—	—
Mean		67.73				
CV		—				
LSD		—				
R^2		—				
Error DF		—				

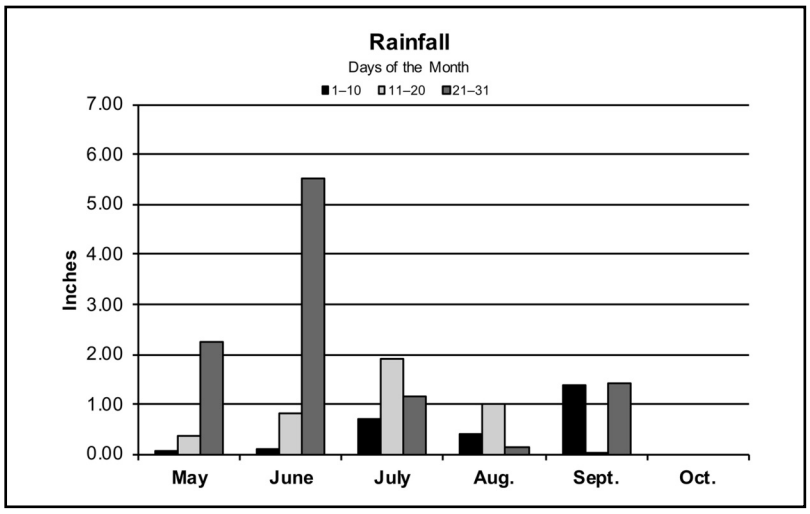
[1]Varieties lacking the Xtend trait were omitted due to uncertainty of exposure and timing of dicamba drift occurrence.

LONGWOOD, STEELE FARMS

Crop Summary

Soybean plots were planted into a stale seedbed. Soil moisture at planting was sufficient for seed to germinate. All plots emerged to a good stand. The combination of rainfall and furrow irrigation supplied sufficient soil moisture throughout the growing season. Harvest was completed in a timely manner without difficulties, and good yields were recorded for this location.

Planting date . . .May 1
Harvest date . . . .October 4
Soil type . . . . . .Sharkey clay
Soil pH 8.0
Soil fertility . . . . .P=H$^+$, K=H$^+$
Previous crop . . .Rice
Herbicide . . . . . .Preemergence — Authority MTZ @ 12 oz/A, Gramoxone @ 32 oz/A, Dual II Magnum @ 32 oz/A, and Zidua @ 2 oz/A on May 1
Postemergence —
Roundup Ready – Roundup PowerMAX @ 32 oz/A, Prefix @ 24 oz/A, and Firstrate @ 0.3 oz/A on June 6
LibertyLink – Liberty @ 32 oz/A, Prefix @ 24 oz/A, and Firstrate @ 0.3 oz/A on June 6
Roundup Ready and LibertyLink – Section (clethodim) @ 12 oz/A and Firstrate @ 0.3 oz/A on June 29
Irrigation . . . . . .Furrow irrigated as needed



Rainfall Summary

	Inches
May	2.70
June	6.47
July	3.77
August	1.57
September	2.83
October	0.00
Total	17.34

Table 41. Roundup Ready Maturity Group IV Early Irrigated Soybean Varieties (Steele Farms, Longwood).

Brand	Variety[1]	Yield			Plant height	Lodging score	Shattering
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*	*%*
Progeny	P4444RXS	101.6	93.3	—	26	1	0
Delta Grow	DG 46X25RR2 Xtend	99.8	—	—	26	1	0
U. of Missouri	S14-15146R *	98.1	—	—	23	1	0
Armor	X45D50 *	97.1	—	—	30	1	0
Croplan	RX4687S	97.0	—	—	31	2	0
Asgrow	AG43X8	96.2	—	—	35	2	0
Pioneer	P46A57BX	95.8	—	—	26	1	0
Pioneer	P46A16R	95.5	—	—	27	1	0
Pioneer	P42A96X	94.9	—	—	25	1	0
Dyna-Gro	S45XS37	94.7	94.9	—	25	1	0
Local Seed Co	LS4677X	93.9	—	—	25	1	0
AGS	GS46X17	93.0	91.8	—	28	1	0
Mission Seed Solutions	A4447NSXR2	91.7	—	—	30	1	0
AgriGold	G4579RX	91.4	—	—	29	1	0
MorSoy	MS 4426 RXT	89.8	—	—	26	2	0
Croplan	RX 4500 S	89.2	—	—	28	1	0
NK Brand	S43-V3X	89.1	91.1	—	28	1	0
Mission Seed Solutions	A4618X	88.9	—	—	28	1	0
Asgrow	AG43X7	88.9	90.6	—	26	1	0
Asgrow	AG45X8	88.5	93.1	—	26	1	0
NK Seeds	S45-K5X	87.9	89.7	—	24	1	0
Armor	42-D27	87.5	—	—	28	2	0
Great Heart	GT-4685XS	87.3	—	—	27	1	0
Local Seed Co	LS4565XS	86.7	—	—	32	1	0
Delta Grow	4670RR2	85.8	87.1	84.7	26	1	0
Mission Seed Solutions	A4637NSXR2	85.7	—	—	28	1	0
NK Seeds	S45-J3X	85.0	—	—	25	1	0
Asgrow	AG46X6	84.9	91.7	—	31	1	0
Mission Seed Solutions	A4608X	84.8	—	—	31	1	0
Armor	X46D63 *	84.0	—	—	33	1	0
Local Seed Co	LS4689X	84.0	—	—	37	2	0
Terral	REV 4679X *	83.9	—	—	26	1	0
Progeny	P4750 RYS	83.7	—	—	29	1	0
Progeny	P4255RX	82.3	84.3	—	32	1	0
Dyna-Gro	S41XS98	81.0	—	—	21	1	0
Local Seed Co	LS4583X	81.0	—	—	26	1	0
Croplan	RX 4217 S	81.0	—	—	27	1	0
AgriGold	G4605RX	79.0	—	—	35	2	0
Progeny	P4318RX	77.4	—	—	28	2	10
Dyna-Gro	SX18845XT *	76.4	—	—	25	1	0
MorSoy	MS 4616 RXT	73.8	85.1	—	28	1	0
Local Seed Co	LS4487XS	73.1	—	—	24	1	0
Asgrow	AG42X9	72.7	—	—	32	1	0
USG	7447XTS	71.2	—	—	32	1	0
Dyna-Gro	S45XS66	67.3	81.9	—	28	1	0
Great Heart	GT-4628X	65.6	—	—	36	2	0
AgriGold	G4440RX	65.2	77.8	—	28	1	0
Progeny	P4620RXS	62.2	83.0	—	27	1	0
Mean		85.3					
CV		10.2					
LSD (0.05)		14.1					
R^2		71.7					
Error DF		94					

[1]Variety followed by an asterisk indicates an experimental entry.

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

Brand	Variety[1]	Yield[2]			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Armor	X49D31 *	112.5	—	—	31	1
Dyna-Gro	S49XT39	107.5	—	—	30	1
Great Heart Seed	GT-4979X	105.8	—	—	26	1
Delta Grow	DG 48X45RR2 Xtend	104.3	103.9	—	28	1
Progeny	P4851RX	103.1	105.2	—	29	1
Mission Seed Solutions	MEX4808 *	102.4	—	—	36	2
Local Seed Co	LS4889XS	101.7	—	—	30	1
Great Heart Seed	GT-4833XS	99.3	—	—	29	1
Progeny	P4955RX	98.8	—	—	30	1
USG	7496XTS	98.6	89.4	—	30	1
Croplan	RX4927	98.1	—	—	29	1
Armor	X48D02 *	96.6	—	—	31	1
Progeny	P4816RX	95.7	102.4	—	27	1
Terral	REV 4857X	95.2	99.7	—	31	1
Great Heart Seed	GT-4809X	94.7	—	—	29	1
Asgrow	AG48X9	94.5	—	—	28	1
MorSoy	MS 4846 RXT	93.9	103.6	—	28	1
USG	7489XT	93.8	—	—	29	1
Asgrow	AG49X9	93.6	—	—	23	1
Croplan	RX4825	93.3	97.2	—	27	1
Terral	REV 48A26	92.2	89.1	—	27	1
Local Seed Co	LS4988X	92.1	—	—	25	1
Dyna-Gro	S48XT56	91.5	98.4	—	25	1
Asgrow	AG47X9	91.2	—	—	26	1
Progeny	P4799RXS	90.2	89.3	—	32	1
Local Seed Co	LS4968XS	89.3	—	—	30	1
GoSoy	49G16	89.1	91.0	—	26	1
Local Seed Co	LS4966X	88.9	—	—	28	1
Terral	REV 47A98	88.2	—	—	26	1
Terral	REV 4927X	88.2	91.6	—	32	1
Progeny	P4757RY	87.6	90.2	—	27	1
Local Seed Co	AV49W3X	87.6	—	—	29	1
Progeny	P4944RX	87.3	—	—	25	1
Great Heart Seed	GT-4721X	86.9	92.0	—	28	1
Mission Seed Solutions	MEX4908 *	86.5	—	—	31	1
Petrus Seed	4916 GT	86.2	90.9	—	24	1
AGS	GS 48X18	85.7	—	—	27	1
Local Seed Co	AV47W2X	85.3	—	—	30	1
U. of Missouri	S14-9051R	85.0	—	—	22	1
Pioneer	P48A60X	85.0	—	—	26	1
AgriGold	G4995RX	83.1	—	—	27	1
Armor	X47D22 *	82.7	—	—	25	1
Delta Grow	DG 4790RR2	81.6	87.8	—	25	1
NK Brand	S48-R2X	76.1	83.2	—	28	1
U. of Missouri	S14-9051R *	66.5	—	—	20	1
Petrus Seed	479 GTS	61.3	69.7	—	24	1
Mean		91.3				
CV		8.06				
LSD (0.05)		11.93				
R^2		78.15				
Error DF		90				

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 3-year average.

Table 43. Roundup Ready Maturity Group V Early Irrigated Soybean Varieties (Steele Farms, Longwood).

Brand	Variety[1]	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Armor	X51D77	116.9	—	—	38	1
Delta Grow	DG 5170 RR2/STS	116.9	103.6	90.2	28	1
Armor	X50D13	116.8	—	—	33	1
Progeny Ag	P5252RX	114.5	—	—	35	1
GoSoy	50G17	113.6	—	—	26	1
Local Seed Co	LS5087X	113.2	—	—	28	1
Progeny Ag	P5226RYS	111.4	—	—	32	1
Armor	X55D57	109.3	—	—	27	1
Progeny Ag	P5018RX	108.9	—	—	32	1
Dyna-Gro	SX18652XS	107.8	—	—	37	1
Progeny Ag	P5554RX	107.7	—	—	27	1
Progeny Ag	P5688RX	106.2	94.7	—	27	1
Terral Seed	REV 55A67	104.4	97.5	—	21	1
Delta Grow	DG 52X15 Xtend	103.5	—	—	32	1
Progeny Ag	P5279RXS	103.1	—	—	32	1
Dyna-Gro	S56XT99	103.1	—	—	23	1
Asgrow	AG52X9	102.2	—	—	32	1
Terral Seed	REV 52A98	101.2	—	—	21	1
Dyna-Gro	S52XT08	100.3	—	—	21	1
Terral Seed	REV 56A58	100.0	88.1	—	25	1
AGS	GS 51X18S	99.4	—	—	31	1
Armor	X52D71	99.3	—	—	31	1
AgriGold	G5000RX	98.4	90.2	—	31	1
Great Heart Seed	GT-5324X	97.8	92.4	—	24	1
U. of Arkansas	R14-14797 RR	97.6	89.1	—	22	1
Pioneer	P54A75X	96.8	—	—	19	1
AgriGold	G5288RX	96.3	—	—	29	1
Progeny Ag	P 5016RXS	95.6	78.4	—	30	1
Asgrow	AG53X9	95.2	—	—	28	1
NK Seeds	S50-G9XS	95.1	—	—	29	1
Asgrow	AG54X9	94.0	—	—	23	1
Terral Seed	REV 51A56	93.0	87.0	79.9	29	1
Croplan	RX 5016 S	92.1	—	—	28	1
GoSoy	54G16	89.1	81.3	—	23	1
Asgrow	AG55X7	86.7	94.5	—	17	1
U. of Missouri	S14-9017R	83.2	—	—	20	1
Dyna-Gro	SX18854XT	82.0	—	—	18	1
Mean		101.5				
CV		7.68				
LSD (0.05)		12.68				
R^2		70.91				
Error DF		72				

[1]Variety followed by an asterisk indicates an experimental entry.

Table 44. Roundup Ready Maturity Group V Late Irrigated Soybean Varieties (Steele Farms, Longwood).

Brand	Variety	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
USG	75B75R	110.3	98.2	84.3	24	1
Progeny	P5752RY	92.6	90.6	81.2	22	1
Mean		101.5				
CV		3.22				
LSD		11.495				
R^2		97.26				
Error DF		2				

Table 45. Maturity Group IV LibertyLink Irrigated Soybean Varieties (Steele Farms, Longwood).

Brand	Variety[1]	Yield			Plant height	Lodging score	Shattering
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*	*%*
Credenz	CZ 4938 LL	110.5	93.5	—	33	1	—
Credenz	CZ 4649 LL	107.6	—	—	38	1	—
Dyna-Gro	S49LL34	106.7	98.0	88.0	32	1	—
Credenz	CZ 4748 LL	105.5	91.2	79.6	26	1	—
Credenz	CZ 4820 LL	104.6	92.2	—	29	1	—
Credenz	CZ 4918 LL	97.1	90.3	—	26	1	—
Delta Grow	DG 4977LL/STS	95.9	82.2	75.2	36	2	—
Terral	REV 46L99 *	91.8	—	—	29	1	—
Dyna-Gro	S45LL97	89.8	86.8	—	29	1	—
Terral	REV 49L88 *	87.9	86.9	—	26	1	—
Pioneer	P47A76L	87.7	—	—	25	1	—
Credenz	CZ 4540 LL	86.7	83.0	77.6	26	1	—
Credenz	CZ 4548 LL	85.4	82.0	—	25	1	—
Credenz	CZ 4222 LL	82.6	82.2	71.7	26	1	—
Terral	REV 47L38	82.1	—	—	26	1	—
Delta Grow	DG 4582 LL/STS	78.7	—	—	27	1	—
Credenz	CZ 4308 LL	74.0	78.8	—	23	1	10
Pioneer	P44A08L	68.8	—	—	28	1	—
Credenz	CZ 3601 LL	58.3	—	—	23	1	10
Credenz	CZ 3841 LL	57.2	65.1	—	24	1	10
Credenz	CZ 4105 LL	56.8	64.6	58.7	24	1	10
Mean		86.5					
CV		7.5					
LSD (0.05)		10.7					
R^2		91.3					
Error DF		40					

[1]Variety followed by an asterisk indicates an experimental entry.

Table 46. Maturity Group V LibertyLink Irrigated Soybean Varieties (Steele Farms, Longwood).

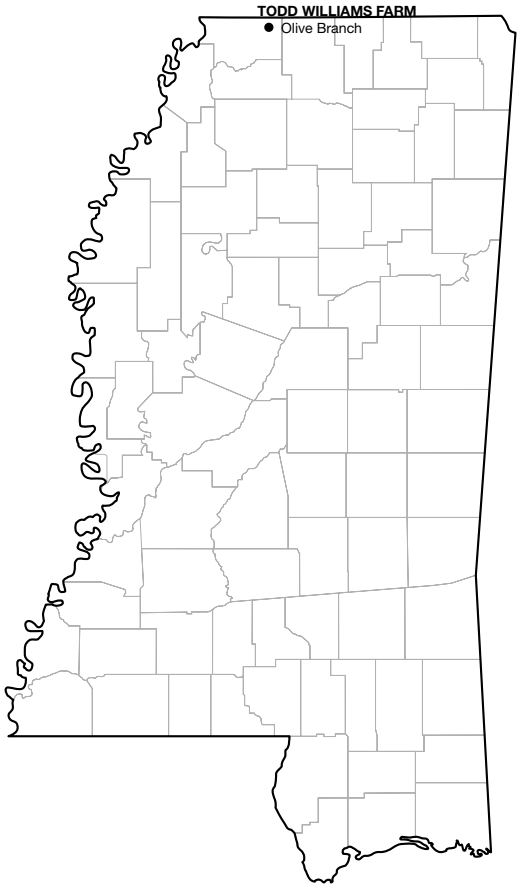
Brand	Variety	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Credenz	CZ 5150 LL	107.1	88.0	81.6	35	1
Credenz	CZ 5242 LL	96.7	85.8	80.8	38	1
Credenz	CZ 5225 LL	95.6	—	—	22	1
Credenz	CZ 5328 LL	91.7	—	—	28	1
Credenz	CZ 5147 LL	89.6	82.7	71.7	18	1
Credenz	CZ 5445 LL	86.8	—	—	25	1
Mean		94.6				
CV		14.96				
LSD (0.05)		NS				
R^2		31.55				
Error DF		10				

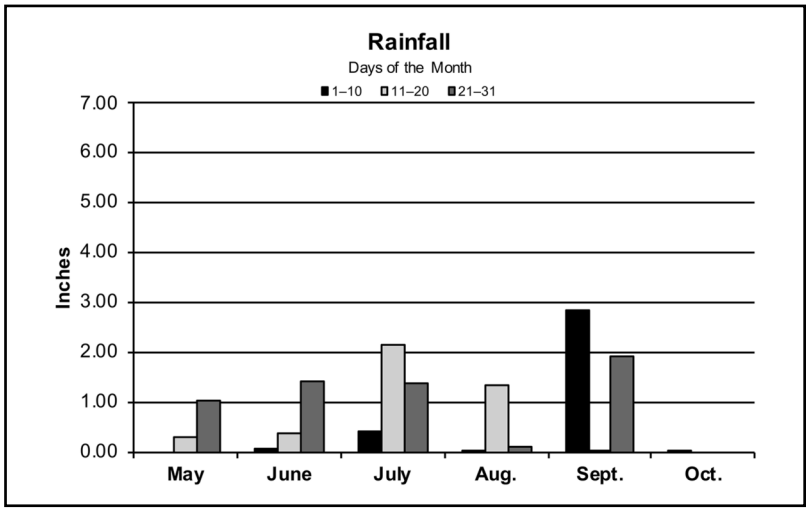
OLIVE BRANCH, TODD WILLIAMS FARM

Crop Summary

Plots were planted into a well-prepared seedbed that had been tilled just before planting. Soil moisture was optimum at the time of planting, and all plots quickly germinated and emerged to a good stand. This location experienced a dicamba drift event during the middle of the growing season. As a result of this chemical drift, all varieties that lacked the Xtend trait were excluded from the final results. Timely rains during the growing season allowed for the remaining plots to show excellent yield potential. Harvest was completed in a timely manner, and good yields were observed.

Planting date . . .May 10
Harvest date . . . .October 12
Soil type . . . . . .Collins silt loam
Soil pH 5.7
Soil fertility . . . . .P=H, K=H
Previous crop . . .Corn
Fertilizer . . . . . .Preplant — 0-30-90-15S-1B
Herbicide . . . . . .Preemergence — Gramoxone @ 32 oz/A, Zidua @ 2 oz/A, Dual II Magnum @ 24 oz/A, and Authority MTZ @ 12 oz/A on May 10
Postemergence — Glyphosate @ 32 oz/A, Dual @ 16 oz/A, and Fomesafen @ 16 oz/A





Rainfall Summary

	Inches
May	1.37
June	1.87
July	3.94
August	1.48
September	4.79
October	0.01
Total	13.46

Table 47. Roundup Ready Maturity Group IV Early Nonirrigated Soybean Varieties (Todd Williams Farm, Olive Branch).

Brand	Variety[1]	Yield[2]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Dyna-Gro	S41XS98	103.0	—	—	9/11	40	2
Local Seed Co	LS4565XS	102.3	—	—	9/17	48	1
Asgrow	AG42X9	97.5	—	—	9/11	47	1
Asgrow	AG45X8	97.4	93.6	—	9/11	37	1
Dyna-Gro	S45XS37	94.8	90.9	—	9/17	44	1
Local Seed Co	LS4677X	94.7	—	—	9/11	43	2
Local Seed Co	LS4487XS	93.3	—	—	9/17	47	1
Pioneer	P46A57BX	92.7	—	—	9/11	41	1
NK Seeds	S45-K5X	90.7	87.0	—	9/11	35	1
NK Brand	S43-V3X	90.3	81.9	—	9/17	43	1
Mission Seed Solutions	A4618X	90.1	—	—	9/17	39	1
Local Seed Co	LS4583X	89.6	—	—	9/17	42	2
Croplan	RX4687S	89.0	—	—	9/17	41	1
Croplan	RX 4500 S	89.0	—	—	9/17	43	1
Asgrow	AG46X6	88.9	87.9	—	9/17	41	2
Dyna-Gro	SX18845XT *	88.5	—	—	9/17	39	1
Armor	X45D50 *	86.5	—	—	9/11	40	2
Armor	42-D27	86.2	—	—	9/11	40	1
Asgrow	AG43X7	85.9	84.9	—	9/11	41	2
NK Seeds	S45-J3X	85.8	—	—	9/11	36	1
Asgrow	AG43X8	85.4	—	—	9/11	40	2
Pioneer	P42A96X	85.3	—	—	9/11	38	1
Mission Seed Solutions	A4447NSXR2	84.1	—	—	9/17	43	1
Dyna-Gro	S45XS66	84.0	81.6	—	9/17	40	1
Local Seed Co	LS4689X	83.7	—	—	9/17	49	1
AGS	GS46X17	83.4	78.6	—	9/17	36	2
Progeny	P4255RX	83.1	83.8	—	9/17	39	1
Armor	X46D63 *	82.9	—	—	9/17	43	1
MorSoy	MS 4426 RXT	82.6	—	—	9/11	35	2
Progeny	P4444RXS	82.5	84.7	—	9/11	40	1
Terral	REV 4679X *	82.3	—	—	9/17	39	2
USG	7447XTS	82.2	—	—	9/17	43	2
Delta Grow	DG 46X25RR2 Xtend	82.0	—	—	9/17	40	1
AgriGold	G4579RX	81.6	—	—	9/17	41	1
AgriGold	G4605RX	81.1	—	—	9/11	48	1
Mission Seed Solutions	A4637NSXR2	80.9	—	—	9/17	44	1
Mission Seed Solutions	A4608X	79.9	—	—	9/17	50	1
Progeny	P4620RXS	79.8	82.6	—	9/17	42	1
MorSoy	MS 4616 RXT	79.0	85.2	—	9/17	36	1
Great Heart	GT-4628X	78.5	—	—	9/11	49	1
Progeny	P4750 RYS	78.5	—	—	9/11	40	1
AgriGold	G4440RX	78.1	85.4	—	9/17	42	2
Great Heart	GT-4685XS	74.7	—	—	9/17	41	1
Progeny	P4318RX	71.1	—	—	9/11	42	1
Croplan	RX 4217 S	70.8	—	—	9/11	42	2
U. of Missouri	S14-15146R *	—	—	—	9/11	36	1
Pioneer	P46A16R	—	—	—	9/17	40	2
Delta Grow	4670RR2	—	—	—	9/17	38	1
Mean		85.6					
CV		11.9					
LSD (0.05)		NS					
R^2		72.7					
Error DF		88					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]Varieties lacking the Xtend trait were omitted from this location in 2018 due to uncertainty of exposure and timing of dicamba drift.

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

Brand	Variety[1]	Yield[2]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Croplan	RX4825	100.6	97.2	—	9/21	41	1
Armor	X48D02 *	98.7	—	—	9/21	47	2
MorSoy	MS 4846 RXT	97.6	98.9	—	9/21	41	1
Terral	REV 4927X	97.5	93.1	—	9/17	43	1
Pioneer	P48A60X	96.2	—	—	9/17	42	1
USG	7496XTS	95.9	91.9	—	9/21	40	1
NK Brand	S48-R2X	94.5	97.9	—	9/21	49	1
Croplan	RX4927	93.8	—	—	9/21	45	3
Asgrow	AG48X9	93.1	—	—	9/17	43	1
AGS	GS 48X18	93.1	—	—	9/17	43	1
Local Seed Co	LS4968XS	92.8	—	—	9/21	45	1
AgriGold	G4995RX	92.3	—	—	9/21	46	1
Progeny	P4816RX	91.8	96.5	—	9/17	40	1
Armor	X47D22 *	91.7	—	—	9/17	39	1
Progeny	P4851RX	90.7	94.6	—	9/17	46	4
Dyna-Gro	S49XT39	90.5	—	—	9/17	44	2
Local Seed Co	LS4889XS	90.2	—	—	9/21	50	2
Armor	X49D31 *	90.1	—	—	9/21	45	2
USG	7489XT	90.0	—	—	9/17	38	1
Dyna-Gro	S48XT56	89.9	89.3	—	9/21	38	1
Asgrow	AG47X9	89.5	—	—	9/17	46	1
Asgrow	AG49X9	89.3	—	—	9/21	40	1
Mission Seed Solutions	MEX4808 *	88.3	—	—	9/21	47	2
Local Seed Co	LS4988X	87.9	—	—	9/21	43	2
Local Seed Co	LS4966X	87.8	—	—	9/17	41	1
Progeny	P4955RX	87.5	—	—	9/17	45	2
Delta Grow	DG 48X45RR2 Xtend	87.3	91.5	—	9/21	40	1
Local Seed Co	AV49W3X	87.2	—	—	9/17	49	3
Great Heart Seed	GT-4809X	86.1	—	—	9/17	45	2
Great Heart Seed	GT-4979X	84.2	—	—	9/21	43	1
Progeny	P4799RXS	83.0	92.2	—	9/17	47	1
Local Seed Co	AV47W2X	82.9	—	—	9/17	45	1
Great Heart Seed	GT-4833XS	82.8	—	—	9/21	49	1
Mission Seed Solutions	MEX4908 *	81.7	—	—	9/21	47	2
Great Heart Seed	GT-4721X	80.8	88.3	—	9/17	45	4
Terral	REV 4857X	79.2	86.2	—	9/21	40	2
Progeny	P4944RX	77.5	—	—	9/17	42	1
Mean		89.6					
CV		9.5					
LSD (0.05)		NS					
R^2		79.6					
Error DF		72					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 3-year average.

Table 49. Roundup Ready Maturity Group V Early Nonirrigated Soybean Varieties (Todd Williams Farm, Olive Branch).

Brand	Variety[1]	Yield[2]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Local Seed Co	LS5087X	102.2	—	—	9/25	47	1
Progeny Ag	P 5016RXS	99.6	91.9	—	10/1	47	1
Progeny Ag	P5688RX	97.1	95.6	—	10/5	35	1
Dyna-Gro	S56XT99	95.1	—	—	9/25	36	1
Progeny Ag	P5252RX	95.0	—	—	10/1	45	1
Armor	X51D77	95.0	—	—	9/25	45	1
AgriGold	G5000RX	94.7	86.7	—	9/25	41	1
Progeny Ag	P5279RXS	94.0	—	—	9/21	48	2
Asgrow	AG52X9	93.3	—	—	9/21	45	1
Armor	X55D57	91.7	—	—	10/1	37	1
Dyna-Gro	S52XT08	91.7	—	—	9/21	33	1
Delta Grow	DG 52X15 Xtend	90.8	—	—	9/21	45	1
Armor	X52D71	90.3	—	—	10/1	46	1
Progeny Ag	P5018RX	90.1	—	—	9/21	46	1
Croplan	RX 5016 S	89.9	—	—	9/25	44	1
Dyna-Gro	SX18652XS	89.1	—	—	9/21	45	1
AgriGold	G5288RX	88.4	—	—	9/25	47	1
Asgrow	AG55X7	87.7	87.2	—	9/25	29	1
Asgrow	AG53X9	87.4	—	—	9/21	35	1
Armor	X50D13	87.2	—	—	9/21	43	1
Dyna-Gro	SX18854XT	87.1	—	—	10/1	31	1
Progeny Ag	P5554RX	86.8	—	—	10/5	38	1
Asgrow	AG54X9	86.5	—	—	9/25	33	1
Great Heart Seed	GT-5324X	86.0	82.3	—	9/21	30	1
AGS	GS 51X18S	84.7	—	—	9/21	42	1
NK Seeds	S50-G9XS	84.6	—	—	9/21	44	3
Pioneer	P54A75X	77.0	—	—	10/1	29	1
Mean		90.5					
CV		12.8					
LSD (0.05)		NS					
R^2		28.5					
Error DF		52					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 3-year average.

Table 50. Roundup Ready Maturity Group V Late Nonirrigated Soybean Varieties (Todd Williams Farm, Olive Branch).

Brand	Variety	Yield[1]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
USG	75B75R	97.6	90.4	94.7	10/5	36	1
Progeny	P5752RY	—	—	—	10/5	37	1
Mean		97.6					
CV		—					
LSD		—					
R^2		—					
Error DF		—					

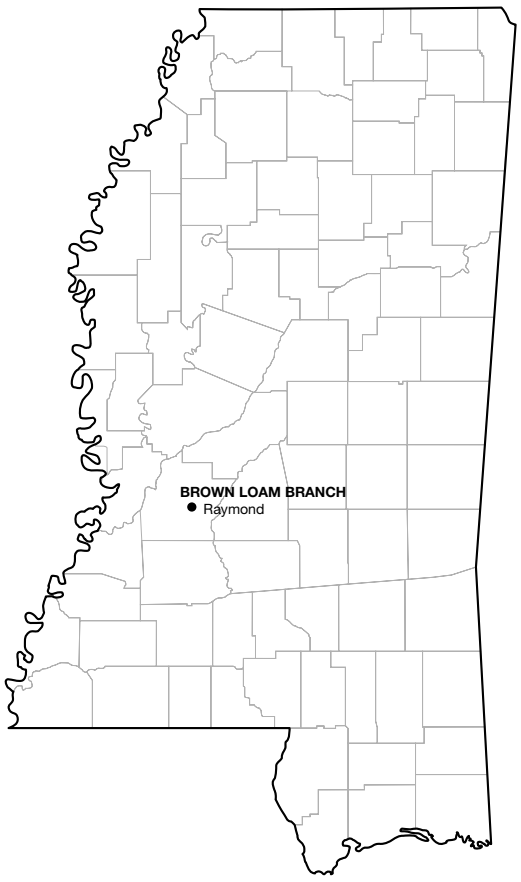
[1]Varieties lacking the Xtend trait were omitted due to uncertainty of exposure and timing of dicamba drift occurrence.

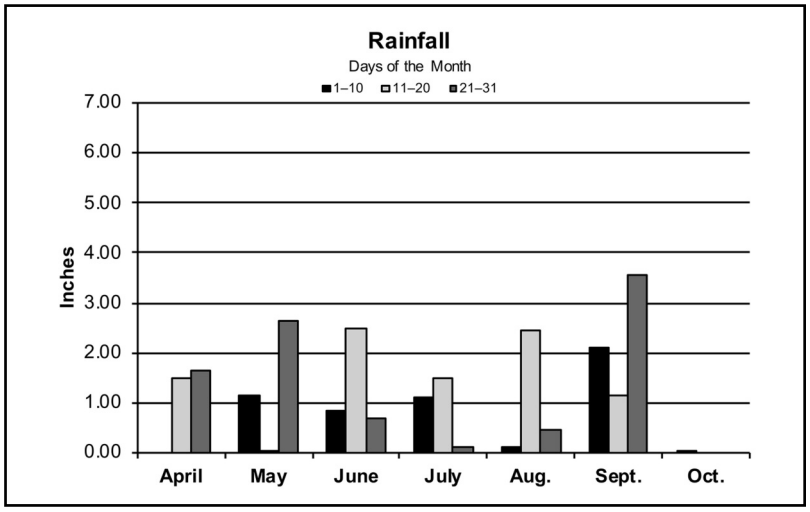
RAYMOND, BROWN LOAM BRANCH

Crop Summary

Soybean plots were planted into a stale seedbed that had been prepared the previous fall. Soil moisture at planting was adequate for germination. All plots emerged to a good stand. Timely rainfall occurred at critical points during the growing season. Harvest was completed in a timely manner, and good yields were observed at this location.

Planting date . . . . . **April 20**
Harvest date . . . . . **IVE and IVL Roundup Ready, and IV LibertyLink on September 19; VE and VL Roundup Ready and V LibertyLink on October 3**
Soil type . . . . . **Loring silt loam**
Soil pH **5.9**
Soil fertility . . . . . **P=H, K=H**
Previous crop . . . . . **Fallow**
Herbicide . . . . . **Preemergence — Authority MTZ @ 12 oz/A, Gramoxone @ 32 oz/A, Dual II Magnum @ 24 oz/A, and Zidua @ 2 oz/A on April 20**
Postemergence — Section (clethodim) @ 12 oz/A and Firstrate @ 0.6 oz/A on May 30
Roundup Ready — Roundup PowerMAX @ 32 oz/A and Prefix @ 24 oz/A on June 20
LibertyLink — Liberty @ 32 oz/A and Prefix @ 24 oz/A on June 20
Fungicide/Insecticide . . . **Acephate @ 0.75 lb/A and Bifenthrin @ 6.4 oz/A**





Rainfall Summary

	Inches
April	3.15
May	3.81
June	4.00
July	2.73
August	3.03
September	6.82
October	0.05
Total	23.59

Table 51. Roundup Ready Maturity Group IV Early Nonirrigated Soybean Varieties (MAFES Brown Loam Branch, Raymond).

Brand	Variety[1]	Yield			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Delta Grow	DG 46X25RR2 Xtend	101.2	—	—	9/4	40	1
MorSoy	MS 4616 RXT	94.9	95.2	—	9/3	32	1
Mission Seed Solutions	A4618X	92.6	—	—	9/12	37	1
Local Seed Co	LS4583X	89.5	—	—	9/4	30	1
Progeny	P4620RXS	87.7	92.9	—	9/4	36	1
Local Seed Co	LS4565XS	85.3	—	—	9/4	35	1
Armor	X45D50 *	83.7	—	—	9/4	38	1
Mission Seed Solutions	A4608X	82.5	—	—	9/4	46	1
Asgrow	AG43X7	82.0	80.3	—	9/4	37	1
Local Seed Co	LS4689X	81.9	—	—	9/4	42	1
AgriGold	G4579RX	81.8	—	—	9/4	39	1
NK Seeds	S45-J3X	81.7	—	—	9/4	30	1
AgriGold	G4605RX	81.6	—	—	9/4	37	1
Dyna-Gro	S45XS37	81.4	85.9	—	9/4	37	1
Local Seed Co	LS4487XS	81.4	—	—	9/4	38	1
Local Seed Co	LS4677X	80.9	—	—	9/4	36	1
AgriGold	G4440RX	79.7	80.6	—	9/4	40	1
Croplan	RX 4500 S	79.2	—	—	9/4	34	1
Great Heart	GT-4628X	78.9	—	—	9/4	38	1
Progeny	P4750 RYS	78.8	—	—	9/12	37	1
Pioneer	P46A57BX	78.6	—	—	9/4	32	1
NK Seeds	S45-K5X	78.5	86.5	—	9/4	33	1
Croplan	RX4687S	78.4	—	—	9/4	40	1
Delta Grow	4670RR2	78.1	82.2	—	9/4	43	1
Progeny	P4444RXS	77.1	80.7	—	9/4	31	1
Mission Seed Solutions	A4447NSXR2	76.6	—	—	9/4	30	1
Pioneer	P46A16R	76.1	—	—	9/4	39	1
MorSoy	MS 4426 RXT	75.9	—	—	9/4	34	1
Asgrow	AG45X8	75.6	79.5	—	9/4	32	1
Dyna-Gro	SX18845XT *	75.2	—	—	9/4	34	1
Pioneer	P42A96X	75.2	—	—	9/4	30	1
Asgrow	AG46X6	75.0	85.8	—	9/4	29	1
Asgrow	AG42X9	73.1	—	—	9/4	40	1
Progeny	P4255RX	72.0	75.4	—	9/4	35	1
Terral	REV 4679X *	70.4	—	—	9/4	34	1
Mission Seed Solutions	A4637NSXR2	70.2	—	—	9/4	35	1
Armor	X46D63 *	70.0	—	—	9/12	37	1
AGS	GS46X17	69.6	79.5	—	9/4	35	1
Asgrow	AG43X8	69.6	—	—	9/4	36	1
USG	7447XTS	69.6	—	—	9/4	33	1
Dyna-Gro	S45XS66	68.3	84.0	—	9/4	39	1
U. of Missouri	S14-15146R *	68.1	—	—	9/4	36	1
Croplan	RX 4217 S	65.8	—	—	9/4	39	1
Armor	42-D27	62.3	—	—	9/4	37	1
Progeny	P4318RX	60.4	—	—	9/4	41	1
Great Heart	GT-4685XS	59.2	—	—	9/12	40	1
NK Brand	S43-V3X	58.7	62.5	—	9/4	36	1
Dyna-Gro	S41XS98	55.0	—	—	9/4	33	1
Mean		76.4					
CV		13.08					
LSD (0.05)		16.21					
R^2		59.83					
Error DF		94					

[1]Variety followed by an asterisk indicates an experimental entry.

Table 52. Roundup Ready Maturity Group IV Late Nonirrigated Soybean Varieties (MAFES Brown Loam Branch, Raymond).

Brand	Variety[1]	Yield[2]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Local Seed Co	LS4889XS	97.3	—	—	9/4	33	1
Mission Seed Solutions	A4950X	91.7	—	—	9/4	28	1
Armor	X48D02 *	86.4	—	—	9/12	42	1
USG	7496XTS	84.4	85.8	—	9/12	38	1
Local Seed Co	LS4988X	84.3	—	—	9/4	35	1
Local Seed Co	AV49W3X	83.5	—	—	9/4	35	1
Local Seed Co	LS4968XS	81.4	—	—	9/12	30	1
Armor	X49D31 *	80.1	—	—	9/4	34	1
AgriGold	G4995RX	79.9	—	—	9/4	37	1
Asgrow	AG49X9	79.8	—	—	9/4	32	1
Croplan	RX4927	79.1	—	—	9/4	28	1
GoSoy	49G16	78.9	87.7	—	9/12	31	1
Great Heart Seed	GT-4809X	78.1	—	—	9/4	36	1
Asgrow	AG48X9	77.8	—	—	9/4	28	1
Great Heart Seed	GT-4833XS	77.5	—	—	9/12	41	1
Progeny	P4944RX	77.0	—	—	9/4	36	1
Progeny	P4955RX	76.8	—	—	9/4	37	1
Pioneer	P48A60X	76.6	—	—	9/4	37	1
Local Seed Co	AV47W2X	76.5	—	—	9/4	43	1
Delta Grow	DG 4790RR2	76.5	93.3	—	9/12	35	1
Terral	REV 4927X	75.6	91.5	—	9/4	35	1
Great Heart Seed	GT-4979X	75.3	—	—	9/4	35	1
U. of Missouri	S14-9051R	75.1	—	—	9/12	36	1
Progeny	P4757RY	74.6	89.1	—	9/12	37	1
Dyna-Gro	S49XT39	74.3	—	—	9/14	35	1
Progeny	P4851RX	73.5	96.1	—	9/14	34	1
Progeny	P4799RXS	72.8	88.2	—	9/4	38	1
Mission Seed Solutions	A4828X	72.2	—	—	9/4	32	1
Terral	REV 47A98	71.6	—	—	9/12	31	1
MorSoy	MS 4846 RXT	71.2	91.6	—	9/14	34	1
Great Heart Seed	GT-4721X	70.8	84.9	—	9/12	37	1
Terral	REV 48A26	70.5	85.6	—	9/12	31	1
Delta Grow	DG 48X45RR2 Xtend	70.0	86.0	—	9/12	30	1
Local Seed Co	LS4966X	68.2	—	—	9/4	31	1
Terral	REV 4857X	68.2	89.8	—	9/4	34	1
AGS	GS 48X18	68.0	—	—	9/4	31	1
Croplan	RX4825	67.2	89.2	—	9/14	28	1
Armor	X47D22 *	66.0	—	—	9/4	31	1
Petrus Seed	4916 GT	64.0	83.5	—	9/12	26	1
NK Brand	S48-R2X	64.0	79.0	—	9/4	36	1
Progeny	P4816RX	63.3	83.8	—	9/14	27	1
Asgrow	AG47X9	63.2	—	—	9/14	33	1
U. of Missouri	S14-9051R *	60.4	—	—	9/12	29	1
Petrus Seed	479 GTS	59.1	70.5	—	9/4	38	1
USG	7489XT	58.4	—	—	9/14	27	1
Dyna-Gro	S48XT56	53.6	73.4	—	9/12	28	1
Mean		73.8					
CV		14.18					
LSD (0.05)		16.98					
R^2		58.45					
Error DF		90					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 3-year average.

Table 53. Roundup Ready Maturity Group V Early Nonirrigated Soybean Varieties (MAFES Brown Loam Branch, Raymond).

Brand	Variety[1]	Yield[2]			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Armor	X51D77	107.4	—	—	38	1
Progeny Ag	P5252RX	101.9	—	—	39	1
Dyna-Gro	SX18652XS	93.9	—	—	38	1
Progeny Ag	P5226RYS	87.3	—	—	36	2
U. of Arkansas	R14-14797 RR	85.5	92.2	—	28	1
Asgrow	AG52X9	84.4	—	—	34	1
Armor	X55D57	83.0	—	—	19	2
Armor	X50D13	82.8	—	—	38	1
Delta Grow	DG 5170 RR2/STS	82.7	84.2	—	36	1
Progeny Ag	P5279RXS	82.5	—	—	41	1
Armor	X52D71	82.0	—	—	35	1
GoSoy	50G17	81.9	—	—	19	1
Local Seed Co	LS5087X	80.5	—	—	37	1
AGS	GS 51X18S	76.6	—	—	38	1
Terral Seed	REV 56A58	75.8	89.0	—	17	1
Delta Grow	DG 52X15 Xtend	74.5	—	—	31	1
Terral Seed	REV 52A98	73.7	—	—	28	1
Dyna-Gro	SX18854XT	72.6	—	—	16	1
Progeny Ag	P 5016RXS	70.9	81.1	—	32	1
Dyna-Gro	S56XT99	70.6	—	—	21	1
AgriGold	G5288RX	70.6	—	—	34	1
Progeny Ag	P5688RX	69.1	77.5	—	18	1
Terral Seed	REV 51A56	68.4	83.3	—	32	1
Asgrow	AG53X9	65.9	—	—	30	1
Progeny Ag	P5554RX	65.7	—	—	18	1
Asgrow	AG54X9	64.4	—	—	15	1
Progeny Ag	P5018RX	63.4	—	—	30	1
Great Heart Seed	GT-5324X	62.0	70.8	—	20	1
Dyna-Gro	S52XT08	62.0	—	—	21	1
Terral Seed	REV 55A67	61.8	69.1	—	21	1
AgriGold	G5000RX	59.6	74.7	—	36	1
NK Seeds	S50-G9XS	58.5	—	—	31	1
Croplan	RX 5016 S	58.1	—	—	33	1
GoSoy	54G16	56.2	62.7	—	19	1
U. of Missouri	S14-9017R	54.8	—	—	27	1
Asgrow	AG55X7	49.6	66.7	—	16	1
Pioneer	P54A75X	44.7	—	—	17	1
Mean		72.6				
CV		14.2				
LSD (0.05)		16.8				
R^2		76.0				
Error DF		72				

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 3-year average.

Table 54. Roundup Ready Maturity Group V Late Nonirrigated Soybean Varieties (MAFES Brown Loam Branch, Raymond).

Brand	Variety	Yield[1]			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
USG	75B75R	96.5	89.8	—	21	1
Progeny	P5752RY	72.3	80.5	—	23	1
Mean		84.4				
CV		13.92				
LSD		NS				
R^2		79.97				
Error DF		2				

[1]No 3-year average.

Table 55. Maturity Group IV LibertyLink Nonirrigated Soybean Varieties (MAFES Brown Loam Branch, Raymond).

Brand	Variety[1]	Yield[2]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Dyna-Gro	S49LL34	107.3	110.5	—	9/12	39	1
Credenz	CZ 4938 LL	95.9	92.7	—	9/4	37	1
Credenz	CZ 4649 LL	95.5	—	—	9/4	36	1
Credenz	CZ 4820 LL	87.8	83.6	—	9/4	32	1
Credenz	CZ 4748 LL	86.7	90.1	—	9/4	34	1
Delta Grow	DG 4977LL/STS	85.1	92.5	—	9/4	41	1
Terral	REV 49L88 *	83.0	91.8	—	9/4	33	1
Credenz	CZ 4918 LL	79.7	87.0	—	9/4	32	1
Pioneer	P47A76L	79.7	—	—	9/4	30	1
Terral	REV 47L38	78.3	—	—	9/4	32	1
Credenz	CZ 4548 LL	74.8	88.3	—	9/4	39	1
Delta Grow	DG 4582 LL/STS	72.0	—	—	9/4	35	1
Dyna-Gro	S45LL97	71.3	73.5	—	9/4	38	1
Terral	REV 46L99 *	67.6	—	—	9/4	33	1
Credenz	CZ 4540 LL	66.1	80.0	—	9/4	37	1
Pioneer	P44A08L	65.0	—	—	9/12	30	1
Credenz	CZ 4308 LL	61.5	76.3	—	9/12	34	1
Credenz	CZ 4105 LL	53.5	59.8	—	9/4	28	1
Credenz	CZ 4222 LL	51.4	65.7	—	9/12	30	1
Credenz	CZ 3601 LL	48.1	—	—	9/4	29	1
Credenz	CZ 3841 LL	45.8	56.2	—	9/1	24	1
Mean		74.1					
CV		12.8					
LSD (0.05)		15.7					
R^2		8.3					
Error DF		40					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 3-year average.

Table 56. Maturity Group V LibertyLink Nonirrigated Soybean Varieties (MAFES Brown Loam Branch, Raymond).

Brand	Variety	Yield[1]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Credenz	CZ 5242 LL	103.9	90.3	—	9/6	46	1
Credenz	CZ 5225 LL	92.8	—	—	9/6	21	1
Credenz	CZ 5147 LL	83.2	74.3	—	9/4	22	1
Credenz	CZ 5445 LL	81.4	—	—	9/12	20	1
Credenz	CZ 5150 LL	77.6	70.0	—	9/8	36	1
Credenz	CZ 5328 LL	66.4	—	—	9/11	21	1
Mean		84.2					
CV		16.2					
LSD (0.05)		NS					
R^2		60.4					
Error DF		10					

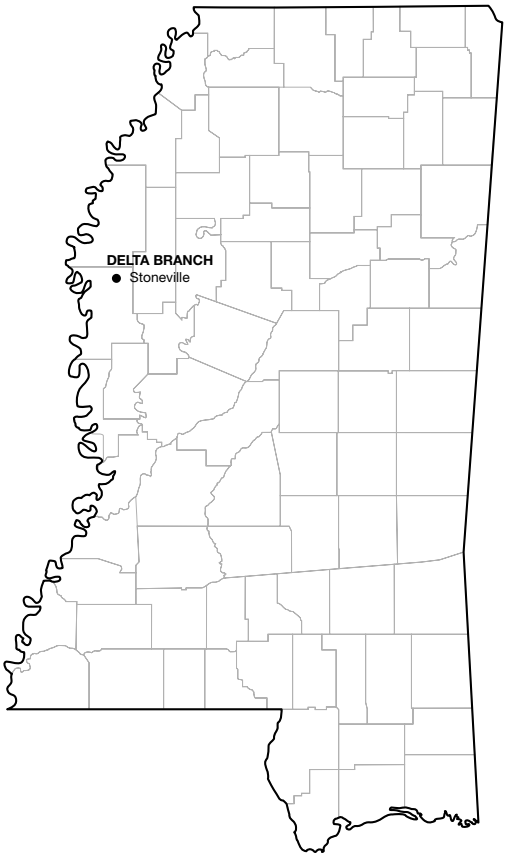
[1]No 3-year average.

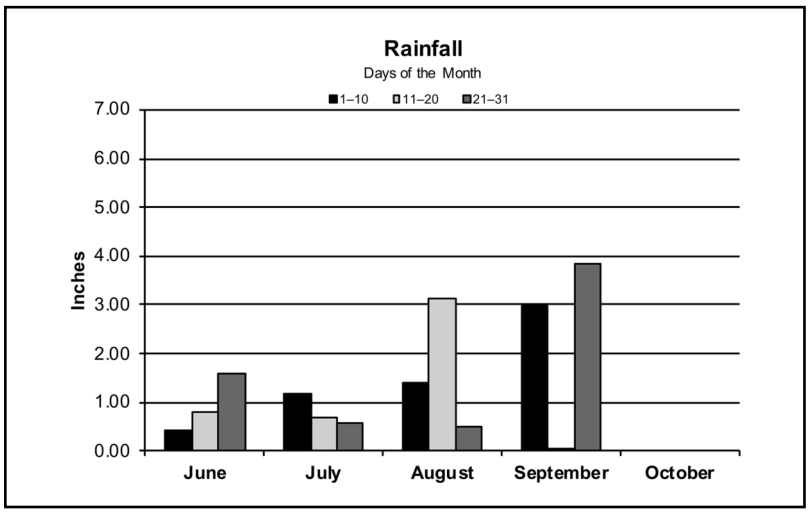
STONEVILLE (clay) IRR. AND NONIRRIGATED, DELTA BRANCH

Crop Summary

Plots were planted into a stale seedbed prepared the previous fall. There was sufficient soil moisture at planting for quick germination and seedling emergence. All plots came up to a good stand. Timely rainfall combined with furrow irrigation supplied sufficient soil moisture throughout the growing season. Harvest was completed in a timely manner, and good yields were observed at the location.

Planting date . . .Nonirrigated, May 1; Irrigated, May 8
Harvest date . . . .IV Early Nonirrigated Roundup Ready on September 21; Nonirrigated IV Late Roundup Ready on October 8; IV Early and IV Late Roundup Ready, IV LibertyLink, V Early and V Late Roundup Ready, IV Conventional, V LibertyLink, and V Conventional on October 8
Soil type . . . . . .Sharkey clay
Soil pH 6.9
Soil fertility . . . . .P=H, K=H
Previous crop . . .Corn (Nonirrigated), Soybean (Irrigated)
Irrigation . . . . . .June 8, July 5, July 16, July 25, August 7
Herbicide . . . . . .Preemergence — Authority MTZ @ 12 oz/A, Dual II Magnum @ 24 oz/A, Gramoxone @ 32 oz/A, and Zidua @ 2 oz/A on May 1 (not irrigated) and May 8 (irrigated)
Postemergence — Roundup Ready – Roundup PowerMAX @ 32 oz/A, Prefix @ 24 oz/A, and Resource @ 12 oz/A on June 28 (irrigated)
LibertyLink and Conventional — Section (clethodim) @ 12 oz/A, Prefix @ 24 oz/A, and Resource @ 12 oz/A on June 28





Rainfall Summary

	Inches
May	1.61
June	2.79
July	2.43
August	5.01
September	6.86
October	0.00
Total	18.70

Table 57. Roundup Ready Maturity Group IV Early Nonirrigated Soybean Varieties (Delta Branch Experiment Station, Stoneville, clay).

Brand	Variety[1]	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Mission Seed Solutions	A4447NSXR2	71.1	—	—	35	1
Croplan	RX4687S	68.0	—	—	29	1
Delta Grow	DG 46X25RR2 Xtend	65.5	—	—	33	1
Pioneer	P46A16R	64.4	—	—	29	1
Dyna-Gro	S45XS66	64.1	76.6	74.4	32	1
Local Seed Co	LS4583X	63.2	—	—	32	1
Local Seed Co	LS4487XS	62.2	—	—	30	1
AgriGold	G4605RX	61.9	—	—	39	1
Progeny	P4750 RYS	61.7	—	—	31	1
Armor	X45D50 *	60.0	—	—	28	1
Mission Seed Solutions	A4608X	59.8	—	—	31	1
Progeny	P4620RXS	59.3	74.9	69.7	33	1
Asgrow	AG46X6	59.1	77.4	76.9	32	1
Great Heart	GT-4628X	58.8	—	—	39	1
Local Seed Co	LS4565XS	58.6	—	—	33	1
USG	7447XTS	58.4	—	—	29	1
MorSoy	MS 4616 RXT	58.0	73.0	—	27	1
Armor	X46D63 *	58.0	—	—	29	1
AgriGold	G4579RX	57.1	—	—	29	1
Delta Grow	4670RR2	56.9	74.4	71.4	26	1
Asgrow	AG43X8	56.4	—	—	31	1
Mission Seed Solutions	A4618X	56.0	—	—	29	1
Local Seed Co	LS4677X	55.9	—	—	31	1
Terral	REV 4679X *	55.7	—	—	26	1
Great Heart	GT-4685XS	54.9	—	—	33	1
Pioneer	P46A57BX	54.7	—	—	32	1
NK Seeds	S45-K5X	54.5	67.3	—	23	1
MorSoy	MS 4426 RXT	54.3	—	—	28	1
Asgrow	AG42X9	53.7	—	—	32	1
Progeny	P4444RXS	53.4	70.7	—	30	1
Dyna-Gro	SX18845XT *	53.1	—	—	25	1
Local Seed Co	LS4689X	53.0	—	—	36	1
Croplan	RX 4500 S	52.8	—	—	28	1
Asgrow	AG43X7	52.3	71.5	—	31	1
Mission Seed Solutions	A4637NSXR2	52.2	—	—	28	1
NK Seeds	S45-J3X	50.6	—	—	25	1
U. of Missouri	S14-15146R *	50.5	—	—	26	1
AGS	GS46X17	50.1	71.4	—	23	1
AgriGold	G4440RX	50.0	68.2	—	32	1
Pioneer	P42A96X	48.3	—	—	26	1
Dyna-Gro	S45XS37	46.2	67.8	—	26	1
Progeny	P4255RX	45.6	63.7	—	23	1
NK Brand	S43-V3X	44.4	62.6	—	28	1
Progeny	P4318RX	39.8	—	—	31	1
Croplan	RX 4217 S	39.2	—	—	28	1
Dyna-Gro	S41XS98	39.2	—	—	25	1
Armor	42-D27	39.1	—	—	22	1
Asgrow	AG45X8	38.2	59.8	—	27	1
Mean		54.6				
CV		11.5				
LSD (0.05)		10.2				
R^2		69.7				
Error DF		94				

[1]Variety followed by an asterisk indicates an experimental entry.

Table 58. Roundup Ready Maturity Group IV Late Nonirrigated Soybean Varieties (Delta Branch Experiment Station, Stoneville, clay).

Brand	Variety[1]	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
GoSoy	49G16	83.9	85.8	79.7	28	1
MorSoy	MS 4846 RXT	79.6	88.2	—	30	1
Local Seed Co	LS4889XS	78.0	—	—	34	2
Local Seed Co	LS4966X	77.5	—	—	28	1
Armor	X48D02 *	77.1	—	—	36	1
Mission Seed Solutions	A4950X	76.4	—	—	36	1
USG	7489XT	76.2	—	—	29	1
Croplan	RX4825	76.0	82.2	—	27	1
Armor	X49D31 *	75.7	—	—	35	1
Progeny	P4816RX	75.5	82.6	75.2	30	1
Delta Grow	DG 48X45RR2 Xtend	75.4	80.0	73.4	31	1
Petrus Seed	4916 GT	75.3	78.4	—	26	1
Mission Seed Solutions	A4828X	75.3	—	—	40	2
Great Heart Seed	GT-4979X	74.6	—	—	35	1
Great Heart Seed	GT-4833XS	72.7	—	—	39	2
USG	7496XTS	72.5	69.1	66.9	33	1
Local Seed Co	LS4968XS	72.2	—	—	29	1
Progeny	P4955RX	70.7	—	—	33	1
Dyna-Gro	S49XT39	70.2	—	—	33	1
AgriGold	G4995RX	70.0	—	—	30	1
Croplan	RX4927	69.9	—	—	35	2
Dyna-Gro	S48XT56	69.7	82.9	75.6	28	1
Asgrow	AG48X9	69.2	—	—	32	1
Progeny	P4799RXS	66.7	75.2	71.0	32	1
Local Seed Co	AV49W3X	66.6	—	—	32	1
Delta Grow	DG 4790RR2	66.3	71.6	71.6	32	1
U. of Missouri	S14-9051R	66.1	—	—	27	1
Local Seed Co	LS4988X	65.7	—	—	26	1
Asgrow	AG49X9	64.9	—	—	25	1
Pioneer	P48A60X	64.7	—	—	30	1
Terral	REV 4927X	64.5	81.7	—	31	1
Great Heart Seed	GT-4721X	64.3	81.9	—	31	2
Terral	REV 48A26	64.1	79.4	75.4	30	1
Great Heart Seed	GT-4809X	62.8	—	—	33	1
Armor	X47D22 *	61.6	—	—	29	1
Local Seed Co	AV47W2X	61.3	—	—	36	1
AGS	GS 48X18	61.2	—	—	28	1
Progeny	P4944RX	60.9	—	—	32	1
Terral	REV 47A98	60.9	—	—	28	1
Progeny	P4851RX	60.7	74.2	—	33	1
Progeny	P4757RY	59.3	70.0	68.2	31	1
Terral	REV 4857X	58.3	73.1	—	32	1
Asgrow	AG47X9	53.6	—	—	29	1
NK Brand	S48-R2X	52.4	69.8	—	29	1
Petrus Seed	479 GTS	51.5	63.0	—	30	1
U. of Missouri	S14-9051R *	47.1	—	—	25	1
Mean		67.8				
CV		7.27				
LSD (0.05)		8				
R^2		82.15				
Error DF		90				

[1]Variety followed by an asterisk indicates an experimental entry.

Table 59. Roundup Ready Maturity Group IV Early Irrigated Soybean Varieties (Delta Branch Experiment Station, Stoneville, clay).

Brand	Variety[1]	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Asgrow	AG46X6	91.9	92.1	87.8	37	1
Croplan	RX 4500 S	88.9	—	—	40	2
MorSoy	MS 4616 RXT	88.2	85.9	—	38	1
Pioneer	P46A16R	87.8	—	—	38	1
Dyna-Gro	SX18845XT *	86.8	—	—	39	1
NK Seeds	S45-J3X	86.0	—	—	35	1
Terral	REV 4679X *	85.2	—	—	39	1
Mission Seed Solutions	A4637NSXR2	85.1	—	—	40	2
Progeny	P4620RXS	85.1	85.0	79.2	43	1
Local Seed Co	LS4677X	84.9	—	—	41	1
Armor	X45D50 *	84.6	—	—	37	1
Dyna-Gro	S45XS66	84.5	86.2	82.1	40	2
Local Seed Co	LS4583X	84.4	—	—	36	1
Local Seed Co	LS4487XS	84.3	—	—	40	1
MorSoy	MS 4426 RXT	84.0	—	—	38	2
NK Seeds	S45-K5X	83.7	85.2	—	34	1
Dyna-Gro	S45XS37	83.7	82.8	—	39	1
Pioneer	P46A57BX	83.2	—	—	40	2
AgriGold	G4440RX	83.0	84.3	—	37	1
Delta Grow	DG 46X25RR2 Xtend	82.5	—	—	40	2
AGS	GS46X17	82.3	83.5	—	34	1
Mission Seed Solutions	A4608X	82.1	—	—	45	2
Asgrow	AG42X9	82.0	—	—	43	1
Asgrow	AG45X8	81.8	84.6	—	36	1
Asgrow	AG43X7	81.8	84.5	—	39	2
Delta Grow	4670RR2	81.7	83.4	77.8	37	1
Asgrow	AG43X8	81.3	—	—	38	1
Croplan	RX4687S	81.1	—	—	40	2
Dyna-Gro	S41XS98	81.1	—	—	32	1
Mission Seed Solutions	A4447NSXR2	80.3	—	—	43	1
Local Seed Co	LS4689X	80.0	—	—	44	2
Progeny	P4444RXS	79.8	82.6	—	36	1
Great Heart	GT-4685XS	79.5	—	—	44	1
Local Seed Co	LS4565XS	78.6	—	—	35	1
NK Brand	S43-V3X	78.6	81.2	—	37	1
Pioneer	P42A96X	78.4	—	—	37	1
Mission Seed Solutions	A4618X	78.0	—	—	41	1
USG	7447XTS	77.7	—	—	38	1
AgriGold	G4605RX	77.6	—	—	47	2
AgriGold	G4579RX	77.6	—	—	43	1
Progeny	P4750 RYS	76.8	—	—	41	1
Progeny	P4255RX	76.0	83.7	—	37	2
Armor	X46D63 *	75.7	—	—	41	1
Great Heart	GT-4628X	75.3	—	—	43	2
Armor	42-D27	74.4	—	—	31	1
U. of Missouri	S14-15146R *	73.5	—	—	33	1
Croplan	RX 4217 S	69.6	—	—	40	3
Progeny	P4318RX	66.2	—	—	40	2
Mean		81.2				
CV		5.3				
LSD (0.05)		6.9				
R^2		67.1				
Error DF		94				

[1]Variety followed by an asterisk indicates an experimental entry.

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

Brand	Variety[1]	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Asgrow	AG49X9	92.1	—	—	39	1
Armor	X49D31 *	91.7	—	—	45	2
Croplan	RX4825	90.7	85.3	—	38	1
Pioneer	P48A60X	90.7	—	—	39	1
MorSoy	MS 4846 RXT	90.7	88.2	—	37	1
Terral	REV 47A98	90.6	—	—	38	2
Progeny	P4816RX	90.5	84.4	76.5	38	1
Asgrow	AG48X9	90.2	—	—	41	1
USG	7489XT	90.2	—	—	36	1
Asgrow	AG47X9	90.1	—	—	38	1
AgriGold	G4995RX	88.3	—	—	41	1
Delta Grow	DG 48X45RR2 Xtend	88.2	86.4	77.8	37	1
Armor	X47D22 *	88.1	—	—	38	2
Local Seed Co	LS4966X	87.5	—	—	37	1
Terral	REV 4927X	87.5	85.4	—	37	2
Mission Seed Solutions	MEX4908 *	87.3	—	—	35	2
Local Seed Co	AV49W3X	86.9	—	—	41	2
Progeny	P4955RX	86.5	—	—	41	1
Great Heart Seed	GT-4979X	86.4	—	—	42	2
Progeny	P4757RY	86.4	81.8	75.5	39	1
Great Heart Seed	GT-4721X	86.2	84.1	—	38	4
Great Heart Seed	GT-4809X	85.4	—	—	42	1
Terral	REV 4857X	84.8	83.9	—	40	2
Dyna-Gro	S49XT39	84.6	—	—	43	2
Croplan	RX4927	84.4	—	—	37	2
AGS	GS 48X18	84.3	—	—	39	1
Dyna-Gro	S48XT56	84.1	80.3	73.4	38	1
Local Seed Co	AV47W2X	83.1	—	—	41	1
Terral	REV 48A26	82.9	78.2	75.1	38	1
USG	7496XTS	82.2	78.1	72.2	41	1
Local Seed Co	LS4968XS	81.2	—	—	42	1
Local Seed Co	LS4988X	80.9	—	—	36	1
Delta Grow	DG 4790RR2	80.6	79.2	73.1	35	1
Progeny	P4851RX	80.5	83.7	—	38	3
Progeny	P4944RX	80.1	—	—	35	2
Progeny	P4799RXS	79.4	76.7	71.0	46	1
GoSoy	49G16	79.2	77.9	71.2	33	1
U. of Missouri	S14-9051R	79.1	—	—	34	1
Petrus Seed	4916 GT	79.0	79.2	—	31	1
NK Brand	S48-R2X	78.6	74.7	—	37	2
Local Seed Co	LS4889XS	76.9	—	—	42	2
Armor	X48D02 *	76.5	—	—	42	3
U. of Missouri	S14-9051R *	74.1	—	—	30	1
Mission Seed Solutions	MEX4808 *	71.3	—	—	43	2
Petrus Seed	479 GTS	70.7	71.2	—	38	1
Great Heart Seed	GT-4833XS	68.8	—	—	40	3
Mean		83.9				
CV		6.0				
LSD (0.05)		8.2				
R^2		67.3				
Error DF		90				

[1]Variety followed by an asterisk indicates an experimental entry.

Table 61. Roundup Ready Maturity Group V Early Irrigated Soybean Varieties (Delta Branch Experiment Station, Stoneville, clay).

Brand	Variety[1]	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Armor	X55D57	90.9	—	—	33	1
Progeny Ag	P5554RX	89.2	—	—	35	1
Dyna-Gro	S56XT99	89.0	—	—	34	1
Progeny Ag	P5226RYS	88.7	—	—	40	1
Local Seed Co	LS5087X	88.7	—	—	43	2
Terral Seed	REV 56A58	88.2	81.6	—	29	1
Terral Seed	REV 52A98	87.7	—	—	33	1
Dyna-Gro	S52XT08	86.4	—	—	29	1
GoSoy	50G17	86.2	—	—	29	1
Asgrow	AG55X7	86.0	82.3	—	25	1
AGS	GS 51X18S	85.3	—	—	39	1
Progeny Ag	P5688RX	85.2	77.2	—	33	1
Asgrow	AG54X9	85.0	—	—	26	1
Great Heart Seed	GT-5324X	84.5	77.3	—	26	1
NK Seeds	S50-G9XS	84.4	—	—	43	2
Delta Grow	DG 5170 RR2/STS	84.2	79.5	76.5	40	2
Terral Seed	REV 55A67	84.0	75.9	—	29	1
AgriGold	G5288RX	84.0	—	—	41	1
Asgrow	AG53X9	83.7	—	—	39	1
Progeny Ag	P5252RX	83.5	—	—	48	2
Asgrow	AG52X9	83.0	—	—	44	1
Progeny Ag	P5018RX	83.0	—	—	40	2
Pioneer	P54A75X	82.6	—	—	23	1
Dyna-Gro	SX18652XS	81.7	—	—	45	1
U. of Arkansas	R14-14797 RR	80.5	75.3	—	34	1
Armor	X51D77	80.2	—	—	46	1
Delta Grow	DG 52X15 Xtend	79.9	—	—	40	3
Armor	X52D71	79.8	—	—	40	1
AgriGold	G5000RX	79.8	73.6	—	40	1
U. of Missouri	S14-9017R	79.7	—	—	28	1
Armor	X50D13	79.3	—	—	41	2
Progeny Ag	P5279RXS	79.2	—	—	49	1
Terral Seed	REV 51A56	77.3	75.1	72.4	38	1
Progeny Ag	P 5016RXS	77.3	73.6	70.0	40	1
Dyna-Gro	SX18854XT	76.0	—	—	29	1
Croplan	RX 5016 S	75.0	—	—	38	1
GoSoy	54G16	73.7	66.9	—	25	1
Mean		83.0				
CV		5.42				
LSD (0.05)		7.32				
R^2		58.12				
Error DF		72				

[1]Variety followed by an asterisk indicates an experimental entry.

Table 62. Roundup Ready Maturity Group V Late Irrigated Soybean Varieties (Delta Branch Experiment Station, Stoneville, clay).

Brand	Variety	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
USG	75B75R	83.1	71.6	68.1	30	1
Progeny	P5752RY	82.1	72.3	69.0	27	1
Mean		82.6				
CV		3.38				
LSD		NS				
R^2		82.8				
Error DF		2				

Table 63. Maturity Group IV LibertyLink Irrigated Soybean Varieties (Delta Branch Experiment Station, Stoneville, clay).

Brand	Variety[1]	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Terral	REV 49L88 *	85.5	81.2	—	34	1
Credenz	CZ 4918 LL	84.7	80.6	—	37	1
Terral	REV 47L38	81.2	—	—	34	1
Dyna-Gro	S49LL34	80.0	75.7	75.6	44	1
Pioneer	P47A76L	79.7	—	—	42	1
Credenz	CZ 4308 LL	79.5	77.6	—	35	2
Pioneer	P44A08L	78.7	—	—	36	1
Credenz	CZ 4222 LL	78.0	75.5	72.3	34	1
Credenz	CZ 4649 LL	76.9	—	—	49	1
Dyna-Gro	S45LL97	76.1	74.3	—	43	1
Terral	REV 46L99 *	75.6	—	—	35	1
Delta Grow	DG 4582 LL/STS	74.6	—	—	38	2
Credenz	CZ 4540 LL	73.8	70.5	69.5	36	2
Credenz	CZ 4820 LL	73.5	70.8	—	41	1
Credenz	CZ 3601 LL	72.2	—	—	31	1
Delta Grow	DG 4977LL/STS	72.0	68.8	68.7	46	2
Credenz	CZ 4548 LL	70.9	70.5	—	34	1
Credenz	CZ 4938 LL	70.1	65.8	—	32	1
Credenz	CZ 4105 LL	68.9	68.0	63.1	40	2
Credenz	CZ 4748 LL	68.5	66.3	66.3	38	1
Credenz	CZ 3841 LL	66.4	68.7	—	32	1
Mean		75.6				
CV		8.6				
LSD (0.05)		10.8				
R^2		50.2				
Error DF		40				

[1]Variety followed by an asterisk indicates an experimental entry.

Table 64. Maturity Group V LibertyLink Irrigated Soybean Varieties (Delta Branch Experiment Station, Stoneville, clay).

Brand	Variety	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Credenz	CZ 5328 LL	80.6	—	—	30	1
Credenz	CZ 5445 LL	80.0	—	—	27	1
Credenz	CZ 5225 LL	79.8	—	—	25	1
Credenz	CZ 5147 LL	76.9	71.7	98.9	25	1
Credenz	CZ 5150 LL	76.6	69.3	96.2	44	2
Credenz	CZ 5242 LL	76.5	69.5	95.5	49	1
Mean		78.4				
CV		2.8				
LSD (0.05)		NS				
R^2		74.2				
Error DF		10				

Table 65. Maturity Group IV Conventional Irrigated Soybean Varieties (Delta Branch Experiment Station, Stoneville, clay).

Brand	Variety[1]	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
VIRTUE EX203	2987331	90.0	—	—	37	1
VIRTUE EX206	2987416	88.8	—	—	38	1
U. of Missouri	S13-3851C	82.4	77.9	—	34	1
GoSoy	Ireane	79.7	74.5	74.9	21	1
U. of Missouri	S13-10590C *	74.2	68.7	—	35	1
U. of Missouri	S13-10592C *	74.1	—	—	34	1
GoSoy	E4510S	72.8	—	—	32	1
GoSoy	43C17S	65.9	—	—	31	1
U. of Missouri	S13-2743C *	62.7	67.1	—	33	1
Mean		76.7				
CV		6.7				
LSD (0.05)		8.9				
R^2		84.2				
Error DF		16				

[1]Variety followed by an asterisk indicates an experimental entry.

Table 66. Maturity Group V Conventional Irrigated Soybean Varieties (Delta Branch Experiment Station, Stoneville, clay).

Brand	Variety[1]	Yield[2]			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
U. of Missouri	S15-10434C *	92.7	—	—	31	1
U. of Missouri	M05201D CONV	90.3	—	—	28	1
GoSoy	56C16	88.1	79.2	—	29	1
U. of Missouri	S11-20242C	84.5	—	—	37	1
GoSoy	53C16	83.5	—	—	25	1
GoSoy	51C17	82.9	—	—	26	1
U. of Missouri	S13-1955C *	82.6	77.5	—	28	1
Mean		86.4				
CV		3.1				
LSD		4.8				
R^2		77.7				
Error DF		12				

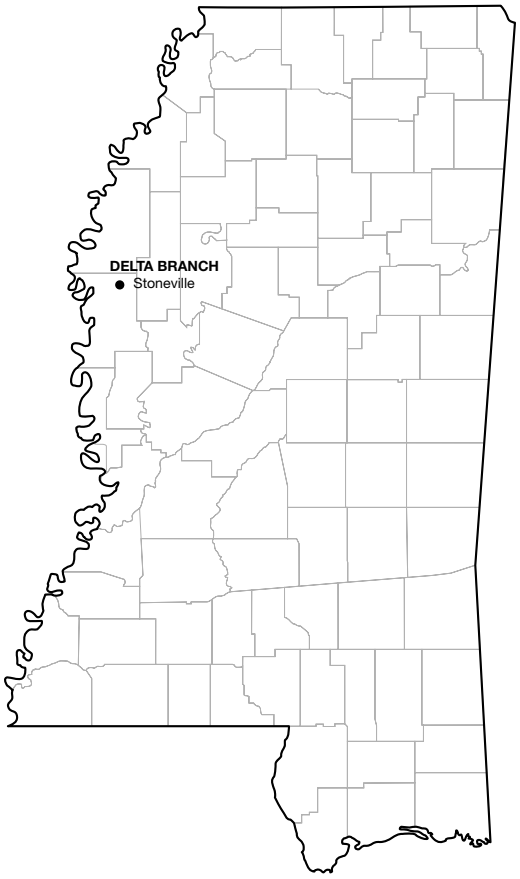
[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 3-year average.

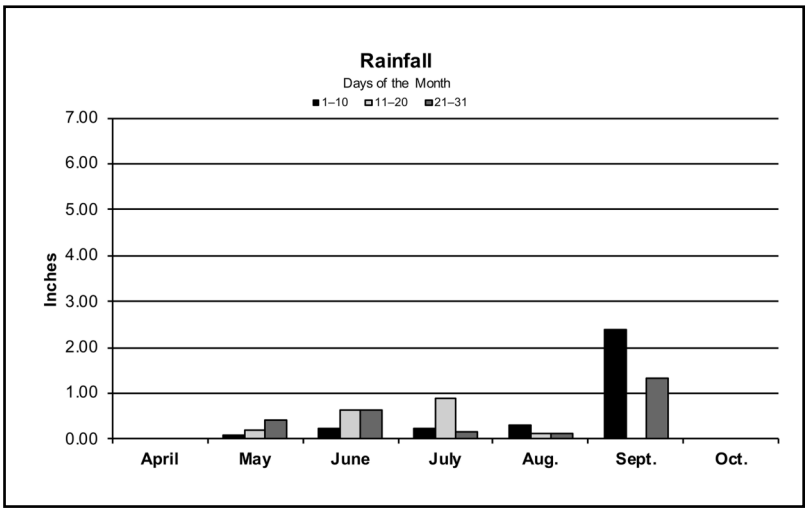
STONEVILLE (loam) IRRIGATED, DELTA BRANCH

Crop Summary

Soybean plots were planted into a stale seedbed that had been prepared the previous fall. Soil moisture at planting was adequate for germination. All plots quickly emerged to a good stand. An error occurred during planting that required the Roundup Ready IV Early group to be replanted. This maturity group was replanted on May 2. Timely rains and furrow irrigation supplied sufficient soil moisture throughout the growing season. Harvest was completed in a timely manner, and good yields were observed at this location.

Planting date . . .April 19; replanted IV Early Roundup Ready on May 2
Harvest date . . . .October 2
Soil type . . . . . .Bosket very fine sandy loam
Soil pH 6.8
Soil fertility . . . . .P=H, K=H
Previous crop . . .Corn
Herbicide . . . . . .Preemergence — Authority MTZ @ 12 oz/A, Dual II Magnum @ 24 oz/A, Gramoxone @ 32 oz/A, and Zidua @ 2 oz/A on April 19
Irrigation . . . . . .June 8, July 5, July 13, July 25, August 3





Rainfall Summary

	Inches
April	0.00
May	0.71
June	1.51
July	1.26
August	0.57
September	3.72
October	0.00
Total	7.77

Table 67. Roundup Ready Maturity Group IV Early Irrigated Soybean Varieties (Delta Branch Experiment Station, Stoneville, loam).

Brand	Variety[1]	Yield[2]			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Local Seed Co	LS4565XS	89.5	—	—	42	1
Local Seed Co	LS4677X	89.2	—	—	46	2
Terral	REV 4679X *	88.7	—	—	33	2
Delta Grow	DG 46X25RR2 Xtend	88.6	—	—	37	2
Croplan	RX 4500 S	88.2	—	—	45	2
NK Seeds	S45-K5X	87.7	82.2	—	32	1
Local Seed Co	LS4583X	87.3	—	—	42	1
Asgrow	AG46X6	85.8	82.4	80.0	34	1
Pioneer	P46A16R	85.5	—	—	45	3
Dyna-Gro	SX18845XT *	84.1	—	—	36	1
Pioneer	P46A57BX	84.0	—	—	36	3
Dyna-Gro	S45XS37	83.0	81.2	—	39	1
Mission Seed Solutions	A4637NSXR2	83.0	—	—	38	2
Pioneer	P42A96X	81.9	—	—	35	1
Progeny	P4620RXS	81.8	78.7	77.0	37	2
Delta Grow	4670RR2	81.3	80.7	77.0	38	1
Dyna-Gro	S45XS66	81.0	76.0	74.9	38	2
AGS	GS46X17	80.6	81.3	—	31	1
AgriGold	G4579RX	80.6	—	—	42	1
Local Seed Co	LS4487XS	80.5	—	—	45	1
Asgrow	AG45X8	80.4	80.6	—	40	1
MorSoy	MS 4426 RXT	79.8	—	—	40	1
Croplan	RX4687S	79.6	—	—	47	3
NK Seeds	S45-J3X	78.8	—	—	34	1
Armor	X46D63 *	77.6	—	—	41	1
Mission Seed Solutions	A4608X	77.3	—	—	49	1
MorSoy	MS 4616 RXT	77.1	75.3	—	38	2
Local Seed Co	LS4689X	77.0	—	—	40	3
Mission Seed Solutions	A4447NSXR2	76.6	—	—	41	1
USG	7447XTS	76.4	—	—	38	2
Armor	X45D50 *	76.3	—	—	29	1
Progeny	P4750 RYS	75.9	—	—	39	2
Progeny	P4444RXS	75.8	77.5	—	34	1
Mission Seed Solutions	A4618X	75.7	—	—	40	1
AgriGold	G4440RX	75.5	75.6	—	37	3
AgriGold	G4605RX	75.4	—	—	48	2
Armor	42-D27	75.3	—	—	34	1
Great Heart	GT-4628X	75.3	—	—	48	3
Great Heart	GT-4685XS	73.8	—	—	40	1
Asgrow	AG43X7	73.5	72.2	—	37	1
Progeny	P4255RX	73.2	72.4	—	37	1
Dyna-Gro	S41XS98	72.4	—	—	39	2
U. of Missouri	S14-15146R *	72.3	—	—	36	1
Asgrow	AG43X8	70.8	—	—	34	1
NK Brand	S43-V3X	70.5	71.8	—	30	2
Asgrow	AG42X9	66.5	—	—	43	1
Croplan	RX 4217 S	66.1	—	—	42	3
Progeny	P4318RX	61.6	—	—	41	1
Mean		78.7				
CV		9.45				
LSD (0.05)		12.06				
R^2		56.46				
Error DF		94				

[1]Variety followed by an asterisk indicates an experimental entry.
[2]Varieties lacking the Xtend trait were omitted from these locations due to uncertainty of exposure and timing of dicamba drift occurrence.

Table 68. Roundup Ready Maturity Group IV Late Irrigated Soybean Varieties (Delta Branch Experiment Station, Stoneville, loam).

Brand	Variety[1]	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Local Seed Co	LS4968XS	94.0	—	—	31	1
AgriGold	G4995RX	93.1	—	—	36	1
Progeny	P4851RX	92.8	88.2	—	34	1
Local Seed Co	LS4966X	92.7	—	—	34	1
AGS	GS 48X18	92.2	—	—	31	2
Armor	X47D22 *	92.2	—	—	37	2
Progeny	P4955RX	92.1	—	—	42	2
Asgrow	AG47X9	91.3	—	—	32	1
GoSoy	49G16	90.6	81.7	78.2	29	1
Local Seed Co	AV47W2X	88.9	—	—	46	2
Mission Seed Solutions	MEX4808 *	88.7	—	—	39	3
Local Seed Co	LS4889XS	88.6	—	—	37	2
Terral	REV 48A26	87.6	84.0	84.0	39	2
NK Brand	S48-R2X	87.1	84.9	—	34	3
Mission Seed Solutions	MEX4908 *	87.0	—	—	37	2
Delta Grow	DG 48X45RR2 Xtend	85.6	82.3	80.5	29	1
Terral	REV 4927X	85.5	85.1	—	32	1
Progeny	P4799RXS	85.4	81.4	80.6	32	1
USG	7496XTS	85.1	79.5	80.2	34	1
Petrus Seed	479 GTS	84.6	75.8	—	37	1
Armor	X48D02 *	84.2	—	—	39	2
Delta Grow	DG 4790RR2	84.1	79.6	78.9	36	2
Progeny	P4757RY	83.7	83.2	80.0	33	1
Asgrow	AG48X9	83.7	—	—	35	1
Dyna-Gro	S49XT39	83.4	—	—	36	1
Progeny	P4944RX	83.3	—	—	33	2
Great Heart Seed	GT-4721X	82.9	82.8	—	30	1
USG	7489XT	82.7	—	—	35	1
Terral	REV 47A98	82.3	—	—	28	1
Pioneer	P48A60X	82.3	—	—	39	1
U. of Missouri	S14-9051R	82.1	—	—	37	1
MorSoy	MS 4846 RXT	81.7	77.7	—	33	1
Asgrow	AG49X9	81.4	—	—	39	2
Great Heart Seed	GT-4809X	81.3	—	—	39	1
U. of Missouri	S14-9051R *	81.0	—	—	38	1
Great Heart Seed	GT-4979X	80.9	—	—	38	1
Progeny	P4816RX	80.6	80.9	78.5	33	1
Dyna-Gro	S48XT56	80.6	78.5	75.6	35	1
Croplan	RX4825	80.2	79.2	—	35	4
Terral	REV 4857X	79.6	79.1	—	34	3
Local Seed Co	LS4988X	78.9	—	—	46	2
Local Seed Co	AV49W3X	78.4	—	—	39	4
Armor	X49D31 *	77.6	—	—	39	1
Croplan	RX4927	77.1	—	—	40	4
Great Heart Seed	GT-4833XS	74.3	—	—	26	1
Petrus Seed	4916 GT	71.0	71.4	—	36	1
Mean		84.4				
CV		11.9				
LSD (0.05)		NS				
R^2		30.9				
Error DF		90				

[1]Variety followed by an asterisk indicates an experimental entry.

Table 69. Roundup Ready Maturity Group V Early Irrigated Soybean Varieties (Delta Branch Experiment Station, Stoneville, loam).

Brand	Variety[1]	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
Asgrow	AG52X9	105.2	—	—	42	1
AgriGold	G5288RX	98.0	—	—	42	1
Progeny Ag	P5226RYS	95.6	—	—	41	3
Delta Grow	DG 5170 RR2/STS	94.9	91.5	88.4	39	2
Terral Seed	REV 55A67	94.1	78.9	—	26	1
Delta Grow	DG 52X15 Xtend	92.3	—	—	36	2
AgriGold	G5000RX	91.6	84.1	—	35	1
Great Heart Seed	GT-5324X	90.8	83.6	—	27	1
Armor	X55D57	90.5	—	—	32	1
AGS	GS 51X18S	88.0	—	—	37	1
Terral Seed	REV 52A98	87.8	—	—	32	1
Local Seed Co	LS5087X	87.6	—	—	40	1
Progeny Ag	P5279RXS	87.5	—	—	36	1
Progeny Ag	P5252RX	87.4	—	—	49	3
Progeny Ag	P 5016RXS	87.3	81.4	81.7	35	1
GoSoy	50G17	87.2	—	—	32	1
U. of Arkansas	R14-14797 RR	86.9	80.9	—	28	1
Dyna-Gro	S52XT08	85.7	—	—	26	1
Armor	X52D71	85.7	—	—	38	1
Armor	X50D13	85.4	—	—	39	3
Progeny Ag	P5018RX	85.2	—	—	38	2
Progeny Ag	P5688RX	84.6	81.7	—	29	1
NK Seeds	S50-G9XS	84.5	—	—	36	3
Asgrow	AG53X9	84.4	—	—	35	1
Terral Seed	REV 56A58	84.1	80.6	—	25	1
Progeny Ag	P5554RX	83.8	—	—	32	1
Dyna-Gro	S56XT99	83.7	—	—	31	1
Pioneer	P54A75X	83.7	—	—	16	1
U. of Missouri	S14-9017R	83.6	—	—	29	1
Asgrow	AG55X7	82.8	77.4	—	20	1
Armor	X51D77	80.8	—	—	49	4
Dyna-Gro	SX18652XS	79.0	—	—	44	3
Asgrow	AG54X9	78.8	—	—	26	1
Croplan	RX 5016 S	78.4	—	—	38	1
Dyna-Gro	SX18854XT	76.3	—	—	21	1
Terral Seed	REV 51A56	75.0	74.9	75.4	36	2
GoSoy	54G16	66.2	64.3	—	25	1
Mean		85.9				
CV		8.708				
LSD (0.05)		12.2				
R^2		60.7				
Error DF		72				

[1]Variety followed by an asterisk indicates an experimental entry.

Table 70. Roundup Ready Maturity Group V Late Irrigated Soybean Varieties (Delta Branch Experiment Station, Stoneville, loam).

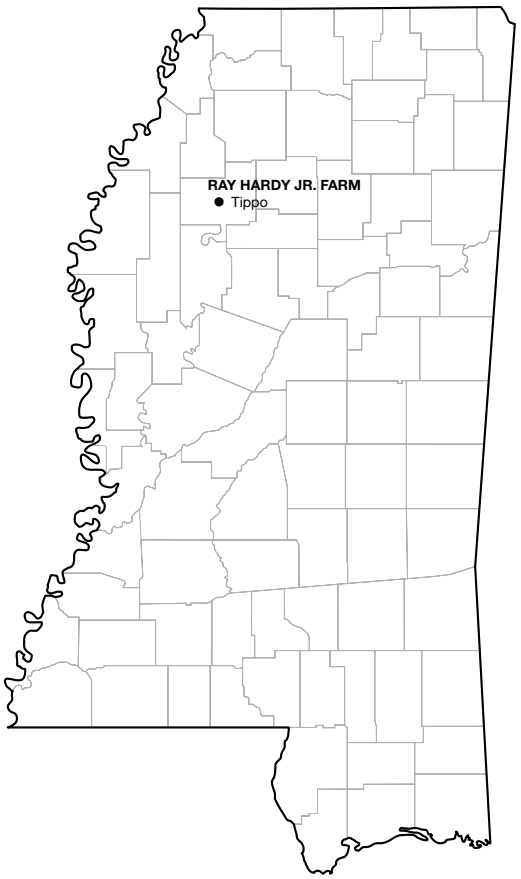
Brand	Variety	Yield			Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.		
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*
USG	75B75R	81.4	77.9	74.6	28	1
Progeny	P5752RY	85.4	77.7	69.6	24	1
Mean		83.4				
CV		5.01				
LSD		NS				
R^2		81.09				
Error DF		2				

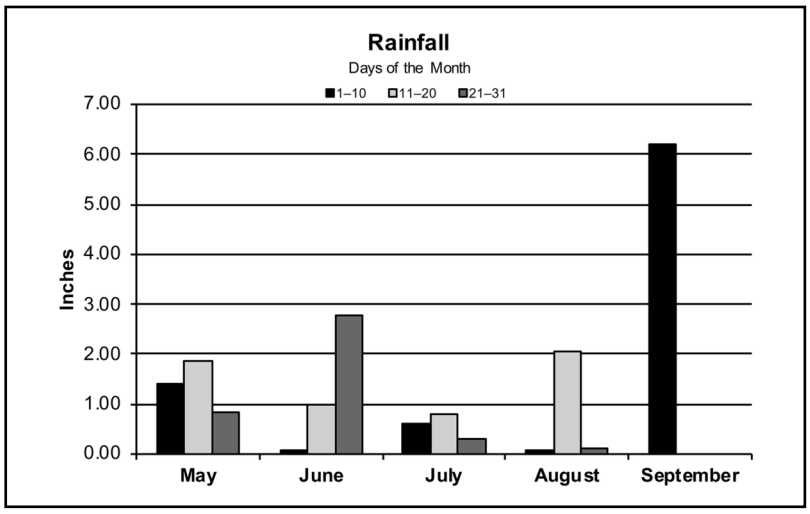
TIPPO, RAY HARDY JR. FARM

Crop Summary

Soybean plots were planted into a well-prepared seedbed that had been disked and do-alled before planting. Soil moisture at planting was excellent for germination. All plots emerged to a good stand. Rainfall was limited during much of the growing season, which reduced this location's yield potential. However, there was enough rainfall for respectable yields for a nonirrigated location. Harvest was completed in a timely manner without difficulties.

Planting date . . .May 1
Harvest date . . . .September 20
Soil type . . . . . .Dundee and Tensas silt loam
Soil pH 6.3
Soil fertility . . . . .P=H^{+}, K=H
Previous crop . . .Soybean
Herbicide . . . . . .Preemergence — Authority MTZ @ 12 oz/A, Dual II Magnum @ 24 oz/A, and Zidua @ 2 oz/A on May 1





Rainfall Summary

	Inches
May	4.10
June	3.86
July	1.68
August	2.27
September	6.20
Total	18.11

Table 71. Roundup Ready Maturity Group IV Early Nonirrigated Soybean Varieties (Ray Hardy Jr. Farm, Tippo).

Brand	Variety[1]	Yield			Plant height	Lodging score	Shattering
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*	*%*
MorSoy	MS 4616 RXT	49.0	40.8	—	36	1	—
Mission Seed Solutions	A4447NSXR2	48.8	—	—	36	2	10
Local Seed Co	LS4565XS	47.9	—	—	35	1	—
NK Seeds	S45-J3X	47.6	—	—	31	1	—
NK Seeds	S45-K5X	46.6	38.9	—	31	1	—
Mission Seed Solutions	A4618X	46.3	—	—	36	1	—
Local Seed Co	LS4487XS	45.8	—	—	37	2	10
Asgrow	AG43X7	45.5	37.2	—	33	1	—
Asgrow	AG46X6	45.0	38.4	—	33	1	—
Croplan	RX 4500 S	44.9	—	—	30	2	—
AgriGold	G4579RX	44.2	—	—	34	1	—
Armor	42-D27	44.1	—	—	34	1	—
Armor	X46D63 *	43.8	—	—	36	1	—
AGS	GS46X17	43.7	37.2	—	31	1	—
Croplan	RX4687S	43.3	—	—	38	3	—
Pioneer	P42A96X	42.8	—	—	25	2	10
Local Seed Co	LS4689X	42.6	—	—	43	2	—
Local Seed Co	LS4677X	42.6	—	—	36	2	10
Progeny	P4750 RYS	42.2	—	—	33	1	—
Progeny	P4255RX	41.6	35.0	—	29	1	—
Pioneer	P46A57BX	41.4	—	—	30	2	—
Progeny	P4620RXS	41.3	39.1	—	36	1	—
Local Seed Co	LS4583X	41.1	—	—	33	2	—
Great Heart	GT-4685XS	40.9	—	—	32	1	—
Asgrow	AG45X8	40.8	36.2	—	34	3	—
U. of Missouri	S14-15146R *	40.7	—	—	26	1	—
Asgrow	AG43X8	40.4	—	—	37	2	—
Delta Grow	4670RR2	40.3	38.3	35.8	32	1	—
Armor	X45D50 *	40.2	—	—	34	1	—
Dyna-Gro	SX18845XT *	39.9	—	—	33	2	—
Delta Grow	DG 46X25RR2 Xtend	39.8	—	—	32	1	—
Dyna-Gro	S45XS66	39.3	36.6	—	36	2	—
Terral	REV 4679X *	39.2	—	—	27	1	—
AgriGold	G4605RX	39.0	—	—	44	1	—
USG	7447XTS	38.8	—	—	33	2	—
Dyna-Gro	S41XS98	38.4	—	—	26	1	10
AgriGold	G4440RX	38.3	36.4	—	36	1	—
Mission Seed Solutions	A4608X	38.2	—	—	43	1	—
MorSoy	MS 4426 RXT	37.2	—	—	36	1	—
Mission Seed Solutions	A4637NSXR2	36.9	—	—	38	2	—
Asgrow	AG42X9	36.8	—	—	33	1	—
Progeny	P4444RXS	36.7	32.7	—	31	1	—
Dyna-Gro	S45XS37	36.7	34.2	—	31	1	—
NK Brand	S43-V3X	35.3	29.3	—	33	3	25
Great Heart	GT-4628X	35.0	—	—	39	1	—
Pioneer	P46A16R	34.4	—	—	27	1	—
Progeny	P4318RX	34.1	—	—	36	2	25
Croplan	RX 4217 S	31.9	—	—	34	2	25
Mean		41.1					
CV		11.66					
LSD (0.05)		7.76					
R^2		52.79					
Error DF		94					

[1]Variety followed by an asterisk indicates an experimental entry.

Table 72. Roundup Ready Maturity Group IV Late Nonirrigated Soybean Varieties (Ray Hardy Jr. Farm, Tippo).

Brand	Variety[1]	Yield			Plant height	Lodging score	Shattering
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*	*in*	*1-5*	*%*
Local Seed Co	LS4889XS	49.1	—	—	39	1	—
USG	7489XT	48.8	—	—	31	1	—
Petrus Seed	4916 GT	48.4	44.2	—	24	1	—
GoSoy	49G16	48.2	46.3	50.5	30	1	—
Local Seed Co	LS4966X	48.0	—	—	31	1	—
MorSoy	MS 4846 RXT	47.5	40.9	—	32	1	—
Local Seed Co	AV49W3X	47.0	—	—	40	2	—
Progeny	P4799RXS	46.7	42.8	—	41	1	—
Croplan	RX4825	46.6	41.0	—	32	1	—
AGS	GS 48X18	46.6	—	—	34	1	—
Progeny	P4816RX	46.2	42.6	—	35	1	—
Delta Grow	DG 48X45RR2 Xtend	46.1	43.3	—	31	1	—
Croplan	RX4927	45.1	—	—	36	2	—
Local Seed Co	LS4968XS	45.1	—	—	37	1	—
Armor	X47D22 *	44.8	—	—	34	1	—
Dyna-Gro	S49XT39	44.0	—	—	33	2	—
Great Heart Seed	GT-4721X	44.0	38.1	—	36	3	—
Great Heart Seed	GT-4833XS	43.9	—	—	35	2	—
U. of Missouri	S14-9051R	43.8	—	—	27	1	—
Progeny	P4757RY	43.4	41.9	41.1	34	1	—
Terral	REV 47A98	43.3	—	—	30	1	—
Terral	REV 4927X	43.3	39.3	—	36	2	—
Terral	REV 48A26	43.0	38.2	39.5	34	1	5
Armor	X48D02 *	42.9	—	—	39	1	—
U. of Missouri	S14-9051R *	42.9	—	—	28	1	10
Delta Grow	DG 4790RR2	42.5	38.7	42.5	36	2	—
AgriGold	G4995RX	42.3	—	—	38	2	—
Asgrow	AG47X9	42.3	—	—	34	2	—
Pioneer	P48A60X	42.0	—	—	32	1	—
Asgrow	AG48X9	41.7	—	—	35	1	—
Local Seed Co	AV47W2X	41.3	—	—	36	2	—
Armor	X49D31 *	40.7	—	—	37	1	—
Great Heart Seed	GT-4979X	40.6	—	—	34	2	—
Asgrow	AG49X9	40.5	—	—	33	1	—
NK Brand	S48-R2X	40.2	35.0	—	32	1	—
USG	7496XTS	40.0	43.3	—	34	1	—
Dyna-Gro	S48XT56	39.7	35.2	—	27	1	—
Local Seed Co	LS4988X	39.5	—	—	32	1	10
Mission Seed Solutions	A4828X	39.2	—	—	38	2	—
Progeny	P4851RX	38.3	31.8	—	38	4	20
Mission Seed Solutions	A4950X	38.1	—	—	37	1	—
Great Heart Seed	GT-4809X	37.8	—	—	35	1	—
Petrus Seed	479 GTS	37.3	34.2	—	34	1	20
Terral	REV 4857X	37.0	30.8	—	34	1	—
Progeny	P4944RX	36.9	—	—	32	1	20
Progeny	P4955RX	36.3	—	—	36	1	—
Mean		42.9					
CV		10.28					
LSD (0.05)		7.15					
R^2		60.8					
Error DF		90					

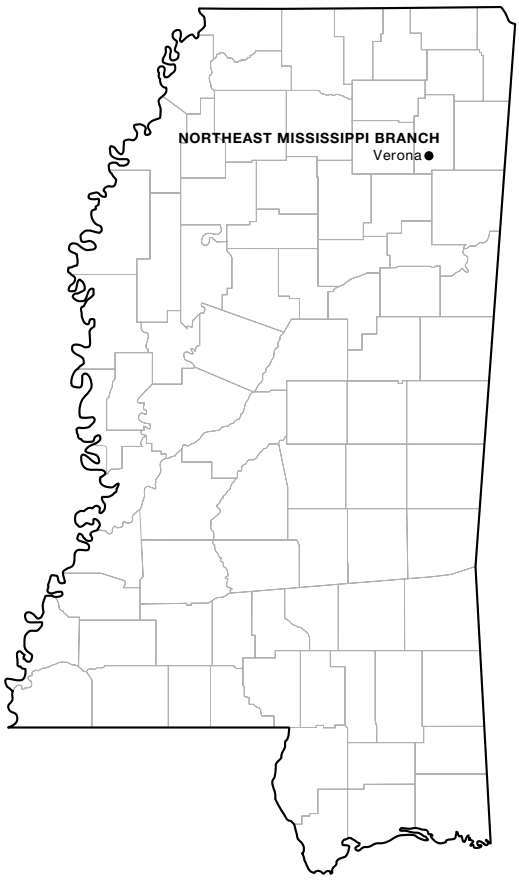
[1]Variety followed by an asterisk indicates an experimental entry.

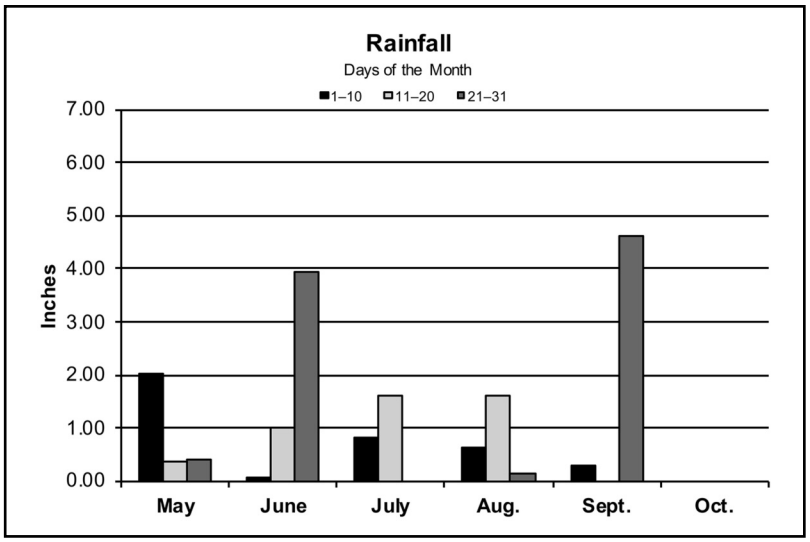
VERONA, NORTHEAST MISSISSIPPI BRANCH

Crop Summary

Soybean plots were planted flat into a field that had been field cultivated twice before planting. Seeding depth was deeper than desired due to limited soil moisture at planting. Unfortunately, just 2 days after planting, the trial received 2.3 inches of rainfall, which packed the loose soil and formed a crust that proved difficult for seedlings to break. A week later, we determined it would be necessary to run a rotary hoe through the plots to beak the crust and salvage this location. The plots struggled but survived for almost a month until they received 7 inches of rainfall from mid-June through mid-July, which is a crucial bloom and pod set period. Harvest was completed in a timely manner, and good yields were observed at this location.

Planting date . . . . . .**May 3**
Harvest date . . . . . .**IVE Roundup Ready and IV LibertyLink on September 21; IVL, VE, and VL Roundup Ready, and V LibertyLink on October 3**
Soil type . . . . . .**Leeper silty clay loam**
Soil pH **6.5**
Soil fertility . . . . . .**P=H, K=H**
Previous crop . . . . . .**Corn**
Herbicide . . . . . .**Preemergence — Authority MTZ @ 12 oz/A, Dual II Magnum @ 24 oz/A, and Zidua @ 2 oz/A on May 3**
Postemergence — Section (clethodim) @ 12 oz/A, Firstrate @ 0.6 oz/A, and Prefix @ 16 oz/A on June 7
Fungicide/Insecticide . . .**Acephate @ 0.75 lb/A and Intrepid Edge @ 4 oz/A on August 10**





Rainfall Summary

	Inches
May	2.86
June	5.07
July	2.45
August	2.41
September	4.94
October	0.00
Total	17.73

Table 73. Roundup Ready Maturity Group IV Early Nonirrigated Soybean Varieties (Northeast Mississippi Branch, Verona).

Brand	Variety[1]	Yield[2]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Local Seed Co	LS4677X	104.1	—	—	9/16	38	2
Croplan	RX4687S	100.1	—	—	9/11	37	2
Mission Seed Solutions	A4447NSXR2	97.8	—	—	9/10	38	1
Local Seed Co	LS4565XS	97.6	—	—	9/14	38	1
Pioneer	P46A16R	97.3	—	—	9/13	32	1
NK Seeds	S45-K5X	95.6	—	—	9/8	33	1
Mission Seed Solutions	A4608X	93.5	—	—	9/8	45	1
Asgrow	AG45X8	92.8	—	—	9/12	28	1
Croplan	RX 4500 S	92.3	—	—	9/13	34	1
NK Seeds	S45-J3X	91.8	—	—	9/8	32	1
Asgrow	AG42X9	91.5	—	—	9/8	36	1
Dyna-Gro	SX18845XT *	90.6	—	—	9/13	31	1
MorSoy	MS 4616 RXT	89.4	—	—	9/15	32	1
NK Brand	S43-V3X	89.3	—	—	9/6	35	1
Armor	42-D27	89.3	—	—	9/5	31	1
Terral	REV 4679X *	89.1	—	—	9/13	33	1
Dyna-Gro	S45XS37	88.7	—	—	9/17	32	1
AgriGold	G4440RX	88.7	—	—	9/14	31	1
Armor	X45D50 *	88.0	—	—	9/15	35	1
Progeny	P4255RX	87.8	—	—	9/6	36	1
AgriGold	G4605RX	87.7	—	—	9/11	41	1
Asgrow	AG43X7	87.3	—	—	9/9	36	1
Progeny	P4620RXS	87.3	—	—	9/14	34	1
Local Seed Co	LS4583X	86.8	—	—	9/15	36	1
Progeny	P4444RXS	86.1	—	—	9/10	28	1
Mission Seed Solutions	A4618X	85.3	—	—	9/15	36	1
Pioneer	P46A57BX	84.8	—	—	9/7	39	1
Dyna-Gro	S45XS66	83.6	—	—	9/17	37	1
Pioneer	P42A96X	83.6	—	—	9/2	33	1
Delta Grow	DG 46X25RR2 Xtend	83.3	—	—	9/11	35	1
Great Heart	GT-4685XS	83.1	—	—	9/17	36	1
MorSoy	MS 4426 RXT	82.9	—	—	9/9	33	1
Asgrow	AG46X6	82.7	—	—	9/13	34	1
Mission Seed Solutions	A4637NSXR2	82.7	—	—	9/11	38	1
AGS	GS46X17	82.1	—	—	9/10	28	1
Local Seed Co	LS4487XS	82.1	—	—	9/8	36	1
AgriGold	G4579RX	81.9	—	—	9/15	35	1
U. of Missouri	S14-15146R *	81.8	—	—	9/12	30	1
Local Seed Co	LS4689X	80.6	—	—	9/8	44	1
Great Heart	GT-4628X	80.6	—	—	9/11	42	1
Progeny	P4318RX	79.7	—	—	9/5	39	1
Progeny	P4570RXS	79.6	—	—	9/14	32	1
Armor	X46D63 *	78.1	—	—	9/13	34	1
Dyna-Gro	S41XS98	78.1	—	—	9/7	30	1
Delta Grow	4670RR2	74.6	—	—	9/8	33	1
Asgrow	AG43X8	74.0	—	—	9/9	38	1
USG	7447XTS	73.5	—	—	9/14	35	1
Croplan	RX 4217 S	72.9	—	—	9/7	37	1
Mean		85.3					
CV		13.8					
LSD (0.05)		19.3					
R^2		35.8					
Error DF		94					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 2- or 3-year average.

Table 74. Roundup Ready Maturity Group IV Late Nonirrigated Soybean Varieties (Northeast Mississippi Branch, Verona).

Brand	Variety[1]	Yield[2]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Local Seed Co	LS4889XS	105.9	—	—	9/17	44	1
Local Seed Co	AV49W3X	103.6	—	—	9/15	40	3
Progeny	P4955RX	103.6	—	—	9/13	34	1
Great Heart Seed	GT-4833XS	102.6	—	—	9/17	36	1
Armor	X48D02 *	101.1	—	—	9/17	39	2
Terral	REV 48A26	100.3	—	—	9/12	33	1
Local Seed Co	LS4966X	99.8	—	—	9/17	33	1
Croplan	RX4927	99.5	—	—	9/14	28	1
Armor	X47D22 *	99.1	—	—	9/15	34	1
Dyna-Gro	S49XT39	98.8	—	—	9/18	36	1
Croplan	RX4825	98.4	—	—	9/17	33	1
Terral	REV 4927X	98.4	—	—	9/14	37	1
Progeny	P4944RX	96.7	—	—	9/15	34	1
Mission Seed Solutions	A4950X	96.2	—	—	9/18	43	1
Great Heart Seed	GT-4721X	96.0	—	—	9/16	37	1
Mission Seed Solutions	A4828X	96.0	—	—	9/13	38	1
Asgrow	AG48X9	95.9	—	—	9/17	35	1
Great Heart Seed	GT-4979X	95.5	—	—	9/17	34	1
AGS	GS 48X18	95.4	—	—	9/11	32	1
Progeny	P4851RX	95.3	—	—	9/14	35	1
Progeny	P4757RY	94.5	—	—	9/13	38	2
AgriGold	G4995RX	94.3	—	—	9/18	38	1
Dyna-Gro	S48XT56	94.0	—	—	9/17	32	1
Armor	X49D31 *	93.9	—	—	9/17	37	1
Local Seed Co	LS4988X	93.8	—	—	9/12	31	1
Pioneer	P48A60X	93.7	—	—	9/14	34	1
Local Seed Co	AV47W2X	93.1	—	—	9/14	35	1
Asgrow	AG49X9	92.7	—	—	9/17	35	1
GoSoy	49G16	92.7	—	—	9/16	34	1
Delta Grow	DG 4790RR2	91.6	—	—	9/14	33	1
NK Brand	S48-R2X	90.5	—	—	9/12	35	1
Terral	REV 47A98	90.3	—	—	9/16	35	1
Progeny	P4799RXS	90.0	—	—	9/14	39	1
Local Seed Co	LS4968XS	89.7	—	—	9/18	35	1
Delta Grow	DG 48X45RR2 Xtend	89.4	—	—	9/17	30	1
Progeny	P4816RX	89.1	—	—	9/15	37	1
Asgrow	AG47X9	87.7	—	—	9/17	32	1
Petrus Seed	4916 GT	87.5	—	—	9/17	30	1
USG	7496XTS	86.3	—	—	9/18	37	1
USG	7489XT	86.1	—	—	9/8	38	1
MorSoy	MS 4846 RXT	86.1	—	—	9/14	39	2
Terral	REV 4857X	85.4	—	—	9/12	37	1
Great Heart Seed	GT-4809X	83.6	—	—	—	35	1
U. of Missouri	S14-9051R	82.6	—	—	9/18	30	1
Petrus Seed	479 GTS	81.7	—	—	9/16	37	1
U. of Missouri	S14-9051R *	78.2	—	—	9/17	27	1
Mean		92.6					
CV		8.6					
LSD (0.05)		13.0					
R^2		57.9					
Error DF		90					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 2- or 3-year average.

Table 75. Roundup Ready Maturity Group V Early Nonirrigated Soybean Varieties (Northeast Mississippi Branch, Verona).

Brand	Variety	Yield[1]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Dyna-Gro	SX18652XS	97.9	—	—	9/17	41	1
U. of Arkansas	R14-14797 RR	96.7	—	—	9/25	32	1
AgriGold	G5288RX	93.2	—	—	9/22	38	1
AGS	GS 51X18S	93.2	—	—	9/20	36	1
Progeny Ag	P5018RX	92.7	—	—	9/18	36	2
Armor	X52D71	91.2	—	—	9/23	40	1
Local Seed Co	LS5087X	90.3	—	—	9/18	42	1
Progeny Ag	P5226RYS	90.2	—	—	9/19	43	2
Progeny Ag	P5279RXS	89.1	—	—	9/23	45	1
AgriGold	G5000RX	88.5	—	—	9/21	34	1
Armor	X50D13	88.1	—	—	9/20	38	2
Delta Grow	DG 52X15 Xtend	87.7	—	—	9/19	41	1
Asgrow	AG52X9	87.3	—	—	9/17	38	1
Terral Seed	REV 51A56	86.9	—	—	9/17	37	1
Armor	X55D57	86.7	—	—	9/23	28	1
Progeny Ag	P5252RX	86.4	—	—	9/20	44	2
Progeny Ag	P5688RX	85.5	—	—	9/22	25	1
NK Seeds	S50-G9XS	85.5	—	—	9/19	36	3
Armor	X51D77	84.7	—	—	9/21	39	1
Terral Seed	REV 52A98	84.6	—	—	9/17	26	1
Dyna-Gro	S56XT99	84.3	—	—	10/2	28	1
Delta Grow	DG 5170 RR2/STS	84.0	—	—	9/18	47	2
GoSoy	50G17	84.0	—	—	9/19	22	1
Asgrow	AG53X9	82.3	—	—	9/20	33	1
Terral Seed	REV 55A67	82.1	—	—	9/28	24	1
Progeny Ag	P 5016RXS	80.7	—	—	9/18	36	1
Dyna-Gro	S52XT08	78.8	—	—	9/17	18	1
Croplan	RX 5016 S	77.7	—	—	9/18	40	1
Progeny Ag	P5554RX	76.7	—	—	9/21	28	1
Terral Seed	REV 56A58	76.3	—	—	9/22	21	1
Asgrow	AG54X9	76.2	—	—	9/21	22	1
Dyna-Gro	SX18854XT	74.8	—	—	9/19	23	1
U. of Missouri	S14-9017R	73.1	—	—	9/27	33	1
Great Heart Seed	GT-5324X	73.1	—	—	9/20	17	1
GoSoy	54G16	67.1	—	—	9/18	24	1
Pioneer	P54A75X	63.6	—	—	9/21	18	1
Asgrow	AG55X7	59.4	—	—	9/21	17	1
Mean		82.1					
CV		12.2					
LSD (0.05)		16.5					
R^2		61.5					
Error DF		72					

[1]No 2-year or 3-year averages.

Table 76. Roundup Ready Maturity Group V Late Nonirrigated Soybean Varieties (Northeast Mississippi Branch, Verona).

Brand	Variety	Yield[1]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
USG	75B75R	84.9	—	—	9/29	26	1
Progeny	P5752RY	78.6	—	—	10/3	26	1
Mean		81.7					
CV		5.5					
LSD		NS					
R^2		69.3					
Error DF		2					

[1]No 2-year or 3-year averages.

Table 77. Maturity Group IV LibertyLink Nonirrigated Soybean Varieties (Northeast Mississippi Branch, Verona).

Brand	Variety[1]	Yield[2]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Credenz	CZ 4820 LL	105.0	—	—	9/14	38	1
Terral	REV 46L99 *	102.7	—	—	9/13	36	1
Terral	REV 49L88 *	101.1	—	—	9/12	38	1
Credenz	CZ 4748 LL	100.4	—	—	9/14	37	1
Terral	REV 47L38	100.3	—	—	9/10	42	1
Credenz	CZ 4649 LL	96.4	—	—	9/12	43	1
Pioneer	P44A08L	91.0	—	—	9/12	37	1
Credenz	CZ 4918 LL	90.8	—	—	9/17	48	1
Pioneer	P47A76L	90.2	—	—	9/14	33	1
Credenz	CZ 4308 LL	89.0	—	—	9/6	37	1
Credenz	CZ 4548 LL	87.8	—	—	9/14	40	1
Dyna-Gro	S45LL97	87.5	—	—	9/16	38	1
Delta Grow	DG 4582 LL/STS	85.4	—	—	9/12	43	1
Credenz	CZ 4938 LL	85.2	—	—	9/9	35	1
Dyna-Gro	S49LL34	83.2	—	—	9/18	40	1
Credenz	CZ 4540 LL	81.1	—	—	9/13	38	1
Credenz	CZ 4222 LL	77.4	—	—	8/28	34	1
Delta Grow	DG 4977LL/STS	76.0	—	—	9/13	47	2
Credenz	CZ 3841 LL	70.2	—	—	8/27	33	1
Credenz	CZ 4105 LL	70.1	—	—	8/27	29	1
Credenz	CZ 3601 LL	64.6	—	—	8/27	30	1
Mean		84.8					
CV		8.7					
LSD (0.05)		12.5					
R^2		79.1					
Error DF		40					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 2- or 3-year average.

Table 78. Maturity Group V LibertyLink Nonirrigated Soybean Varieties (Northeast Mississippi Branch, Verona).

Brand	Variety	Yield[1]			Maturity date	Plant height	Lodging score
		2018	2-yr. avg.	3-yr. avg.			
		bu/A	*bu/A*	*bu/A*		*in*	*1-5*
Credenz	CZ 5242 LL	96.2	—	—	9/20	48	1
Credenz	CZ 5147 LL	93.3	—	—	9/25	20	1
Credenz	CZ 5445 LL	91.9	—	—	9/21	29	1
Credenz	CZ 5225 LL	90.2	—	—	9/20	26	1
Credenz	CZ 5150 LL	89.5	—	—	9/19	45	1
Credenz	CZ 5328 LL	88.8	—	—	9/21	28	1
Mean		90.8					
CV		6.4					
LSD (0.05)		NS					
R^2		58.8					
Error DF		10					

[1]No 2-year or 3-year averages.

2018 SOYBEAN VARIETY TRIAL STEM CANKER REPORT

All of the entries in the 2018 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 2018). 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.

NOTE: Entries in rows that are bolded were not included in the official MSU variety-trial program. These entries were supplemented by the researchers to provide a more robust data set to soybean farmers.

Table 79. Response of Maturity Group IV Early Soybean Cultivars to Stem Canker, 2018.

Cultivar	Stem canker rating[1,2]	Cultivar designation[3]
Dyna-Gro 39RY43 (check)	—	—
Armor ARX4607 (2017 check)	6.8 ab	S
Dyna-Gro SX17846XS (2017 check)	4.1 cde	MR
AgriGold G4440RX	6.2 abc	MS
AgriGold G4579RX	1.0 g-k	R
AgriGold G4605RX	0.0 k	R
AGS GS 46X17	0.9 g-k	R
Armor 42-D27 (ARX4207)	1.8 e-k	R
Armor X45D50	0.0 k	R
Armor X46D63	0.8 g-k	R
Asgrow AG42X9	2.1 e-k	R
Asgrow AG43X7	3.1 d-g	MR
Asgrow AG43X8	0.9 g-k	R
Asgrow AG45X8	1.2 g-k	R
Asgrow AG46X6	0.2 k	R
Croplan RX 4217 S	0.6 jk	R
Croplan RX 4500 S	1.6 f-k	R
Croplan RX4687S	6.4 abc	MS
Delta Grow DG 4670 RR2	2.0 e-k	R
Delta Grow DG 46X25RR2 Xtend	0.0 k	R
Dyna-Gro S41XS98	0.8 g-k	R
Dyna-Gro S45XS37	0.0 k	R
Dyna-Gro S45XS66	2.6 d-j	R
Dyna-Gro SX18845XT	0.3 jk	R
Great Heart GT-4628X	3.8 def	MR
Great Heart GT-4685XS	1.6 f-k	R
Local Seed Co. LS4487XS	3.0 d-i	MR
Local Seed Co. LS4565XS	1.2 g-k	R
Local Seed Co. LS4583X	0.4 jk	R
Local Seed Co. LS4677X	0.4 jk	R
Local Seed Co. LS4689X	1.4 g-k	R
Mission Seed Solutions A4447NS	7.3 a	S
Mission Seed Solutions A4637NS	7.0 a	S
Mission Seed Solutions A4608X	1.0 g-k	R
Mission Seed Solutions A4618X	0.8 g-k	R
MorSoy MS 4426 RXT	4.5 bcd	MR
MorSoy MS 4616 RXT	1.0 g-k	R
NK Seeds S43-V3X	1.1 g-k	R
NK Seeds S45-J3X	3.1 d-g	MR
NK Seeds S45-K5X	0.3 jk	R
Pioneer P42A96X	0.8 g-k	R
Pioneer P46A16R	1.1 g-k	R
Pioneer P46A57BX	1.1 g-k	R
Progeny P4255RX	6.4 abc	MS
Progeny P4318RX	1.2 g-k	R
Progeny P4444RXS	0.6 jk	R
Progeny P4570RXS	0.7 jk	R
Progeny P4620RXS	0.6 jk	R
Terral REV 4679X	0.0 k	R
Univ. of Missouri R14-15146R	0.1 g-k	R
USG 7447XTS	8.3 a	S
LSD (0.05)	2.3	
CV (%)	80.9	
P-value for F-statistic	<0.0001	

[1]Stem Canker Reaction — eight 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.

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

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

Table 80. Response of Maturity Group IV Late Soybean Cultivars to Stem Canker, 2018.

Cultivar	Stem canker rating[1,2]	Cultivar designation[3]
Dyna-Gro 39RY43 (check)	—	—
AgriGold G4990RX (2017 check)	5.5 a	MR
Dyna-Gro S49XS88 (2017 check)	3.6 bc	MR
AgriGold G4995RX	1.4 def	R
AGS GS 48X18	0.5 ef	R
Armor 47-D17	**1.0 ef**	**R**
Armor 48-D24	**0.0 f**	**R**
Armor X47D22	1.8 de	R
Armor X48D02	1.0 ef	R
Armor X49D31	0.3 ef	R
Asgrow AG47X9	0.0 f	R
Asgrow AG48X9	0.0 f	R
Asgrow AG49X9	0.0 f	R
Croplan RX4825	0.0 f	R
Croplan RX4927	0.6 ef	R
Delta Grow DG 4790 RR2	0.3 ef	R
Delta Grow DG 48X45RR2 Xtend	0.7 ef	R
Dyna-Gro S48XT56	0.0 f	R
Dyna-Gro S49XT39	0.3 ef	R
GoSoy 49G16	2.7 cd	MR
Great Heart GT-4721X	1.3 def	R
Great Heart GT-4809X	0.0 f	R
Great Heart GT-4833XS	0.4 ef	R
Great Heart GT-4979X	0.2 ef	R
Local Seed Co. AV47W2X	0.1 ef	R
Local Seed Co. AV49W3X	0.0 f	R
Local Seed Co. LS4889XS	0.9 ef	R
Local Seed Co. LS4966X	0.1 ef	R
Local Seed Co. LS4968XS	0.0 f	R
Local Seed Co. LS4988X	0.1 ef	R
Mission Seed Solutions MEX4808	0.2 ef	R
Mission Seed Solutions MEX4908	0.0 f	R
MorSoy MS 4846 RXT	0.2 ef	R
NK Seeds S48-R2X	0.0 f	R
Petrus Seed 479 GTS	1.5 def	R
Petrus Seed 4916 GT	4.8 ab	MS
Pioneer 48A32X	**0.0 f**	**R**
Pioneer P48A60X	0.0 f	R
Progeny P4757RY	0.3 ef	R
Progeny P4799RXS	0.0 f	R
Progeny P4816RX	0.0 f	R
Progeny P4851RX	0.0 f	R
Progeny P4955RX	0.3 ef	R
Progeny P4994RX	0.2 ef	R
Terral REV 47A98	0.0 f	R
Terral REV 4857X	0.0 f	R
Terral REV 48A26	1.3 def	R
Terral REV 4927X	1.2 def	R
Univ. of Missouri S14-15138R	0.0 f	R
Univ. of Missouri S14-9051R	0.0 f	R
USG 7489XT	0.0 f	R
USG 7496XT	0.0 f	R
LSD (0.05)	1.7	
CV (%)	183.0	
P-value for F-statistic	<0.0001	

[1]Stem Canker Reaction — eight 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.

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

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

Table 81. Response of Maturity Group V Early Soybean Cultivars to Stem Canker, 2018.

Cultivar	Stem canker rating[1,2]	Cultivar designation[3]
Great Heart Seed GT-5022XS (check)	2.8 d	MR
Armor ARX5107 (2017 check)	4.9 bc	MS
Asgrow AG51X8 (2017 check)	6.4 a	MS
AgriGold G5000RX	0.2 e	R
AgriGold G5288RX	0.0 e	R
AGS GS 51X18S	0.0 e	R
Armor 53-D04	**0.0 e**	**R**
Armor X50D13	0.0 e	R
Armor X51D77	0.0 e	R
Armor X52D71	0.1 e	R
Armor X55D57	0.0 e	R
Asgrow AG52X9	0.4 e	R
Asgrow AG53X9	0.2 e	R
Asgrow AG54X9	0.2 e	R
Asgrow AG55X7	0.3 e	R
Croplan(Mid-south) RX 5016 S	0.0 e	R
Delta Grow DG 5170 RR2/STS	0.5 e	R
Delta Grow DG 52X15 Xtend	0.0 e	R
Dyna-Gro S52XT08	0.5 e	R
Dyna-Gro S56XT99	0.0 e	R
Dyna-Gro SX18652XS	0.2 e	R
Dyna-Gro SX18854XT	0.1 e	R
GoSoy 50G17	0.9 e	R
GoSoy 54G16	5.5 ab	MS
Great Heart GT-5324X	0.0 e	R
Local Seed Co. LS5087X	0.3 e	R
NK Seeds S50-G9XS	1.0 e	R
NK Seeds S52Y7X	**0.6 e**	**R**
NK Seeds S56B7X	**0.0 e**	**R**
Pioneer 54A54X	**0.3 e**	**R**
Pioneer 55A49X	**0.3 e**	**R**
Pioneer P54A75X	0.1 e	R
Progeny P5016RXS	0.7 e	R
Progeny P5018RX	0.0 e	R
Progeny P5226RYS	0.0 e	R
Progeny P5252RX	0.4 e	R
Progeny P5279RXS	0.0 e	R
Progeny P5554RX	0.0 e	R
Progeny P5688RX	4.0 c	R
Terral REV 51A56	0.5 e	R
Terral REV 52A98	0.4 e	R
Terral REV 55A67	0.0 e	R
Terral REV 56A58	0.1 e	R
Univ. of Arkansas R14-14797 RR	0.2 e	R
Univ. of Missouri S14-9017R	0.0 e	R
LSD (0.05)	1.0	
CV (%)	112.3	
P-value for F-statistic	<0.0001	

[1]Stem Canker Reaction — eight 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.

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

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

Table 82. Response of Maturity Group V Late Soybean Cultivars to Stem Canker, 2018.

Cultivar	Stem canker rating[1,2]	Cultivar designation[3]
Dyna-Gro S57RY26 (check)	0.1	R
Univ. of Arkansas UA 5715GT (R07-6614RR) (2017 check)	0.2	R
USG 75B75R (2017 check)	0.4	R
Progeny P5752RY	0.3	R
USG 75B75R	0.3	R
LSD (0.05)	0.6	
CV (%)	176.8	
P-value for F-statistic	0.8716	

[1]Stem Canker Reaction — eight 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.
[2]Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD (P=0.05).
[3]By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible, and 7 = Susceptible.

Table 83. Response of Maturity Group IV LibertyLink Soybean Cultivars to Stem Canker, 2018.

Cultivar	Stem canker rating[1,2]	Cultivar designation[3]
Dyna-Gro 4567LL (check)	4.2 a	MR
Delta Grow DG4781 LL (2017 check)	1.5 bcd	R
Credenz CZ 3601 LL	2.6 ab	MR
Credenz CZ 3841 LL	2.0 bc	R
Credenz CZ 4105 LL	1.6 bcd	R
Credenz CZ 4222 LL	1.4 bcd	R
Credenz CZ 4308 LL	0.8 cd	R
Credenz CZ 4540 LL	0.0 d	R
Credenz CZ 4548 LL	0.0 d	R
Credenz CZ 4649 LL	0.6 cd	R
Credenz CZ 4748 LL	1.2 bcd	R
Credenz CZ 4820 LL	1.0 cd	R
Credenz CZ 4918 LL	0.5 cd	R
Credenz CZ 4938 LL	0.0 d	R
Delta Grow DG 4587 LL/STS	0.0 d	R
Delta Grow DG 4977 LL/STS	1.5 bcd	R
Dyna-Gro S45LL97	0.0 d	R
Dyna-Gro S49LL34	0.0 d	R
GoSoy 49L17	**0.1 d**	**R**
Pioneer P44A08L	0.2 d	R
Pioneer P47A76L	0.0 d	R
Terral REV 46L99	0.4 cd	R
Terral REV 47L38	0.0 d	R
Terral REV 49L88	0.0 d	R
LSD (0.05)	1.6	
CV (%)	144.7	
P-value for F-statistic	<0.0001	

[1]Stem Canker Reaction — eight 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.
[2]Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD (P=0.05).
[3]By 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 V LibertyLink Soybean Cultivars to Stem Canker, 2018.

Cultivar	Stem canker rating[1,2]	Cultivar designation[3]
Dyna-Gro 4567LL (check)	1.3	R
Dyna-Gro S52LL66 (2017 check)	0.1	R
Dyna-Gro S55LS75 (2017 check)	0.3	R
Credenz CZ 5147 LL	0.0	R
Credenz CZ 5150 LL	0.0	R
Credenz CZ 5225 LL	0.0	R
Credenz CZ 5242 LL	0.0	R
Credenz CZ 5328 LL	0.0	R
Credenz CZ 5445 LL	0.3	R
GoSoy 5115LL	**0.5**	**R**
LSD (0.05)	0.9	
CV (%)	249.7	
P-value for F-statistic	0.1128	

[1]Stem Canker Reaction — eight 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.
[2]Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD (P=0.05).
[3]By 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, 2018.

Cultivar	Stem canker rating[1,2]	Cultivar designation[3]
J77-339 (check)	2.7 abc	MR
Univ. of Missouri S14-6391C (2017 check)	0.5 bcd	R
Virtue Seeds 2987331	0.6 a-d	R
Virtue Seeds 2987416	0.1 d	R
GoSoy 43C17S	3.2 a	MR
GoSoy E4510S	3.1 a	MR
GoSoy Ireane	0.0 d	R
Univ. of Missouri S13-10590C	3.0 ab	MR
Univ. of Missouri S13-10592C	0.6 a-d	R
Univ. of Missouri S13-2743C	0.3 cd	R
Univ. of Missouri S13-3851C	2.3 a-d	R
LSD (0.05)	2.6	
CV (%)	121.2	
P-value for F-statistic	0.0436	

[1]Stem Canker Reaction — eight 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.
[2]Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD (P=0.05).
[3]By 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 V Conventional Soybean Cultivars to Stem Canker, 2018.

Cultivar	Stem canker rating[1,2]	Cultivar designation[3]
J77-339 (check)	4.0 a	MR
Univ. of Missouri S11-17025 (2017 check)	1.9 bc	R
GoSoy 51C17	0.2 c	R
GoSoy 53C16	1.3 bc	R
GoSoy 56C16	0.2 c	R
Univ. of Missouri M05201D CONV	0.0 c	R
Univ. of Missouri S11-20242C	2.2 ab	R
Univ. of Missouri S13-1955C	1.6 bc	R
Univ. of Missouri S15-10434C	1.6 bc	R
LSD (0.05)	2.0	
CV (%)	95.0	
P-value for F-statistic	0.0101	

[1]Stem Canker Reaction — eight 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.
[2]Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD (P=0.05).
[3]By 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 87. Plant Characteristics of Maturity Group IV Early Roundup Ready Soybean Varieties.

Brand	Variety	Color				Seeds[1]	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I[2]	RM[3]
AgriGold	G4605RX	Purple	Tan	Tawny	Black	2520	—	4.6
AgriGold	G4440RX	Purple	Brown	Gray	Black	2921	—	4.4
AgriGold	G4579RX	Purple	Gray	Brown	Black	2614	—	4.5
AGS	GS 46X17	Purple	Brown	Light Tawny	Black	2636	—	4.6
Armor	42-D27	—	—	—	—	2650	—	4.2
Armor	X45D50	—	—	—	—	2979	—	4.5
Armor	X46D63	—	—	—	—	2620	—	4.6
Asgrow	AG42X9	Purple	Brown	Tawny	Black	2590	—	4.2
Asgrow	AG43X7	Purple	Brown	Light Tawny	Black	2750	—	4.3
Asgrow	AG43X8	White	Brown	Light Tawny	Black	2600	—	4.3
Asgrow	AG45X8	Purple	Brown	Light Tawny	Black	2890	—	4.5
Asgrow	AG46X6	Purple	Brown	Tawny	Black	2350	—	4.6
Cropland	RX 4217 S	White	Tan	Gray	Buff	3270	I	4.2
Cropland	RX 4500 S	Purple	Brown	Light Tawny	Black	2940	I	4.5
Croplan	RX4687S	White	Brown	Light Tawny	Black	2540	D/I	4.6
Delta Grow	DG 4670 RR2	Purple	Brown	Light Tawny	Black	2430	I	4.6
Delta Grow	DG 46X25RR2 Xtend	Purple	Brown	Light Tawny	Black	2925	I	4.6
Dyna-Gro	S41XS98	Purple	Tan	Gray	Imp. Black	2872	I	4.1
Dyna-Gro	S45XS37	White	Brown	Tawny	Black	3281	I	4.5
Dyna-Gro	S45XS66	Purple	Brown	Light Tawny	Black	2917	I	4.5
Dyna-Gro	SX18845XT	Purple	Brown	Light Tawny	Black	2857	I	4.5
Great Heart Seed	GT-4628X	Purple	—	Tawny	Black	2584	I	4.6
Great Heart Seed	GT-4685XS	Purple	—	Gray	Buff	2583	I	4.6
Local Seed Co.	LS4487XS	Purple	—	Light Tawny	Black	3071	—	4.4
Local Seed Co.	LS4677X	—	—	—	—	2986	—	4.6
Local Seed Co.	LS4565XS	White	—	Tawny	Black	2826	—	4.5
Local Seed Co.	LS4583X	Purple	—	Light Tawny	Black	2883	—	4.5
Local Seed Co.	LS4689X	Purple	—	Tawny	Black	2468	—	4.6
Mission Seed Solutions	A4447NSXR2	Purple	Brown	Light Tawny	Black	2800	I	4.4
Mission Seed Solutions	A4637NSXR2	White	Brown	Light Tawny	Black	2800	I	4.6
Mission Seed Solutions	A4608X	Purple	Tan	Tawny	Black	2700	I	4.6
Mission Seed Solutions	A4618X	Purple	Brown	Gray	Buff	2800	I	4.6
MorSoy	MS 4426 RXT	White	Brown	Light Tawny	Black	3009	—	4.4
MorSoy	MS 4616 RXT	White	Brown	Tawny	Black	3095	—	4.6
NK Seeds	S43-V3X	Purple	Tan	Light Tawny	Black	2952	—	4.3
NK Seeds	S45-J3X	Purple	Brown	Gray	Black	2728	—	4.5
NK Seeds	S45-K5X	Purple	Tan	Light Tawny	Brown	2778	—	4.5
Pioneer	P42A96X	White	Tan	Light Tawny	Tan	2720	—	4.2
Pioneer	P46A57BX	White	Brown	Light Tawny	Brown	2960	—	4.6
Pioneer	P46A16R	White	Brown	Gray	Buff	2920	—	4.6
Progeny Ag.	P4255RX	Purple	Tan	Gray	Imp. Black	2995	—	4.2
Progeny Ag.	P4318RX	White	Tan	Gray	Buff	3304	—	4.3
Progeny Ag.	P4444RXS	Purple	Brown	Light Tawny	Black	2802	—	4.4
Progeny Ag.	P4570RXS	Purple	Brown	Gray	Buff	2618	—	4.5
Progeny Ag.	P4620RXS	White	Brown	Tawny	Black	2869	—	4.6
Terral	REV 4679X	Purple	Tan	Tawny	Black	2951	I	4.6
U. of Missouri	S14-15146R	White	Tan	Tawny	Black	2890	I	4.6
USG	7447XTS	White	Brown	Light Tawny	Black	2934	I	4.4

[1]Represents an average number of seed per pound; seed may vary according to season and location.
[2]D = determinate; I = indeterminate.
[3]Relative 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 88. Plant Characteristics of Maturity Group IV Late Roundup Ready Soybean Varieties.

Brand	Variety	Color				Seeds[1]	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I[2]	RM[3]
AgriGold	G4995RX	Purple	Tan	Light Tawny	Black	2754	—	4.9
AGS	GS 48X18	White	Tan	Light Tawny	Black	3200	—	4.8
Armor	X47D22	—	—	—	—	3000	—	4.7
Armor	X49D31	—	—	—	—	2952	—	4.9
Armor	X48D02	—	—	—	—	2500	—	4.8
Asgrow	AG47X9	Purple	Brown	Light Tawny	Black	3000	—	4.7
Asgrow	AG48X9	Purple	Tan	Light Tawny	Black	2500	—	4.8
Asgrow	AG49X9	Purple	Brown	Light Tawny	Black	2470	—	4.9
Croplan	RX4825	Purple	Tan	Light Tawny	Black	2190	D/I	4.8
Croplan	RX4927	Purple	Brown	Light Tawny	Black	2425	I	4.9
Delta Grow	DG 48X45RR2 Xtend	Purple	Tan	Light Tawny	Black	2809	I	4.8
Delta Grow	DG 4790 RR2	White	Brown	Light Tawny	Black	2848	I	4.7
Dyna-Gro	S48XT56	Purple	Tan	Light Tawny	Black	2356	I	4.8
Dyna-Gro	S49XT39	Purple	Brown	Gray	Imp. Black	2887	I	4.9
GoSoy	49G16	Purple	Tan	Tawny	Black	3477	—	4.9
Great Heart Seed	GT-4721X	Purple	—	Light Tawny	Black	2600	I	4.7
Great Heart Seed	GT-4833XS	Purple	—	Light Tawny	Black	2454	I	4.8
Great Heart Seed	GT-4979X	Purple	—	Light Tawny	Black	2649	I	4.9
Great Heart Seed	GT-4809X	White	—	Light Tawny	Black	3335	I	4.8
Local Seed Co.	AV47W2X	White	—	Gray	Buff	3057	—	4.7
Local Seed Co.	LS4966X	Purple	—	Light Tawny	Black	2352	—	4.8
Local Seed Co.	LS4889XS	Purple	—	Light Tawny	Black	2484	—	4.8
Local Seed Co.	AV49W3X	—	—	—	—	2753	—	4.9
Local Seed Co.	LS4968XS	Purple	—	Light Tawny	Black	2716	—	4.9
Local Seed Co.	L4988X	Purple	—	Gray	Imp. Black	2708	—	4.9
Mission Seed Solutions	MEX4908	Purple	Tan	Light Tawny	Black	2800	I	4.9
Mission Seed Solutions	MEX4808	Purple	Brown	Light Tawny	Black	2600	I	4.8
MorSoy	MS 4846 RXT	Purple	Tan	Light Tawny	Black	2170	D/I	4.8
NK Seeds	S48-R2X	Purple	Tan	Light Tawny	Black	2976	—	4.8
Petrus Seed	479 GTS	White	Tan	Tawny	Black	3200	I	4.7
Petrus Seed	4916 GT	Purple	Tan	Tawny	Black	3300	D/I	4.9
Pioneer	P46A60X	Purple	Brown	Light Tawny	Black	2975	—	4.8
Progeny Ag.	P4757RY	White	Brown	Light Tawny	Black	2505	—	4.7
Progeny Ag.	P4799RXS	White	Brown	Light Tawny	Black	2478	—	4.7
Progeny Ag.	P4816RX	Purple	Tan	Light Tawny	Black	2240	—	4.8
Progeny Ag.	P4851RX	Purple	Brown	Light Tawny	Black	2641	—	4.8
Progeny Ag.	P4955RX	Purple	Brown	Gray	Imp. Black	2834	—	4.9
Progeny Ag.	P4994RX	White	Brown	Light Tawny	Brown	2494	—	4.9
Terral	REV 4927X	Purple	Brown	Light Tan	Black	2886	I	4.9
Terral	REV 4857X	White	Brown	Gray	Black	3018	I	4.8
Terral	REV 48A26	Purple	Brown	Light Tan	Black	2660	I	4.8
Terral	REV 47A98	White	Brown	Gray	Buff	2437	I	4.7
U. of Missouri	S14-9051R	White	Tan	Gray	Buff	2785	I	4.7
U. of Missouri	S14-15138R	White	Tan	Tawny	Black	2835	I	4.8
USG	7489XT	Purple	Tan	Light Tawny	Black	2319	I	4.8
USG	7496XTS	Purple	Brown	Light Tawny	Black	2609	I	4.9

[1]Represents an average number of seed per pound; seed may vary according to season and location.
[2]D = determinate; I = indeterminate.
[3]Relative 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 89. Plant Characteristics of Maturity Group V Early Roundup Ready Soybean Varieties.

Brand	Variety	Color				Seeds[1]	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I[2]	RM[3]
AgriGold	G5000RX	Purple	Brown	Light Tawny	Black	2929	—	5
AgriGold	G5288RX	Purple	Tan	Light Tawny	Black	2770	—	5.2
AGS	GS 51X18S	White	Tan	Gray	Imp. Black	3172	—	5.1
Armor	X50D13	—	—	—	—	2770	—	5
Armor	X51D77	—	—	—	—	3088	—	5.1
Armor	X52D71	—	—	—	—	2796	—	5.3
Armor	X55D57	—	—	—	—	2564	—	5.5
Asgrow	AG52X9	Purple	Tan	Light Tawny	Black	2790	—	5.2
Asgrow	AG53X9	Purple	Tan	Gray	Imp. Black	2520	—	5.3
Asgrow	AG54X9	Purple	Brown	Tawny	Black	2680	—	5.4
Asgrow	AG55X7	White	Tan	Tawny	Black	2880	—	5.5
Cropland	RX 5016 S	Purple	Brown	Light Tawny	Black	2930	I	5
Delta Grow	DG 5170 RR2/STS	Purple	Tan	Light Tawny	Black	2565	I	5.1
Delta Grow	DG 52X15 Xtend	—	—	—	—	2619	—	—
Dyna-Gro	S52XT08	White	Brown	Tawny	Black	2705	D	5.2
Dyna-Gro	SX18854XT	Purple	Tan	Tawny	Black	2518	D	5.4
Dyna-Gro	S56XT99	White	Tan	Tawny	Black	2470	D	5.6
Dyna-Gro	SX18652XS	White	Tan	Gray	Buff	2816	I	5.2
GoSoy	50G17	Purple	Tan	Tawny	Black	2802	—	5
GoSoy	54G16	—	—	—	—	2709	—	5.4
Great Heart Seed	GT-5324X	White	—	Light Tawny	Black	2824	I	5.3
Local Seed Co.	LS5087X	Purple	—	Light Tawny	Black	2731	—	5.0
NK Seeds	S50-G9XS	Purple	Tan	Light Tawny	Black	2623	—	5
Pioneer	P54A75X	White	Brown	Tan	Brown	2870	—	5.4
Progeny Ag	P5016RXS	Purple	Brown	Light Tawny	Black	2955	—	5
Progeny Ag	P5018RX	Purple	Tan	Light Tawny	Black	2563	—	5
Progeny Ag	P5226RYS	Purple	Tan	Light Tawny	Black	2603	—	5.2
Progeny Ag	P5252RX	White	Tan	Gray	Buff	2626	—	5.2
Progeny Ag	P5279RXS	Purple	Brown	Gray	Imp. Black	2682	—	5.2
Progeny Ag	P5554RX	White	Tan	Tawny	Black	2439	—	5.5
Progeny Ag	P5688RX	White	Brown	Tawny	Black	2528	—	5.6
Terral	REV 51A56	Purple	Brown	Tawny	Black	2595	I	5.1
Terral	REV 52A98	White	Tan	Tawny	Black	2781	D	5.2
Terral	REV 55A67	White	Brown	Tawny	Black	3054	D	5.5
Terral	REV 56A58	Purple	Brown	Light Tan	Black	2715	D	5.6
U. of Arkansas	R14-14797 RR	Purple	Tan	Tawny	Black	3450	—	5.2
U. of Missouri	S14-9017R	White	Tan	Light Tawny	Black	2855	I	5.3

[1]Represents an average number of seed per pound; seed may vary according to season and location.
[2]D = determinate; I = indeterminate.
[3]Relative 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 90. Plant Characteristics of Maturity Group V Late Roundup Ready Soybean Varieties.

Brand	Variety	Color				Seeds[1]	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I[2]	RM[3]
Progeny Ag	P5752RY	Purple	Tan	Tawny	Brown	2764	—	5.7
USG	75B75R	Purple	Tan	Tawny	Brown	2820	D	5.7

[1]Represents an average number of seed per pound; seed may vary according to season and location.
[2]D = determinate; I = indeterminate.
[3]Relative 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 91. Plant Characteristics of Maturity Group IV LibertyLink Soybean Varieties.

Brand	Variety	Color				Seeds[1]	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I[2]	RM[3]
Credenz	CZ 4308 LL	Purple	Tan	Light Tawny	Black	2850	I	4.3
Credenz	CZ 4540 LL	White	Tan	Light Tawny	Black	3150	I	4.5
Credenz	CZ 4548 LL	Purple	Brown	Light Tawny	Black	3300	I	4.5
Credenz	CZ 4748 LL	White	Brown	Light Tawny	Black	2750	I	4.7
Credenz	CZ 4820 LL	White	Brown	Light Tawny	Black	2670	I	4.8
Credenz	CZ 4918 LL	Purple	Brown	Light Tawny	Black	2725	I	4.9
Credenz	CZ 4938 LL	Purple	Tan	Light Tawny	Imp. Black	2770	I	4.9
Credenz	CZ 3841 LL	—	—	—	—	2480	I	3.8
Credenz	CZ 4222 LL	Purple	Brown	Light Tawny	Black	3010	I	4.2
Credenz	CZ 4105 LL	White	Brown	Light Tawny	Black	2700	I	4.1
Credenz	CZ 3601 LL	—	—	—	—	2350	—	3.6
Credenz	CZ 4649 LL	Purple	Tan	Gray	Buff	2640	I	4.6
Delta Grow	DG 4977 LL/STS	Purple	Tan	Gray	Imp. Black	2827	I	4.9
Delta Grow	DG 4582 LL/STS	Purple	Brown	Light Tawny	Black	3138	I	4.5
Dyna-Gro	S45LL97	White	Brown	Gray	Buff	3505	I	4.5
Dyna-Gro	S49LL34	Purple	Tan	Gray	Imp. Black	2874	I	4.9
Pioneer	P44A08L	White	Brown	Light Tawny	Imp. Black	2808	—	4.4
Pioneer	P47A76L	Purple	Tan	Tawny	Black	2761	—	4.7
Terral	REV 47L38	Purple	Tan	Tawny	Black	2663	I	4.7
Terral	REV 49L88	White	Brown	Tawny	Black	2703	I	4.9
Terral	REV 46L99	White	Brown	Light Tan	Black	2500	I	4.6

[1]Represents an average number of seed per pound; seed may vary according to season and location.
[2]D = determinate; I = indeterminate.
[3]Relative 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 V LibertyLink Soybean Varieties.

Brand	Variety	Color				Seeds[1]	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I[2]	RM[3]
Credenz	CZ 5147 LL	Purple	Tan	Tawny	Black	3200	D	5.1
Credenz	CZ 5150 LL	Purple	Tan	Gray	Imp. Black	3025	D/I	5.1
Credenz	CZ 5225 LL	—	—	Tawny	—	2825	D	5.2
Credenz	CZ 5242 LL	Purple	Tan	Gray	Imp. Black	3350	D/I	5.2
Credenz	CZ 5445 LL	—	—	Tawny	—	3250	D	5.4
Credenz	CZ 5328 LL	—	—	—	—	2525	D	5.3

[1]Represents an average number of seed per pound; seed may vary according to season and location.
[2]D = determinate; I = indeterminate.
[3]Relative 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 Conventional Soybean Varieties.

Brand	Variety	Color				Seeds[1]	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I[2]	RM[3]
Virtue Seeds	2987416	White	Tan	Light Tawny	Black	2840	—	4.5
Virtue Seeds	2987331	White	Tan	Light Tawny	Brown	2726	—	4.7
GoSoy	43C17S	Purple	Brown	Tawny	Black	2886	—	4.3
GoSoy	E4510S	Purple	Brown	Tawny	Black	2306	—	4.5
GoSoy	Ireane	White	Tan	Gray	Buff	3000	—	4.9
U. of Missouri	S13-2743C	White	Gray	Tan	Buff	2965	I	4.3
U. of Missouri	S13-10590C	White	Tan	Tawny	Black	2820	I	4.3
U. of Missouri	S13-3851C	Purple	Tan	Light Tawny	Black	3290	I	4.4
U. of Missouri	S13-10592C	White	Tan	Tawny	Black	2820	I	4.5

[1]Represents an average number of seed per pound; seed may vary according to season and location.
[2]D = determinate; I = indeterminate.
[3]Relative 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 Conventional Soybean Varieties.

Brand	Variety	Color				Seeds[1]	Growth	
		Bloom	Pubescence	Pod wall	Hilum		D/I[2]	RM[3]
GoSoy	51C17	Purple	Tan	Gray	Imp. Black	3093	—	5.1
GoSoy	53C16	Purple	Tan	Tawny	Black	2457	—	5.3
GoSoy	56C16	White	Tan	Gray	Buff	3092	—	5.6
U. of Missouri	S11-20242C	White	Tan	Tawny	Black	3520	D/I	5.1
U. of Missouri	M05201D CONV	White	Tan	Light Tawny	Black	3265	D	5.3
U. of Missouri	S13-1955C	White	Tan	Tawny	Black	3195	D	5.5
U. of Missouri	S15-10434C	Purple	Tan	Tawny	Black	3750	—	5.5

[1]Represents an average number of seed per pound; seed may vary according to season and location.
[2]D = determinate; I = indeterminate.
[3]Relative 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 Arkansas

UA 5014C
UA 5814HP
OSAGE
R11-7999
R11-8346
R09-430
UA 5414RR
UA 5715GT

Seed Treatment – Apron Maxx

University of Missouri

S13-2743C
S13-10590C
S13-3851C
S14-9051R
S14-15146R
S14-6391C
S13-1805C
S14-9017R
S13-1955C

Seed Treatment – CruiserMaxx Advanced

USDA Agricultural Research Service – Tennessee

JTN-5110

Seed Treatment – Apron Maxx + moly and Gaucho 600

Commercial Varieties Entered

Company	Variety				Seed treatment
Armor Seed LLC 183 Pennsylvania Ave. Waldenburg, AR 72475	Armor Armor Armor Armor Armor	42-D27 X45D50 X46D63 X47D22 X48D02	Armor Armor Armor Armor Armor	X49D31 X50D13 X51D77 X52D71 X55D57	
Bayer CropScience 3694 Sparta Rd. Holcomb, MS 38940	Credenz Credenz Credenz Credenz Credenz Credenz Credenz Credenz	CZ 4308 LL CZ 4540 LL CZ 4548 LL CZ 4649 LL CZ 4748 LL CZ 4820 LL CZ 4918 LL CZ 4938 LL	Credenz Credenz Credenz Credenz Credenz Credenz Credenz Credenz	CZ 5147 LL CZ 5150 LL CZ 5225 LL CZ 5242 LL CZ 5328 LL CZ 5445 LL CZ 3841 CZ 4222 LL	Poncho Votivo + Trilex 2000 + iLevo
Petrus Seed and Grain Co. Inc. 4100 Hanson Rd. Hazen, AR 72064	Petrus Seed	479 GTS	Petrus Seed	4916 GT	Innovate
Delta Grow Seed P.O. Box 219 England, AR 72046	Delta Grow Delta Grow Delta Grow Delta Grow	DG 4670 RR2 DG 4790 RR2 DG 5170 RR2/STS DG 4977 LL/STS	Delta Grow Delta Grow Delta Grow Delta Grow	DG 4582 LL/STS DG46X25RR2XTend DG48x45RR2XTend DG52x15 Xtend	CruiserMAXX
Dyna-Gro Seed 125 Robinson Rd. Houston, MS 38851	Dyna-Gro Dyna-Gro Dyna-Gro Dyna-Gro Dyna-Gro Dyna-Gro	S41XS98 S45XS37 S45XS66 SX18845XT S48XT56 S49XT39	Dyna-Gro Dyna-Gro Dyna-Gro Dyna-Gro Dyna-Gro Dyna-Gro	S52XT08 SX18652XS SX18854XT S56XT99 S45LL97 S49LL34	Equity VIP
Great Heart Seed 220 West Washington St. Paris, IL 61944	Great Heart Seed Great Heart Seed Great Heart Seed Great Heart Seed	GT-4628X GT-4721X GT-4685XS GT-4833XS	Great Heart Seed Great Heart Seed Great Heart Seed	GT-4979X GT-5324X GT-4809X	Great Start Max
Monsanto 800 N. Lindbergh Blvd. St. Louis, MO 63167	Asgrow Asgrow Asgrow Asgrow Asgrow Asgrow	AG42X9 AG43X7 AG43X8 AG45X8 AG46X6 AG47X9	Asgrow Asgrow Asgrow Asgrow Asgrow Asgrow	AG48X9 AG49X9 AG52X9 AG53X9 AG54X9 AG55X7	Poncho Votivo
Progeny Ag Products 1529 Hwy. 193 Wynne, AR 72396	Progeny Progeny Progeny Progeny Progeny Progeny Progeny Progeny Progeny Progeny	P4255RX P4318RX P4444RXS P4570RXS P4620RXS P4757RY P4799RXS P4816RX P4851RX P4955RX	Progeny Progeny Progeny Progeny Progeny Progeny Progeny Progeny Progeny Progeny	P4994RX P5016RXS P5018RX P5226RYS P5252RX P5279RXS P5554RX P5688RX P5752RY P5016RXS	
DuPont Pioneer 59 Greif Parkway, Suite 200 Delaware, OH 43015	Pioneer Pioneer Pioneer Pioneer	P44A08L P47A76L P42A96X P46A57BX	Pioneer Pioneer Pioneer	P48A60X P54A75X P46A16R	Apron + Gaucho
Stratton Seed Company 1530 Hwy. 79 South Stuttgart, AR 72160	GoSoy GoSoy GoSoy GoSoy GoSoy GoSoy	43C17S E4510S Ireane 51C17 53C16 56C16	GoSoy GoSoy GoSoy AGS AGS AGS	49G16 50G17 54G16 GS 46X17 GS 48X18 GS 51X18S	CRUISERMAXX VIBRANCE
Terral Seed, Inc. 117 Ellington Dr. Rayville, LA 71269	Terral Terral Terral Terral Terral Terral	REV 48A26 REV 47A98 REV 51A56 REV 52A98 REV 55A67 REV 56A58	Terral Terral Terral Terral Terral Terral	REV 4857X REV 4927X REV 47L38 REV 49L88 REV 46L99 REV 4679X	

UniSouth Genetics Inc. 3205-C Hwy. 46 South Dickson, TN 37055	USG USG	7489XT 7496XTS	USG USG	75B75R 7447XTS	Ipconazole/Metalaxyl/Thiabendazole
Land O Lakes/Winfield/Croplan P.O. Box 64131 St. Paul, MN 55164-0131	Croplan Croplan Croplan	RX4687S RX4825 RX4927			Warden CX
AgriGold Hybrids 5381 Akin Rd. St. Francisville, IL 62460	AgriGold AgriGold AgriGold	G4440RX G4579RX G4605RX	AgriGold AgriGold AgriGold	G4995RX G5000RX G5288RX	AgriShield F+I
SeedKoz 1725 Windward Concourse Suite 410 Alpharetta, GA 30005	MorSoy MorSoy MorSoy	MS 4426 MS 4616 MS 4846			
Mission Seed Solutions 516 N. Sharpe Ave. Cleveland, MS 38732	Mission Seed Solutions Mission Seed Solutions Mission Seed Solutions	A4447NSXR2 A4637NSXR2 A4608X	Mission Seed Solutions Mission Seed Solutions Mission Seed Solutions	A4618X MEX4808 MEX4908	Revize PBI
Mid South Farmers Co-op 1192 Hwy. 45 Guntown, MS 38849	Cropland Cropland Cropland	RX4217 S RX4500 S RX5016 S			Warden CX
GDM Seeds Inc. 4003 Commercial Center Dr. Marion, AR 72364	Virtue Virtue	2987416 2987331			CruiserMAXX
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	LS4487XS LS4677X LS4565XS LS4583X LS4689X AV47W2X	Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co Local Seed Co	LS4966X LS4889XS AV49W3X LS4968XS LS4988X LS5087X	TriusElite
NK Seeds 5210 State Road 945 Hickory, KY 42051	NK Seeds NK Seeds NK Seeds	S43-V3X S45-J3X S45-K5X	NK Seeds NK Seeds	S48-R2X S50-G9X	Clariva Complete + Mertect

TECHNICAL ADVISORY COMMITTEE

The Mississippi Soybean Promotion Board provided partial funding for this project.

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 77-79 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 77-79.

MS AGRICULTURAL AND
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George M. Hopper, Director **www.mafes.msstate.edu**