2015 SOYBEAN VARIETY TRIAL REPORT ROUNDUP READY, CONVENTIONAL AND LIBERTYLINK VARIETY TRIALS

Andy Taylor¹, M.P. Harrison¹, N.W. Buehring¹, Brad Burgess² and Tom W. Allen³

¹Northeast Branch Experiment Station; North Mississippi Research and Extension Center; Verona, MS 38879; ²MAFES Research Support Unit, Mississippi State University; ³Delta Research and Extension Center

ABSTRACT: One hundred-thirteen Roundup Ready and fifty-two Conventional/Liberty-Link soybean varieties were evaluated on a Leeper silty clay loam soil at Verona, MS in 2015. The Roundup Ready varieties were evaluated in separate maturity group (MG) studies (MG early IV, MG late IV, MG early V, and MG late V). The Conventional/Liberty-Link varieties were evaluated as MG IV and MG V studies. Rainfall was 153%, 114%, 58%, 151%, 205%, and 8% of normal for April, May, June, July, August, and September, respectively. Only slight lodging and little (less than 2%) or no shattering was observed at harvest in all studies. The tables also include 2011 -2015 yield results where applicable. The overall mean yield for Roundup Ready MG early IV, MG late IV, MG early V, and MG late V studies were 60.9, 59.6, 58.9, and 54.3 bu/ac, respectively. The overall mean yield for the Conventional/Liberty-Link Variety MG IV and MG V Trials were 58.3 and 58.1 bu/ac, respectively. The greatest conventional MG IV and MG V variety yields were 66.6 and 67.1 bu/ac, respectively. The greatest yield for Roundup Ready varieties across all maturity groups ranged from 62.0 to 71.7 bu/ac. The early MG IV varieties' yields ranged from 38.0 to 71.7 bu/ac. The late MG IV yields ranged from 47.9 to 70.2 bu/ac. The early MG V yields ranged from 34.2 to 68.8 bu/ac. The late MG V yields ranged from 31.2 to 62.0 bu/ac. The lowest yielding Roundup Ready varieties across all studies ranged from 31.2 to 47.9 bu/ac. The Conventional/Liberty-Link MG IV Variety Trial yields ranged from 48.3 to 66.6 bu/ac. The Conventional/Liberty-Link MG V Variety Trial yields ranged from 43.8 to 67.1 bu/ac. When compared to the lowest yielding varieties in each study, selecting the most productive variety has the potential to increase yield from 22.3 to 33.7 bu/ac given similar environmental conditions in a given year. This year green stem was more problematic than previous years. Some varieties exhibited severe green stem issues (see data tables). Cercospora blight (late-season Cercospora; Cercospora kikuchii) and Frogeye leaf spot (Cercospora sojina) were the predominant diseases observed in all varieties planted. However, where present, Septoria brown spot (Septoria; Septoria glycines) and target spot (Corynespora cassiicola) were also observed in some entries. Variety selection for high yield and appropriate disease resistance is essential for soybean profitability.

MATERIALS AND METHODS: Six field studies were conducted in 2015 on a Leeper silty clay loam soil, Verona, MS. Roundup tolerant soybean varieties of MG early IV, MG late IV, MG early V, and MG late V varieties were evaluated in separate studies. In addition, Conventional/Liberty-Link soybean MG IV and MG V varieties were also evaluated separately. All experiments were conducted as randomized complete block designs with four replications. Each plot consisted of two 8-inch twin rows on 38-inch beds × 20 feet in length. Seed was treated with Vitavax (carboxin) /Thiram (thiram) plus Apron (mefenoxam) fungicides before planting.

No fertilizer was applied since soil test indicated high concentrations of phosphorus and potassium. In the fall of 2014 the entire study area was reshaped with a bed-roller. A burndown application of

Gramoxone + surfactant at 3 pt + 0.3 pt/ac was applied 5/5/15. The Conventional/Liberty-Link MG IV and MG V were planted 5/11/15. The Roundup Ready early MG IV and Roundup Ready MG late V were planted 5/7/15. The Roundup Ready late MG IV and Roundup Ready early MG V were planted 5/12/15.

The whole study area received a pre-emergence application of Roundup PowerMax + Dual II Magnum (metolachlor) + Tricor 70DF (metribuzin) at 24 oz + 20 oz + 5.3 oz/ac on 5/14/15. The Roundup tolerant varieties received a post-emergence application of Roundup + First Rate (cloransulam) + Reflex (fomesafen) at 32 + 0.4 + 16 oz/ac on 6/12/15.

The conventional studies received a post-emergence application of Section (clethodim) + crop oil at 12 oz/ac (0.1875 lb ai/ac) + 1 pt/ac on 6/15/15 and 6/29/15 and an application of First Rate + crop oil at 0.176 oz + 8 oz/ac on 6/25/15.

Variety maturity dates, plant height, lodging, shattering and green stem ratings at harvest were recorded for one replication. Lodging was rated on a scale of 1 to 5: 1 = most plants erect; 2 = all plants leaning slightly or only a few plants down; 3 = all plants leaning moderately or 25 to 50% of plants down; 4 = all plants leaning considerably with 50 to 80% of plants down; and 5 = allplants down. Green stem was rated on a visual scale of 1 to 5: 1 = complete absence of measure to 5 = maximum value. The maturity date was recorded when all pods were dry. Plant height of 10 consecutive plants, selected at a random spot from one of the center 2 rows, was measured from the soil surface to the upper most extremity in the first replication of each study. All four replications were rated prior to harvest for Cercospora leaf blight (CLB) and frogeye leaf spot (FLS) on a scale of 0 to 9: 0 = no observable disease present and 9 = severe disease characterized by the majority of the leaf surface area covered with lesions. In addition, Septoria brown spot and target spot were observed throughout the trials and were rated using a 0 to 9 scale similar as the one outlined above; however, whereby 0 = no disease, 5 = disease in the middle of the canopy and 9 = disease in the upper canopy with severe defoliation. Disease rating tables (Tables 3 & 5) include a rating for green stem. The other entry blocks were unable to be rated based on the environment that preceded harvest. Green stem in Table 3 and 5 was rated based on a whole plot observations on a 0-100% scale where 0 = no green stem and 100 = every plant in a plot affected with observable green stem.

Plots were harvested with a plot combine within 5 to 10 days after maturity was recorded or as soon as weather permitted. The plot harvest combine was equipped with an on-board electronic weight, test weight and seed moisture recording system. Yields were calculated for the harvested area $(6.33 \text{ ft} \times 20 \text{ ft})$ and adjusted to 13% seed moisture. Variety mean yields and disease ratings in each study were separated using Fisher's Protected Least Significant Difference (LSD) at the 10% significance level and 5% significance level, respectively.

RESULTS AND DISCUSSION: Rainfall during the growing season was 7.63, 6.66, 2.52, 6.46, 7.36, and 0.35 inches for April, May, June, July, August, and September, respectively (Table 1). The rainfall amount ranged from 8% for September to 205% of normal for August. Early season wet soil conditions in April delayed planting until early May. Below normal rainfall occurred in June and September. Only slight lodging and little less than 2% seed shatter were observed at

harvest in all studies (data not reported). This year's ratings showed green stem was prevalent in all studies.

Twenty-five varieties in the Roundup Ready MG early IV Variety Trial were evaluated (Table 2). The yields ranged from 38.0 to 71.7 bu/ac with an overall mean yield of 60.9 bu/ac. Maturity dates ranged from 9/03/15 to 9/22/15. Plant height at maturity ranged from 31 to 43 inches. The greatest yielding variety was Dyna-Gro 31RY45 with 71.7 bu/ac. Varieties which were not different in yield from Dyna-Gro 31RY45 were Mycogen 5N452R2, Delta Grow DG 4670R2Y, and Great Heart Seed GT-435CRZ.

Forty-six varieties in Roundup Ready MG late IV Variety Trial were evaluated (Table 4). Maturity dates ranged from 9/19/15 to 10/06/15. Plant height at maturity ranged from 18 to 41 inches. Yields ranged from 47.9 to 70.2 bu/ac. The greatest yielding variety was NK S48-D9 with 70.2 bu/ac. Varieties that were not different from NK S48-D9 were Progeny P 4757RY, NK S47-K5, USG 74K95RS, Terral REV 48A46, Terral REV 49R94, Delta Grow DG 4970RR, and Great Heart Seed GT-477CR2.

Thirty-six varieties in the Roundup Ready MG early V Variety Trial were evaluated (Table 6). Maturity dates ranged from 9/07/15 to 10/6/15. Plant height at maturity ranged from 21 to 38 inches. The yields ranged from 34.2 to 68.8 bu/ac with an overall mean yield of 58.9 bu/ac. The highest yielding variety was Progeny P 5752RY with 68.8 bu/ac. Varieties which had yields equal to Progeny P 5752RY were Mycogen 5N550R2, Dyna-Gro 32RY55, NK S55-Q3, Armor 51-R50, Progeny P 5555RY and Great Heart Seed GT-516CR2.

Six varieties were evaluated in the Roundup Ready MG late V Variety Trial (Table 8). Maturity dates ranged from 9/28/15 to 10/06/15. Plant height at maturity ranged from 28 to 33 inches. The yields ranged from 31.2 to 62.0 bu/ac with an overall mean yield of 54.3 bu/ac. USG 75B75R was the greatest yielding variety with 62.0 bu/ac. Varieties which had yields equal to USG 75B75R were NK S59-V9, Dyna-Gro S57RY26, and Dyna-Gro 39RY57.

Twenty-seven varieties were evaluated in the Conventional/Liberty-Link Maturity Group IV Variety Trial (Table 10). The yields ranged from 48.3 to 66.6 bu/ac with an overall mean yield of 58.3 bu/ac. Maturity dates ranged from 9/11/15 to 10/06/15. Plant height at maturity ranged from 22 to 48 inches. The highest yielding variety was Dyna-Gro S49LL34 with 66.6 bu/ac. Varieties not different in yield from Dyna-Gro S49LL34 were Stratton Seeds Irene, Hornbeck HBK LL4953, Go Soy 4714LL, Credenz CZ 4748 LL, Progeny P 4814LLS, USG Ellis, Delta Grow DG 4967LL, and Stratton Seeds Glider.

Twenty-five varieties were evaluated in the Conventional/Liberty-Link Maturity Group V Variety Trial (Table 12). The yields ranged from 43.8 to 67.1 bu/ac with an overall mean yield of 58.1 Maturity dates ranged from 9/25/15 to 10/06/15. Plant height ranged from 19 to 47 inches. University of Missouri S11-16653 was the highest yielding variety with 67.1 bu/ac. Varieties that were not different from University of Missouri S11-16653 were University of Arkansas UA 5612, University of Missouri S11-17025, Dyna-Gro S53LS75, Delta Grow DG 5467LL, Go Soy 5115LL, Credenz CZ 5150 LL, Credenz CZ 5727 LL, Go Soy 5515LL, and Terral REV 55L95.

All varieties were rated for the presence of Cercospora leaf blight and frogeye leaf spot. Cercospora blight was present throughout all trials and ranged from 5.0 (present only on leaves) to 7.8 (present on pods, petioles and leaves). Frogeye leaf spot was also present throughout all trials and ranged from 0 (no observable frogeye) to 6.8 (moderate frogeye). Depending on MG Septoria brown spot and target spot were observed throughout the plant canopy; however, observations tended to be in the middle of the canopy (rating of 4-5) for the most part. A lack of resistance in commercially available varieties presents challenges for soybean farmers throughout MS.

These results indicate soybean growers have a good selection of productive varieties to choose from that range in maturity from late August to late September/early October. The most productive varieties' yields ranged from 62.0 to 71.7 bu/ac. The least productive varieties ranged in yield from 31.2 to 48.3 bu/ac. Selection of varieties with the greatest yield potential and appropriate disease resistance is essential for soybean profitability.

Table 1. 2015 Rainfall for Verona, MS.

			Days of Month		
Month	1-10	11-20	21-30	Total	% Normal ¹
			- Rainfall (inches) -		
April	2.99	3.40	1.24	7.63	153
May	0.00	1.86	4.80	6.66	114
June	1.15	0.47	0.90	2.52	151
July	5.90	0.25	0.31	6.46	134
August	2.33	3.22	1.81	7.36	205
<u>September</u>	<u>0.00</u>	<u>0.05</u>	<u>0.30</u>	<u>0.35</u>	8
Total	12.37	9.25	9.36	30.98	
% Total	40	30	30		

¹Based on the historical (1974-2014) monthly average rainfall.

Table 2. Roundup Ready Early Maturity Group IV Soybean Variety Trial planted May 7, 2015 on a Leeper silty clay loam soil, Verona, MS.

				Yield			20	15
				(bu/acre)			Maturity	Plant ht.
Brand	Variety	2015	2014	2013	2012	2011	Date	(inches)
Dyna-Gro	31RY45	71.7	71.7	87.6	64.2	59.6	9/21	35
Mycogen	5N452R2	68.3	72.0				9/21	38
Delta Grow	DG 4670R2Y	67.7	74.7	67.9	64.8	56.2	9/21	35
Great Heart Seed	GT-435CR2	67.0					9/17	38
Steyer	4602R2	65.3					9/21	32
Dyna-Gro	S43RY95	64.8	70.5				9/20	43
Mycogen	5N433R2	64.4					9/20	37
Armor	46-R65	63.3	72.7				9/17	36
Croplan	R2C4541	63.1					9/21	35
Dyna-Gro	S46RY85	62.3	70.7				9/21	36
Croplan	R2C4114	62.0					9/17	34
Steyer	4303R2	61.5	73.9				9/17	35
Asgrow	AG4336	61.2					9/17	37
Asgrow	AG4632	61.2	74.3	79.2	62.3	58.0	9/22	36
NK	S45-V8	59.9	64.1				9/17	31
Progeny Ag	P 4613RYS	59.8	72.3	76.1			9/21	38
Credenz	CZ 4590 RY	59.5					9/21	40
USG	74F24RS	59.4	70.6				9/17	36
Great Heart Seed	GT-469CR2S	59.4					9/18	39
Asgrow	AG4533	59.2	63.7	71.0	50.6		9/17	35
Progeny Ag	P 4214RY	59.2					9/18	39
Asgrow	AG4135	57.5					9/10	36
Mycogen	5N404R2	55.9					9/03	33
Asgrow	AG4232	50.5	68.6	87.3	60.5		9/17	31
Progeny Ag	P 4211RY	38.0	58.9	84.9	49.2		9/06	35
	LSD (P=0.10)	5.6						
	Std. Deviation	4.7						
	CV	7.8						
	Grand Mean	60.9						
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Table 3. Foliar disease and green stem ratings for Roundup Ready Early Maturity Group IV Soybean Variety Trial

planted May 7, 2015 on a Leeper silty clay loam soil, Verona, MS.

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Brand	Variety	CLB^1	FLS^1	Septoria ²	Target spot ²	Green stem (%) ³
Armor	46-R65	5.3 h	4.0 cd	5.0 a-d	5.0 a-d	67.5 bc
Asgrow	AG4135	7.5 ab	3.0 def	5.5 ab	5.5 ab	
Asgrow	AG4232	6.8 cde	5.3 ab	4.5 cde	4.8 b-e	31.3 f
Asgrow	AG4336	7.0 bcd	4.0 cd	5.0 a-d	4.8 b-e	4.8 i
Asgrow	AG4533	6.3 efg	1.8 gh	4.3 de	4.0 ef	50.0 d
Asgrow	AG4632	6.0 fgh	2.0 fgh	4.5 cde	5.0 a-d	80.0 abc
Credenz	CZ 4590 RY	6.3 efg	3.8 cde	5.5 ab	5.3 abc	42.5 de
Croplan	R2C4541	6.0 fgh	1.5 h	4.3 de	5.3 abc	80.0 abc
Croplan	R2C4114	5.8 gh	5.3 ab	5.3 abc	5.3 abc	4.0 i
Delta Grow	DG 4670R2Y	5.8 gh	1.5 h	5.0 a-d	5.0 a-d	41.3 def
Dyna-Gro	31RY45	6.3 efg	2.3 fgh	4.5 cde	4.8 b-e	66.3 c
Dyna-Gro	S43RY95	7.0 bcd	4.0 cd	4.8 b-e	4.3 def	83.3 ab
Dyna-Gro	S46RY85	6.3 efg	4.5 bc	4.3 de	4.3 def	88.8 a
Great Heart Seed	GT-435CR2	6.5 def	4.8 bc	4.8 b-e	4.8 b-e	8.3 hi
Great Heart Seed	GT-469CR2S	6.5 def	4.3 bc	5.0 a-d	4.8 b-e	78.8 abc
Mycogen	5N452R2	6.0 fgh	1.3 h	4.0 e	3.7 f	73.8 abc
Mycogen	5N404R2	7.8 a	2.0 fgh	5.0 a-d	4.5 c-f	
Mycogen	5N433R2	6.8 cde	4.3 bc	5.7 a	5.7 a	11.3 gh
Progeny Ag	P 4211RY	7.3 abc	2.8 efg	4.5 cde	4.3 def	
Progeny Ag	P 4214RY	6.5 def	6.0 a	5.3 abc	4.3 def	18.3 g
Progeny Ag	P 4613RYS	6.5 def	5.3 ab	5.0 a-d	4.5 c-f	73.8 abc
Steyer	4303R2	7.0 bcd	4.8 bc	5.0 a-d	4.8 b-e	4.0 i
Steyer	4602R2	6.0 fgh	4.8 bc	4.5 cde	4.3 def	87.5 a
NK	S45-V8	6.3 efg	4.0 cd	4.5 cde	4.3 def	33.3 ef
USG	74F24RS	7.3 ab	4.3 bc	5.0 a-d	4.8 b-e	7.8 hi
	CV	7.3	21.6	13.3	12.5	9.7
	<i>p</i> -value	< 0.0001	< 0.0001	0.0432	0.0035	< 0.0001
	LSD	0.7	1.1	0.9	0.9	0.9
	Std. Deviation	0.7	1.6	0.7	0.7	32.0

Ratings for CLB (Cercospora blight) and FLS (frogeye leaf spot) were based on a scale whereby 0=no disease and 9=severe disease. CLB was rated based on the presence of disease on leaves (0 to 5), petioles (6), and on pods and stems (7 to 9) based on disease intensity as assessed by coloration of plant material (leaves with distinct purple coloration and petioles, pods and main stems with purple to near black coloration).

²Ratings for Septoria (Septoria brown spot) and target spot were based on a scale whereby 0=no disease, 5= disease in the middle of the canopy and 9=disease in the upper canopy with severe defoliation.

³Green stem was rated using a scale of 0-100% based on the entire plot of each variety. A 0=no green stem while a 100%=complete green stem on every plant. A score of 50% would be indicated of half of the plot's plants having green stems at physiological maturity.

Table 4. Roundup Ready Late Maturity Group IV Soybean Variety Trial planted May 12, 2015 on a Leeper silty clay loam soil, Verona, MS.

					20	15		
				(bu/acre)			Maturity	Plant ht.
Brand	Variety	2015	2014	2013	2012	2011	Date	(inches)
NK	S48-D9	70.2					9/26	35
Terral REV	48A46	69.8					9/30	41
USG	74K95RS	68.4					9/26	38
NK	S47-K5	68.1					9/26	32
Progeny Ag	P 4757RY	66.5					9/25	38
Great Heart Seed	GT-477CR2	66.1					9/25	36
Terral REV	49R94	65.6	67.2	77.9			10/02	32
Delta Grow	DG 4970RR	65.4	66.2	71.5	76.8	61.5	10/02	36
Mycogen	5N479R2	64.8					9/20	36
Delta Grow	DG 4790 RR2	64.5					9/29	35
Go Soy	4915R2	64.2					10/02	36
Great Heart Seed	GT-476CR2	64.1	64.4	65.9			9/25	37
Progeny Ag	P 4788RY	63.9	71.8				9/25	40
Delta Grow	DG 4755RR2	62.9	63.8	65.2	65.6		9/29	36
Terral REV	47R34	62.6	68.9	65.9	05.0		9/25	30 37
Delta Grow	DG 4765RR2/STS	62.2	70.4	71.0	86.2		9/29	34
		62.2	58.8	63.9	60.Z 		9/29	30
Progeny Ag	P 4900RY							
Asgrow	AG4835	61.9	67.1				9/29	34
Progeny Ag	P 4850RYS	61.3	64.7	67.6	7.6.0		9/25	33
Croplan	R2C4752S	60.7	67.7	66.7	76.2		9/29	37
Dyna-Gro	S48RS53	60.4	65.9	77.7	84.7		9/25	37
Delta Grow	DG 4935 RR2/STS	60.0					9/29	37
USG	74B83RS	59.7					9/30	34
Delta Grow	DG 4880RR	59.3	61.3	61.3	66.9	61.9	9/29	33
Terral REV	47R53	58.9	68.8	73.2	66.9	64.7	9/26	39
Terral REV	49A55	58.3	67.3				9/25	34
Great Heart Seed	GT-482CR2S	58.2					9/30	36
Dyna-Gro	S49RY25	57.5	62.4				9/26	35
Mycogen	5N490R2	57.5					9/25	36
Hornbeck	HBK RY4721	56.9	62.9	53.3	65.1	58.7	9/29	31
Delta Grow	DG 4775RR2/STS	56.9	56.4				9/29	36
Terral REV	49A75	56.8					9/30	37
Schillinger	495.RC	56.8		66.4	75.3	63.6	10/02	32
Steyer	4802R2	56.5					10/02	33
USG	74A74RS	56.4					9/30	36
Credenz	CZ 4959 RY	56.3					9/30	29
Asgrow	AG4934	55.1	60.2	73.4			9/29	36
USG	74D95RS	54.8					9/26	34
Terral REV	49A14	54.7					9/30	39
Go Soy	4714GTS	54.4	59.4	62.1			9/26	38
Asgrow	AG5831	53.4					10/06	
Delta Grow	DG 4825RR2/STS	53.4	57.4	81.6	73.6		9/29	31
		50.7					9/29 10/03	31 24
Go Soy	4914GTS							
Univ. of Missouri	S11-20337	48.7	 57 5	 65 0	 75 0		9/30	28
Dyna-Gro	37RY47	48.3	57.5	65.9	75.8		9/19	35
Delta Grow	DG 4995 RR	47.9					10/03	20
	LSD (<i>P</i> =0.10)	5.2						
	Std. Deviation	4.4						
	CV	7.4						
	Grand Mean	59.6						

Table 5. Foliar disease and green stem ratings for Roundup Ready Late Maturity Group IV Soybean Variety Trial planted May

12, 2015 on a Leeper silty clay loam soil, Verona, MS.

12, 2015 on a Leeper silty clay loam soil, Verona, MS.									
Brand	Variety	CLB^1	FLS ¹	Septoria ²	Target spot ²	Green stem (%) ³			
Asgrow	AG4835	5.0 c	3.3 gh	4.5 abc	5.0 a	20.0 b-h			
Asgrow	AG4934	5.0 c	5.5 abc	4.0 b-e	4.0 b-e	30.0 b-f			
Asgrow	AG5831	5.5 ab	0.3 k	2.7 g	2.3 g	15.0 c-h			
Credenz	CZ 4959 RY	5.0 c	3.0 gh	4.8 ab	4.8 ab	68.3 a			
Hornbeck	HBK RY4721	5.0 c	1.7 i	3.8 c-f	3.5 def	8.3 e-h			
Croplan	R2C4752S	5.3 bc	3.0 gh	3.8 c-f	4.3 a-d	6.5 e-h			
Delta Grow	DG 4755	5.0 c	3.7 fg	4.3 a-d	4.3 a-d	30.0 b-g			
Delta Grow	DG 4765RR2/STS	5.0 c	3.8 fg	4.0 b-e	3.3 ef	48.8 ab			
Delta Grow	DG 4775 RR2/STS	5.0 c	6.0 ab	4.3 a-d	4.3 a-d	5.5 fgh			
Delta Grow	DG 4790 RR2	5.0 c	1.0 ijk	3.8 c-f	3.3 ef	20.5 b-h			
Delta Grow	DG 4825RR2/STS	5.0 c	4.7 de	4.0 b-e	3.5 def	11.3 d-h			
Delta Grow	DG 4880RR	5.0 c	0.5 k	4.0 b-e	3.3 ef	16.3 c-h			
Delta Grow	DG 4935 RR2/STS	5.0 c	2.5 h	3.8 c-f	3.5 def	18.3 d-h			
Delta Grow	DG 4970RR	5.3 bc	0.3 k	4.3 a-d	4.0 b-e	13.0 e-h			
Delta Grow	DG 4995 RR	5.8 a	0.5 k	3.3 efg	3.8 c-f	26.3 b-g			
Dyna-Gro	37RY47	5.0 c	5.8 ab	5.0 a	4.3 a-d	20.8 c-h			
Dyna-Gro	S48RS53	5.0 c	3.3 gh	3.0 fg	3.5 def	32.0 b-g			
Dyna-Gro	S49RY25	5.0 c	4.3 ef	4.0 b-e	3.8 c-f	15.0 c-h			
Great Heart Seed	GT-476CR2	5.5 c	3.8 fg	4.0 b-e	4.3 a-d	48.7 abc			
Great Heart Seed	GT-477CR2	5.3 bc	0.3 k	3.8 c-f	3.3 ef	26.3 b-f			
Great Heart Seed	GT-482CR2S	5.3 bc	5.8 ab	4.0 b-e	4.5 abc	17.3 d-h			
Mycogen	5N479R2	5.0 c	3.0 gh	4.0 b-e	4.0 b-e	38.8 a-d			
Mycogen	5N490R2	5.0 c	6.3 a	4.5 abc	4.5 abc	15.0 c-h			
Progeny	P4757RY	5.0 c	0.8 jk	4.0 b-e	3.8 c-f	19.3 b-h			
Progeny Ag	P 4788RY	5.3 bc	0.7 k	4.5 abc	4.0 b-e	11.8 e-h			
Progeny Ag	P 4850RYS	5.0 c	3.0 gh	4.5 abc	4.0 b-e	30.0 b-f			
Progeny Ag	P 4900RY	5.0 c	4.8 cde	3.5 d-g	3.5 def	36.8 a-e			
Go Soy	4714GTS	5.0 c	5.5 abc	3.5 d-g	3.8 c-f	30.3 b-f			
Go Soy	4914GTS	5.0 c	0.3 k	3.3 efg	3.0 fg	28.8 b-f			
Go Soy	4915R2	5.0 c	3.0 gh	4.0 b-e	3.8 c-f	21.0 b-h			
Schillinger	495.RC	5.0 c	0.5 k	3.8 c-f	3.0 fg	23.3 b-h			
Steyer	4802R2	5.0 c	5.5 abc	3.8 c-f	3.8 c-f	9.0 e-h			
NK	S47-K5	5.0 c	0.8 jk	3.8 c-f	3.5 def	26.5 b-h			
NK	S48-D9	5.5 ab	0.3 k	4.8 ab	4.5 abc	12.8 d-h			
Terral REV	47R34	5.3 bc	0.8 jk	3.0 fg	3.0 fg	16.7 b-h			
Terral REV	47R53	5.5 ab	0.5 k	4.3 a-d	4.0 b-e	8.8 e-h			
Terral REV	47K33 48A46	5.0 c	0.5 k 0.8 jk	4.0 b-e	3.8 c-f	41.3 a-d			
Terral REV		5.0 c	4.7 de						
	49A14			3.8 c-f	3.8 c-f	40.0 a-d			
Terral REV	49A55	5.0 c	1.5 ij	4.3 a-d	3.8 c-f	15.8 d-h			
Terral REV	49A75	5.0 c	3.0 gh	3.8 c-f	3.5 def	2.5 h			
Terral REV	49R94	5.3 bc	1.0 ijk	4.0 b-e	3.3 ef	20.5 c-h			
Univ. of Missouri	S11-20337	5.3 bc	0.3 k	3.3 efg	3.3 ef	27.5 b-f			
USG	74A74RS	5.0 c	5.7 ab	4.0 b-e	4.0 b-e	2.3 h			
USG	74B83RS	5.0 c	5.3 bcd	3.5 d-g	3.8 c-f	9.3 e-h			
USG	74K95RS	5.0 c	2.8 h	4.0 b-e	4.0 b-e	25.0 b-f			
USG	74D95RS	5.0 c	5.5 abc	4.8 ab	4.0 b-e	16.8 b-h			
	CV	5.4	18.8	15.4	16.9	48.5			
	<i>p</i> -value	0.0045	< 0.0001	< 0.0001	< 0.0001	0.0251			
	LSD	0.4	0.8	0.9	0.9	2.9			
	Std. Deviation	0.3	2.1	0.7	0.74	21.6			

¹Ratings for CLB (Cercospora blight) and FLS (frogeye leaf spot) were based on a scale whereby 0=no disease and 9=severe disease. CLB was rated based on the presence of disease on leaves (0 to 5), petioles (6), and on pods and stems (7 to 9) based on disease intensity as assessed by coloration of plant material (leaves with distinct purple coloration and petioles, pods and main stems with purple to near black coloration).

²Ratings for Septoria (Septoria brown spot) and target spot were based on a scale whereby 0=no disease, 5= disease in the middle of the canopy and 9=disease in the upper canopy with severe defoliation.

³Green stem was rated using a scale of 0-100% based on the entire plot of each variety. A 0=no green stem while a 100%=complete green stem on every plant. A score of 50% would be indicated of half of the plot's plants having green stems at physiological maturity.

 $Table\ 6.\ Roundup\ Ready\ Early\ Maturity\ Group\ V\ Variety\ Trial\ planted\ May\ 12,\ 2015\ on\ a\ Leeper\ silty\ clay\ loam\ soil,\ Verona,\ MS.$

son, verona, ws.		Yield 201						15
			(bu/acre)			Maturity	Plant ht.
Brand	Variety	2015	2014	2013	2012	2011	Date	(inches)
Progeny Ag	P 5752RY	68.8					10/02	30
Armor	51-R50	67.4	70.4				9/29	33
NK	S55-Q3	67.2					10/05	30
Dyna-Gro	32RY55	66.1	66.5	78.3	90.6	62.2	10/02	31
Mycogen	5N550R2	66.0	71.8				10/05	30
Progeny Ag	P 5555RY	65.5	64.4	77.9			10/05	29
Great Heart Seed	GT-516CR2	64.6	65.0				9/26	38
Asgrow	AG5535	64.2	67.1				10/02	29
Progeny Ag	P 5610RY	63.8	67.2	72.3	82.0	67.3	10/02	28
NK	S52-Y2	63.8	62.0	81.6			9/28	33
Terral REV	56R63	63.6	71.0	80.1			10/05	29
Dyna-Gro	S52RY75	63.2	67.1				9/28	30
Delta Grow	DG 5230RR2	63.2	64.6				9/28	24
Armor	50-R44	62.6	61.9				9/25	34
Dyna-Gro	S56RY84	62.5	73.6	78.7			10/04	32
Terral REV	55R53	61.5	63.7	80.5			10/02	28
Mycogen	5N501R2	61.0					9/25	37
Delta Grow	DG 5170RR2/STS	60.9					10/02	37
USG	75J45R	60.6					10/05	24
Progeny Ag	P 5213RY	60.2	61.4	79.6			9/25	36
Asgrow	AG5533	59.9	62.9				9/30	26
Progeny Ag	P 5226RYS	59.5					10/02	31
Asgrow	AG5332	59.0	62.6	71.3	69.9	62.0	9/28	31
Croplan	R2C5081	57.4	65.3	76.7	62.6		9/25	27
Delta Grow	DG 5625 RR2	57.3		75.3			10/06	26
Mycogen	5N522R2	56.9					9/26	25
Delta Grow	DG 5575 RR2	56.1	69.2	78.8			10/05	26
Terral REV	54R84	55.7	57.5				9/28	23
Asgrow	AG5233	52.2	52.7	75.8	70.3		9/28	29
Terral REV	52A94	51.9	61.9				9/25	27
Asgrow	AG5335	51.8	54.1				9/28	35
Progeny Ag	P 5333RY	50.8	58.1	80.3			9/30	27
Univ. of Missouri	S11-20195	49.0					9/28	22
Schillinger	5220.RC	48.2		67.0	71.1	57.0	10/06	35
Univ. of Arkansas	Ua 5414RR	45.2					10/02	21
NK	S50-J7	34.2					9/07	35
	LSD (P=0.10)	4.4						
	Std. Deviation	3.8						
	CV	6.4						
	Grand Mean	58.9						
			. 1 100/					

Table 7. Foliar disease ratings for Roundup Ready Early Maturity Group V Variety Trial planted May 12, 2015 on a Leeper silty clay loam soil, Verona, MS.

on a Leeper sitty cia	Severity rated on a scale of 0-9							
Brand	Variety	CLB^1	FLS^1	Septoria ²	Target spot ²			
Armor	50-R21	6.5 bc	5.3 cde	5.5 ab	3.3 de			
Armor	51-R50	6.5 bc	0.3 ij	5.0 a-d	4.0 a-d			
Asgrow	AG5233	6.8 ab	5.8 bc	5.3 abc	4.0 a-d			
Asgrow	AG5332	6.0 d	4.5 ef	4.8 b-e	4.3 abc			
Asgrow	AG5335	7.0 a	5.0 c-f	5.3 abc	4.5 ab			
Asgrow	AG5533	6.0 d	0.8 hij	5.0 a-d	4.8 a			
Asgrow	AG5535	6.0 d	0.3 ij	4.5 c-f	3.5 cde			
Croplan	R2C5081	7.0 a	0.5 hij	5.5 ab	4.5 ab			
Delta Grow	DG 5170 RR2/STS	6.3 cd	6.5 ab	4.3 def	3.8 b-e			
Delta Grow	DG 5230RR2	6.3 cd	0.3 ij	5.0 a-d	4.5 ab			
Delta Grow	DG 5575 RR2	6.0 d	0.8 hij	3.8 f	3.3 de			
Delta Grow	DG 5625 RR2	6.0 d	2.7 g	4.0 ef	3.0 e			
Dyna-Gro	32RY55	6.0 d	0.0 j	5.0 a-d	4.3 abc			
Dyna-Gro	S52RY75	6.3 cd	0.0 j	5.5 ab	4.0 a-d			
Dyna-Gro	S56RY84	6.3 cd	1.0 hi	5.0 a-d	3.8 b-e			
Great Heart Seed	GT-516CR2	6.3 cd	4.3 f	5.0 a-d	3.5 cde			
Mycogen	5N501R2	6.5 bc	4.3 f	5.5 ab	4.0 a-d			
Mycogen	5N522R2	6.0 d	0.3 ij	5.3 abc	3.8 b-e			
Mycogen	5N550R2	6.3 cd	1.0 hi	4.8 b-e	4.3 abc			
Progeny Ag	P 5213RY	6.8 ab	5.3 cde	4.8 b-e	4.3 abc			
Progeny Ag	P 5226RYS	6.5 bc	6.8 a	4.5 c-f	4.0 a-d			
Progeny Ag	P 5333RY	6.3 cd	3.0 g	5.0 a-d	3.7 cde			
Progeny Ag	P 5555RY	6.0 d	0.8 hij	4.5 c-f	4.3 abc			
Progeny Ag	P 5610RY	6.0 d	0.0 ј	4.8 b-e	4.5 ab			
Progeny Ag	P 5752RY	6.0 d	0.0 j	4.3 def	4.0 a-d			
Schillinger	5220.RC	6.3 cd	5.0 c-f	4.0 ef	3.3 de			
NK	S50-J7	7.0 a	1.3 h	4.0 ef	3.8 b-e			
NK	S52-Y2	6.0 d	6.5 ab	4.5 c-f	4.0 a-d			
NK	S55-Q3	6.0 d	0.0 j	4.3 def	4.3 abc			
Terral REV	52A94	6.8 ab	0.8 hij	5.0 a-d	4.5 ab			
Terral REV	54R84	6.3 cd	4.3 f	4.8 b-e	4.3 abc			
Terral REV	55R53	6.0 d	5.5 cd	4.3 def	3.8 b-e			
Terral REV	56R63	6.3 cd	1.0 hi	5.0 a-d	4.5 ab			
Univ. of Arkansas	Ua 5414RR	6.0 d	4.8 def	5.3 abc	3.5 cde			
Univ. of Missouri	S11-20195	6.0 d	4.5 ef	5.0 a-d	3.3 de			
USG	75J45R	6.3 cd	0.5 hij	5.7 a	3.8 b-e			
	CV	5.2	24.6	12.4	13.9			
	<i>p</i> -value	< 0.0001	< 0.0001	< 0.0001	0.0003			
	LSD	0.5	0.9	0.9	0.8			
	Std. Deviation	0.5	2.4	0.8	0.7			

¹Ratings for CLB (Cercospora blight) and FLS (frogeye leaf spot) were based on a scale whereby 0=no disease and 9=severe disease. CLB was rated based on the presence of disease on leaves (0 to 5), petioles (6), and on pods and stems (7 to 9) based on disease intensity as assessed by coloration of plant material (leaves with distinct purple coloration and petioles, pods and main stems with purple to near black coloration).

²Ratings for Septoria (Septoria brown spot) and target spot were based on a scale whereby 0=no disease, 5= disease in the middle of the canopy and 9=disease in the upper canopy with severe defoliation.

Table 8. Roundup Ready Late Maturity Group V Soybean Variety Trial planted on May 7, 2015 on a

Leeper silty clay loam soil, Verona, MS.

				Yield			2015		
				(bu/acre)		Maturity	Plant ht.		
Brand	Variety	2015	2014	2013	2012	2011	Date	(inches)	
USG	75B75R	62.0					9/30	32	
NK	S59-V9	60.6					10/06	30	
Dyna-Gro	S57RY26	59.6					10/03	30	
Dyna-Gro	39RY57	58.5	76.8	74.8	86.3		10/02	30	
NK	S58-Z4	54.2					10/06	28	
Terral REV	57R21	31.2	44.2	77.8			9/28	33	
	LSD (P=0.10)	3.4							
	Std. Deviation	2.8							
	CV	5.1							
	Grand Mean	54.3							

Shaded values are not different from the greatest value at the 10% probability level.

Table 9. Foliar disease ratings for Roundup Ready Late Maturity Group V Soybean Variety Trial

planted on May 7, 2015 on a Leeper silty clay loam soil, Verona, MS.

•	•		Severity rate	d on a scale of 0	-9
Brand	Variety	CLB^1	FLS^1	Septoria ²	Target spot ²
Dyna-Gro	39RY57	6.0	1.3 a	4.8	4.5
Dyna-Gro	S57RY26	6.0	0.0 b	4.5	4.0
NK	S58-Z4	6.0	0.3 b	4.0	4.0
NK	S59-V9	6.0	0.0 b	4.5	4.5
Terral REV	57R21	6.3	1.3 a	4.5	4.0
USG	75B75R	6.0	0.0 b	4.5	4.3
	CV	3.4	82.1	14.9	8.6
	<i>p</i> -value	0.4509	0.0001	0.7382	0.163
	LSD	0.3	0.6	1.0	0.5
	Std. Deviation	0.2	0.7	0.6	0.4

¹Ratings for CLB (Cercospora blight) and FLS (frogeye leaf spot) were based on a scale whereby 0=no disease and 9=severe disease. CLB was rated based on the presence of disease on leaves (0 to 5), petioles (6), and on pods and stems (7 to 9) based on disease intensity as assessed by coloration of plant material (leaves with distinct purple coloration and petioles, pods and main stems with purple to near black coloration).

²Ratings for Septoria (Septoria brown spot) and target spot were based on a scale whereby 0=no disease, 5= disease in the middle of the canopy and 9=disease in the upper canopy with severe defoliation.

Table 10. Conventional/Liberty-Link Maturity Group IV Soybean Variety Trial planted May 11, 2015 on a Leeper silty clay loam soil, Verona, MS.

				- Yield -			20	15
				(bu/acre))		Maturity	Plant ht.
Variety	Brand Name	2015	2014	2013	2012	2011	Date	(inches)
Dyna-Gro	S49LL34	66.6	70.1	73.5			9/25	39
Stratton Seeds	Irene	65.8					10/03	22
Hornbeck	HBK LL4953	63.8	66.9				9/25	36
Go Soy	4714LL	62.8					9/21	38
Credenz	CZ 4748 LL	62.3					9/26	34
Progeny Ag	P 4814LLS	61.8					10/06	35
USG	Ellis	61.7	72.6				10/03	23
Delta Grow	DG 4967LL	61.5	67.2	81.0	76.8		9/25	40
Stratton Seeds	Glider	61.4					9/21	35
Delta Grow	DG 4781LL	61.0					9/21	35
Progeny Ag	P 4930LL	60.9	69.0	81.3			9/25	38
Credenz	CZ 4105 LL	60.4					9/11	29
Credenz	CZ 4818 LL	60.2					9/26	39
Hornbeck	HBK LL4950	59.8					9/26	36
Delta Grow	DG 4990LL	59.2	61.3	66.7	76.7		9/21	38
Halo	4.8	59.0					9/21	38
Delta Grow	DG 4567LL	57.9					9/12	29
Go Soy	483c	57.5	66.8				9/26	36
Halo	4.95	56.3	61.7	68.3			9/26	33
Credenz	CZ 3945 LL	55.0					9/12	30
Terral REV	49L29	54.2	55.7				10/02	40
Delta Grow	DG 4981LL/STS	53.2	63.8	79.0			9/30	48
Halo	4.98	53.0					9/25	44
Univ. of Arkansas	Ua 5714 HP	52.3					10/06	34
Delta Grow	DG 4977LL/STS	50.4					9/25	37
Univ. of Missouri	S12-3791	49.0					9/21	33
Hornbeck	HBK LL4653	48.3					9/22	32
	LSD (<i>P</i> =0.10)	5.3						
	Std. Deviation	4.5						
	CV	7.7						
	Grand Mean	58.3						

Table 11. Foliar disease ratings for Conventional/Liberty-Link Maturity Group IV Soybean Variety Trial planted May 11, 2015 on a Leeper silty clay loam soil, Verona, MS.

That planted way	11, 2013 on a Leeper	Severity rated on a scale of 0-9							
Brand	Variety	CLB^1	FLS^1	Septoria ²	Target spot ²				
Credenz	CZ 4748 LL	6.0 ab	1.3 def	4.7 b-e	4.5 bcd				
Credenz	CZ 4818 LL	5.3 c	0.5 fgh	4.0 def	4.0 c-f				
Hornbeck	HBK LL4653	5.5 bc	2.5 bc	3.8 ef	3.5 efg				
Hornbeck	HBK LL4950	5.0 c	1.0 d-g	3.8 ef	3.3 fg				
Hornbeck	HBK LL4953	5.0 c	1.0 d-g	3.8 ef	3.3 fg				
Credenz	CZ 3945 LL	6.5 a	1.0 d-g	6.0 a	6.0 a				
Credenz	CZ 4105 LL	5.5 bc	0.8 e-h	5.5 ab	5.8 a				
Delta Grow	DG 4567LL	6.3 a	0.8 e-h	6.0 a	6.0 a				
Delta Grow	DG 4781LL	6.0 ab	1.0 d-g	4.0 def	3.8 d-g				
Delta Grow	DG 4967LL	5.3 c	0.8 e-h	4.3 c-f	3.8 d-g				
Delta Grow	DG 4977LL/STS	5.0 c	1.0 d-g	5.0 bc	4.8 bc				
Delta Grow	DG 4981LL/STS	5.3 c	1.8 cd	4.0 def	4.3 cde				
Delta Grow	DG 4990LL	5.0 c	0.0 h	4.8 b-e	4.8 bc				
Dyna-Gro	S49LL34	5.0 c	0.5 fgh	4.3 c-f	3.8 d-g				
Progeny Ag	P 4814LLS	6.0 ab	0.0 h	3.5 f	3.0 g				
Progeny Ag	P 4930LL	5.3 c	0.5 fgh	4.3 c-f	3.8 d-g				
Stratton Seeds	Glider	6.0 ab	5.0 a	4.0 def	4.0 c-f				
Go Soy	4714LL	5.5 bc	1.0 d-g	4.0 def	3.7 d-g				
Go Soy	483c	5.3 c	1.0 d-g	3.7 f	3.8 d-g				
Stratton Seeds	Irene	6.0 ab	0.5 fgh	3.5 f	3.3 fg				
Terral REV	49L29	5.0 c	0.0 h	3.8 ef	3.5 efg				
Univ. of Arkansas	Ua 5714 HP	6.0 ab	0.3 gh	3.8 ef	3.8 d-g				
Univ. of Missouri	S12-3791	5.5 bc	0.8 e-h	3.8 ef	3.8 d-g				
Halo	4.8	6.3 a	1.5 def	5.0 bc	5.3 ab				
Halo	4.95	5.0 c	4.5 a	3.8 ef	3.8 d-g				
Halo	4.98	5.3 c	3.0 bc	5.0 bc	4.5 bcd				
USG	Ellis	6.0 ab	0.5 fgh	3.8 ef	3.3 fg				
	CV	6.4	45.7	16.1	14.4				
	<i>p</i> -value	< 0.0001	< 0.0001	< 0.0001	< 0.0001				
	LSD	0.5	0.8	1.0	0.8				
	Std. Deviation	0.6	1.4	0.9	1.0				

¹Ratings for CLB (Cercospora blight) and FLS (frogeye leaf spot) were based on a scale whereby 0=no disease and 9=severe disease. CLB was rated based on the presence of disease on leaves (0 to 5), petioles (6), and on pods and stems (7 to 9) based on disease intensity as assessed by coloration of plant material (leaves with distinct purple coloration and petioles, pods and main stems with purple to near black coloration).

²Ratings for Septoria (Septoria brown spot) and target spot were based on a scale whereby 0=no disease, 5= disease in the middle of the canopy and 9=disease in the upper canopy with severe defoliation.

Table 12. Conventional/Liberty-Link Maturity Group V Soybean Variety Trial planted May 11, 2015 on a Leeper silty clay loam soil, Verona, MS.

				Yield			20	15
				(bu/acre))		Maturity	Plant ht.
Brand	Variety	2015	2014	2013	2012	2011	Date	(inches)
Univ. of Missouri	S11-16653	67.1					10/02	19
Go Soy	5115LL	66.2					9/26	45
Dyna-Gro	S53LS75	65.7					10/06	33
Credenz	CZ 5150 LL	64.8					9/28	37
Univ. of Missouri	S11-17025	64.8					9/26	29
Terral REV	55L95	63.5	65.8				10/02	36
Delta Grow	DG 5467LL	63.2					9/25	34
Go Soy	5515LL	62.7					10/06	35
Credenz	CZ 5727 LL	61.5					10/05	33
Univ. of Arkansas	Ua 5612	61.5	62.7	86.1	81.6		10/03	28
Credenz	CZ 5515 LL	58.7					10/02	47
Delta Grow	DG 5461LL	58.0	49.6	72.1			9/30	39
USG	75G24L	56.8					10/02	39
Progeny Ag	P 5460LL	55.8	51.8	70.0	67.8		9/25	44
Armor	53-L55	55.5					10/02	25
Univ. of Missouri	S11-20124	55.4					9/28	35
Credenz	CZ 5147 LL	55.3					10/02	23
Delta Grow	DG 5367LL	55.0	62.6				9/30	36
Dyna-Gro	S52LL66	54.9					10/02	40
Credenz	CZ 5242 LL	53.8					9/28	38
Halo	5.26	53.4	59.8	63.7			9/28	27
Go Soy	5215LL	52.8					10/02	38
Delta Grow	DG 5067	52.1					9/30	40
Credenz	CZ 5445 LL	51.4					10/05	24
Stratton Seeds	Leland	43.8	54.1	72.3			9/30	30
LSD (P=	=0.10)	6.8			<u> </u>	·		
Std. Dev	Std. Deviation							
	CV							
Grand	Mean	58.1						

Table 13. Conventional/Liberty-Link Maturity Group V Soybean Variety Trial planted May 11, 2015 on a Leeper silty clay loam soil, Verona, MS.

1 7		Severity rated on a scale of 0-9			
Brand	Variety	CLB^1	FLS^1	Septoria ²	Target spot ²
Armor	53-L55	6.0 c	0.5 c	4.3	3.8 b-e
Credenz	CZ 5147 LL	6.0 c	0.8 c	4.3	4.0 a-d
Credenz	CZ 5242 LL	6.0 c	0.8 c	5.0	4.3 abc
Credenz	CZ 5515 LL	6.3 bc	2.0 b	4.8	4.3 abc
Credenz	CZ 5150 LL	6.5 ab	0.3 c	4.8	4.5 ab
Credenz	CZ 5445 LL	6.0 c	0.3 c	3.8	3.0 e
Credenz	CZ 5727 LL	6.0 c	0.5 c	4.5	4.0 a-d
Delta Grow	DG 5367LL	6.0 c	4.3 a	4.8	4.5 ab
Delta Grow	DG 5461LL	6.3 bc	2.0 b	5.0	4.5 ab
Delta Grow	DG 5467LL	6.8 a	0.8 c	5.3	4.3 abc
Delta Grow	DG 5067LL	6.0 c	0.8 c	4.8	4.5 ab
Dyna-Gro	S52LL66	6.0 c	0.5 c	4.8	4.5 ab
Dyna-Gro	S53LS75	6.0 c	0.3 c	4.8	3.5 cde
Progeny Ag	P 5460LL	6.3 bc	0.5 c	4.8	4.5 ab
Go Soy	5115LL	6.0 c	0.5 c	4.5	4.0 a-d
Go Soy	5215LL	6.0 c	0.8 c	5.0	4.3 abc
Go Soy	5515LL	6.0 c	0.3 c	4.5	4.5 ab
Stratton Seed	Leland	6.0 c	0.8 c	4.5	4.0 a-d
Terral REV	55L95	6.0 c	0.3 c	5.0	4.8 a
Univ. of Arkansas	Ua 5612	6.0 c	0.8 c	4.3	4.3 abc
Univ. of Missouri	S11-16653	6.0 c	0.0 c	4.5	4.5 ab
Univ. of Missouri	S11-17025	6.0 c	0.0 c	4.8	4.0 a-d
Univ. of Missouri	S11-20124	6.0 c	0.8 c	4.3	4.0 a-d
Halo	5.26	6.0 c	0.5 c	4.8	4.0 a-d
USG	75G24L	6.0 c	0.8 c	4.5	3.5 cde
	CV	3.6	79.6	14.8	15.7
	<i>p</i> -value	0.0004	< 0.0001	0.4753	0.0364
	LSD	0.3	0.8	1.0	0.9
i	Std. Deviation	0.3	0.9	0.7	0.7

¹Ratings for CLB (Cercospora blight) and FLS (frogeye leaf spot) were based on a scale whereby 0=no disease and 9=severe disease. CLB was rated based on the presence of disease on leaves (0 to 5), petioles (6), and on pods and stems (7 to 9) based on disease intensity as assessed by coloration of plant material (leaves with distinct purple coloration and petioles, pods and main stems with purple to near black coloration).

²Ratings for Septoria (Septoria brown spot) and target spot were based on a scale whereby 0=no disease, 5= disease in the middle of the canopy and 9=disease in the upper canopy with severe defoliation.

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