

**2014 SOYBEAN VARIETY TRIAL REPORT
ROUNDUP READY AND CONVENTIONAL SOYBEAN VARIETY TRIALS**

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ABSTRACT: One hundred-sixteen Roundup Ready and forty-two Conventional/Liberty Link soybean varieties were evaluated on a Leeper silty clay loam soil at Verona, MS in 2014. 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 145%, 71%, 244%, 134%, 45%, and 42% 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 2012 and 2013 yield results where appropriate. The overall mean yield for Roundup Ready MG early IV, MG late IV, MG early V, and MG late V studies were 68.0, 63.2, 63.3, and 64.2 bu/ac, respectively. The overall mean yield for the Conventional/Liberty Link Variety MG IV and MG V Trials were 62.5 and 57.9 bu/ac, respectively. The highest conventional MG IV and MG V variety yields were 72.6 and 65.8 bu/ac, respectively. The highest yield for Roundup Ready varieties across all maturity groups ranged from 72.3 to 78.0 bu/ac. The early MG IV varieties' yields ranged from 57.5 to 78.0 bu/ac. The late MG IV yields ranged from 52.4 to 72.3 bu/ac. The early MG V yields ranged from 51.7 to 73.6 bu/ac. The late MG V yields ranged from 44.2 to 76.8 bu/ac. The lowest yielding Roundup Ready varieties across all studies ranged from 44.2 to 57.5 bu/ac. The Conventional/Liberty Link MG IV Variety Trial yields ranged from 51.8 to 72.6 bu/ac. The Conventional/Liberty Link MG V Variety Trial yields ranged from 40.5 to 65.8 bu/ac. When compared to the lowest yielding varieties in each study, selecting the most

productive variety has the potential to increase yield from 19.9 to 32.6 bu/ac. This year green stem was more problematic than previous years. Some varieties showed 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. Variety selection for high yield and appropriate disease resistance is essential to maintain soybean profitability.

MATERIALS AND METHODS: Six field studies were conducted in 2014 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. Conventional/Liberty Link soybean MG IV and MG V varieties were evaluated in separate studies. All experiments were conducted as randomized complete block designs with four replications. Plot size was 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 levels of phosphorus and potassium. In the fall of 2013 the entire study area was reshaped with a bed-roller. A burndown application of Roundup PowerMax (glyphosate) at 24 oz/ac (1.0 lb a.i./ac) was applied 5/13/14. The Conventional/Liberty Link MG IV, Roundup Ready early MG IV and late MG V were planted 5/7/14. The Conventional/Liberty Link MG V, Roundup Ready early MG V, and Roundup Ready MG late IV were planted 5/8/14.

The whole study area received a post-emergence application of Section (clethodim) + First Rate (cloransulam) at 12 oz/ac (0.1875 lb a.i./ac) + 0.3 oz/ac (0.16 lb a.i./ac) on 5/22/14. Reflex (fomesafen) + First Rate (cloransulan) at 16 oz (0.25 lb a.i./ac) + 0.4 oz/ac (0.21 lb a.i./ac) on 5/27/14. A second application of Section was applied on 6/18/14 for grass control.

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 = all plants 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 at approximately R6 for Cercospora leaf blight and frogeye leaf spot 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.

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 ft × 20 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 (yield and agronomic variables) and 5% significance level (disease), respectively.

RESULTS AND DISCUSSION: Rainfall during the growing season was 7.17, 4.19, 10.25, 5.71, 1.62, and 1.94 inches for April, May, June, July, August, and September, respectively (Table 1). The rainfall amount ranged from 42% for September to 244% of normal for June. Early season wet soil conditions in April delayed planting until mid-May. Below normal rainfall occurred in May, August, 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 less prevalent than it was last year. Three varieties expressed severe green stem with a maximum value of 5 as indicated in the data tables.

Twenty-eight varieties in the Roundup Ready MG early IV Variety Trial were evaluated (Table 2). The yields ranged from 57.5 to 78.0 bu/ac with an overall mean yield of 68.0 bu/ac. Maturity dates ranged from 8/28/14 to 9/15/14. Plant height at maturity ranged from 33 to 45 inches. The highest yielding variety was Mycogen 5N451R2 with 78.0 bu/ac. Varieties which were not different in yield from Mycogen 5N451R2 were Croplan 4541, Delta Grow DG 4670 RR2, Asgrow AG 4632, Steyer 4303R2, and Armor 46-R65.

Forty-one varieties in the Roundup Ready MG late IV Variety Trial were evaluated (Table 3). Maturity dates ranged from 9/6/14 to 9/22/14. Plant height at maturity ranged from 31 to 44 inches. Yields ranged from 52.4 to 72.3 bu/ac. The greatest yielding variety was Terral REV 48R44 with 72.3 bu/ac. Varieties that were not different from Terral REV 48R44 were Progeny

P4788RY, Delta Grow DG 4765RR2Y/STS, Morsoy 47X12, Terral REV 47R34, Terral REV 47R53, Croplan R2C4752S, Armor 47-R13, Terral REV 49A55, Terral REV 49R94, and Asgrow AG 4835.

Forty-three varieties in the Roundup Ready MG early V Variety Trial were evaluated (Table 4). Maturity dates ranged from 9/14/14 to 10/6/14. Plant height at maturity ranged from 26 to 59 inches. The yields ranged from 51.7 to 73.6 bu/ac with an overall mean yield of 63.3 bu/ac. The highest yielding variety was Dyna Gro S56RY84 with 73.6 bu/ac. Varieties which had yields equal to Dyna Gro S56RY84 were Mycogen 5N550R2, Sygenta NK S55-03, Terral REV 56R63, Armor 51-R50, Delta Grow DG 5575 RR2, Morsoy 53X82, Delta Grow DG 5556 RR, Progeny P5610RY and Dyna Gro S52RY75.

Four varieties were evaluated in the Roundup Ready MG late V Variety Trial (Table 5). Maturity dates ranged from 9/26/14 to 10/3/14. Plant height at maturity ranged from 31 to 41 inches. The yields ranged from 44.2 to 76.8 bu/ac with an overall mean yield of 64.2 bu/ac. Dyna Gro 39RY57 was the highest yielding variety with 76.8 bu/ac.

Twenty-three varieties were evaluated in the Conventional/Liberty Link Maturity Group IV Variety Trial (Table 6). The yields ranged from 51.8 to 72.6 bu/ac with an overall mean yield of 62.5 bu/ac. Maturity dates ranged from 9/8/14 to 10/6/14. Plant height at maturity ranged from 24 to 57 inches. The highest yielding variety was USG Ellis with 72.6 bu/ac. Varieties not different in yield from USG Ellis were Dyna Gro S49LL34, Progeny P4930LL, Delta Grow DG 4967 LL, Hornbeck HBK LL4953, and Stratton MPV 483C.

Nineteen varieties were evaluated in the Conventional/Liberty Link Maturity Group V Variety Trial (Table 7). Maturity dates ranged from 9/24/14 to 10/7/14. Plant height ranged from 30 to 56 inches. Terral REV 55L95 was the highest yielding variety with 65.8 bu/ac. Varieties that were not different from Terral REV 55L95 were University of Arkansas UA 5213C, Progeny P5960LL, University of Arkansas Ozark, University of Arkansas UA 5612, Delta Grow DG 5367LL, US Seeds HALO 5:45, Hornbeck HBK LL4950, University of Arkansas Osage, US Seeds HALO 5:26, and US Seeds HALO X452

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 4 to 8. Frogeye leaf spot was also present throughout all trials and ranged from 0 to 8.8. A lack of resistance to Cercospora leaf blight in commercially available varieties presents challenges for soybean farmers throughout Mississippi.

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 65.8 to 78.0 bu/ac. The least productive varieties ranged in yield from 40.5 to 57.5 bu/ac. Selection of varieties with the greatest yield potential and appropriate disease resistance is essential for soybean profitability.

Table 1. 2014 Rainfall for Verona, MS.

Month	-----Days of Month-----			Total	% Normal
	1-10	11-20	21-30		
	-----Rainfall (inches)-----				
April	3.44	1.31	2.42	7.17	145
May	0.07	2.65	1.47	4.19	71
June	5.45	1.28	3.52	10.25	244
July	1.12	4.59	0.00	5.71	134
August	0.68	0.19	0.75	1.62	45
September	<u>1.09</u>	<u>0.85</u>	<u>0.00</u>	<u>1.94</u>	42
Total	11.85	10.87	8.16	30.88	
% Total	38	35	26		

Table 2. Roundup Ready Early Maturity Group IV Soybean Variety Trial planted May 7, 2014 on a Leeper silty clay loam soil, Verona, MS.

Variety	Brand Name	Yield			2014 Data				
		2014	2013	2012	Maturity Date	Plant ht. (inches)	Green Stem ¹	Frogeye Leaf spot ²	Cercospora Leaf blight ²
5N451R2	Mycogen	78.0	71.0	---	9/09	39	2	1.3 j ³	7.8 ab ³
4541	Croplan	77.3	73.3	64.4	9/08	40	1	1.0 j	7.5 abc
DG 4670 RR2	Delta Grow	74.7	67.9	64.8	9/08	37	1	1.0 j	7.3 a-d
AG 4632	Asgrow	74.3	79.2	62.3	9/15	40	2	0.0 k	7.8 ab
4303R2	Steyer	73.9	---	---	9/05	45	1	6.8 c-f	7.8 ab
46-R65	Armor	72.7	---	---	9/15	41	5	6.3 efg	6.5 d-g
P 4613 RYS	Progeny	72.3	76.1	---	9/03	39	1	5.8 gh	6.8 c-f
5N452R2	Mycogen	72.0	---	---	9/14	37	1	5.3 h	8.0 a
31RY45	Dyna-Gro	71.7	87.6	64.2	9/10	38	1	1.3 j	7.5 abc
S46RY85	Dyna-Gro	70.7	---	---	9/09	35	1	7.0 b-e	6.5 d-g
74F24RS	USG	70.6	---	---	9/08	42	1	6.5 d-g	7.0 b-e
P4440RY	Progeny	70.5	---	---	8/28	42	1	6.7 c-f	7.5 abc
S43RY95	Dyna-Gro	70.5	---	---	9/10	39	1	6.3 efg	7.0 b-e
REV 46R64	Terral	68.6	88.2	---	9/10	40	1	6.0 fgh	8.0 a
AG 4232	Asgrow	68.6	87.3	60.5	9/09	35	2	8.3 a	5.7 g
AG 4135	Asgrow	67.0	---	---	9/03	36	1	6.0 fgh	7.5 abc
44X82	Morsoy	66.1	65.5	58.7	9/08	36	1	6.0 fgh	8.0 a
43-R43	Armor	65.7	---	---	9/15	36	1	8.8 a	6.0 fg
7453R	USG	65.4	---	---	9/08	37	1	5.3 h	7.0 b-e
NK S45-V8	Syngenta	64.1	---	---	9/06	38	1	6.3 efg	6.5 d-g
AG 4533	Asgrow	63.7	71.0	50.6	9/15	37	1	0.0 k	7.3 a-d
44-R08	Armor	63.6	77.4	59.8	9/06	37	1	3.5 i	6.5 d-g
AG 4534	Asgrow	63.4	---	---	9/15	38	2	7.0 b-e	6.8 c-f
DG 4685RR2	Delta Grow	63.1	---	---	9/08	33	1	7.0 b-e	7.0 b-e
NK S46-L2	Syngenta	62.4	72.4	---	9/10	42	2	7.8 bc	8.0 a
P4211RY	Progeny	58.9	84.9	49.2	9/01	37	1	3.3 i	6.3 e-g
P4510RYS	Progeny	57.6	87.6	70.3	9/06	38	1	7.3 bcd	6.5 d-g
HBK RY 4620	Bayer	57.5	76.8	65.6	9/08	33	1	7.0 bc	7.5 abc
LSD ($P=0.10$)		5.5			LSD ($P=0.05$)			0.83	0.91
Standard Deviation		4.7			Standard Deviation			2.67	0.86
CV		6.9			CV			11.31	9.0
Grand Mean		68.0			R^2			0.97	0.59

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

¹Green stem visual rating scale: 1 = complete absence of measure to 5 = maximum value.

²Disease (frogeye leaf spot and Cercospora leaf blight) was rated using a scale of 0-9: 0 = no observable disease present and 9 = severe disease characterized by the majority of the leaf surface area covered with lesions.

³Numbers in a column with the same lower case letters are not significantly different at the 5% probability level.

Table 3. Roundup Ready Late Maturity Group IV Soybean Variety Trial planted May 8, 2014 on a Leeper silty clay loam soil, Verona, MS.

Variety	Brand Name	Yield			Maturity Date	Plant ht. (inches)	2014 Data		
		2014	2013	2012			Green Stem ¹	Frogeye leaf spot ²	Cercospora leaf blight ²
REV 48R44	Terral	72.3	65.2	---	9/11	38	1	0.3 n ³	6.3 d-h ³
P4788RY	Progeny	71.8	---	---	9/08	43	1	0.0 n	6.5 c-g
DG 4765RR2Y/STS	Delta Grow	70.4	71.0	86.2	9/11	39	1	6.5 def	5.0 ij
47X12	Morsoy	69.0	73.4	87.2	9/10	42	1	6.0 fgh	5.3 hij
REV 47R34	Terral	68.9	65.9	---	9/10	38	1	0.0 n	7.8 ab
REV 47R53	Terral	68.8	73.2	66.9	9/09	39	1	0.5 mn	6.8 b-f
R2C4752S	Croplan	67.7	66.7	76.2	9/11	39	1	6.3 efg	5.5 g-j
47-R13	Armor	67.6	---	---	9/11	38	1	5.8 ghi	5.8 f-i
REV 49A55	Terral	67.3	---	---	9/08	38	1	0.3 mn	6.5 c-g
REV 49R94	Terral	67.2	77.9	---	9/12	38	1	0.0 n	6.5 c-g
AG 4835	Asgrow	67.1	---	---	9/11	40	1	5.8 ghi	5.0 ij
DG 4970RR	Delta Grow	66.2	71.5	76.8	9/22	44	2	0.0 n	5.0 ij
48X02	Morsoy Extra	66.2	67.4	67.9	9/09	41	1	5.8 h-k	7.5 abc
S48-RS53	Dyna-Gro	65.9	77.7	84.7	9/06	40	1	5.0 jkl	6.3 d-g
S47RY13	Dyna-Gro	65.8	59.7	68.8	9/06	42	1	5.7 g-j	7.0 a-e
5N479R2	Mycogen	65.5	---	---	9/12	38	1	5.8 ghi	5.8 f-i
REV 48R22	Terral	65.2	69.9	69.2	9/09	35	1	4.8 kl	7.0 a-e
NK S47-K5	Sygenta	65.2	---	---	9/12	32	1	0.0 n	5.8 f-i
DG 4985RR2	Delta Grow	65.2	---	---	9/15	43	1	5.8 ghi	5.0 ij
P4850RYS	Progeny	64.7	67.6	---	9/11	36	1	5.5 hij	5.0 ij
476CR2	Great Heart	64.4	---	---	9/11	41	1	5.0 jkl	7.5 abc
DG 4755RR2	Delta Grow	63.8	65.2	65.6	9/10	39	1	6.8 cde	7.7 ab
49-R56	Armor	63.0	66.1	---	9/11	34	1	5.3 ijk	5.0 ij
5N478R2	Mycogen	63.0	57.4	---	9/08	42	1	0.0 n	8.0 a
HBK RY4721	Bayer	62.9	53.3	65.1	9/08	43	1	1.0 m	5.8 f-i
S49RY25	Dyna-Gro	62.4	---	---	9/06	42	1	5.8 g-j	5.8 f-i
DG 4880RR	Delta Grow	61.3	61.3	66.9	9/19	35	1	0.0 n	5.0 ij
DG 4930RR2	Delta Grow	60.2	---	---	9/19	37	1	8.3 a	6.0 e-i
AG 4934	Asgrow	60.2	73.4	---	9/10	40	1	7.8 ab	6.8 b-f
48-R66	Armor	60.2	---	---	9/10	31	1	8.0 a	5.5 g-j
MPG 4714 NRR	Stratton	59.4	62.1	---	9/08	38	1	6.8 cde	5.8 f-i
P 4900 RY	Progeny	58.8	63.9	---	9/11	31	1	6.0 fgh	5.8 f-i
DG 4940RR	Delta Grow	58.3	72.4	---	9/22	41	2	6.0 fgh	4.7 j
P 4747 RY	Progeny	57.5	63.0	---	9/08	39	1	4.5 l	7.0 a-e
37RY47	Dyna-Gro	57.5	65.9	75.8	9/06	39	1	7.8 ab	7.3 a-d
DG 4825RR/STS	Delta Grow	57.4	81.6	73.6	9/11	35	1	7.3 bc	6.0 e-i
P4848RYS	Progeny	57.2	---	---	9/08	39	2	6.8 cde	6.3 d-h
DG 4775RR2	Delta Grow	56.4	---	---	9/11	38	1	7.3 bc	5.5 g-j
48735	Croplan	54.1	---	---	9/11	34	1	6.5 def	5.0 ij
DG 4925RR2	Delta Grow	52.8	65.4	81.0	9/16	40	1	7.0 cd	6.3 d-h
74B94RS	USG	52.4	---	---	9/09	36	1	7.0 cd	6.3 d-h
LSD ($P=0.10$)		5.2			LSD ($P=0.05$)			0.67	1.02
Standard Deviation		4.5			Standard Deviation			2.84	1.11
CV		7.1			CV			10.12	11.83
Grand Mean		63.2			R^2			0.98	0.69

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

¹Green stem visual rating scale: 1 = complete absence of measure to 5 = maximum value.

²Disease (frogeye leaf spot and Cercospora leaf blight) was rated using a scale of 0-9: 0 = no observable disease present and 9 = severe disease characterized by the majority of the leaf surface area covered with lesions.

³Numbers in a column with the same lower case letters are not significantly different at the 5% probability level.

Table 4. Roundup Ready Early Maturity Group V Variety Trial planted May 8, 2014 on a Leeper silty clay loam soil, Verona, MS.

Variety	Brand Name	Yield			2014 Data				
		Bu/ac 2014	Bu/ac 2013	Bu/ac 2012	Maturity Date	Plant Ht. (inches)	Green Stem ¹	Frogeye Leaf Spot ²	Cercospora Leaf Blight ²
S56RY84	Dyna Gro	73.6	78.7	---	10/06	40	2	5.0 fg ³	6.0 fg ³
5N550R2	Mycogen	71.8	---	---	10/06	38	2	5.0 fg	6.0 fg
NK S55-03	Sygenta	71.4	---	---	10/01	36	1	1.0 jk	6.0 fg
REV 56R63	Terral	71.0	80.1	---	10/03	41	1	2.5 i	6.0 fg
51-R50	Armor	70.4	---	---	9/22	31	4	1.0 jk	7.8 a
DG 5575 RR2	Delta Grow	69.2	78.8	---	10/06	37	3	3.7 h	6.0 fg
53X82	Morsoy	68.3	---	---	10/06	39	5	5.8 c-f	6.0 fg
DG 5556 RR	Delta Grow	68.3	---	---	9/29	33	1	1.3 j	6.0 fg
P5610RY	Progeny	67.2	72.3	82.0	9/27	37	1	2.3 i	6.0 fg
S52RY75	Dyna Gro	67.1	---	---	9/24	37	1	0.8 jk	6.5 de
AG 5535	Asgrow	67.1	---	---	10/03	32	1	0.8 jk	6.0 fg
32RY55	Dyna Gro	66.5	78.3	90.6	9/26	34	1	2.3 i	6.0 fg
5N540R2	Mycogen	65.7	---	---	10/06	40	5	6.3 a-d	6.0 fg
R2C5081	Croplan	65.3	76.7	62.6	9/22	36	1	0.8 jk	6.5 de
GT 516CR2	Great Heart	65.0	---	---	9/15	43	1	5.5 d-g	8.0 a
DG 5480 RR2	Delta Grow	64.9	76.5	---	9/25	36	1	5.0 fg	6.0 fg
DG 5230 RR2	Delta Grow	64.6	---	---	9/25	35	1	0.8 jk	6.0 fg
P5555	Progeny	64.4	77.9	---	10/03	40	1	5.7 c-f	6.0 fg
51X31	Morsoy	64.4	---	---	9/22	36	1	0.8 jk	6.0 fg
REV 51R53	Terral	64.3	74.9	64.6	9/15	39	2	7.0 a	7.0 bc
54X41	Morsoy	64.3	---	---	10/02	39	1	2.5 i	5.8 g
REV 55R53	Terral	63.7	80.5	---	10/01	32	1	6.8 ab	6.0 fg
HBK 5421	Hornbeck	63.7	69.6	76.2	9/24	33	1	0.3 k	6.0 fg
DG 5475 RR2	Delta Grow	63.2	84.0	81.1	10/06	39	3	6.0 b-e	6.0 fg
AG 5533	Asgrow	62.9	---	---	9/27	37	1	3.5 h	6.0 fg
AG 5332	Asgrow	62.6	71.3	69.9	9/22	37	1	4.8 g	6.5 de
NK S51-CS	Sygenta	62.4	---	---	9/22	31	1	5.8 c-f	6.0 fg
NK S52-Y2	Sygenta	62.0	81.6	---	9/19	38	1	6.5 abc	7.3 b
REV 52A94	Terral	61.9	---	---	9/19	37	1	1.3 j	7.7 a
50-R44	Armor	61.9	---	---	9/14	41	1	5.3 efg	8.0 a
S54RY43	Dyna Gro	61.5	79.3	82.1	10/06	39	4	6.3 a-d	6.0 fg
P5213RY	Progeny	61.4	79.6	---	9/19	46	1	5.0 fg	8.0 a
HBK 5221	Hornbeck	60.9	71.2	82.4	9/15	38	2	0.5 jk	7.8 a
MPG 5214 NRR	Stratton Seed	60.3	71.6	---	9/22	42	1	6.3 a-d	6.0 fg
P5333RY	Progeny	58.1	80.3	---	9/25	35	1	5.5 d-g	6.3 ef
REV 54R84	Terral	57.5	---	---	9/24	26	1	6.5 abc	6.0 fg
MPG 5314 NRR	Stratton Seed	57.3	---	---	9/15	45	1	6.3 a-d	7.0 bc
53-R16	Armor	56.9	---	---	10/03	33	1	4.8 g	6.0 fg
56X02	Morsoy Extra	55.5	---	---	10/01	59	1	6.0 b-e	5.0 fg
REV 52R74	Terral	54.8	70.9	---	9/19	37	1	3.0 hi	7.0 bc
AG 5335	Asgrow	54.1	---	---	9/15	37	1	4.8 g	7.0 bc
AG 5233	Asgrow	52.7	75.8	70.3	9/19	34	1	5.3 efg	7.8 a
GT 500CR2	Great Heart	51.7	73.3	---	9/15	36	1	5.7 c-f	6.8 cd
LSD (<i>P</i> =0.10)		6.5			LSD (<i>P</i> =0.05)			0.9	0.4
Standard Deviation		5.5			Standard Deviation			2.3	0.8
CV		8.7			CV			15.7	4.1
Grand Mean		63.3			R ²			0.9	0.9

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

¹Green stem visual rating scale: 1 = complete absence of measure to 5 = maximum value.

²Disease (frogeye leaf spot and Cercospora leaf blight) was rated using a scale of 0-9: 0 = no observable disease present and 9 = severe disease characterized by the majority of the leaf surface area covered with lesions.

³Numbers in a column with the same lower case letters are not significantly different at the 5% probability level.

Table 5. Roundup Ready Late Maturity Group V Soybean Variety Trial planted on May 7, 2014 on a Leeper silty clay loam soil, Verona, MS.

Variety	Brand name	Yield (bu/ac)			2014 Data				
		2014	2013	2012	Maturity date	Plant ht. (inches)	Green Stem ¹	Frogeye leaf spot ²	Cercospora leaf blight ²
Dyna Gro	39RY57	76.8	74.8	86.3	9/26	38	1	6.0 a ³	6.0
Asgrow	AG 5831	70.6	71.3	78.0	10/03	31	1	5.3 b	6.0
Terral	REV 57R21	65.1	77.8	---	9/26	41	1	3.0 c	6.0
Asgrow	AG 5935	44.2	---	---	10/03	35	1	6.0 a	6.0
LSD ($P=0.10$)		4.8			LSD ($P=0.05$)			0.7	----
Standard Deviation		3.7			Standard Deviation			1.3	----
CV		5.8			CV			8.3	----
Grand Mean		64.2			R ²			0.9	----

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

¹Green stem visual rating scale: 1 = complete absence of measure to 5 = maximum value.

²Disease (frogeye leaf spot and Cercospora leaf blight) was rated using a scale of 0-9: 0 = no observable disease present and 9 = severe disease characterized by the majority of the leaf surface area covered with lesions.

³Numbers in a column with the same lower case letters are not significantly different at the 5% probability level.

Table 6. Conventional/Liberty Link Maturity Group IV Soybean Variety Trial planted May 7, 2014 on a Leeper silty clay loam soil, Verona, MS.

Variety	Brand Name	Yield			2014 Data				
		Bu/ac 2014	Bu/ac 2013	Bu/ac 2012	Maturity Date	Plant Ht. (inches)	Green Stem ¹	Frogeye Leaf Spot ²	Cercospora Leaf Blight ²
Ellis	USG	72.6	----	----	10/03	24	2	1.0 h ³	5.3 cd ³
S49LL34	Dyna Gro	70.1	73.5	----	9/26	45	2	1.0 h	6.5 b
P4930LL	Progeny	69.0	81.3	----	9/26	47	2	2.3 fg	5.0 de
DG 4967 LL	Delta Grow	67.2	81.0	76.8	10/03	49	1	2.3 fg	4.8 de
HBK LL4953	Hornbeck	66.9	----	----	9/26	43	1	0.7 hi	5.0 de
MPV 483C	Stratton	66.8	----	----	9/24	40	2	0.0 j	6.5 b
P 4819LLS	Progeny	66.2	----	----	9/22	36	1	6.7 b	5.7 c
HBK LL4650	Hornbeck	66.0	75.8	----	9/09	38	1	0.0 j	7.8 a
P4560LL	Progeny	65.1	68.0	----	9/08	37	1	1.0 h	8.0 a
S49LS65	Dyna Gro	64.1	----	----	9/26	48	2	4.7 e	4.5 ef
DG 4981LL	Delta Grow	63.8	----	----	10/06	57	2	5.2 de	4.0 f
HBK LL4850	Hornbeck	62.8	71.8	----	9/22	31	1	6.7 b	6.5 b
Go-Soy 4914	Stratton	62.0	----	----	9/26	48	3	3.0 f	4.8 de
HALO 4:40	US Seeds	61.9	70.7	----	9/08	34	1	1.0 h	6.8 b
HALO 4:95	US Seeds	61.7	68.3	----	9/24	37	1	6.7 b	5.7 c
DG 4990 LL	Delta Grow	61.3	66.7	76.7	9/26	43	2	1.7 g	5.0 de
DG 4867LL	Delta Grow	58.0	----	----	9/22	38	2	7.5 a	6.3 b
P 4620LLS	Progeny	57.2	----	----	9/26	47	2	5.7 cd	5.0 de
DG 4767 LL	Delta Grow	56.5	----	----	9/26	50	2	5.2 de	5.0 de
P4928LL	Progeny	56.4	71.4	78.6	9/24	48	1	0.8 hi	5.0 de
REV 49L29	Terral	55.7	----	----	9/27	41	2	0.3 ij	5.0 de
74G74LS	USG	53.9	----	----	9/24	49	1	6.0 c	4.8 de
Go-Soy 4713	Stratton	51.8	----	----	9/22	50	2	5.7 cd	4.5 ef
LSD (<i>P</i> =0.10)		6.4			LSD (<i>P</i> =0.05)			0.7	0.6
Standard Deviation		5.4			Standard Deviation			2.7	1.2
CV		8.7			CV			14.6	8.1
Grand Mean		62.5			R ²			1.0	0.9

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

¹Green stem visual rating scale: 1 = complete absence of measure to 5 = maximum value.

²Disease (frogeye leaf spot and Cercospora leaf blight) was rated using a scale of 0-9: 0 = no observable disease present and 9 = severe disease characterized by the majority of the leaf surface area covered with lesions.

³Numbers in a column with the same lower case letters are not significantly different at the 5% probability level.

Table 7. Conventional/Liberty Link Maturity Group V Soybean Variety Trial planted May 8, 2014 on a Leeper silty clay loam soil, Verona, MS.

Variety	Brand name	Yield			2014 Data				
		2014	2013	2012	Maturity Date	Plant ht. (inches)	Green Stem ¹	Frogeye Leaf Spot ²	Cercospora Leaf Blight ²
REV 55L95	Terral	65.8	---	---	10/03	36	1	0.0 i ³	6.0 a ³
UA 5213C	University of Ark.	65.8	77.6	---	9/24	36	1	6.0 a	6.0 a
P5960LL	Progeny	65.0	72.2	80.4	10/07	32	2	0.5 ghi	6.0 a
Ozark	University of Ark.	62.8	67.8	66.8	9/27	31	2	1.7 de	6.0 a
UA 5612	University of Ark.	62.7	86.1	81.6	10/01	34	1	4.3 c	6.0 a
DG 5367LL	Delta Grow	62.6	---	---	9/25	39	2	5.8 a	6.0 a
HALO 5:45	US Seeds	62.5	64.7	84.1	10/06	35	2	0.3 hi	6.0 a
HBK LL4950	Hornbeck	62.2	---	---	9/29	51	1	1.0 efg	5.3 b
Osage	University of Ark.	61.7	72.9	77.4	9/25	30	1	5.3 ab	6.0 a
HALO 5:26	US Seeds	59.8	63.7	---	9/24	32	1	1.0 efg	6.0 a
HALO X452	US Seeds	58.3	---	---	9/26	50	2	0.8 fgh	5.0 c
P5220LL	Progeny	56.8	---	---	10/01	56	1	5.0 b	5.0 c
P5160LL	Progeny	54.3	68.6	66.1	10/06	26	2	1.0 efg	6.0 a
Leland	Stratton Seed	54.1	72.3	---	9/24	32	1	1.0 efg	6.0 a
Go-Soy 5214	Stratton Seed	53.0	---	---	9/24	49	1	0.5 ghi	5.0 c
P5460LL	Progeny	51.8	70.0	67.8	9/24	48	1	2.0 d	5.0 c
DG 5267LL	Delta Grow	50.6	---	---	10/01	50	1	1.3 ef	5.5 b
DG 5461LL	Delta Grow	49.6	72.1	---	9/29	46	1	4.8 bc	6.0 a
DG 5481LL	Delta Grow	40.5	62.7	---	10/07	47	1	1.0 efg	5.0 c
LSD ($P=0.10$)		7.5			LSD ($P=0.05$)			0.7	0.3
Standard Deviation		6.3			Standard Deviation			2.1	0.5
CV		10.9			CV			21.3	3.1
Grand Mean		57.9			R2			0.1	0.9

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

¹Green stem visual rating scale: 1 = complete absence of measure to 5 = maximum value.

²Disease (frogeye leaf spot and Cercospora leaf blight) was rated using a scale of 0 to 9: where 0 = no observable disease present and 9 = severe disease characterized by the majority of the leaf surface area covered with lesions.

³Numbers in a column with the same lower case letters are not significantly different at the 5% probability level.