2013 SOYBEAN VARIETY TRIAL REPORT
NORTHEAST BRANCH EXPERIMENT STATION, VERONA, MS
ROUNDUP READY, CONVENTIONAL, AND LIBERTY LINK VARIETIES

M.P. Harrison[1], N.W. Buehring[1], Brad Burgess[2] and Tom W. Allen[3]

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

SUMMARY

One hundred thirty four Roundup Ready and 41 Conventional/Liberty Link soybean varieties were evaluated on a Leeper silty clay loam soil at Verona, MS in 2013.

The Roundup Ready varieties were evaluated in separate maturity group (MG) studies (early and late MG IV, early and late MG V).

The Conventional/Liberty Link varieties were evaluated in separate MG IV and MG V studies.

Rainfall was 97%, 114%, 67%, 44%, 48% and 99% 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 overall mean yields for Roundup Ready early and late MG IV and early and late MG V varieties were 76.5, 66.6, 75.0 and 74.7 bu/ac, respectively.

The highest yield for Roundup Ready varieties across all maturity groups ranged from 79.1 to 88.2 bu/ac. The early MG IV varieties' yields ranged from 65.5 to 88.2 bu/ac, and the late MG IV yields ranged from 53.3 to 81.6 bu/ac. The early MG V yields ranged from 65.5 to 84.0 bu/ac and the late MG V yields ranged from 70.4 to 79.1 bu/ac. The lowest yielding Roundup Ready varieties across all studies ranged from 53.3 to 70.4 bu/ac.

The overall mean yields for Conventional/Liberty Link MG IV and MG V varieties were 74.4 and 70.7 bu/ac, respectively. The highest conventional MG IV and MG V variety yields were 85.0 and 86.1 bu/ac, respectively.

The Conventional/Liberty Link MG IV Variety Trial yields ranged from 66.3 to 85.0 bu/ac. The Conventional/Liberty Link MG V Variety Trial yields ranged from 62.7 to 81.6 bu/ac.

When compared to the lowest yielding varieties in each study, selecting the most productive variety had the potential to increase yield from 8.7 to 28.3 bu/ac.

In 2013, 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 for soybean profitability.

The accompanying tables also include 2011 and 2012 yield results where appropriate.

MATERIALS AND METHODS

Six field studies were conducted in 2013 on a Leeper silty clay loam soil near Verona, MS. Roundup Ready soybean varieties of early and late MG IV and early and late MG V were evaluated in separate studies. Conventional/Liberty Link soybean varieties in MG IV and MG V 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-wide beds that were 20 feet long. Seed was treated with Vitavax (carboxin) /Thiram (thiram) plus Apron (mefenoxam) fungicides before planting.

In the fall of 2012 the entire study area was subsoil-bedded with an in-row subsoil-bed-roller (Terra-Till) in a one pass operation on 38-inch-wide beds. The beds were reshaped with a bed-roller in November 2012. A burndown application of Durango (glyphosate) at 32 oz/acre (1.0 lb ai/ac) was applied on May 1, 2013. No fertilizer was applied since soil tests indicated high levels of phosphorus and potassium.

The Conventional/Liberty Link MG IV and Roundup Ready early MG IV and late MG V varieties were planted May 14, 2013.

The Conventional/Liberty Link MG V and Roundup Ready early MG V varieties were planted May 15, 2013, and the Roundup Ready late MG IV varieties were planted May 16, 2013.

Roundup PowerMax (glyphosate) + Dual II Magnum (S-metolachlor) + Tricor (metribuzin) at 22 oz/ac (0.95 lb ai/ac) + 20 oz/acre (1.2 lb ai/ac) + 0.33 lb/ac (0.24 lb ai/ac) was applied preemergence on May 16, 2013.

The whole study area received a postemergence application of Reflex (fomesafen) + First Rate (chloransulam) at 16 oz/acre (0.25 lb ai/ac) + 0.4 oz/ac (0.21 lb ai/ac) on June 15, 2013. Select Max (clethodim) at 32 oz/ac (0.25 lb ai/ac) was applied to all varieties on June 25, 2013. Foliar insecticide Baythroid (cyfluthrin) at 2 oz/ac (0.125 lb ai/ac) was applied to all varieties for stink bug control on Aug. 19, 2013.

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 where 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 where 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 uppermost extremity of the plants in the first replication of each study. All four replications were rated prior to harvest for Cercospora leaf blight and

frogeye leaf spot on 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.

Plots were harvested with a plot combine within 5 to 10 days after maturity was recorded or as soon as weather permitted. The plot 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% and 5% significance levels, respectively.

RESULTS AND DISCUSSION

Rainfall during the growing season was 5.05, 5.51, 3.07, 1.58, 1.83 and 4.06 inches for April, May, June, July, August, and September, respectively (Table 1). The rainfall amount ranged from 44% (July) to 114% (May) of normal. Early season wet soil conditions in April delayed planting until mid-May. Below normal rainfall and below normal maximum air temperatures occurred in June, July, and August. Only slight lodging and little (less than 2%) seed shatter were observed at harvest in all studies (data not reported). Green stem issues were more prevalent this year than previous years. Some varieties expressed severe green stem with a maximum value of 5 as indicated in the data tables.

Thirty four varieties in the Roundup Ready early MG IV Variety Trial were evaluated (Table 2). The yields ranged from 65.5 to 88.2 bu/ac, with an overall mean yield of 76.5 bu/ac. Maturity dates ranged from 09/16/13 to 09/28/13. Plant height at maturity ranged from 25 to 44 inches. The highest yielding variety was Rev 46R64 with 88.2 bu/ac. Varieties which were not different in yield from Rev 46R64 were Asgrow AG 4232, Asgrow AG 4433, Dyna-Gro 31RY45, MPG 4514 NS, Progeny P4510RY, Progeny P4211RY and Rev 46R73.

Fifty-two varieties in the Roundup Ready late MG IV Variety Trial were evaluated (Table 3). Maturity dates ranged from 09/16/13 to 10/07/13. Plant height at maturity ranged from 31 to 43 inches. Yields ranged from 53.3 to 81.6 bu/ac. The highest yielding variety was Delta Grow DG 4825RR2/STS with 81.6 bu/ac. Varieties which were not different from Delta Grow DG 4825RR2/STS were Dyna-Gro S48RS53, Steyer 4701R2, and Rev 49R94.

Forty-three varieties in the Roundup Ready early MG V Variety Trial were evaluated (Table 4). Maturity dates ranged from 09/23/13 to 10/07/13. Plant height at maturity ranged from 30 to 45 inches. Yields ranged from 65.5 to 84.0 bu/ac with an overall mean yield of 75.0 bu/ac. The highest yielding variety was Delta Grow DG 5475RR2 with 84.0 bu/ac. Varieties which had yields statistically equal to Delta Grow DG 5475RR2 were Asgrow AG 5634, Croplan R2C 5081, Delta Grow DG 5130RR2, Delta Grow DG 5575RR2, Dyna-Gro 32RY55, Dyna-Gro S54RY43, Dyna-Gro S56RY84, Progeny P5213RY, Progeny P5333RY, Progeny P5555RY, NK S52-Y2, Rev 55R53, and Rev 56R63.

Five varieties were evaluated in the Roundup Ready late MG V Variety Trial (Table 5). Maturity dates ranged from 10/03/13 to 10/07/13. Plant height at maturity ranged from 32 to 43 inches. Yields ranged from 70.4 to 79.1 bu/ac with an overall mean yield of 74.7 bu/ac. Rev

59R13 was the highest yielding variety with 79.1 bu/ac. Varieties with yields equal to Rev 59R13 were Dyna-Gro DG 39RY57 and Rev 57R21.

Twenty-one varieties were evaluated in the Conventional/Liberty Link MG IV Variety Trial (Table 6). Yields ranged from 66.3 to 85.0 bu/ac with an overall mean yield of 74.4 bu/ac. Maturity dates ranged from 09/17/13 to 10/07/13. Plant height at maturity ranged from 30 to 61 inches. The highest yielding variety was GoSoy 4711LL with 85.0 bu/ac. Varieties not different in yield from GoSoy 4711LL were AgBorn ABX 2174, HBK LL4950, Delta Grow 4981LL, Delta Grow 4967LL, Progeny P4930LL, and University of Arkansas UA 4913C.

Twenty varieties were evaluated in the Conventional/Liberty Link MG V Variety Trial (Table 7). Maturity dates ranged from 09/26/13 to 10/07/13. Plant height ranged from 26 to 47 inches. University of Arkansas UA 5612 was the highest yielding variety with 86.1 bu/ac.

All varieties were rated for the presence of Cercospora leaf blight and frogeye leaf spot. Cercospora blight was present in all trials and ranged from 0 to 7.6 on a scale of 0 to 9 with 0 = no observable disease present and 9 = severe disease. Frogeye leaf spot was also present in all trials and ranged from 0 to 5.7. A lack of resistance in some 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 72.8 to 88.2 bu/ac. The least productive varieties ranged in yield from 53.3 to 79.0 bu/ac. Selection of varieties with the greatest yield potential and appropriate disease resistance is essential for soybean profitability.

Table 1. 2013 Rainfall at Verona, MS.

	----------Days of Month----------				
	1-10	11-20	21-30/31	Total	% Normal
Month	----------Rainfall (inches)----------				
April	0.86	3.15	1.04	5.05	97
May	2.51	2.13	0.87	5.51	114
June	2.78	0.10	0.19	3.07	67
July	0.62	0.13	0.83	1.58	44
August	0.59	1.09	0.15	1.83	48
September	0.62	0.00	3.44	4.06	99
Total	7.98	6.60	6.52	21.10	
% of Total	38	31	31		

Table 2. Data for Roundup Ready Early MG IV Soybean Varieties planted May 14, 2013 on a Leeper silty clay loam soil near Verona, MS.

		------ Yield (bu/ac)-----			---------- 2013 Data ----------				
Variety	Brand Name	2013	2012	2011	Maturity date	Plant ht. (inches)	Green stem[1]	Frogeye leaf spot[2]	Cercospora leaf blight[2]
46R64	Rev	88.2	----	----	9/18	41	1	1.3 hij[3]	4.3 b-f[3]
P4510RY	Progeny	87.6	70.3	62.9	9/19	35	2	3.5 ab	1.8 j-m
31RY45	Dyna-Gro	87.6	64.2	59.6	9/18	29	2	0.0 m	2.5 h-l
AG 4232	Asgrow	87.3	60.5	----	9/18	35	3	3.3 a	3.5 a-f
46R73	Rev	86.3	----	----	9/18	44	2	0.0 m	2.8 g-k
AG 4433	Asgrow	85.7	62.3	----	9/18	38	2	2.3 d-g	3.3 e-i
P4211RY	Progeny	84.9	49.2	----	9/18	33	1	0.5 klm	4.0 a-d
4514 NS	M Pride Genetics	82.0	----	----	9/19	33	2	3.3 abc	2.3 i-m
AG 4531	Asgrow	80.7	65.8	61.1	9/17	37	2	3.0 a-d	2.0 lm
AG 4632	Asgrow	79.2	62.3	58.0	9/28	37	2	0.0 m	2.3 i-m
5N431R2	Mycogen	79.1	----	----	9/18	26	5	0.5 klm	3.3 b-g
S44RS93	Dyna-Gro	79.1	----	----	9/20	25	2	0.3 lm	4.0 b-g
5N423R2	Mycogen	78.5	----	----	9/18	28	3	1.3 h-k	5.0 abc
44-R08	Armor	77.4	59.8	----	9/16	34	3	1.0 i-l	3.5 d-i
46X29	Morsoy	77.3	72.4	59.9	9/28	35	2	2.8 b-e	3.3 e-i
RY4620	HBK	76.8	65.6	57.8	9/28	30	4	3.0 a	1.3 lm
39RY43	Dyna-Gro	76.8	54.7	----	9/16	31	2	1.3 h-k	3.8 a-d
P4613RY	Progeny	76.1	----	----	9/23	35	2	1.0 i-l	3.8 c-h
43R212	AGS	75.5	56.5	----	9/28	36	2	1.8 f-i	3.5 d-i
P46T21R	Pioneer	75.0	----	----	9/26	36	1	0.0 m	1.5 klm
45R212	AGS	74.5	69.0	----	9/28	36	3	0.0 m	2.5 h-l
R2G 4541	Croplan	73.3	64.4	----	9/28	29	1	0.3 lm	1.3 lm
S46-G9	NK	72.8	----	----	9/18	36	1	1.0 i-l	2.5 h-l
ABX 27041	AgBorn	72.6	----	----	9/28	36	1	1.8 f-i	1.8 m
S46-L2	NK	72.4	----	----	9/27	38	3	2.3 d-g	5.3 ab
AG 4533	Asgrow	71.0	50.6	----	9/23	36	2	0.5 klm	3.3 e-i
5N451R2	Mycogen	71.0	----	----	9/28	27	3	0.0 m	2.8 c-h
S44-D5	NK	69.9	64.5	57.9	9/27	30	3	2.0 e-h	4.5 a-e
458.RCS	Schillinger	68.5	----	----	9/25	35	3	0.8 j-m	3.0 f-j
DG 4670RR2	Delta Grow	67.9	64.8	56.2	9/28	30	1	0.0 m	2.3 i-m
ABX 2164	AgBorn	67.7	----	----	9/28	35	1	2.5 def	3.0 c-h
P4313RY	Progeny	66.5	----	----	9/23	32	1	2.0 e-h	3.5 d-i
AG 4633	Asgrow	65.8	54.1	----	9/28	28	2	2.0 e-h	3.3 e-i
44X82	Morsoy	65.5	58.7	----	9/24	33	1	1.5 g-j	5.0 a
	LSD (*P*=0.10)	7.3				LSD (*P*=0.05)		0.8	1.4
	Std. Deviation	6.3				Std. Deviation		1.3	1.4
	CV	8.2				CV		40.9	30.7
	Grand Mean	76.5				R^2		0.9	0.7

The shaded values in the yield column are not different from the highest value at the 10% probability level.

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

[2]Disease (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.

[3]Means in disease rating columns followed by the same lower case letter are not significantly different at the 5% probability level.

Table 3. Data for Roundup Ready Late MG IV Soybean Variety Trial planted May 16, 2013 on a Leeper silty clay loam soil, Verona, MS.

		Yield (bu/ac)			2013 Data				
Variety	Brand Name	2013	2012	2011	Maturity date	Plant ht. (inches)	Green stem[1]	Frogeye leaf spot[2]	Cercospora leaf blight[2]
DG 4825RR2/STS	Delta Grow	81.6	73.6	----	10/07	34	3	1.7 fgh[3]	5.0 f[3]
4701R2	Steyer	79.0	----	----	9/20	32	2	0.0 k	6.0 cde
49R94	Rev	77.9	----	----	9/28	39	2	0.0 k	5.0 f
S48RS53	Dyna-Gro	77.7	84.7	----	9/26	40	1	1.7 fgh	5.3 ef
47X12	Morsoy	73.4	87.2	----	9/26	41	1	1.7 fgh	5.3 ef
AG 4934	Asgrow	73.4	----	----	9/19	33	1	3.0 cd	5.3 ef
47R53	Rev	73.2	66.9	64.7	9/18	34	1	0.3 jk	6.7 abc
74B83R	USG	72.6	----	----	10/01	34	2	3.0 cd	5.0 f
48R33	Rev	72.5	----	----	9/19	38	2	0.7 ijk	7.0 ab
DG 4940RR	Delta Grow	72.4	----	----	10/01	40	1	2.0 efg	5.0 f
AG 4933	Asgrow	71.7	79.0	----	9/26	35	1	3.0 cd	5.3 ef
DG 4970RR	Delta Grow	71.5	76.8	61.5	10/07	41	2	0.0 k	6.3 bcd
DG 4765RR2/STS	Delta Grow	71.0	86.2	----	9/26	38	1	1.3 ghi	5.3 ef
GX4798R2	Great Heart	70.4	----	----	9/28	36	1	3.0 bc	5.3 ef
48R22	Rev	69.9	69.2	57.0	9/23	34	1	1.3 ghi	6.7 abc
49X14	Morsoy	69.7	----	----	9/26	43	1	2.7 de	6.0 cde
49R22	Rev	68.3	----	----	9/23	40	1	1.7 fgh	6.7 abc
4744	Armor	68.2	76.7	66.8	9/23	31	2	5.3 a	6.0 cde
P4850RY	Progeny	67.6	----	----	9/26	40	1	1.7 fgh	5.3 ef
P4710RY	Progeny	67.5	74.9	57.6	9/23	35	1	1.0 ijk	5.7 def
R2T 4799S	Croplan	67.5	74.3	67.0	9/28	34	1	3.7 bc	5.7 def
48X02	Morsoy	67.4	67.9	----	9/28	41	1	2.7 de	6.0 cde
AG 4832	Asgrow	67.3	65.2	52.0	9/26	39	2	2.0 efg	6.7 abc
4712R2	Schillinger	67.0	----	----	9/16	32	2	1.7 fgh	7.0 ab
RC2 4752S	Croplan	66.7	76.2	----	9/26	36	1	1.3 ghi	5.0 f
P49T97R	Pioneer	66.7	----	----	10/01	36	3	0.0 k	5.7 def
495.RCS	Schillinger	66.4	75.3	63.6	9/27	42	1	0.0 k	6.3 bcd
49-R56	Armor	66.1	----	----	9/26	30	3	2.0 efg	5.0 f
GT476R2	Great Heart	65.9	----	----	9/26	41	1	2.3 def	6.7 abc
37RY47	Dyna-Gro	65.9	75.8	----	9/27	36	1	4.3 b	6.0 cde
47R34	Rev	65.9	----	----	9/26	38	1	0.0 k	7.3 a
DG 4925RR2	Delta Grow	65.4	81.0	----	9/26	38	1	2.7 de	5.7 def
48R44	Rev	65.2	----	----	9/26	39	3	0.7 ijk	7.0 ab
DG 4755RR2	Delta Grow	65.2	65.6	----	9/23	37	1	2.0 efg	7.0 ab
47R212	AGS	64.5	61.3	----	9/27	34	3	0.0 k	6.3 bcd
P48T53R	Pioneer	64.2	----	----	10/01	37	1	0.0 k	6.0 cde
P4900RY	Progeny	63.9	----	----	9/26	32	2	1.7 fgh	6.0 cde
P4747RY	Progeny	63.0	----	----	9/23	39	1	1.7 fgh	6.3 bcd
478.RCS	Schillinger	62.5	68.2	56.3	9/23	33	1	2.0 efg	6.3 bcd
P49T80R	Pioneer	62.4	----	----	9/27	40	1	1.0 ijk	6.7 abc
74H92R	USG	62.4	----	----	10/01	34	1	2.0 efg	5.3 ef
MPG 4714	M Pride Genetics	62.1	----	----	9/26	42	2	2.7 de	6.0 cde
74H92R	USG	61.4	----	----	9/23	35	2	2.3 def	5.7 def
DG 4880RR	Delta Grow	61.3	66.9	61.9	10/01	35	2	0.0 k	6.3 bcd
ABX 2499	AgBorn	59.7	----	----	9/28	37	1	2.3 def	5.3 ef
S47RY13	Dyna-Gro	59.7	68.8	----	9/26	40	1	2.3 def	5.3 ef
S49-F8	NK	57.4	----	----	9/23	35	1	0.3 jk	5.7 def
5N478R2	Mycogen	57.4	----	----	9/26	42	1	0.3 jk	7.3 a
P47T36R	Pioneer	56.1	----	----	9/27	40	1	0.3 jk	6.7 abc
S47-N3	NK	56.0	----	----	9/23	36	1	1.7 fgh	7.0 ab
4990RR	Schillinger	55.9	68.9	57.0	9/26	38	1	0.0 k	6.0 cde
RY 4721	HBK	53.3	65.1	58.7	9/23	35	1	0.7 ijk	6.3 bcd
	LSD (*P*=0.10)	7.2					LSD (*P*=0.05)	0.8	1.0
	Std. Deviation	5.4					Std. Deviation	1.3	0.8
	CV	8.0					CV	32.1	9.7
	Grand Mean	66.6					R^2	0.9	0.7

Shaded values are not different from the highest value at the 10% probability level. See Table 1 footnote for green stem and disease rating scale.

Table 4. Data for Roundup Ready Early MG V Variety Trial planted May 15, 2013 on a Leeper silty clay loam soil, Verona, MS.

		Yield (bu/ac)			2013 Data				
Variety	Brand Name	2013	2012	2011	Maturity date	Plant ht. (inches)	Green stem[1]	Frogeye leaf spot[2]	Cercospora leaf blight[2]
DG 5475RR2	Delta Grow	84.0	81.1	----	10/03	32	3	3.7 def[3]	5.3 cd[3]
S52-Y2	NK	81.6	----	----	9/26	37	1	5.3 ab	5.7 bc
AG 5634	Asgrow	80.8	----	----	10/02	39	1	4.3 bcd	5.0 de
55R53	Rev	80.5	----	----	10/03	31	2	4.0 cde	5.0 de
P5333RY	Progeny	80.3	----	----	10/01	38	1	3.3 d-g	5.3 cd
56R63	Rev	80.1	----	----	10/07	38	2	3.0 klm	5.0 de
P5213RY	Progeny	79.6	----	----	9/23	45	1	2.7 f-i	7.0 a
S54RY43	Dyna-Gro	79.3	82.1	----	10/07	36	2	4.0 cde	5.0 de
DG 5575RR2	Delta Grow	78.8	----	----	10/03	36	2	2.7 f-i	5.0 de
S56RY84	Dyna-Gro	78.7	----	----	10/01	43	2	2.0 h-k	5.0 de
32RY55	Dyna-Gro	78.3	90.6	62.2	10/07	38	1	1.0 klm	5.0 de
P5555RY	Progeny	77.9	----	----	10/03	38	1	1.3 jkl	5.3 cd
DG 5130RR2	Delta Grow	76.9	----	----	9/28	37	2	5.0 abc	7.0 a
R2C 5081	Croplan	76.7	62.6	----	10/01	33	1	1.0 klm	5.3 cd
DG 5480RR2	Delta Grow	76.5	----	----	10/01	35	1	2.3 g-j	5.3 cd
P5210RY	Progeny	76.1	66.2	57.8	10/01	34	1	1.7 ijk	5.0 de
5101R2	Steyer	76.1	----	----	9/28	37	1	3.0 e-h	7.0 a
P50T64R	Pioneer	76.0	----	----	9/27	39	2	3.7 def	7.0 a
AG 5233	Asgrow	75.8	70.3	----	10/01	36	3	5.0 abc	7.0 a
5301R2	Steyer	75.7	----	----	9/26	41	1	5.0 abc	6.7 a
55-R22	Armor	75.5	87.4	----	10/03	30	2	1.3 jkl	5.0 de
P54T94R	Pioneer	75.3	----	----	10/01	32	1	3.5 d-g	5.0 de
DG 5625RR2	Delta Grow	75.3	----	----	10/07	35	1	2.0 h-k	5.0 de
AG 5534	Asgrow	75.1	----	----	10/02	33	1	2.0 h-k	5.3 cd
51R53	Rev	74.9	64.6	59.8	10/01	39	3	5.3 ab	6.0 b
P50T40R	Pioneer	74.9	----	----	9/28	36	2	1.0 klm	6.7 a
GT552R2	Great Heart	73.6	----	----	10/01	32	1	4.3 bcd	5.3 cd
P5111RY	Progeny	73.5	65.8	----	10/01	32	1	1.0 klm	6.0 b
GT500R2	Great Heart	73.3	----	----	9/28	32	2	5.0 abc	6.0 b
53-R88	Armor	73.2	----	----	10/01	29	1	3.3 d-g	5.3 cd
DG 5125RR2	Delta Grow	73.1	----	----	10/02	35	2	0.3 lm	6.0 b
P5610RY	Progeny	72.3	82.0	67.3	10/03	35	1	2.3 g-j	5.0 de
S53RY23	Dyna-Gro	72.2	73.8	----	10/03	33	1	3.7 def	5.0 de
DG 5565RR2	Delta Grow	72.1	----	----	10/03	32	1	1.0 klm	5.3 cd
MPG 5214	M Pride Genetics	71.6	----	----	10/01	42	1	3.7 def	5.0 de
AG 5332	Asgrow	71.3	69.9	62.0	10/01	36	3	5.5 ab	6.0 b
RY5221	HBK	71.2	82.4	57.0	9/27	37	1	5.5 ab	6.0 b
52R74	Rev	70.9	----	----	9/28	38	2	2.3 g-j	5.5 bcd
RY5421	HBK	69.6	76.2	61.5	10/01	31	1	0.0 m	4.7 e
56R21	Rev	67.2	65.7	58.2	10/03	34	2	2.0 h-k	5.0 de
5220.RC	Schillinger	67.0	71.1	57.0	10/07	37	2	4.3 bcd	5.3 cd
R2C 5371	Croplan	65.6	63.0	----	10/03	30	2	3.0 e-h	5.7 bc
ABX 2105	AgBorn	65.5	----	----	9/26	34	2	5.7 a	5.7 bc
	LSD (*P*=0.10)	7.5					LSD (*P*=0.05)	1.3	0.6
	Std. Deviation	6.4					Std. Deviation	1.7	0.7
	CV	8.5					CV	25.9	6.3
	Grand Mean	75.0					R^2	0.9	0.9

The shaded values in the yield column are not different from the highest value at the 10% probability level. See Table 1 footnote for green stem and disease rating scale.

Table 5. Data for Roundup Ready Late MG V Soybean Variety Trial planted May 14, 2013 on a Leeper silty clay loam soil, Verona, MS.

		Yield (bu/ac)			2013 Data				
Variety	Brand Name	2013	2012	2011	Maturity date	Plant ht. (inches)	Green stem[1]	Frogeye leaf spot[2]	Cercospora leaf blight[2]
59R13	Rev	79.11	76.9	----	10/07	35	1	0.0 c[3]	5.0 a[3]
57R21	Rev	77.77	----	----	10/03	43	1	1.7 a	5.0 a
39RY57	Dyna-Gro	74.80	86.3	----	10/03	36	1	1.0 b	5.0 a
AG 5831	Asgrow	71.29	78.0	62.5	10/07	30	1	2.0 a	5.3 a
P5711RY	Progeny	70.43	83.0	----	10/03	32	1	1.0 b	5.0 a
	LSD (*P*=0.10)	5.9					LSD (*P*=0.05)	0.4	0.3
	Std. Deviation	4.7					Std. Deviation	0.7	0.2
	CV	6.3					CV	21.3	4.4
	Grand Mean	74.7					R^2	0.9	0.4

The shaded values in the yield column are not different from the highest value at the 10% probability level. See Table 1 footnote for green stem and disease rating scale.

Table 6. Data for Conventional/Liberty Link MG IV Soybean Variety Trial planted May 14, 2013 on a Leeper silty clay loam soil, Verona, MS (LL following variety name means Liberty Link).

		Yield (bu/ac)			2013 Data				
Variety	Brand Name	2013	2012	2011	Maturity date	Plant ht. (inches)	Green stem[1]	Frogeye leaf spot[2]	Cercospora leaf blight[2]
4711LL	Go Soy	85.0	78.7	55.4	10/01	49	1	0.0 d[3]	0.5 jk[3]
LL4950	HBK	82.0	----	----	10/03	45	1	0.0 c	2.0 f-j
ABX 2174	AgBorn	81.9	----	----	9/19	33	3	1.7 a	4.3 a-d
P4930LL	Progeny	81.3	----	----	10/01	40	1	0.3 c	1.0 ijk
DG 4967LL	Delta Grow	81.0	76.8	----	10/03	45	2	0.3 c	0.8 jk
UA 4913 C	Univ. of Arkansas	80.7	----	----	10/01	25	2	0.0 c	3.0 c-h
DG 4981LL	Delta Grow	79.0	----	----	10/07	61	1	1.0 b	0.0 k
4912LL	Go Soy	76.1	82.2	----	10/07	47	1	0.3 c	2.3 e-j
LL4650	HBK	75.8	----	----	9/19	38	2	0.0 c	5.3 ab
4:65	HALO	75.1	60.0	52.4	9/19	41	3	0.5 bc	4.0 a-e
S49LL34	Dyna-Gro	73.5	----	----	10/01	42	1	0.5 bc	1.0 ijk
LL4850	HBK	71.8	----	----	10/01	36	3	1.7 a	4.3 a-d
P4928LL	Progeny	71.4	78.6	55.9	10/02	42	2	0.0 c	3.5 b-f
4812LL	Go Soy	70.8	78.3	----	10/01	36	4	1.8 a	1.5 g-k
4:40	HALO	70.7	----	----	9/19	30	5	0.0 c	5.7 a
4:95	HALO	68.3	----	----	10/02	35	3	1.8 a	1.3 h-k
4:94	HALO	68.3	75.3	55.0	10/01	45	2	0.0 d	3.3 c-g
4411LL	Go Soy	68.1	59.7	54.3	9/26	39	2	0.3 c	4.5 a-d
P4560LL	Progeny	68.0	----	----	9/17	37	1	0.3 c	4.8 abc
DG 4990LL	Delta Grow	66.7	76.7	----	10/01	44	1	0.5 bc	2.8 d-i
P4819LL	Progeny	66.3	----	----	10/01	34	3	1.0 b	1.5 g-k
	LSD (*P*=0.10)	7.3					LSD (*P*=0.05)	0.6	1.9
	Std. Deviation	6.1					Std. Deviation	0.7	2.0
	CV	8.3					CV	77.3	50.0
	Grand Mean	74.4					R^2	0.8	0.7

The shaded values are not different from the highest value at the 10% probability level. See Table 1 footnote for green stem and disease rating scale.

Table 7. Conventional/Liberty Link MG V Soybean Variety Trial planted May 15, 2013 on a Leeper silty clay loam soil, Verona, MS (LL following variety name means Liberty Link).

		Yield (bu/ac)			2013 Data				
Variety	Brand Name	2013	2012	2011	Maturity date	Plant ht. (inches)	Green stem[1]	Frogeye leaf spot[2]	Cercospora leaf blight[2]
UA 5612	Univ. of Ark.	86.1	81.6	----	10/07	37	[1]	1.0 b[3]	5.0 c[3]
5:01	HALO	77.7	----	----	10/02	47	1	0.0 d	5.0 c
UA 5213C	Univ. of Ark.	77.6	----	----	10/01	32	1	2.0 a	5.7 b
5312LL	Go Soy	74.1	----	----	10/03	46	1	2.0 a	6.5 a
DG 5361LL	Delta Grow	73.7	----	----	10/07	49	1	2.0 a	5.8 b
Osage	Univ. of Ark.	72.9	77.4	55.9	10/01	28	1	1.0 b	5.0 c
Leland	Stratton Seed	72.3	----	----	9/26	33	1	0.0 d	5.0 c
P5960LL	Progeny	72.2	80.4	63.5	10/03	31	2	0.5 c	5.0 c
DG 5461LL	Delta Grow	72.1	----	----	9/28	45	1	1.0 b	5.5 bc
P5460LL	Progeny	70.0	67.8	----	10/01	44	1	1.0 b	5.3 bc
5111LL	Go Soy	69.1	72.9	54.0	10/03	29	1	1.0 b	5.0 c
5010LL	Go Soy	68.7	----	----	10/03	33	1	1.0 b	5.3 bc
P5160LL	Progeny	68.6	66.1	56.3	10/03	26	1	1.0 b	5.5 bc
5:01-5	HALO	68.6	----	----	10/01	46	1	1.0 b	5.3 bc
Ozark	Univ. of Ark.	67.8	66.8	54.2	10/01	34	1	1.0 b	5.0 c
5410LL	Go Soy	66.5	68.5	----	10/01	46	1	0.5 c	5.3 bc
5:45	HALO	64.7	84.1	----	10/07	34	1	1.0 b	5.0 c
LL5350	HBK	64.3	----	----	10/07	25	1	1.0 b	5.0 c
5:26	HALO	63.7	----	----	10/03	31	1	0.0 d	5.5 bc
DG 5481LL	Delta Grow	62.7	----	----	10/07	51	1	0.0 d	5.0 c
	LSD (*P*=0.10)	5.9					LSD (*P*=0.05)	0.3	0.6
	Std. Deviation	5.0					Std. Deviation	0.6	0.5
	CV	7.0					CV	22.6	7.8
	Grand Mean	70.7					R^2	0.9	0.6

The shaded values are not different from the highest value at the 10% probability level. See Table 1 footnote for green stem and disease rating scale.