

SOYBEAN VARIETY PERFORMANCE TESTS IN TENNESSEE

2013

AGRESEARCH & EDUCATION CENTERS AND COUNTY STANDARD TESTS

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Variety test results are posted on UT's website at:

**<http://varietytrials.tennessee.edu/>
and
www.utcrops.com**

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2013 County Standard Tests -- Soybean Cooperators & Agents

Group III

	Cooperator(s)	Agent
Coffee	L.A. Teal & Mike England	Steve Harris
Dyer	Mike Underwood	Tim Campbell
Franklin	David Denton	Ed Burns/Creig Kimbro
Henry	David & Finis Wilson	Ranson Goodman
Lake	Jon Dickey	Greg Allen
Madison	David Martin	Jake Mallard
Obion	Kenneth & Blake Cheatham	Tim Smith
Weakley	Ronnie Yeargin	Jeff Lannom

Group IV Early

Cannon	Johnny & Judy Powell	Bruce Steelman
Coffee	L.A. Teal & Mike England	Steve Harris
Dyer	Mike Underwood	Tim Campbell
Franklin	David Denton	Ed Burns/Creig Kimbro
Henry	David & Finis Wilson	Ranson Goodman
Hickman	Clint & Claude Callicott	Troy Dugger
Lake	Jon Dickey	Greg Allen
Lawrence	Bent Larsen	Calvin Bryant
Madison	David Martin	Jake Mallard
Obion	Kenneth & Blake Cheatham	Tim Smith
Tipton	David Templeton	Booker Leigh
Weakley	Brian Garner	Jeff Lannom

Group IV Late

<i>Ballard, KY</i>	Lester & Tracey Sullivan	Bob Middleton
<i>Calloway, KY</i>	Craig Carraway	Tim Lax
Coffee	L.A. Teal & Mike England	Steve Harris
Decatur	Stacy Vise	Amanda Mathenia
Dyer	Mike Underwood	Tim Campbell
Fayette 1	Ames Plantation	Jeff Via
Fayette 2	Joseph & Joey McNabb	Jeff Via
Franklin	Steve Dixon	Ed Burns/Creig Kimbro
Giles	Richard Sulcer	Kevin Rose
Hardin	Gerry Lambert	Brian White
Henry	David & Finis Wilson	Ranson Goodman
Lake	Jon Dickey	Greg Allen
Madison	Matt Griggs	Jake Mallard
Marion	Dewey & Randy Gilliam	Jared Goad
Montgomery	Steve Joiner/Michael Suiter	Rusty Evans
Obion	Kenneth & Blake Cheatham	Tim Smith

2013 County Standard Tests -- Soybean Cooperators & Agents

Group V Early

<i>Carlisle, KY</i>	Curtsinger Farms	Bob Middleton
Coffee	L.A. Teal & Mike England	Steve Harris
Crockett	Stoney Hargett	Richard Buntin
Dyer	Mike Underwood	Tim Campbell
Fayette	Lee Graves	Jeff Via
Franklin	David Denton	Ed Burns/Creig Kimbro
Lake	John Fields	Greg Allen
Madison	David Martin	Jake Mallard
Shelby 1	Scott Johnson	Becky Muller
Shelby 2	Jerry Tolbert	Becky Muller

Liberty Link MG4 Late (4.6 – 4.9)

Dyer	Brad Studard	Tim Campbell
Fayette	Joseph & Joey McNabb	Jeff Via
Franklin	David Denton	Ed Burns/Creig Kimbro
<i>Fulton, Ky 1</i>	Amberg Farms	Ben Mullins
<i>Fulton, Ky 2</i>	Johnson Linder	Ben Mullins
Gibson	Denton Clay Parkins	Philip Shelby
Obion	Bill Sellers	Tim Smith
Shelby	Scott Johnson	Becky Muller

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PERFORMANCE OF SOYBEAN VARIETIES IN TENNESSEE

AGRESEARCH & EDUCATION CENTERS AND COUNTY STANDARD TESTS

Experimental Procedures

AgResearch & Education Center Tests: All soybean variety trials were conducted in each of the physiographic regions of the state. Tests were conducted at the Agricenter International Research Center (Memphis), Ames Plantation (Grand Junction), Highland Rim (Springfield), East Tennessee (Knoxville), and Milan (Milan), AgResearch & Education Centers (REC). Duplicate plantings of all nine tests [**Maturity Group 3 Roundup Ready (i.e., RR3), RR4 early (relative maturity 4.0– 4.5), RR4 late (RM 4.6-4.9) RR5 early (RM 5.0-5.5), RR5 late (RM 5.6-5.9), Liberty Link LL4 (RM 4.0 – 4.9), LL5 (RM 5.0 – 5.9), Conventional CV4 (RM 4.0 – 4.9), and CV5 (RM 5.0 – 5.9)**] were made at the Milan and Highland Rim RECs for performance testing with and without irrigation.

The plot size at all REC locations was two rows, 30 feet in length with 30 inch row spacing. All varieties were planted at approximately 8 seeds per foot of row (i.e., approximately 140,000 seed per acre REC tests). Plots were replicated three times at each location in a randomized complete block design. Plots at Milan and Springfield were sprayed with a foliar fungicide approximately one month after planting, and again approximately 21 days later as a preventative treatment for fungal diseases such as soybean rust. Soybean rust was detected in Tennessee in late season planted soybeans, but at low severity. Because of the large number of varieties in some tests and the field variation at each location, an incomplete block design was imposed *ex post facto* prior to data analysis in order to reduce the within-block field variability and the experimental error.

Genetics and Seed Treatments: Seed of all varieties included in the REC tests were treated with one or more fungicides plus an insecticide. Research has shown that seed treatments can influence yield, therefore **the yields of varieties reported herein are the combined result of the genetic potential of the varieties plus the seed treatment “packages”**. The seed treatments that were included on each variety were determined by the company or organization and are listed in Table 78. Many soybean varieties are now being marketed with combinations of fungicide and insecticides on the seed, similar to corn. A decision was made to test the varieties in the UT soybean performance tests with the seed treatments so the results would be comparable to what producers could expect from seed they purchase.

County Standard Tests: The County Standard Soybean Tests were conducted in 18 counties in Tennessee, and three in Western Kentucky. The number of county locations depended on the test (e.g., 8 - 16). The County Standard Tests were divided into **RR3, RR4 early (relative maturity 4.0-4.5), RR4 late (RM 4.6-4.9), RR5 early (RM 5.0-5.5) and a Liberty Link (RM 4 late) test**. Each variety was evaluated in a large strip-plot at each location, thus each county test was considered as one replication of the test in calculating the overall average yield and in conducting the statistical analysis to determine significant differences. At each location, plots were planted, sprayed, fertilized, and harvested with the equipment used in the cooperating producer's farming operation. The width and length of strip-plots were different in each county; however, within a location in a county, the strips were trimmed on the ends so that the lengths were the same for each variety, or if the lengths were different then the harvested length was measured for each variety and appropriate harvested area adjustments were made to determine the yield per acre.

Interpretation of Data

The tables on the following pages have been prepared with the entries listed in order of performance, the highest-yielding entry being listed first. **All yields presented have been adjusted to 13% moisture.** At the bottom of the tables, **LSD** values stand for **Least Significant Difference**. The mean yields of any two varieties being compared must differ by at least the amount shown (minimum) to be considered different in yielding ability at the 5% level of probability of significance. For example, given that the LSD for a test is 8.0 bu/a and the mean yield of Variety A was 30 bu/a and the mean yield of Variety B was 35 bu/a, then the two varieties are not statistically different in yield because the difference of 5 bu/a is less than the minimum of 8 bu/a required for them to be significant. On the other hand, if the average yield of Variety C was 43 bu/a then it is significantly higher yielding than both Variety B (43 - 35 = 8 bu/a = LSD of 8) and Variety A (43 - 30 = 13 bu/a > LSD of 8).

Also, the **coefficient of variation (C.V.)** values are shown at the bottom of each table. This value is a measure of the error variability found within each experiment. It is the percentage that the error variation is of the overall test mean yield at that location. For example, a C.V. of 10% indicates that the size of the error variation is about 10% of the size of the test mean. Similarly, a C.V. of 30% indicates that the size of the error variation is nearly one-third as large as the test mean. A goal in conducting each yield test is to keep the C.V. as low as possible, preferably below 20%.

RESULTS

Yield and Agronomic Traits. Two hundred and fifty one soybean varieties were evaluated in the 2013 **AgResearch & Education Center (REC)** tests in Tennessee. There were eight varieties in the RR3, 34 in the RR4E, 75 in the RR4L, 44 in the RR5E, 13 in the RR5L, 29 in the LL4, 15 in the LL5, 16 CV4, and 14 in the CV5 test. The **County Standard tests (CST)** involved 72 varieties total, consisting of a RR3 test (4 varieties at 8 locations), a RR4E test (14 varieties at 12 locations), a RR4L test (24 varieties at 16 locations), a RR5E test (15 varieties at 10 locations) and a Liberty Link MG4 test (15 varieties at 8 locations). In addition to 22 Tennessee counties, the County Standard Tests involved three counties in Western Kentucky (Carlisle, Fulton, and McCracken). **Tables 2-77** contain data on yield and agronomic traits such as maturity, plant height, lodging, shattering, seed quality, seed protein and oil content. Due to favorable rainfall events later in the growing season, yields in the irrigated test were lower than yields in the non-irrigated tests for MG4 LL (Table 49), MG5 LL (Table 59), MG4 Conventional (Table 66), and MG5 Conventional varieties (Table 71). Frogeye leaf spot was observed in plots at the Knoxville location. Ratings were taken on August 26 on a scale of 1 to 9 where a score of 1 = no disease and 9 = heavy disease. Frogeye ratings are included in tables reporting agronomic traits for all locations. SDS symptoms were observed in the Milan non-irrigated plots in late August and, due to heavy infestation of this disease, this location was analyzed separately for yield and SDS ratings (Tables 4, 14, 24, 34, 44, 51, 61, 68, and 73). Early in the growing season, some soybean varieties in both the irrigated and non-irrigated tests at Milan exhibited stunted growth from the effects of LeadOff herbicide being applied at the rate of 1.5 oz/a in the burndown application in late March. Ratings were taken on July 12 for "plant health" on a scoring scale of 1 to 4. A score of 1 = normal plants; 2 = ~ 80% normal; 3 = ~ 60% normal; and 4 = < 60% normal, but no plants approaching death (Tables 4, 14, 24, 34, 44, 51, 61, 68, and 73). However, varieties exhibiting stunting recovered and grew out of the symptoms and appeared normal by the end of the season. **Table 78** lists the names and the companies

descriptive characteristics of the varieties included in the REC tests in 2013. **Table 79** contains the contact information for each soybean seed company with entries in the 2013 REC tests.

Growing Season: The 2013 growing season was characterized by heavy precipitation which delayed planting by about two weeks compared to the five year average. Continued above average rainfall throughout the growing season was beneficial to the state's soybean crop with 84 percent of the crop rated good to excellent in late September. Soybean harvest was delayed by rainfall; however, yields were well above 2012 averages. According to the Tennessee Agricultural Statistics Service, producers planted 1.56 million acres this year, an increase of 300,000 from 2012. Acreage harvested for grain is projected to be 1.5 million, up 290,000 acres from last season. Soybean production for 2013 is projected to be 72.96 million bushels, an increase of 56 percent from the previous year. The state soybean yield average is projected to be 48.0 bu/a, which is 10 bushels above the 2012 yield.

CST Disease & SCN Ratings: Ratings on variety reactions to frogeye leaf spot and SDS are presented in **Tables 10, 20, 30, 40, 57** (data provided by Dr. Heather Young-Kelly, Dept. of Entomology and Plant Pathology, UT). Soybean cyst nematode (races 2, 3, and 5) ratings in these tables provided by Dr. Pat Donald, USDA-ARS, Jackson, TN.

Table 1. Location information from AgResearch and Education Centers where the soybean variety tests were conducted in 2013

Research Center	Location	Planting Date	Harvest Date	Seeding Rate	Soil Type
Roundup Ready Maturity Group III					
Highland Rim (Irrigated)	Springfield	5/16/2013	10/9/2013	140000	Dickson Silt Loam
Highland Rim (Non Irrigated)	"	5/16/2013	10/9/2013	140000	Dickson Silt Loam
Knoxville	Knoxville	5/3/2013	9/24/2013	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/28/2013	10/10/2013	140000	Grenada Silt Loam
Milan (Non Irrigated)	"	5/20/2013	10/11/2013	140000	Grenada Silt Loam
Roundup Ready Maturity Group Early IV (4.0 - 4.5)					
Agricenter International	Memphis	6/4/2013	12/2/2013	140000	Falaya Silt Loam
Ames	Grand Junction	4/25/2013	9/26/2013	140000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/16/2013	10/9/2013	140000	Dickson Silt Loam
Highland Rim (Non Irrigated)	"	5/16/2013	10/10/2013	140000	Dickson Silt Loam
Knoxville	Knoxville	5/3/2013	9/27/2013	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/28/2013	10/10/2013	140000	Grenada Silt Loam
Milan (Non Irrigated)	"	5/20/2013	10/11/2013	140000	Grenada Silt Loam
Roundup Ready Maturity Group Late IV (4.6 - 4.9)					
Agricenter International	Memphis	6/4/2013	12/2/2013	140000	Falaya Silt Loam
Ames	Grand Junction	4/25/2013	9/27/2013	140000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/16/2013	10/12/2013	140000	Dickson Silt Loam
Highland Rim (Non Irrigated)	"	5/16/2013	10/15/2013	140000	Dickson Silt Loam
Knoxville	Knoxville	5/3/2013	9/30/2013	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/28/2013	10/14/2013	140000	Grenada Silt Loam
Milan (Non Irrigated)	"	5/20/2013	10/11/2013	140000	Grenada Silt Loam
Roundup Ready Maturity Group Early V (5.0 - 5.5)					
Ames	Grand Junction	4/25/2013	10/14/2013	140000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/16/2013	10/24/2013	140000	Dickson Silt Loam
Highland Rim (Non Irrigated)	"	5/16/2013	10/23/2013	140000	Dickson Silt Loam
Knoxville	Knoxville	5/3/2013	10/11/2013	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/28/2013	10/23/2013	140000	Grenada Silt Loam
Milan (Non Irrigated)	"	5/28/2013	10/24/2013	140000	Grenada Silt Loam
Roundup Ready Maturity Group Late V (5.6 - 5.9)					
Ames	Grand Junction	4/25/2013	11/12/2013	140000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/16/2013	10/24/2013	140000	Dickson Silt Loam
Highland Rim (Non Irrigated)	"	5/16/2013	10/23/2013	140000	Dickson Silt Loam
Knoxville	Knoxville	5/3/2013	10/11/2013	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/28/2013	10/23/2013	140000	Grenada Silt Loam
Milan (Non Irrigated)	"	5/28/2013	10/24/2013	140000	Grenada Silt Loam
Liberty Link Maturity Group IV (4.0 - 4.9)					
Ames	Grand Junction	4/26/2013	10/14/2013	140000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/16/2013	10/15/2013	140000	Sango Silt Loam
Highland Rim (Non Irrigated)	"	5/16/2013	10/23/2013	140000	Dickson Silt Loam
Knoxville	Knoxville	5/10/2013	10/7/2013	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/28/2013	10/14/2013	140000	Memphis Silt Loam
Milan (Non Irrigated)	"	5/28/2013	10/11/2013	140000	Grenada Silt Loam
Liberty Link Maturity Group V (5.0 - 5.9)					
Ames	Grand Junction	4/26/2016	11/13/2013	140000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/16/2013	10/23/2013	140000	Sango Silt Loam
Highland Rim (Non Irrigated)	"	5/16/2013	10/24/2013	140000	Dickson Silt Loam
Knoxville	Knoxville	5/10/2013	10/7/2013	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/28/2013	10/22/2013	140000	Memphis Silt Loam
Milan (Non Irrigated)	"	5/28/2013	10/21/2013	140000	Grenada Silt Loam
Conventional Maturity Group IV (4.0 - 4.9)					
Highland Rim (Irrigated)	Springfield	5/16/2013	10/9/2013	140000	Sango Silt Loam
Highland Rim (Non Irrigated)	"	5/16/2013	10/10/2013	140000	Dickson Silt Loam
Knoxville	Knoxville	5/10/2013	10/2/2013	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/28/2013	10/14/2013	140000	Memphis Silt Loam
Milan (Non Irrigated)	"	5/28/2013	10/11/2013	140000	Grenada Silt Loam

Table 1. (continued)**Conventional Maturity Group V (5.0 - 5.9)**

Highland Rim (Irrigated)	Springfield		5/16/2013	10/15/2013	140000	Sango Silt Loam
Highland Rim (Non Irrigated)		"	5/16/2013	10/23/2013	140000	Dickson Silt Loam
Knoxville	Knoxville		5/10/2013	10/7/2013	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan		5/28/2013	10/22/2013	140000	Memphis Silt Loam
Milan (Non Irrigated)		"	5/28/2013	10/21/2013	140000	Grenada Silt Loam

Table 2. Mean yields † of eight Maturity Group III Roundup Ready soybean varieties evaluated in four environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=4)	Knoxville	Springfield		Milan Irr.
				Irr.	Non-Irr.	
				bu/a		
Armor	39-R16 (RR)	74 ± 1	80	68	75	72
Terral-REV Brand	38R10 (RR)	68 ± 1	75	68	73	54
Steyer	4203 R2 (RR2Y) (4E CHECK)	67 ± 1	77	69	72	50
Warren Seed	DSR-4330/R2Y (4E CHECK)	67 ± 1	74	70	65	57
Dyna-Gro	S38RY84 (RR2Y)	66 ± 1	77	65	70	53
Warren Seed	DS4010 (RR)	66 ± 1	78	63	63	59
AgBorn Genetics LLC	ABx2193 (RR)	57 ± 2	68	57	49	53
AgBorn Genetics LLC	ABx7648 (RR)	56 ± 1	68	59	50	50
Average (bu/a)		65	75	65	65	56
L.S.D._{.05} (bu/a)		4	6	10	10	9
C.V. (%)		7.6	4.4	8.2	8.9	9.4

Table 3. Mean yields † and agronomic characteristics of eight Maturity Group III Roundup Ready soybean varieties evaluated in four environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=4)	Moisture § (n=4)	Lodging (n=4)	Height (n=4)	Maturity (n=4)	Shattering (n=3)	Seed	Protein (n=1)	Oil (n=1)	Frogeye (n=1)
								Quality (n=1)			
		bu/a	%	Score	in.	DAP	Score		%	%	Score
Armor	39-R16 (RR)	74 ± 1	13.9	1.2	36	128	1.0	1.7	34.6	19.5	6.3
Terral-REV Brand	38R10 (RR)	68 ± 1	14.0	1.4	35	125	1.2	1.7	34.4	19.6	2.3
Steyer	4203 R2 (RR2Y) (4E CHECK)	67 ± 1	13.9	1.5	34	129	1.0	2.2	35.0	19.3	5.7
Warren Seed	DSR-4330/R2Y (4E CHECK)	67 ± 1	13.9	1.8	33	129	1.0	1.5	33.6	20.2	5.7
Dyna-Gro	S38RY84 (RR2Y)	66 ± 1	13.8	1.3	33	124	1.0	1.3	34.1	20.1	4.7
Warren Seed	DS4010 (RR)	66 ± 1	13.9	2.9	35	126	1.0	1.7	34.9	19.6	4.3
AgBorn Genetics LLC	ABx2193 (RR)	57 ± 2	13.8	1.8	36	127	1.0	1.8	34.6	19.9	6
AgBorn Genetics LLC	ABx7648 (RR)	56 ± 1	14.8	1.9	35	124	1.2	1.7	34.9	19.8	5
Average		65	14.0	1.7	35	127	1.1	1.7	34.5	19.8	5.0

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest.

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings taken 8/26/13 in Knoxville, TN

Table 4. Yields †, plant health, and disease ratings of eight Maturity Group III Roundup Ready soybean varieties evaluated at Milan, Tennessee during 2013.

Brand	Variety ‡	Yield Milan Irr.	Yield Milan Non-Irr.	Plant Health (n=2)	SDS		
					DI (n=1)	DS (n=1)	DX (n=1)
		bu/a	bu/a	(1-4)	%	0 - 9	index
Armor	39-R16 (RR/STS)	72	57	1	50	3.7	270
Steyer	4203 R2 (RR2Y) (4E CHECK)	50	50	2	28	3.0	83
Warren Seed	DSR-4330/R2Y (4E CHECK)	57	51	4	2	2.0	3
Dyna-Gro	S38RY84 (RR2Y)	53	51	2	19	3.0	72
Terral-REV Brand	38R10 (RR)	54	44	2	57	5.3	357
Warren Seed	DS4010 (RR)	59	42	1	37	3.3	181
AgBorn Genetics LLC	ABx2193 (RR)	53	46	3	4	2.0	12
AgBorn Genetics LLC	ABx7648 (RR)	50	43	2	31	3.7	119
	Average	56	48	2	29	3.3	137

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size on 8/28/13.

Table 5. Mean yield † of two Maturity Group III Roundup Ready soybean variety evaluated in four environments (n=8) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=8)	Knoxville	Springfield		Milan
				Irr.	Non-Irr.	Irr.
Armor	39-R16 (RR/STS)	68 ± 1	71	62	66	73
Terral-REV Brand	38R10 (RR)	64 ± 1	68	64	65	61
Average (bu/a)		66	70	63	66	67
L.S.D._{.05} (bu/a)		4	7	9	11	8
C.V. (%)		8.7	6.1	9.2	11.6	7.9

† All yields are adjusted to 13% moisture.

‡ If a RR appears inside parentheses (RR), then it is not part of the variety name.

Table 6. Mean yield † and agronomic characteristics of two Maturity Group III Roundup Ready soybean variety evaluated in four environments (n=8) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=8)	Moisture § (n=8)	Lodging (n=8)	Height (n=8)	Maturity (n=8)	Shattering (n=6)	Seed		
								Quality (n=2)	Protein (n=2)	Oil (n=2)
Armor	39-R16 (RR/STS)	68 ± 1	14.2	1.4	36	129	1.0	3.1	38.5	20.2
Terral-REV Brand	38R10 (RR)	64 ± 1	13.6	1.6	37	127	1.1	2.8	38.3	20.6
Average		66	13.9	1.5	37	128	1.1	3.0	38.4	20.4

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 7. Mean yield † of one Maturity Group III Roundup Ready soybean variety evaluated in four environments (n=12) in Tennessee for two years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield		Springfield		Milan
		± Std Err. (n=12)	Knoxville	Irr.	Non-Irr.	Irr.
Terral-REV Brand	38R10 (RR)	59 ± 1	68	56	52	61
Average (bu/a)		59	68	56	52	61
L.S.D._{.05} (bu/a)		4	7	8	10	7
C.V. (%)		8.7	6.3	9.3	12.7	7.2

† All yields are adjusted to 13% moisture.

‡ If a RR appears inside parentheses (RR), then it is not part of the variety name.

Table 8. Mean yield † and agronomic characteristics of one Maturity Group III Roundup Ready soybean variety evaluated in four environments (n=12) in Tennessee for two years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield				Moisture § (n=12)	Lodging (n=12)	Height (n=12)	Maturity (n=12)	Shattering (n=9)	Seed		
		± Std Err. (n=12)	bu/a	Quality (n=3)	Protein (n=3)						Oil (n=3)		
Terral-REV Brand	38R10 (RR)	59 ± 1	68	56	52	13.4	1.6	37	126	1.1	2.4	38.6	21.5
Average		59	68	56	52	13.4	1.6	37	126	1.1	2.4	38.6	21.5

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 9. Yields † of four Maturity Group III Roundup Ready soybean varieties in eight County Standard Tests in Tennessee during 2013.

MS	Brand/Variety	Avg. Yld. bu/a	Moist %	Coffee 5/2 §	Dyer 5/28	Franklin 5/21	Henry 6/26	Lake 5/16	Madison 5/30	Obion 5/28	Weakley 6/28
A	**Terral REV-38R10	67.0	14.3	73.6	59.9	84.4	62.9	54.2	83.4	63.7	54.1
A	Asgrow AG3833 GENRR2Y	66.7	14.4	76.2	61.0	74.5	68.7	55.0	95.1	59.7	43.4
A	Warren Seed DS 4010	66.0	14.3	71.1	65.5	66.1	58.8	54.0	90.7	68.3	53.3
A	Armor 39-R16 RR2/STS	63.4	14.4	82.3	62.9	71.2	60.6	44.4	78.7	61.5	46.1
Average (bu/a)		65.8	14.3	75.8	62.3	74.1	62.7	51.9	87.0	63.3	49.2

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each location, thus each county test was considered as one replication of the test in calculating the average yield and in conducting the statistical analysis to determine significant differences (MS).

Variety marked with an asterisk (**) was in the top performing group in 2013, 2012 and 2011.

MS= Varieties with any MS letter in common are not statistically different at the 5% level of probability.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 10. Yields † and disease ratings § of four Maturity Group III Roundup Ready soybean varieties evaluated in 8 Tennessee and Kentucky County Standard Tests during 2013.

MS	Brand/Variety	CST Avg. Yield (n=8)	----- Research and Education Center at Milan -----						
			Frogeye	Sudden Death	Treated † Yield	Untreated Yield	SCN		
						Race 2	Race 3	Race 5	
		bu/a			bu/a	bu/a			
A	**Terral REV-38R10	67.0	LOW	LOW-MOD	39.9	36.7	MS	S	S
A	Asgrow AG3833 GENRR2Y	66.7	MOD	LOW	37.3	36.9	-	-	-
A	Warren Seed DS 4010	66.0	LOW	LOW	39.3	33.3	S	MR	S
A	Armor 39-R16 RR2/STS	63.4	LOW	LOW	45.2	39.1	S	MS	S
Average (bu/a)		65.8			40.4	36.5			

YLD= Avg. Yield @ 13% moisture.

MS= Varieties that have any MS letter in common are not statistically different in yield at the 5% level of probability.

Variety marked with an asterisk (**) was in the top performing group in 2013, 2012 and 2011.

County locations include: Coffee, Dyer, Franklin, Henry, Lake, Madison, Obion and Weakley.

† Treated plots at RECM sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R3 growth stage. RECM varieties planted May 28

Disease ratings (of unsprayed plots) for Frogeye and Sudden Death are LOW (0-10% disease), MOD (11-40% disease), HIGH (41-100%)

Disease ratings & yield data compiled by Dr. Heather Kelly from replicated plots at the Research and Education Center at Milan (RECM, which has severe disease pressure)

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, WTREC. Race 2 (HG Type 1.2.5.7), Race 3 (HG Type 7) and

Race 5 (HG Type 2.5.7), HS = Highly Susceptible, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant.

Table 11. Overall average yields † and moistures of three Maturity Group III Roundup Ready soybean varieties evaluated in County Standard Tests (n=8) and AgResearch and Education Centers (n=4) in Tennessee during 2013.

Brand	Variety ‡	Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
		Avg. Yield	Moisture	Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%	bu/a	%
Armor	39-R16 (RR)	69	14.1	63	14.4	74	13.9
Terral-REV Brand	38R10 (RR)	68	14.1	67	14.3	68	14.0
Warren Seed	DS4010 (RR)	66	14.1	66	14.3	66	13.9
Average (bu/a)		67	14.1	65	14.3	69	13.9

† Yields have been adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 12. Mean yields † of 34 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in six environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=6)	bu/a					
			Knoxville	Springfield		Milan	AgCenter	
			Irr.	Non-Irr.	Irr.	Ames	Memphis	
Mycogen	5N451R2	64 ± 2	69	83	55	67	59	50
AGSouth Genetics	AGS 43R212 (RR2Y)	64 ± 2	65	66	66	68	67	50
Progeny	4211 RY (RR2Y)	63 ± 2	59	81	66	68	54	51
Warren Seed	DSR-4633/R2Y	63 ± 2	65	77	59	69	63	44
Armor	44-R08 (RR2Y)	63 ± 2	67	83	61	70	47	47
Steyer	4501 R2 (RR2Y)	62 ± 2	64	85	57	61	59	47
Dyna-Gro	31RY45 (RR2Y)	62 ± 2	56	87	56	67	61	45
Croplan	RT 47995 (RR)	61 ± 2	64	74	55	63	61	51
USG	74F53R (RR2Y/STS)	61 ± 2	55	74	62	66	61	48
AGSouth Genetics	AGS 45R212 (RR2Y)	61 ± 2	66	79	57	61	56	46
USG	74A33R (RR2Y)	61 ± 2	67	69	53	58	44	73
LG Seeds	C4544R2	60 ± 2	49	80	58	66	55	52
Morsoy Xtra	R2 44X82	60 ± 2	62	79	58	62	49	52
Steyer	4203 R2 (RR2Y)	60 ± 2	64	65	65	71	44	49
Steyer	4401R2	60 ± 2	67	75	53	64	55	45
Beck's Hybrids	444NR (RR)	59 ± 2	68	71	54	67	53	44
Mycogen	5N423R2 (STS)	59 ± 2	60	66	60	64	56	48
Dyna-Gro	39RY43 (RR2Y)	59 ± 2	50	77	64	69	45	49
Mycogen	5N431R2	58 ± 2	46	75	61	65	51	52
Warren Seed	DS4330 R2Y	58 ± 2	48	77	59	66	47	54
Asgrow	AG4534 (RR2Y/STS)	58 ± 2	27	73	58	70	65	51
Schillinger Seed	458 RCS	58 ± 2	45	71	58	59	67	45
Armor	45-R60 (RR2Y/STS)	57 ± 2	43	74	59	67	54	48
Asgrow	AG4232 GENRR2Y (STS)	57 ± 2	36	78	62	71	46	50
Progeny	4313 RY	57 ± 2	62	70	53	63	41	54
Progeny	4510 RY (RR2Y/STS)	57 ± 2	41	69	59	61	58	51
Dyna-Gro	S44RS93 (RR2Y/STS)	56 ± 2	40	77	51	62	57	49
NK	S 41-J6 (RR2Y)	55 ± 2	39	82	50	58	56	48
Beck's Hybrids	418NR (RR)	55 ± 2	44	72	54	69	52	40
AgBorn Genetics LLC	ABx71141 (RR)	55 ± 2	38	66	52	65	64	46
AgBorn Genetics LLC	ABx0448 (RR)	55 ± 2	46	81	51	58	48	43
Armor	X1401 (RR2)	54 ± 2	27	86	58	58	52	44
Asgrow	AG4433 GENRR2Y	53 ± 2	21	81	58	59	49	49
TN Exp	TN09-47,169 (RR2Y)	48 ± 2	25	71	59	55	42	37
Average (bu/a)		59	51	76	58	64	54	76
L.S.D._{.05} (bu/a)		4	13	9	7	10	10	10
C.V. (%)		10.8	10.0	8.8	6.7	11.2	13.1	13.1

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 13. Mean yields † and agronomic characteristics of 34 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in six environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield	Moisture §	Lodging	Height	Maturity	Shattering	Seed Quality	Protein	Oil
		± Std Err. (n=6) bu/a	(n=6) %	(n=4) Score	(n=4) in.	(n=4) DAP	(n=3) ----- Score -----	(n=1) -----	(n=1) %	(n=1) %
Mycogen	5N451R2	64 ± 2	14.5	1.6	35	129	1.0	1.5	33.0	20.1
AGSouth Genetics	AGS 43R212 (RR2Y)	64 ± 2	13.9	1.7	36	131	1.0	3.8	35.3	19.3
Progeny	4211 RY (RR2Y)	63 ± 2	14.2	1.7	34	128	1.0	1.8	34.1	19.9
Warren Seed	DSR-4633/R2Y	63 ± 2	13.7	1.4	36	129	1.0	1.8	32.8	20.2
Armor	44-R08 (RR2Y)	63 ± 2	14.7	1.8	33	127	1.0	2.2	34.4	19.8
Steyer	4501 R2 (RR2Y)	62 ± 2	14.5	1.7	35	129	1.0	1.8	34.4	19.3
Dyna-Gro	31RY45 (RR2Y)	62 ± 2	14.3	1.5	36	129	1.0	2.2	33.1	20.0
Croplan	RT 47995 (RR)	61 ± 2	14.0	1.5	34	128	1.0	1.5	34.3	19.6
USG	74F53R (RR2Y/STS)	61 ± 2	15.7	1.9	36	129	1.0	2.3	35.5	19.7
AGSouth Genetics	AGS 45R212 (RR2Y)	61 ± 2	14.1	1.7	39	131	1.0	2.2	33.7	19.8
USG	74A33R (RR2Y)	61 ± 2	14.6	2.0	32	130	1.0	2.0	35.5	19.1
LG Seeds	C4544R2	60 ± 2	14.9	1.7	38	129	1.0	2.2	33.0	20.1
Morsoy Xtra	R2 44X82	60 ± 2	14.3	1.3	34	130	1.0	1.8	35.3	19.1
Steyer	4203 R2 (RR2Y)	60 ± 2	14.3	1.6	32	129	1.0	1.8	34.1	20.0
Steyer	4401R2	60 ± 2	14.3	1.3	31	127	1.1	2.0	34.2	19.5
Beck's Hybrids	444NR (RR)	59 ± 2	14.3	1.7	34	129	1.0	2.7	35.5	19.7
Mycogen	5N423R2 (STS)	59 ± 2	14.9	1.4	35	128	1.0	2.2	33.7	20.2
Dyna-Gro	39RY43 (RR2Y)	59 ± 2	14.6	1.6	33	128	1.0	1.8	34.5	19.6
Mycogen	5N431R2	58 ± 2	14.5	1.7	34	129	1.0	2.5	34.2	20.0
Warren Seed	DS4330 R2Y	58 ± 2	14.5	2.0	33	130	1.0	1.7	35.4	19.1
Asgrow	AG4534 (RR2Y/STS)	58 ± 2	13.5	2.0	37	131	1.0	3.2	35.5	19.4
Schillinger Seed	458 RCS	58 ± 2	14.1	1.7	38	131	1.0	2.7	36.0	18.8
Armor	45-R60 (RR2Y/STS)	57 ± 2	14.5	1.3	31	126	1.0	1.7	34.8	19.7
Asgrow	AG4232 GENRR2Y (STS)	57 ± 2	14.9	2.0	35	128	1.0	2.5	34.3	19.1
Progeny	4313 RY	57 ± 2	14.8	1.9	31	130	1.0	2.5	35.0	19.1
Progeny	4510 RY (RR2Y/STS)	57 ± 2	14.2	1.6	34	129	1.0	2.5	34.6	19.1
Dyna-Gro	S44RS93 (RR2Y/STS)	56 ± 2	14.2	1.2	30	127	1.0	1.5	34.6	19.6
NK	S 41-J6 (RR2Y)	55 ± 2	14.1	1.7	35	128	1.0	2.5	35.7	19.3
Beck's Hybrids	418NR (RR)	55 ± 2	13.7	1.4	34	127	1.0	2.5	33.5	20.4
AgBorn Genetics LLC	ABx71141 (RR)	55 ± 2	14.8	1.8	39	130	1.0	2.8	34.6	20.0
AgBorn Genetics LLC	ABx0448 (RR)	55 ± 2	14.4	2.3	37	129	1.0	2.0	34.2	19.8
Armor	X1401 (RR2)	54 ± 2	14.0	1.3	34	129	1.0	2.5	34.1	19.5
Asgrow	AG4433 GENRR2Y	53 ± 2	14.4	1.5	37	130	1.0	2.2	34.1	19.5
TN Exp	TN09-47,169 (RR2Y)	48 ± 2	18.0	1.6	32	132	1.0	2.3	36.1	18.6
Average		59	14.5	1.7	34.5	129.0	1.0	2.2	34.5	19.6

† All yields are adjusted to 13% moisture.

§ Average moisture at harvest

Maturity = days after planting (DAP).

Protein & Oil on dry weight basis.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Table 14. Yields †, plant health, and disease ratings of 34 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated at Milan, Tennessee during 2013.

Brand	Variety ‡	Yield	Yield	Plant	SDS		
		Milan Irr.	Milan Non-Irr.	Health (n=2)	DI (n=1)	DS (n=1)	DX (n=1)
		bu/a	bu/a	(1-4)	%	0 - 9	index
AGSouth Genetics	AGS 43R212 (RR2Y)	67	70	1	17	2.7	64
Progeny	4211 RY (RR2Y)	54	60	2	40	3.0	120
Asgrow	AG4534 (RR2Y/STS)	65	56	1	27	2.7	94
USG	74F53R (RR2Y/STS)	61	56	1	40	3.3	133
Dyna-Gro	39RY43 (RR2Y)	45	60	2	19	2.7	56
Mycogen	5N431R2	51	59	2	43	3.3	153
Warren Seed	DSR-4633/R2Y	63	50	1	72	4.3	312
LG Seeds	C4544R2	55	51	1	47	3.7	187
Dyna-Gro	31RY45 (RR2Y)	61	46	1	82	5.0	418
Schillinger Seed	458 RCS	67	60	1	40	2.3	103
Mycogen	5N451R2	59	46	1	75	5.3	417
Armor	44-R08 (RR2Y)	47	49	1	42	3.3	182
Progeny	4510 RY (RR2Y/STS)	58	59	1	45	3.3	155
Steyer	4501 R2 (RR2Y)	59	48	1	56	4.0	322
Warren Seed	DS4330 R2Y	47	52	2	37	2.7	107
AgBorn Genetics LLC	ABx71141 (RR)	64	61	1	2	1.0	2
Morsoy Xtra	RT 44X82	49	52	3	6	1.7	12
Croplan	RT 47995 (RR)	61	46	1	37	4.0	170
Steyer	4203 R2 (RR2Y)	44	55	2	45	3.7	223
NK	S 41-J6 (RR2Y)	56	54	3	17	2.0	38
USG	74A33R (RR2Y)	44	51	3	17	2.7	47
AGSouth Genetics	AGS 45R212 (RR2Y)	56	48	2	52	4.0	228
Asgrow	AG4433 GENRR2Y	49	51	2	27	3.0	80
Asgrow	AG4232 GENRR2Y (STS)	46	36	1	92	6.7	617
Armor	X1401 (RR2)	52	44	3	30	3.3	110
Beck's Hybrids	418NR (RR)	52	55	1	68	4.3	310
Dyna-Gro	S44RS93 (RR2Y/STS)	57	39	1	78	4.7	382
Armor	45-R60 (RR2Y/STS)	54	35	1	88	6.7	587
AgBorn Genetics LLC	ABx0448 (RR)	48	54	2	32	3.0	152
Steyer	4401R2	55	43	1	59	4.3	355
Mycogen	5N423R2 (STS)	56	40	1	78	5.3	453
Beck's Hybrids	444NR (RR)	53	45	2	67	4.0	273
Progeny	4313 RY	41	50	3	22	3.0	65
TN Exp	TN09-47,169 (RR2Y)	42	60	2	28	3.7	112
Average		54	51	2	45	3.6	207

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size on 8/28/13.

Table 15. Mean yields † of 19 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err.					Ames
		(n=10)	Knoxville	Springfield		Milan	
		-----bu/a-----					
				Irr.	Non-Irr.	Irr.	
Steyer	4501 R2 (RR2Y)	65 ± 1	87	65	56	70	48
Armor	44-R08 (RR2Y)	64 ± 1	85	67	59	61	48
Progeny	4211 RY (RR2Y)	64 ± 1	83	70	55	61	50
Warren Seed	DSR-4633/R2Y	64 ± 1	82	63	59	71	44
AGSouth Genetics	AGS 43R212 (RR2Y)	64 ± 1	72	68	56	75	47
Dyna-Gro	31RY45 (RR2Y)	64 ± 1	87	61	55	68	46
Mycogen	5N451R2	63 ± 1	84	62	55	67	49
Asgrow	AG4232 GENRR2Y (STS)	63 ± 1	80	61	58	64	51
Progeny	4510 RY (RR2Y/STS)	62 ± 1	79	65	55	65	50
Dyna-Gro	39RY43 (RR2Y)	62 ± 1	80	69	53	61	49
Steyer	4203 R2 (RR2Y)	62 ± 1	73	71	58	60	49
AGSouth Genetics	AGS 45R212 (RR2Y)	61 ± 1	79	62	53	67	46
Morsoy Xtra	R2 44X82	61 ± 1	78	62	51	64	49
NK	S 41-J6 (RR2Y)	61 ± 1	83	59	46	70	46
Asgrow	AG4433 GENRR2Y	60 ± 1	80	59	50	65	46
Armor	45-R60 (RR2Y/STS)	60 ± 1	76	61	59	58	46
Dyna-Gro	S44RS93 (RR2Y/STS)	60 ± 1	77	58	52	64	48
Beck's Hybrids	418NR (RR)	59 ± 1	73	61	56	62	42
Beck's Hybrids	444NR (RR)	58 ± 1	71	63	51	62	43
Average (bu/a)		62	79	64	55	65	47
L.S.D._{.05} (bu/a)		4	9	8.3	7	9	7
C.V. (%)		8.9	7.7	9.1	8.5	9.3	10.3

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 16. Mean yields † and agronomic characteristics of 19 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield					Seed			
		± Std Err. (n=10)	Moisture § (n=10)	Lodging (n=8)	Height (n=8)	Maturity (n=8)	Shattering (n=6)	Quality (n=2)	Protein (n=2)	Oil (n=2)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	
Steyer	4501 R2 (RR2Y)	65 ± 1	14.3	1.7	37	133	1.0	2.0	37.2	20.5
Armor	44-R08 (RR2Y)	64 ± 1	14.3	1.8	35	131	1.0	2.8	38.1	20.6
Progeny	4211 RY (RR2Y)	64 ± 1	13.9	1.7	35	131	1.0	2.5	37.6	20.9
Warren Seed	DSR-4633/R2Y	64 ± 1	13.7	1.6	38	133	1.0	2.3	36.7	21.5
AGSouth Genetics	AGS 43R212 (RR2Y)	64 ± 1	13.6	1.5	39	133	1.0	4.0	38.4	20.7
Dyna-Gro	31RY45 (RR2Y)	64 ± 1	13.9	1.6	38	132	1.0	2.6	36.3	21.0
Mycogen	5N451R2	63 ± 1	14.3	1.6	37	132	1.0	2.1	36.0	21.2
Asgrow	AG4232 GENRR2Y (STS)	63 ± 1	14.3	1.9	38	131	1.0	2.6	37.8	20.6
Progeny	4510 RY (RR2Y/STS)	62 ± 1	14.0	1.7	36	133	1.0	2.3	37.2	20.3
Dyna-Gro	39RY43 (RR2Y)	62 ± 1	14.1	1.6	35	131	1.0	2.7	38.5	20.8
Steyer	4203 R2 (RR2Y)	62 ± 1	14.0	1.7	35	131	1.0	2.1	37.2	21.0
AGSouth Genetics	AGS 45R212 (RR2Y)	61 ± 1	13.9	1.6	41	133	1.0	2.8	36.7	21.1
Morsoy Xtra	R2 44X82	61 ± 1	13.7	1.2	35	132	1.0	2.5	38.4	20.7
NK	S 41-J6 (RR2Y)	61 ± 1	13.7	1.6	37	131	1.0	2.9	38.3	20.6
Asgrow	AG4433 GENRR2Y	60 ± 1	14.2	1.5	39	132	1.0	2.6	37.4	20.5
Armor	45-R60 (RR2Y/STS)	60 ± 1	14.2	1.4	33	129	1.0	2.4	37.5	21.0
Dyna-Gro	S44RS93 (RR2Y/STS)	60 ± 1	13.9	1.3	32	130	1.0	2.3	37.3	20.9
Beck's Hybrids	418NR (RR)	59 ± 1	13.5	1.6	34	130	1.0	2.8	37.3	21.3
Beck's Hybrids	444NR (RR)	58 ± 1	14.0	1.7	37	131	1.0	2.9	38.4	20.9
Average		62	14.0	1.6	36	132	1.0	2.6	37.5	20.8

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 17. Mean yields † of seven Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield		Springfield		Milan	Ames
		± Std Err.	Knoxville	Irr.	Non-Irr.	Irr.	
		(n=12)					
-----bu/a-----							
Steyer	4501 R2 (RR2Y)	65 ± 1	85	72	50	70	51
Progeny	4211 RY (RR2Y)	63 ± 1	81	73	48	59	52
Armor	44-R08 (RR2Y)	63 ± 1	81	71	49	61	51
Progeny	4510 RY (RR2Y/STS)	62 ± 1	79	68	48	65	49
Dyna-Gro	39RY43 (RR2Y)	62 ± 1	78	72	46	61	51
Asgrow	AG4232 GENRR2Y (STS)	62 ± 1	77	65	49	66	52
Dyna-Gro	31RY45 (RR2Y)	62 ± 1	83	64	47	65	48
Average (bu/a)		63	81	69	48	64	51
L.S.D._{.05} (bu/a)		3	10	8	6	8	7
C.V. (%)		8.9	8.5	8.6	9.4	8.6	9.4

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 18. Mean yields † and agronomic characteristics of seven Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield					Seed			
		± Std Err.	Moisture §	Lodging	Height	Maturity	Shattering	Quality	Protein	Oil
		(n=12)	(n=12)	(n=12)	(n=12)	(n=12)	(n=9)	(n=3)	(n=3)	(n=3)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	
Steyer	4501 R2 (RR2Y)	65 ± 1	13.8	1.7	39	133	1.0	1.9	38.0	21.0
Progeny	4211 RY (RR2Y)	63 ± 1	13.6	1.8	36	131	1.0	2.5	38.1	21.6
Armor	44-R08 (RR2Y)	63 ± 1	13.9	1.8	37	131	1.0	2.5	38.4	21.4
Progeny	4510 RY (RR2Y/STS)	62 ± 1	13.6	1.8	38	133	1.0	2.2	38.0	20.9
Dyna-Gro	39RY43 (RR2Y)	62 ± 1	13.9	1.8	36	132	1.0	2.7	38.8	21.5
Asgrow	AG4232 GENRR2Y (STS)	62 ± 1	13.8	1.8	38	131	1.0	2.5	38.0	21.1
Dyna-Gro	31RY45 (RR2Y)	62 ± 1	13.5	1.8	39	132	1.0	2.5	36.6	21.8
Average		63	13.7	1.8	38	132	1.0	2.4	38.0	21.3

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Leaf Retention (at harvest) = 1 to 5 scale; where 1 = < 5% of plants holding leaves at harvest maturity; 5=95+% of plants holding leaves and green stems at harvest maturity.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 19. Yields † of 14 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties in 12 County Standard Tests in Tennessee and Kentucky during 2013.

MS	Brand/Variety	Avg.													
		Yld. bu/a	Moist %	Cannon 5/30 §	Coffee 5/2	Dyer 5/28	Franklin 5/21	Henry 6/24	Hickman 6/14	Lake 5/14	Lawrence 6/28	Madison 5/30	Obion 5/28	Tipton 6/21	Weakley 7/8
A	*Mycogen 5N451 RR2Y	70.6	13.4	70.8	76.8	64.7	80.7	77.6	74.5	73.6	65.5	79.2	61.6	69.1	53.4
AB	Dyna-Gro 39RY43 RR2Y	70.2	13.0	75.1	81.9	65.3	74.5	72.2	74.2	72.1	64.1	84.1	63.3	69.7	46.5
AB	Warren Seed DS 4340 R2Y	70.2	12.9	73.8	80.6	67.0	74.7	72.1	71.8	74.5	57.0	90.0	67.4	67.7	46.3
AB	Dyna-Gro 31RY45 RR2Y	70.1	13.2	64.9	82.5	64.7	75.1	75.0	71.8	59.4	63.1	95.5	71.6	66.6	51.3
AB	Asgrow AG4433 GENRR2Y	70.1	13.5	80.7	72.7	59.3	80.4	76.2	73.3	69.5	67.3	84.6	61.8	65.7	49.7
AB	*Asgrow AG4232 GENRR2Y/STS	69.6	13.4	74.7	75.0	66.9	77.3	70.1	68.6	68.3	63.4	79.2	74.7	66.8	50.3
AB	*Armor 44-R08 RR2Y	69.5	13.1	72.4	82.4	66.6	76.9	62.3	71.5	74.5	64.7	82.2	66.6	67.3	46.4
AB	*Croplan 4391 GENRR2Y	69.2	13.1	79.2	78.6	65.9	81.8	65.8	73.1	68.7	63.5	81.1	66.0	64.4	42.2
ABC	Ag South Genetics AGS45R212	67.3	13.3	70.4	76.5	64.5	86.4	67.8	72.6	53.7	63.1	73.3	69.5	63.5	46.3
BC	Progeny P4510 RY/STS	66.9	13.1	74.4	81.2	58.0	60.6	73.7	68.9	59.5	64.8	77.0	63.7	64.6	56.0
C	USG 74D32 RR2Y	65.3	13.2	71.4	77.1	61.1	67.5	67.5	59.3	61.4	58.5	87.5	59.5	64.5	47.7
C	Armor 45-R60 RR2/STS	64.8	13.5	63.3	73.7	62.6	88.5	59.4	66.1	56.2	59.9	79.3	59.6	61.2	48.4
C	USG 74F12 RR2Y	64.6	13.1	69.4	79.2	66.6	67.9	59.7	63.3	63.7	56.2	85.6	57.9	65.1	40.3
C	Schillinger 458.RCS	63.6	13.3	71.2	77.5	60.4	68.3	64.0	67.2	60.8	55.2	71.1	63.9	62.9	41.2
Average (bu/a)		68.0	13.2	72.3	78.3	63.8	75.8	68.8	69.7	65.4	61.9	82.1	64.8	65.6	47.6

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each location, thus each county test was considered as one replication of the test in calculating the average yield and in conducting the statistical analysis to determine significant differences (MS).

Varieties marked with an asterisk (*) were in the top performing group in 2012.

MS= Varieties with any MS letter in common are not statistically different at the 5% level of probability.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 20. Yields † and disease ratings § of 14 early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in 12 Tennessee and Kentucky County Standard Tests during 2013.

MS	Brand/Variety	CST Avg. Yield (n=12) bu/a	----- Research and Education Center at Milan (RECM) and Jackson (WTREC) -----								
			Frogeye		RECM Yield		WTREC Yield		SCN		
			RECM/WTREC	Sudden Death	Treated †	Untreated	Treated †	Untreated	Race 2	Race 3	Race 5
A	Mycogen 5N451 RR2Y*	70.6	LOW/LOW	LOW-MOD	45.3	41.7	52.0	50.8	S	MS	S
AB	Dyna-Gro 39RY43 RR2Y	70.2	MOD/LOW	LOW	35.6	33.5	52.3	40.9	MS	S	S
AB	Warren Seed DS 4340 R2Y	70.2	MOD/LOW	LOW	34.7	33.8	48.2	39.1	S	MS	S
AB	Dyna-Gro 31RY45 RR2Y	70.1	LOW/LOW	LOW-MOD	43.2	41.3	57.0	54.0	MS	MS	S
AB	Asgrow AG4433 GENRR2Y	70.1	MOD/MOD	LOW	39.3	31.2	50.6	47.6	S	S	S
AB	Asgrow AG4232 GENRR2Y/STS*	69.6	MOD/MOD	LOW-HIGH	45.1	44.7	59.8	51.7	S	MS	S
AB	Armor 44-R08 RR2Y*	69.5	MOD/LOW	LOW-HIGH	40.2	34.1	53.3	48.6	S	MS	S
AB	Croplan 4391 GENRR2Y*	69.2	MOD/LOW	LOW	37.2	33.8	53.8	49.1	S	S	MS
ABC	Ag South Genetics AGS45R212	67.3	LOW/LOW	LOW	42.4	43.9	49.7	39.8	S	S	S
BC	Progeny P4510 RY/STS	66.9	MOD/MOD	LOW	41.3	38.4	58.9	51.8	S	MS	MS
C	USG 74D32 RR2Y	65.3	LOW/LOW	LOW	36.6	33.3	47.3	44.9	S	S	MR
C	Armor 45-R60 RR2/STS	64.8	LOW/LOW	LOW-HIGH	44.0	42.4	50.7	50.0	S	MS	S
C	USG 74F12 RR2Y	64.6	LOW/LOW	LOW	36.3	37.4	44.2	47.7	S	MS	S
C	Schillinger 458.RCS	63.6	MOD/LOW	LOW	46.0	40.5	47.0	45.1	MS	MS	S
Average (bu/a)		68.0			40.5	37.9	51.8	47.2			

Varieties marked with an asterisk (*) were in the top performing group in 2012.

YLD= Avg. Yield @ 13% moisture.

MS= Varieties that have any MS letter in common are not statistically different in yield at the 5% level of probability.

County locations include: Cannon, Coffee, Dyer, Franklin, Henry, Hickman, Lake, Lawrence, Madison, Obion, Tipton and Weakley.

† Treated plots at RECM & WTREC sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R3 growth stage. RECM varieties planted May 28 and WTREC planted June 29

§ Disease ratings (of unsprayed plots) for Frogeye and Sudden Death are LOW (0-10% disease), MOD (11-40% disease), HIGH (41-100%)

Disease ratings & yield data compiled by Dr. Heather Kelly from replicated plots at the Research and Education Center at Milan (RECM, which has severe disease pressure) and the West Tennessee Research and Education Center (WTREC, which has low disease pressure due to regular crop rotation).

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, WTREC. Race 2 (HG Type 1.2.5.7), Race 3 (HG Type 7) and Race 5 (HG Type 2.5.7), HS = Highly Susceptible, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant.

Table 21. Overall average yields † and moistures of 10 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in County Standard Tests (n=12) and AgResearch and Education Centers (n=6) in Tennessee during 2013.

Brand	Variety ‡	Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
		Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %
Mycogen	5N451R2	67	13.9	71	13.4	64	14.5
Armor	44-R08 (RR2Y)	66	13.9	69	13.1	63	14.7
Dyna-Gro	31RY45 (RR2Y)	66	13.8	70	13.2	62	14.3
Dyna-Gro	39RY43 (RR2Y)	65	13.8	70	13.0	59	14.6
AGSouth Genetics	AGS 45R212 (RR2Y)	64	13.7	67	13.3	61	14.1
Asgrow	AG4232 GENRR2Y (STS)	63	14.1	70	13.4	57	14.9
Progeny	4510 RY (RR2Y/STS)	62	13.7	67	13.1	57	14.2
Asgrow	AG4433 GENRR2Y	62	13.9	70	13.5	53	14.4
Armor	45-R60 (RR2Y/STS)	61	14.0	65	13.5	57	14.5
Schillinger Seed	458 RCS	61	13.7	64	13.3	58	14.1
Average (bu/a)		64	13.9	68	13.3	59	14.4

† Yields have been adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 22. Mean yields † of 75 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in six environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=6)	Springfield					AgCenter	
			Knoxville	Irr.	Non-Irr.	Irr.	Ames	Memphis	
-----bu/a-----									
Progeny	4850 RY	64 ± 2	70	85	62	61	57	49	
Warren Seed	DSR-4850/R2Y (STS)	64 ± 2	66	83	64	61	56	51	
Morsoy Xtra	R2 47X12 (STS)	63 ± 2	47	81	70	56	71	51	
Armor	48-R91 (RR2Y/STS)	63 ± 2	64	77	64	58	63	48	
Delta Grow	4765 R2Y	62 ± 2	58	78	62	62	61	52	
Progeny	4613 RY	62 ± 2	65	80	51	63	66	47	
Delta Grow	4670 R2Y	61 ± 2	76	81	51	56	55	48	
Terral-REV Brand	48R44 (RR)	61 ± 2	71	77	53	63	53	49	
Caverndale Farms	486 RR2Y/STSn	60 ± 2	60	78	58	59	62	46	
Asgrow	AG4832 GENRR2Y (STS)	60 ± 2	58	78	59	61	60	46	
Terral-REV Brand	46R64 (RR)	60 ± 2	68	85	56	53	56	42	
AGSouth Genetics	AGS 47R212 (RR)	59 ± 2	70	73	58	57	52	44	
Steyer	4702 R2 (RR2Y)	59 ± 2	65	80	54	57	51	46	
Asgrow	AG4632 GENRR2Y (STS)	59 ± 2	56	80	58	56	54	47	
Terral-REV Brand	48R33 (RR)	59 ± 2	65	76	57	55	56	42	
Delta Grow	4825 R2Y/STS	58 ± 2	59	72	57	57	52	52	
Hornbeck	HBK RY 4721 (RR2Y)	58 ± 2	56	76	55	55	57	50	
Asgrow	AG4934 (RR2Y/STS)	58 ± 2	56	80	56	56	53	45	
Beck's Hybrids	477NR (RR)	58 ± 2	57	74	55	58	57	44	
Terral-REV Brand	47R34 (RR)	57 ± 2	36	80	58	55	67	48	
Asgrow	AG4933 GENRR2Y	57 ± 2	51	76	55	53	57	52	
Progeny	4710 RY (RR2Y/STS)	57 ± 2	59	69	60	58	50	50	
USG	74A79R (RR2Y/STS)	57 ± 2	52	66	56	55	65	49	
Hornbeck	HBK RY 4620 (RR2Y/STS)	57 ± 2	49	74	53	54	66	46	
USG	74B83R (RR2Y/STS)	57 ± 2	48	77	54	53	61	48	
Croplan	R2C 4873 S	57 ± 2	34	73	60	60	59	55	
Croplan	R2C 4752 S	57 ± 2	29	81	61	57	64	47	
Delta Grow	4940 RR	57 ± 2	69	67	58	51	58	37	
USG	74A91 (RR)	57 ± 2	69	77	52	48	49	44	
NK	S 48-P4 (RR2Y/STS)	56 ± 2	56	70	51	57	60	45	
Morsoy Xtra	R2 48X02	56 ± 2	42	82	53	60	55	47	
USG	74A69R (RR2Y)	56 ± 2	61	69	56	51	56	45	
Terral-REV Brand	49R94 (RR)	56 ± 2	40	85	59	57	49	46	
Dyna-Gro	S48RS53 (RR2Y/STS)	56 ± 2	31	80	56	57	66	47	
LG Seeds	C4867R2	56 ± 2	32	77	53	63	59	53	
Progeny	4747 RY (RR2Y)	56 ± 2	29	81	66	61	50	49	
Delta Grow	4925 R2Y	56 ± 2	69	69	55	50	47	45	
USG	74H92R (RR2Y)	56 ± 2	59	80	50	51	51	44	
Delta Grow	4755 R2Y	56 ± 2	44	76	59	64	48	43	
Armor	49-R56 (RR2Y)	55 ± 2	69	75	55	50	43	41	

Table 22 (continued)

Brand	Variety ‡	Avg. Yield ± Std Err. (n=5)	bu/a					
			Knoxville	Springfield		Milan	Ames	AgCenter Memphis
				Irr.	Non-Irr.	Irr.		
Progeny	4900 RY (RR2Y)	55 ± 2	54	78	63	52	38	46
LG Seeds	C4780R2	55 ± 2	30	75	60	60	54	52
Mycogen	5N478R2	55 ± 2	16	81	58	66	62	47
TN Exp	TN12-4715 (RR2Y)	55 ± 2	46	83	53	54	52	40
Schillinger Seed	4990 RC	55 ± 2	29	81	60	58	55	45
Steyer	4802 R2 (RR2Y/STS)	54 ± 2	22	77	60	59	57	51
Terral-REV Brand	48R22 (RR)	54 ± 2	66	70	55	52	40	44
Terral-REV Brand	46R73 (RR)	54 ± 2	42	79	52	52	54	46
Armor	X1409 (RR2)	54 ± 2	64	74	52	51	41	41
Terral-REV Brand	49R22 (RR)	54 ± 2	71	78	46	49	37	40
Terral-REV Brand	47R53 (RR)	54 ± 2	58	72	48	52	46	45
Asgrow	AG4633 GENRR2Y	53 ± 2	58	75	48	50	45	45
USG	74B81R (RR2Y/STS)	53 ± 2	42	72	49	52	58	45
Dyna-Gro	S47RY13 (RR2Y)	53 ± 2	52	76	49	53	41	46
TN Exp	TN11-4512 (RR2Y)	52 ± 2	69	64	49	44	50	38
Armor	48-R66 (RR2/STS)	52 ± 2	19	76	59	53	53	53
Midwest Premium Genetics	MPG4714 (RR)	52 ± 2	49	68	49	49	51	45
Dyna-Gro	SX 13346R (RR2Y)	52 ± 2	56	71	46	50	42	45
Armor	47-R13 (RR2Y/STS)	52 ± 2	15	77	61	58	56	43
Caverndale Farms	496 RR2Yn	51 ± 2	44	69	55	53	45	40
Schillinger Seed	495 RC	50 ± 2	31	75	61	56	33	47
LG Seeds	C4625 R2	50 ± 2	34	67	43	50	59	50
NK	S 46-L2 (RR2Y)	50 ± 2	24	70	56	55	53	45
AgBorn Genetics LLC	ABx57318 (RR/STS)	50 ± 2	23	66	54	49	58	48
Morsoy Xtra	R2 46X29 (STS)	50 ± 2	18	66	53	52	66	44
Morsoy Xtra	49X14 (RR)	50 ± 2	19	77	56	46	55	44
Schillinger Seed	4712R2	49 ± 2	40	62	49	56	46	41
Delta Grow	4880 RR	49 ± 2	55	68	42	51	35	41
AgBorn Genetics LLC	ABx2105 (RR)	48 ± 2	39	65	55	49	44	36
Caverndale Farms	466 RR2Yn	47 ± 2	35	66	44	50	47	40
Armor	X1406 (RR2/STS)	46 ± 2	12	73	52	50	44	45
NK	S 47-N3 (RR2Y)	45 ± 2	20	71	46	47	45	43
Delta Grow	4970 RR	44 ± 2	16	68	51	48	38	46
TN Exp	TN12-4743 (RR2Y)	43 ± 2	33	55	55	41	41	34
AgBorn Genetics LLC	ABx2164 (RR)	43 ± 2	22	63	42	39	46	43
Average (bu/a)		55	47	74	55	54	53	46
L.S.D._{.05} (bu/a)		4	7	10	6	12	7	7
C.V. (%)		9.4	6.1	11.4	6.5	13.6	8.8	8.8

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 23. Mean yields † and agronomic characteristics of 75 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in six environments in Tennessee in 2013.

Brand	Variety ‡	Avg. Yield					Seed					
		± Std Err. (n=6)	Moisture § (n=6)	Lodging (n=4)	Height (n=4)	Maturity (n=4)	Shattering (n=3)	Quality (n=1)	Protein (n=1)	Oil (n=1)	Frogeye (n=1)	
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	Score		
Progeny	4850 RY	64 ± 2	15.6	1.6	42	132	1.0	2.3	34.4	19.3	3.7	
Warren Seed	DSR-4850/R2Y (STS)	64 ± 2	15.0	1.7	41	132	1.1	1.8	34.7	18.9	3.7	
Morsoy Xtra	R2 47X12 (STS)	63 ± 2	15.5	1.6	41	132	1.0	2.0	34.8	18.9	4.3	
Armor	48-R91 (RR2Y/STS)	63 ± 2	15.2	1.8	40	131	1.0	2.2	33.8	19.0	3	
Delta Grow	4765 R2Y	62 ± 2	15.0	1.7	39	131	1.1	2.5	34.6	19.0	3.7	
Progeny	4613 RY	62 ± 2	14.8	1.9	39	132	1.0	2.7	35.1	18.9	5	
Delta Grow	4670 R2Y	61 ± 2	14.3	1.8	37	129	1.0	1.3	32.5	20.0	2.7	
Terral-REV Brand	48R44 (RR)	61 ± 2	14.6	1.9	38	132	1.0	1.8	34.1	20.1	2	
Caverndale Farms	486 RR2Y/STSn	60 ± 2	15.1	2.0	34	134	1.0	2.3	34.5	19.0	6.3	
Asgrow	AG4832 GENRR2Y (STS)	60 ± 2	15.1	1.7	40	131	1.0	2.0	34.6	19.4	4.7	
Terral-REV Brand	46R64 (RR)	60 ± 2	14.6	1.9	38	131	1.0	2.2	33.2	20.5	6	
AGSouth Genetics	AGS 47R212 (RR)	59 ± 2	14.5	1.9	36	130	1.0	1.5	33.1	20.2	3.3	
Steyer	4702 R2 (RR2Y)	59 ± 2	14.6	1.9	37	131	1.0	1.8	33.7	20.0	5	
Asgrow	AG4632 GENRR2Y (STS)	59 ± 2	15.1	1.7	36	130	1.1	1.7	33.0	19.7	2.3	
Terral-REV Brand	48R33 (RR)	59 ± 2	14.6	2.0	40	131	1.0	2.0	34.2	19.4	2.7	
Delta Grow	4825 R2Y/STS	58 ± 2	15.1	2.0	35	133	1.0	2.7	34.1	19.2	7	
Hornbeck	HBK RY 4721 (RR2Y)	58 ± 2	15.3	1.7	41	131	1.0	2.3	33.8	19.0	2.7	
Asgrow	AG4934 (RR2Y/STS)	58 ± 2	14.8	1.5	39	132	1.0	2.3	34.4	19.2	5.7	
Beck's Hybrids	477NR (RR)	58 ± 2	14.1	2.0	40	132	1.0	3.0	34.9	19.3	3.3	
Terral-REV Brand	47R34 (RR)	57 ± 2	14.4	2.1	41	131	1.0	2.2	34.9	19.1	2.7	
Asgrow	AG4933 GENRR2Y	57 ± 2	15.2	1.5	38	134	1.0	2.2	35.2	19.0	3.7	
Progeny	4710 RY (RR2Y/STS)	57 ± 2	14.8	1.9	37	131	1.0	1.3	34.4	19.6	4	
USG	74A79R (RR2Y/STS)	57 ± 2	14.8	1.8	35	129	1.0	2.8	34.0	19.6	7.3	
Hornbeck	HBK RY 4620 (RR2Y/STS)	57 ± 2	15.0	1.6	35	129	1.0	2.0	34.3	19.5	6.7	
USG	74B83R (RR2Y/STS)	57 ± 2	15.2	1.9	35	132	1.0	1.8	34.1	19.2	5.7	
Croplan	R2C 4873 S	57 ± 2	14.8	2.0	35	133	1.0	2.3	34.3	19.2	5.3	
Croplan	R2C 4752 S	57 ± 2	15.1	1.5	40	131	1.1	2.0	34.7	18.9	4	
Delta Grow	4940 RR	57 ± 2	15.9	2.8	42	137	1.0	2.0	34.6	19.0	3.7	
USG	74A91 (RR)	57 ± 2	15.4	1.7	39	132	1.0	2.5	34.4	19.9	6.3	
NK	S 48-P4 (RR2Y/STS)	56 ± 2	14.8	1.7	40	130	1.0	2.5	34.6	19.5	5.3	
Morsoy Xtra	R2 48X02	56 ± 2	14.6	1.8	38	131	1.0	1.3	33.8	19.8	4.3	
USG	74A69R (RR2Y)	56 ± 2	14.7	1.6	35	128	1.0	2.7	34.0	19.2	8.7	
Terral-REV Brand	49R94 (RR)	56 ± 2	14.2	2.0	38	131	1.0	1.5	34.4	19.9	2.3	
Dyna-Gro	S48RS53 (RR2Y/STS)	56 ± 2	15.5	1.5	39	132	1.0	1.5	34.7	18.9	3.3	
LG Seeds	C4867R2	56 ± 2	15.5	2.0	35	133	1.0	2.5	34.5	19.2	6	
Progeny	4747 RY (RR2Y)	56 ± 2	14.4	1.7	37	130	1.1	1.7	33.7	19.8	5.3	
Delta Grow	4925 R2Y	56 ± 2	15.1	1.8	38	133	1.0	1.5	33.6	19.4	6	
USG	74H92R (RR2Y)	56 ± 2	14.4	1.8	35	133	1.0	2.3	35.6	19.1	4.3	
Delta Grow	4755 R2Y	56 ± 2	14.7	1.7	37	131	1.1	1.3	33.8	20.1	4.7	
Armor	49-R56 (RR2Y)	55 ± 2	14.9	1.7	32	132	1.0	2.2	34.8	19.3	6	
Progeny	4900 RY (RR2Y)	55 ± 2	15.0	1.6	34	132	1.0	2.3	34.2	19.5	5.7	
LG Seeds	C4780R2	55 ± 2	15.1	1.5	39	131	1.0	1.5	34.8	19.0	4	
Mycogen	5N478R2	55 ± 2	14.8	1.7	40	131	1.0	2.5	33.9	19.1	2.7	

Table 23 (continued)

Brand	Variety ‡	Avg. Yield	Moisture §	Lodging	Height	Maturity	Shattering	Seed	Protein	Oil	Frogeye
		± Std Err. (n=5)	(n=5)	(n=4)	(n=4)	(n=4)	(n=3)	Quality (n=1)	(n=1)	(n=1)	(n=1)
		bu/a	%	Score	in.	DAP	----- Score -----	-----	%	%	Score
TN Exp	TN12-4715 (RR2Y)	55 ± 2	14.8	2.0	40	132	1.0	2.2	34.5	18.9	3.7
Schillinger Seed	4990 RC	55 ± 2	14.5	2.2	40	134	1.0	2.3	35.0	19.3	1.7
Steyer	4802 R2 (RR2Y/STS)	54 ± 2	14.9	2.2	34	133	1.0	1.8	34.1	19.3	5.3
Terral-REV Brand	48R22 (RR)	54 ± 2	14.7	2.0	36	132	1.1	2.0	35.5	18.7	3.7
Terral-REV Brand	46R73 (RR)	54 ± 2	14.6	1.9	38	131	1.0	1.8	34.6	20.1	2.3
Armor	X1409 (RR2)	54 ± 2	15.3	1.9	37	132	1.1	1.5	34.1	19.4	5.3
Terral-REV Brand	49R22 (RR)	54 ± 2	14.6	1.9	41	133	1.0	2.8	35.9	18.6	5.7
Terral-REV Brand	47R53 (RR)	54 ± 2	14.6	2.2	37	128	1.0	1.5	34.9	20.8	2.7
Asgrow	AG4633 GENRR2Y	53 ± 2	14.5	1.5	32	131	1.0	2.0	33.1	19.7	5.7
USG	74B81R (RR2Y/STS)	53 ± 2	15.1	1.7	40	130	1.0	1.8	34.3	19.7	4
Dyna-Gro	S47RY13 (RR2Y)	53 ± 2	15.1	1.8	37	131	1.0	2.2	33.5	19.9	4.7
TN Exp	TN11-4512 (RR2Y)	52 ± 2	16.9	1.7	29	137	1.0	1.7	35.4	18.9	3.7
Armor	48-R66 (RR2/STS)	52 ± 2	14.7	2.0	34	133	1.0	2.2	34.1	19.2	5.3
Midwest Premium Genetics	MPG4714 (RR)	52 ± 2	14.9	2.2	40	133	1.0	3.2	35.1	19.5	4.7
Dyna-Gro	SX 13346R (RR2Y)	52 ± 2	14.9	1.5	33	130	1.0	2.5	33.1	20.0	6.7
Armor	47-R13 (RR2Y/STS)	52 ± 2	15.3	1.6	39	131	1.0	2.2	35.1	18.6	3.3
Caverndale Farms	496 RR2Yn	51 ± 2	14.4	1.6	38	133	1.0	1.8	34.0	19.2	6.3
Schillinger Seed	495 RC	50 ± 2	14.8	2.4	42	132	1.0	2.8	35.5	19.3	2
LG Seeds	C4625 R2	50 ± 2	14.5	1.8	35	128	1.0	2.5	34.2	19.2	7.7
NK	S 46-L2 (RR2Y)	50 ± 2	14.4	1.8	35	130	1.0	2.3	34.8	19.1	6.3
AgBorn Genetics LLC	ABx57318 (RR/STS)	50 ± 2	14.0	1.8	37	130	1.1	2.7	34.1	20.0	5.3
Morsoy Xtra	R2 46X29 (STS)	50 ± 2	14.5	1.6	34	128	1.0	2.8	34.3	19.1	8.7
Morsoy Xtra	49X14 (RR)	50 ± 2	14.5	1.9	37	134	1.0	2.0	34.6	19.5	6
Schillinger Seed	4712R2	49 ± 2	14.1	1.7	36	128	1.0	1.5	34.9	20.0	4.7
Delta Grow	4880 RR	49 ± 2	14.3	2.2	35	132	1.0	1.5	35.6	19.3	1.7
AgBorn Genetics LLC	ABx2105 (RR)	48 ± 2	15.8	1.7	36	134	1.0	2.2	34.3	19.7	5.7
Caverndale Farms	466 RR2Yn	47 ± 2	14.5	1.4	33	131	1.0	2.0	33.4	20.3	5
Armor	X1406 (RR2/STS)	46 ± 2	14.1	1.7	37	129	1.0	2.5	33.7	20.1	5
NK	S 47-N3 (RR2Y)	45 ± 2	13.8	2.2	34	130	1.0	2.0	35.9	18.6	3.7
Delta Grow	4970 RR	44 ± 2	14.8	2.5	40	134	1.0	2.5	35.4	19.4	2
TN Exp	TN12-4743 (RR2Y)	43 ± 2	15.1	2.8	31	134	1.0	1.5	35.0	18.6	5
AgBorn Genetics LLC	ABx2164 (RR)	43 ± 2	13.8	1.9	33	128	1.0	1.7	33.9	20.3	5.7
Average		55	14.8	1.8	37.2	131.5	1.0	2.1	34.4	19.4	4.6

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle >45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings taken 8/26/13 in Knoxville, TN

Table 24. Yields †, plant health, and disease ratings of 75 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated at Milan, Tennessee during 2013.

Brand	Variety ‡	Yield	Yield	Plant	SDS		
		Milan Irr.	Milan Non-Irr.	Health (n=2)	DI (n=1)	DS (n=1)	DX (n=1)
		bu/a	bu/a	(1-4)	%	0 - 9	index
Morsoy Xtra	R2 47X12 (STS)	71	48	1	73	3.7	268
Steyer	4802 R2 (RR2Y/STS)	57	71	1	50	3.3	170
Progeny	4613 RY	66	68	1	50	3.7	193
Terral-REV Brand	47R34 (RR)	67	59	1	38	4.0	208
Armor	48-R91 (RR2Y/STS)	63	56	1	81	5.0	420
Mycogen	5N478R2	62	52	1	73	5.0	390
Warren Seed	DSR-4850/R2Y (STS)	56	50	1	89	5.0	451
Croplan	R2C 4752 S	64	54	2	72	5.0	400
Dyna-Gro	S48RS53 (RR2Y/STS)	66	58	1	47	4.3	230
Progeny	4747 RY (RR2Y)	50	56	2	52	4.0	220
Caverndale Farms	486 RR2Y/STSn	62	59	1	52	3.7	208
USG	74B83R (RR2Y/STS)	61	68	1	67	4.0	267
LG Seeds	C4867R2	59	57	1	60	4.3	260
Croplan	R2C 4873 S	59	54	1	60	3.7	223
TN Exp	TN12-4715 (RR2Y)	52	77	2	15	2.3	37
Delta Grow	4765 R2Y	61	44	1	68	3.7	262
Schillinger Seed	4990 RC	55	58	2	77	5.0	392
LG Seeds	C4780R2	54	55	1	76	5.3	429
Progeny	4850 RY	57	42	1	90	6.3	570
Delta Grow	4825 R2Y/STS	52	64	1	53	3.7	193
Armor	47-R13 (RR2Y/STS)	56	60	1	62	4.3	275
Terral-REV Brand	48R44 (RR)	53	60	2	73	4.0	300
Terral-REV Brand	46R64 (RR)	56	61	1	77	4.7	360
Asgrow	AG4832 GENRR2Y (STS)	60	44	1	63	4.3	322
Steyer	4702 R2 (RR2Y)	51	60	1	63	3.7	237
Armor	48-R66 (RR2/STS)	53	54	1	73	4.7	347
Delta Grow	4755 R2Y	48	56	1	57	3.0	170
Morsoy Xtra	49X14 (RR)	55	66	3	15	2.3	33
Morsoy Xtra	R2 48X02	55	47	2	70	4.3	310
Asgrow	AG4933 GENRR2Y	57	48	3	23	2.7	63
Hornbeck	HBK RY 4721 (RR2Y)	57	47	1	67	3.3	223
Asgrow	AG4934 (RR2Y/STS)	53	49	1	72	4.0	297
USG	74A79R (RR2Y/STS)	65	48	1	75	4.7	368
Terral-REV Brand	49R94 (RR)	49	41	1	66	4.7	329
Hornbeck	HBK RY 4620 (RR2Y/STS)	66	42	1	85	3.7	310
Beck's Hybrids	477NR (RR)	57	48	2	57	4.3	247
Asgrow	AG4632 GENRR2Y (STS)	54	40	1	90	5.7	537
Terral-REV Brand	46R73 (RR)	54	52	1	75	5.0	378
Morsoy Xtra	R2 46X29 (STS)	66	52	1	53	3.7	223
USG	74H92R (RR2Y)	51	56	2	35	2.7	103

Table 24 (continued)

Brand	Variety ‡	Yield	Yield	Plant	SDS		
		Milan Irr.	Milan Non-Irr.	Health (n=2)	DI (n=1)	DS (n=1)	DX (n=1)
Terral-REV Brand	48R33 (RR)	56	44	1	73	5.0	383
NK	S 48-P4 (RR2Y/STS)	60	47	1	72	4.7	338
AGSouth Genetics	AGS 47R212 (RR)	52	44	2	61	5.0	334
Progeny	4900 RY (RR2Y)	38	51	2	60	4.7	310
Delta Grow	4670 R2Y	55	34	1	82	5.0	413
Dyna-Gro	S47RY13 (RR2Y)	41	57	2	28	2.7	88
USG	74A91 (RR)	49	52	2	67	4.3	300
Midwest Premium Genetics	MPG4714 (RR)	51	59	2	62	4.7	317
USG	74A69R (RR2Y)	56	44	1	63	4.3	307
Progeny	4710 RY (RR2Y/STS)	50	35	1	88	6.0	535
LG Seeds	C4625 R2	59	52	1	49	3.7	240
Delta Grow	4940 RR	58	49	2	20	2.3	43
USG	74B81R (RR2Y/STS)	58	44	1	77	6.0	497
AgBorn Genetics LLC	ABx57318 (RR/STS)	58	41	1	67	5.7	383
NK	S 46-L2 (RR2Y)	53	36	2	82	4.3	368
Terral-REV Brand	47R53 (RR)	46	49	2	77	4.7	373
Asgrow	AG4633 GENRR2Y	45	50	3	16	2.7	58
Terral-REV Brand	49R22 (RR)	37	59	2	43	3.7	160
Armor	X1406 (RR2/STS)	44	45	1	53	3.7	200
Terral-REV Brand	48R22 (RR)	40	46	3	9	3.0	27
Delta Grow	4925 R2Y	47	39	3	57	3.7	203
Schillinger Seed	495 RC	33	29	1	97	5.3	518
Caverndale Farms	496 RR2Yn	45	38	2	72	4.3	325
NK	S 47-N3 (RR2Y)	45	47	2	43	3.0	130
TN Exp	TN11-4512 (RR2Y)	50	55	2	50	3.0	170
Schillinger Seed	4712R2	46	45	1	67	4.0	280
Dyna-Gro	SX 13346R (RR2Y)	42	43	3	40	2.7	107
Armor	49-R56 (RR2Y)	43	34	3	42	3.3	221
Armor	X1409 (RR2)	41	32	3	63	4.0	250
TN Exp	TN12-4743 (RR2Y)	41	57	1	37	3.3	140
Caverndale Farms	466 RR2Yn	47	35	3	24	2.7	71
Delta Grow	4970 RR	38	32	2	97	5.7	550
AgBorn Genetics LLC	ABx2105 (RR)	44	29	2	87	5.7	497
Delta Grow	4880 RR	35	34	2	85	4.0	340
AgBorn Genetics LLC	ABx2164 (RR)	46	23	1	81	7.0	566
Average		53	49	2	61	4	284

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size on 8/28/13.

Table 25. Mean yields † of 41 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield	Knoxville	Springfield		Milan	Ames
		± Std Err. (n=10)		Irr.	Non-Irr.	Irr.	
				-----bu/a-----			
Morsoy Xtra	R2 47X12 (STS)	69 ± 1	81	75	59	79	50
Delta Grow	4765 R2Y	67 ± 1	79	68	61	78	51
Warren Seed	DSR-4850/R2Y (STS)	66 ± 1	82	67	61	70	52
Dyna-Gro	S48RS53 (RR2Y/STS)	65 ± 1	80	68	57	74	49
Armor	47-R13 (RR2Y/STS)	65 ± 1	79	68	60	70	46
Asgrow	AG4832 GENRR2Y (STS)	64 ± 1	76	69	59	67	50
Armor	48-R91 (RR2Y/STS)	64 ± 1	77	67	59	71	47
Caverndale Farms	486 RR2Y/STSn	64 ± 1	80	66	62	65	47
Steyer	4802 R2 (RR2Y/STS)	64 ± 1	80	68	59	63	49
Asgrow	AG4933 GENRR2Y	63 ± 1	76	65	58	67	50
Morsoy Xtra	R2 48X02	63 ± 1	78	68	57	65	47
Progeny	4747 RY (RR2Y)	63 ± 1	76	70	59	61	48
Delta Grow	4825 R2Y/STS	63 ± 1	78	69	56	60	50
Mycogen	5N478R2	63 ± 1	76	60	61	70	47
Asgrow	AG4632 GENRR2Y (STS)	63 ± 1	78	65	57	64	49
Hornbeck	HBK RY 4620 (RR2Y/STS)	62 ± 1	75	64	59	68	45
Hornbeck	HBK RY 4721 (RR2Y)	62 ± 1	74	64	55	70	48
Delta Grow	4755 R2Y	62 ± 1	75	65	59	63	45
Morsoy Xtra	R2 46X29 (STS)	61 ± 1	71	63	55	69	47
Schillinger Seed	4990 RC	61 ± 1	79	61	58	58	48
USG	74A79R (RR2Y/STS)	61 ± 1	69	61	60	68	46
Progeny	4710 RY (RR2Y/STS)	61 ± 1	73	64	58	59	49
USG	74A69R (RR2Y)	60 ± 1	72	60	57	65	46
Terral-REV Brand	48R33 (RR)	60 ± 1	74	63	55	65	45
Steyer	4702 R2 (RR2Y)	60 ± 1	77	61	56	58	48
Delta Grow	4925 R2Y	60 ± 1	73	63	54	62	47
Progeny	4900 RY (RR2Y)	60 ± 1	76	65	56	54	47
USG	74B81R (RR2Y/STS)	59 ± 1	72	57	54	66	48
USG	74H92R (RR2Y)	59 ± 1	78	60	56	57	44
Armor	49-R56 (RR2Y)	59 ± 1	73	65	53	60	44
USG	74A91 (RR)	59 ± 1	77	62	54	57	46
AGSouth Genetics	AGS 47R212 (RR)	59 ± 1	73	60	56	61	44
Beck's Hybrids	477NR (RR)	58 ± 1	72	54	56	64	45
Schillinger Seed	495 RC	57 ± 1	74	61	58	47	47
Dyna-Gro	S47RY13 (RR2Y)	57 ± 1	74	59	53	54	47
Terral-REV Brand	47R53 (RR)	57 ± 1	75	55	57	53	46
Asgrow	AG4633 GENRR2Y	57 ± 1	69	58	52	58	47
Terral-REV Brand	48R22 (RR)	57 ± 1	69	59	55	54	45
Terral-REV Brand	46R73 (RR)	56 ± 1	69	55	50	60	44
Terral-REV Brand	49R22 (RR)	55 ± 1	72	54	53	52	43
Delta Grow	4880 RR	53 ± 1	69	53	53	45	45
Average (bu/a)		61	75	63	57	63	47
L.S.D._{.05} (bu/a)		3	6	8	7	9	5
C.V. (%)		8.8	5.8	10.8	8.4	10.3	7.6

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 26. Mean yields † and agronomic characteristics of 41 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties in five environments (n=10) in Tennessee for two years, 2012 - 2013.

Brand	Variety †	Avg. Yield					Seed			
		± Std Err. (n=10)	Moisture § (n=10)	Lodging (n=8)	Height (n=8)	Maturity (n=8)	Shattering (n=6)	Quality (n=2)	Protein (n=2)	Oil (n=2)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	
Morsoy Xtra	R2 47X12 (STS)	69 ± 1	15.1	1.5	42	135	1.0	2.1	37.3	20.2
Delta Grow	4765 R2Y	67 ± 1	14.6	1.5	42	135	1.0	2.3	37.0	20.3
Warren Seed	DSR-4850/R2Y (STS)	66 ± 1	14.8	1.6	42	135	1.0	2.1	37.0	20.2
Dyna-Gro	S48RS53 (RR2Y/STS)	65 ± 1	14.6	1.5	42	135	1.0	1.8	37.1	20.1
Armor	47-R13 (RR2Y/STS)	65 ± 1	15.2	1.6	41	135	1.0	2.4	37.4	20.0
Asgrow	AG4832 GENRR2Y (STS)	64 ± 1	14.0	1.6	43	134	1.0	2.2	37.0	20.9
Armor	48-R91 (RR2Y/STS)	64 ± 1	14.1	1.7	42	134	1.0	3.0	37.0	20.2
Caverndale Farms	486 RR2Y/STSn	64 ± 1	15.2	1.9	37	138	1.0	2.6	37.0	20.3
Steyer	4802 R2 (RR2Y/STS)	64 ± 1	14.9	2.0	37	136	1.0	2.3	36.7	20.6
Asgrow	AG4933 GENRR2Y	63 ± 1	14.0	1.4	41	136	1.0	2.0	37.6	20.3
Morsoy Xtra	R2 48X02	63 ± 1	14.1	1.7	39	134	1.0	1.7	36.0	20.9
Progeny	4747 RY (RR2Y)	63 ± 1	13.8	1.6	39	133	1.0	1.9	36.2	21.2
Delta Grow	4825 R2Y/STS	63 ± 1	15.2	1.8	38	137	1.0	2.8	36.7	20.6
Mycogen	5N478R2	63 ± 1	14.2	1.6	42	134	1.0	2.8	36.4	20.6
Asgrow	AG4632 GENRR2Y (STS)	63 ± 1	14.0	1.8	39	134	1.0	2.8	35.6	21.0
Hornbeck	HBK RY 4620 (RR2Y/STS)	62 ± 1	14.2	1.8	37	134	1.0	2.0	36.5	20.9
Hornbeck	HBK RY 4721 (RR2Y)	62 ± 1	14.2	1.7	43	134	1.0	2.8	36.5	20.4
Delta Grow	4755 R2Y	62 ± 1	13.9	1.6	39	134	1.1	2.3	37.3	21.6
Morsoy Xtra	R2 46X29 (STS)	61 ± 1	14.0	1.6	37	133	1.0	2.4	36.7	20.5
Schillinger Seed	4990 RC	61 ± 1	15.1	2.0	42	139	1.0	1.9	37.2	20.7
USG	74A79R (RR2Y/STS)	61 ± 1	14.1	1.8	36	134	1.0	2.8	36.4	20.9
Progeny	4710 RY (RR2Y/STS)	61 ± 1	14.1	1.8	39	135	1.0	1.8	36.8	20.9
USG	74A69R (RR2Y)	60 ± 1	13.8	1.6	37	133	1.0	2.3	36.7	20.6
Terral-REV Brand	48R33 (RR)	60 ± 1	13.8	1.9	42	133	1.0	2.2	36.3	20.8
Steyer	4702 R2 (RR2Y)	60 ± 1	13.7	1.6	39	134	1.0	2.3	36.6	21.3
Delta Grow	4925 R2Y	60 ± 1	14.3	1.6	41	136	1.0	2.1	36.3	20.7
Progeny	4900 RY (RR2Y)	60 ± 1	13.9	1.5	35	135	1.0	2.4	37.4	21.2
USG	74B81R (RR2Y/STS)	59 ± 1	14.2	1.7	43	134	1.0	2.5	37.3	21.0
USG	74H92R (RR2Y)	59 ± 1	14.2	1.8	38	137	1.0	2.3	38.0	20.4
Armor	49-R56 (RR2Y)	59 ± 1	13.9	1.6	34	135	1.0	2.5	37.4	20.6
USG	74A91 (RR)	59 ± 1	14.4	1.8	41	135	1.0	2.3	36.4	21.2
AGSouth Genetics	AGS 47R212 (RR)	59 ± 1	13.8	1.8	38	133	1.0	1.8	35.6	21.6
Beck's Hybrids	477NR (RR)	58 ± 1	13.4	1.8	41	134	1.0	3.1	36.8	21.1
Schillinger Seed	495 RC	57 ± 1	14.6	2.4	45	136	1.0	2.6	38.2	20.2
Dyna-Gro	S47RY13 (RR2Y)	57 ± 1	14.1	1.6	40	134	1.0	2.4	36.4	21.2
Terral-REV Brand	47R53 (RR)	57 ± 1	13.5	2.1	39	132	1.0	1.8	36.9	22.4
Asgrow	AG4633 GENRR2Y	57 ± 1	13.6	1.4	35	133	1.0	2.4	35.6	20.9

Table 26 (continued)

Brand	Variety ‡	Avg. Yield					Seed			
		± Std Err. (n=10)	Moisture § (n=10)	Lodging § (n=8)	Height (n=8)	Maturity (n=8)	Shattering (n=6)	Quality (n=2)	Protein (n=2)	Oil (n=2)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	
Terral-REV Brand	48R22 (RR)	57 ± 1	13.8	2.0	39	135	1.0	2.1	37.2	20.4
Terral-REV Brand	46R73 (RR)	56 ± 1	13.6	1.8	40	133	1.0	2.4	37.1	21.7
Terral-REV Brand	49R22 (RR)	55 ± 1	13.7	1.9	43	136	1.0	2.2	38.2	20.2
Delta Grow	4880 RR	53 ± 1	13.8	2.1	39	135	1.0	2.1	38.3	20.6
Average		61	14.2	1.7	40	135	1.0	2.3	36.9	20.8

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

§ Average moisture at harvest

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 27. Mean yields † of 15 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield		Springfield		Milan	Ames
		± Std Err. (n=15)	Knoxville	Irr.	Non-Irr.	Irr.	
-----bu/a-----							
Asgrow	AG4832 GENRR2Y (STS)	60 ± 1	73	61	51	66	50
Armor	48-R91 (RR2Y/STS)	60 ± 1	73	58	51	69	48
Asgrow	AG4632 GENRR2Y (STS)	59 ± 1	77	56	48	64	50
Hornbeck	HBK RY 4620 (RR2Y/STS)	58 ± 1	73	56	50	67	46
Terral-REV Brand	48R33 (RR)	57 ± 1	72	56	47	65	46
Progeny	4710 RY (RR2Y/STS)	57 ± 1	72	56	50	59	48
USG	74A79R (RR2Y/STS)	57 ± 1	68	53	50	66	48
Beck's Hybrids	477NR (RR)	56 ± 1	71	49	50	63	46
Schillinger Seed	4990 RC	55 ± 1	73	54	48	56	44
Terral-REV Brand	47R53 (RR)	55 ± 1	71	50	50	54	49
USG	74A91 (RR)	55 ± 1	70	53	46	57	48
Schillinger Seed	495 RC	54 ± 1	69	55	51	52	46
Terral-REV Brand	48R22 (RR)	54 ± 1	67	53	46	54	47
Terral-REV Brand	49R22 (RR)	52 ± 1	69	49	46	54	43
Delta Grow	4880 RR	51 ± 1	68	50	46	47	47
Average (bu/a)		56	71	54	49	60	47
L.S.D._{.05} (bu/a)		3	7	9	7	8	5
C.V. (%)		9.2	7.1	11.5	9.5	9.7	8.0

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 28. Mean yields † and agronomic characteristics of 15 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield					Seed			
		± Std Err. (n=15)	Moisture § (n=15)	Lodging (n=12)	Height (n=12)	Maturity (n=12)	Shattering (n=9)	Quality (n=3)	Protein (n=3)	Oil (n=3)
		bu/a	%	Score	in.	DAP	-----	Score -----	%	%
Asgrow	AG4832 GENRR2Y (STS)	60 ± 1	13.6	1.5	43	136	1.0	2.4	37.6	21.3
Armor	48-R91 (RR2Y/STS)	60 ± 1	13.6	1.7	42	135	1.0	3.0	37.4	20.7
Asgrow	AG4632 GENRR2Y (STS)	59 ± 1	13.5	1.7	38	135	1.0	2.6	36.0	21.5
Hornbeck	HBK RY 4620 (RR2Y/STS)	58 ± 1	13.4	1.8	37	135	1.0	2.0	37.1	21.4
Terral-REV Brand	48R33 (RR)	57 ± 1	13.1	1.8	42	134	1.0	2.3	36.9	21.6
Progeny	4710 RY (RR2Y/STS)	57 ± 1	13.5	1.7	38	136	1.0	1.7	37.6	21.4
USG	74A79R (RR2Y/STS)	57 ± 1	13.3	1.7	36	135	1.0	2.6	37.2	21.4
Beck's Hybrids	477NR (RR)	56 ± 1	12.9	1.8	42	135	1.0	2.9	37.4	21.6
Schillinger Seed	4990 RC	55 ± 1	14.5	1.9	41	140	1.0	2.1	37.9	21.1
Terral-REV Brand	47R53 (RR)	55 ± 1	12.9	2.0	39	134	1.0	2.1	37.7	22.9
USG	74A91 (RR)	55 ± 1	14.0	1.7	41	137	1.0	2.2	37.5	21.5
Schillinger Seed	495 RC	54 ± 1	14.1	2.4	44	137	1.0	2.6	39.0	20.6
Terral-REV Brand	48R22 (RR)	54 ± 1	12.9	1.9	39	136	1.0	2.1	37.9	20.9
Terral-REV Brand	49R22 (RR)	52 ± 1	13.0	1.8	43	136	1.0	1.9	38.8	20.6
Delta Grow	4880 RR	51 ± 1	13.1	2.2	39	136	1.0	2.2	39.4	20.8
Average		56	13.4	1.8	40	136	1.0	2.3	37.7	21.3

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 29. Yields † of 24 Late Maturity Group IV (4.6-4.9) Roundup Ready soybean varieties in 16 County Standard Tests in Tennessee and Kentucky during 2013.

MS	Brand/Variety	Avg.		KY		Fayette1 Fayette2													
		Yld.	Moist	Ballard	Calloway	Coffee	Decatur	Dyer	Ames	McNabb	Franklin	Giles	Hardin	Henry	Lake	Madison	Marion	Montgomery	Obion
		bu/a	%	6/22 §	6/26	5/2	6/15	5/28	6/13	6/12	5/28	6/28	6/15	6/24	5/14	5/14	5/15	6/26	5/28
A	Morsoy Xtra R2 47X12 RR2Y/STS	61.3	13.1	55.1	56.3	70.3	79.6	62.4	45.0	44.3	69.6	48.4	72.1	66.4	59.5	72.2	60.5	56.3	62.4
A	***Schillinger 4990RC	60.4	13.0	58.9	48.4	78.6	68.3	64.5	45.0	58.0	67.5	40.6	67.9	51.3	57.9	72.9	68.6	54.4	70.0
A	Dyna-Gro S48RS53 (RR2Y/STS)	60.1	13.2	50.9	58.9	60.0	81.8	66.1	39.2	46.6	69.9	42.3	71.4	52.5	58.2	72.3	72.8	50.1	69.9
A	Asgrow AG4632 GENRR2Y/STS	60.0	13.0	51.8	50.1	84.3	72.9	58.9	39.9	55.5	66.8	53.1	57.0	60.4	62.2	74.0	74.8	49.4	62.4
A	Armor 47-R13 RR2Y/STS	59.7	13.7	42.0	53.9	70.5	82.3	62.8	31.5	52.6	71.2	39.2	58.7	65.0	60.0	74.6	73.1	48.4	62.1
A	Warren Seed DS 4633 R2Y	59.6	13.0	39.2	47.2	84.5	67.0	65.1	40.9	56.7	73.2	44.5	67.9	51.0	66.2	71.2	59.4	52.4	60.1
AB	Asgrow AG4933 GENRR2Y	59.5	13.2	47.7	51.9	75.7	83.5	63.2	36.8	44.4	68.2	53.3	50.5	51.3	61.3	70.6	76.2	53.7	67.6
AB	**Armor 48-R91 RR2Y/STS	59.0	13.1	48.3	47.4	75.3	74.3	67.6	38.7	51.6	70.5	43.4	54.2	51.7	57.5	76.0	72.4	45.7	69.1
AB	Progeny P4850 RY/STS	58.9	13.1	47.4	48.2	53.6	78.1	64.2	35.8	46.9	60.9	55.2	74.5	51.1	61.6	80.7	74.6	56.0	65.2
AB	Croplan R2C 4752S GENRR2Y/STS	58.9	13.2	42.6	50.4	68.1	78.5	63.6	45.1	45.5	65.6	48.1	64.3	41.0	63.5	77.4	76.7	46.4	65.0
AB	Armor 48-R66 RR2Y/STS	58.8	13.7	38.1	43.3	64.9	67.1	65.4	28.2	44.2	72.0	40.4	72.8	54.0	56.0	77.3	73.2	59.6	72.6
AB	Mycogen 5N478 RR2Y/STS	58.8	13.2	49.8	53.8	77.5	69.2	69.7	35.0	42.3	73.4	40.2	60.0	50.9	60.3	70.9	69.8	50.7	65.0
AB	Morsoy Xtra R2 48X02 RR2Y	58.4	13.1	37.5	47.7	74.7	74.6	65.7	30.1	49.3	66.2	48.9	59.8	31.7	66.0	82.6	73.2	54.0	69.7
AB	Terral REV-47R53	58.1	12.7	37.3	53.2	72.5	74.1	65.3	41.5	40.4	60.5	46.6	62.6	61.4	58.1	74.5	64.9	51.4	64.4
ABC	*Croplan R2C 4801S GENRR2Y/STS	58.0	13.2	49.6	45.6	76.6	76.2	67.2	41.6	45.1	69.2	33.3	48.5	50.3	56.1	76.5	66.9	50.2	69.8
ABC	Ag South Genetics AGS47R212	57.5	13.0	43.6	44.5	77.5	68.7	69.0	37.1	41.2	66.1	47.0	64.1	48.5	58.0	78.6	69.2	45.2	61.9
ABC	*Warren Seed DS 4850 R2Y/STS	57.0	13.2	51.7	46.2	57.8	82.3	64.7	38.9	49.8	67.1	40.9	66.7	44.0	56.9	76.9	57.5	49.5	64.7
ABCD	Hornbeck HBK RY4620 RR2Y/STS	56.0	12.9	57.0	53.2	80.4	61.0	61.4	27.9	32.7	73.8	44.2	68.6	58.5	53.9	66.0	72.1	50.4	59.7
BCDE	Hornbeck HBK RY4721 RR2Y	55.9	13.2	39.1	30.6	75.0	73.4	65.1	36.7	46.5	62.4	33.1	42.5	44.3	62.3	75.3	65.7	47.6	68.7
BCDE	Progeny P4710 RY/STS	55.6	12.9	55.7	35.7	61.8	73.6	60.7	37.2	40.8	61.3	42.7	59.5	57.6	57.5	72.7	68.0	52.2	56.4
BCDE	USG 74A69R RR2Y	55.0	13.1	35.4	50.7	80.5	55.9	58.8	37.3	33.4	63.8	47.9	62.2	58.1	63.0	69.4	43.8	52.5	62.7
CDE	Schillinger 4712R2	53.7	12.9	43.7	34.4	77.6	58.9	65.2	43.5	42.9	69.6	37.7	53.8	37.8	55.2	71.9	59.3	41.9	65.4
DE	USG 74H92R RR2Y	51.9	13.4	33.3	35.1	65.2	62.4	62.7	27.8	45.6	63.6	39.8	50.9	33.2	54.7	71.9	74.0	46.5	63.9
E	Dyna-Gro S47RY13 RR2Y	50.8	13.3	40.4	34.3	73.7	58.1	64.5	28.9	42.3	68.2	35.3	52.5	20.4	53.3	77.4	65.7	38.7	59.2
Average (bu/a)		57.6	13.1	45.7	46.7	72.3	71.7	64.3	37.1	45.8	67.5	43.6	61.0	49.7	59.1	74.3	68.0	50.1	64.9

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each location, thus each county test was considered as one replication of the test in calculating the average yield and in conducting the statistical analysis to determine significant differences (MS).

Varieties marked with an asterisk (*) and/or (**) were in the top performing group in 2012 and/or 2011.

MS= Varieties with any MS letter in common are not statistically different at the 5% level of probability.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 30. Yields † and disease ratings § of 24 late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in 16 Tennessee and Kentucky County Standard Tests during 2013.

MS	Brand/Variety	CST Avg. Yield (n=16) bu/a	Research and Education Center at Milan (RECM) and Jackson (WTREC)								
			Frogeye RECM/WTREC	Sudden Death	RECM Yield		WTREC Yield		SCN		
					Treated †	Untreated	Treated †	Untreated	Race 2	Race 3	Race 5
A	Morsoy Xtra R2 47X12 RR2Y/STS	61.3	LOW/LOW	LOW-MOD	41.5	38.2	55.6	54.6	MS	MS	S
A	Armor 47-R13 RR2Y/STS	60.4	LOW/LOW	LOW-HIGH	39.4	38.0	54.4	54.0	MS	S	MS
AB	Asgrow AG4632 GENRR2Y/STS	60.1	LOW/LOW	LOW-HIGH	44.4	42.0	53.2	50.8	MS	MS	S
AB	Asgrow AG4933 GENRR2Y	60.0	LOW/LOW	LOW	44.6	42.8	39.4	42.0	MS	S	S
ABC	***Schillinger 4990RC	59.7	LOW/LOW	LOW	48.7	44.1	43.0	43.4	S	MS	S
ABC	Dyna-Gro S48RS53 (RR2Y/STS)	59.6	LOW/LOW	LOW-MOD	42.3	35.5	53.1	36.0	-	-	-
ABC	Croplan R2C 4752S GENRR2Y/STS	59.5	MOD/LOW	LOW-MOD	40.2	38.5	56.6	45.4	MS	MS	S
ABCD	**Armor 48-R91 RR2Y/STS	59.0	LOW/LOW	LOW-MOD	42.8	44.3	53.5	48.9	MS	MS	S
ABCD	*Croplan R2C 4801S GENRR2Y/STS	58.9	LOW/LOW	LOW-MOD	42.0	41.4	50.3	51.1	MS	MS	S
ABCD	Progeny P4850 RY/STS	58.9	LOW/LOW	LOW-MOD	39.7	34.1	56.3	52.6	MS	MS	MS
ABCD	Warren Seed DS 4633 R2Y	58.8	LOW/LOW	LOW	43.5	42.2	38.4	38.8	MS	MR	S
ABCD	Armor 48-R66 RR2Y/STS	58.8	MOD/LOW	LOW	41.7	38.5	54.3	54.8	MS	MS	S
ABCD	Mycogen 5N478 RR2Y/STS	58.4	LOW/LOW	LOW-HIGH	40.9	37.4	52.6	32.4	S	MS	S
ABCD	Morsoy Xtra R2 48X02 RR2Y	58.1	MOD/LOW	LOW	43.8	39.0	48.9	47.1	-	-	-
ABCDE	Terral REV-47R53	58.0	LOW/LOW	LOW-HIGH	40.2	38.2	52.3	47.5	MS	MS	S
ABCDE	Ag South Genetics AGS47R212	57.5	LOW/LOW	LOW	43.3	42.5	47.9	43.0	MS	MS	S
ABCDE	Hornbeck HBK RY4620 RR2Y/STS	57.0	MOD/MOD	LOW-MOD	36.6	36.6	44.6	46.5	MS	S	S
BCDEF	Progeny P4710 RY/STS	56.0	MOD/LOW	LOW-HIGH	35.7	32.9	51.7	52.8	S	MR	S
BCDEF	Warren Seed DS 4850 R2Y/STS	55.9	MOD/LOW	LOW-MOD	39.0	35.5	54.8	52.4	-	-	-
CDEF	USG 74A69R RR2Y	55.6	MOD/MOD	LOW	38.2	35.2	54.1	49.2	MS	MS	S
DEFG	Hornbeck HBK RY4721 RR2Y	55.0	LOW/LOW	LOW	39.7	39.7	49.2	46.5	-	-	-
EFG	Schillinger 4712R2	53.7	MOD/LOW	LOW-MOD	34.7	33.4	46.6	42.3	MS	MS	S
FG	USG 74H92R RR2Y	51.9	MOD/LOW	LOW-MOD	40.0	33.4	39.6	42.2	S	MS	S
G	Dyna-Gro S47RY13 RR2Y	50.8	MOD/LOW	LOW	42.3	38.1	35.4	39.3	MS	MS	MS
Average (bu/a)		57.6			41.0	38.4	49.4	46.4			

YLD= Avg. Yield @ 13% moisture.

MS= Varieties that have any MS letter in common are not statistically different in yield at the 5% level of probability.

Varieties marked with an asterisk (*) and/or (**) were in the top performing group in 2012 and/or 2011.

County locations include: Ballard KY, Calloway KY, Coffee, Decatur, Dyer, Fayette (Ames Plantation & McNabb), Franklin, Giles, Hardin, Henry, Lake, Madison, Marion, Montgomery and Obion.

† Treated plots at RECM & WTREC sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R3 growth stage. RECM varieties planted May 28 and WTREC planted June 29

§ Disease ratings (of unsprayed plots) for Frogeye and Sudden Death are LOW (0-10% disease), MOD (11-40% disease), HIGH (41-100%)

Disease ratings & yield data compiled by Dr. Heather Kelly from replicated plots at the Research and Education Center at Milan (RECM, which has severe disease pressure) and the West Tennessee Research and Education Center (WTREC, which has low disease pressure due to regular crop rotation).

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, WTREC. Race 2 (HG Type 1.2.5.7), Race 3 (HG Type 7) and

Race 5 (HG Type 2.5.7), HS = Highly Susceptible, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant.

Table 31. Overall average yields † and moistures of 22 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in County Standard Tests (n=16) and AgResearch and Education Centers (n=6) in Tennessee during 2013.

Brand	Variety ‡	Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
		Avg. Yield	Moisture	Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%	bu/a	%
Morsoy Xtra	R2 47X12 (STS)	62	14.3	61	13.1	63	15.5
Progeny	4850 RY	61	14.4	59	13.1	64	15.6
Armor	48-R91 (RR2Y/STS)	61	14.1	59	13.1	63	15.2
Warren Seed	DSR-4850/R2Y (STS)	61	14.1	57	13.2	64	15.0
Asgrow	AG4632 GENRR2Y (STS)	59	14.1	60	13.0	59	15.1
AGSouth Genetics	AGS 47R212 (RR)	58	13.8	58	13.0	59	14.5
Asgrow	AG4933 GENRR2Y	58	14.2	59	13.2	57	15.2
Dyna-Gro	S48RS53 (RR2Y/STS)	58	14.3	60	13.2	56	15.5
Croplan	R2C 4752 S	58	14.2	59	13.2	57	15.1
Schillinger Seed	4990 RC	58	13.7	60	13.0	55	14.5
Morsoy Xtra	R2 48X02	57	13.9	58	13.1	56	14.6
Hornbeck	HBK RY 4721 (RR2Y)	57	14.2	56	13.2	58	15.3
Mycogen	5N478R2	57	14.0	59	13.2	55	14.8
Hornbeck	HBK RY 4620 (RR2Y/STS)	57	14.0	56	12.9	57	15.0
Progeny	4710 RY (RR2Y/STS)	56	13.8	56	12.9	57	14.8
Terral-REV Brand	47R53 (RR)	56	13.7	58	12.7	54	14.6
Armor	47-R13 (RR2Y/STS)	56	14.5	60	13.7	52	15.3
USG	74A69R (RR2Y)	55	13.9	55	13.1	56	14.7
Armor	48-R66 (RR2/STS)	55	14.2	59	13.7	52	14.7
USG	74H92R (RR2Y)	54	13.9	52	13.4	56	14.4
Dyna-Gro	S47RY13 (RR2Y)	52	14.2	51	13.3	53	15.1
Schillinger Seed	4712R2	51	13.5	54	12.9	49	14.1
Average (bu/a)		57.2	14.0	57.5	13.1	56.9	14.9

† Yields have been adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 32. Mean yields † of 44 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield	Springfield		Milan	Ames	
		± Std Err. (n=5)	Knoxville	Irr.	Non-Irr.		Irr.
Progeny	5555 RY	64 ± 2	74	59	58	80	50
Asgrow	AG5233 GENRR2Y (STS)	64 ± 2	82	59	55	68	54
Progeny	5213 RY	64 ± 2	76	63	64	68	42
Asgrow	AG5534 (RR2Y)	63 ± 2	77	52	57	69	54
Armor	X1413 (RR2)	62 ± 2	70	56	55	76	59
Armor	X1414 (RR2)	61 ± 2	67	63	62	74	40
Warren Seed	DS5122 R2Y	59 ± 2	73	55	50	68	51
Morsoy Xtra	53X82 (RR2)	59 ± 2	60	63	57	66	46
LG Seeds	C5122R2	58 ± 2	61	60	59	67	40
Armor	55-R22 (RR2Y)	58 ± 2	56	62	62	71	37
Progeny	5333 RY	58 ± 2	79	53	52	52	45
Dyna-Gro	32RY55 (RR2Y)	57 ± 2	59	58	57	63	48
Dyna-Gro	S53RY23 (RR2Y)	57 ± 2	69	65	49	64	49
USG	75J23R (RR2Y)	57 ± 2	70	51	48	63	52
Croplan	R2C 5482	57 ± 2	54	55	51	71	40
Terral-REV Brand	51R53 (RR)	57 ± 2	75	56	49	59	53
Hornbeck	HBK RY 5421 (RR2Y)	57 ± 2	53	58	53	67	52
Asgrow	AG5332 GENRR2Y	56 ± 2	71	53	51	56	49
Steyer	5101R2	56 ± 2	64	61	55	65	33
Delta Grow	5130 RR2	56 ± 2	60	61	56	65	37
Morsoy	RT 5429 (RR)	56 ± 2	62	55	56	52	48
Beck's Hybrids	EX6160 (RR)	56 ± 2	58	60	50	60	40
MO Exp	S09-6201R	56 ± 2	70	54	50	63	49
Progeny	5111 RY (RR2Y)	56 ± 2	69	52	51	62	46
Armor	X1410 (RR2)	55 ± 2	66	56	48	59	47
Hornbeck	HBK RY 5221 (RR2Y)	55 ± 2	62	57	55	46	52
Dyna-Gro	S54RY43 (RR2Y)	55 ± 2	60	47	52	64	51
NK	S 52-Y2 (RR2Y)	54 ± 2	62	51	51	60	42
USG	75Q42R (RR2Y)	54 ± 2	66	53	54	55	54
Midwest Premium Genetics	MPG5113 (RR)	54 ± 2	61	49	51	59	52
Armor	53-R16 (RR2Y)	54 ± 2	55	52	52	59	47
Terral-REV Brand	55R53 (RR)	54 ± 2	58	53	48	64	56
Armor	53-R88 (RR2Y/STS)	53 ± 2	75	59	55	55	41
TN Exp	TN09-45,905 (RR2Y)	53 ± 2	63	52	43	58	50
Midwest Premium Genetics	MPG5214NRR	53 ± 2	67	55	45	56	41
Asgrow	AG5532 GENRR2Y (STS)	53 ± 2	62	55	47	58	47
Terral-REV Brand	52R74 (RR)	51 ± 2	59	45	37	60	44
Progeny	5210 RY (RR2Y)	51 ± 2	64	56	50	53	31
AR	R04-1250RR	50 ± 2	66	52	49	43	48
Terral-REV Brand	54R84 (RR)	50 ± 2	45	49	50	56	42
Terral-REV Brand	53R23 (RR)	49 ± 2	62	54	53	39	45
AR	R04-1268RR	49 ± 2	55	52	46	53	44
Schillinger Seed	5220 RC	48 ± 2	54	54	48	35	50
NK	S 54-V4 (RR/STS)	47 ± 2	43	59	49	40	42
Average (bu/a)		56	64	56	52	60	46
L.S.D..05 (bu/a)		4	13	7	8	12	9
C.V. (%)		10.9	12.3	7.6	9.3	12.2	11.6

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 33. Mean yields † and agronomic characteristics of 44 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield					Seed				
		± Std Err. (n=5)	Moisture § (n=5)	Lodging (n=4)	Height (n=4)	Maturity (n=4)	Shattering (n=3)	Quality (n=1)	Protein (n=1)	Oil (n=1)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	Score	
Progeny	5555 RY	64 ± 2	13.3	1.9	38	143	1.2	2.2	33.4	18.6	2.3
Asgrow	AG5233 GENRR2Y (STS)	64 ± 2	14.3	1.8	36	136	1.3	3.3	35.2	18.9	6.3
Progeny	5213 RY	64 ± 2	14.2	1.4	43	135	1.2	2.0	34.0	19.6	4
Asgrow	AG5534 (RR2Y)	63 ± 2	13.8	1.5	38	145	1.2	1.7	34.1	19.6	2
Armor	X1413 (RR2)	62 ± 2	13.9	1.4	42	136	1.2	2.3	34.5	19.2	4.7
Armor	X1414 (RR2)	61 ± 2	13.6	1.9	36	142	1.6	3.0	34.6	18.4	3.7
Warren Seed	DS5122 R2Y	59 ± 2	13.8	1.6	42	136	1.2	3.0	35.2	19.0	5
Morsoy Xtra	53X82 (RR2)	59 ± 2	13.9	2.2	35	143	1.4	3.2	37.5	17.4	3.3
LG Seeds	C5122R2	58 ± 2	13.7	1.5	41	136	1.3	2.7	35.2	19.0	5
Armor	55-R22 (RR2Y)	58 ± 2	13.7	1.9	36	144	1.4	2.0	34.8	18.4	2
Progeny	5333 RY	58 ± 2	13.7	2.1	39	141	1.4	3.2	34.5	18.6	4.3
Dyna-Gro	32RY55 (RR2Y)	57 ± 2	13.6	1.9	37	144	1.4	1.7	35.0	18.2	2.3
Dyna-Gro	S53RY23 (RR2Y)	57 ± 2	13.8	2.3	38	142	1.4	3.3	35.7	18.4	3.3
USG	75J23R (RR2Y)	57 ± 2	13.8	1.6	40	136	1.2	2.5	35.0	18.9	4.7
Croplan	R2C 5482	57 ± 2	13.5	2.3	36	144	1.3	3.2	37.4	17.4	3.7
Terral-REV Brand	51R53 (RR)	57 ± 2	14.0	1.9	36	137	1.3	3.0	35.2	20.0	6.7
Hornbeck	HBK RY 5421 (RR2Y)	57 ± 2	14.5	2.5	36	143	1.3	1.5	35.4	18.7	2
Asgrow	AG5332 GENRR2Y	56 ± 2	13.5	2.4	34	137	1.2	3.2	35.0	18.5	5
Steyer	5101R2	56 ± 2	13.7	1.5	41	135	1.2	2.8	35.3	19.1	5.7
Delta Grow	5130 RR2	56 ± 2	13.8	1.6	39	135	1.2	2.8	35.2	19.0	5
Morsoy	RT 5429 (RR)	56 ± 2	13.6	1.8	37	143	1.2	1.7	35.5	18.8	2
Beck's Hybrids	EX6160 (RR)	56 ± 2	13.6	1.6	36	135	1.2	3.0	35.3	19.9	7
MO Exp	S09-6201R	56 ± 2	14.4	2.0	37	136	1.2	3.3	37.2	17.9	2
Progeny	5111 RY (RR2Y)	56 ± 2	13.9	2.1	34	138	1.3	2.0	34.4	19.3	2.7
Armor	X1410 (RR2)	55 ± 2	13.9	2.4	42	140	1.3	1.5	34.3	18.6	3.3
Hornbeck	HBK RY 5221 (RR2Y)	55 ± 2	15.2	2.0	39	141	1.3	3.7	36.1	18.2	2.3
Dyna-Gro	S54RY43 (RR2Y)	55 ± 2	14.0	2.3	38	144	1.4	2.7	37.1	17.6	3.3
NK	S 52-Y2 (RR2Y)	54 ± 2	14.0	2.0	37	135	1.3	2.8	36.2	18.7	7
USG	75Q42R (RR2Y)	54 ± 2	13.6	2.5	38	144	1.4	2.0	37.2	17.5	3.3
Midwest Premium Genetics	MPG5113 (RR)	54 ± 2	14.0	2.2	38	139	1.3	2.0	35.2	18.3	4
Armor	53-R16 (RR2Y)	54 ± 2	14.2	2.0	33	143	1.4	2.7	35.6	17.6	3
Terral-REV Brand	55R53 (RR)	54 ± 2	13.6	2.3	36	143	1.2	3.3	36.3	18.2	4.7
Armor	53-R88 (RR2Y/STS)	53 ± 2	13.7	1.8	34	140	1.4	2.3	33.9	19.5	4
TN Exp	TN09-45,905 (RR2Y)	53 ± 2	13.1	2.4	35	141	1.4	2.2	35.9	18.3	3.3
Midwest Premium Genetics	MPG5214NRR	53 ± 2	13.8	2.7	40	139	1.2	2.0	34.6	18.4	4
Asgrow	AG5532 GENRR2Y (STS)	53 ± 2	13.3	1.6	37	141	1.4	2.5	36.1	18.1	5.3
Terral-REV Brand	52R74 (RR)	51 ± 2	13.6	1.5	38	134	1.2	2.5	36.3	18.4	4.7

Table 33 (continued)

Brand	Variety ‡	Avg. Yield	Moisture § (n=5)	Lodging (n=4)	Height (n=4)	Maturity (n=4)	Shattering (n=3)	Seed	Protein (n=1)	Oil (n=1)	Frogeye (n=1)
		± Std Err. (n=5)						Quality (n=1)			
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	Score	
Progeny	5210 RY (RR2Y)	51 ± 2	14.4	2.3	35	140	1.4	1.5	34.5	19.0	3.3
AR	R04-1250RR	50 ± 2	13.8	2.2	36	142	1.3	2.5	36.0	18.5	2.7
Terral-REV Brand	54R84 (RR)	50 ± 2	13.6	2.7	34	140	1.3	2.2	36.2	18.4	3
Terral-REV Brand	53R23 (RR)	49 ± 2	13.2	1.4	30	140	1.2	3.7	35.5	18.8	4.3
AR	R04-1268RR	49 ± 2	13.9	2.8	35	141	1.4	2.5	35.3	17.8	3.3
Schillinger Seed	5220 RC	48 ± 2	13.6	2.4	40	136	1.3	3.5	35.9	18.6	5.3
NK	S 54-V4 (RR/STS)	47 ± 2	13.7	2.4	35	141	1.3	1.7	38.2	18.0	3.3
Average		56	13.8	2.0	37.2	139.7	1.3	2.6	35.5	18.6	3.9

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle >45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings taken 8/26/13 in Knoxville, TN

Table 34. Yields †, plant health, and disease ratings of 44 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated at Milan, Tennessee during 2013.

Brand	Variety ‡	Yield	Yield	Plant	SDS		
		Milan Irr.	Milan Non-Irr.	Health (n=2)	DI (n=1)	DS (n=1)	DX (n=1)
		bu/a	bu/a	(1-4)	%	0 - 9	index
Progeny	5555 RY	80	81	1	13	2.3	37
Progeny	5213 RY	68	59	2	28	3	90
Asgrow	AG5534 (RR2Y)	68	59	2	40	3.3	147
Armor	X1413 (RR2)	69	60	2	33	3	123
Asgrow	AG5233 GENRR2Y (STS)	76	51	1	37	3	135
Armor	X1414 (RR2)	74	57	1	52	4	222
Warren Seed	DS5122 R2Y	68	61	2	12	2.3	35
Armor	55-R22 (RR2Y)	66	58	2	30	3.3	100
Dyna-Gro	32RY55 (RR2Y)	67	61	2	33	3.7	127
Progeny	5333 RY	71	56	2	57	3.7	218
Steyer	5101R2	52	62	2	19	2.7	56
Croplan	R2C 5482	63	58	1	47	3.3	180
Morsoy Xtra	53X82 (RR2)	64	45	1	47	3	163
USG	75J23R (RR2Y)	63	56	2	15	2.7	43
Midwest Premium Genetics	MPG5113 (RR)	71	67	2	22	2.7	58
LG Seeds	C5122R2	59	45	3	30	3.3	121
Hornbeck	HBK RY 5421 (RR2Y)	67	55	1	37	4	147
Delta Grow	5130 RR2	56	55	2	27	3	94
Progeny	5111 RY (RR2Y)	65	56	1	50	3.7	187
Morsoy	RT 5429 (RR)	65	54	2	78	4	313
Dyna-Gro	S54RY43 (RR2Y)	52	59	1	43	3.3	147
Armor	53-R16 (RR2Y)	60	61	2	30	3	90
Terral-REV Brand	51R53 (RR)	63	44	2	45	3.7	175
Beck's Hybrids	EX6160 (RR)	62	48	2	22	3	70
Armor	X1410 (RR2)	59	52	1	17	2.7	47
USG	75Q42R (RR2Y)	46	55	1	33	3.7	127
Hornbeck	HBK RY 5221 (RR2Y)	64	49	2	13	2	27
Armor	53-R88 (RR2Y/STS)	60	56	1	40	3.7	153
Asgrow	AG5332 GENRR2Y	55	40	1	78	4.3	343
NK	S 52-Y2 (RR2Y)	59	48	2	27	3	101
Midwest Premium Genetics	MPG5214NRR	59	53	1	15	2.7	42
MO Exp	S09-6201R	64	36	1	78	4	322
Dyna-Gro	S53RY23 (RR2Y)	55	29	1	73	5	372
TN Exp	TN09-45,905 (RR2Y)	58	45	1	50	4	200
Asgrow	AG5532 GENRR2Y (STS)	56	45	2	47	4	163
Terral-REV Brand	55R53 (RR)	58	39	1	53	4	213
Terral-REV Brand	53R23 (RR)	60	52	2	33	3	120
Progeny	5210 RY (RR2Y)	53	41	2	60	4	227
Terral-REV Brand	52R74 (RR)	43	33	2	75	5	408
AR	R04-1268RR	56	37	2	77	4	330
AR	R04-1250RR	39	27	2	62	5	295
Terral-REV Brand	54R84 (RR)	53	23	1	75	4	325
Schillinger Seed	5220 RC	35	18	2	93	6	593
NK	S 54-V4 (RR/STS)	40	22	1	96	5	512
	Average	60	49	2	44	4	182

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size on 8/28/13.

Table 35. Mean yields † of 21 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=10)	Knoxville	Springfield		Milan	Ames
				Irr.	Non-Irr.	Irr.	
-----bu/a-----							
Asgrow	AG5233 GENRR2Y (STS)	65 ± 1	77	66	47	80	55
Armor	55-R22 (RR2Y)	63 ± 1	72	69	51	74	50
Dyna-Gro	32RY55 (RR2Y)	61 ± 1	73	67	50	71	46
Hornbeck	HBK RY 5421 (RR2Y)	61 ± 1	70	66	51	69	50
Dyna-Gro	S54RY43 (RR2Y)	61 ± 1	73	63	53	69	48
Terral-REV Brand	55R53 (RR)	60 ± 1	72	66	50	64	46
USG	75Q42R (RR2Y)	60 ± 1	71	68	53	55	52
Asgrow	AG5332 GENRR2Y	59 ± 1	77	64	48	57	49
Terral-REV Brand	51R53 (RR)	59 ± 1	71	61	46	67	49
Armor	53-R16 (RR2Y)	58 ± 1	70	65	47	67	42
Asgrow	AG5532 GENRR2Y (STS)	58 ± 1	71	63	47	62	46
Armor	53-R88 (RR2Y/STS)	58 ± 1	70	58	48	68	43
Progeny	5111 RY (RR2Y)	57 ± 1	68	62	50	62	41
Progeny	5210 RY (RR2Y)	56 ± 1	70	65	49	58	40
Terral-REV Brand	53R23 (RR)	56 ± 1	68	61	41	66	44
Hornbeck	HBK RY 5221 (RR2Y)	56 ± 1	67	54	45	68	45
TN Exp	TN09-45,905 (RR2Y)	55 ± 1	70	61	42	57	46
Terral-REV Brand	52R74 (RR)	54 ± 1	71	59	42	55	45
Terral-REV Brand	54R84 (RR)	54 ± 1	66	62	47	50	45
Schillinger Seed	5220 RC	54 ± 1	64	60	47	48	48
AR	R04-1268RR	52 ± 1	57	55	46	59	44
Average (bu/a)		58	70	63	48	63	46
L.S.D._{.05} (bu/a)		4	10	8	8	11	7
C.V. (%)		10	9.1	8.6	11.0	11.3	9.8

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 36. Mean yields † and agronomic characteristics of 21 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield					Seed			
		± Std Err. (n=10)	Moisture § (n=10)	Lodging (n=8)	Height (n=8)	Maturity (n=8)	Shattering (n=6)	Quality (n=2)	Protein (n=2)	Oil (n=2)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	
Asgrow	AG5233 GENRR2Y (STS)	65 ± 1	13.0	1.8	38	141	1.1	3.4	37.4	20.3
Armor	55-R22 (RR2Y)	63 ± 1	13.0	1.8	39	149	1.2	1.9	37.1	19.8
Dyna-Gro	32RY55 (RR2Y)	61 ± 1	12.6	1.8	39	149	1.2	1.9	36.7	19.9
Hornbeck	HBK RY 5421 (RR2Y)	61 ± 1	13.4	2.2	36	148	1.2	1.7	37.4	21.0
Dyna-Gro	S54RY43 (RR2Y)	61 ± 1	13.1	2.0	39	149	1.2	2.4	38.9	19.2
Terral-REV Brand	55R53 (RR)	60 ± 1	12.4	2.1	37	148	1.1	3.0	38.1	19.9
USG	75Q42R (RR2Y)	60 ± 1	12.6	2.1	39	149	1.2	1.9	39.3	19.1
Asgrow	AG5332 GENRR2Y	59 ± 1	12.5	2.1	38	143	1.1	3.3	37.4	19.9
Terral-REV Brand	51R53 (RR)	59 ± 1	13.0	1.8	38	142	1.1	2.5	37.7	21.3
Armor	53-R16 (RR2Y)	58 ± 1	12.9	1.9	37	148	1.2	2.8	37.5	19.1
Asgrow	AG5532 GENRR2Y (STS)	58 ± 1	12.5	1.6	40	147	1.2	2.7	37.7	19.9
Armor	53-R88 (RR2Y/STS)	58 ± 1	12.6	1.7	35	145	1.2	2.2	35.8	21.1
Progeny	5111 RY (RR2Y)	57 ± 1	13.0	1.9	41	143	1.1	2.4	36.1	21.2
Progeny	5210 RY (RR2Y)	56 ± 1	13.2	2.0	36	146	1.2	1.7	36.5	20.5
Terral-REV Brand	53R23 (RR)	56 ± 1	12.1	1.4	34	145	1.1	3.0	37.3	20.4
Hornbeck	HBK RY 5221 (RR2Y)	56 ± 1	13.8	2.0	42	145	1.1	3.1	37.7	20.1
TN Exp	TN09-45,905 (RR2Y)	55 ± 1	12.2	2.2	37	146	1.2	2.6	37.4	19.9
Terral-REV Brand	52R74 (RR)	54 ± 1	12.5	1.5	40	141	1.1	2.6	38.4	20.0
Terral-REV Brand	54R84 (RR)	54 ± 1	12.6	2.5	35	145	1.2	2.0	37.6	20.3
Schillinger Seed	5220 RC	54 ± 1	12.7	2.1	42	143	1.1	3.3	38.0	20.3
AR	R04-1268RR	52 ± 1	12.9	2.4	37	147	1.2	2.4	37.1	19.3
Average		58	12.8	1.9	38	146	1.2	2.5	37.5	20.1

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 37. Mean yields † of eight Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield		Springfield		Milan	Ames
		± Std Err. (n=15)	Knoxville	Irr.	Non-Irr.	Irr.	
		-----bu/a-----					
Armor	55-R22 (RR2Y)	61 ± 1	71	63	53	71	47
Terral-REV Brand	51R53 (RR)	59 ± 1	69	59	47	67	52
Armor	53-R88 (RR2Y/STS)	58 ± 1	66	58	55	68	43
Asgrow	AG5532 GENRR2Y (STS)	57 ± 1	70	61	50	60	46
Asgrow	AG5332 GENRR2Y	57 ± 1	70	61	46	58	50
Progeny	5210 RY (RR2Y)	56 ± 1	66	62	51	59	41
Progeny	5111 RY (RR2Y)	55 ± 1	66	59	48	62	41
Schillinger Seed	5220 RC	55 ± 1	65	60	50	51	49
Average (bu/a)		57	68	60	50	62	46
L.S.D._{.05} (bu/a)		4	11	8.5	11	10	6
C.V. (%)		11.1	11	9.4	14.2	10.8	9.4

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 38. Mean yields † and agronomic characteristics of eight Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield			Height (n=12)	Maturity (n=12)	Shattering (n=9)	Seed		
		± Std Err. (n=15)	Moisture § (n=15)	Lodging (n=12)				Quality (n=3)	Protein (n=3)	Oil (n=3)
		bu/a	%	Score	in.	DAP	-----	Score -----	%	%
Armor	55-R22 (RR2Y)	61 ± 1	12.6	1.8	41	149	1.1	1.8	37.7	20.5
Terral-REV Brand	51R53 (RR)	59 ± 1	12.4	1.8	40	143	1.1	2.5	38.6	21.8
Armor	53-R88 (RR2Y/STS)	58 ± 1	12.4	1.7	38	145	1.1	2.1	36.4	21.7
Asgrow	AG5532 GENRR2Y (STS)	57 ± 1	12.1	1.6	41	146	1.1	2.4	38.3	20.5
Asgrow	AG5332 GENRR2Y	57 ± 1	12.1	2.5	39	145	1.1	3.2	38.2	20.4
Progeny	5210 RY (RR2Y)	56 ± 1	12.9	2.1	38	146	1.1	1.7	37.0	21.2
Progeny	5111 RY (RR2Y)	55 ± 1	12.5	1.9	42	143	1.1	2.3	36.8	21.7
Schillinger Seed	5220 RC	55 ± 1	12.4	1.9	43	144	1.1	3.2	39.1	20.7
Average		57	12.4	1.9	40	145	1.1	2.4	37.8	21.1

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 39. Yields † of 15 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties in 10 County Standard Tests in Tennessee and Kentucky during 2013.

MS	Brand/Variety	Avg. Yld. bu/a	Moist %	KY								Shelby1	Shelby2
				Carlisle 7/5 §	Coffee 5/2	Crockett 6/27	Dyer 5/28	Fayette 6/27	Franklin 6/26	Lake 6/26	Madison 5/30	Johnson 5/15	Tolbert 6/21
A	**Asgrow AG5332 GENRR2Y	62.4	12.8	52.9	79.1	53.3	69.8	60.4	77.6	64.7	77.2	36.2	53.3
A	Asgrow AG5233 GENRR2Y	62.0	13.2	50.7	74.1	60.7	69.3	55.3	73.6	60.7	72.4	41.5	61.9
AB	Dyna-Gro S32RY55 RR2Y	60.8	13.5	49.7	62.5	62.4	65.8	58.2	77.6	59.5	73.8	41.2	57.1
ABC	Armor 55-R22 RR2	60.3	13.5	51.0	67.8	60.0	61.6	56.0	76.8	60.5	72.0	38.1	59.0
ABCD	Warren Seed DS 5122 R2Y	59.8	13.4	52.1	83.8	56.6	63.1	53.1	75.5	62.1	65.2	26.7	59.7
ABCDE	Hornbeck HBK RY5221 RR2Y	59.6	13.5	56.9	72.7	57.3	61.4	56.7	74.3	58.3	63.3	37.9	57.4
ABCDE	Croplan R2C5371 GENRR2Y	58.9	13.1	50.6	53.1	56.5	61.1	55.1	74.1	57.1	78.9	42.2	60.3
ABCDE	*Croplan R2C5081 GENRR2Y	58.9	13.3	46.5	60.2	55.7	67.4	55.3	76.3	61.5	71.3	45.3	49.4
ABCDE	Progeny P5210 RY	58.6	13.3	49.0	56.3	59.9	66.9	54.3	75.7	59.4	72.5	34.1	57.8
BCDE	Terral REV-53R23	57.4	12.9	46.8	63.5	61.2	58.7	55.6	71.4	59.7	71.9	35.3	50.0
BCDE	Terral REV-55R83	57.3	13.0	49.9	58.3	47.7	61.3	57.5	74.4	55.4	74.0	40.9	53.4
BCDE	Dyna-Gro S54RY43 RR2Y	57.1	13.0	42.2	65.4	62.7	64.5	51.7	76.3	58.3	66.5	29.0	54.7
CDE	USG 75Q42R RR2Y	56.5	13.2	44.7	64.6	53.0	64.6	52.8	76.1	56.5	64.4	32.0	56.2
DE	Schillinger 5220.RC	56.2	13.3	51.9	47.9	61.4	60.4	54.1	75.9	57.9	67.8	40.0	44.9
E	Hornbeck HBK RY5421 RR2Y	55.8	12.9	46.0	59.4	57.3	64.2	48.1	71.2	61.5	70.1	31.5	48.3
Average (bu/a)		58.8	13.2	49.4	64.6	57.7	64.0	54.9	75.1	59.5	70.8	36.8	54.9

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each location, thus each county test was considered as one replication of the test in calculating the average yield and in conducting the statistical analysis to determine significant differences (MS).

Varieties marked with an asterisk (*) and/or (**) were in the top performing group in 2012 and/or 2011.

MS= Varieties with any MS letter in common are not statistically different at the 5% level of probability.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 40. Yields † and disease ratings § of 15 early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in 10 Tennessee and Kentucky County Standard Tests during 2013.

MS	Brand/Variety	CST Avg. Yield (n=10)	----- Research and Education Center at Milan (RECM) and Jackson (WTREC)-----									
			Frogeye		RECM Yield		WTREC Yield		SCN			
			RECM/WTREC	Sudden Death	Treated †	Untreated	Treated †	Untreated	Race 2	Race 3	Race 5	
		bu/a			bu/a	bu/a	bu/a	bu/a				
A	**Asgrow AG5332 GENRR2Y	62.4	HIGH/LOW	LOW	37.1	34.3	53.0	51.9	S	S	S	
A	Asgrow AG5233 GENRR2Y	62.0	HIGH/LOW	LOW	32.8	32.4	60.1	56.7	S	MS	S	
AB	Dyna-Gro S32RY55 RR2Y	60.8	MOD/LOW	LOW	36.4	30.0	49.0	47.6	S	S	S	
ABC	Armor 55-R22 RR2	60.3	MOD/LOW	LOW	34.4	32.9	54.0	49.4	S	MS	MR	
ABCD	Warren Seed DS 5122 R2Y	59.8	HIGH/LOW	LOW	33.8	28.7	48.9	47.0	S	S	S	
ABCDE	Hornbeck HBK RY5221 RR2Y	59.6	LOW/LOW	LOW	27.5	30.3	43.5	48.6	S	S	S	
ABCDE	Croplan R2C5371 GENRR2Y	58.9	LOW/LOW	LOW-MOD	40.0	39.9	50.5	51.3	S	S	S	
ABCDE	*Croplan R2C5081 GENRR2Y	58.9	LOW/LOW	LOW-HIGH	42.5	42.2	45.3	47.0	MS	S	MS	
ABCDE	Progeny P5210 RY	58.6	LOW/LOW	LOW-HIGH	38.0	38.4	42.0	46.6	S	MR	S	
BCDE	Terral REV-53R23	57.4	LOW/LOW	LOW-MOD	43.8	40.3	52.4	47.8	S	MR	MR	
BCDE	Terral REV-55R83	57.3	MOD/LOW	LOW	37.4	31.4	49.7	48.2	MS	MS	MS	
BCDE	Dyna-Gro S54RY43 RR2Y	57.1	MOD/LOW	LOW	35.2	33.0	53.4	47.4	S	MS	MS	
CDE	USG 75Q42R RR2Y	56.5	HIGH/LOW	LOW	32.3	27.0	52.0	48.5	S	MR	MS	
DE	Schillinger 5220.RC	56.2	HIGH/LOW	LOW	28.3	24.6	53.2	49.8	MS	MS	MS	
E	Hornbeck HBK RY5421 RR2Y	55.8	LOW/LOW	LOW-HIGH	36.4	35.4	47.8	49.6	S	S	MS	
Average (bu/a)		58.8			35.7	33.4	50.3	49.2				

YLD= Avg. Yield @ 13% moisture.

MS= Varieties that have any MS letter in common are not statistically different in yield at the 5% level of probability.

Varieties marked with an asterisk (*) and/or (**) were in the top performing group in 2012 and/or 2011.

County locations include: Carlisle KY, Coffee, Crockett, Dyer, Fayette, Franklin, Lake, Madison, Shelby 1 (Johnson) and Shelby 2 (Tolbert).

† Treated plots at RECM & WTREC sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R3 growth stage. RECM varieties planted May 28 and WTREC planted June 29

§ Disease ratings (of unsprayed plots) for Frogeye and Sudden Death are LOW (0-10% disease), MOD (11-40% disease), HIGH (41-100%)

Disease ratings & yield data compiled by Dr. Heather Kelly from replicated plots at the Research and Education Center at Milan (RECM, which has severe disease pressure) and the West Tennessee Research and Education Center (WTREC, which has low disease pressure due to regular crop rotation).

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, WTREC. Race 2 (HG Type 1.2.5.7), Race 3 (HG Type 7) and Race 5 (HG Type 2.5.7), HS = Highly Susceptible, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant.

Table 41. Overall average yields † and moistures of 12 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in County Standard Tests (n=10) and AgResearch and Education Centers (n=5) in Tennessee in 2013.

Brand	Variety ‡	Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
		Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %
Asgrow	AG5233 GENRR2Y (STS)	63	13.8	62	13.2	64	14.3
Warren Seed	DS5122 R2Y	59	13.6	60	13.4	59	13.8
Asgrow	AG5332 GENRR2Y	59	13.2	62	12.8	56	13.5
Armor	55-R22 (RR2Y)	59	13.6	60	13.5	58	13.7
Dyna-Gro	32RY55 (RR2Y)	59	13.6	61	13.5	57	13.6
Hornbeck	HBK RY 5221 (RR2Y)	57	14.4	60	13.5	55	15.2
Hornbeck	HBK RY 5421 (RR2Y)	56	13.7	56	12.9	57	14.5
Dyna-Gro	S54RY43 (RR2Y)	56	13.5	57	13.0	55	14.0
USG	75Q42R (RR2Y)	55	13.4	56	13.2	54	13.6
Progeny	5210 RY (RR2Y)	55	13.9	59	13.3	51	14.4
Terral-REV Brand	53R23 (RR)	53	13.1	57	12.9	49	13.2
Schillinger Seed	5220 RC	52	13.5	56	13.3	48	13.6
Average (bu/a)		57	13.6	59	13.2	55	14.0

† Yields have been adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 42. Mean yields † of 13 Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=5)	Knoxville	Springfield		Milan	Ames
				Irr.	Non-Irr.	Irr.	
-----bu/a-----							
Asgrow	AG5634 (RR2Y)	58 ± 2	67	58	57	73	35
TN Exp	TN12-5716 (RR2Y)	57 ± 2	70	60	46	53	55
Terral-REV Brand	57R21 (RR)	56 ± 2	58	64	46	68	44
Terral-REV Brand	56R63 (RR)	55 ± 2	57	63	48	63	46
Asgrow	AG5633 GENRR2Y	55 ± 2	62	58	49	63	40
Progeny	5711 RY (RR2Y)	55 ± 2	67	56	37	66	47
TN Exp	TN09-44,121 (RR2Y)	54 ± 2	53	57	49	57	56
Progeny	5610 RY (RR2Y)	54 ± 2	75	47	40	66	41
USG	Allen (RR)	53 ± 2	62	51	40	60	50
Terral-REV Brand	59R13 (RR)	52 ± 2	55	53	47	62	43
TN Exp	TN12-5523 (RR2Y)	51 ± 2	55	56	45	49	49
Asgrow	AG5632 GENRR2Y (STS)	51 ± 2	60	53	50	43	47
Delta Grow	5625 RR2	48 ± 2	49	51	42	61	37
Average (bu/a)		54	61	56	46	60	45
L.S.D._{.05} (bu/a)		5	13	10	12	13	9
C.V. (%)		12.5	12.7	10.3	14.8	12.5	12.0

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 43. Mean yields † and agronomic characteristics of 13 Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield	Moisture § (n=5)	Lodging (n=4)	Height (n=4)	Maturity (n=4)	Shattering (n=3)	Seed	Protein (n=1)	Oil (n=1)	Frogeye (n=1)
		± Std Err. (n=5)						Quality (n=1)			
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	Score	
Asgrow	AG5634 (RR2Y)	58 ± 2	12.6	2.1	38	148	1.2	2.2	34.6	18.5	3
TN Exp	TN12-5716 (RR2Y)	57 ± 2	12.4	1.9	35	147	1.2	1.2	34.0	18.5	2.3
Terral-REV Brand	57R21 (RR)	56 ± 2	12.5	2.1	44	147	1.2	4.7	34.9	19.1	2.7
Terral-REV Brand	56R63 (RR)	55 ± 2	12.6	2.3	40	147	1.5	2.0	35.1	18.3	4.7
Asgrow	AG5633 GENRR2Y	55 ± 2	12.6	1.9	34	144	1.2	2.5	34.4	18.6	5.7
Progeny	5711 RY (RR2Y)	55 ± 2	12.2	2.1	33	145	1.4	1.5	33.7	18.6	3.3
TN Exp	TN09-44,121 (RR2Y)	54 ± 2	12.3	2.0	37	148	1.3	1.2	34.1	18.3	2.3
Progeny	5610 RY (RR2Y)	54 ± 2	12.8	1.9	33	146	1.5	1.8	34.6	18.3	2.7
USG	Allen (RR)	53 ± 2	12.7	1.8	36	147	1.4	1.7	35.6	18.2	2.7
Terral-REV Brand	59R13 (RR)	52 ± 2	12.8	1.9	34	146	1.4	1.5	34.6	18.6	2.7
TN Exp	TN12-5523 (RR2Y)	51 ± 2	12.5	2.1	33	145	1.4	1.0	34.7	18.3	2.3
Asgrow	AG5632 GENRR2Y (STS)	51 ± 2	12.7	1.7	36	144	1.6	3.3	34.6	18.9	6
Delta Grow	5625 RR2	48 ± 2	12.2	2.2	33	146	1.3	1.8	33.4	18.7	2.7
Average		54	12.5	2.0	36	146	1.4	2.0	34.5	18.5	3.3

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle >45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings taken 8/26/13 in Knoxville, TN

Table 44. Yields †, plant health, and disease ratings of 13 Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated at Milan, Tennessee during 2013.

Brand	Variety ‡	Yield Milan Irr.	Yield Milan Non-Irr.	Plant Health (n=2)	SDS		
					DI (n=1)	DS (n=1)	DX (n=1)
		bu/a	bu/a	(1-4)	%	0 - 9	index
Asgrow	AG5634 (RR2Y)	73	65	1	18	3	55
Terral-REV Brand	57R21 (RR)	68	62	1	23	3.7	90
Progeny	5711 RY (RR2Y)	66	66	2	20	3	60
Terral-REV Brand	56R63 (RR)	63	57	1	30	3.7	113
Progeny	5610 RY (RR2Y)	66	54	2	22	3	73
TN Exp	TN12-5716 (RR2Y)	53	34	2	63	4	267
TN Exp	TN09-44,121 (RR2Y)	57	43	2	43	3.7	167
Asgrow	AG5633 GENRR2Y	63	41	1	72	3.7	273
USG	Allen (RR)	60	42	2	42	3.3	138
Delta Grow	5625 RR2	61	64	3	17	3.7	60
Terral-REV Brand	59R13 (RR)	62	40	3	27	3	80
TN Exp	TN12-5523 (RR2Y)	49	44	2	37	3.7	133
Asgrow	AG5632 GENRR2Y (STS)	43	22	1	93	4.3	403
Average		60	49	2	39	4	147

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size on 8/28/13.

Table 45. Mean yields † of eight Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=10)	Knoxville	Springfield		Milan	Ames
				Irr.	Non-Irr.	Irr.	
Asgrow	AG5633 GENRR2Y	60 ± 1	68	67	50	69	44
Progeny	5711 RY (RR2Y)	59 ± 1	70	64	44	76	43
Progeny	5610 RY (RR2Y)	58 ± 1	77	62	39	69	44
Terral-REV Brand	56R63 (RR)	57 ± 1	66	62	48	62	49
Terral-REV Brand	57R21 (RR)	57 ± 1	66	62	44	67	44
Terral-REV Brand	59R13 (RR)	56 ± 1	59	62	49	66	47
USG	Allen (RR)	56 ± 1	71	58	40	65	46
Asgrow	AG5632 GENRR2Y (STS)	54 ± 1	65	61	46	54	46
Average (bu/a)		57	68	62	45	66	45
L.S.D._{.05} (bu/a)		4	11	9.3	9.3	11.5	8
C.V. (%)		11.8	11.4	10.2	13.8	12.2	11.2

† All yields are adjusted to 13% moisture.

‡ If a RR appears inside parentheses (RR), then it is not part of the variety name.

Table 46. Mean yields † and agronomic characteristics of eight Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield					Seed			
		± Std Err. (n=10)	Moisture § (n=10)	Lodging (n=8)	Height (n=8)	Maturity (n=8)	Shattering (n=6)	Quality (n=2)	Protein (n=2)	Oil (n=2)
		bu/a	%	Score	in.	DAP	-----	Score -----	%	%
Asgrow	AG5633 GENRR2Y	60 ± 1	12.2	1.8	37	152	1.1	2.8	36.4	19.9
Progeny	5711 RY (RR2Y)	59 ± 1	11.9	2.0	36	153	1.2	2.3	35.5	20.3
Progeny	5610 RY (RR2Y)	58 ± 1	13.1	1.8	37	154	1.3	2.3	36.8	19.7
Terral-REV Brand	56R63 (RR)	57 ± 1	12.2	2.1	42	154	1.3	2.7	37.5	19.8
Terral-REV Brand	57R21 (RR)	57 ± 1	12.9	2.0	45	154	1.1	3.9	37.0	20.6
Terral-REV Brand	59R13 (RR)	56 ± 1	12.5	1.8	38	155	1.2	1.9	36.7	20.1
USG	Allen (RR)	56 ± 1	13.2	1.8	38	155	1.2	2.2	38.0	19.5
Asgrow	AG5632 GENRR2Y (STS)	54 ± 1	12.5	1.6	38	152	1.3	2.8	36.6	20.3
	Average	57	12.6	1.9	39	154	1.2	2.6	36.8	20.0

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing disease spots; 5 = 95% + of leaf surfaces containing disease spots. Ratings from Knoxville on 9/1/11.

Table 47. Mean yields † of four Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2011-2013.

Brand	Variety ‡	Avg. Yield		Springfield		Milan	Ames
		± Std Err. (n=15)	Knoxville	Irr.	Non-Irr.	Irr.	
-----bu/a-----							
Progeny	5711 RY (RR2Y)	62 ± 1	77	62	52	74	43
Progeny	5610 RY (RR2Y)	57 ± 1	72	61	45	67	43
USG	Allen (RR)	57 ± 1	74	56	47	64	44
Asgrow	AG5632 GENRR2Y (STS)	55 ± 1	68	61	49	54	44
Average (bu/a)		58	73	60	48	65	44
L.S.D._{.05} (bu/a)		4	11	10	8	10	7
C.V. (%)		11.4	11.2	11.1	11.5	11.4	10.8

Table 48. Mean yields † and agronomic characteristics of four Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield					Seed			
		± Std Err. (n=15)	Moisture § (n=15)	Lodging (n=12)	Height (n=12)	Maturity (n=12)	Shattering (n=9)	Quality (n=3)	Protein (n=3)	Oil (n=3)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	
Progeny	5711 RY (RR2Y)	62 ± 1	12.0	1.9	38	152	1.1	2.4	36.1	20.9
Progeny	5610 RY (RR2Y)	57 ± 1	12.9	1.7	38	153	1.2	2.1	37.0	20.4
USG	Allen (RR)	57 ± 1	13.2	1.7	40	154	1.1	2.1	38.4	20.1
Asgrow	AG5632 GENRR2Y (STS)	55 ± 1	12.4	1.6	40	151	1.2	2.5	36.9	20.9
Average		58	12.6	1.7	39.0	152.5	1.2	2.3	37.1	20.6

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Leaf Retention (at harvest) = 1 to 5 scale; where 1 = < 5% of plants holding leaves at harvest maturity; 5=95+% of plants holding leaves and green stems at harvest maturity.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing disease spots; 5 = 95% + of leaf surfaces containing disease spots. Ratings from Knoxville on 9/1/11.

Table 49. Mean yields † of 29 Maturity Group IV Liberty Link soybean varieties evaluated in five environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=5)	Knoxville	Springfield		Milan	Ames
				Irr.	Non-Irr.	Irr.	
Dyna-Gro	SX 13246L (LL)	61 ± 2	71	47	70	60	55
Halo	5:01 (LL)	58 ± 2	77	58	59	49	47
Delta Grow	4967 LL	58 ± 2	73	61	59	51	45
Halo	X496 (LL)	56 ± 2	73	58	58	46	46
Halo	X466 (LL)	56 ± 2	67	50	66	54	43
Progeny	4930 LL	55 ± 2	62	53	62	52	48
Delta Grow	4981 LL/STS	55 ± 2	63	59	60	45	49
Dyna-Gro	S49LL34 (LL)	54 ± 2	55	47	61	55	50
GoSoy	4912 LL	53 ± 2	60	54	63	44	43
Beck's Hybrids	483NL (LL)	53 ± 2	78	52	58	32	45
Halo	4:65 (LL)	53 ± 2	73	51	65	34	41
Hornbeck	LL4950	52 ± 2	68	47	60	44	43
Delta Grow	4867 LL	52 ± 2	64	49	62	42	45
Halo	4:95 (LL)	52 ± 2	62	46	63	42	47
Progeny	4819 LL	51 ± 2	60	41	61	42	53
Halo	4:94 (LL)	51 ± 2	61	52	56	40	47
Beck's Hybrids	423NL (LL)	51 ± 2	61	38	62	52	41
Delta Grow	4990 LL	51 ± 2	61	46	55	43	49
Halo	4:40 (LL)	51 ± 2	56	37	64	51	46
USG	74G99L (LL)	51 ± 2	58	46	56	46	47
USG	74G82L (LL)	50 ± 2	60	47	60	38	45
Hornbeck	LL4850	50 ± 2	58	47	60	41	43
GoSoy	4812 LL	49 ± 2	60	42	58	41	46
Progeny	4560 LL	49 ± 2	-	48	64	46	37
GoSoy	4411 LL	48 ± 2	60	49	58	32	43
Progeny	4928 LL	48 ± 2	59	38	60	38	48
GoSoy	4711 LL	47 ± 2	47	45	64	28	50
Halo	X477 (LL/STS)	46 ± 2	48	50	51	34	44
Caverndale Farms	469 LL/STS	43 ± 2	55	50	46	21	42
Average (bu/a)		52	63	49	60	43	46
L.S.D._{.05} (bu/a)		5	19	10	7	11	7
C.V. (%)		11.8	16.1	11.8	6.8	15.4	8.5

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (LL), then it is not part of the variety name.

Table 50. Mean yields † and agronomic characteristics of 29 Maturity Group IV Liberty Link soybean varieties evaluated in five environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield	Moisture §	Lodging	Height	Maturity	Shattering	Seed	Protein	Oil	Frogeye
		± Std Err.						Quality			
		(n=5)	(n=5)	(n=4)	(n=4)	(n=4)	(n=3)	(n=1)	(n=1)	(n=1)	(n=1)
		bu/a	%	Score	in.	DAP	----- Score -----	-----	%	%	Score
Dyna-Gro	SX 13246L (LL)	61 ± 2	13.7	1.6	34	130	1.0	1.5	35.5	19.5	5
Halo	5:01 (LL)	58 ± 2	13.9	1.8	42	137	1.0	1.5	34.2	19.9	2.7
Delta Grow	4967 LL	58 ± 2	13.8	1.7	38	138	1.0	1.8	34.3	19.7	2
Halo	X496 (LL)	56 ± 2	13.7	1.5	37	136	1.0	1.2	34.4	19.8	2.7
Halo	X466 (LL)	56 ± 2	13.8	1.7	35	130	1.0	2.3	36.0	19.1	5.7
Progeny	4930 LL	55 ± 2	13.8	1.3	36	137	1.0	1.5	34.5	19.8	3.3
Delta Grow	4981 LL/STS	55 ± 2	14.2	1.8	44	136	1.0	2.3	34.9	19.7	2.3
Dyna-Gro	S49LL34 (LL)	54 ± 2	14.1	1.3	36	135	1.0	1.5	33.5	19.7	4
GoSoy	4912 LL	53 ± 2	14.3	1.8	38	137	1.0	1.5	33.7	20.1	4
Beck's Hybrids	483NL (LL)	53 ± 2	14.1	1.7	36	129	1.0	1.3	35.2	20.0	5
Halo	4:65 (LL)	53 ± 2	13.7	2.0	36	128	1.0	2.8	35.2	19.7	4.3
Hornbeck	LL4950	52 ± 2	13.9	1.7	38	137	1.0	2.3	34.9	19.7	3.7
Delta Grow	4867 LL	52 ± 2	13.6	2.1	35	128	1.0	2.2	34.4	20.2	4.3
Halo	4:95 (LL)	52 ± 2	13.3	2.1	38	129	1.0	1.3	34.9	19.8	6.3
Progeny	4819 LL	51 ± 2	13.8	2.0	34	129	1.0	1.3	34.2	20.3	5
Halo	4:94 (LL)	51 ± 2	14.1	1.6	38	135	1.0	2.0	34.9	19.4	4
Beck's Hybrids	423NL (LL)	51 ± 2	13.6	1.5	33	129	1.0	2.5	35.3	19.2	5
Delta Grow	4990 LL	51 ± 2	14.1	1.6	37	135	1.0	1.5	35.0	19.5	2
Halo	4:40 (LL)	51 ± 2	13.5	1.7	33	129	1.0	1.5	35.0	19.2	6
USG	74G99L (LL)	51 ± 2	14.2	1.7	40	134	1.0	1.8	35.2	19.6	4
USG	74G82L (LL)	50 ± 2	13.5	2.2	36	130	1.0	1.3	34.3	20.1	5.7
Hornbeck	LL4850	50 ± 2	13.6	2.1	36	131	1.0	1.2	34.4	20.0	5
GoSoy	4812 LL	49 ± 2	13.8	1.8	35	130	1.0	1.3	34.2	20.1	6
Progeny	4560 LL	49 ± 2	13.2	1.7	36	127	1.0	2.2	34.7	20.0	4
GoSoy	4411 LL	48 ± 2	13.8	2.0	37	128	1.0	2.0	34.7	19.9	4.7
Progeny	4928 LL	48 ± 2	14.2	1.5	37	135	1.0	2.0	34.6	19.6	4
GoSoy	4711 LL	47 ± 2	13.9	2.8	39	133	1.0	2.3	36.1	19.3	2.3
Halo	X477 (LL/STS)	46 ± 2	14.5	2.0	39	133	1.0	1.2	35.7	19.2	2.3
Caverndale Farms	469 LL/STSn	43 ± 2	14.6	1.8	39	131	1.0	1.5	36.0	19.2	7.3
	Average	52	13.9	1.8	37	132	1.0	1.7	34.8	19.7	4.2

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle >45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings taken 8/26/13 in Knoxville, TN

Table 51. Yields †, plant health, and disease ratings of 29 Maturity Group IV Liberty Link soybean varieties evaluated at Milan, Tennessee during 2013.

Brand	Variety ‡	Yield	Yield	Plant Health (n=2)	SDS		
		Milan Irr.	Milan Non-Irr.		DI (n=1)	DS (n=1)	DX (n=1)
		bu/a	bu/a	(1-4)	%	0 - 9	index
Dyna-Gro	SX 13246L (LL)	60	49	2	7	1.7	14
Halo	5:01 (LL)	49	60	2	12	2	25
Halo	X496 (LL)	46	58	2	7	1.3	10
Halo	X466 (LL)	54	59	2	1	2	2
Progeny	4930 LL	52	58	2	7	1.7	21
Delta Grow	4967 LL	51	44	2	24	2.3	67
Delta Grow	4981 LL/STS	45	51	2	57	3	170
Dyna-Gro	S49LL34 (LL)	55	55	3	1	2	3
Halo	4:40 (LL)	51	66	2	1	1	1
GoSoy	4912 LL	44	54	3	24	2	57
Progeny	4819 LL	42	59	2	24	3.3	89
Delta Grow	4867 LL	42	50	1	30	2	60
USG	74G99L (LL)	46	57	2	11	1.7	31
Beck's Hybrids	423NL (LL)	52	55	2	1	1	1
Halo	4:65 (LL)	34	43	1	50	3.3	167
Halo	4:94 (LL)	40	50	2	8	1.7	21
Beck's Hybrids	483NL (LL)	32	40	2	33	3	93
Halo	4:95 (LL)	42	44	1	43	3	137
Hornbeck	LL4950	44	38	3	30	2	84
Delta Grow	4990 LL	43	43	3	8	1.3	14
USG	74G82L (LL)	38	44	2	35	3.3	122
GoSoy	4411 LL	32	50	1	11	2.7	42
Hornbeck	LL4850	41	39	2	40	3	120
Progeny	4928 LL	38	45	3	8	2	17
GoSoy	4812 LL	41	39	2	53	3.3	183
GoSoy	4711 LL	28	45	1	21	3.7	82
Halo	X477 (LL/STS)	34	42	1	37	3	113
Caverndale Farms	469 LL/STSn	21	37	1	48	3.3	195
Progeny	4560 LL	46	63	1	30	2.7	123
	Average	43	50	2	23	2	71

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senesc

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size on 8/28/

Table 52. Mean yields † of 16 Maturity Group IV Liberty Link soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=10) -----bu/a-----	Knoxville	Springfield		Milan	Ames
				Irr.	Non-Irr.	Irr.	
Halo	5:01 (LL)	59 ± 1	71	69	52	55	46
Delta Grow	4967 LL	58 ± 1	67	68	52	58	44
GoSoy	4912 LL	56 ± 1	60	62	53	58	45
Progeny	4819 LL	53 ± 1	58	58	53	50	47
Beck's Hybrids	483NL (LL)	53 ± 1	68	57	52	47	41
Halo	4:94 (LL)	52 ± 1	60	62	50	47	43
Delta Grow	4990 LL	52 ± 1	58	58	50	48	48
Halo	4:95 (LL)	52 ± 1	59	54	53	51	43
Delta Grow	4867 LL	52 ± 1	59	60	53	45	43
GoSoy	4812 LL	51 ± 1	58	56	53	49	42
USG	74G82L (LL)	51 ± 1	60	58	53	44	42
Halo	4:65 (LL)	51 ± 1	61	55	53	46	42
Progeny	4928 LL	51 ± 1	59	52	51	50	45
USG	74G99L (LL)	51 ± 1	58	54	50	49	44
GoSoy	4711 LL	50 ± 1	53	53	53	43	46
GoSoy	4411 LL	50 ± 1	56	55	50	44	43
Average (bu/a)		53	60	58	52	49	44
L.S.D._{.05} (bu/a)		4	12	9	6	10	5
C.V. (%)		11.1	12.3	11.0	8.3	14.3	7.6

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 53. Mean yields † and agronomic characteristics of 16 Maturity Group IV Liberty Link soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield		Moisture § (n=10)	Lodging (n=8)	Height (n=8)	Maturity (n=8)	Shattering (n=6)	Seed		
		± Std Err. (n=10)	bu/a						Quality (n=2)	Protein (n=2)	Oil (n=2)
				%	Score	in.	DAP	-----	Score ----	%	%
Halo	5:01 (LL)	59 ± 1		15.9	1.9	43	141	1.0	1.8	35.5	22.2
Delta Grow	4967 LL	58 ± 1		15.2	1.9	42	142	1.0	1.9	35.5	21.6
GoSoy	4912 LL	56 ± 1		16.7	1.9	42	142	1.0	1.7	35.3	21.8
Progeny	4819 LL	53 ± 1		13.8	2.2	37	135	1.0	2.3	36.4	21.7
Beck's Hybrids	483NL (LL)	53 ± 1		14.3	1.9	37	135	1.0	2.2	36.9	21.6
Halo	4:94 (LL)	52 ± 1		14.3	1.8	40	139	1.0	1.9	36.6	21.0
Delta Grow	4990 LL	52 ± 1		14.0	1.6	39	138	1.0	1.8	36.5	21.0
Halo	4:95 (LL)	52 ± 1		13.9	2.2	38	135	1.0	2.1	36.9	21.5
Delta Grow	4867 LL	52 ± 1		14.1	2.2	36	135	1.0	2.3	36.6	21.5
GoSoy	4812 LL	51 ± 1		14.1	2.1	37	135	1.0	2.0	36.1	21.8
USG	74G82L (LL)	51 ± 1		13.9	2.5	37	135	1.0	2.2	36.4	21.7
Halo	4:65 (LL)	51 ± 1		13.6	2.0	39	133	1.0	3.6	38.4	21.0
Progeny	4928 LL	51 ± 1		14.8	1.6	40	139	1.0	2.0	36.4	21.1
USG	74G99L (LL)	51 ± 1		14.1	1.9	41	138	1.0	1.9	36.7	21.1
GoSoy	4711 LL	50 ± 1		13.5	2.5	43	136	1.0	2.3	37.7	21.2
GoSoy	4411 LL	50 ± 1		13.5	2.1	39	133	1.0	3.1	37.1	21.5
Average		53		14.4	2.0	39	137	1.0	2.2	36.6	21.5

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing disease spots; 5 = 95% + of leaf surfaces containing disease spots. Ratings from Knoxville on 9/1/11.

Table 54. Mean yields † of five Maturity Group IV Liberty Link soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2011 - 2013.

Brand	Variety	Avg. Yield ± Std Err. (n=12)	Springfield		Milan	
			Knoxville	Irr.	Non-Irr.	Irr.
Halo	4:65 (LL)	52 ± 1	58	53	47	49
Halo	4:94 (LL)	51 ± 1	55	57	44	48
GoSoy	4411 LL	51 ± 1	56	54	44	49
USG	74G99L (LL)	50 ± 1	52	57	44	48
Progeny	4928 LL	50 ± 1	54	52	43	50
Average (bu/a)		51	55	55	44	49
L.S.D._{.05} (bu/a)		4.4	6	10	7	9
C.V. (%)		11.6	10.0	11.6	10.3	12.2

Table 55. Mean yields † and agronomic characteristics of five Maturity Group IV Liberty Link soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=12)	Height (n=12)	Maturity (n=12)	Shattering (n=9)	Seed			
								Quality (n=3)	Protein (n=3)	Oil (n=3)	
		bu/a	%	Score	in.	DAP	-----	Score	-----	%	%
Halo	4:65 (LL)	52 ± 1	13.1	1.9	39	132	1.0	3.1	38.6	21.7	
Halo	4:94 (LL)	51 ± 1	13.5	1.7	40	138	1.0	1.9	37.2	21.4	
GoSoy	4411 LL	51 ± 1	13.2	1.9	39	132	1.0	2.9	37.8	22.1	
USG	74G99L (LL)	50 ± 1	13.7	1.7	41	138	1.0	1.9	37.1	21.6	
Progeny	4928 LL	50 ± 1	13.5	1.5	39	138	1.0	1.9	37.0	21.5	
Average		51	13.4	1.7	40	136	1.0	2.3	37.5	21.7	

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 56. Yields † of 15 Late Maturity Group IV (4.6 - 4.9) Liberty-Link (LL) soybean varieties in eight County Standard Tests in Tennessee and Kentucky during 2013.

MS	Brand/Variety/Maturity	Avg. Yld. bu/a	Moist %	Dyer 6/18 §	Fayette 6/12	Franklin 6/26	Ky	Ky	Gibson 5/15	Obion 6/22	Shelby 5/19
							Fulton1 Amberg 6/28 Farms	Fulton2 Linder 5/15			
A	US Seeds Halo 5:01	61.1	12.9	53.9	49.5	64.4	68.0	77.0	67.0	71.1	37.6
AB	Hornbeck LL4950	59.3	13.2	49.7	50.2	65.9	67.8	67.4	60.6	74.4	38.4
BC	USG 74G99LL	57.4	13.1	50.1	42.4	61.3	62.3	67.0	63.4	71.4	41.0
BCD	Stratton Seed Go-Soy 4910LL	57.0	13.0	46.1	45.7	63.2	64.3	63.5	61.4	69.4	42.4
BCD	Warren Seed Micah 4900LL	56.7	13.1	47.0	43.7	63.0	61.6	65.1	60.4	71.1	41.3
BCD	US Seeds Halo 4:94	56.6	13.1	44.7	41.9	60.1	64.6	69.6	62.4	72.1	37.5
CD	Stratton Seed Go-Soy 4912LL	56.1	13.2	47.6	45.9	65.6	61.8	66.3	54.1	69.0	38.2
CD	Warren Seed Micah 4800LL	56.0	12.9	42.7	45.8	62.3	59.2	66.6	61.4	70.6	39.1
CD	Progeny 4819LL	55.4	13.0	35.7	38.3	62.2	71.4	65.3	63.6	69.5	37.0
CD	Progeny 4928LL	55.4	12.9	40.2	42.1	64.1	63.4	63.6	62.3	69.1	38.2
CDE	USG 74G82LL	54.5	13.0	39.9	36.0	58.2	68.0	60.6	68.8	68.2	36.7
DE	Hornbeck LL4850	54.0	13.1	36.3	36.0	59.2	65.5	63.6	64.6	66.7	40.4
DE	US Seeds Halo 4:97	53.9	13.1	40.8	39.7	60.4	61.0	62.5	62.9	63.9	40.0
E	Warren Seed Micah 4600LL	52.2	13.3	41.4	37.1	57.3	63.0	62.4	61.4	60.8	34.7
E	Stratton Seed Go-Soy 4512LL	52.2	13.6	38.5	37.6	57.5	62.0	61.0	60.4	65.2	35.3
Average (bu/a)		55.8	13.1	43.6	42.1	61.6	64.2	65.4	62.3	68.8	38.5

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each location, thus each county test was considered as one replication of the test in calculating the average yield and in conducting the statistical analysis to determine significant differences (MS).

MS= Varieties with any MS letter in common are not statistically different at the 5% level of probability.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 57. Yields † and disease ratings § of 15 Late Maturity Group IV (4.6 - 4.9) Liberty Link (LL) soybean varieties evaluated in 8 Tennessee and Kentucky County Standard Tests during 2013.

MS	Brand/Variety	CST Avg. Yield (n=8)	----- Research and Education Center at Milan -----						
			Frogeye	Sudden Death	Treated † Yield	Untreated Yield	SCN		
							Race 2	Race 3	Race 5
		bu/a			bu/a	bu/a			
A	US Seeds Halo 5:01	61.1	LOW	LOW	47.8	40.9	MS	S	S
AB	Hornbeck LL4950	59.3	LOW	LOW	46.1	39.5	S	S	S
BC	USG 74G99LL	57.4	LOW	LOW	46.6	41.6	S	S	MS
BCD	Stratton Seed Go-Soy 4910LL	57.0	LOW	LOW	43.1	39.4	S	S	S
BCD	Warren Seed Micah 4900LL	56.7	LOW	LOW-MOD	44.5	40.3	S	S	S
BCD	US Seeds Halo 4:94	56.6	LOW	LOW-MOD	45.6	42.3	S	S	S
CD	Stratton Seed Go-Soy 4912LL	56.1	LOW	LOW	49.6	42.4	S	MR	MS
CD	Warren Seed Micah 4800LL	56.0	LOW	LOW	47.7	40.7	S	MS	MS
CD	Progeny 4819LL	55.4	MOD	LOW-MOD	34.8	34.8	MS	S	MR
CD	Progeny 4928LL	55.4	LOW	LOW	46.1	41.0	S	S	S
CDE	USG 74G82LL	54.5	MOD	LOW	39.0	35.7	MS	MS	MS
DE	Hornbeck LL4850	54.0	MOD	LOW-MOD	43.6	36.7	MS	S	S
DE	US Seeds Halo 4:97	53.9	MOD	LOW-MOD	40.9	35.8	S	MS	S
E	Warren Seed Micah 4600LL	52.2	LOW	LOW-HIGH	45.9	42.5	S	R	MS
E	Stratton Seed Go-Soy 4512LL	52.2	LOW	LOW-MOD	45.8	43.0	MS	S	S
Average (bu/a)		55.8			44.5	39.8			

YLD= Avg. Yield @ 13% moisture.

MS= Varieties that have any MS letter in common are not statistically different in yield at the 5% level of probability.

County locations include: Dyer, Fayette, Franklin, *Fulton KY (1) Amberg Farms, Fulton KY (2) Linder*, Gibson, Obion and Shelby.

† Treated plots at RECM sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R3 growth stage. RECM varieties planted May 28

§ Disease ratings (of unsprayed plots) for Frogeye and Sudden Death are LOW (0-10% disease), MOD (11-40% disease), HIGH (41-100%)

Disease ratings & yield data compiled by Dr. Heather Kelly from replicated plots at the Research and Education Center at Milan (RECM, which has severe disease pressure)

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, WTREC. Race 2 (HG Type 1.2.5.7), Race 3 (HG Type 7) and

Race 5 (HG Type 2.5.7), HS = Highly Susceptible, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant.

Table 58. Overall average yields † and moistures of nine Maturity Group IV Liberty Link soybean varieties evaluated in County Standard Tests (n=8) and AgResearch and Education Centers (n=5) in Tennessee in 2013.

Brand	Variety ‡	Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
		Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %
Halo	5:01 (LL)	60	13.4	61	12.9	58	13.9
Hornbeck	LL4950	56	13.6	59	13.2	52	13.9
GoSoy	4912 LL	55	13.8	56	13.2	53	14.3
USG	74G99L (LL)	54	13.6	57	13.1	51	14.2
Halo	4:94 (LL)	54	13.6	57	13.1	51	14.1
Progeny	4819 LL	53	13.4	55	13.0	51	13.8
USG	74G82L (LL)	52	13.2	55	13.0	50	13.5
Hornbeck	LL4850	52	13.4	54	13.1	50	13.6
Progeny	4928 LL	52	13.6	55	12.9	48	14.2
Average (bu/a)		54	13.5	57	13.1	52	13.9

† Yields have been adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 59. Mean yields † of 15 Maturity Group V Liberty Link soybean varieties evaluated in five environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=5)	Knoxville	Springfield		Milan	Ames
				Irr.	Non-Irr.	Irr.	
-----bu/a-----							
AGSouth Genetics	AGS 533LL	54 ± 1	59	57	59	48	50
AGSouth Genetics	AGS 5911LL	53 ± 1	63	48	54	68	34
Halo	5:01-5 (LL)	53 ± 1	61	53	59	43	49
Delta Grow	5481 LL	53 ± 1	58	52	65	39	50
Beck's Hybrids	EX6315 (LL)	53 ± 1	62	53	65	40	44
Progeny	5960 LL	53 ± 1	62	50	58	63	31
Halo	X530 (LL/STS)	52 ± 1	62	61	60	38	41
Halo	5:26 (LL)	52 ± 1	56	54	62	51	38
Halo	5:45 (LL)	51 ± 1	61	47	57	59	31
Delta Grow	5461 LL	50 ± 1	56	51	55	43	44
GoSoy	5410 LL	49 ± 1	54	48	55	48	41
Progeny	5460 LL	49 ± 1	54	53	53	42	44
Progeny	5160 LL	47 ± 2	54	45	57	55	26
GoSoy	5010 LL	45 ± 1	41	44	58	36	44
Hornbeck	LL5350	44 ± 1	55	46	52	49	20
Average (bu/a)		51	57	51	58	48	39
L.S.D._{.05} (bu/a)		4	7	10	8	12	8
C.V. (%)		10.7	6.7	11.6	7.9	14.3	13.1

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 60. Mean yields † and agronomic characteristics of 15 Maturity Group V Liberty Link soybean varieties evaluated in five environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield	Moisture § (n=5)	Lodging (n=4)	Height (n=4)	Maturity (n=4)	Shattering (n=3)	Seed			
		± Std Err. (n=5)						Quality (n=1)	Protein (n=1)	Oil (n=1)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	Score	
AGSouth Genetics	AGS 533LL	54 ± 1	13.6	1.7	40	140	1.0	1.5	34.2	19.7	2.7
AGSouth Genetics	AGS 5911LL	53 ± 1	13.4	1.5	33	142	1.0	1.3	35.7	18.5	2
Halo	5:01-5 (LL)	53 ± 1	13.4	1.5	40	138	1.0	1.7	34.0	19.9	1.7
Delta Grow	5481 LL	53 ± 1	15.3	1.6	38	143	1.0	2.2	35.5	19.1	1.7
Beck's Hybrids	EX6315 (LL)	53 ± 1	13.7	1.3	36	139	1.0	1.2	34.1	20.0	1.7
Progeny	5960 LL	53 ± 1	13.6	1.4	35	143	1.0	1.2	35.7	18.4	2
Halo	X530 (LL/STS)	52 ± 1	13.3	2.0	49	139	1.0	1.7	34.6	19.6	2.3
Halo	5:26 (LL)	52 ± 1	13.2	1.6	32	137	1.0	1.0	35.7	19.2	2.7
Halo	5:45 (LL)	51 ± 1	13.7	1.4	32	141	1.0	1.2	35.8	18.5	2
Delta Grow	5461 LL	50 ± 1	13.9	1.2	37	138	1.0	1.8	35.4	19.4	1.7
GoSoy	5410 LL	49 ± 1	14.0	1.3	39	140	1.0	1.8	35.0	19.6	2
Progeny	5460 LL	49 ± 1	13.9	1.3	38	140	1.0	1.3	35.3	19.4	2
Progeny	5160 LL	47 ± 2	12.8	1.4	27	140	1.0	1.3	35.2	19.2	2.3
GoSoy	5010 LL	45 ± 1	13.9	1.6	32	137	1.1	1.5	36.3	18.5	3
Hornbeck	LL5350	44 ± 1	13.0	1.5	27	140	1.0	1.0	35.3	19.3	2.7
Average		51	13.6	1.5	36	140	1.0	1.4	35.2	19.2	2.2

† All yields are adjusted to 13% moisture.

Protein & Oil on dry weight basis.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle >45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings taken 8/26/13 in Knoxville, TN

Table 61. Yields †, plant health, and disease ratings of 15 Maturity Group V Liberty Link soybean varieties evaluated at Milan, Tennessee during 2013.

Brand	Variety ‡	Yield Milan Irr.	Yield Milan Non-Irr.	Plant Health (n=2)	SDS		
					DI (n=1)	DS (n=1)	DX (n=1)
		bu/a	bu/a	(1-4)	%	0 - 9	index
AGSouth Genetics	AGS 5911LL	68	63	2	13	3.3	47
Progeny	5960 LL	63	58	2	8	2.0	23
Halo	5:45 (LL)	59	63	1	11	1.5	21
AGSouth Genetics	AGS 533LL	48	43	2	10	2.0	24
Beck's Hybrids	EX6315 (LL)	40	51	2	30	2.5	85
Halo	X530 (LL/STS)	38	48	1	22	1.3	43
Halo	5:26 (LL)	51	48	2	37	2.3	127
Halo	5:01-5 (LL)	43	40	2	35	3.0	105
Delta Grow	5481 LL	39	40	3	1	0.7	1
Progeny	5160 LL	55	57	2	4	1.5	6
Delta Grow	5461 LL	43	42	2	11	1.3	21
Progeny	5460 LL	42	43	2	4	2.3	9
GoSoy	5410 LL	48	42	2	40	3.7	150
Hornbeck	LL5350	49	49	2	17	0.7	33
GoSoy	5010 LL	36	46	2	1	0.5	1
	Average	48	49	2	16	1.9	46

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size on 8/28/13.

Table 62. Mean yields † of five Maturity Group V Liberty Link soybean varieties evaluated in nine environments (n=10) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=10)	Knoxville	Springfield		Milan	Ames
				Irr.	Non-Irr.	Irr.	
				-----bu/a-----			
Halo	5:26 (LL)	54 ± 1	59	60	51	59	42
Halo	5:01-5 (LL)	54 ± 1	62	57	52	53	47
Halo	5:45 (LL)	53 ± 1	59	54	48	67	39
Progeny	5960 LL	52 ± 1	59	53	48	67	35
GoSoy	5410 LL	51 ± 1	56	57	48	53	43
Progeny	5460 LL	51 ± 1	56	56	44	53	46
Delta Grow	5461 LL	51 ± 1	58	52	48	52	44
Progeny	5160 LL	51 ± 1	56	54	45	62	35
GoSoy	5010 LL	49 ± 1	49	48	52	49	45
Average (bu/a)		52	57	55	48	57	42
L.S.D._{.05} (bu/a)		4	6	10	7	10	7
C.V. (%)		10.9	7.6	12.4	9.8	12.5	11.2

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 63. Mean yields † and agronomic characteristics of nine Maturity Group V Liberty Link soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield	Moisture §	Lodging	Height	Maturity	Shattering	Seed	Protein	Oil
		± Std Err.						Quality		
		(n=10)	(n=10)	(n=8)	(n=8)	(n=8)	(n=6)	(n=2)	(n=2)	(n=2)
		bu/a	%	Score	in.	DAP	----- Score -----		%	%
Halo	5:26 (LL)	54 ± 1	12.6	1.5	34	144	1.0	1.3	37.5	21.1
Halo	5:01-5 (LL)	54 ± 1	12.9	1.7	43	144	1.0	1.8	35.7	21.7
Halo	5:45 (LL)	53 ± 1	13.0	1.4	35	148	1.0	1.3	38.1	20.0
Progeny	5960 LL	52 ± 1	13.2	1.4	36	150	1.0	1.5	37.9	20.0
GoSoy	5410 LL	51 ± 1	13.2	1.5	41	145	1.0	1.8	36.4	21.4
Progeny	5460 LL	51 ± 1	13.2	1.5	41	145	1.0	1.4	36.7	21.1
Delta Grow	5461 LL	51 ± 1	13.3	1.5	41	144	1.0	1.8	36.7	21.2
Progeny	5160 LL	51 ± 1	12.5	1.5	29	146	1.0	1.6	37.3	20.8
GoSoy	5010 LL	49 ± 1	13.2	1.8	37	145	1.0	1.5	38.2	20.5
Average		52	13.0	1.5	37	146	1.0	1.6	37.2	20.9

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 64. Mean yields † of four Maturity Group V Liberty Link soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Knoxville	Springfield		Milan Irr.
				Irr.	Non-Irr.	
Progeny	5960 LL	54 ± 1	55	53	43	67
Progeny	5160 LL	52 ± 1	51	55	40	61
Delta Grow	5461 LL	50 ± 1	54	53	39	52
Progeny	5460 LL	49 ± 1	53	55	37	53
Average (bu/a)		51	53	54	40	58
L.S.D._{.05} (bu/a)		4	6	9	7	9
C.V. (%)		9.9	7.2	10.8	11.0	10.1

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 65. Mean yields † and agronomic characteristics of four Maturity Group V Liberty Link soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=12)	Height (n=12)	Maturity (n=12)	Shattering (n=9)	Seed		
								Quality (n=3)	Protein (n=3)	Oil (n=3)
		bu/a	%	Score	in.	DAP	-----	Score -----	%	%
Progeny	5960 LL	54 ± 1	13.1	1.3	35	149	1.0	1.7	38.7	20.4
Progeny	5160 LL	52 ± 1	12.2	1.4	30	146	1.0	1.7	38.2	21.3
Delta Grow	5461 LL	50 ± 1	12.9	1.4	40	144	1.0	2.2	37.4	21.6
Progeny	5460 LL	49 ± 1	12.9	1.4	40	144	1.0	1.8	37.3	21.6
Average		51	12.8	1.4	36	146	1.0	1.9	37.9	21.2

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 66. Mean yields † of 16 Maturity Group IV Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in four environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield ± Std Err.				
		(n=4)	Knoxville	Springfield		Milan
		-----bu/a-----				
			Irr.	Non-Irr.	Irr.	
USDA-TN	JTN-4607	61 ± 2	65	52	64	63
Armor	X47C	60 ± 2	58	56	54	71
Progeny	4510 RY (RR2Y/STS) (CHECK)	59 ± 2	67	53	58	60
AR	UA4913C	59 ± 2	65	51	62	59
Armor	49-C3 (CV4)	58 ± 2	66	50	63	53
MO Exp	S09-10871	58 ± 2	58	49	61	62
Armor	X48C	56 ± 2	58	49	52	64
MO Exp	S09-13608	56 ± 2	56	57	49	62
Armor	X49C	55 ± 2	54	54	58	56
Delta Grow	4967 LL (CHECK)	55 ± 2	57	51	59	53
AR	UA5213C	53 ± 2	43	58	61	50
MO Exp	S09-9943	51 ± 2	64	48	47	47
TN Exp	TN12-4088	51 ± 2	55	38	54	58
TN Exp	TN10-4045	49 ± 2	53	45	52	43
TN Exp	TN12-4070	48 ± 2	53	39	57	44
TN Exp	TN12-4075	48 ± 2	58	36	49	50
Average (bu/a)		55	58	49	56	56
L.S.D._{.05} (bu/a)		5	6	11	8	14
C.V. (%)		10.9	6.0	13.6	8.8	14.2

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (LL), then it is not part of the variety name.

Table 67. Mean yields † and agronomic characteristics of 16 Maturity Group IV Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in four environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield					Seed				
		± Std Err. (n=4)	Moisture § (n=4)	Lodging (n=4)	Height (n=4)	Maturity (n=4)	Shattering (n=3)	Quality (n=1)	Protein (n=1)	Oil (n=1)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	Score	
USDA-TN	JTN-4607	61 ± 2	14.2	1.8	33	134	1.0	1.2	35.6	19.0	2
Armor	X47C	60 ± 2	14.6	1.5	32	130	1.0	1.3	35.7	18.7	3.7
Progeny	4510 RY (RR2Y/STS) (CHECK)	59 ± 2	14.1	1.4	33	127	1.0	1.0	35.2	19.3	5
AR	UA4913C	59 ± 2	14.2	1.2	29	131	1.0	1.0	35.0	18.9	1.7
Armor	49-C3 (CV4)	58 ± 2	14.8	2.9	31	134	1.1	1.3	34.9	19.1	2.7
MO Exp	S09-10871	58 ± 2	15.3	1.6	33	131	1.0	1.8	35.4	18.9	5
Armor	X48C	56 ± 2	13.4	1.8	34	131	1.0	1.5	34.4	18.9	3.7
MO Exp	S09-13608	56 ± 2	13.6	2.0	34	130	1.0	1.5	34.7	18.7	3.7
Armor	X49C	55 ± 2	14.8	2.4	39	132	1.0	3.0	37.4	18.1	5
Delta Grow	4967 LL (CHECK)	55 ± 2	16.6	1.8	38	135	1.1	1.3	34.5	19.9	2.3
AR	UA5213C	53 ± 2	15.8	2.2	30	133	1.0	1.3	36.9	17.9	3
MO Exp	S09-9943	51 ± 2	14.3	1.6	33	130	1.0	2.3	35.6	19.1	4
TN Exp	TN12-4088	51 ± 2	14.2	1.5	30	131	1.1	1.2	34.0	19.8	3
TN Exp	TN10-4045	49 ± 2	14.5	2.2	32	122	1.0	2.5	35.3	19.5	4
TN Exp	TN12-4070	48 ± 2	14.9	2.0	34	123	1.0	2.3	35.7	19.4	4
TN Exp	TN12-4075	48 ± 2	13.4	1.0	26	129	1.0	1.2	34.9	19.4	2.3
Average		55	14.5	1.8	32.6	130.2	1.0	1.6	35.3	19.0	3.4

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle >45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings taken 8/26/13 in Knoxville, TN

Table 68. Yields †, plant health, and disease ratings of 16 Maturity Group IV Conventional, Liberty Link, and Roundup Ready evaluated at Milan, Tennessee during 2013.

Brand	Variety ‡	Yield Milan Irr.	Yield Milan Non-Irr.	Plant Health (n=2)	SDS		
					DI (n=1)	DS (n=1)	DX (n=1)
		bu/a	bu/a	(1-4)	%	0 - 9	index
USDA-TN	JTN-4607	63	64	1	1	1.0	1
Armor	X47C	71	68	1	0	0.3	0
AR	UA4913C	59	67	2	0	0.0	0
MO Exp	S09-10871	62	69	1	0	0.0	0
Progeny	4510 RY (RR2Y/STS) (CHECK)	60	59	1	1	1.3	2
Armor	49-C3 (CV4)	53	54	1	0	0.0	0
MO Exp	S09-13608	62	61	1	0	0.0	0
Armor	X49C	56	57	1	1	0.3	1
Armor	X48C	64	55	1	1	1.0	1
Delta Grow	4967 LL (CHECK)	53	47	2	6	2.3	15
MO Exp	S09-9943	47	58	2	0	0.3	0
AR	UA5213C	50	51	1	11	2.3	32
TN Exp	TN12-4088	58	55	2	1	0.7	1
TN Exp	TN12-4075	50	57	2	1	1.0	1
TN Exp	TN10-4045	43	48	2	1	0.7	1
TN Exp	TN12-4070	44	43	2	1	1.3	2
Average		56	57	1	2	0.8	4

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size on 8/28/13.

Table 69. Mean yields † of two Maturity Group IV Conventional and Roundup Ready soybean varieties evaluated in four environments (n=8) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=8)		Springfield		Milan
		Knoxville	Irr.	Non-Irr.	Irr.	
Armor	49-C3 (CV4)	58 ± 1	67	56	53	58
AR	UA5213C	57 ± 1	53	62	45	67
Average (bu/a)		58	60	59	49	63
L.S.D._{.05} (bu/a)		5.2	6	13.6	8	12
C.V. (%)		11.7	6.7	14.9	10.1	12.8

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 70. Mean yields † and agronomic characteristics of two Maturity Group IV Conventional and Roundup Ready soybean varieties evaluated in four environments (n=8) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=8)			Moisture § (n=8)	Lodging (n=8)	Height (n=8)	Maturity (n=8)	Shattering (n=6)	Seed		
		Knoxville	Irr.	Non-Irr.						Quality (n=2)	Protein (n=2)	Oil (n=2)
Armor	49-C3 (CV4)	58 ± 1	67	56	14.1	2.5	34	140	1.1	1.7	36.8	20.5
AR	UA5213C	57 ± 1	53	62	15.1	2.0	33	139	1.0	1.3	38.6	19.4
Average		58	60	59	14.6	2.3	34	140	1.1	1.5	37.7	20.0

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 71. Mean yields † of 14 Maturity Group V Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in four environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield ± Std Err.				
		(n=4)	Knoxville	Springfield		Milan
				Irr.	Non-Irr.	Irr.
-----bu/a-----						
USDA-TN	JTN-5110	64 ± 2	74	50	62	71
Asgrow	AG5233 (RR2 CHECK)	62 ± 2	70	53	65	60
USDA-TN	JTN-5203	61 ± 2	74	53	64	54
AR	R05-374	60 ± 2	61	52	62	63
MO Exp	S09-13635	58 ± 2	60	60	50	60
Asgrow	AG5532 (RR CHECK)	57 ± 2	65	52	55	57
Midwest Premium Genetics	Leland	56 ± 2	66	39	55	65
AR	UA 5612	55 ± 2	61	51	54	56
Progeny	5160 LL (LL CHECK)	54 ± 2	66	41	53	55
TN Exp	TN12-5015	54 ± 2	65	32	59	57
AR	Osage	52 ± 2	61	43	54	51
AR	Ozark	51 ± 2	58	44	49	54
TN Exp	TN11-5088	51 ± 2	61	30	60	53
USDA-TN	JTN-4307	49 ± 2	61	37	56	41
Average (bu/a)		56	65	46	57	57
L.S.D._{.05} (bu/a)		5	10	11	9	11
C.V. (%)		11.0	9.1	14.0	9.6	11.9

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 72. Mean yields † and agronomic characteristics of 14 Maturity Group V Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in four environments in Tennessee during 2013.

Brand	Variety ‡	Avg. Yield	Moisture § (n=4)	Lodging (n=4)	Height (n=4)	Maturity (n=4)	Shattering (n=3)	Seed	Protein (n=1)	Oil (n=1)	Frogeye (n=1)
		± Std Err. (n=4)						Quality (n=1)			
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	Score	
USDA-TN	JTN-5110	64 ± 2	14.2	1.8	33	138	1.0	1.0	35.7	18.7	2
Asgrow	AG5233 (RR2 CHECK)	62 ± 2	13.9	1.5	35	137	1.0	2.0	34.6	19.2	4.7
USDA-TN	JTN-5203	61 ± 2	15.0	1.4	29	139	1.0	1.3	35.8	18.5	1.3
AR	R05-374	60 ± 2	13.2	2.3	32	140	1.0	1.5	34.8	19.3	3
MO Exp	S09-13635	58 ± 2	14.5	2.3	41	137	1.0	3.8	37.3	17.9	4.7
Asgrow	AG5532 (RR CHECK)	57 ± 2	13.7	1.5	34	142	1.1	2.3	35.3	18.8	4.7
Midwest Premium Genetics	Leland	56 ± 2	14.0	2.6	33	138	1.0	1.0	34.8	18.8	2.3
AR	UA 5612	55 ± 2	14.1	2.7	33	144	1.0	1.7	35.0	18.6	2
Progeny	5160 LL (LL CHECK)	54 ± 2	13.2	1.7	26	140	1.0	1.3	35.1	19.4	2
TN Exp	TN12-5015	54 ± 2	13.7	1.3	29	136	1.0	1.7	36.7	18.2	2.3
AR	Osage	52 ± 2	13.7	1.5	28	141	1.0	1.0	38.1	17.9	2.3
AR	Ozark	51 ± 2	14.8	1.6	31	140	1.0	1.0	34.7	18.8	2
TN Exp	TN11-5088	51 ± 2	14.1	1.3	32	136	1.0	1.8	36.1	18.5	2.7
USDA-TN	JTN-4307	49 ± 2	13.6	1.8	31	136	1.0	1.0	35.8	18.9	2
Average		56	14.0	1.8	32	139	1.0	1.6	35.7	18.7	2.7

† All yields are adjusted to 13% moisture.

Protein & Oil on dry weight basis.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle >45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings taken 8/26/13 in Knoxville, TN

Table 73. Yields †, plant health, and disease ratings of 14 Maturity Group V Conventional, Liberty Link, and Roundup Ready evaluated at Milan, Tennessee during 2013.

Brand	Variety ‡	Yield Milan Irr.	Yield Milan Non-Irr.	Plant Health (n=2)	SDS		
					DI (n=1)	DS (n=1)	DX (n=1)
		bu/a	bu/a	(1-4)	%	0 - 9	index
USDA-TN	JTN-5110	71	63	2	1	0.7	1
Asgrow	AG5233 (RR2 CHECK)	60	58	1	1	0.7	1
USDA-TN	JTN-5203	54	54	2	0	0.0	0
AR	R05-374	63	57	1	7	2.0	21
Midwest Premium Genetics	Leland	65	62	2	0	0.7	1
MO Exp	S09-13635	60	56	1	8	1.7	22
Asgrow	AG5532 (RR CHECK)	57	52	3	15	2.3	37
AR	UA 5612	56	51	2	32	3.3	108
TN Exp	TN12-5015	57	47	2	14	1.7	41
TN Exp	TN11-5088	53	54	2	4	1.7	8
Progeny	5160 LL (LL CHECK)	55	43	2	18	2.0	52
AR	Ozark	54	48	2	0	0.3	0
USDA-TN	JTN-4307	41	54	3	1	0.7	1
AR	Osage	51	41	3	10	2.0	30
	Average	57	53	2	8	1.4	23

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size on 8/28/13.

Table 74. Mean yields † of 11 Maturity Group V Conventional and Roundup Ready soybean varieties evaluated in four environments (n=8) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=8)	Knoxville	Springfield		Milan
				Irr.	Non-Irr.	Irr.
USDA-TN	JTN-5203	62 ± 1	71	63	53	61
USDA-TN	JTN-5110	61 ± 1	71	57	50	66
AR	Osage	58 ± 1	63	57	48	62
AR	UA 5612	57 ± 1	62	58	48	61
AR	Ozark	55 ± 1	59	52	44	63
USDA-TN	JTN-4307	51 ± 1	61	44	49	51
Average (bu/a)		57	65	55	49	61
L.S.D._{.05} (bu/a)		5	7	12	8	11
C.V. (%)		10.8	7.3	13.8	11.2	10.6

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 75. Mean yields † and agronomic characteristics of six Maturity Group V Conventional and Roundup Ready soybean varieties evaluated in four environments (n=8) in Tennessee for two years, 2012 - 2013.

Brand	Variety ‡	Avg. Yield					Seed				
		± Std Err. (n=8)	Moisture § (n=8)	Lodging (n=8)	Height (n=8)	Maturity (n=8)	Shattering (n=6)	Quality (n=2)	Protein (n=2)	Oil (n=2)	
		bu/a	%	Score	in.	DAP	----- Score -----	-----	%	%	
USDA-TN	JTN-5203	62 ± 1	13.7	1.6	32	147	1.0	1.5	37.7	20.2	
USDA-TN	JTN-5110	61 ± 1	13.6	2.0	34	146	1.0	1.5	38.3	20.6	
AR	Osage	58 ± 1	12.8	1.6	30	148	1.0	1.5	40.7	20.3	
AR	UA 5612	57 ± 1	13.2	2.5	35	151	1.0	1.6	37.0	20.2	
AR	Ozark	55 ± 1	14.8	1.7	33	147	1.0	1.1	36.7	20.5	
USDA-TN	JTN-4307	51 ± 1	13.1	1.9	34	144	1.0	1.2	38.0	20.4	
Average		57	13.5	1.9	33	147	1.0	1.4	38.1	20.4	

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 76. Mean yields † of five Maturity Group V Conventional soybean varieties and one Roundup Ready check evaluated in four environments (n=12) in Tennessee for three years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)				
		Knoxville	Springfield Irr. Non-Irr.		Milan Irr.	
USDA-TN	JTN-5203	56 ± 1	61	58	43	63
AR	Osage	55 ± 1	58	57	42	63
USDA-TN	JTN-5110	55 ± 1	61	54	42	63
AR	UA 5612	55 ± 1	58	56	44	61
AR	Ozark	52 ± 1	55	55	38	62
Average (bu/a)		55	59	56	42	62
L.S.D._{.05} (bu/a)		4	6	10	7	9
C.V. (%)		10.2	7.2	12.0	11.8	9.5

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 77. Mean yields † and agronomic characteristics of five Maturity Group V Conventional soybean varieties and one Roundup Ready check evaluated in four environments (n=12) in Tennessee for three years, 2011 - 2013.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)					Seed			
		Moisture § (n=12)	Lodging (n=12)	Height (n=12)	Maturity (n=12)	Shattering (n=6)	Quality (n=3)	Protein (n=3)	Oil (n=3)	
USDA-TN	JTN-5203	56 ± 1	13.3	1.5	33	146	1.0	1.7	38.8	20.3
AR	Osage	55 ± 1	12.5	1.4	31	147	1.0	1.8	41.6	20.4
USDA-TN	JTN-5110	55 ± 1	13.2	1.8	35	146	1.0	1.6	39.0	20.8
AR	UA 5612	55 ± 1	12.9	2.2	37	149	1.0	1.8	38.2	20.4
AR	Ozark	52 ± 1	14.0	1.7	34	146	1.0	1.6	37.6	20.8
Average		55	13.2	1.7	34	147	1.0	1.7	39.0	20.5

† All yields are adjusted to 13% moisture.

§ Average moisture at harvest

Maturity = days after planting (DAP).

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 78. Characteristics of soybean varieties evaluated in Tennessee during 2013, as provided by the seed company.

Brand	Variety ‡	2013 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
AgBorn Genetics LLC	ABx0448 (RR)	RR4E	4.1	RR	MR3	R	MR	MS	P	LT	Innoculant, 2 fungicides, ins.
AgBorn Genetics LLC	ABx2105 (RR)	RR4L	4.9	RR	S	S	NR	S	P	G	Innoculant, 2 fungicides, ins.
AgBorn Genetics LLC	ABx2164 (RR)	RR4L	4.6	RR	S	S	NR	S	P	T	Innoculant, 2 fungicides, ins.
AgBorn Genetics LLC	ABx2193 (RR)	RR3	3.9	RR	S	NR	S	NR	P	T	Innoculant, 2 fungicides, ins.
AgBorn Genetics LLC	ABx57318 (RR/STS)	RR4L	4.6	RR,STS	MR3	MR	NR	MS	W	LT	Innoculant, 2 fungicides, ins.
AgBorn Genetics LLC	ABx71141 (RR)	RR4E	4.1	RR	MR2,3,5	R	MR	MS	W	LT	Innoculant, 2 fungicides, ins.
AgBorn Genetics LLC	ABx7648 (RR)	RR3	3.8	RR	MR3	R	MR	S	P	LT	Innoculant, 2 fungicides, ins.
AGSouth Genetics	AGS 43R212 (RR2Y)	RR4E	4.3	RR2Y	3	R	MR	R	W	T	ApronMaxx/Cruiser
AGSouth Genetics	AGS 45R212 (RR2Y)	RR4E	4.5	RR2Y	3	R	MR	MR	W	T	ApronMaxx/Cruiser
AGSouth Genetics	AGS 47R212 (RR)	RR4L	4.7	RR1	3	R	MR	MR	P	LT	ApronMaxx/Cruiser
AGSouth Genetics	AGS 533LL	LL5	5.3	LL							
AGSouth Genetics	AGS 5911LL	LL5	5.9	LL							
AR	Osage	CV5	5.6			R	R	R	P	G	Apron Maxx
AR	Ozark	CV5	5.2		3	R	R	R	P	G	Apron Maxx
AR	R04-1250RR	RR5E	5.5	RR					P	G	Apron-Maxx
AR	R04-1268RR	RR5E	5.4	RR					W	G	Apron Maxx
AR	R05-374	CV5	5.1						W	G	Apron-Maxx
AR	UA 5612	CV5	5.6			R			P	G	Apron Maxx
AR	UA4913C	CV4	4.9						P	T	Apron-Maxx
AR	UA5213C	CV4	4.9						P	G	Apron Maxx
Armor	39-R16 (RR/STS)	RR3	3.9	RR2Y/STS			MR	MR	P	G	ApronMaxx/Cruiser
Armor	44-R08 (RR2Y)	RR4E	4.4	RR2Y		M	MR	M	P	G	ApronMaxx/Cruiser
Armor	45-R60 (RR2Y/STS)	RR4E	4.4	RR2Y/STS			M	R	P	G	ApronMaxx/Cruiser
Armor	47-R13 (RR2Y/STS)	RR4L	4.8	RR2Y/STS		R	MR	MR	P	G	ApronMaxx/Cruiser
Armor	48-R66 (RR2/STS)	RR4L	4.8	RR2/STS							ApronMaxx/Cruiser
Armor	48-R91 (RR2Y/STS)	RR4L	4.7	RR2Y/STS		R	M	MR	P	LT	ApronMaxx/Cruiser
Armor	49-C3 (CV4)	CV4	4.9			MR	R	R	W	T	ApronMaxx/Cruiser
Armor	49-R56 (RR2Y)	RR4L	4.9	RR2Y		MR	MR	MR	P	LT	ApronMaxx/Cruiser
Armor	53-R16 (RR2Y)	RR5E	5.4	RR2Y		R	M	M	P	G	ApronMaxx/Cruiser
Armor	53-R88 (RR2Y/STS)	RR5E	5.4	RR2Y/STS		R	MR	M	P	G	ApronMaxx/Cruiser
Armor	55-R22 (RR2Y)	RR5E	5.5	RR2Y		R	MR	MR	P	G	ApronMaxx/Cruiser
Armor	X1401 (RR2)	RR4E	4.2	RR2							ApronMaxx/Cruiser
Armor	X1406 (RR2/STS)	RR4L	4.6	RR2/STS							ApronMaxx/Cruiser
Armor	X1409 (RR2)	RR4L	4.9	RR2							ApronMaxx/Cruiser
Armor	X1410 (RR2)	RR5E	5.0	RR2							ApronMaxx/Cruiser
Armor	X1413 (RR2)	RR5E	5.1	RR2							ApronMaxx/Cruiser
Armor	X1414 (RR2)	RR5E	5.3	RR2							ApronMaxx/Cruiser
Armor	X47C (STS)	CV4	4.8	STS							Allegiance, Cruiser, Maxim
Armor	X48C (STS)	CV4	4.8	STS							Allegiance, Cruiser, Maxim
Armor	X49C	CV4	4.9	STS							Allegiance, Cruiser, Maxim
Asgrow	AG4232 GENRR2Y (STS)	RR4E	4.2	RR2Y/STS	R3	R	S	MR	P	LT	Acceleron
Asgrow	AG4433 GENRR2Y	RR4E	4.4	RR2Y	3	R	MR	S		LT	Acceleron
Asgrow	AG4534 (RR2Y/STS)	RR4E	4.5	RR2YLD/STS	MR3	MS	MS	MS		T	Acceleron I
Asgrow	AG4632 GENRR2Y (STS)	RR4L	4.6	RR2Y/STS	MR3	R	S	R	P	LT	Acceleron
Asgrow	AG4633 GENRR2Y	RR4L	4.6	RR2Y	3	R	MS	MS		LT	Acceleron
Asgrow	AG4832 GENRR2Y (STS)	RR4L	4.8	RR2Y/STS	3	MS	S	MS	P	LT	Acceleron
Asgrow	AG4933 GENRR2Y	RR4L	4.9	RR2Y	3	R	R	S		G	Acceleron

Table 78 (continued)

Brand	Variety ‡	2013 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
Asgrow	AG4934 (RR2Y/STS)	RR4L	4.9	RR2YLD/STS	MR3	R		MS	P	LT	Acceleron I
Asgrow	AG5233 (RR2 CHECK)	CV5	5.2	RR2Y/STS	3	R	R	S		LT	Acceleron
Asgrow	AG5233 GENRR2Y (STS)	RR5E	5.2	RR2Y/STS	3	R	R	S		LT	Acceleron
Asgrow	AG5332 GENRR2Y	RR5E	5.3	RR2Y	R3	R	S	R	P	T	Acceleron
Asgrow	AG5532 (RR CHECK)	CV5	5.5	RR2Y/STS	S	MS	S	S	W	G	Acceleron
Asgrow	AG5532 GENRR2Y (STS)	RR5E	5.5	RR2Y/STS	S	MS	S	S	W	G	Acceleron
Asgrow	AG5534 (RR2Y)	RR5E	5.5	RR2YLD	S	MS		R		T	Acceleron I
Asgrow	AG5632 GENRR2Y (STS)	RR5L	5.6	RR2Y/STS	R3	R	MS	S	W	G	Acceleron
Asgrow	AG5633 GENRR2Y	RR5L	5.6	RR2Y	S	R	MS	MS		T	Acceleron
Asgrow	AG5634 (RR2Y)	RR5L	5.6	RR2YLD	2,3	MS		MR	P	T	Acceleron I
Beck's Hybrids	418NR (RR)	RR4E	4.1	RR	R 3, MR 14						Escalate
Beck's Hybrids	423NL (LL)	LL4	4.2	LL	R3, MR 14						Escalate
Beck's Hybrids	444NR (RR)	RR4E	4.4	RR	R 3, MR 14						Escalate
Beck's Hybrids	477NR (RR)	RR4L	4.7	RR	R3, MR14	MR	MR	MR	P	T	Escalate
Beck's Hybrids	483NL (LL)	LL4	4.8	LL	R 3, MR 14						Escalate
Beck's Hybrids	EX6160 (RR)	RR5E	5.1	RR	R3, MR 14						Escalate
Beck's Hybrids	EX6315 (LL)	LL5	5.2	LL	R3, MR 14						Escalate
Caverndale Farms	466 RR2Yn	RR4L	4.6	RR2Y	1c	R	MR	NA	P	LT	Fluidioxonil, metalaxyl, imidacloprid
Caverndale Farms	469 LL/STSn	LL4	4.6	LL/STS	NA	NA	NA	NA	P	G	Fluidioxonil, metalaxyl, imidacloprid
Caverndale Farms	486 RR2Y/STSn	RR4L	4.8	RR2Y/STS	3, 14	R	R	R	W	T	Ranconna, Metaxyl, Macho 600, Optomize 400
Caverndale Farms	496 RR2Yn	RR4L	4.9	RR2Y	1c,1.9	R	R	MR	P	LT	Fluidioxonil, metalaxyl, imidacloprid
Croplan	R2C 4752 S	RR4L	4.7	RR/STS	R3 MR14	R	R	R	P	G	
Croplan	R2C 4873 S	RR4L	4.8	RR/STS		MR	R	S	W	T	
Croplan	R2C 5482	RR5E	5.4	RR							warden, nitroshield
Croplan	RT 47995 (RR)	RR4E	4.7	RR							warden, nitroshield
Delta Grow	4670 R2Y	RR4L	4.6	RR2Y	3,14	R	M	R	P	T	Cruiser Maxx
Delta Grow	4755 R2Y	RR4L	4.7	RR2Y	3, 14	MR	R	R	P	T	Cruiser Maxx
Delta Grow	4765 R2Y	RR4L	4.7	RR2Y	3, 14	R	R	R	W	T	Cruiser Maxx
Delta Grow	4825 R2Y/STS	RR4L	4.8	RR2Y	3, 14	R	MR	S	W	T	Cruiser Maxx
Delta Grow	4867 LL	LL4	4.8	LL	3, 14		R		W	T	Cruiser Maxx
Delta Grow	4880 RR	RR4L	4.8	RR	3, 9, 14	R	R		P	T	Cruiser Maxx
Delta Grow	4925 R2Y	RR4L	4.9	RR2Y	3, 14	R	MR	MR	P	T	Cruiser Maxx
Delta Grow	4940 RR	RR4L	4.9	RR	1,2,3,5,14	MR	MR	MR	P	T	Cruiser Maxx
Delta Grow	4967 LL	LL4	4.9	LL	3		R		W	T	Cruiser Maxx
Delta Grow	4970 RR	RR4L	4.9	RR	3, 14	R	R	R	P	T	Cruiser Maxx
Delta Grow	4981 LL/STS	LL4	4.9	LL/STS	3	MR	MR	MR	W	T	Cruiser Maxx
Delta Grow	4990 LL	LL4	4.9	LL	3, 14	R	R	R	P	G	Cruiser Maxx
Delta Grow	5130 RR2	RR5E	5.1	RR2	3.14	R	R	R	P	T	Cruiser Maxx
Delta Grow	5461 LL	LL5	5.4	LL	3, 14	R	R	R	P	T	Cruiser Maxx
Delta Grow	5481 LL	LL5	5.4	LL	3	MR	MR	MR	P	G	Cruiser Maxx
Delta Grow	5625 RR2	RR5L	5.6	RR2	3,14	MR	MR	MR	P	T	Cruiser Maxx
Dyna-Gro	31RY45 (RR2Y)	RR4E	4.5	RR2Y	3,14	R	MS	R	P	LT	Acceleron
Dyna-Gro	32RY55 (RR2Y)	RR5E	5.5	RR2Y	3, 14	R	MR	MR	P	G	Acceleron
Dyna-Gro	39RY43 (RR2Y)	RR4E	4.3	RR2Y	3,14	S	MR	MS	P	G	Acceleron/Imidacloprid

Table 78 (continued)

Brand	Variety ‡	2013 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
Dyna-Gro	S38RY84 (RR2Y)	RR3	3.8	RR2Y	R3,MR14				W	LT	Acceleron/Imidacloprid
Dyna-Gro	S44RS93 (RR2Y/STS)	RR4E	4.4	RR2Y/STS	3, 14	MR	MR	R	P	G	Acceleron/Imidacloprid
Dyna-Gro	S47RY13 (RR2Y)	RR4L	4.7	RR2Y	3, 14	MR	MR	MR	P	LT	Acceleron/Imidacloprid
Dyna-Gro	S48RS53 (RR2Y/STS)	RR4L	4.8	RR2Y/STS	3, 14	R	MR	MR	P	G	Acceleron/Imidacloprid
Dyna-Gro	S49LL34 (LL)	LL4	4.9	LL	R3,MR14				P	G	Acceleron/Imidacloprid
Dyna-Gro	S53RY23 (RR2Y)	RR5E	5.3	RR2Y	R3,MR14				P	G	Acceleron/Imidacloprid
Dyna-Gro	S54RY43 (RR2Y)	RR5E	5.4	RR2Y	3, 14	R	MR	MR	W	G	Acceleron/Imidacloprid
Dyna-Gro	SX 13246L (LL)	LL4	4.6	LL	R3,MR14				W	G	Acceleron/Imidacloprid
Dyna-Gro	SX 13346R (RR2Y)	RR4L	4.6	RR2Y	R3,MR14				P	LT	Acceleron/Imidacloprid
GoSoy	4411 LL	LL4	4.4	LL	3	MR	MR	MR	P	LT	Cruiser Maxx
GoSoy	4711 LL	LL4	4.7	LL	3		MR	MR	P	G	Cruiser Maxx
GoSoy	4812 LL	LL4	4.8	LL	3		MR		W	T	Cruiser Maxx
GoSoy	4912 LL	LL4	4.9	LL		MS		MR	W	G	Cruiser Maxx
GoSoy	5010 LL	LL5	5.0	LL	3	MR	MR	MR	P	G	Cruiser Maxx
GoSoy	5410 LL	LL5	5.4	LL	3	MR	MR	MR	P	G	Cruiser Maxx
Halo	4:40 (LL)	LL4	4.2	LL							ApronMaxx/Cruiser
Halo	4:65 (LL)	LL4	4.6	LL	MR 3	R	MR	R	P	LT	ApronMaxx/Cruiser
Halo	4:94 (LL)	LL4	4.9	LL	MR 3	R	MR	MR	P	G	ApronMaxx/Cruiser
Halo	4:95 (LL)	LL4	4.8	LL							ApronMaxx/Cruiser
Halo	5:01 (LL)	LL4	4.9	LL							ApronMaxx/Cruiser
Halo	5:01-5 (LL)	LL5	5.0	LL							ApronMaxx/Cruiser
Halo	5:26 (LL)	LL5	5.1	LL							ApronMaxx/Cruiser
Halo	5:45 (LL)	LL5	5.4	LL							ApronMaxx/Cruiser
Halo	X466 (LL)	LL4	4.6	LL							ApronMaxx/Cruiser
Halo	X477 (LL/STS)	LL4	4.7	LL/STS							ApronMaxx/Cruiser
Halo	X496 (LL)	LL4	4.9	LL							ApronMaxx/Cruiser
Halo	X530 (LL/STS)	LL5	5.3	LL/STS							ApronMaxx/Cruiser
Hornbeck	HBK RY 4620 (RR2Y/STS)	RR4L	4.6	RR2Y/STS		MS	R		P	LT	Trilex 2000, Poncho Votivo
Hornbeck	HBK RY 4721 (RR2Y)	RR4L	4.7	RR2Y		R	MR	R	P	LT	Trilex 2000, Poncho Votivo
Hornbeck	HBK RY 5221 (RR2Y)	RR5E	5.2	RR2Y	R 3	R		R	P	G	Trilex 2000, Poncho Votivo
Hornbeck	HBK RY 5421 (RR2Y)	RR5E	5.4	RR2Y	MR 3	R		R	P	G	Trilex 2000, Poncho Votivo
Hornbeck	LL4850	LL4	4.8	LL	1.5 Race 3	3.5	1.8	NA	W	T	Poncho/Votivo + Trilex 2000
Hornbeck	LL4950	LL4	4.9	LL	1.5 Race 3	NA	1.9	NA	W	G	Poncho/Votivo + Trilex 2000
Hornbeck	LL5350	LL5	5.3	LL	1.5 Race 3	1.5	1.5	1.4	W	T	Poncho/Votivo + Trilex 2000
LG Seeds	C4544R2	RR4E	4.5	RR2	3,14	R	MR	R	P	LT	Poncho/Votivo, metalaxyl,
LG Seeds	C4625 R2	RR4L	4.6	RR2Y		MR	R	S	P	LT	fluxapyroxad, pyraclostrobin
LG Seeds	C4780R2	RR4L	4.7	RR2/STS	3,14	R	R	R	P	G	Poncho/Votivo, metalaxyl,
LG Seeds	C4867R2	RR4L	4.8	RR2/STS	3,14	MR	R	MR	W	LT	fluxapyroxad, pyraclostrobin
LG Seeds	C5122R2	RR5E	5.1	RR2	3	R	R	MR	P	LT	Poncho/Votivo, metalaxyl,
Midwest Premium Genetics	Leland	CV5	5.1		1,2,3,5,14	MR	MR	R	W	T	fluxapyroxad, pyraclostrobin
Midwest Premium Genetics	MPG4714 (RR)	RR4L	4.7	RR	3	R	MR	MS	P	T	Cruiser Maxx
Midwest Premium Genetics	MPG5113 (RR)	RR5E	5.1	RR		R		R	W	G	Cruiser Maxx
Midwest Premium Genetics	MPG5214NRR	RR5E	5.2	RR	1,2,3,5,14	MR	MR	MR	P	T	Cruiser Maxx

Table 78 (continued)

Brand	Variety ‡	2013 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
MO Exp	S09-10871	CV4	4.8		MS	R	MR	S	W	LT	Trilex+Gaucho
MO Exp	S09-13608	CV4	4.8		MS	R	MR	S	W	G	Trilex+Gaucho
MO Exp	S09-13635	CV5	5.0		MS	R	MR	S	W	G	Trilex+Gaucho
MO Exp	S09-6201R	RR5E	5.1	RR	MS	R	MR	R	W	G	Trilex+Gaucho
MO Exp	S09-9943	CV4	4.6		MS	R	MR	S	W	LT	Trilex+Gaucho
Morsoy	RT 5429 (RR)	RR5E	5.4	RR			R	MR	W	T	Cruiser Maxx
Morsoy Xtra	49X14 (RR)	RR4L	4.9	RR							
Morsoy Xtra	53X82 (RR2)	RR5E	5.3	R2	UNK	UNK	UNK	UNK	W	TN	Cruiser Maxx
Morsoy Xtra	R2 44X82	RR4E	4.4	RR2Y	R 3, MR 14	R	R	MR	P	T	ApronMaxx/Cruiser
Morsoy Xtra	R2 46X29 (STS)	RR4L	4.6	RR2Y/STS		MS	R	MR	P	T	ApronMaxx/Cruiser
Morsoy Xtra	R2 47X12 (STS)	RR4L	4.7	RR2Y/STS	R 3, MR 14	R	MR	R	P	G	ApronMaxx/Cruiser
Morsoy Xtra	R2 48X02	RR4L	4.8	RR2Y	R 3, MR 14	MR	MR	MR	P	T	ApronMaxx/Cruiser
Mycogen	5N423R2 (STS)	RR4E	4.2	RR/STS	3,14	R	R	R	P	G	Cruiser Maxx
Mycogen	5N431R2	RR4E	4.3	RR	3,14	R	R	R	P	G	Cruiser Maxx
Mycogen	5N451R2	RR4E	4.5	RR2Y	3, 14		S	MR		G	Cruiser Maxx
Mycogen	5N478R2	RR4L	4.7	RR2Y	3, 14		S	R		T	Cruiser Maxx
NK	S 41-J6 (RR2Y)	RR4E	4.1	RR2Y			M	MR			Cruiser Maxx
NK	S 46-L2 (RR2Y)	RR4L	4.6	RR2Y	3,MR14	R	MED	MED			Mefenoxam, Fludioxonil,
NK	S 47-N3 (RR2Y)	RR4L	4.7	RR2Y	3,MR14	MED	MED	MED			Mefenoxam, Fludioxonil,
NK	S 48-P4 (RR2Y/STS)	RR4L	4.8	RR2Y/STS	3,MR14	N/A	MED	N/A	P	LT T	Mefenoxam, Fludioxonil,
NK	S 52-Y2 (RR2Y)	RR5E	5.2	RR2Y	3,MR14	R	MED	S			Mefenoxam, Fludioxonil,
NK	S 54-V4 (RR/STS)	RR5E	5.4	RR/STS	3	MED	MED	GOOD	P	G	Mefenoxam, Fludioxonil,
Progeny	4211 RY (RR2Y)	RR4E	4.2	RR2Y			MR	MR	P	G	Poncho, Votivo
Progeny	4313 RY	RR4E	4.3	R2Y	R	MR	MS	MS	P	LT	Poncho/Votivo/Trilex2000
Progeny	4510 RY (RR2Y/STS)	RR4E	4.5	RR2Y/STS		MS	R	S	P	LT	Poncho, Votivo
Progeny	4560 LL	LL4	4.5	LL		MR	MR	MR	P	LT	Poncho/Votivo/Trilex2000
Progeny	4613 RY	RR4L	4.6	R2Y/STS	R	R	MR		W	G	Poncho/Votivo/Trilex2000
Progeny	4710 RY (RR2Y/STS)	RR4L	4.7	RR2Y/STS		MS	MS	MR	P	LT	Poncho, Votivo
Progeny	4747 RY (RR2Y)	RR4L	4.7	RR2Y		MR	MR	MR	P	LT	Poncho, Votivo
Progeny	4819 LL	LL4	4.8	LL			MR		W	T	Poncho, Votivo
Progeny	4850 RY	RR4L	4.8	R2Y	R-3, MR-14	R	MR	MR	P	G	Poncho/Votivo/Trilex2000
Progeny	4900 RY (RR2Y)	RR4L	4.9	RR2Y		MR	MR	MR	P	LT	Poncho, Votivo
Progeny	4928 LL	LL4	4.9	LL	MR3	R		MR	P	G	Poncho, Votivo
Progeny	4930 LL	LL4	4.9	LL			MR		P	G	Poncho/Votivo/Trilex2000
Progeny	5111 RY (RR2Y)	RR5E	5.1	RR2Y	3	MS	MS	MR	W	G	Poncho, Votivo
Progeny	5160 LL	LL5	5.1	LL		MR	MR	MR	W	T	Poncho, Votivo
Progeny	5160 LL (LL CHECK)	CV5	5.1	LL		MR	MR	MR	W	T	Poncho, Votivo
Progeny	5210 RY (RR2Y)	RR5E	5.2	RR2Y	R3, MR14	R	MS	MR	P	G	Poncho, Votivo
Progeny	5213 RY	RR5E	5.2	R2Y	R-3	R	MR	MR	P	LT	Poncho/Votivo/Trilex2000
Progeny	5333 RY	RR5E	5.3	R2Y	R3	R	MR	MR	W	G	Poncho/Votivo/Trilex2000
Progeny	5460 LL	LL5	5.4	LL		MR	MS	MR	P	LT	Poncho, Votivo
Progeny	5555 RY	RR5E	5.5	R2Y	R-3	MR	MR	MR	P	LT	Poncho/Votivo/Trilex2000
Progeny	5610 RY (RR2Y)	RR5L	5.6	RR2Y	R3, MR14			MS	P	G	Poncho, Votivo
Progeny	5711 RY (RR2Y)	RR5L	5.7	RR2Y		MS		MS	P	T	Poncho, Votivo
Progeny	5960 LL	LL5	5.9	LL		MR	MR	MR	W	G	Poncho, Votivo
Schillinger Seed	458 RCS	RR4E	4.5	RR/STS	R 3	R	MS	R	W	LT	Cruiser Maxx
Schillinger Seed	4712R2	RR4L	4.7	RR2	3				W	T	Cruiser Maxx
Schillinger Seed	495 RC	RR4L	4.9	RR	3,14	R	S	R	P	LT	Cruiser Maxx

Table 78 (continued)

Brand	Variety ‡	2013 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
Schillinger Seed	4990 RC	RR4L	4.9	RR	3, 14	R	MR	MR	P	LT	Cruiser Maxx
Schillinger Seed	5220 RC	RR5E	5.2	RR	3, 14	R			W	LT	Cruiser Maxx
Steyer	4203 R2 (RR2Y)	RR4E	4.2	RR2Y	3, 14	S	S	S		G	Rancona, Metastar
Steyer	4203 R2 (RR2Y) (4E CHECK)	RR3	4.2	RR2Y	3, 14	S	S	S		G	Rancona, Metastar Maxim, Apron, Vibrance, Cruiser
Steyer	4401R2	RR4E	4.4	RR,STS	3,14	R	S	R	P	G	Cruiser
Steyer	4501 R2 (RR2Y)	RR4E	4.5	RR2Y	3, 14	S	R	S	P	LT	Rancona, Metastar
Steyer	4702 R2 (RR2Y)	RR4L	4.7	RR2Y	3, 14	R	R	R		LT	Rancona, Metastar
Steyer	4802 R2 (RR2Y/STS)	RR4L	4.8	RR2Y/STS	3, 14	R	R	S		LT	Rancona, Metastar Maxim, Apron, Vibrance, Cruiser
Steyer	5101R2	RR5E	5.1	RR	3,14	R	R	R	P	LT	Cruiser
Terral-REV Brand	38R10 (RR)	RR3	3.8	RR	7		R	R	P	T	Cruiser Maxx
Terral-REV Brand	46R64 (RR)	RR4L	4.6	RR							Cruiser Maxx
Terral-REV Brand	46R73 (RR)	RR4L	4.6	RR			R		W	T	Cruiser Maxx
Terral-REV Brand	47R34 (RR)	RR4L	4.7	RR							Cruiser Maxx
Terral-REV Brand	47R53 (RR)	RR4L	4.7	RR	3, 14	R	S	R	P	T	Cruiser Maxx
Terral-REV Brand	48R22 (RR)	RR4L	4.8	RR	3, 14		R	S	W	T	Cruiser Maxx
Terral-REV Brand	48R33 (RR)	RR4L	4.8	RR	3, 14		R		P	T	Cruiser Maxx
Terral-REV Brand	48R44 (RR)	RR4L	4.8	RR							Cruiser Maxx
Terral-REV Brand	49R22 (RR)	RR4L	4.9	RR	3, 14		R		P	T	Cruiser Maxx
Terral-REV Brand	49R94 (RR)	RR4L	4.9	RR							Cruiser Maxx
Terral-REV Brand	51R53 (RR)	RR5E	5.1	RR	3, 14	R	R	S	P	T	Cruiser Maxx
Terral-REV Brand	52R74 (RR)	RR5E	5.2	RR		R	R			T	Cruiser Maxx
Terral-REV Brand	53R23 (RR)	RR5E	5.3	RR		R	R			T	Cruiser Maxx
Terral-REV Brand	54R84 (RR)	RR5E	5.4	RR		R				T	Cruiser Maxx
Terral-REV Brand	55R53 (RR)	RR5E	5.5	RR		R	R			T	Cruiser Maxx
Terral-REV Brand	56R63 (RR)	RR5L	5.6	RR	3, 14	R	R	R	W	G	Cruiser Maxx
Terral-REV Brand	57R21 (RR)	RR5L	5.7	RR	3	R	R	R	P	T	Cruiser Maxx
Terral-REV Brand	59R13 (RR)	RR5L	5.9	RR		R	R			G	Cruiser Maxx
TN Exp	TN09-44,121 (RR2Y)	RR5L	5.9	RR2Y					P	T	Cruiser Maxx
TN Exp	TN09-45,905 (RR2Y)	RR5E	5.3	RR2Y					P	T	Cruiser Maxx
TN Exp	TN09-47,169 (RR2Y)	RR4E	4.5	RR2Y					P	G	
TN Exp	TN10-4045	CV4	4.3						W	G	
TN Exp	TN11-4512 (RR2Y)	RR4L	4.9	RR2Y					P	G	
TN Exp	TN11-5088	CV5	5.4						W	G	
TN Exp	TN12-4070	CV4	4.0						W	G	
TN Exp	TN12-4075	CV4	4.5						P	T	
TN Exp	TN12-4088	CV4	4.5						W	G	
TN Exp	TN12-4715 (RR2Y)	RR4L	4.6	RR2Y					P	G	
TN Exp	TN12-4743 (RR2Y)	RR4L	4.6	RR2Y					P	G	
TN Exp	TN12-5015	CV5	5.6						W	Lt	
TN Exp	TN12-5523 (RR2Y)	RR5L	5.6	RR2Y					P	T	
TN Exp	TN12-5716 (RR2Y)	RR5L	5.7	RR2Y					P	T	
USDA-TN	JTN-4307	CV5	5.0		2, 3, 14	R	MS	R	P	T	ApronMaxx/Cruiser/Moly ApronMaxx RTA+Moly, Cruiser 5FS
USDA-TN	JTN-4607	CV4	4.6		3,5				W	T	
USDA-TN	JTN-5110	CV5	5.5		2, 3, 5	R		R	P	T	ApronMaxx/Cruiser/Moly
USDA-TN	JTN-5203	CV5	5.3		2, 3, 14	R	R	R	W	G	ApronMaxx/Cruiser/Moly

Table 78 (continued)

Brand	Variety ‡	2013 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
USG	74A33R (RR2Y)	RR4E	4.3	RR2Y	R3				P	LT	Cruiser Maxx
USG	74A69R (RR2Y)	RR4L	4.6	RR2Y		MS	MR	MR	P	LT	Cruiser Maxx
USG	74A79R (RR2Y/STS)	RR4L	4.7	RR2Y/STS		MS	MR		P	LT	Cruiser Maxx
USG	74A91 (RR)	RR4L	4.9	RR	R 3, MR 14		MR	MR	P	LT	Cruiser Maxx
USG	74B81R (RR2Y/STS)	RR4L	4.8	RR2Y/STS	R 3, MR 14		MS		P	LT	Cruiser Maxx
USG	74B83R (RR2Y/STS)	RR4L	4.8	RR2Y/STS					P	LT	Cruiser Maxx
USG	74F53R (RR2Y/STS)	RR4E	4.5	RR2Y/STS					P	G	Cruiser Maxx
USG	74G82L (LL)	LL4	4.8	LL			MR		W	T	Cruiser Maxx
USG	74G99L (LL)	LL4	4.9	LL				R	P	G	Cruiser Maxx
USG	74H92R (RR2Y)	RR4L	4.9	RR2Y	R 3, MR 14				P	LT	Cruiser Maxx
USG	75J23R (RR2Y)	RR5E	5.2	RR2Y	R3				P	G	Cruiser Maxx
USG	75Q42R (RR2Y)	RR5E	5.4	RR2Y	R 3, MR 14	R	MR		W	G	Cruiser Maxx
USG	Allen (RR)	RR5L	5.6	RR			MR	MR	W	G	Cruiser Maxx
Warren Seed	DS4010 (RR)	RR3		RR							
Warren Seed	DS4330 R2Y	RR4E	4.3	R2Y	3,14				P	LT	Cruiser Maxx
Warren Seed	DS5122 R2Y	RR5E	5.1	R2Y	3,14				P	LT	Cruiser Maxx
Warren Seed	DSR-4330/R2Y (4E CHECK)	RR3	4.3	R2Y	3,14				P	LT	Cruiser Maxx
Warren Seed	DSR-4633/R2Y	RR4E	4.3	RR2Y	3, 14				W	G	Cruiser Maxx
Warren Seed	DSR-4850/R2Y (STS)	RR4L	4.8	RR2Y/STS	3, 14				P	G	Cruiser Maxx

RR / RR2Y = Contains a gene for tolerance to glyphosate herbicide; STS = tolerance to sulfonylurea class of herbicides; LL = contains a gene for tolerance to glufosinate herbicide.

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible.

Flower & Pubescence colors: P = purple, W = white, S = segregating, T = tawny, LT = light tawny, B = Brown, G = gray.

Most information supplied by companies.

RR3 = Roundup Ready 3

CV4 = Conventional Group 4 (with LL & RR Checks)

R4E = Roundup Ready Early Group 4

CV5 = Conventional Group 5 (with LL & RR Checks)

R4L = Roundup Ready Late Group 4

LL4 = Liberty Link Group 4

R5E = Roundup Ready Early Group 5

LL5 = Liberty Link Group 5

R5L = Roundup Ready Late Group 5

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 79. Contact information for soybean seed companies evaluated in yield tests in Tennessee during 2013.

Company	Contact	Phone	Email	Web site	Address
AgBorn Genetics LLC	Bill Cook Bob Joehl	816-830-1252 317-409-8214	billc@agborn.com	http://www.agborn.com	28706 State Hwy 75, Garden City, MO 64747
Ag South Genetics	Mixon Seed	800-922-1377		www.agsouthgenetics.com	Orangeburg, SC
University of Arkansas	Tina Hart	479-466-2213	thard@uark.edu		Dept of Crop, Soil & Env. Sciences 115 Plant Science Bldg Fayetteville, AK 72701
Armor Seed	Lane Dill	901-233-0274	lanedill@armorseed.com	www.armorseed.com	2528 Alexander Drive, Jonesboro, AR 72401 P.O. Box 178, Fisher, AR 72429
Asgrow (Monsanto)	Larry Ganann	901-326-7140	larry.w.ganann@monsanto.com	www.asgrowanddekalb.com	1404 Dexter Lake Dr., Apt 104, Cordova, TN 38016
Beck's Hybrids	Doug Clouser	800-937-2325	dougc@beckshybrids.com	www.beckshybrids.com	6767 East 276th Street, Atlanta, IN 46031
Caverndale Farms	Barry Welty	859-236-2150	bwelty@kywimax.com	www.caverndalefarms.com	Foothills Co-op Johnson City Chemical Co.
Croplan Genetics (Winfield)	Jesse Witt	256-221-5932	JBWitt@landolakes.com	http://www.winfield.com/farmer/croplan/	
Delta Grow Seed	Lee Hughes	800-530-7933	leehughes19@hotmail.com	www.deltagrow.com	P O Box 219, England, AR 72046
Dyna-Gro (Crop Production Services)	Todd Theobald Dewain Riley	731-885-1212 731-223-9876	todd.theobald@cpsagu.com dewain.riley@cpsagu.com	www.dynagroseed.com	710 S. First Street, Union City, TN 38261
GoSoy (Stratton Seed Co.)	Heath North	800-264-4433	hnorth@strattonseed.com	www.strattonseed.com	1530 Hwy 79 South, Stuttgart, AR 72160
Halo (US Seeds)	Jamie Boone	870-336-0111	jamieboone@usseeds.net		2528 Alexander Drive, Jonesboro, AR 72401
Hornbeck Seed Co (Bayer CropScience)	Lucas Owen	731-793-3530	lucas.owen@bayer.com	www.hbkseed.com	P O Box 472, 210 Drier Rd, DeWitt, AR 72042
LG Seeds	Brock Sargeant	270-881-3003	brock.sargeant@lgseeds.com	www.lgseeds.com	303 Sherwood Dr., Hokinsville, KY 42240
Midwest Premium (Stratton Seed Co.)	Heath North	800-264-4433	hnorth@strattonseed.com	www.strattonseed.com	1530 Hwy 79 South, Stuttgart, AR 72160
University of Missouri	Grover Shannon	573-379-5431	shannong@missouri.edu		University of Missouri, 147 State Hwy T Partageville, MO 63873
Morsoy Xtra (Cache River Valley Seed)	Jim Bigger		jimb@crvseed.com	www.crvseed.com	12470 Hwy 226, PO Box 10, Cash, AR 72421
Mycogen Seed	Todd McClellan	317-522-6641		www.dowagro.com/mycogen	225 Peachtree Dr., Benton, KY 42025
NK Brand (Syngenta)	Mike Saxton	270-792-5885	mike.saxton@syngenta.com	www.nk-us.com	P.O. Box 959, Minneapolis, MN 55440
Progeny	Brian Murray	888-535-7333	bmurray@progenyaq.com	www.progenyaq.com	1529 Hwy 193, Wynne, AR 72396
Schillinger Genetics (Stratton Seed Co.)	Heath North	800-264-4433	hnorth@strattonseed.com	www.strattonseed.com	1530 Hwy 79 South, Stuttgart, AR 72160
Steyer Seeds	Joe Steyer	800-231-4274	joesteyer@yahoo.com	www.steyerseeds.com	PO Box 209, Old Fort, OH 44861

Table 79 (continued)

Company	Contact	Phone	Email	Web site	Address
University of Tennessee	Vince Pantalone	865-974-8801	vpantalo@utk.edu		Dept. of Plant Sciences, Ellington 252 2431 Joe Johnson Drive Knoxville, TN 37996-4561
Terral Seed Inc	Phil Michener	318-231-8800	pmichener@terralseed.com	www.terralseed.com	111 Ellington Dr., Rayville, LA 71269
USDA-ARS TN	Lisa Fritz	731-425-4736	lisa.fritz@ars.usda.gov		605 Airways Blvd, Jackson, TN 38301
Unisouth Genetics (USG)	Stacy Burwick	615-412-4157 931-967-3377 731-235-2167 731-836-7574 731-536-6251 731-538-2990	sburwick@usgseed.com fandrichsupply@aol.com huffy1@crunet.com treyhurt@bellsouth.com wes@obiongrain.com	www.usgseed.com	3205-C Highway 46S, Dickson, TN 37055 Fandrich Supply Co, Belvidere, TN Huffstetler & Sons Seed Inc, Greenfield, TN Hurt Seed Co. Inc, Halls, TN Obion Grain Co. Inc, Obion, TN Sellers Seed, Obion, TN
Warren Seed	Lanny Warren	731-234-2921	lanny.warren@charter.net	lanny.warren@charter.net	PO Box 10, Woodland Mills, TN 38271