PERFORMANCE OF SOYBEANS IN ALABAMA, 2020

DEPT. SERIES NO. CSES2020: SOYBEAN
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CROP, SOIL & ENVIRONMENTAL SCIENCES
AUBURN UNIVERSITY, AUBURN AL
JANUARY 13, 2021

MISSION

The mission of the Alabama Variety Testing Program is to provide research-based, unbiased results on the performance of various crop hybrids, cultivars, and varieties to the agricultural community in our state. We are intent on conducting these trials in a manner that will result in maximum biological yield through methods common to the top-producing farms in Alabama. We are committed to providing this information in a rapid, timely manner for its use during the decision-making process. The success of the program rests upon our ability to help Alabama producers provide a safe, dependable source of food and fiber for all families as well as economic sustainability for theirs.

HOW TO INTERPRET RESULTS

The purpose of the variety trial data is to determine whether differences are due to genetic performance. These differences cannot be measured absolutely due to environmental field conditions (rainfall, temperatures, soil fertility, soil type, disease, insects, etc.). Yields may differ between plots of the same entry. This variation is accounted for using experimental design and statistics.

The least significant difference (LSD) is used to determine whether the observed differences between entries are real or are caused by random variation. When using the LSD, two entries may have numerically different values, but the values are not statistically different. When two entries are compared and the observed difference is larger than the LSD, the entries are considered statistically different. An alpha level of 0.10 is used, meaning that the differences observed are expected to be real 90% of the time.

The coefficient of variation (CV) is a measure used to compare the amount of random variation within a data set. The lower the CV, the more precise the data set.

Each table is organized in a manner that it is easy to read. The data is sorted from highest yielding to lowest. The bolded values are not statistically different from the highest yielding value.

A dark line in the table visually represents the test average. Any value above the line is equal to or greater than the test average. The numeric value for the test average is at the bottom of the tables.

Test results do not imply endorsement or recommendation by the Auburn University Variety Testing Program.

ACKNOWLEDGEMENT

DR. PAUL PATTERSON, DEAN AND DIRECTOR
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TABLE OF CONTENTS

SOUTH REGION

BREWTON AGRICULTURAL RESEARCH UNIT
BREWTON, AL

Malcomb Pegues, Director

Brad Miller, Associate Director

WEBSITE

Test by Maturity Group:

IV V VI VII-VIII

GULF COAST RESEARCH AND EXTENSION CENTER
FAIRHOPE, AL

Malcomb Pegues, Director

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WEBSITE

Test by Maturity Group:

IV V VI VII-VIII

CENTRAL REGION

E.V. SMITH RESEARCH AND EXTENSION CENTER PLANT BREEDING UNIT, SHORTER, AL

Jason Burkett, Associate Director

WEBSITE

Test by Maturity Group:

Early-IV

E.V. SMITH RESEARCH AND EXTENSION CENTER FIELD CROPS UNIT, SHORTER, AL

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Test by Maturity Group:

IV V VI VII-VIII

BLACK BELT RESEARCH AND EXTENSION CENTER MARION JUNCTION, AL

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Test by Maturity Group:

Sumter Soil: IV V VI VII-VIII

Vaiden Soil: IV V VI VII-VIII

NORTH REGION

TENNESSEE VALLEY RESEARCH AND EXTENSION CENTER
BELLE MINA, AL

Chet Norris, Director

David Harkins, Associate Director

WEBSITE

Test by Maturity Group:

Early-IV IV V-VI

SAND MOUNTAIN RESEARCH AND EXTENSION CENTER
CROSSVILLE, AL

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WEBSITE

Test by Maturity Group:

Early-IV IV V-VI

RATING DEFINITIONS

Maturity is the date when approximately 95% of the pods are ripe. Delayed leaf drop and green stems are not considered in assigning maturity.

TABLE 1 – LODGING, SHATTERING, AND QUALITY DEFINITIONS

Score (1-5)	Lodging	Shattering	Seed Quality
1	Almost all plants erect	No shattering	Very Good
2	All plants leaning slightly or a few plants down	1-10% shattered	Good
3	All plants leaning moderately (45%), or 25-50% of plants down	10-25% shattered	Fair
4	All plants leaning considerably, or 50-80% of plants down	25-20% shattered	Poor
5	Almost all plants down	Over 50% shattered	Very Poor

Table of Contents

MANAGEMENT

Moisture is recorded at the time of harvest and yields are standardized to 13.0% moisture for head to head comparison.

TABLE 2 - LOCATION SPECIFIC MANAGEMENT

Research Center	Tennessee Valley	Sand Mountain	E.V. Smith PBU	E.V. Smith FCU	Black Belt	Brewton	Gulf Coast
Location	Belle Mina	Crossville	Tallassee	Shorter	Marion Junction	Brewton	Fairhope
Region	North	North	Central	Central	Central	South	South
Maturity Groups	Early 4 Reg. 4-6	Early 4 Reg. 4-6	Early 4	Reg 4-8	Reg 4-8	Reg 4-8	Reg 4-8
Plant Date	Early 4 - Apr 28	May 11	April 28	MG 4 – May 6 MG 5 – June 1 MG 6-8 – June 12	Sumter – June 1 Vaiden – June 2	June 1	N/A
Harvest Date	Early 4 – see table MG 4 – Nov 3 MG5 – Nov 4	Nov 6	October 14	MG 4 – Oct 15 MG 5 – Nov 3 MG 6 – Nov 9 MG 7/8–Nov 20	N/A	MG 4 – Oct 20 MG 5-8 – Nov 2	N/A
Row Spacing	30 inches	30 inches	36 inches	36 inches	36 inches	36 inches	38 inches
Number of Replications	3	4	4	4	4	4	4
Plot Length	22	20	18	25	23	20	25
Population	146,520	161,172	149,233	127,776	140,149	138,887	161,768

Research Center	Tennessee Valley	Sand Mountain	E.V. Smith PBU	E.V. Smith FCU	Black Belt	Brewton	Gulf Coast
Soil Type	Decatur Silt Loam	Hartsell Fine Sandy Loam	Kalmia Loamy Sand	Compass Loamy Sand + Marvyn Sandy Loam	Sumter & Vaiden	Bennidale Fine Sandy Loam	N/A
Tillage	No-Till	No-Till	Conventional	Conventional	Conventional	Conventional	N/A
Fertilization	0N-40P-40K	None	0N-41P-0K	0N-137P-150K	0N-46P-60K	23N-58P-88K	N/A
Herbicides	Section Storm Valor	Prowl H2O TapOut Valor	Classic Prefix Prowl H2O Storm	Basagran Classic Dual Magnum Intensity Prowl Pursuit Reflex	Dual Magnum Liberty Roundup Section Valor	Fierce Storm	N/A
Insecticides	Beseige Tundra	Province	Besiege Endigo ZC Intrepid Edge	Besiege Dimilin Mustang Max	Acephate Bifenthrin	Bifenthrin Sherpa	N/A
Fungicides	Stratego YLD	None	Quadris	Froghorn Stratego YLD	Avaris	Stratego YLD	N/A
Test Conducted By	B. Durham D. Harkins	C. McElmoyl J. Bloodworth J. Clayton	J. Burkett N. Stockdale F. Jackson	S. Scott C. Ruff H. Mote R. Owens	J. Yeager	B. Miller B. Thompson J. Wyatt	M. Pegues J. Jones

Table of Contents

SEED SOURCES

TABLE 3 – SEED SOURCE, VARIETY NAME, AND REGIONS TESTED

Source	Source Location	Variety	Maturity
AgriGold	St. Francisville, Illinois	G4255RX	4.2
		G4318RX	4.3
		G4620RX	4.6
		G4820RX	4.8
		G4995RX	4.9
		G5288RX	5.2
BASF - Credenz	Lubbock, Texas	CX 5000X	5.0
		CZ 4570X	4.5
		CZ 4600X	4.6
		CZ 4730X	4.7
		CZ 4770X	4.7
		CZ 4810X	4.8
		CZ 4869X	4.8
		CZ 4979X	4.9
		CZ 5299X	5.2
		CZ 5420X	5.4
		CZ 5700X	5.7
		CZ 5859LL	5.8
		CZ 6020X	6.0
		CZ 6520LL	6.5
		CZ 6730LL	6.7
		CZ 6770X	6.7
		CZ 7007LL	7.0
		CZ 7380X	7.3
		CZ 7570	7.5
Bayer - Asgrow	St. Louis, Missouri	AG 43X0	4.3
		AG 46X0	4.6
		AG 48X9	4.8
		AG 49X0	4.9
		AG 49X9	4.9
		AG 53X0	5.3
		AG 64X8	6.4
		AG 69X0	6.9
Don Mario Seeds	Jonesboro, Arkansas	DM 47X39	4.7
		DM 48E73	4.8
		DM 49X13	4.9
		DM 59E01	5.1

Source	Source Location	Variety	Maturity
Local Seed Company	Memphis, Tennessee	LS4565XS	4.5
		LS4795XS	4.7
		LS4999X	4.9
		LS5009XS	5.0
		LS5087X	5.0
		LS5386X	5.3
		LS5797X	5.7
		LS6206X	6.2
		LS7099X	7.0
		LS7305X	7.3
		LS4806XS	4.8
		LS4607XS	4.6
		LS4706GL	4.7
		ZS4694E3S	4.6
		ZS5098E3	5.0
Nutrien Ag Solutions - Dyna-Gro	Bloomville, Ohio	S43XS70	4.3
		S46XS60	4.6
		S48XT40	4.8
		S48XT90	4.8
		S56XT99	5.6
		S58XT30	5.8
		S72XT80	7.2
		S74XT59	7.4
Stratton Seed Company	Stuttgart, Arkansas	AGS GS47X19	4.7
		AGS GS52X19S	5.2
		Go Soy 463E20S	4.6
		Go Soy 48C17S	4.8
		Go Soy 51E21	5.1
		Go Soy 60G19	6.0
		Go Soy GT Ireane	4.9
Syngenta - NK	Columbus, Mississippi	S44-C7X	4.4
		S47-Y9X	4.7
		S49-F5X	4.9
		S51-R3XS	5.1
		S53-F7X	5.3
		S69-P9X	6.9
		S72-G6X	7.2
UniSouth Genetics	Dickson, Tennessee	USG 7461XTS	4.6
		USG 7470XT	4.7
		USG 7489XT	4.8
		USG 7496XTS	4.9
		USG 7540XT	5.4

Source	Source Location	Variety	Maturity
University of Georgia	Athens, Georgia	G13-2842R2	6.0
		G13-3461R2	8.0
		G14-4364R2	7.0
University of Missouri	Columbia, Missouri	S15-3772RY	4.8
		S15-3847R	4.6
		S15-5904RY	4.5
		S16-11644C	4.9
		S16-11651C	5.3
		S16-14379C	4.8
		S16-14730C	4.7
		S16-15170C	5.3
		S16-3739RY	5.2
		S16-3747RY	5.0
		S16-5540R	4.6
		S16-7875C	4.9
		S16-7922C	4.9

Table of Contents

MATURITY GROUP IV
BREWTON AGRICULTURAL RESEARCH UNIT
BREWTON, AL

TABLE 4 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Lodging (1-5)	Seed per Pound	Seed Quality
S47-Y9X	**71.6**	32	1.0	2649	2.0
AGS GS47X19	**71.6**	33	1.3	2433	2.0
S49-F5X	**71.3**	31	1.3	2589	2.7
ZS4694E3S	**71.3**	31	1.0	2649	2.3
Go Soy GT Ireane	**70.3**	24	1.0	2897	2.0
LS4999X	**68.9**	35	1.3	2520	2.0
S16-11644C	**68.8**	25	1.0	2679	2.0
S16-7875C	**68.2**	26	1.0	2628	2.0
LS4607XS	**66.8**	37	2.0	2756	2.0
S15-3772RY	**66.6**	46	1.7	2600	2.0
S16-7922C	**66.5**	27	1.3	2755	2.0
LS4795XS	**66.3**	29	1.3	2664	2.0
LS4706GL	**66.1**	33	2.0	3027	2.0
S16-14379C	**65.5**	37	2.3	2608	2.0
LS4806XS	65.0	32	1.3	2525	2.0
S44-C7X	64.9	30	1.0	2550	2.7
S16-5540R	64.3	25	1.0	2638	2.0
LS4565XS	62.5	36	2.0	2910	2.0
Go Soy 463E20S	61.6	35	1.3	2474	2.3
S15-5904RY	61.2	36	1.0	2480	2.0
Go Soy 48C17S	60.4	24	1.0	2415	2.3
S15-3847R	59.8	39	1.3	2810	2.3
S16-14730C	59.6	32	1.3	2700	2.0
Average	66.0	32	1.3	2650	2.1
LSD @ 10% Level	6.5	3	0.6	143	N.S.
CV	9	17	38	7	17

Bolded yields are NOT statistically different from the highest yielding entry.
Bolded line in table indicates test average.
N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP V
BREWTON AGRICULTURAL RESEARCH UNIT
BREWTON, AL

TABLE 5 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Lodging (1-5)	Seed per Pound	Seed Quality
S53-F7X	**74**	37	1.3	2800	**2.0**
S51-R3XS	**71**	30	2.0	2837	**2.0**
CZ 5859LL	**71**	31	1.0	2588	**2.3**
DM 59E01	69	42	2.3	2885	**2.3**
LS5797X	68	27	1.0	2888	**2.0**
LS5009XS	68	36	2.0	2620	**2.0**
S16-3747RY	67	35	1.0	2404	**2.3**
CZ 5299X	67	37	2.0	3012	**2.0**
Go Soy 51E21	67	38	3.0	2712	3.0
AGS GS52X19S	66	37	2.3	3066	**2.0**
USG 7540XT	66	36	3.0	2847	**2.0**
LS5087X	65	36	1.7	2531	2.7
CZ 5700X	64	26	1.0	2746	**2.0**
S16-11651C	61	33	1.3	2871	**2.0**
ZS5098E3	60	44	1.7	2798	**2.3**
S16-15170C	60	31	1.0	2422	**2.0**
LS5386X	60	35	1.7	2702	**2.0**
S16-3739RY	59	33	1.0	2592	2.5
Average	66	35	1.7	2740	2.2
LSD @ 10% level	4	4	0.5	125	0.5
CV	7	15	43	7	18

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N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP VI
BREWTON AGRICULTURAL RESEARCH UNIT
BREWTON, AL

TABLE 6 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Seed per Pound	Seed Quality
G13-2842R2	**73.2**	28	2746	**2.0**
CZ 6770X	**71.2**	26	3026	**2.0**
AG 69X0	**71.2**	26	2627	**2.0**
CZ 6520LL	**70.1**	28	2520	**2.0**
LS6206XS	**70.0**	28	2669	**2.0**
AG 64X8	**68.7**	27	2950	**2.0**
S69-P9X	**68.4**	29	3556	**2.0**
CZ 6730LL	66.6	30	2912	**2.0**
CZ 6020X	64.8	27	3082	2.3
Go Soy 60G19	41.2	27	2566	3.0
Average	66.5	28	2865	2
LSD @ 10% level	5.4	3	186	0.3
CV	14	8	11	16

Bolded yields are NOT statistically different from the highest yielding entry.
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N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP VII-VIII
BREWTON AGRICULTURAL RESEARCH UNIT
BREWTON, AL

TABLE 7 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Seed per Pound	Seed Quality
CZ 7380X	70	28	2881	2.0
LS7099X	66	30	2812	2.0
CZ 7007LL	65	31	2896	2.0
CZ 7570	64	34	2591	2.0
G13-3461R2	64	27	2695	2.0
LS7305X	63	30	2671	2.0
S72-G6X	62	32	2836	2.3
G14-4364R2	62	30	2884	2.0
Average	65	30	2783	2.0
LSD @ 10% level	N.S.	2	N.S.	N.S.
CV	5	8	9	10

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N.S. –differences are statistically non-significant.

Table of Contents

GULF COAST RESEARCH AND EXTENSION CENTER
FAIRHOPE, AL

TABLE 8 – LOCATION SPECIFIC DATA

All Maturities IV, V, VI, VII-VIII
The Gulf Coast Research and Extension Center received damaging wind and rain from Hurricane Sally in mid-September. Due to the extent of the damage, soybean data from this location is not available.

Bolded yields are NOT statistically different from the highest yielding entry.
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Table of Contents

EARLY-PLANTED MATURITY GROUP IV
E.V. SMITH RESEARCH AND EXTENSION CENTER
PLANT BREEDING UNIT - SHORTER, AL

The Early Planted Maturity Group IV trial at the E.V. Smith Plant Breeding Unit was uniformly exposed to two herbicides, glyphosate and dicamba. Most of the entries in the trial were Extend soybeans and were not sensitive to the herbicides. However, there were twelve varieties that did not have resistance to one or both herbicides. Each exhibited visual symptoms of herbicide injury. One variety was damaged severely enough that it's data was omitted. The eleven remaining varieties yielded much better than anticipated, some were even statistically equal to the top yielding variety. It is unknown whether the injury observed significantly reduced yield in the eleven remaining varieties. Therefore, they are included in this table and identified with the type of herbicide(s) in which they are sensitive.

TABLE 9 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	% Maturity @ Desiccation	Herbicide Sensitivity
G4995RX	**88**	35	63	
LS4806XS	**84**	32	80	
DM 49X13	**83**	34	55	
DM 48E73	**82**	27	75	Dicamba
S16-5540R	**82**	27	73	Dicamba
CZ 4770X	**81**	32	58	
S48XT40	**79**	33	80	
S15-3772RY	78	32	65	Dicamba
USG 7496XTS	77	34	65	
CZ 4979X	76	33	63	
G4620RX	76	32	75	
USG 7461XTS	76	31	78	
S48XT90	75	31	60	
AG 49X0	74	34	50	
USG 7470XT	74	35	73	
S49-F5X	73	31	78	
CZ 4570X	73	31	68	
ZS4694E3S	73	29	85	Dicamba
S15-5904RY	73	31	68	Dicamba
CZ 4869X	73	35	85	
DM 47X39	72	32	63	
AG 48X9	71	33	85	
S16-14730C	70	27	78	Dicamba + Glyphosate
LS4607XS	69	32	80	
S15-3847R	68	35	65	Dicamba
S44-C7X	67	29	58	
LS4706GL	66	29	90	Dicamba
S16-14379C	66	30	68	Dicamba + Glyphosate
AG 46X0	65	30	88	
LS4795XS	65	32	88	
USG 7489XT	64	29	63	

Variety	Yield bushels per acre	Height inches	% Maturity @ Desiccation	Herbicide Sensitivity
AG 43X0	64	30	83	
AG 49X9	63	28	68	
LS4565XS	62	33	73	
S47-Y9X	62	29	78	
S16-7922C	60	16	40	Dicamba + Glyphosate
CZ 4600X	60	32	80	
G4820RX	59	30	55	
G4318RX	59	29	89	
LS4999X	58	32	83	
S16-7875C	56	16	40	Dicamba + Glyphosate
G4255RX	53	31	68	
Average	70	31	71	
LSD @ 10% Level	10	3	9	
CV	16	15	20	

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Table of Contents

MATURITY GROUP IV
E.V. SMITH RESEARCH AND EXTENSION CENTER
FIELD CROPS UNIT - SHORTER, AL

TABLE 10 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Lodging (1-5)	Maturity Day-Month
Go Soy GT Ireane	**59**	34	1.0	2-Oct
S16-7875C	**54**	35	1.5	30-Sep
Go Soy 48C17S	52	32	1.0	23-Sep
S16-5540R	52	34	1.8	20-Sep
LS4795XS	50	34	1.3	26-Sep
USG 7496XTS	49	36	1.0	3-Oct
S47-Y9X	49	33	1.0	23-Sep
S48XT40	48	34	1.0	27-Sep
LS4607XS	48	35	1.0	26-Sep
AGS GS47X19	48	35	1.0	29-Sep
ZS4694E3S	47	34	1.0	29-Sep
LS4806XS	47	30	1.0	30-Sep
S16-11644C	47	34	1.3	30-Sep
LS4999X	47	37	1.0	29-Sep
S16-7922C	46	35	1.8	29-Sep
S44-C7X	46	33	1.0	30-Sep
LS4565XS	45	37	1.3	2-Oct
S48XT90	45	34	1.3	7-Oct
USG 7461XTS	44	34	1.0	30-Sep
Go Soy 463E20S	44	37	1.3	29-Sep
USG 7470XT	44	37	1.0	26-Sep
S49-F5X	43	34	1.3	30-Sep
S15-3847R	43	38	1.0	25-Sep
LS4706GL	42	33	1.0	24-Sep
S16-14379C	42	37	1.8	30-Sep
S16-14730C	40	36	1.3	26-Sep
S15-5904RY	39	37	1.5	23-Sep
USG 7489XT	38	33	1.0	4-Oct
S15-3772RY	38	37	1.5	5-Oct
Average	46	35	1	28-Sep
LSD @ 10% Level	6	3	0.4	4 days
CV	15	8	33	2

Bolded yields are NOT statistically different from the highest yielding entry.
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N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP V

E.V. SMITH RESEARCH AND EXTENSION CENTER

FIELD CROPS UNIT - SHORTER, AL

TABLE 11 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Shatter (1-5)	Maturity Day-Month
LS5797X	**61**	29	1.0	17-Oct
CZ 5700X	**59**	26	1.0	16-Oct
CZ 5859LL	50	29	1.0	10-Oct
S56XT99	48	29	1.0	7-Oct
AGS GS52X19S	48	28	2.0	6-Oct
S53-F7X	47	31	1.0	7-Oct
USG 7540XT	46	29	1.5	5-Oct
S16-3747RY	45	29	1.0	12-Oct
CZ 5299X	45	28	1.5	7-Oct
Go Soy 51E21	44	28	1.0	13-Oct
S16-3739RY	44	30	1.0	9-Oct
AG 53X0	43	32	1.0	9-Oct
ZS5098E3	43	35	1.8	7-Oct
LS5386X	42	30	1.0	13-Oct
S16-11651C	42	34	1.3	7-Oct
LS5009XS	42	32	1.0	8-Oct
S51-R3XS	42	25	1.3	8-Oct
LS5087X	41	29	1.0	8-Oct
S16-15170C	37	30	1.0	7-Oct
Average	46	29	1.2	9-Oct
LSD @ 10% Level	3	2	0.3	2 days
CV	13	10	32	1

Bolded yields are NOT statistically different from the highest yielding entry.
Bolded line in table indicates test average.
N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP VI
E.V. SMITH RESEARCH AND EXTENSION CENTER
FIELD CROPS UNIT - SHORTER, AL

TABLE 12 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Maturity Day-Month
CZ 6020X	**54**	24	22-Oct
CZ 6730LL	**53**	25	26-Oct
CZ 6770X	**52**	29	24-Oct
LS6206XS	49	27	22-Oct
CZ 6520LL	44	28	25-Oct
Go Soy 60G19	26	25	14-Oct
Average	46	26	22-Oct
LSD @ 10% Level	5	2	4 days
CV	23	8	2

Bolded yields are NOT statistically different from the highest yielding entry.
Bolded line in table indicates test average.
N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP VII-VIII
E.V. SMITH RESEARCH AND EXTENSION CENTER
FIELD CROPS UNIT - SHORTER, AL

TABLE 13 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Maturity Day-Month
LS7099X	**50**	32	3-Nov
LS7305X	**48**	31	2-Nov
CZ 7380X	47	32	2-Nov
CZ 7570	39	34	4-Nov
CZ 7007LL	36	34	31-Oct
Average	44	32	2-Nov
LSD @ 10% Level	3	N.S.	1 day
CV	15	7	0.4

Bolded yields are NOT statistically different from the highest yielding entry.
Bolded line in table indicates test average.
N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP IV
SUMTER SOIL
BLACK BELT RESEARCH AND EXTENSION CENTER
MARION JUNCTION, AL

Soybeans at the Black Belt Research and Extension Center displayed uneven maturity within a plot as well as uneven maturity on individual plants, which caused a delay in harvest. This coupled with the onset of frequent fall rain events further delayed harvest. As a result, shattering increased and seed quality declined, ultimately making the Black Belt soybean trials not harvestable.

TABLE 14 – LOCATION SPECIFIC DATA

Variety	Iron Chlorosis (1-9)
AGS GS47X19	2.9
Go Soy 48C17S	4.6
Go Soy 463E20S	4.6
Go Soy GT Ireane	3.1
LS4565XS	4.3
LS4607XS	2.8
LS4706GL	3.4
LS4795XS	3.1
LS4806XS	3.9
LS4999X	3.8
S15-3772RY	3.9
S15-3847R	4.6
S15-5904RY	3.3
S16-5540R	4.0
S16-7875C	2.6
S16-7922C	3.6
S16-11644C	3.1
S16-14379C	2.6
S16-14730C	2.6
S44-C7X	3.6
S47-Y9X	3.6
S48XT40	3.4
S48XT90	4.1
S49-F5X	3.8
ZS4694E3S	4.4
Average	3.6
LSD @ 10% level	N.S.
CV	35

Bolded yields are NOT statistically different from the highest yielding entry.
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N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP V
SUMTER SOIL
BLACK BELT RESEARCH AND EXTENSION CENTER
MARION JUNCTION, AL

Soybeans at the Black Belt Research and Extension Center displayed uneven maturity within a plot as well as uneven maturity on individual plants, which caused a delay in harvest. This coupled with the onset of frequent fall rain events further delayed harvest. As a result, shattering increased and seed quality declined, ultimately making the Black Belt soybean trials not harvestable.

TABLE 15 – LOCATION SPECIFIC DATA

Variety	Iron Chlorosis (1-9)
AG 53X0	5.0
AGS GS52X19S	3.9
CZ 5299X	4.4
CZ 5700X	4.0
CZ 5859LL	4.4
DM 59E01	3.6
Go Soy 51E21	3.9
LS5009XS	4.1
LS5087X	4.4
LS5386X	3.8
LS5797X	4.4
S16-3739RY	3.6
S16-3747RY	4.4
S16-11651C	3.8
S16-15170C	4.0
S51-R3XS	3.0
S53-F7X	3.4
S56XT99	3.7
S58XT30	4.3
USG 7540XT	4.0
ZS5098E3	3.3
Average	4.0
LSD @ 10% level	N.S.
CV	25

Bolded yields are NOT statistically different from the highest yielding entry.
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N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP VI
SUMTER SOIL
BLACK BELT RESEARCH AND EXTENSION CENTER
MARION JUNCTION, AL

Soybeans at the Black Belt Research and Extension Center displayed uneven maturity within a plot as well as uneven maturity on individual plants, which caused a delay in harvest. This coupled with the onset of frequent fall rain events further delayed harvest. As a result, shattering increased and seed quality declined, ultimately making the Black Belt soybean trials not harvestable.

TABLE 16 – LOCATION SPECIFIC DATA

Variety	Iron Chlorosis (1-9)
CZ 6020X	2.9
CZ 6520LL	3.1
CZ 6730LL	3.7
CZ 6770X	3.8
Go Soy 60G19	3.9
LS6206XS	3.0
Average	3.4
LSD @ 10% level	N.S.
CV	29

Bolded yields are NOT statistically different from the highest yielding entry.
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N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP VII-VIII
SUMTER SOIL
BLACK BELT RESEARCH AND EXTENSION CENTER
MARION JUNCTION, AL

Soybeans at the Black Belt Research and Extension Center displayed uneven maturity within a plot as well as uneven maturity on individual plants, which caused a delay in harvest. This coupled with the onset of frequent fall rain events further delayed harvest. As a result, shattering increased and seed quality declined, ultimately making the Black Belt soybean trials not harvestable.

TABLE 17 – LOCATION SPECIFIC DATA

Variety	Iron Chlorosis (1-9)
CZ 6020X	2.9
CZ 6520LL	3.1
CZ 6730LL	3.7
CZ 6770X	3.8
Go Soy 60G19	3.9
LS6206XS	3.0
Average	3.4
LSD @ 10% level	N.S.
CV	29

Bolded yields are NOT statistically different from the highest yielding entry.
Bolded line in table indicates test average.
N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP IV
VAIDEN SOIL
BLACK BELT RESEARCH AND EXTENSION CENTER
MARION JUNCTION, AL

Soybeans at the Black Belt Research and Extension Center displayed uneven maturity within a plot as well as uneven maturity on individual plants, which caused a delay in harvest. This coupled with the onset of frequent fall rain events further delayed harvest. As a result, shattering increased and seed quality declined, ultimately making the Black Belt soybean trials not harvestable.

TABLE 18 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Lodging (1-5)	Maturity Day-Month

Bolded yields are NOT statistically different from the highest yielding entry.
Bolded line in table indicates test average.
N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP V

VAIDEN SOIL

BLACK BELT RESEARCH AND EXTENSION CENTER

MARION JUNCTION, AL

Soybeans at the Black Belt Research and Extension Center displayed uneven maturity within a plot as well as uneven maturity on individual plants, which caused a delay in harvest. This coupled with the onset of frequent fall rain events further delayed harvest. As a result, shattering increased and seed quality declined, ultimately making the Black Belt soybean trials not harvestable.

TABLE 19 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Lodging (1-5)	Maturity Day-Month

Bolded yields are NOT statistically different from the highest yielding entry.
Bolded line in table indicates test average.
N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP VI
VAIDEN SOIL
BLACK BELT RESEARCH AND EXTENSION CENTER
MARION JUNCTION, AL

Soybeans at the Black Belt Research and Extension Center displayed uneven maturity within a plot as well as uneven maturity on individual plants, which caused a delay in harvest. This coupled with the onset of frequent fall rain events further delayed harvest. As a result, shattering increased and seed quality declined, ultimately making the Black Belt soybean trials not harvestable.

TABLE 20 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Lodging (1-5)	Maturity Day-Month

Bolded yields are NOT statistically different from the highest yielding entry.
Bolded line in table indicates test average.
N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP VII-VIII
VAIDEN SOIL
BLACK BELT RESEARCH AND EXTENSION CENTER
MARION JUNCTION, AL

Soybeans at the Black Belt Research and Extension Center displayed uneven maturity within a plot as well as uneven maturity on individual plants, which caused a delay in harvest. This coupled with the onset of frequent fall rain events further delayed harvest. As a result, shattering increased and seed quality declined, ultimately making the Black Belt soybean trials not harvestable.

TABLE 21 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Lodging (1-5)	Maturity Day-Month

Bolded yields are NOT statistically different from the highest yielding entry.
Bolded line in table indicates test average.
N.S. –differences are statistically non-significant.

Table of Contents

EARLY-PLANTED MATURITY GROUP IV
TENNESSEE VALLEY RESEARCH AND EXTENSION CENTER
BELLE MINA, AL

TABLE 22 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Maturity Day-Month	Harvest Date Day-Month	Seed per Pound	Seed Quality
S16-7922C	**40**	37	1-Oct	21-Oct	3113	**2.0**
Go Soy GT Ireane	**39**	33	4-Oct	21-Oct	3253	**2.0**
S16-11644C	32	34	30-Sep	21-Oct	3420	**2.3**
S16-5540R	32	35	26-Sep	21-Oct	3130	**2.3**
S16-7875C	30	31	30-Sep	21-Oct	2967	**2.7**
S15-3772RY	29	32	25-Sep	14-Oct	3311	3.0
CZ 4600X	27	33	25-Sep	14-Oct	3679	**2.7**
S16-14379C	25	37	23-Sep	7-Oct	3285	3.0
Go Soy 48C17S	25	35	29-Sep	14-Oct	2813	**2.7**
S16-14730C	25	34	23-Sep	21-Oct	3925	**2.3**
S47-Y9X	25	30	23-Sep	21-Oct	3823	4.0
USG 7496XTS	24	37	24-Sep	7-Oct	3237	4.0
S15-5904RY	23	35	21-Sep	1-Oct	3407	**2.7**
AG 49X9	23	33	24-Sep	21-Oct	3516	3.3
S49-F5X	22	30	24-Sep	14-Oct	3373	4.3
DM 47X39	22	31	26-Sep	21-Oct	2925	4.0
S43XS70	22	37	2-Sep	1-Oct	4207	3.7
CZ 4730X	21	33	20-Sep	14-Oct	3773	3.3
USG 7461XTS	21	34	4-Sep	1-Oct	3505	3.0
CZ 4869X	21	37	19-Sep	1-Oct	3660	3.0
G4620RX	21	39	9-Sep	14-Oct	3899	3.3
USG 7489XT	21	34	26-Sep	21-Oct	3355	3.7
CZ 4770X	20	32	24-Sep	14-Oct	2880	3.7
G4820RX	20	34	27-Sep	21-Oct	3564	4.0
G4255RX	20	37	2-Sep	1-Oct	4194	4.0
LS4795XS	20	34	10-Sep	7-Oct	3702	3.7
DM 49X13	20	32	26-Sep	21-Oct	2997	4.3
S15-3847R	19	36	17-Sep	14-Oct	4330	**2.3**
AG 48X9	19	36	17-Sep	1-Oct	3291	3.7
AG 43X0	19	38	3-Sep	1-Oct	3762	**2.7**
ZS4694E3S	19	37	3-Sep	1-Oct	3887	**2.3**
G4995RX	19	36	22-Sep	21-Oct	3203	4.0
CZ 4979X	18	35	23-Sep	14-Oct	3568	3.0
S48XT90	18	30	23-Sep	21-Oct	3273	4.0
USG 7470XT	18	41	5-Sep	1-Oct	3912	**2.3**
LS4607XS	18	37	3-Sep	1-Oct	3882	3.0
AG 46X0	18	37	14-Sep	1-Oct	3557	3.3

Variety	Yield bushels per acre	Height inches	Maturity Day-Month	Harvest Date Day-Month	Seed per Pound	Seed Quality
AGS GS47X19	17	31	24-Sep	14-Oct	3198	4.7
AG 49X0	17	38	23-Sep	14-Oct	3080	4.0
S46XS60	17	34	16-Sep	7-Oct	3475	**2.3**
LS4806XS	16	37	5-Sep	1-Oct	3280	4.0
G4318RX	16	40	2-Sep	7-Oct	4400	3.3
S44-C7X	16	33	3-Sep	1-Oct	3874	**2.7**
CZ 4810X	15	32	14-Sep	14-Oct	3667	4.3
LS4999X	15	40	14-Sep	14-Oct	3620	3.7
LS4565XS	15	40	3-Sep	7-Oct	4838	3.7
CZ 4570X	14	33	10-Sep	7-Oct	3558	3.5
Go Soy 463E20S	13	40	2-Sep	1-Oct	3751	**2.3**
DM 48E73	9	35	2-Sep	1-Oct	4262	3.3
LS4706GL	8	33	1-Sep	1-Oct	4984	4.0
Average	21	35	16-Sep	.	3591	3.3
LSD @ 10% Level	5	4	5 days	.	548	0.9
CV	31	10	4	.	16	28

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Table of Contents

MATURITY GROUP IV

TENNESSEE VALLEY RESEARCH AND EXTENSION CENTER

BELLE MINA, AL

TABLE 23 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Lodging (1-5)	Maturity Day-Month	Seed per Pound	Seed Quality
S16-7922C	**43.6**	34	2.0	7-Oct	2747	**2.3**
USG 7496XTS	**42.9**	40	1.0	6-Oct	2738	3.0
USG 7461XTS	**40.6**	33	1.0	3-Oct	3084	3.3
LS4607XS	**39.2**	35	1.0	2-Oct	2883	3.0
G4995RX	39.0	36	1.0	4-Oct	2524	3.3
S46XS60	37.2	33	1.0	2-Oct	3006	3.3
S49-F5X	37.1	34	1.0	2-Oct	2693	4.0
G4620RX	36.4	35	1.0	5-Oct	2849	3.7
S16-11644C	36.3	40	1.7	4-Oct	2977	**2.0**
USG 7489XT	36.1	33	1.0	7-Oct	2370	4.0
S15-3847R	35.2	38	1.0	5-Oct	3484	**2.0**
S47-Y9X	35.2	31	1.0	30-Sep	3778	3.3
USG 7470XT	35.1	39	1.0	4-Oct	2649	3.3
S15-3772RY	34.6	36	1.0	3-Oct	3306	**2.7**
LS4806XS	34.2	35	1.0	4-Oct	2745	3.7
LS4999X	33.8	34	1.0	4-Oct	3149	3.3
S16-14730C	33.5	35	1.0	4-Oct	3015	3.0
S16-5540R	32.1	38	1.0	4-Oct	3031	**2.7**
S16-14379C	31.9	34	1.0	3-Oct	2834	3.0
LS4795XS	31.9	34	1.0	3-Oct	3125	3.7
G4820RX	31.7	33	1.0	4-Oct	2520	3.7
ZS4694E3S	31.7	35	1.0	1-Oct	3421	3.3
S16-7875C	30.8	37	2.0	4-Oct	3191	**2.3**
S48XT90	30.0	34	1.0	1-Oct	2891	3.7
LS4565XS	29.9	40	1.0	2-Oct	3528	3.7
S15-5904RY	29.2	34	1.0	30-Sep	3052	3.7
G4255RX	28.3	37	1.0	30-Sep	3313	3.7
S44-C7X	25.1	31	1.0	2-Oct	4212	4.0
G4318RX	21.7	34	1.0	30-Sep	3813	4.0
LS4706GL	21.0	31	1.0	30-Sep	3310	4.0
Average	33.5	35	1.1	3-Oct	3075	3.3
LSD @ 10% Level	4.6	3	0.1	2 days	643	0.8
CV	18	9	26	1	18	23

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N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP V-VI

TENNESSEE VALLEY RESEARCH AND EXTENSION CENTER

BELLE MINA, AL

TABLE 24 – LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches	Maturity Day-Month	Seed per Pound	Seed Quality
DM 59E01	49	39	7-Oct	2859	3.0
LS5009XS	48	41	7-Oct	2547	3.0
LS5386X	48	38	6-Oct	2443	3.0
LS5797X	47	37	11-Oct	2673	**2.0**
S56XT99	47	43	9-Oct	2502	**2.0**
CZ 5299X	47	36	5-Oct	2872	2.7
S16-11651C	45	39	7-Oct	3024	**2.0**
CZ 5420X	45	37	5-Oct	2547	3.0
LS5087X	44	37	3-Oct	2540	3.7
AGS GS52X19S	44	36	5-Oct	3093	3.0
USG 7540XT	44	35	6-Oct	2459	3.3
Go Soy 51E21	44	35	4-Oct	2853	3.3
AG 53X0	43	38	4-Oct	2825	**2.3**
S16-3739RY	42	39	7-Oct	3000	3.0
G5288RX	42	37	4-Oct	2622	3.0
S16-15170C	42	34	7-Oct	2604	3.0
S53-F7X	41	38	4-Oct	2829	4.0
ZS5098E3	41	41	4-Oct	3099	3.0
S16-3747RY	41	40	8-Oct	3207	3.3
S51-R3XS	41	34	5-Oct	2903	4.0
CX 5000X	38	37	4-Oct	2735	3.7
Go Soy 60G19	37	35	4-Oct	3197	3.3
Average	44	38	5-Oct	2792	3.0
LSD @ 10% Level	N.S.	3	3 days	348	0.5
CV	13	8	1	12	21

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N.S. –differences are statistically non-significant.

Table of Contents

EARLY-PLANTED MATURITY GROUP IV

SAND MOUNTAIN RESEARCH AND EXTENSION CENTER

CROSSVILLE, AL

TABLE 25 - LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches
CZ 4979X	**58.59**	29
S16-14379C	**58.52**	29
S49-F5X	**58.34**	26
DM 49X13	**56.43**	25
LS4706GL	**56.16**	26
DM 48E73	**56.01**	23
S16-14730C	**54.90**	25
S46XS60	**54.54**	26
Go Soy 48C17S	**54.35**	26
S15-3847R	**54.12**	27
S44-C7X	**53.61**	21
AG 48X9	**53.23**	26
LS4607XS	**53.17**	25
LS4806XS	**53.16**	26
G4995RX	**52.92**	28
USG 7461XTS	**52.41**	27
S48XT90	**52.20**	27
S16-11644C	**51.72**	27
CZ 4570X	**51.48**	27
S16-7922C	**51.23**	29
LS4565XS	**50.94**	30
Go Soy GT Ireane	**50.08**	22
S16-7875C	**50.07**	25
LS4795XS	**49.98**	25
S16-5540R	**49.47**	28
Go Soy 463E20S	**49.46**	27
AGS GS47X19	**49.27**	26
CZ 4810X	**49.09**	23
CZ 4770X	**48.66**	25
G4318RX	**48.51**	27
S15-5904RY	**48.48**	25
S43XS70	**47.89**	27
G4620RX	46.87	26
LS4999X	46.55	29
USG 7470XT	45.46	29
S15-3772RY	45.35	25
DM 47X39	45.08	24
CZ 4730X	44.61	25

Variety	Yield bushels per acre	Height inches
CZ 4600X	44.50	22
CZ 4869X	44.44	24
AG 49X9	43.43	21
AG 46X0	43.15	25
AG 43X0	43.10	22
AG 49X0	42.22	24
ZS4694E3S	41.41	24
G4820RX	41.37	24
USG 7489XT	39.96	22
USG 7496XTS	38.32	28
S47-Y9X	37.29	22
G4255RX	35.87	23
Average	48.96	25
LSD @ 10% Level	10.74	3
CV	20	13

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N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP IV
SAND MOUNTAIN RESEARCH AND EXTENSION CENTER
CROSSVILLE, AL

TABLE 26 - LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches
G4620RX	**60**	31
S15-3772RY	**59**	35
LS4795XS	**57**	29
S16-7922C	**55**	34
S16-11644C	**54**	31
S48XT90	**54**	29
LS4806XS	**54**	28
G4820RX	**54**	28
S16-14379C	**53**	32
LS4999X	**52**	33
G4995RX	**52**	31
USG 7489XT	51	29
LS4565XS	51	31
USG 7496XTS	51	30
ZS4694E3S	48	31
USG 7470XT	47	33
S47-Y9X	47	27
S44-C7X	47	26
S15-5904RY	47	29
USG 7461XTS	47	30
S46XS60	47	27
S16-14730C	46	29
S16-7875C	46	32
G4255RX	46	31
S15-3847R	46	30
S49-F5X	45	26
S16-5540R	45	31
LS4706GL	43	27
LS4607XS	41	28
G4318RX	41	30
Average	49	30
LSD @ 10% Level	9	3
CV	15	11

Bolded yields are NOT statistically different from the highest yielding entry.
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N.S. –differences are statistically non-significant.

Table of Contents

MATURITY GROUP V-VI
SAND MOUNTAIN RESEARCH AND EXTENSION CENTER
CROSSVILLE, AL

TABLE 27 - LOCATION SPECIFIC DATA

Variety	Yield bushels per acre	Height inches
ZS5098E3	**49**	31
S16-11651C	**48**	30
AGS GS52X19S	**47**	27
Go Soy 51E21	**47**	24
LS5009XS	**47**	28
S16-15170C	**47**	26
DM 59E01	**46**	31
S16-3739RY	**46**	27
G5288RX	**46**	25
S56XT99	**46**	27
AG 53X0	**46**	28
LS5386X	**45**	27
CZ 5420X	**45**	26
USG 7540XT	**44**	26
S53-F7X	42	20
CZ 5299X	41	19
LS5797X	41	26
LS5087X	41	25
S51-R3XS	40	20
S16-3747RY	40	28
Go Soy 60G19	38	24
CX 5000X	36	25
Average	44	26
LSD @ 10% Level	7	5
CV	14	18

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N.S. –differences are statistically non-significant.

Table of Contents

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