RR 16-03

SOYBEAN VARIETY PERFORMANCE TESTS IN TENNESSEE 2015

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Dr. Bruce Kirksey, Research Director

2015 County Standard Tests -- Soybean Cooperators & Agents

Group III	**Cooperator(s)**	**Agent**
Dyer	Shane & Malcolm Burchfiel	Tim Campbell
Franklin	Bobby Woodall	Ed Burns
Gibson	Denton Parkins	Phillip Shelby
Henry	Wilson Farms	Ranson Goodman
Lake	Keiser Farms	Greg Allen
Madison	David Martin	Jake Mallard
Tipton	Jerry Tolbert	Becky Muller

Group IV Early	**Cooperator(s)**	**Agent**
Cannon	Johnny & Judy Powell	Bruce Steelman
Crockett	Ashely Elmore	Richard Buntin
Dyer	Mike Underwood	Tim Campbell
Franklin	Bobby Woodall	Ed Burns
Gibson	Denton Parkins	Phillip Shelby
Giles	Richard Sulcer	Kevin Rose
Henry	Wilson Farms	Ranson Goodman
Madison	David Martin	Jake Mallard
Obion	Kenneth & Blake Cheatham	Tim Smith
Perry	Tim & Craig Byrd	Amanda Mathenia
Tipton	Ray Sneed	Becky Muller
Weakley	Ronnie & Jay Yeargin	Jeff Lannom
McCracken, KY	Jeff Sullivan	Bob Middleton

Group IV Late		
Benton	Jack Garland	Justin Hargrove
Carroll	Phillip Moore	Kenny Herndon
Decatur	Stacy Vise	Sam Plank
Dyer	Mike Underwood	Tim Campbell
Fayette	Ames Plantation	Jeff Via
Franklin	Myron & David Denton	Ed Burns
Gibson	Denton Parkins	Phillip Shelby
Giles	Mike Mayfield	Kevin Rose
Hardeman	Daniel Jacobs	Lindsey Griffin
Haywood	Chester King	Walter Battle
Henry 1	Jared & Autum Barker	Ranson Goodman
Henry 2	Wilson Farms	Ranson Goodman
Madison	Matt Griggs	Jake Mallard
Marion	Randy & Dewey Gilliam	Matthew Deist
Obion	Kenneth & Blake Cheatham	Tim Smith
Tipton	David McDaniel	Becky Muller
Weakley	Brian Garner	Jeff Lannom
Calloway, KY	Craig Carraway	Tim Lax
McCracken, KY	Lester & Tracy Sullivan	Bob Middleton

2015 County Standard Tests -- Soybean Cooperators & Agents

Group V Early

Crockett	Stoney & Austin Hargett	Richard Buntin
Dyer	Mike Underwood	Tim Campbell
Franklin	Myron & David Denton	Ed Burns
Gibson	Denton Parkins	Phillip Shelby
Haywood	Chester King	Walter Battle
Madison	David Martin	Jake Mallard
Tipton	Scott Johnson	Becky Muller

Liberty Link MG4 Late (4.6 – 4.9)

Dyer	Scott Lacy	Tim Campbell
Gibson	Denton Parkins	Phillip Shelby
Lake	Terry Petty	Greg Allen
Madison	David Martin & Bubba Cook	Jake Mallard
Obion	Bill Sellers	Tim Smith
Tipton	Arnold McIntyre	Becky Muller
Fulton, KY	Johnson Linder	Ben Rudy

Conventional (4.0 – 5.9)

Gibson	Scotty Barnett	Phillip Shelby
Lauderdale	Justin Brown	JC Dupree
Weakley	Billy Scarbrough	Jeff Lannom

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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 6 seeds per foot of row (i.e., approximately 104,000 seed per acre in the 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 not detected in Tennessee in 2015. 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 plus 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 69. 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 25 counties in Tennessee, and four in Western Kentucky. The number of county locations depended on the test (e.g., 6 - 17). 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 thirty-three soybean varieties were evaluated in the 2015 **AgResearch & Education Center (REC)** tests in Tennessee. There were 10 varieties in the RR3, 32 in the RR4E, 61 in the RR4L, 34 in the RR5E, 11 in the RR5L, 29 in the LL4, 20 in the LL5, 20 in the CV4, and 16 in the CV5 test. The **County Standard tests (CST)** involved 105 varieties total, consisting of a RR3 test (12 varieties at eight locations), a RR4E test (23 varieties at 15 locations), a RR4L test (26 varieties at 22 locations), a RR5E test (15 varieties at eight locations), a Liberty Link MG4 test (19 varieties at seven locations), and a Conventional test (10 varieties at four locations). In addition to 25 Tennessee counties, the County Standard Tests involved four counties in Western Kentucky (Ballard, Calloway, Fulton, and McCracken). **Tables 2-68** contain data on yield and agronomic traits such as maturity, plant height, lodging, shattering, seed quality, seed protein and oil content. Frogeye leaf spot and SDS were observed in plots at the Knoxville and Springfield locations. At Springfield, frogeye ratings were taken for the RR4E test and SDS ratings were taken for CV4 and CV5 tests. At Knoxville, ratings for frogeye and SDS were taken on RR4E, RR4L, RR5E, and RR5L tests. Ratings were taken on September 7th at Knoxville and September 9th at Springfield. Frogeye ratings were taken on a scale of 1 to 9 where a score of 1 = no disease and 9 = heavy disease. Ratings for SDS were taken for disease incidence (DI; percentage of plants with symptoms), disease severity (DS; score of leaf chlorosis and necrosis on a scale of 1 to 9 where a score of 1 = no disease and 9 = heavy disease), and disease index (DI x DS / 9). Frogeye and SDS ratings are included in tables reporting agronomic traits for tests in which these diseases were present. **Table 69** lists the names and the companies descriptive characteristics of the varieties included in the REC tests in 2015. **Table 70** contains the contact information for each soybean seed company with entries in the 2015 REC tests.

Growing Season: The 2015 growing season was characterized by good precipitation during planting and emergence with planting dates similar to the five year average. Persistent rains early in the season made weeds especially problematic in many producer's fields due to an

inability to treat fields because of the wet conditions. By late September, 75 percent of the crop rated good to excellent. In spite of persistent rains in the fall, soybean harvest remained on par with the five year average. According to the National Agricultural Statistics Service, Tennessee producers planted 1.85 million acres of soybeans this year, an increase of 21,000 from 2014. Acreage harvested for grain is projected to be 1.73 million, up 12,000 acres from last season. Soybean production for 2015 is projected to be 81.31 million bushels, an increase of 10 percent from the previous year. The state soybean yield average is projected to be 47.0 bu/a, which is 1 bu/a less than the 2014 yield.

Table 1. Location information from AgResearch and Education Centers where the soybean variety tests were conducted in 2015.

Research Center	Location	Planting Date	Harvest Date	Seeding Rate	Soil Type
Roundup Ready Maturity Group III					
Highland Rim (Irrigated)	Springfield	5/11/2015	9/24/2015	140000	Mountview Silt Loam
Highland Rim (Non Irrigated)	"	5/12/2015	9/24/2015	140000	Dickson Silt Loam
Knoxville	Knoxville	5/1/2015	9/17/2015	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/12/2015	9/23/2015	140000	Grenada Silt Loam
Milan (Non Irrigated)	"	5/7/2015	9/23/2015	140000	Grenada Silt Loam
Roundup Ready Maturity Group Early IV (4.0 - 4.5)					
Agricenter International	Memphis	5/6/2015	11/10/2015	140000	Falaya Silt Loam
Ames	Grand Junction	4/28/2015	9/21/2015	140000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/11/2015	10/7/2015	140000	Mountview Silt Loam
Highland Rim (Non Irrigated)	"	5/12/2015	9/24/2015	140000	Dickson Silt Loam
Knoxville	Knoxville	5/1/2015	9/17/2015	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/12/2015	9/24/2015	140000	Grenada Silt Loam
Milan (Non Irrigated)	"	5/7/2015	9/23/2015	140000	Grenada Silt Loam
Roundup Ready Maturity Group Late IV (4.6 - 4.9)					
Agricenter International	Memphis	5/6/2015	11/10/2015	140000	Falaya Silt Loam
Ames	Grand Junction	4/28/2015	10/5/2015	140000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/11/2015	10/12/2015	140000	Mountview Silt Loam
Highland Rim (Non Irrigated)	"	5/12/2015	10/5/2015	140000	Dickson Silt Loam
Knoxville	Knoxville	5/1/2015	10/5/2015	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/12/2015	10/9/2015	140000	Grenada Silt Loam
Milan (Non Irrigated)	"	5/7/2015	10/6/2015	140000	Grenada Silt Loam
Roundup Ready Maturity Group Early V (5.0 - 5.5)					
Agricenter International	Memphis	5/6/2015	11/10/2015	140000	Falaya Silt Loam
Ames	Grand Junction	4/28/2015	10/6/2015	140000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/11/2015	10/13/2015	140000	Mountview Silt Loam
Highland Rim (Non Irrigated)	"	5/12/2015	10/15/2015	140000	Dickson Silt Loam
Knoxville	Knoxville	5/1/2015	10/6/2015	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/12/2015	10/19/2015	140000	Grenada Silt Loam
Milan (Non Irrigated)	"	5/7/2015	10/19/2015	140000	Grenada Silt Loam
Roundup Ready Maturity Group Late V (5.6 - 5.9)					
Agricenter International	Memphis	5/6/2015	11/10/2015	140000	Falaya Silt Loam
Ames	Grand Junction	4/28/2015	10/13/2015	140000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/11/2015	10/14/2015	140000	Mountview Silt Loam
Highland Rim (Non Irrigated)	"	5/12/2015	10/15/2015	140000	Dickson Silt Loam
Knoxville	Knoxville	5/1/2015	10/14/2015	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/12/2015	10/20/2015	140000	Grenada Silt Loam
Milan (Non Irrigated)	"	5/7/2015	10/19/2015	140000	Grenada Silt Loam
Liberty Link Maturity Group IV (4.0 - 4.9)					
Agricenter International	Memphis	5/6/2015	11/11/2015	140000	Falaya Silt Loam
Ames	Grand Junction	4/29/2015	10/6/2015	140000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/11/2015	10/12/2015	140000	Mountview Silt Loam
Highland Rim (Non Irrigated)	"	5/12/2015	10/14/2015	140000	Mountview Silt Loam
Knoxville	Knoxville	5/1/2015	9/28/2015	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/12/2015	10/8/2015	140000	Memphis Silt Loam
Milan (Non Irrigated)	"	5/11/2015	10/13/2015	140000	Grenada Silt Loam
Liberty Link Maturity Group V (5.0 - 5.9)					
Agricenter International	Memphis	5/6/2015	11/11/2015	140000	Falaya Silt Loam
Ames	Grand Junction	4/29/2015	10/13/2015	140000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/11/2015	10/15/2015	140000	Mountview Silt Loam
Highland Rim (Non Irrigated)	"	5/12/2015	10/14/2015	140000	Mountview Silt Loam
Knoxville	Knoxville	5/1/2015	10/7/2015	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/12/2015	10/12/2015	140000	Memphis Silt Loam
Milan (Non Irrigated)	"	5/11/2015	10/14/2015	140000	Grenada Silt Loam

Table 1. (continued)

Conventional Maturity Group IV (4.0 - 4.9)						
Highland Rim (Irrigated)	Springfield		5/11/2015	10/12/2015	140000	Staser Silt Loam
Highland Rim (Non Irrigated)		"	5/11/2015	10/7/2015	140000	Mountview Silt Loam
Knoxville	Knoxville		5/1/2015	9/24/2015	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan		5/12/2015	10/12/2015	140000	Memphis Silt Loam
Milan (Non Irrigated)		"	5/11/2015	10/14/2015	140000	Grenada Silt Loam
Conventional Maturity Group V (5.0 - 5.9)						
Highland Rim (Irrigated)	Springfield		5/11/2015	10/15/2015	140000	Staser Silt Loam
Highland Rim (Non Irrigated)		"	5/11/2015	10/12/2015	140000	Mountview Silt Loam
Knoxville	Knoxville		5/1/2015	10/7/2015	140000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan		5/12/2015	10/12/2015	140000	Memphis Silt Loam
Milan (Non Irrigated)		"	5/11/2015	10/14/2015	140000	Grenada Silt Loam

Table 2. Mean yields † of 10 Maturity Group III Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=5)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.
		bu/a					
NK Seed	S39-T3 (RR2/STS)	69 ± 2	98	72	39	69	66
USG	74F24RS (RR4E CHECK)	69 ± 2	87	62	48	77	69
Terral-REV Brand	39A35 (RR)	64 ± 2	83	69	47	63	59
USG	73P93R (RR2)	62 ± 2	81	69	38	60	62
Warren Seed	DS 3838 R2Y	61 ± 2	86	55	36	61	66
Asgrow	AG3931 (RR2)	61 ± 2	84	63	38	61	56
Hornbeck	CZ 3560 RY	60 ± 2	82	63	37	61	54
Croplan	3984 (RR)	59 ± 2	71	64	40	66	56
Asgrow	AG3832 (RR2/SR)	59 ± 2	70	64	40	63	56
Warren Seed	DS 3780 R2Y	57 ± 2	79	61	33	55	56
Average (bu/a)		**62**	**82**	**64**	**40**	**64**	**60**
L.S.D.$_{.05}$ (bu/a)		**4**	**12**	**6**	**10**	**10**	**12**
C.V. (%)		**9.6**	**8.4**	**5.8**	**14.5**	**9.3**	**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 3. Mean yields † and agronomic characteristics of 10 Maturity Group III Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=5)	Moisture § (n=5)	Lodging (n=3)	Height (n=5)	Maturity (n=5)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)
		bu/a	%	Score	in.	DAP	Score	%	%
NK Seed	S39-T3 (RR2/STS)	69 ± 2	13.0	1.7	36	126	2.3	33.4	19.5
USG	74F24RS (RR4E CHECK)	69 ± 2	13.4	2.2	44	130	2.7	33.2	20.1
Terral-REV Brand	39A35 (RR)	64 ± 2	12.4	1.7	38	124	2.7	32.3	20.8
USG	73P93R (RR2)	62 ± 2	12.6	1.5	37	127	3.5	33.6	20.0
Warren Seed	DS 3838 R2Y	61 ± 2	13.0	1.8	37	124	2.8	31.8	21.3
Asgrow	AG3931 (RR2)	61 ± 2	12.7	2.1	38	129	2.8	33.5	19.1
Hornbeck	CZ 3560 RY	60 ± 2	12.7	1.6	35	120	2.8	34.7	18.2
Croplan	3984 (RR)	59 ± 2	12.5	1.3	35	124	2.0	34.7	18.9
Asgrow	AG3832 (RR2/SR)	59 ± 2	12.7	1.2	33	124	2.3	34.4	18.9
Warren Seed	DS 3780 R2Y	57 ± 2	12.4	2.6	37	129	2.5	33.4	19.4
	Average	**62**	**12.7**	**1.8**	**37**	**126**	**2.6**	**33.5**	**19.6**

† 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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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 4. Yields † of 12 Maturity Group III Roundup Ready soybean varieties in 6 County Standard Tests in Tennessee and Kentucky during 2015.

MS	Brand/Variety	Avg. Yield	Moist. ‡	Dyer	Franklin	Gibson	Henry	Lake	Madison
		bu/a	%	5/4 §	6/4	5/6	5/5	5/6	5/8
A	Terral REV 38R10	67	12	77	36	63	77	83	63
A	Terral REV 39A35	66	12	82	41	66	76	81	49
A	Beck's 393R4	66	12	74	41	65	80	82	52
A	Asgrow AG3832 GENRR2Y	66	12	81	43	55	83	82	52
AB	Armor AR3905RR2	65	12	84	45	60	72	83	47
AB	Asgrow AG3931 GENRR2Y	65	12	84	50	55	76	73	53
AB	Croplan R2C 3984	65	12	84	38	56	80	82	47
AB	Mycogen 5N393R2 RR2 g	64	12	83	34	59	76	83	48
AB	Armor 37-R33R2	62	12	79	49	57	77	72	39
AB	USG 73P93R	62	12	87	40	58	73	76	37
AB	Warren Seed 3838 R2Y lt	61	12	79	36	63	74	70	46
B	Warren Seed 3780 R2Y lt	60	12	76	39	49	76	74	43
	Average (bu/a)	**64**	**12**	**81**	**41**	**59**	**77**	**78**	**48**

† Yields have been adjusted to 13% moisture.

‡ Avg. % moisture at harvest across all locations.

§ Planting date.

Each variety was evaluated in a large strip-plot at each loction, 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).

All county tests were non-irrigated except for Lake county

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

Data provided by Ryan H. Blair, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 5. Overall average yields † and moistures of seven Maturity Group III (3.0 - 3.9) Roundup Ready soybean varieties evaluated in County Standard Tests (n=6) and AgResearch and Education Centers (n=5) in Tennessee during 2015.

		Averages of CST & REC Tests		County Standard Trials		AgResearch and Education Center Trials	
Brand	**Variety ‡**	**Avg. Yield**	**Moisture**	**Avg. Yield**	**Moisture**	**Avg. Yield**	**Moisture**
		bu/a	%	bu/a	%	bu/a	%
Terral-REV Brand	39A35 (RR)	65	12.1	66	11.8	64	12.4
Asgrow	AG3931 (RR2)	63	12.4	65	12.2	61	12.7
Asgrow	AG3832 (RR2/SR)	62	12.2	66	11.8	59	12.7
USG	73P93R (RR2)	62	12.3	62	12.0	62	12.6
Croplan	3984 (RR)	62	12.3	65	12.1	59	12.5
Warren Seed	DS 3838 R2Y	61	12.5	61	11.9	61	13.0
Warren Seed	DS 3780 R2Y	58	12.1	60	11.8	57	12.4
Average (bu/a)		**62**	**12.3**	**63**	**11.9**	**60**	**12.6**

† 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 6. Yields † and disease ratings of 12 Maturity Group III Roundup Ready soybean varieties in 6 County Standard Tests and in small plot trials at two AgResearch and Education Centers in Tennessee during 2015

Summary from 6 County Tests			Summary from Small Plot Research						
MS	Brand/Variety	AvgYld	RECM - YLD		Frogeye	Other Diseases	JAX - YLD		Frogeye
		bu/a	*Treated	Non-treated	RECM	RECM	*Treated	Non-treated	JAX
A	Terral REV 38R10	66.5	-	-	-	-	47.2	47.1	LOW
A	Terral REV 39A35	65.8	57.0	48.8	LOW		50.9	49.4	MOD
A	Beck's 393R4	65.7	53.4	50.9	LOW		51.3	48.7	LOW
A	Asgrow AG3832 GENRR2Y	65.6	55.8	52.4	MOD	TS, SC	51.3	48.8	MOD
AB	Armor AR3905 RR2	65.2	-	-	-	-	51.5	48.0	MOD
AB	Asgrow AG3931 GENRR2Y	65.2	-	-	-	-	43.2	36.6	HIGH
AB	Croplan R2C 3984	64.5	54.7	51.3	LOW	SC, CLB	48.6	47.6	LOW
AB	Mycogen 5N393R2 RR2 g	63.8	44.0	40.5	LOW	SC	47.3	46.0	LOW
AB	Armor 37-R33 RR2	62.2	54.5	49.0	HIGH		43.7	41.0	MOD
AB	USG 73P93R	61.8	47.8	45.6	MOD	SC, CLB	46.2	43.0	MOD
AB	Warren Seed 3838 R2Y lt	61.3	-	-	-	-	50.1	45.1	HIGH
B	Warren Seed 3780 R2Y lt	59.5	57.8	45.2	HIGH	SC	50.6	41.7	HIGH
	Average (bu/a)	**63.9**	**53.1**	**48.0**			**48.5**	**45.3**	

YLD= Avg. Yield @ 13% moisture (county tests) 13.5% moisture (RECM and JAX tests)

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, Franklin, Gibson, Henry, Lake, and Madison.

*Treated plots sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R3 growth stage. RECM varieties planted June 5, JAX planted June 11

Disease ratings (non-treated plots) for Frogeye at RECM are LOW (≤4% disease), MOD (5-15%), HIGH (≥16%); at JAX are LOW (≤4%), MOD (5-29%), HIGH (≥30%)

Other diseases noted include: SC=Stem Canker, TS=Target Spot, CLB=Cercospora Leaf Blight, ' - ' indicate variety was not tested at that location

Disease ratings & yield data compiled by Dr. Heather Kelly and Jamie Jordan from replicated plots at the AgResearch and Education Center at Milan (RECM, which is irrigated and had moderate to severe disease pressure), and on-farm location in Jackson (JAX, which is dry land and had severe disease pressure). County data provided by Ryan Blair, Ext. Area Specialist, and the extension agents.

Table 7. Mean yields † of 32 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.	Ames	Agricenter Memphis
		bu/a							
NK Seed	S45-R7 (RR2/STS)	66 ± 1	89	78	30	80	68	73	46
Beck's XL Brand	453R4 (RR)	65 ± 1	102	76	29	75	62	67	42
Asgrow	AG4533 (RR2)	63 ± 1	86	79	35	73	70	58	42
Dyna-Gro	S43RY95 (RR2)	63 ± 1	90	73	32	71	63	71	41
LG Seeds	C4322R2	63 ± 1	83	73	30	79	62	64	48
Hornbeck	CZ 4181 RY (STS)	63 ± 1	83	76	33	73	77	58	38
USG	74F24RS (RR2/STS)	63 ± 1	86	63	36	79	70	66	38
Dyna-Gro	31RY45 (RR2)	62 ± 1	91	75	33	73	63	66	32
Asgrow	AG4336 (RR2/SR)	61 ± 1	82	68	27	81	62	66	43
USG	74F53RS (RR2/STS)	61 ± 1	76	70	31	72	72	63	41
Hornbeck	CZ 4590 RY	61 ± 1	90	70	29	74	65	56	42
Caverndale Farms	CF 452 RR2Yn	60 ± 1	80	71	29	81	62	64	36
Armor	43-R51RR2	60 ± 1	83	76	33	74	66	55	34
Warren Seed	DS 43-003 R2Y	60 ± 1	79	68	32	70	62	63	44
Asgrow	AG4135 (RR2/SR)	60 ± 1	82	76	34	72	63	56	34
Mycogen	5N452R2	59 ± 1	86	70	34	67	60	64	36
Steyer	4503R2	59 ± 1	85	70	23	80	58	55	42
Dyna-Gro	S42RY46 (RR2)	59 ± 1	81	69	29	70	63	55	46
LG Seeds	C4221R2 (STS)	59 ± 1	78	71	29	73	63	60	39
Beck's Hybrids	421R2	58 ± 1	81	70	28	68	64	61	38
Beck's XL Brand	433R2	58 ± 1	82	70	32	70	60	58	36
Warren Seed	DS 4340 R2Y	58 ± 1	91	74	35	46	52	66	41
Mycogen	5N433R2	58 ± 1	83	67	32	70	62	56	34
Progeny	4214RY	58 ± 1	74	68	29	68	63	61	39
Terral-REV Brand	44A14 (RR2)	57 ± 1	78	68	23	66	57	57	47
GoSoy	4115R2	56 ± 1	74	66	28	68	59	58	39
Dyna-Gro	39RY43 (RR2)	56 ± 1	84	74	31	51	48	62	41
Progeny	4211RY	55 ± 1	91	73	26	48	53	60	36
TN Exp	TN11-4506R2	55 ± 1	77	66	29	54	54	68	34
TN Exp	TN12-4715R2	53 ± 1	82	67	27	48	44	63	39
TN Exp	TN13-4504R2	53 ± 1	68	66	28	59	61	54	33
Mycogen	5N404R2	50 ± 1	75	63	29	62	49	50	24
Average (bu/a)		**59**	**83**	**71**	**30**	**69**	**61**	**61**	**39**
L.S.D.$_{.05}$ (bu/a)		**3**	**8**	**7**	**7**	**7**	**7**	**9**	**7**
C.V. (%)		**7.7**	**6.1**	**6.3**	**14.5**	**6.3**	**6.5**	**8.8**	**10.4**

† 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 8. Mean yields † and agronomic characteristics of 32 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=4)	Height (n=5)	Maturity (n=5)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)	Frogeye (n=2)
		bu/a	%	Score	in.	DAP	Score	%	%	%	0 - 9	index	Score
NK Seed	S45-R7 (RR2/STS)	66 ± 1	12.5	1.6	37	131	2.0	33.7	19.5	0.0	0.0	0.0	5.0
Beck's XL Brand	453R4 (RR)	65 ± 1	14.1	2.2	40	134	2.7	32.8	20.1	1.0	0.7	0.2	1.5
Asgrow	AG4533 (RR2)	63 ± 1	15.4	1.6	43	134	2.3	33.0	19.3	0.0	0.0	0.0	1.8
Dyna-Gro	S43RY95 (RR2)	63 ± 1	12.8	2.2	41	132	2.0	32.5	20.3	1.7	1.0	0.6	4.3
LG Seeds	C4322R2	63 ± 1	12.7	1.4	41	131	2.8	33.0	20.2	0.0	0.0	0.0	5.3
Hornbeck	CZ 4181 RY (STS)	63 ± 1	12.7	1.7	43	129	2.5	34.4	18.9	0.0	0.0	0.0	4.2
USG	74F24RS (RR2/STS)	63 ± 1	13.2	1.9	42	131	2.2	33.0	20.2	0.0	0.0	0.0	4.8
Dyna-Gro	31RY45 (RR2)	62 ± 1	14.8	2.2	40	133	2.2	31.8	20.1	0.0	0.0	0.0	1.7
Asgrow	AG4336 (RR2/SR)	61 ± 1	12.5	1.3	39	130	2.3	32.6	20.0	0.0	0.0	0.0	4.3
USG	74F53RS (RR2/STS)	61 ± 1	14.3	2.3	42	133	2.0	34.9	19.4	0.0	0.0	0.0	3.2
Hornbeck	CZ 4590 RY	61 ± 1	12.8	1.4	43	133	2.8	34.7	18.3	0.0	0.0	0.0	3.8
Caverndale Farms	CF 452 RR2Yn	60 ± 1	12.8	1.7	43	133	2.2	33.3	19.7	6.7	3.0	6.7	4.8
Armor	43-R51RR2	60 ± 1	12.4	1.4	41	131	2.5	34.3	19.3	0.0	0.0	0.0	5.0
Warren Seed	DS 43-003 R2Y	60 ± 1	12.2	1.3	36	130	1.2	33.7	19.3	0.0	0.0	0.0	2.8
Asgrow	AG4135 (RR2/SR)	60 ± 1	12.4	1.5	38	129	2.0	33.8	19.3	0.0	0.0	0.0	4.0
Mycogen	5N452R2	59 ± 1	14.5	2.7	40	133	1.7	33.7	20.5	5.0	3.0	5.0	3.0
Steyer	4503R2	59 ± 1	12.4	1.2	40	132	2.8	34.6	18.2	0.0	0.0	0.0	4.5
Dyna-Gro	S42RY46 (RR2)	59 ± 1	12.5	1.7	40	131	3.2	34.1	19.2	0.0	0.0	0.0	5.2
LG Seeds	C4221R2 (STS)	59 ± 1	12.2	1.9	40	131	2.0	33.1	19.7	0.0	0.0	0.0	4.0
Beck's Hybrids	421R2	58 ± 1	12.8	1.6	40	131	2.0	33.2	19.8	1.7	0.7	0.4	2.7
Beck's XL Brand	433R2	58 ± 1	12.3	1.3	38	128	1.7	34.7	18.8	0.0	0.0	0.0	3.0
Warren Seed	DS 4340 R2Y	58 ± 1	12.4	2.2	38	128	2.0	33.7	19.9	0.0	0.0	0.0	3.5
Mycogen	5N433R2	58 ± 1	13.1	2.5	42	133	1.7	32.2	20.3	0.0	0.0	0.0	4.7
Progeny	4214RY	58 ± 1	12.5	1.5	39	131	2.5	33.8	19.5	0.0	0.0	0.0	6.0
Terral-REV Brand	44A14 (RR2)	57 ± 1	12.3	1.2	38	129	1.8	34.4	18.7	0.0	0.0	0.0	3.2
GoSoy	4115R2	56 ± 1	12.5	1.6	38	129	2.7	32.6	20.5	0.0	0.0	0.0	5.2
Dyna-Gro	39RY43 (RR2)	56 ± 1	12.4	2.0	38	128	2.5	33.9	19.4	0.0	0.0	0.0	4.2
Progeny	4211RY	55 ± 1	12.4	2.2	37	128	2.3	33.8	19.7	1.7	2.7	1.5	3.8
TN Exp	TN11-4506R2	55 ± 1	14.7	2.4	39	134	2.0	34.6	18.9	0.0	0.0	0.0	1.5
TN Exp	TN12-4715R2	53 ± 1	13.7	2.7	43	134	1.8	33.4	18.8	0.0	0.0	0.0	3.0
TN Exp	TN13-4504R2	53 ± 1	13.6	2.2	42	133	3.2	34.4	19.3	3.3	0.7	0.7	5.5
Mycogen	5N404R2	50 ± 1	12.0	1.8	38	125	1.8	35.1	18.8	0.0	0.0	0.0	4.3
	Average	**59**	**13.0**	**1.8**	**40**	**131**	**2.2**	**33.7**	**19.5**	**0.7**	**0.4**	**0.5**	**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).

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 were taken at the East Tennessee AgResearch and Education Center on 9/7/2015 and at the Highland Rim AgResearch and Education Center on 9/3/2015

SDS disease ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015

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)

Table 9. Mean yields † of eight Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.	Ames	Agricenter Memphis
		bu/a							
Dyna-Gro	31RY45 (RR2)	60 ± 1	86	71	33	71	63	62	30
Dyna-Gro	S43RY95 (RR2)	59 ± 1	81	72	35	69	60	62	35
USG	74F24RS (RR2/STS)	58 ± 1	81	65	38	74	64	54	34
USG	74F53RS (RR2/STS)	58 ± 1	77	69	33	74	67	56	33
Warren Seed	DS 4340 R2Y	57 ± 1	84	68	37	59	57	64	33
Mycogen	5N452R2	57 ± 1	81	70	36	64	61	57	32
Dyna-Gro	39RY43 (RR2)	55 ± 1	80	70	34	60	52	60	31
Progeny	4211RY	55 ± 1	82	69	31	56	56	59	31
Average (bu/a)		**57**	**82**	**69**	**35**	**66**	**60**	**59**	**32**
L.S.D.$_{.05}$ (bu/a)		**3**	**8**	**10**	**7**	**9**	**7**	**11**	**8**
C.V. (%)		**9.5**	**6.7**	**9.7**	**12.3**	**8.1**	**7.1**	**12.8**	**13.3**

† 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 10. Mean yields † and agronomic characteristics of eight Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Moisture § (n=14)	Lodging (n=7)	Height (n=10)	Maturity (n=10)	Leaf Holding (n=1)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)	Frogeye (n=2)
		bu/a	%	Score	in.	DAP	-------- Score ---------		%	%	%	0 - 9	index	%
Dyna-Gro	31RY45 (RR2)	60 ± 1	13.8	1.7	37	134	1.2	1.9	33.0	19.7	0.0	0.0	0.0	1.7
Dyna-Gro	S43RY95 (RR2)	59 ± 1	12.9	2.1	39	132	1.0	1.8	33.3	19.9	1.7	1.0	0.6	4.1
USG	74F24RS (RR2/STS)	58 ± 1	13.2	1.8	39	132	1.0	1.9	33.7	19.9	0.0	0.0	0.0	4.6
USG	74F53RS (RR2/STS)	58 ± 1	13.6	2.0	38	134	2.0	1.8	35.7	19.3	0.0	0.0	0.0	2.8
Warren Seed	DS 4340 R2Y	57 ± 1	12.7	1.8	34	131	2.7	2.3	34.8	19.4	0.0	0.0	0.0	3.3
Mycogen	5N452R2	57 ± 1	13.9	2.1	36	133	1.5	1.7	34.4	20.2	5.0	3.0	5.0	2.6
Dyna-Gro	39RY43 (RR2)	55 ± 1	12.8	1.8	35	130	2.0	2.1	35.0	19.2	0.0	0.0	0.0	3.9
Progeny	4211RY	55 ± 1	12.9	1.8	34	131	1.8	2.3	34.9	19.4	1.7	2.7	1.5	3.7
	Average	**57**	**13.2**	**1.9**	**37**	**132**	**1.7**	**2.0**	**34.4**	**19.6**	**1.1**	**0.8**	**0.9**	**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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015 and 8/28/2014 and at the Highland Rim AgResearch and Education Center on 9/3/2015

SDS disease ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015

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)

Table 11. Mean yields † of four Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in six environments (n=18) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=18)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Ames	Agricenter Memphis
		bu/a						
Dyna-Gro	31RY45 (RR2)	60 ± 1	86	66	44	68	56	38
USG	74F53RS (RR2/STS)	58 ± 1	76	67	44	70	53	40
Progeny	4211RY	58 ± 1	81	68	44	56	56	41
Dyna-Gro	39RY43 (RR2)	57 ± 1	79	68	46	55	57	38
Average (bu/a)		**62**	**81**	**67**	**45**	**62**	**56**	**39**
L.S.D.$_{.05}$ (bu/a)		**4**	**9**	**9**	**6**	**9**	**10**	
C.V. (%)		**9.7**	**7.9**	**9.6**	**9.5**	**9.1**	**12.9**	

† 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 12. Mean yields † and agronomic characteristics of four Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in six environments (n=18) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=18)	Moisture § (n=18)	Lodging (n=7)	Height (n=12)	Maturity (n=12)	Leaf Holding (n=1)	Seed Quality (n=3)	Protein (n=3)	Oil (n=3)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)	Frogeye (n=3)
		bu/a	%	Score	in.	DAP	Score		%	%	%	0 - 9	index	Score
Dyna-Gro	31RY45 (RR2)	60 ± 1	13.9	1.8	36	131	1.2	2.0	33.1	19.8	0.0	0.0	0.0	1.7
USG	74F53RS (RR2/STS)	58 ± 1	14.3	2.4	37	132	2.0	1.9	35.6	19.4	0.0	0.0	0.0	2.8
Progeny	4211RY	58 ± 1	13.5	1.9	33	130	1.8	2.1	34.6	19.5	1.7	2.7	1.5	3.7
Dyna-Gro	39RY43 (RR2)	57 ± 1	13.4	1.8	34	130	2.0	2.0	34.9	19.3	0.0	0.0	0.0	3.9
	Average	**62**	**13.8**	**2.0**	**35**	**131**	**1.8**	**2.0**	**34.6**	**19.5**	**0.4**	**0.7**	**0.4**	**3.0**

† 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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015 and 8/28/2014 and at the Highland Rim AgResearch and Education Center on 9/3/2015

SDS disease ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015

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)

Table 13. Yields † of 23 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties in 12 County Standard Tests in Tennessee and Kentucky during 2015.

MS	Brand/Variety	Avg. Yield	Moist. ‡	Cannon	Crockett	Dyer	Franklin	Gibson	Giles	Henry	Madison	Obion	Perry	Weakley	*McCracken, KY*
		bu/a	**%**	**5/20 §**	**5/13**	**5/7**	**6/4**	**5/6**	**6/10**	**5/5**	**5/8**	**6/12**	**6/8**	**6/17**	**6/4**
A	*Mycogen 5N452R2	68	12	77	78	81	41	61	44	76	57	90	72	71	66
AB	***Mycogen 5N451R2	67	12	70	69	84	42	65	44	80	57	86	76	74	60
AB	**Dyna-Gro 31RY45 RR2Y	67	12	71	74	80	46	62	47	73	61	91	75	52	68
ABC	Dyna-Gro S43RY95 RR2Y	66	12	71	69	77	49	62	41	82	58	84	78	67	58
ABCD	Mycogen 5N433R2	66	12	79	66	78	49	67	42	77	49	89	80	54	59
ABCDE	Warren Seed 43-003 R2Y	66	12	78	67	81	41	69	43	83	55	85	72	56	56
ABCDEF	Croplan R2C 4000	65	12	78	67	78	49	67	58	77	51	78	75	54	46
ABCDEFG	***Armor 44-R08 RR2	65	12	78	69	74	44	58	50	78	47	86	81	56	54
ABCDEFG	Asgrow AG4135 GENRR2Y/SR	64	12	73	68	81	46	66	45	80	51	85	78	52	48
ABCDEFG	Warren Seed 4340 R2Y	64	12	77	68	80	47	61	48	77	53	88	72	49	53
ABCDEFG	Terral REV 44A14	64	12	67	58	77	56	66	42	79	55	87	69	59	57
ABCDEFG	LG Seeds C4544R2	64	12	71	69	77	51	49	54	78	50	85	69	55	64
BCDEFG	Beck's 433R2	64	12	70	74	76	44	66	39	73	50	88	72	56	59
BCDEFG	Hornbeck CZ4590 RY	64	12	72	65	74	53	64	42	80	48	80	70	63	52
CDEFG	Beck's 418NR	63	12	68	62	74	44	64	49	79	53	79	66	65	51
DEFG	Armor AR4305 RR2	62	12	69	63	76	43	58	45	80	44	79	74	67	51
DEFG	Hornbeck CZ4181 RY	62	12	71	61	75	45	62	42	76	48	82	71	57	56
DEFG	Steyer 4303R2	62	12	67	63	76	50	58	49	79	48	77	70	60	48
EFG	Progeny P4214 RR2Y	62	12	73	51	73	50	58	48	78	49	78	81	52	53
FG	Steyer 4503R2	62	12	77	63	71	42	58	36	76	47	83	73	63	51
FG	Progeny P4211 RR2Y	62	12	76	62	75	53	60	36	79	49	84	63	49	54
FG	USG 74A33R	62	12	72	56	76	46	58	42	80	48	83	67	60	50
G	USG 74F24RS	61	12	75	63	78	40	52	45	77	50	85	62	54	51
	Average (bu/a)	**64**	**12**	**73**	**65**	**77**	**47**	**61**	**45**	**78**	**51**	**84**	**72**	**58**	**55**

† Yields have been adjusted to 13% moisture.

‡ Avg. % moisture at harvest across all locations.

§ Planting date.

Each variety was evaluated in a large strip-plot at each loction, 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 denoted with an asterisks (*) or (**) etc. were in the top performing group for consecutive years.

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

Data provided by Ryan H. Blair, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 14. Overall average yields † and moistures of 15 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=7) in Tennessee during 2015.

		Averages of CST & REC Tests		County Standard Trials		AgResearch and Education Center Trials	
Brand	Variety ‡	Avg. Yield	Moisture	Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%	bu/a	%
Dyna-Gro	S43RY95 (RR2)	65	12.4	66	12.0	63	12.8
Dyna-Gro	31RY45 (RR2)	64	13.5	67	12.1	62	14.8
Mycogen	5N452R2	63	13.2	68	12.0	59	14.5
Warren Seed	DS 43-003 R2Y	63	12.1	66	12.1	60	12.2
Hornbeck	CZ 4181 RY (STS)	63	12.4	62	12.1	63	12.7
Hornbeck	CZ 4590 RY	62	12.3	64	11.8	61	12.8
Asgrow	AG4135 (RR2/SR)	62	12.2	64	12.1	60	12.4
USG	74F24RS (RR2/STS)	62	12.7	61	12.2	63	13.2
Mycogen	5N433R2	62	12.4	66	11.7	58	13.1
Warren Seed	DS 4340 R2Y	61	12.3	64	12.1	58	12.4
Beck's XL Brand	433R2	61	12.2	64	12.2	58	12.3
Terral-REV Brand	44A14 (RR2)	61	12.2	64	12.0	57	12.3
Steyer	4503R2	60	12.2	62	12.0	59	12.4
Progeny	4214RY	60	12.3	62	12.1	58	12.5
Progeny	4211RY	58	12.3	62	12.1	55	12.4
Average (bu/a)		**62**	**12.4**	**64**	**12.0**	**60**	**12.9**

† 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 15. Yields † and disease ratings of 23 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties in 12 County Standard Tests and in small plot trials at three AgResearch and Education Centers in Tennessee during 2015.

Summary from 12 County Tests			Summary from Small Plot Research													
MS	Brand/Variety	AvgYld	RECM - YLD		Frogeye	Other	Lodging	JAX - YLD		Frogeye	Other	Lodging	WTREC - YLD		Frogeye	Other
		bu/a	*Treated	Non-treated	RECM	Diseases	RECM	*Treated	Non-treated	JAX	Diseases	JAX	*Treated	Non-treated	WTREC	Diseases
A	*Mycogen 5N452R2	67.8	60.0	56.7	LOW		2	57.4	57.1	LOW		2	54.9	54.7	LOW	SDS
AB	***Mycogen 5N451R2	67.2	-	-	-	-	-	57.8	52.8	LOW	SC	0	56.7	47.8	LOW	SDS
AB	**Dyna-Gro 31RY45 RR2Y	66.7	-	-	-	-	-	60.0	55.0	LOW	SC	2	50.1	53.8	LOW	SDS
ABC	Dyna-Gro S43RY95 RR2Y	66.3	58.4	52.5	MOD		3	51.3	47.6	MOD		1	54.1	48.0	MOD	
ABCD	Mycogen 5N433R2	65.7	59.8	52.7	MOD		3	55.2	51.6	MOD		2	48.8	47.8	MOD	SDS
ABCDE	Warren Seed 43-003 R2Y	65.5	59.2	56.7	LOW	SC, TS	0	51.0	50.2	LOW	SC, TS	0	52.3	50.4	LOW	SDS
ABCDEF	Croplan R2C 4000	64.8	62.5	54.6	HIGH		1	56.1	50.6	HIGH		2	52.5	47.3	HIGH	SDS
ABCDEFG	***Armor 44-R08 RR2	64.6	49.4	48.5	MOD	SC, CLB	2	51.9	48.3	MOD	SC	0	51.4	49.3	MOD	TS
ABCDEFG	Asgrow AG4135 GENRR2Y/SR	64.4	56.4	49.4	MOD	TS, BS	1	50.3	50.2	MOD		1	57.6	55.1	MOD	
ABCDEFG	Warren Seed 4340 R2Y	64.4	52.4	47.6	MOD	SC, CLB	0	50.3	47.3	MOD	SC, CLB	0	60.2	56.1	MOD	
ABCDEFG	LG Seeds C4544R2	64.3	58.7	52.4	LOW	SC, TS	1	53.2	50.7	LOW	SC, TS	0	54.2	51.3	LOW	TS
ABCDEFG	Terral REV 44A14	64.3	55.4	52.1	LOW		0	48.4	47.5	LOW	SC, CLB	0	55.7	53.2	LOW	SDS
BCDEFG	Beck's 433R2	63.9	55.4	49.4	LOW	SC, CLB	1	48.0	46.7	LOW	SC, CLB	0	53.4	49.9	LOW	TS
BCDEFG	Hornbeck CZ4590 RY	63.6	58.8	51.4	MOD		1	48.6	45.3	MOD		0	51.4	45.8	MOD	
CDEFG	Beck's 418NR	62.8	-	-	-	-	-	49.0	44.2	HIGH		1	48.1	46.4	MOD	SDS
DEFG	Armor AR4305 RR2	62.4	-	-	-	-	-	50.3	43.6	HIGH		0	49.4	46.9	MOD	
DEFG	Hornbeck CZ4181 RY	62.2	61.5	53.7	MOD		3	48.8	47.2	MOD		2	54.2	52.9	MOD	
DEFG	Steyer 4303R2	62.1	59.2	50.2	MOD	SC, TS	2	50.3	45.9	MOD		3	54.7	49.7	MOD	
EFG	Progeny P4214 RR2Y	62.0	58.7	47.7	HIGH		3	47.9	42.4	HIGH		0	52.7	47.0	HIGH	SDS
FG	Progeny P4211 RR2Y	61.7	-	-	-	-	-	52.9	49.4	MOD	SC, CLB	0	56.5	49.5	MOD	TS
FG	Steyer 4503R2	61.7	56.8	52.1	MOD		1	48.1	44.0	MOD		0	45.8	41.2	MOD	SDS,
FG	USG 74A33R	61.5	56.3	47.9	MOD		0	50.5	45.3	HIGH		0	53.6	47.4	MOD	
G	USG 74F24RS	61.0	57.8	51.7	MOD	SC, CLB	1	47.1	43.8	MOD		2	50.8	47.1	MOD	
	Average (bu/a)	**64.0**	**57.6**	**51.5**				**51.5**	**48.1**				**53.0**	**49.5**		

YLD= Avg. Yield @ 13% moisture (county tests) 13.5% moisture (RECM, WTREC and JAX tests)

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

Varieties denoted with an asterisks (*) or (**) etc. were in the top performing group for consecutive years.

County locations include: Cannon, Crockett, Dyer, Franklin, Gibson, Giles, Henry, Madison, Obion, Perry, Weakley, MCCR (KY)

*Treated plots sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R2-R3 growth stage. RECM varieties planted June 5, JAX planted June 11, and WTREC planted June 17 after wheat

Disease ratings (non-treated plots) for Frogeye at RECM and JAX are LOW (≤4% disease), MOD (5-19%), HIGH (≥20%) and at WTREC are LOW (≤5%), MOD (6-10), HIGH (≥10%). Other diseases noted: SC=Stem Canker, TS=Target Spot, CLB=Cercospora Leaf Blight ' - ' indicate variety was not tested at that location

Lodging was recorded for a plot if >50% of the plants were leaning at angle ≥ 45° and is reported on a 0 to 4 scale based on the 4 replicate plots for each variety (e.g. 4=4 of 4 plots, 3=3 of 4 plots, etc.)

Disease ratings & yield data compiled by Dr. Heather Kelly and Jamie Jordan from replicated plots at the AgResearch and Education Center at Milan (RECM, which is irrigated and had moderate to severe disease pressure), the West Tennessee AgResearch and Education Center (WTREC, which is dry land and had low disease pressure due to regular crop rotation), and on-farm location in Jackson (JAX, which is dry land and had severe disease pressure). County data provided by Ryan Blair, Ext. Area Specialist, and the extension agents.

Table 16. Mean yields † of 61 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.	Ames	Agricenter Memphis
		bu/a							
Progeny	4788RY	67 ± 1	90	83	37	71	65	70	51
Armor	47-R13 (RR/STS)	66 ± 1	79	74	33	92	73	68	45
Armor	47-R70RR2	66 ± 1	89	81	30	86	66	64	46
Warren Seed	DS 4633 R2Y	66 ± 1	92	81	33	73	67	68	46
Dyna-Gro	S48RS53 (RR2/STS)	65 ± 1	82	73	32	78	73	69	50
LG Seeds	C4867R2 (STS)	65 ± 1	72	75	34	86	79	61	48
Progeny	4850RYS	64 ± 1	77	70	34	81	79	68	42
Asgrow	AG4835 (RR2/SR)	64 ± 1	75	71	36	83	75	58	51
Mycogen	5N479R2 (STS)	64 ± 1	84	72	36	77	69	64	47
Progeny	4613RYS	64 ± 1	80	79	32	83	70	58	45
Progeny	4757RY	64 ± 1	81	79	34	79	67	62	42
Delta Grow	4765 RR2/STS	63 ± 1	74	75	32	75	75	69	44
NK Seed	S48-D9 (RR2)	63 ± 1	92	75	36	77	73	60	31
Delta Grow	4935 RR2	63 ± 1	87	70	25	80	73	64	44
Asgrow	AG4632 (RR2/SR)	63 ± 1	82	80	29	76	77	63	36
Terral-REV Brand	47R34 (RR)	63 ± 1	83	78	32	80	64	62	44
Asgrow	AG4934 (RR2/SR)	63 ± 1	64	69	33	88	74	62	52
Terral-REV Brand	49R94 (RR)	63 ± 1	83	78	32	71	67	66	44
Delta Grow	4670 RR2	63 ± 1	87	77	27	71	66	66	46
Armor	46-R65 (RR/STS)	63 ± 1	78	74	36	89	69	56	36
Armor	49-R56 (RR)	63 ± 1	77	73	31	81	60	64	52
GoSoy	4915R2	62 ± 1	76	66	29	76	80	67	42
Croplan	R2C 4752 S (RR/STS)	62 ± 1	91	68	29	73	74	64	34
Warren Seed	DS 4850 R2Y/STS	62 ± 1	86	70	31	76	72	62	36
LG Seeds	C4780R2 (STS)	62 ± 1	78	71	32	80	73	67	32
Hornbeck	HBK RY4721 (RR2/STS)	61 ± 1	83	69	33	76	68	62	39
Dyna-Gro	S49RY25 (RR2)	61 ± 1	85	64	29	74	66	59	50
Terral-REV Brand	49A75 (RR)	60 ± 1	86	70	34	71	57	63	41
Beck's XL Brand	465R4 (RR/STS)	60 ± 1	88	76	31	71	65	59	31
Warren Seed	DS 4720 R2Y/STS	60 ± 1	80	66	30	73	63	69	41
USG	74D95RS (RR2/STS)	60 ± 1	70	70	34	75	70	65	36
Steyer	4703R2 (STS)	60 ± 1	67	65	30	79	75	55	47
GoSoy	4714GTS (RR)	60 ± 1	74	66	31	76	66	58	45
Mycogen	5N490R2 (STS)	59 ± 1	72	67	33	73	68	61	42
LG Seeds	C4994R2	59 ± 1	72	65	32	81	70	57	38
Caverndale Farms	CF 472 RR2Y/STSn	59 ± 1	71	68	30	78	74	57	35
Armor	AR4615 (RR)	59 ± 1	74	67	31	71	65	64	40

Table 16 (continued)

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.	Ames	Agricenter Memphis
		bu/a							
Terral-REV Brand	49A14 (RR2/STS)	59 ± 1	67	66	31	80	68	59	39
TN Exp	TN13-4508R2	58 ± 1	78	76	29	62	49	66	48
Progeny	4900RY	58 ± 1	67	74	33	75	60	58	42
Terral-REV Brand	49A55 (RR)	58 ± 1	76	74	31	68	63	54	41
TN Exp	TN12-4711R2	58 ± 1	83	77	29	63	56	57	41
TN Exp	TN12-5508R2	58 ± 1	78	77	29	66	56	60	40
USG	74B83R (RR2/STS)	58 ± 1	73	71	33	68	65	56	39
USG	74A74RS (RR2/STS)	58 ± 1	70	44	33	79	70	59	48
Croplan	4700 (RR)	57 ± 1	62	62	31	78	68	60	40
Beck's XL Brand	485R2 (RR2/STS)	57 ± 1	68	66	28	75	65	60	39
Armor	49-R44RR2/STS	57 ± 1	63	60	30	77	71	62	38
Terral-REV Brand	47R53 (RR)	56 ± 1	70	73	34	68	58	64	28
Dyna-Gro	S46RY85 (RR2)	56 ± 1	75	63	39	68	61	49	36
Terral-REV Brand	52A94 (RR/STS)	56 ± 1	66	68	24	70	67	56	40
Steyer	4602R2	56 ± 1	65	65	32	73	62	53	41
Dyna-Gro	S47RY13 (RR2)	55 ± 1	72	70	27	57	63	55	44
Delta Grow	4970 RR	55 ± 1	75	72	32	53	61	62	32
Hornbeck	CZ 4959 RY	55 ± 1	76	67	26	67	64	52	35
Delta Grow	4880 RR	55 ± 1	79	70	29	59	58	51	41
Delta Grow	4825 RR2/STS	55 ± 1	69	69	27	66	67	48	37
Schillinger Seed	495.RC (RR)	55 ± 1	76	67	26	59	62	54	39
GoSoy	4914GTS (RR)	53 ± 1	73	66	27	65	57	50	34
MO	S11-20337 (RR)	50 ± 1	59	63	30	58	52	51	39
USG	74A79R (RR2/STS)	50 ± 1	57	63	31	53	54	56	36
Average (bu/a)		**60**	**76**	**70**	**31**	**74**	**67**	**60**	**41**
L.S.D.$_{.05}$ (bu/a)		**3**	**13**	**11**	**6**	**8**	**8**	**10**	**7**
C.V. (%)		**9.3**	**10.1**	**9.3**	**11.3**	**6.8**	**7.6**	**10.1**	**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 17. Mean yields † and agronomic characteristics of 61 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in seven environments in Tennessee in 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=3)	Height (n=5)	Maturity (n=5)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	Score	%	%	%	0 - 9	index	Score
Progeny	4788RY	67 ± 1	13.7	1.9	43	137	3.5	33.4	19.6	5.0	0.7	1.1	2.0
Armor	47-R13 (RR/STS)	66 ± 1	14.1	2.3	44	139	2.0	34.3	18.7	1.7	2.0	1.1	3.8
Armor	47-R70RR2	66 ± 1	14.1	2.8	41	138	2.8	32.9	19.8	6.7	1.0	2.2	1.5
Warren Seed	DS 4633 R2Y	66 ± 1	13.6	2.3	40	134	2.8	32.9	20.1	5.0	2.0	3.3	2.7
Dyna-Gro	S48RS53 (RR2/STS)	65 ± 1	14.4	2.1	44	138	1.7	34.3	18.8	12.0	4.7	5.4	3.7
LG Seeds	C4867R2 (STS)	65 ± 1	13.8	2.1	43	137	2.2	34.2	18.8	22.0	5.0	12.0	3.5
Progeny	4850RYS	64 ± 1	13.9	1.9	44	138	2.2	33.8	18.9	30.0	4.3	14.0	4.0
Asgrow	AG4835 (RR2/SR)	64 ± 1	13.6	2.3	44	138	2.5	34.3	18.5	18.0	1.3	4.1	3.0
Mycogen	5N479R2 (STS)	64 ± 1	14.8	2.0	43	137	2.3	34.2	18.9	15.0	2.3	5.6	4.0
Progeny	4613RYS	64 ± 1	13.7	2.6	43	137	3.7	34.6	18.8	0.0	0.0	0.0	4.8
Progeny	4757RY	64 ± 1	13.9	2.6	41	137	2.7	32.4	19.9	15.0	4.3	6.9	1.8
Delta Grow	4765 RR2/STS	63 ± 1	14.0	1.9	44	138	2.2	34.2	18.9	8.3	4.0	4.1	3.3
NK Seed	S48-D9 (RR2)	63 ± 1	13.7	1.9	40	138	3.8	34.3	19.6	12.0	4.0	5.4	2.3
Delta Grow	4935 RR2	63 ± 1	13.9	2.1	42	138	2.5	33.7	19.1	7.3	5.3	4.1	3.0
Asgrow	AG4632 (RR2/SR)	63 ± 1	13.6	2.8	40	136	3.0	33.1	19.6	13.0	2.0	8.9	1.7
Terral-REV Brand	47R34 (RR)	63 ± 1	13.6	2.2	43	136	2.2	33.9	19.6	1.7	2.3	1.3	2.3
Asgrow	AG4934 (RR2/SR)	63 ± 1	13.7	1.8	43	139	3.3	33.6	19.2	8.3	2.7	4.3	5.2
Terral-REV Brand	49R94 (RR)	63 ± 1	13.5	2.8	41	137	2.0	34.1	19.8	33.0	6.3	24.0	1.5
Delta Grow	4670 RR2	63 ± 1	13.6	2.8	40	137	3.0	32.6	20.0	15.0	4.7	7.6	1.7
Armor	46-R65 (RR/STS)	63 ± 1	14.7	2.7	43	138	3.5	34.7	18.9	0.0	0.0	0.0	4.8
Armor	49-R56 (RR)	63 ± 1	13.8	1.5	36	139	3.2	34.4	19.3	1.7	1.0	0.6	4.2
GoSoy	4915R2	62 ± 1	14.5	2.2	44	138	2.0	33.6	19.0	18.0	3.7	8.0	3.2
Croplan	R2C 4752 S (RR/STS)	62 ± 1	14.1	2.3	42	138	2.2	34.2	19.0	3.3	1.3	1.5	3.7
Warren Seed	DS 4850 R2Y/STS	62 ± 1	13.4	2.0	44	137	2.2	34.2	18.9	20.0	3.3	11.0	3.8
LG Seeds	C4780R2 (STS)	62 ± 1	13.8	2.3	44	137	2.2	34.4	18.9	13.0	3.7	5.9	3.3
Hornbeck	HBK RY4721 (RR2/STS)	61 ± 1	13.5	2.5	44	137	2.5	33.8	19.4	23.0	3.3	13.0	2.2
Dyna-Gro	S49RY25 (RR2)	61 ± 1	13.0	1.7	42	138	2.3	34.3	19.4	0.7	1.0	0.2	3.0
Terral-REV Brand	49A75 (RR)	60 ± 1	13.5	2.6	42	138	3.0	33.9	20.1	10.0	5.7	7.0	4.3
Beck's XL Brand	465R4 (RR/STS)	60 ± 1	13.3	1.8	37	136	2.8	34.5	19.7	0.0	0.0	0.0	1.5
Warren Seed	DS 4720 R2Y/STS	60 ± 1	13.6	1.4	41	137	3.2	33.7	19.2	20.0	4.3	14.0	5.5
USG	74D95RS (RR2/STS)	60 ± 1	13.6	2.3	42	138	3.8	33.3	19.3	10.0	4.7	7.8	6.7
Steyer	4703R2 (STS)	60 ± 1	13.9	1.8	42	137	3.3	33.4	19.2	58.0	5.7	39.0	5.0
GoSoy	4714GTS (RR)	60 ± 1	13.7	1.9	44	136	2.3	33.6	20.2	6.7	2.0	4.4	4.0
Mycogen	5N490R2 (STS)	59 ± 1	14.0	2.0	41	137	2.7	33.5	19.3	37.0	6.3	28.0	5.7
LG Seeds	C4994R2	59 ± 1	15.2	1.7	44	137	2.5	34.2	19.0	6.7	1.3	3.0	4.2
Caverndale Farms	CF 472 RR2Y/STSn	59 ± 1	13.8	2.2	40	136	3.3	33.0	19.1	18.0	3.7	13.0	5.0
Armor	AR4615 (RR)	59 ± 1	13.6	2.2	39	138	2.7	33.8	20.2	3.3	0.3	0.4	2.0
Terral-REV Brand	49A14 (RR2/STS)	59 ± 1	13.5	3.7	40	139	3.5	34.4	19.3	1.7	2.0	1.1	5.3
TN Exp	TN13-4508R2	58 ± 1	14.0	2.5	41	139	2.0	32.3	19.3	5.0	1.7	1.5	2.5
Progeny	4900RY	58 ± 1	13.4	1.7	36	139	3.3	34.4	19.3	8.3	2.7	3.1	4.8
Terral-REV Brand	49A55 (RR)	58 ± 1	13.7	2.9	43	137	2.2	33.2	20.2	27.0	4.3	25.0	2.2
TN Exp	TN12-4711R2	58 ± 1	14.0	2.2	40	138	1.8	32.1	19.3	2.3	3.7	1.3	2.5
TN Exp	TN12-5508R2	58 ± 1	13.5	2.4	41	139	2.0	31.8	19.3	1.7	1.7	0.9	2.5

Table 17 (continued)

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=3)	Height (n=5)	Maturity (n=5)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	Score	%	%	%	0 - 9	index	Score
USG	74B83R (RR2/STS)	58 ± 1	13.5	3.0	38	141	2.8	33.6	19.3	10.0	0.7	2.2	5.7
USG	74A74RS (RR2/STS)	58 ± 1	13.6	1.9	41	137	3.0	33.3	19.4	27.0	5.3	18.0	5.8
Croplan	4700 (RR)	57 ± 1	13.6	2.1	41	138	2.7	34.0	18.9	17.0	2.0	7.0	4.5
Beck's XL Brand	485R2 (RR2/STS)	57 ± 1	13.7	3.6	39	140	3.2	34.2	19.4	3.3	3.0	3.3	4.5
Armor	49-R44RR2/STS	57 ± 1	14.1	2.1	41	139	3.7	33.1	19.5	17.0	1.3	7.4	5.8
Terral-REV Brand	47R53 (RR)	56 ± 1	13.0	2.9	39	134	2.2	34.2	21.1	13.0	2.3	10.0	3.2
Dyna-Gro	S46RY85 (RR2)	56 ± 1	13.5	2.8	38	134	3.3	33.5	19.2	1.7	1.3	0.7	5.8
Terral-REV Brand	52A94 (RR/STS)	56 ± 1	13.6	3.1	36	140	1.5	34.5	18.6	12.0	5.3	6.1	1.8
Steyer	4602R2	56 ± 1	13.2	2.2	37	134	3.0	33.0	19.4	8.3	3.7	5.4	5.7
Dyna-Gro	S47RY13 (RR2)	55 ± 1	13.9	2.2	41	137	2.8	33.6	19.8	5.0	1.0	1.7	5.0
Delta Grow	4970 RR	55 ± 1	13.7	3.6	43	139	2.5	35.0	19.2	43.0	5.0	26.0	1.2
Hornbeck	CZ 4959 RY	55 ± 1	14.4	1.9	39	139	3.0	35.4	19.0	27.0	3.7	11.0	4.3
Delta Grow	4880 RR	55 ± 1	13.4	2.9	40	140	2.5	36.0	19.0	33.0	7.3	27.0	1.5
Delta Grow	4825 RR2/STS	55 ± 1	14.1	3.1	37	141	2.8	33.6	19.3	0.0	0.0	0.0	5.2
Schillinger Seed	495.RC (RR)	55 ± 1	13.5	3.5	43	140	2.5	34.9	19.3	33.0	7.0	28.0	1.3
GoSoy	4914GTS (RR)	53 ± 1	14.0	1.8	34	140	2.0	34.0	19.3	5.0	3.0	1.7	1.3
MO	S11-20337 (RR)	50 ± 1	14.1	3.0	38	139	1.8	34.2	19.1	0.0	0.0	0.0	1.2
USG	74A79R (RR2/STS)	50 ± 1	13.4	2.9	37	136	3.0	33.9	19.4	2.7	3.0	1.2	6.2
	Average	**60**	**13.8**	**2.4**	**41**	**138**	**2.7**	**33.8**	**19.3**	**12.8**	**3.0**	**7.6**	**3.6**

† 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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015 SDS disease ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015

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)

Table 18. Mean yields † of 37 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Knoxville	Springfield		Milan		Ames	Agricenter Memphis
				Irr.	Non-Irr.	Irr.	Non-Irr.		
		bu/a							
Armor	47-R13 (RR/STS)	63 ± 1	76	75	36	81	68	64	41
Dyna-Gro	S48RS53 (RR2/STS)	62 ± 1	78	73	36	69	72	62	44
Progeny	4788RY	61 ± 1	82	76	37	67	62	66	40
Mycogen	5N479R2 (STS)	61 ± 1	78	71	35	70	69	63	41
Warren Seed	DS 4633 R2Y	61 ± 1	83	79	33	68	63	59	42
Progeny	4850RYS	61 ± 1	74	66	37	75	73	63	37
Croplan	R2C 4752 S (RR/STS)	60 ± 1	83	71	34	67	70	63	32
Terral-REV Brand	47R34 (RR)	60 ± 1	77	75	38	73	61	58	37
LG Seeds	C4780R2 (STS)	60 ± 1	75	73	34	70	69	64	34
Delta Grow	4765 RR2/STS	60 ± 1	74	73	37	63	68	61	42
Dyna-Gro	S49RY25 (RR2)	59 ± 1	78	71	31	68	63	58	45
Warren Seed	DS 4850 R2Y/STS	59 ± 1	78	69	34	71	68	60	35
Terral-REV Brand	49R94 (RR)	59 ± 1	76	77	33	65	61	62	38
Armor	46-R65 (RR/STS)	59 ± 1	75	71	35	79	66	50	35
Delta Grow	4670 RR2	58 ± 1	83	71	28	66	58	61	37
Hornbeck	HBK RY4721 (RR2/STS)	58 ± 1	81	70	35	68	60	56	33
Asgrow	AG4934 (RR2/SR)	58 ± 1	66	65	36	69	69	55	43
Asgrow	AG4632 (RR2/SR)	57 ± 1	78	74	31	62	69	56	33
Progeny	4613RYS	57 ± 1	73	68	32	72	66	50	36
Steyer	4703R2 (STS)	56 ± 1	65	63	35	69	67	54	38
Armor	49-R56 (RR)	56 ± 1	73	69	33	68	59	52	38
USG	74B83R (RR2/STS)	56 ± 1	73	70	32	63	62	56	36
Terral-REV Brand	49A14 (RR2/STS)	56 ± 1	69	67	35	67	61	54	35
Beck's XL Brand	485R2 (RR2/STS)	55 ± 1	67	66	34	67	60	58	34
Terral-REV Brand	49A55 (RR)	55 ± 1	69	70	34	63	58	52	39
Terral-REV Brand	49A75 (RR)	54 ± 1	77	65	36	55	55	58	35
Dyna-Gro	S47RY13 (RR2)	54 ± 1	70	72	34	57	61	47	35
Hornbeck	CZ 4959 RY	53 ± 1	70	65	28	61	57	54	38
Progeny	4900RY	53 ± 1	65	67	32	63	60	49	36
Terral-REV Brand	52A94 (RR/STS)	53 ± 1	70	63	34	61	58	52	34
Steyer	4602R2	53 ± 1	67	64	34	64	59	52	31
Dyna-Gro	S46RY85 (RR2)	53 ± 1	70	65	35	61	58	50	30
Delta Grow	4825 RR2/STS	53 ± 1	71	68	33	57	58	50	31
Terral-REV Brand	47R53 (RR)	52 ± 1	68	71	32	55	53	56	31
Delta Grow	4880 RR	52 ± 1	73	63	33	54	51	53	37
Delta Grow	4970 RR	48 ± 1	65	67	33	43	48	51	31
USG	74A79R (RR2/STS)	48 ± 1	57	63	29	55	54	48	29
Average (bu/a)		**57**	**73**	**69**	**34**	**65**	**62**	**56**	**36**
L.S.D.$_{.05}$ (bu/a)		**3**	**9**	**9**	**5**	**9**	**7**	**8**	**7**
C.V. (%)		**9.9**	**8.7**	**9.3**	**10.3**	**9.7**	**8.2**	**10.5**	**13.2**

† 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 19. Mean yields † and agronomic characteristics of 37 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties in seven environments (n=14) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Moisture § (n=14)	Lodging (n=6)	Height (n=10)	Maturity (n=10)	Leaf Holding (n=1)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)	Frogeye (n=2)
		bu/a	%	Score	in.	DAP	-------- Score --------		%	%	%	0 - 9	index	Score
Armor	47-R13 (RR/STS)	63 ± 1	14.3	2.1	41	138	1.1	1.6	35.0	18.7	1.7	2.0	1.1	3.4
Dyna-Gro	S48RS53 (RR2/STS)	62 ± 1	14.0	2.1	41	137	1.3	1.5	34.5	18.7	12.0	4.7	5.4	3.4
Progeny	4788RY	61 ± 1	13.6	1.9	40	136	1.4	2.8	34.1	19.2	5.0	0.7	1.1	2.0
Mycogen	5N479R2 (STS)	61 ± 1	14.3	1.9	40	137	1.2	1.8	34.8	18.7	15.0	2.3	5.6	3.3
Warren Seed	DS 4633 R2Y	61 ± 1	13.6	2.2	38	134	1.3	2.1	33.5	19.7	5.0	2.0	3.3	2.3
Progeny	4850RYS	61 ± 1	13.8	1.8	41	137	1.3	1.7	34.3	18.7	30.0	4.3	14.1	3.4
Croplan	R2C 4752 S (RR/STS)	60 ± 1	14.1	2.2	40	138	1.3	1.7	34.5	18.7	3.3	1.3	1.5	3.4
Terral-REV Brand	47R34 (RR)	60 ± 1	13.5	2.5	40	135	1.4	1.8	34.3	19.4	1.7	2.3	1.3	2.0
LG Seeds	C4780R2 (STS)	60 ± 1	13.8	2.2	40	136	1.3	1.6	34.8	18.8	13.3	3.7	5.9	3.0
Delta Grow	4765 RR2/STS	60 ± 1	14.0	2.1	41	137	1.0	1.7	34.6	18.7	8.3	4.0	4.1	3.1
Dyna-Gro	S49RY25 (RR2)	59 ± 1	13.4	1.5	40	137	1.1	1.9	34.7	19.1	0.7	1.0	0.2	2.7
Warren Seed	DS 4850 R2Y/STS	59 ± 1	13.7	2.0	41	137	1.0	1.6	34.7	18.8	20.0	3.3	11.1	3.4
Terral-REV Brand	49R94 (RR)	59 ± 1	13.3	2.5	39	136	1.1	1.5	34.3	19.5	33.3	6.3	23.7	1.3
Armor	46-R65 (RR/STS)	59 ± 1	14.4	2.4	39	137	1.8	2.6	35.2	18.8	0.0	0.0	0.0	4.7
Delta Grow	4670 RR2	58 ± 1	13.7	2.4	37	135	1.4	2.1	33.0	19.6	15.0	4.7	7.6	1.9
Hornbeck	HBK RY4721 (RR2/STS)	58 ± 1	13.6	2.5	42	137	1.8	1.9	34.1	19.1	23.3	3.3	13.0	1.8
Asgrow	AG4934 (RR2/SR)	58 ± 1	13.8	1.7	40	138	1.3	2.4	34.0	19.1	8.3	2.7	4.3	5.1
Asgrow	AG4632 (RR2/SR)	57 ± 1	13.5	2.7	37	135	1.5	2.0	33.2	19.5	13.3	2.0	8.9	1.8
Progeny	4613RYS	57 ± 1	13.7	2.3	40	137	1.9	2.7	35.1	18.7	0.0	0.0	0.0	4.7
Steyer	4703R2 (STS)	56 ± 1	13.8	1.9	40	137	1.5	2.3	33.7	19.0	58.3	5.7	39.1	5.3
Armor	49-R56 (RR)	56 ± 1	13.7	1.3	34	138	1.3	2.2	34.9	19.0	1.7	1.0	0.6	4.2
USG	74B83R (RR2/STS)	56 ± 1	13.5	2.6	36	139	1.3	2.2	33.9	18.9	10.0	0.7	2.2	5.2
Terral-REV Brand	49A14 (RR2/STS)	56 ± 1	13.4	3.3	38	138	1.7	2.3	34.6	19.3	1.7	2.0	1.1	5.1
Beck's XL Brand	485R2 (RR2/STS)	55 ± 1	13.6	3.5	37	138	2.1	2.3	34.2	19.3	3.3	3.0	3.3	4.8
Terral-REV Brand	49A55 (RR)	55 ± 1	13.7	2.4	40	136	1.5	1.6	33.5	20.1	26.7	4.3	24.8	2.0
Terral-REV Brand	49A75 (RR)	54 ± 1	13.5	2.4	40	136	1.2	2.1	34.5	19.8	10.0	5.7	7.0	4.2
Dyna-Gro	S47RY13 (RR2)	54 ± 1	13.7	2.2	38	136	1.2	2.1	34.1	19.5	5.0	1.0	1.7	4.6
Hornbeck	CZ 4959 RY	53 ± 1	13.9	1.9	37	138	1.3	2.2	35.6	18.9	26.7	3.7	11.5	4.0
Progeny	4900RY	53 ± 1	13.3	1.6	34	137	1.2	2.3	34.8	19.0	8.3	2.7	3.1	4.4
Terral-REV Brand	52A94 (RR/STS)	53 ± 1	13.5	2.7	36	139	1.3	1.3	35.0	18.4	11.7	5.3	6.1	1.9
Steyer	4602R2	53 ± 1	13.3	2.3	36	133	2.1	2.3	33.5	19.0	8.3	3.7	5.4	5.6
Dyna-Gro	S46RY85 (RR2)	53 ± 1	13.5	2.4	36	134	1.6	2.5	33.7	19.0	1.7	1.3	0.7	5.8
Delta Grow	4825 RR2/STS	53 ± 1	13.6	3.1	36	139	1.5	2.2	34.2	18.9	0.0	0.0	0.0	5.0
Terral-REV Brand	47R53 (RR)	52 ± 1	13.1	2.7	38	133	1.0	1.8	34.9	20.6	13.3	2.3	10.4	2.8
Delta Grow	4880 RR	52 ± 1	13.3	2.7	37	138	1.6	1.8	36.3	18.8	33.3	7.3	27.4	1.4
Delta Grow	4970 RR	48 ± 1	13.6	3.3	41	137	1.8	1.8	35.5	19.0	43.3	5.0	25.9	1.3
USG	74A79R (RR2/STS)	48 ± 1	13.5	2.7	35	135	1.9	2.3	34.1	19.4	2.7	3.0	1.2	6.0
	Average	**57**	**13.7**	**2.3**	**39**	**137**	**1.4**	**2.0**	**34.4**	**19.1**	**12.8**	**2.9**	**7.7**	**3.5**

† 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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at maturity.

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 were taken at the East Tennessee AgResearch and Education Center on 8/28/2014 and 9/7/2015

SDS disease ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015

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)

Table 20. Mean yields † of 23 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in six environments (n=18) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=15)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Ames	Agricenter Memphis
		bu/a						
Progeny	4850RYS	60 ± 1	78	64	45	69	58	48
Warren Seed	DS 4850 R2Y/STS	60 ± 1	80	67	43	66	57	45
Delta Grow	4765 RR2/STS	60 ± 1	75	69	45	62	58	47
Terral-REV Brand	47R34 (RR)	59 ± 1	78	70	44	71	55	37
Dyna-Gro	S48RS53 (RR2/STS)	59 ± 1	79	68	43	68	57	39
Delta Grow	4670 RR2	59 ± 1	82	65	37	63	56	50
Armor	47-R13 (RR/STS)	59 ± 1	76	70	43	73	57	33
Croplan	R2C 4752 S (RR/STS)	58 ± 1	82	68	42	66	58	31
Terral-REV Brand	49R94 (RR)	58 ± 1	79	71	41	59	57	39
Hornbeck	HBK RY4721 (RR2/STS)	57 ± 1	79	65	42	64	54	41
Progeny	4613RYS	57 ± 1	75	62	42	70	49	46
LG Seeds	C4780R2 (STS)	57 ± 1	75	69	43	65	60	32
Asgrow	AG4632 (RR2/SR)	57 ± 1	79	69	39	59	53	40
Asgrow	AG4934 (RR2/SR)	56 ± 1	70	62	43	64	52	47
USG	74B83R (RR2/STS)	56 ± 1	74	65	39	63	53	40
Armor	49-R56 (RR)	55 ± 1	73	65	38	59	49	48
Delta Grow	4825 RR2/STS	54 ± 1	72	64	41	56	51	40
Progeny	4900RY	53 ± 1	69	66	38	55	48	42
Terral-REV Brand	47R53 (RR)	53 ± 1	70	63	39	52	52	40
Dyna-Gro	S47RY13 (RR2)	53 ± 1	72	65	40	52	47	41
Delta Grow	4880 RR	51 ± 1	72	56	39	48	49	43
USG	74A79R (RR2/STS)	50 ± 1	60	61	37	58	48	37
Delta Grow	4970 RR	47 ± 1	66	61	38	41	49	26
Average (bu/a)		**57**	**75**	**65**	**41**	**61**	**53**	**41**
L.S.D.$_{.05}$ (bu/a)		**3**	**8**	**9**	**5**	**9**	**7**	**11**
C.V. (%)		**10.9**	**7.8**	**10.0**	**8.5**	**10.9**	**10.1**	**19.0**

† 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 21. Mean yields † and agronomic characteristics of 23 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in six environments (n=18) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=18)	Moisture § (n=18)	Lodging (n=7)	Height (n=12)	Maturity (n=12)	Shattering (n=1)	Leaf Holding (n=1)	Seed Quality (n=3)	Protein (n=3)	Oil (n=3)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)	Frogeye (n=3)
		bu/a	%	Score	in.	DAP	----------	Score	----------	%	%	%	0 - 9	index	%
Progeny	4850RYS	60 ± 1	14.3	1.9	40	135	1.0	1.3	1.8	34.3	18.9	30.0	4.3	14.1	3.5
Warren Seed	DS 4850 R2Y/STS	60 ± 1	14.1	2.2	40	135	1.2	1.0	1.7	34.7	18.8	20.0	3.3	11.1	3.5
Delta Grow	4765 RR2/STS	60 ± 1	14.3	2.2	39	135	1.2	1.0	1.9	34.6	18.8	8.3	4.0	4.1	3.3
Terral-REV Brand	47R34 (RR)	59 ± 1	13.9	2.5	40	134	1.0	1.4	1.9	34.5	19.3	1.7	2.3	1.3	2.2
Dyna-Gro	S48RS53 (RR2/STS)	59 ± 1	14.5	2.1	39	135	1.0	1.3	1.5	34.6	18.7	12.0	4.7	5.4	3.4
Delta Grow	4670 RR2	59 ± 1	13.9	2.5	36	133	1.0	1.4	1.8	32.8	19.8	15.0	4.7	7.6	2.1
Armor	47-R13 (RR/STS)	59 ± 1	14.7	2.1	40	135	1.0	1.1	1.8	35.0	18.7	1.7	2.0	1.1	3.4
Croplan	R2C 4752 S (RR/STS)	58 ± 1	14.4	2.2	39	135	1.2	1.3	1.8	34.6	18.8	3.3	1.3	1.5	3.6
Terral-REV Brand	49R94 (RR)	58 ± 1	13.6	2.6	38	134	1.0	1.1	1.5	34.3	19.6	33.3	6.3	23.7	1.6
Hornbeck	HBK RY4721 (RR2/STS)	57 ± 1	14.2	2.3	40	134	1.0	1.8	2.1	34.0	19.1	23.3	3.3	13.0	2.0
Progeny	4613RYS	57 ± 1	14.0	2.4	39	135	1.0	1.9	2.7	35.1	18.8	0.0	0.0	0.0	4.8
LG Seeds	C4780R2 (STS)	57 ± 1	14.2	2.3	39	134	1.0	1.3	1.6	34.8	18.8	13.3	3.7	5.9	3.3
Asgrow	AG4632 (RR2/SR)	57 ± 1	14.0	2.5	36	133	1.2	1.5	1.9	33.1	19.5	13.3	2.0	8.9	1.9
Asgrow	AG4934 (RR2/SR)	56 ± 1	14.1	1.9	38	136	1.0	1.3	2.4	34.1	19.1	8.3	2.7	4.3	5.3
USG	74B83R (RR2/STS)	56 ± 1	14.0	2.7	35	137	1.0	1.3	2.1	34.0	19.0	10.0	0.7	2.2	5.3
Armor	49-R56 (RR)	55 ± 1	14.1	1.7	33	135	1.0	1.3	2.2	34.9	19.1	1.7	1.0	0.6	4.7
Delta Grow	4825 RR2/STS	54 ± 1	14.1	2.8	35	137	1.0	1.5	2.3	34.2	19.0	0.0	0.0	0.0	5.5
Progeny	4900RY	53 ± 1	13.8	1.8	33	135	1.0	1.2	2.3	34.6	19.1	8.3	2.7	3.1	4.8
Terral-REV Brand	47R53 (RR)	53 ± 1	13.6	2.8	37	132	1.0	1.0	1.7	34.9	20.7	13.3	2.3	10.4	2.8
Dyna-Gro	S47RY13 (RR2)	53 ± 1	14.2	2.3	36	134	1.0	1.2	2.1	33.9	19.6	5.0	1.0	1.7	4.6
Delta Grow	4880 RR	51 ± 1	13.6	2.9	36	136	1.0	1.6	1.7	36.1	19.0	33.3	7.3	27.4	1.5
USG	74A79R (RR2/STS)	50 ± 1	13.9	2.8	34	133	1.0	1.9	2.5	34.1	19.4	2.7	3.0	1.2	6.3
Delta Grow	4970 RR	47 ± 1	14.0	3.4	40	136	1.0	1.8	2.1	35.5	19.1	43.3	5.0	25.9	1.5
	Average	**57**	**14.1**	**2.4**	**37**	**135**	**1.0**	**1.4**	**2.0**	**34.5**	**19.2**	**13.1**	**2.9**	**7.6**	**3.5**

† 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.

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings were taken at the East Tennessee AgResearch and Education Center on 8/26/13, 8/28/2014 and 9/7/2015

SDS disease ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015

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)

Table 22. Yields † of 26 Late Maturity Group IV (4.6-4.9) Roundup Ready soybean varieties in 19 County Standard Tests in Tennessee and Kentucky during 2015.

MS	Brand/Variety	Avg. Yield	Moist. ‡	Benton	Carroll	Decatur	Dyer	Fayette	Franklin	Gibson	Giles	Hardeman	Haywood	Henry Bar.	Henry Wil.	Madison	Marion	Obion	Tipton	Weakley	Ballard, KY	Calloway, KY
		bu/a	%	6/11 §	6/17	6/17	5/7	6/15	6/15	5/6	5/12	6/15	6/20	6/24	6/15	4/25	5/8	6/12	6/3	6/23	6/29	6/25
A	**Warren Seed 4633 R2Y	59	12	68	44	78	79	24	78	62	46	24	43	57	68	79	70	91	59	49	55	51
AB	Terral REV 47R34	58	12	66	45	76	81	23	78	69	49	26	40	55	55	79	57	89	60	52	54	53
ABC	**Armor 47-R13 RR2/STS	58	12	63	47	78	78	30	80	60	43	32	46	55	58	71	50	83	66	47	58	50
ABCD	*LG Seeds C4780 R2	57	12	60	35	80	79	24	81	62	43	31	40	55	58	71	53	84	74	55	57	46
ABCD	**Asgrow AG4632 GENRR2Y/SR	57	12	66	42	69	83	27	83	57	45	21	43	58	58	70	66	86	60	48	58	48
ABCD	Asgrow AG4835 GENRR2Y/SR	57	12	61	34	75	87	24	77	57	48	23	42	55	65	76	53	85	61	49	58	51
ABCD	Progeny P4613 RY/STS	57	12	58	45	68	80	21	75	63	49	16	42	52	66	78	61	82	63	58	55	47
ABCDE	Dyna-Gro S48RS53 RR2Y/STS	57	12	57	42	75	78	26	79	58	46	27	43	58	57	81	46	83	58	54	58	49
ABCDE	Terral REV 49R94	57	12	61	45	61	77	24	77	60	44	28	41	58	52	80	61	89	58	51	59	48
ABCDE	Armor 49-R56 RR2	57	12	64	49	60	78	24	69	60	47	23	41	44	64	82	68	81	67	58	54	40
ABCDE	Beck's 493R4	56	12	71	48	54	75	26	78	67	46	25	40	58	59	70	48	89	59	51	55	52
ABCDEF	Beck's 465R4	56	12	71	44	63	75	19	78	68	46	18	42	55	55	72	60	83	53	58	56	52
BCDEF	Progeny P4850 RY/STS	56	12	62	31	78	79	26	73	59	46	27	42	54	61	70	44	84	65	53	59	52
BCDEFG	Mycogen 5N479R2 RR2/STS	56	12	59	30	74	79	25	79	61	39	26	44	52	57	75	50	85	60	52	60	50
CDEFGH	Steyer 4703 R2	55	12	63	48	67	76	23	72	55	48	23	44	47	60	78	55	78	66	51	55	38
DEFGH	LG Seeds C4994 R2	55	12	58	40	64	75	25	73	52	37	26	43	47	56	76	59	83	66	48	55	52
DEFGH	Warren Seed 4850 R2Y/STS	54	12	60	40	68	79	23	73	58	40	26	43	51	56	69	43	84	55	53	59	53
DEFGH	Dyna-Gro S49RY25 RR2Y	54	12	53	39	69	76	21	78	53	47	25	41	48	61	70	59	82	60	48	57	46
EFGHI	Croplan R2C 4914S	54	12	56	48	65	70	24	69	51	48	22	42	44	61	71	60	83	59	53	54	38
FGHI	Steyer 4602 R2	53	12	57	41	70	73	25	70	55	44	16	45	49	50	77	65	73	61	47	53	41
FGHI	USG 74D95RS	53	12	54	37	80	69	26	63	54	43	21	44	48	57	64	59	73	67	51	61	40
FGHI	Asgrow AG4934 GENRR2Y/SR	53	12	60	28	67	71	21	72	55	47	19	44	50	56	71	57	74	63	57	60	38
GHI	Hornbeck HBK RY4721	53	12	57	36	50	78	25	73	51	47	22	42	52	56	71	61	83	54	48	54	44
HI	Croplan R2C 4873S	53	12	53	46	63	70	26	68	50	38	22	43	51	62	71	58	75	54	49	55	45
I	USG 74A74 RS	51	12	54	42	75	77	22	68	55	45	24	41	48	50	68	52	79	54	46	52	39
I	Hornbeck CZ 4959 RY	51	12	59	41	61	74	24	69	50	46	24	41	51	59	72	52	76	32	46	52	42
	Average (bu/a)	**55**	**12**	**60**	**41**	**69**	**77**	**24**	**74**	**58**	**45**	**24**	**42**	**52**	**58**	**74**	**56**	**82**	**60**	**51**	**56**	**46**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each loction, 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 denoted with an asterisks (*) or (**) etc. were in the top performing group for consecutive years.

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

Data provided by Ryan H. Blair, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 23. Overall average yields † and moistures of 23 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in County Standard Tests (n=19) and AgResearch and Education Centers (n=7) in Tennessee during 2015.

		Averages of CST & REC Tests		County Standard Trials		AgResearch and Education Center Trials	
Brand	Variety ‡	Avg. Yield	Moisture	Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%	bu/a	%
Warren Seed	DS 4633 R2Y	63	12.6	59	11.7	66	13.6
Armor	47-R13 (RR/STS)	62	13.1	58	12.2	66	14.1
Dyna-Gro	S48RS53 (RR2/STS)	61	13.4	57	12.4	65	14.4
Terral-REV Brand	47R34 (RR)	61	12.8	58	12.0	63	13.6
Asgrow	AG4835 (RR2/SR)	60	12.8	57	12.0	64	13.6
Progeny	4613RYS	60	12.9	57	12.0	64	13.7
Asgrow	AG4632 (RR2/SR)	60	12.7	57	11.8	63	13.6
Progeny	4850RYS	60	13.2	56	12.5	64	13.9
Mycogen	5N479R2 (STS)	60	13.5	56	12.1	64	14.8
Armor	49-R56 (RR)	60	12.8	57	11.7	63	13.8
Terral-REV Brand	49R94 (RR)	60	12.6	57	11.7	63	13.5
LG Seeds	C4780R2 (STS)	60	13.0	57	12.2	62	13.8
Warren Seed	DS 4850 R2Y/STS	58	12.8	54	12.3	62	13.4
Asgrow	AG4934 (RR2/SR)	58	13.0	53	12.2	63	13.7
Beck's XL Brand	465R4 (RR/STS)	58	12.7	56	12.1	60	13.3
Dyna-Gro	S49RY25 (RR2)	58	12.6	54	12.2	61	13.0
Steyer	4703R2 (STS)	58	13.1	55	12.3	60	13.9
Hornbeck	HBK RY4721 (RR2/STS)	57	12.7	53	11.9	61	13.5
LG Seeds	C4994R2	57	13.5	55	11.9	59	15.2
USG	74D95RS (RR2/STS)	57	12.9	53	12.2	60	13.6
Steyer	4602R2	55	12.5	53	11.8	56	13.2
USG	74A74RS (RR2/STS)	55	12.8	51	12.1	58	13.6
Hornbeck	CZ 4959 RY	53	13.2	51	11.9	55	14.4
Average (bu/a)		**58.6**	**12.9**	**55.4**	**12.0**	**61.8**	**13.8**

† 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 24. Yields † and disease ratings of 27 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties in 19 County Standard Tests and in small plot trials at three AgResearch and Education Centers in Tennessee during 2015.

Summary from 19 County Tests			Summary from Small Plot Research													
MS	Brand/Variety	Yld	RECM - YLD		Frogeye	Other	Lodging	JAX - YLD		Frogeye	Other	Lodging	WTREC - YLD		Frogeye	Other
		bu/a	*Treated	Non-treated	RECM	Diseases	RECM	*Treated	Non-treated	JAX	Diseases	JAX	*Treated	Non-treated	WTREC	Diseases
A	**Warren Seed 4633 R2Y	59.3	60.8	55.4	LOW	SC, TS	1	54.3	50.5	LOW	SC	0	56.7	55.7	LOW	SDS
AB	Terral REV 47R34	58.3	61.0	54.5	LOW		1	49.3	48.5	LOW		2	55.7	53.3	LOW	
ABC	**Armor 47-R13 RR2/STS	57.6	60.9	54.5	LOW	SC, TS	0	55.7	49.3	MOD	SC	0	61.3	54.6	LOW	
ABCD	**Asgrow AG4632 GENRR2Y/SR	57.3	59.0	51.8	LOW	SC, TS	0	54.5	52.5	LOW	SC	1	56.3	50.9	LOW	SDS
ABCD	*LG Seeds C4780 R2	57.3	-	-	-	-	-	49.7	44.4	LOW	SC	1	52.1	51.2	LOW	
ABCD	Asgrow AG4835 GENRR2Y/SR	56.9	62.3	55.5	LOW	SC, TS	0	55.7	46.8	MOD	SC	0	57.9	53.8	LOW	
ABCD	Progeny P4613 RY/STS	56.8	57.8	49.3	MOD		2	52.0	46.9	MOD		0	59.9	53.7	MOD	
ABCDE	Dyna-Gro S48RS53 RR2Y/STS	56.6	-	-	-	-	-	53.0	48.1	MOD	SC, TS	0	59.9	54.7	MOD	SDS
ABCDE	Armor 49-R56 RR2	56.5	59.4	52.0	MOD		0	50.7	47.6	MOD		0	53.9	47.5	MOD	
ABCDE	Terral REV 49R94	56.5	57.3	52.3	LOW		3	48.3	45.6	LOW		1	53.3	51.7	LOW	SDS
ABCDE	Beck's 493R4	56.4	57.5	51.4	LOW		2	50.4	46.1	LOW		1	54.5	53.0	LOW	SDS
ABCDEF	Beck's 465R4	56.2	55.3	49.1	LOW		0	47.4	45.0	LOW		0	54.0	51.7	LOW	
BCDEF	Progeny P4850 RY/STS	56.1	-	-	-	-	-	51.1	46.0	MOD	SC, CLB	0	56.3	53.8	LOW	SDS
BCDEFG	Mycogen 5N479R2 RR2/STS	55.6	58.0	49.4	LOW	SC, TS, CLB	1	48.2	45.9	MOD	SC, CLB	0	59.8	52.8	LOW	SDS
CDEFGH	Steyer 4703 R2	55.1	61.8	53.0	MOD		0	47.7	41.9	HIGH		0	53.9	47.9	MOD	SDS
DEFGH	LG Seeds C4994 R2	54.5	56.5	52.3	LOW	SC, TS	0	50.1	47.2	LOW	SC	0	51.4	51.9	LOW	
DEFGH	Dyna-Gro S49RY25 RR2Y	54.4	59.6	52.1	MOD	SC, TS	0	47.0	44.0	MOD	SC	0	58.2	48.9	LOW	
DEFGH	Warren Seed 4850 R2Y/STS	54.4	-	-	-	-	-	48.4	44.6	MOD	SC, CLB	0	58.4	57.3	LOW	
EFGHI	Croplan R2C 4914S	53.6	59.6	47.0	HIGH		1	47.7	39.0	HIGH		0	51.4	46.7	HIGH	SDS
FGHI	Steyer 4602 R2	53.3	55.7	45.3	MOD	CLB	1	49.2	42.2	HIGH	CLB	0	54.2	47.1	HIGH	CLB
FGHI	Asgrow AG4934 GENRR2Y/SR	53.2	62.3	53.1	MOD		0	48.5	40.3	HIGH		0	49.8	41.9	HIGH	SDS
FGHI	USG 74D95RS	53.2	57.8	48.2	HIGH		1	49.2	40.2	HIGH		0	52.6	45.6	HIGH	SDS
GHI	Hornbeck HBK RY4721	52.8	57.2	53.6	LOW	SC, TS	2	53.6	48.8	LOW	TS	1	55.7	55.5	LOW	
HI	Croplan R2C 4873S	52.6	56.2	48.1	HIGH		2	50.3	43.9	HIGH		0	53.0	49.1	HIGH	
I	USG 74A74 RS	51.3	62.5	50.5	HIGH		1	47.9	41.9	HIGH		0	53.8	45.7	HIGH	SDS
I	Hornbeck CZ 4959 RY	51.1	55.4	49.5	MOD		0	50.4	45.0	MOD		0	56.6	53.4	MOD	
	Armor 4744	-	-	-	-	-	-	42.6	34.5	HIGH		0	52.5	40.7	HIGH	
	Average (bu/a)	**55.3**	**58.8**	**51.3**				**50.1**	**45.1**				**55.3**	**50.7**		

YLD= Avg. Yield @ 13% moisture (county tests) 13.5% moisture (RECM, WTREC and JAX tests)

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

Varieties denoted with an asterisks (*) or (**) etc. were in the top performing group for consecutive years.

County locations include: Benton, Carroll, Decatur, Dyer, Fayette, Franklin, Gibson, Giles, Hardeman, Haywood, Heny Bar., Henry Wil., Madison, Marion, Obion, Tipton, Weakley, Ballard (KY), Calloway (KY)

*Treated plots sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R2-R3 growth stage. RECM varieties planted June 5, JAX planted June 11, and WTREC planted June 17 after wheat

Disease ratings (non-treated plots) for Frogeye at RECM and JAX are LOW (0-4% disease), MOD (3-16% disease), HIGH (>16%); at WTREC are LOW (<4%), MOD (4-10%), HIGH (≥10%). Other diseases noted: SC=Stem Canker, TS=Target Spot, CLB=Cercospora Leaf Blight. ' - ' indicate variety was not tested at that location

Lodging was recorded for a plot if >50% of the plants were leaning at angle ≥ 45° and is reported on a 0 to 4 scale based on the 4 replicate plots for each variety (e.g. 4=4 of 4 plots, 3=3 of 4 plots, etc.)

Disease ratings & yield data compiled by Dr. Heather Kelly and Jamie Jordan from replicated plots at the AgResearch and Education Center at Milan (RECM, which is irrigated and had moderate to severe disease pressure), the West Tennessee AgResearch and Education Center (WTREC, which is dry land and had low disease pressure due to regular crop rotation), and on-farm location in Jackson (JAX, which is dry land and had severe disease pressure). County data provided by Ryan Blair, Ext. Area Specialist, and the extension agents.

Table 25. Mean yields † of 34 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.	Ames	Agricenter Memphis
		bu/a							
TN Exp	TN12-5507R2	64 ± 1	89	80	29	69	63	69	49
Asgrow	AG5535 (RR2)	63 ± 1	80	84	28	78	72	59	42
Progeny	5213RY	63 ± 1	81	78	30	72	64	59	54
Terral-REV Brand	51A56 (RR)	63 ± 1	83	80	33	63	65	68	46
Delta Grow	5230 RR2	62 ± 1	75	78	29	73	73	66	42
Mycogen	5N501R2	62 ± 1	79	74	31	70	72	65	45
Armor	50-R21 (RR)	62 ± 1	80	76	28	73	66	73	38
USG	74K95RS (RR2/STS)	62 ± 1	73	77	30	68	69	72	42
Progeny	5555RY	62 ± 1	82	73	31	77	70	57	42
USG	75J45R (RR2)	61 ± 1	83	77	28	75	69	63	36
Dyna-Gro	S52RY75 (RR2)	61 ± 1	74	73	30	71	71	68	40
Armor	AR5205 (RR)	61 ± 1	56	75	35	77	71	64	46
USG	75J23R (RR2)	60 ± 1	73	79	32	79	59	64	34
Mycogen	5N522R2	60 ± 1	72	70	25	75	72	62	43
Asgrow	AG5335 (RR2/SR)	60 ± 1	58	69	28	79	70	69	44
Dyna-Gro	32RY55 (RR2)	59 ± 1	74	74	29	71	64	58	46
USG	75T40 (RR)	58 ± 1	66	75	27	62	64	69	43
Terral-REV Brand	55R53 (RR)	58 ± 1	76	71	26	70	68	59	35
Dyna-Gro	S51RY45 (RR2)	58 ± 1	70	68	31	72	62	62	41
TN Exp	TN13-5531RR1	58 ± 1	79	72	26	63	63	58	44
Steyer	5002R2	58 ± 1	74	76	30	69	63	54	37
Dyna-Gro	S52RS86 (RR2/STS)	57 ± 1	50	73	30	76	70	64	39
Progeny	5333RY	57 ± 1	70	73	28	64	67	63	35
TN Exp	TN13-5508R2	57 ± 1	77	75	28	65	67	56	30
Progeny	5226RYS	57 ± 1	54	77	24	74	66	63	40
AR	R11-89RY	57 ± 1	72	66	31	72	66	61	29
Steyer	5302R2 (STS)	57 ± 1	60	65	27	75	69	65	36
Hornbeck	HBK RY5221 (RR2)	56 ± 1	70	71	25	68	56	65	41
Asgrow	AG5233 (RR2/SR)	56 ± 1	52	74	26	72	72	54	45
TN Exp	TN13-5537RR1	55 ± 1	77	73	23	63	56	57	36
Schillinger Seed	5220.RC	52 ± 1	56	65	23	61	53	74	33
MO	S11-20195 (RR)	51 ± 1	60	59	23	64	67	54	33
Terral-REV Brand	54R84 (RR)	51 ± 1	52	70	23	67	63	60	25
AR	UA 5414RR	51 ± 1	55	64	23	64	63	61	23
Average (bu/a)		**59**	**70**	**73**	**28**	**70**	**66**	**63**	**39**
L.S.D..05 (bu/a)		**4**	**13**	**7**	**5**	**8**	**9**	**16**	**6**
C.V. (%)		**10.0**	**11.0**	**5.6**	**9.8**	**6.6**	**8.5**	**15.3**	**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 26. Mean yields † and agronomic characteristics of 34 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=5)	Height (n=5)	Maturity (n=5)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	Score	%	%	%	0 - 9	index	Score
TN Exp	TN12-5507R2	64 ± 1	13.4	1.8	41	140	3.0	33.2	19.4	6.7	1.7	1.7	2.0
Asgrow	AG5535 (RR2)	63 ± 1	12.0	1.5	35	143	2.2	33.8	18.8	21.7	4.0	8.7	1.0
Progeny	5213RY	63 ± 1	12.1	1.3	45	136	2.7	33.4	19.9	1.7	0.3	0.2	4.7
Terral-REV Brand	51A56 (RR)	63 ± 1	12.1	2.7	41	136	2.5	33.8	19.8	25.0	5.7	16.5	1.0
Delta Grow	5230 RR2	62 ± 1	12.1	2.3	34	140	1.8	33.7	19.1	13.3	3.3	5.6	1.3
Mycogen	5N501R2	62 ± 1	12.1	1.8	42	136	2.8	34.4	19.0	1.7	0.7	0.4	3.7
Armor	50-R21 (RR)	62 ± 1	12.3	1.8	42	137	3.2	34.8	19.0	0.7	0.7	0.1	2.7
USG	74K95RS (RR2/STS)	62 ± 1	12.4	2.0	44	136	2.0	33.8	19.0	25.0	5.0	13.3	4.7
Progeny	5555RY	62 ± 1	12.5	2.0	39	144	2.3	32.3	19.4	10.0	1.0	1.5	2.0
USG	75J45R (RR2)	61 ± 1	11.8	1.5	37	143	2.3	32.2	19.5	6.7	3.7	4.3	2.0
Dyna-Gro	S52RY75 (RR2)	61 ± 1	11.8	2.3	34	140	1.7	33.7	19.1	5.0	1.7	1.3	1.0
Armor	AR5205 (RR)	61 ± 1	12.0	2.4	42	139	3.5	34.8	18.9	5.0	4.3	3.7	7.0
USG	75J23R (RR2)	60 ± 1	12.3	1.9	44	137	2.3	34.0	19.5	3.3	1.3	1.5	5.7
Mycogen	5N522R2	60 ± 1	11.8	2.1	33	141	1.7	33.6	19.1	13.3	2.0	2.8	1.0
Asgrow	AG5335 (RR2/SR)	60 ± 1	12.2	1.8	41	139	4.0	34.3	19.0	1.7	0.7	0.4	5.7
Dyna-Gro	32RY55 (RR2)	59 ± 1	12.5	1.7	36	143	1.8	33.8	18.9	40.0	5.0	24.4	2.3
USG	75T40 (RR)	58 ± 1	12.0	1.3	33	143	1.7	32.4	19.5	1.7	1.7	0.9	1.7
Terral-REV Brand	55R53 (RR)	58 ± 1	11.6	2.0	33	142	2.0	34.2	19.2	21.7	7.3	17.4	4.7
Dyna-Gro	S51RY45 (RR2)	58 ± 1	12.4	1.9	42	137	2.8	34.4	19.5	23.3	3.0	11.1	4.0
TN Exp	TN13-5531RR1	58 ± 1	12.4	1.3	33	141	1.7	31.8	20.0	0.0	0.0	0.0	1.0
Steyer	5002R2	58 ± 1	12.2	1.6	43	136	3.3	34.5	19.0	5.0	1.3	2.2	4.0
Dyna-Gro	S52RS86 (RR2/STS)	57 ± 1	12.0	2.9	41	140	3.8	34.9	19.0	13.3	2.0	8.9	6.7
Progeny	5333RY	57 ± 1	11.9	2.1	35	142	2.2	33.3	19.0	16.7	6.7	11.9	3.7
TN Exp	TN13-5508R2	57 ± 1	13.0	1.6	32	143	1.3	34.0	19.2	41.7	4.7	24.8	1.3
Progeny	5226RYS	57 ± 1	12.1	2.4	41	139	4.0	34.9	18.9	11.7	4.0	7.6	6.3
AR	R11-89RY	57 ± 1	12.1	1.4	32	140	1.8	36.2	18.9	35.0	4.7	27.2	1.7
Steyer	5302R2 (STS)	57 ± 1	12.2	2.5	42	141	3.8	34.7	19.0	8.3	2.7	7.4	6.7
Hornbeck	HBK RY5221 (RR2)	56 ± 1	13.1	2.6	42	137	2.5	35.2	19.0	5.0	1.3	1.3	1.7
Asgrow	AG5233 (RR2/SR)	56 ± 1	12.4	2.1	38	138	3.7	33.9	18.9	1.7	1.7	0.9	8.0
TN Exp	TN13-5537RR1	55 ± 1	12.1	1.2	31	143	1.7	32.2	19.7	0.7	1.3	0.3	1.0
Schillinger Seed	5220.RC	52 ± 1	11.9	2.3	40	141	3.3	34.9	19.2	36.7	3.3	12.6	4.7
MO	S11-20195 (RR)	51 ± 1	11.9	2.9	35	140	2.7	32.8	19.6	0.0	0.0	0.0	5.0
Terral-REV Brand	54R84 (RR)	51 ± 1	11.9	2.4	30	142	2.0	34.5	19.3	30.0	5.3	17.0	2.3
AR	UA 5414RR	51 ± 1	12.2	2.4	32	143	2.3	33.3	18.4	10.0	3.0	4.8	3.7
	Average	**59**	**12.2**	**2.0**	**38**	**140**	**2.5**	**33.9**	**19.2**	**13.0**	**2.8**	**7.1**	**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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015 SDS disease ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015

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)

Table 27. Mean yields † of 14 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.	Ames	Agricenter Memphis
		bu/a							
Progeny	5213RY	60 ± 1	78	70	34	66	59	59	51
Asgrow	AG5535 (RR2)	59 ± 1	71	73	35	68	63	57	46
USG	75J23R (RR2)	59 ± 1	72	73	36	73	58	59	40
TN Exp	TN13-5537RR1	57 ± 1	76	68	34	66	59	57	42
Asgrow	AG5335 (RR2/SR)	57 ± 1	63	62	30	73	67	59	43
Progeny	5555RY	57 ± 1	76	64	34	67	62	52	41
Dyna-Gro	32RY55 (RR2)	57 ± 1	69	67	34	70	60	50	46
Dyna-Gro	S52RY75 (RR2)	56 ± 1	68	66	39	61	62	58	38
Dyna-Gro	S51RY45 (RR2)	56 ± 1	68	60	32	65	57	64	43
Asgrow	AG5233 (RR2/SR)	55 ± 1	60	67	29	69	67	54	41
Progeny	5333RY	55 ± 1	71	61	33	67	61	57	36
Terral-REV Brand	55R53 (RR)	55 ± 1	73	59	30	68	60	59	37
Hornbeck	HBK RY5221 (RR2)	51 ± 1	69	59	30	61	48	56	37
Terral-REV Brand	54R84 (RR)	50 ± 1	60	62	35	56	51	57	27
AR	UA 5414RR	50 ± 1	62	57	32	60	53	53	31
Average (bu/a)		**56**	**69**	**65**	**33**	**66**	**59**	**57**	**40**
L.S.D.$_{.05}$ (bu/a)		**3**	**11**	**8**	**9**	**8**	**9**	**11**	**8**
C.V. (%)		**11.0**	**10.5**	**8.1**	**17.3**	**8.4**	**10.2**	**12.7**	**12.6**

† 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 28. Mean yields † and agronomic characteristics of 14 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Moisture § (n=14)	Lodging (n=8)	Height (n=10)	Maturity (n=10)	Leaf Holding (n=1)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)	Frogeye (n=2)
		bu/a	%	Score	in.	DAP			%	%	%	0 - 9	index	Score
Progeny	5213RY	60 ± 1	12.7	1.4	43	137	1.0	1.5	2.2	34.1	19.7	1.7	0.3	0.2
Asgrow	AG5535 (RR2)	59 ± 1	12.4	1.6	36	143	1.0	3.0	1.6	33.9	18.7	21.7	4.0	8.7
USG	75J23R (RR2)	59 ± 1	12.9	1.7	41	139	1.0	2.0	2.2	34.7	19.4	3.3	1.3	1.5
TN Exp	TN13-5537RR1	57 ± 1	12.9	1.3	33	143	1.0	3.0	1.3	33.0	19.4	0.7	1.3	0.3
Asgrow	AG5335 (RR2/SR)	57 ± 1	12.9	1.4	40	140	1.0	2.5	3.8	34.6	19.0	1.7	0.7	0.4
Progeny	5555RY	57 ± 1	13.1	1.8	39	144	1.0	2.7	1.8	32.9	19.2	10.0	1.0	1.5
Dyna-Gro	32RY55 (RR2)	57 ± 1	13.0	1.8	37	144	1.0	3.0	1.6	34.2	18.7	40.0	5.0	24.4
Dyna-Gro	S52RY75 (RR2)	56 ± 1	12.4	2.3	35	141	1.0	3.0	1.4	34.1	18.9	5.0	1.7	1.3
Dyna-Gro	S51RY45 (RR2)	56 ± 1	12.8	1.8	41	138	1.0	2.0	2.5	34.7	19.2	23.3	3.0	11.1
Asgrow	AG5233 (RR2/SR)	55 ± 1	12.7	1.8	36	138	1.0	1.0	3.3	34.4	18.7	1.7	1.7	0.9
Progeny	5333RY	55 ± 1	12.6	2.1	35	141	1.0	3.0	1.8	33.6	19.1	16.7	6.7	11.9
Terral-REV Brand	55R53 (RR)	55 ± 1	12.2	2.0	34	143	1.0	2.0	1.8	35.0	18.8	21.7	7.3	17.4
Hornbeck	HBK RY5221 (RR2)	51 ± 1	13.9	2.3	42	139	1.0	3.2	2.1	35.4	19.0	5.0	1.3	1.3
Terral-REV Brand	54R84 (RR)	50 ± 1	12.5	2.5	31	142	1.0	1.3	1.7	35.2	18.9	30.0	5.3	17.0
	Average	**56**	**12.8**	**1.8**	**37**	**141**	**1.0**	**2.4**	**2.1**	**34.3**	**19.1**	**13.0**	**2.9**	**7.0**

† 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.

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings were taken at the East Tennessee AgResearch and Education Center on 8/28/2014 and 9/7/2015 SDS disease ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015

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)

Table 29. Mean yields † of 10 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=15)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Ames
		bu/a					
Progeny	5213RY	62 ± 1	79	66	41	67	57
USG	75J23R (RR2)	61 ± 1	72	66	40	69	57
Progeny	5555RY	61 ± 1	75	63	42	71	51
Asgrow	AG5233 (RR2/SR)	58 ± 1	64	63	38	72	56
Progeny	5333RY	58 ± 1	66	61	43	68	51
Dyna-Gro	32RY55 (RR2)	58 ± 1	66	65	42	69	47
Terral-REV Brand	55R53 (RR)	56 ± 1	69	58	36	65	55
Hornbeck	HBK RY5221 (RR2)	55 ± 1	66	55	37	62	54
Terral-REV Brand	54R84 (RR)	53 ± 1	59	59	39	55	53
AR	UA 5414RR	51 ± 1	56	54	38	59	49
Average (bu/a)		**57**	**67**	**61**	**40**	**66**	**53**
L.S.D.$_{.05}$ (bu/a)		**4**	**11**	**7**	**8**	**9**	**10**
C.V. (%)		**10.9**	**11.1**	**8.0**	**13.7**	**9.8**	**12.4**

† 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 30. Mean yields † and agronomic characteristics of 10 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=15)	Moisture § (n=15)	Lodging (n=9)	Height (n=12)	Maturity (n=12)	Shattering (n=1)	Leaf Holding (n=1)	Seed Quality (n=3)	Protein (n=3)	Oil (n=3)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)	Frogeye (n=3)
		bu/a	%	Score	in.	DAP	----------	Score	----------	%	%	%	0 - 9	index	Score
Progeny	5213RY	62 ± 1	13.4	1.5	42	137	1.5	1.5	2.1	34.1	19.7	1.7	0.3	0.2	3.9
USG	75J23R (RR2)	61 ± 1	13.4	1.7	40	138	1.7	2.0	2.3	34.8	19.2	3.3	1.3	1.5	5.0
Progeny	5555RY	61 ± 1	13.6	2.0	38	144	1.5	2.7	1.9	33.0	19.0	10.0	1.0	1.5	2.0
Asgrow	AG5233 (RR2/SR)	58 ± 1	13.5	1.9	36	138	1.8	1.0	3.3	34.7	18.8	1.7	1.7	0.9	6.7
Progeny	5333RY	58 ± 1	13.3	2.4	36	142	2.2	3.0	2.3	33.9	18.9	16.7	6.7	11.9	3.3
Dyna-Gro	32RY55 (RR2)	58 ± 1	13.6	2.1	36	145	2.2	3.0	1.6	34.5	18.5	40.0	5.0	24.4	2.2
Terral-REV Brand	55R53 (RR)	56 ± 1	13.0	2.3	34	144	1.5	2.0	2.3	35.4	18.6	21.7	7.3	17.4	4.1
Hornbeck	HBK RY5221 (RR2)	55 ± 1	14.6	2.5	40	140	1.8	3.2	2.6	35.6	18.8	5.0	1.3	1.3	1.7
Terral-REV Brand	54R84 (RR)	53 ± 1	13.1	2.9	31	142	2.0	1.3	1.9	35.6	18.8	30.0	5.3	17.0	2.7
AR	UA 5414RR	51 ± 1	13.9	2.9	33	143	2.3	2.5	2.1	34.4	18.2	10.0	3.0	4.8	3.3
	Average	**57**	**13.5**	**2.2**	**37**	**141**	**1.9**	**2.2**	**2.2**	**34.6**	**18.9**	**14.0**	**3.3**	**8.1**	**3.5**

† 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.

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 10=maximum amount of plant disease or plant death. Ratings were taken at the East Tennessee AgResearch and Education Center on 8/26/13, 8/28/2014 and 9/7/2015

SDS disease ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015

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)

Table 31. Yields † of 15 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties in 7 County Standard Tests in Tennessee during 2015.

MS	Brand/Variety	Avg. Yield	Moist. ‡	Crockett	Dyer	Fran	Gibson	Haywood	Madison	Tipton
		bu/a	%	6/17 §	5/7	6/15	5/6	6/20	5/8	5/15
A	Dyna-Gro S52RY75 RR2Y	60	12	56	77	66	77	39	64	39
AB	Progeny P5213 RR2Y	59	12	51	79	79	63	41	55	45
ABC	Armor 50-R21 RR2	58	12	55	78	75	58	41	57	43
ABC	Terral REV 55R53	57	13	53	76	66	69	37	58	39
ABC	Steyer 5002 R2	57	12	49	80	81	58	39	49	41
ABC	Dyna-Gro 32RY55 RR2Y	57	12	57	74	72	62	40	51	41
ABC	Croplan R2C 5225S	56	13	56	82	67	56	41	52	40
ABC	Asgrow AG5335 GENRR2Y/SR	56	12	51	75	65	53	43	53	53
ABC	Terral REV 52A94	56	11	54	68	76	57	39	60	39
ABC	Asgrow AG5233 GENRR2Y/SR	56	12	58	76	72	58	39	48	40
ABC	Armor AR5205 RR2	56	12	57	77	68	54	41	51	41
ABC	*USG 75J23R	55	12	48	75	75	58	43	46	40
BC	Mycogen 5N501R2 RR2	55	12	52	76	70	59	38	50	38
C	Hornbeck RY 5221 RR2Y	54	12	50	74	64	61	40	58	32
C	Beck's 511R4	54	12	54	71	63	61	38	52	37
	Average (bu/a)	**56**	**12**	**53**	**76**	**71**	**60**	**40**	**54**	**41**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each loction, 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 denoted with an asterisks (*) or (**) etc. were in the top performing group for consecutive years.

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

Data provided by Ryan Blair, Ext. Area Specialist, Grain and Cotton Variety Testing, and the extension agents in the counties shown above.

Table 32. 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=7) and AgResearch and Education Centers (n=7) in Tennessee in 2015.

		Averages of CST & REC Tests		County Standard Trials		AgResearch and Education Center Trials	
Brand	Variety ‡	Avg. Yield	Moisture	Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%	bu/a	%
Progeny	5213RY	61	11.9	59	11.7	63	12.1
Dyna-Gro	S52RY75 (RR2)	60	12.1	60	12.3	61	11.8
Armor	50-R21 (RR)	60	12.1	58	11.8	62	12.3
Mycogen	5N501R2	58	11.9	55	11.8	62	12.1
Armor	AR5205 (RR)	58	12.1	56	12.2	61	12.0
Asgrow	AG5335 (RR2/SR)	58	12.3	56	12.4	60	12.2
Dyna-Gro	32RY55 (RR2)	58	12.3	57	12.0	59	12.5
USG	75J23R (RR2)	58	12.3	55	12.3	60	12.3
Terral-REV Brand	55R53 (RR)	57	12.4	57	13.3	58	11.6
Steyer	5002R2	57	12.0	57	11.7	58	12.2
Asgrow	AG5233 (RR2/SR)	56	12.1	56	11.7	56	12.4
Hornbeck	HBK RY5221 (RR2)	55	12.8	54	12.5	56	13.1
Average (bu/a)		**58**	**12.2**	**57**	**12.1**	**60**	**12.2**

† 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 33. Yields † and disease ratings of 15 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties in 7 County Standard Tests and in small plot trials at two AgResearch and Education Centers in Tennessee during 2015.

Summary from 7 County Tests			Summary from Small Plot Research									
MS	Brand/Variety	Yld	RECM - YLD		Frogeye	Other	Lodging	JAX - YLD		Frogeye	Other	Lodging
		bu/a	*Treated	Non-treated	RECM	Diseases	RECM	*Treated	Non-treated	JAX	Diseases	JAX
A	Dyna-Gro S52RY75 RR2Y	59.7	59.9	46.9	LOW	BS	3	53.0	52.3	LOW	SC	1
AB	Progeny P5213 RR2Y	59.0	54.5	50.3	LOW	SC	1	56.0	49.4	MOD	SC, TS, CLB	0
ABC	Armor 50-R21 RR2	58.1	-	-	-	-	-	52.3	48.9	MOD	SC, SDS	0
ABC	Terral REV 55R53	56.9	-	-	-	-	-	46.3	43.7	MOD		2
ABC	Steyer 5002 R2	56.7	54.9	49.5	LOW		1	52.1	48.7	MOD	SC, TS	0
ABC	Dyna-Gro 32RY55 RR2Y	56.5	-	-	-	-	-	45.4	42.6	LOW	SDS	1
ABC	Croplan R2C 5225S	56.3	-	-	-	-	-	55.7	45.5	HIGH		0
ABC	Asgrow AG5335 GENRR2Y/SR	56.1	59.2	51.1	MOD	BS	1	51.2	43.7	HIGH		0
ABC	Terral REV 52A94	56.1	48.7	44.8	LOW	SC, BS	1	40.5	40.7	LOW		4
ABC	Asgrow AG5233 GENRR2Y/SR	55.9	56.2	47.6	HIGH		2	54.0	44.8	HIGH		0
ABC	Armor AR5205 RR2	55.6	57.6	46.1	HIGH		3	54.8	45.6	HIGH		0
ABC	*USG 75J23R	55.0	-	-	-	-	-	48.9	42.2	HIGH	SC	0
BC	Mycogen 5N501R2 RR2	54.7	56.0	48.2	LOW	SC, TS	0	54.4	47.9	LOW	SC, TS	1
C	Hornbeck RY 5221 RR2Y	54.1	46.0	45.0	LOW	CLB	2	48.1	43.9	LOW	TS, CLB	1
C	Beck's 511R4	53.7	55.7	44.6	HIGH		1	45.7	40.6	HIGH		1
	Average (bu/a)	**56.3**	**54.9**	**47.4**				**50.6**	**45.4**			

YLD= Avg. Yield @ 13% moisture (county tests) 13.5% moisture (REC tests)

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

Varieties denoted with an asterisks (*) or (**) etc. were in the top performing group for consecutive years.

County locations include: Crockett, Dyer, Franklin, Gibson, Haywood, Madison, Tipton

*Treated plots sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R3 growth stage. RECM varieties planted June 5, JAX planted June 11

Lodging was recorded for a plot if >50% of the plants were leaning at angle ≥ 45° and is reported on a 0 to 4 scale based on the 4 replicate plots for each variety (e.g. 4=4 of 4 plots, 3=3 of 4 plots, etc.)

Disease ratings (non-treated plots) for Frogeye at RECM are LOW (≤3% disease), MOD (4-9% disease), HIGH (>9%) and at JAX are LOW (≤4% disease), MOD (5-14% disease), HIGH (>14%). Other diseases noted include: SC=Stem Canker, TS=Target Spot, CLB=Cercospora Leaf Blight, ' - ' indicate variety was not tested at that location

Disease ratings & yield data compiled by Dr. Heather Kelly and Jamie Jordan from replicated plots at the AgResearch and Education Center at Milan (RECM, which is irrigated and had moderate to severe disease pressure), the West Tennessee AgResearch and Education Center (WTREC, which is dry land and had low disease pressure due to regular crop rotation), and on-farm location in Jackson (JAX, which is dry land and had severe disease pressure). County data provided by Ryan Blair, Ext. Area Specialist, and the extension agents.

Table 34. Mean yields † of 11 Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in six environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=6)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.	Ames
		bu/a						
Progeny	5752RY	66 ± 1	89	72	27	72	65	73
USG	75B75R (RR2)	66 ± 1	83	73	31	77	55	75
Dyna-Gro	S56RY84 (RR2)	65 ± 1	85	68	31	68	70	68
AR	R10-197RY	63 ± 1	82	76	25	69	58	71
TN Exp	TN12-5712R2	60 ± 1	75	71	32	52	58	73
Progeny	5610RY	60 ± 1	74	68	29	68	59	62
Terral-REV Brand	56R63 (RR)	60 ± 1	63	70	29	66	61	70
TN Exp	TN13-5513R2	60 ± 1	68	73	29	61	58	69
TN Exp	TN13-5745RR1	59 ± 1	66	64	30	70	51	69
TN Exp	TN12-5707R2	56 ± 1	66	62	15	60	60	74
Terral-REV Brand	57R21 (RR)	55 ± 1	64	69	26	57	55	62
Average (bu/a)		**61**	**74**	**70**	**28**	**65**	**59**	**70**
L.S.D.$_{.05}$ (bu/a)		**3**	**13**	**8**	**6**	**9**	**10**	**10**
C.V. (%)		**8.4**	**8.9**	**6.3**	**11.7**	**7.8**	**9.2**	**8.1**

† 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 35. Mean yields † and agronomic characteristics of 11 Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in six environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=6)	Moisture § (n=6)	Lodging (n=5)	Height (n=5)	Maturity (n=5)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	--- Score ---	%	%	%	0 - 9	index	Score
Progeny	5752RY	66 ± 1	11.5	1.2	36	149	2.0	35.2	19.1	0.0	0.0	0.0	1.0
USG	75B75R (RR2)	66 ± 1	11.6	1.2	36	150	2.0	35.6	18.9	0.0	0.0	0.0	1.0
Dyna-Gro	S56RY84 (RR2)	65 ± 1	11.9	1.7	38	150	2.3	32.7	19.4	0.7	0.7	0.1	1.3
AR	R10-197RY	63 ± 1	12.0	1.5	35	149	1.8	34.4	19.2	10.7	6.0	7.2	1.3
TN Exp	TN12-5712R2	60 ± 1	12.2	1.7	35	154	1.8	34.1	19.1	30.0	4.7	15.2	1.0
Progeny	5610RY	60 ± 1	12.1	1.7	37	149	1.8	34.3	19.1	35.0	5.3	20.9	2.0
Terral-REV Brand	56R63 (RR)	60 ± 1	12.2	2.3	39	151	2.0	34.8	19.1	10.0	0.7	2.2	1.0
TN Exp	TN13-5513R2	60 ± 1	12.1	2.2	54	156	4.0	36.0	19.0	11.7	1.3	5.2	2.7
TN Exp	TN13-5745RR1	59 ± 1	12.3	1.7	37	155	2.3	35.4	18.7	8.3	1.3	1.9	1.0
TN Exp	TN12-5707R2	56 ± 1	12.2	1.5	33	151	2.0	33.9	19.3	13.3	3.7	4.8	1.7
Terral-REV Brand	57R21 (RR)	55 ± 1	11.4	2.2	41	149	2.5	33.7	19.8	17.3	5.3	11.7	1.0
	Average	**61**	**12.0**	**1.7**	**38**	**151**	**2.2**	**34.6**	**19.2**	**12.5**	**2.6**	**6.3**	**1.4**

† 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).

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 were taken at the East Tennessee AgResearch and Education Center on 9/7/2015 SDS disease ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015

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)

Table 36. Mean yields † of five Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.	Ames
		bu/a						
Dyna-Gro	S56RY84 (RR2)	59 ± 1	79	62	30	63	64	59
AR	R10-197RY	59 ± 1	79	62	33	63	55	61
Terral-REV Brand	56R63 (RR)	54 ± 1	58	59	35	59	49	62
Progeny	5610RY	53 ± 1	69	57	34	57	48	51
Terral-REV Brand	57R21 (RR)	52 ± 1	66	51	30	58	46	58
Average (bu/a)		**55**	**70**	**58**	**32**	**60**	**52**	**58**
L.S.D.$_{.05}$ (bu/a)		**4**	**9**	**8**	**6**	**14**	**10**	**8**
C.V. (%)		**11.5**	**8.3**	**8.9**	**12.5**	**16.2**	**12.8**	**8.9**

† All yields are adjusted to 13% moisture.

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

Table 37. Mean yields † and agronomic characteristics of five Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=9)	Height (n=10)	Maturity (n=10)	Leaf Holding (n=1)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)	Frogeye (n=2)
		bu/a	%	Score	in.	DAP	Score		%	%	%	0 - 9	index	%
Dyna-Gro	S56RY84 (RR2)	59 ± 1	12.9	1.9	38	149	2.8	1.8	32.9	19.3	0.7	0.7	0.1	1.5
AR	R10-197RY	59 ± 1	13.4	1.6	36	148	2.3	1.4	34.8	18.9	10.7	6.0	7.2	1.7
Terral-REV Brand	56R63 (RR)	54 ± 1	13.3	2.4	38	150	3.5	1.5	35.0	18.7	10.0	0.7	2.2	1.0
Progeny	5610RY	53 ± 1	13.4	1.9	36	149	2.8	1.6	34.3	18.8	35.0	5.3	20.9	2.0
Terral-REV Brand	57R21 (RR)	52 ± 1	13.1	2.2	41	148	3.7	1.4	34.5	19.4	17.3	5.3	11.7	1.2
	Average	**55**	**13.2**	**2.0**	**38**	**149**	**3.0**	**1.5**	**34.3**	**19.0**	**14.7**	**3.6**	**8.4**	**1.5**

† 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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 9=maximum amount of plant disease or plant death. Ratings were taken at the East Tennessee AgResearch and Education Center on 8/28/14, 9/7/2015 SDS disease ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015

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)

Table 38. Mean yields † of three Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2013-2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=15)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Ames
		bu/a					
Terral-REV Brand	56R63 (RR)	55 ± 1	58	60	39	60	57
Terral-REV Brand	57R21 (RR)	54 ± 1	64	55	35	62	53
Progeny	5610RY	54 ± 1	71	54	36	60	48
Average (bu/a)		**54**	**64**	**56**	**37**	**61**	**53**
L.S.D.$_{.05}$ (bu/a)		**4**	**11**	**8**	**8**	**13**	**8**
C.V. (%)		**11.8**	**10.1**	**9.5**	**14.3**	**14.8**	**9.9**

Table 39. Mean yields † and agronomic characteristics of three Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=15)	Moisture § (n=15)	Lodging (n=10)	Height (n=12)	Maturity (n=12)	Shattering (n=1)	Leaf Holding (n=1)	Seed Quality (n=3)	Protein (n=3)	Oil (n=3)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)	Frogeye (n=3)
		bu/a	%	Score	in.	DAP	Score			%	%	%	0 - 9	index	Score
Terral-REV Brand	56R63 (RR)	55 ± 1	13.0	2.5	38	148	2.5	3.5	1.7	35.0	18.6	10.0	0.7	2.2	2.2
Terral-REV Brand	57R21 (RR)	54 ± 1	13.0	2.3	41	147	1.7	3.7	2.8	34.7	19.3	17.3	5.3	11.7	1.7
Progeny	5610RY	54 ± 1	13.4	2.0	35	148	2.5	2.8	1.7	34.4	18.6	35.0	5.3	20.9	2.2
	Average	**54**	**13.1**	**2.3**	**38.0**	**147.7**	**2.2**	**3.3**	**2.1**	**34.7**	**18.8**	**20.8**	**3.8**	**11.6**	**2.0**

† 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.

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 9=maximum amount of plant disease or plant death. Ratings were taken at the East Tennessee AgResearch and Education Center on 8/26/13, 8/28/14, 9/7/2015 SDS disease ratings were taken at the East Tennessee AgResearch and Education Center on 9/7/2015

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)

Table 40. Mean yields † of 29 Maturity Group IV Liberty Link soybean varieties evaluated in seven environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.	Ames	Agricenter Memphis
		bu/a							
Armor	47-L10	66 ± 1	76	75	39	78	76	70	47
Hornbeck	CZ 4748 LL	65 ± 1	75	75	46	75	79	69	34
Beck's Hybrids	474L4 (LL)	64 ± 1	66	69	41	72	78	72	51
Progeny	4814LL	62 ± 1	59	74	34	65	75	83	48
GoSoy	4714LL	62 ± 1	69	71	42	71	76	71	35
Armor	41X5L (LL)	61 ± 1	55	63	34	72	65	100	38
Dyna-Gro	S49LL34 (LL)	61 ± 1	69	70	33	63	63	78	49
Armor	440L (LL)	61 ± 1	70	68	41	71	69	67	39
Armor	49X5L (LL)	60 ± 1	68	70	34	68	70	72	41
Caverndale Farms	CF 479 LLn	60 ± 1	66	71	47	58	71	64	45
Beck's Hybrids	424L4 (LL)	60 ± 1	50	62	45	69	63	84	45
Hornbeck	HBK LL4950	59 ± 1	69	69	34	60	69	71	40
Caverndale Farms	CF 415 LLn	59 ± 1	57	54	36	65	63	96	44
Hornbeck	HBK LL4953	59 ± 1	67	64	30	63	71	74	41
Hornbeck	CZ 4540 LL	59 ± 1	61	65	45	55	66	74	44
USG	74G99L (LL)	58 ± 1	60	73	43	59	61	76	32
Delta Grow	4967 LL	58 ± 1	67	64	33	56	65	73	43
Delta Grow	4990 LL	57 ± 1	64	64	34	57	63	79	41
Dyna-Gro	S46LL05 (LL)	57 ± 1	77	56	35	63	62	70	37
Dyna-Gro	S49LS65 (LL/STS)	57 ± 1	60	58	25	67	61	83	46
Hornbeck	HBK LL4653	57 ± 1	66	66	30	61	66	67	43
Progeny	4930LL	56 ± 1	64	69	30	61	67	73	32
Beck's Hybrids	454L4 (LL)	56 ± 1	62	65	39	66	64	65	35
Delta Grow	4977 LL/STS	56 ± 1	63	64	24	55	64	81	37
GoSoy	4415LL (STS)	55 ± 1	65	70	41	47	57	65	41
Hornbeck	CZ 4818 LL	55 ± 1	63	64	33	69	62	64	29
Terral-REV Brand	49L29 (LL)	54 ± 1	65	64	34	52	56	77	28
USG	74G74LS (LL/STS)	53 ± 1	52	64	37	44	60	78	38
Armor	497L (LL)	52 ± 1	55	59	31	47	63	75	36
Average (bu/a)		**59**	**64**	**66**	**36**	**62**	**66**	**75**	**40**
L.S.D.$_{.05}$ (bu/a)		**3**	**8**	**8**	**8**	**9**	**9**	**14**	**6**
C.V. (%)		**9.3**	**7.4**	**7.4**	**13.0**	**9.0**	**8.3**	**10.9**	**9.7**

† 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 41. Mean yields † and agronomic characteristics of 29 Maturity Group IV Liberty Link soybean varieties evaluated in seven environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=1)	Height (n=5)	Maturity (n=5)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)
		bu/a	%	Score	in.	DAP		%	%
Armor	47-L10	66 ± 1	12.8	1.8	40	132	2.5	33.3	20.0
Hornbeck	CZ 4748 LL	65 ± 1	13.1	2.1	40	133	2.0	33.2	19.8
Beck's Hybrids	474L4 (LL)	64 ± 1	12.9	1.9	40	133	2.2	33.1	19.9
Progeny	4814LL	62 ± 1	14.3	1.7	39	147	1.8	35.1	19.2
GoSoy	4714LL	62 ± 1	12.8	2.0	40	132	2.3	33.1	20.0
Armor	41X5L (LL)	61 ± 1	12.3	1.3	36	127	2.7	36.7	18.6
Dyna-Gro	S49LL34 (LL)	61 ± 1	12.9	1.7	43	143	1.5	33.3	19.9
Armor	440L (LL)	61 ± 1	12.8	2.1	38	132	2.0	35.1	18.9
Armor	49X5L (LL)	60 ± 1	13.0	1.5	43	142	1.5	33.5	19.9
Caverndale Farms	CF 479 LLn	60 ± 1	13.1	2.1	39	132	2.0	33.2	19.8
Beck's Hybrids	424L4 (LL)	60 ± 1	12.7	1.2	34	126	2.8	36.3	18.6
Hornbeck	HBK LL4950	59 ± 1	13.3	1.9	47	141	1.7	34.0	19.7
Caverndale Farms	CF 415 LLn	59 ± 1	12.5	1.3	34	127	2.7	36.2	18.6
Hornbeck	HBK LL4953	59 ± 1	12.8	1.5	44	141	1.2	33.9	19.4
Hornbeck	CZ 4540 LL	59 ± 1	13.1	2.4	43	134	1.7	33.4	20.1
USG	74G99L (LL)	58 ± 1	12.9	2.6	44	136	1.8	34.4	19.4
Delta Grow	4967 LL	58 ± 1	13.2	2.5	47	142	1.5	34.2	19.8
Delta Grow	4990 LL	57 ± 1	13.0	2.3	45	138	1.7	34.7	19.4
Dyna-Gro	S46LL05 (LL)	57 ± 1	12.9	1.9	39	131	1.7	34.7	19.5
Dyna-Gro	S49LS65 (LL/STS)	57 ± 1	13.3	3.0	44	141	1.8	36.1	19.0
Hornbeck	HBK LL4653	57 ± 1	12.7	1.5	37	132	1.3	34.8	19.2
Progeny	4930LL	56 ± 1	12.7	1.8	41	142	1.5	33.5	19.6
Beck's Hybrids	454L4 (LL)	56 ± 1	13.1	1.8	37	132	2.0	33.4	20.0
Delta Grow	4977 LL/STS	56 ± 1	13.3	2.7	46	141	1.3	35.8	19.1
GoSoy	4415LL (STS)	55 ± 1	13.7	2.9	40	132	1.7	33.3	20.3
Hornbeck	CZ 4818 LL	55 ± 1	13.0	2.5	46	134	1.3	35.0	18.9
Terral-REV Brand	49L29 (LL)	54 ± 1	13.2	2.8	42	142	1.8	34.6	19.7
USG	74G74LS (LL/STS)	53 ± 1	13.2	3.3	46	138	2.0	36.1	19.1
Armor	497L (LL)	52 ± 1	13.1	2.8	46	139	1.5	35.8	19.1
	Average	**59**	**13.0**	**2.1**	**41**	**136**	**1.8**	**34.5**	**19.5**

† 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).

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 42. Mean yields † of 12 Maturity Group IV Liberty Link soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Non-Irr.	Ames	Agricenter Memphis
		bu/a						
Hornbeck	HBK LL4950	59 ± 1	72	67	43	63	71	36
USG	74G99L (LL)	57 ± 1	60	67	50	60	73	34
Delta Grow	4967 LL	57 ± 1	72	59	44	61	68	39
Dyna-Gro	S49LL34 (LL)	57 ± 1	62	61	44	61	76	38
Hornbeck	HBK LL4953	56 ± 1	65	62	41	61	69	37
Progeny	4930LL	56 ± 1	63	64	40	65	67	34
Delta Grow	4990 LL	55 ± 1	65	59	45	56	70	37
Terral-REV Brand	49L29 (LL)	55 ± 1	66	59	46	57	72	27
Hornbeck	HBK LL4653	54 ± 1	64	65	39	63	61	31
Dyna-Gro	S49LS65 (LL/STS)	54 ± 1	61	60	41	55	69	37
Dyna-Gro	S46LL05 (LL)	52 ± 1	63	58	41	61	65	26
USG	74G74LS (LL/STS)	52 ± 1	55	58	46	53	67	32
Average (bu/a)		**55**	**64**	**62**	**43**	**60**	**69**	**34**
L.S.D.$_{.05}$ (bu/a)		**4**	**12**	**13**	**7**	**9**	**12**	**7**
C.V. (%)		**12.2**	**12.2**	**13.4**	**10.2**	**10.1**	**11.6**	**14**

† 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 12 Maturity Group IV Liberty Link soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=5)	Height (n=8)	Maturity (n=8)	Leaf Holding (n=1)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	--------- Score ---------		%	%	Score
Hornbeck	HBK LL4950	59 ± 1	13.2	1.6	43	140	1.2	1.8	34.1	19.8	1.0
USG	74G99L (LL)	57 ± 1	13.0	1.8	40	137	1.2	1.8	34.6	19.4	1.0
Delta Grow	4967 LL	57 ± 1	13.3	2.0	41	141	1.3	1.5	34.1	19.9	1.0
Dyna-Gro	S49LL34 (LL)	57 ± 1	12.9	1.3	39	141	1.2	1.5	33.5	20.0	1.0
Hornbeck	HBK LL4953	56 ± 1	12.9	1.3	40	141	1.5	1.3	33.9	19.7	1.0
Progeny	4930LL	56 ± 1	13.0	1.2	37	141	1.0	1.3	33.5	19.9	1.0
Delta Grow	4990 LL	55 ± 1	13.1	1.6	40	138	1.2	1.7	34.5	19.7	1.0
Terral-REV Brand	49L29 (LL)	55 ± 1	13.1	2.0	38	141	1.2	1.6	34.4	19.9	1.0
Hornbeck	HBK LL4653	54 ± 1	12.6	1.2	34	133	1.0	2.3	35.4	19.3	2.7
Dyna-Gro	S49LS65 (LL/STS)	54 ± 1	13.4	2.4	41	140	1.0	1.8	35.8	19.3	1.3
Dyna-Gro	S46LL05 (LL)	52 ± 1	12.8	1.3	34	132	1.0	2.4	35.4	19.4	2.7
USG	74G74LS (LL/STS)	52 ± 1	13.0	2.4	42	139	1.2	1.8	35.8	19.2	2.0
	Average	**55**	**13.0**	**1.7**	**39**	**139**	**1.2**	**1.7**	**34.6**	**19.6**	**1.4**

† 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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 9=maximum amount of plant disease or plant death. Ratings were taken at the East Tennessee AgResearch and Education Center on 8/28/14

Table 44. Mean yields † of seven Maturity Group IV Liberty Link soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2013 - 2015.

Brand	Variety	Avg. Yield ± Std Err. (n=12)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Ames
				bu/a		
Hornbeck	HBK LL4950	61 ± 1	72	60	49	62
Delta Grow	4967 LL	60 ± 1	72	59	49	61
USG	74G99L (LL)	59 ± 1	60	60	52	64
Dyna-Gro	S49LL34 (LL)	58 ± 1	60	56	50	67
Dyna-Gro	S46LL05 (LL)	58 ± 1	65	54	50	62
Progeny	4930LL	58 ± 1	62	61	48	61
Delta Grow	4990 LL	57 ± 1	63	54	49	63
Average (bu/a)		**59**	**65**	**58**	**50**	**63**
L.S.D.$_{.05}$ (bu/a)		**5**	**12**	**11**	**6**	**10**
C.V. (%)		**11.9**	**13.0**	**13.0**	**8.9**	**11.2**

Table 45. Mean yields † and agronomic characteristics of seven Maturity Group IV Liberty Link soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=4)	Height (n=9)	Maturity (n=9)	Leaf Holding (n=1)	Seed Quality (n=3)	Protein (n=3)	Oil (n=3)	Frogeye (n=2)
		bu/a	%	Score	in.	DAP	Score		%	%	%
Hornbeck	HBK LL4950	61 ± 1	13.9	1.5	40	139	1.2	1.9	34.3	19.8	2.3
Delta Grow	4967 LL	60 ± 1	13.9	1.9	39	140	1.3	1.6	34.2	19.9	1.5
USG	74G99L (LL)	59 ± 1	13.9	1.6	39	136	1.2	1.8	34.8	19.5	2.5
Dyna-Gro	S49LL34 (LL)	58 ± 1	13.7	1.2	36	139	1.2	1.5	33.5	19.9	2.5
Dyna-Gro	S46LL05 (LL)	58 ± 1	13.5	1.2	32	132	1.0	2.1	35.4	19.4	3.8
Progeny	4930LL	58 ± 1	13.7	1.1	35	139	1.0	1.4	33.9	19.9	2.2
Delta Grow	4990 LL	57 ± 1	13.9	1.4	37	137	1.2	1.6	34.6	19.6	1.5
	Average	**59**	**13.8**	**1.4**	**37**	**137**	**1.1**	**1.7**	**34.4**	**19.7**	**2.3**

† 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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 9=maximum amount of plant disease or plant death. Ratings were taken at the East Tennessee AgResearch and Education Center on 8/26/13, 8/28/14

Table 46. Yields † of 19 Late Maturity Group IV (4.6 - 4.9) Liberty-Link (LL) soybean varieties in six County Standard Tests in Tennessee and Kentucky during 2015.

MS	Brand/Variety/Maturity	Avg. Yield †	Moist. ‡	Dyer	Gibson	Lake	Madison	Obion	*Fulton, KY*
		bu/a	%	§ 6/8	5/6	6/15	5/22	6/11	5/27
A	Hornbeck CZ4748LL	61	10	62	66	63	35	75	67
AB	*Warren Seed Micah 4400LL	58	11	56	58	62	34	71	66
ABC	*Armor 501L	57	11	63	54	54	41	66	62
ABC	Warren Seed Micah 4810LL	57	10	57	52	61	35	70	65
ABC	Armor 476L	57	10	56	47	64	32	71	69
ABC	Beck's 522L4	57	10	61	52	54	38	66	68
ABC	Warren Seed Micah 4910LL	57	10	70	54	49	41	67	58
ABC	Hornbeck HBK LL4953	56	10	55	56	61	37	64	65
BCD	Dyna-Gro S46LL05	56	11	57	54	59	31	70	63
BCD	Hornbeck 4950LL	55	10	54	44	55	41	70	64
BCD	Dyna-Gro S49LL34	55	10	54	53	47	44	65	64
BCD	Progeny P4814 LL/STS	54	11	55	53	55	34	60	66
BCD	USG 74G99L	54	10	58	53	57	33	61	61
BCD	Warren Seed Micah 4800LL	54	10	56	52	50	39	62	62
BCD	Hornbeck HBK LL4653	54	11	54	56	59	25	70	57
BCD	Terral REV 51L25	52	12	50	48	50	25	76	65
CD	Terral REV 49L29	52	10	55	53	58	38	53	55
CD	Beck's 449L4	52	11	46	46	56	34	70	59
D	Progeny P4930 LL	51	10	52	42	47	32	66	64
	Average (bu/a)	**55**	**11**	**56**	**52**	**56**	**35**	**67**	**63**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each loction, 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).

All county tests were non-irrigated except for Dyer county

Varieties denoted with an asterisks (*) or (**) etc. were in the top performing group for consecutive years.

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

Data provided by Ryan H. Blair, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 47. Overall average yields † and moistures of 10 Maturity Group IV Liberty Link soybean varieties evaluated in County Standard Tests (n=6) and AgResearch and Education Centers (n=7) in Tennessee in 2015.

		Averages of CST & REC Tests		County Standard Trials		AgResearch and Education Center Trials	
Brand	Variety ‡	Avg. Yield	Moisture	Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%	bu/a	%
Hornbeck	CZ 4748 LL	63	11.7	61	10.3	65	13.1
Progeny	4814LL	58	12.8	54	11.2	62	14.3
Dyna-Gro	S49LL34 (LL)	58	11.5	55	10.1	61	12.9
Hornbeck	HBK LL4953	58	11.4	56	9.9	59	12.8
Hornbeck	HBK LL4950	57	11.7	55	10.1	59	13.3
Dyna-Gro	S46LL05 (LL)	56	12.1	56	11.3	57	12.9
USG	74G99L (LL)	56	11.6	54	10.3	58	12.9
Hornbeck	HBK LL4653	55	11.7	54	10.7	57	12.7
Progeny	4930LL	53	11.4	51	10.2	56	12.7
Terral-REV Brand	49L29 (LL)	53	11.7	52	10.2	54	13.2
Average (bu/a)		**57**	**11.8**	**55**	**10.4**	**59**	**13.1**

† 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 48. Yields † and disease ratings of 19 Late Maturity Group IV (4.6 - 4.9) Liberty Link soybean varieties in seven County Standard Tests and in small plot trials at two AgResearch and Education Centers in Tennessee during 2015.

Summary from County Tests			Summary from Small Plot Research								
MS	Brand/Variety/Maturity	Yld	RECM - YLD		Frogeye	Other	Lodging	JAX - YLD		Frogeye	Other
		bu/a	*Treated	Non-treated	RECM	Diseases	WTREC	*Treated	Non-treated	JAX	Diseases
A	Hornbeck CZ4748LL	61.3	51.8	44.3	LOW	BS, TS	2	57.0	52.2	LOW	SC, TS, SDS
AB	*Warren Seed Micah 4400LL	57.8	52.7	46.5	LOW	BS	0	51.0	47.9	LOW	
ABC	*Armor 501L	56.7	52.5	46.2	LOW		1	51.3	48.0	LOW	SDS
ABC	Warren Seed Micah 4810LL	56.7	46.5	47.3	LOW		0	46.7	42.0	LOW	SDS
ABC	Armor 476L	56.5	51.7	44.9	LOW	BS	1	53.4	48.3	LOW	SDS
ABC	Beck's 522L4	56.5	53.8	46.6	LOW		0	55.9	52.4	LOW	SDS
ABC	Warren Seed Micah 4910LL	56.5	48.1	42.1	LOW	CLB	2	47.6	44.2	LOW	CLB
ABC	Hornbeck HBK LL4953	56.3	53.6	47.7	LOW		0	51.4	47.7	LOW	SDS
BCD	Dyna-Gro S46LL05	55.7	55.2	46.8	LOW	CLB	1	45.0	38.2	MOD	SC, CLB
BCD	Hornbeck 4950LL	54.7	47.9	45.5	LOW	SDS	1	48.8	45.4	LOW	SDS
BCD	Dyna-Gro S49LL34	54.5	52.8	47.9	LOW		0	-	-	-	-
BCD	Progeny P4814 LL/STS	53.8	52.2	48.1	LOW		1	45.2	46.4	LOW	
BCD	USG 74G99L	53.8	44.0	38.6	LOW	SDS, CLB	1	45.2	42.2	LOW	SDS, CLB
BCD	Hornbeck HBK LL4653	53.5	56.2	46.6	LOW	BS, CLB	0	48.3	45.6	MOD	SC, CLB
BCD	Warren Seed Micah 4800LL	53.5	48.1	42.4	LOW	SDS, CLB	0	45.0	42.5	LOW	SDS
BCD	Terral REV 51L25	52.3	50.7	42.8	LOW	CLB	3	50.0	46.0	LOW	CLB
CD	Terral REV 49L29	52.0	45.4	45.3	LOW	CLB	0	46.2	41.5	LOW	SDS, CLB
CD	Beck's 449L4	51.8	57.3	50.1	LOW	BS	3	50.2	46.4	MOD	
D	Progeny P4930 LL	50.5	-	-	-	-	-	48.5	46.7	LOW	SDS
	Average (bu/a)	**55.0**	**51.1**	**45.5**				**49.3**	**45.8**		

YLD= Avg. Yield @ 13% moisture (county tests) 13.5% moisture (REC tests)

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

Varieties denoted with an asterisks (*) or (**) etc. were in the top performing group for consecutive years.

County locations include: Dyer, Gibson, Lake, Madison, Obion, Fulton (KY)

*Treated plots sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R2-R3 growth stage. RECM varieties planted June 5, JAX planted June 11

Disease ratings (non-treated plots) for Frogeye are LOW (0% disease), MOD (≤10% disease), HIGH (>10%)

Other diseases noted: SC=Stem Canker, BS=Brown Spot, CLB=Cercospora Leaf Blight, SDS=Sudden Death Syndrome, ' - ' indicate variety was not tested at that location

Lodging was recorded for a plot if >50% of the plants were leaning at angle ≥ 45° and is reported on a 0 to 4 scale based on the 4 replicate plots for each variety (e.g. 4=4 of 4 plots, 3=3 of 4 plots, etc.)

Disease ratings & yield data compiled by Dr. Heather Kelly and Jamie Jordan from replicated plots at the AgResearch and Education Center at Milan (RECM, which is irrigated and had moderate to severe disease pressure), the West Tennessee AgResearch and Education Center (WTREC, which is dry land and had low disease pressure due to regular crop rotation), and on-farm location in Jackson (JAX, which is dry land and had severe disease pressure). County data provided by Ryan Blair, Ext. Area Specialist, and the extension agents.

Table 49. Mean yields † of 20 Maturity Group V Liberty Link soybean varieties evaluated in seven environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.	Ames	Agricenter Memphis
					bu/a				
Armor	53-L55 (LL/STS)	61 ± 1	62	67	35	80	75	65	40
Hornbeck	CZ 5242 LL	60 ± 1	60	71	38	74	68	58	47
Hornbeck	CZ 5150 LL	59 ± 1	63	70	39	69	62	69	41
Hornbeck	CZ 5147 LL	59 ± 1	65	70	35	74	69	59	39
Beck's Hybrids	522L4 (LL)	58 ± 1	62	67	34	72	68	65	41
Dyna-Gro	S55LS75 (LL/STS)	58 ± 1	62	65	34	71	63	65	45
Progeny	5960LL	57 ± 1	60	64	33	76	67	50	53
USG	75G24L (LL)	57 ± 1	64	66	40	69	61	65	35
Hornbeck	CZ 5225 LL (STS)	57 ± 1	54	69	38	75	67	48	46
GoSoy	5215LL	56 ± 1	63	63	35	70	58	63	39
Terral-REV Brand	55L95 (LL)	55 ± 1	63	67	33	76	59	54	35
Progeny	5460LL	54 ± 1	57	73	33	69	54	58	31
Hornbeck	CZ 5445 LL	54 ± 1	52	67	36	66	64	46	44
Delta Grow	5367 LL	54 ± 1	57	59	33	63	66	57	41
Armor	51X5L (LL)	54 ± 1	59	55	32	74	59	62	34
Dyna-Gro	S52LL66 (LL)	53 ± 1	62	58	36	66	61	61	26
Delta Grow	5067 LL	53 ± 1	62	55	32	72	51	60	37
Progeny	5414LLS	51 ± 1	53	66	36	47	61	60	31
Hornbeck	CZ 5515 LL (STS)	50 ± 1	46	59	31	71	60	55	33
Progeny	5160LL	49 ± 1	55	59	34	62	50	44	38
Average (bu/a)		**55**	**59**	**65**	**35**	**70**	**62**	**58**	**39**
L.S.D.$_{.05}$ (bu/a)		**3**	**6**	**11**	**5**	**7**	**13**	**11**	**6**
C.V. (%)		**9.9**	**6.4**	**10.3**	**8.8**	**6.5**	**12.5**	**11.8**	**9.0**

† 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 50. Mean yields † and agronomic characteristics of 20 Maturity Group V Liberty Link soybean varieties evaluated in seven environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=4)	Height (n=5)	Maturity (n=5)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)
		bu/a	%	Score	in.	DAP	Score	%	%
Armor	53-L55 (LL/STS)	61 ± 1	12.7	1.2	35	145	1.7	35.2	19.2
Hornbeck	CZ 5242 LL	60 ± 1	12.7	2.6	43	146	2.0	35.8	19.0
Hornbeck	CZ 5150 LL	59 ± 1	12.7	1.6	42	144	1.7	34.1	19.7
Hornbeck	CZ 5147 LL	59 ± 1	11.9	1.0	30	146	1.7	34.7	18.5
Beck's Hybrids	522L4 (LL)	58 ± 1	12.7	1.8	42	143	1.7	33.7	19.8
Dyna-Gro	S55LS75 (LL/STS)	58 ± 1	12.3	1.7	38	148	2.0	34.7	19.5
Progeny	5960LL	57 ± 1	12.6	1.3	35	146	1.7	35.5	18.7
USG	75G24L (LL)	57 ± 1	12.6	2.5	42	142	2.0	35.5	19.0
Hornbeck	CZ 5225 LL (STS)	57 ± 1	12.2	1.2	30	145	1.7	34.3	19.7
GoSoy	5215LL	56 ± 1	12.9	2.4	43	147	1.5	35.8	18.9
Terral-REV Brand	55L95 (LL)	55 ± 1	12.5	2.3	37	148	1.5	35.6	18.6
Progeny	5460LL	54 ± 1	12.6	1.9	43	143	2.2	34.6	19.6
Hornbeck	CZ 5445 LL	54 ± 1	12.0	1.5	32	147	1.5	34.8	19.6
Delta Grow	5367 LL	54 ± 1	12.8	2.4	42	144	1.7	36.2	18.5
Armor	51X5L (LL)	54 ± 1	12.4	2.5	43	146	1.5	35.7	18.9
Dyna-Gro	S52LL66 (LL)	53 ± 1	13.0	3.1	43	146	2.0	36.1	18.8
Delta Grow	5067 LL	53 ± 1	12.8	2.8	43	146	1.8	35.4	19.1
Progeny	5414LLS	51 ± 1	12.4	2.7	43	138	1.8	35.9	19.3
Hornbeck	CZ 5515 LL (STS)	50 ± 1	12.6	3.5	49	147	1.8	35.2	19.2
Progeny	5160LL	49 ± 1	11.8	1.4	30	145	1.8	34.5	19.6
	Average	**55**	**12.5**	**2.1**	**39**	**145**	**1.8**	**35.2**	**19.2**

† 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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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 51. Mean yields † of seven Maturity Group V Liberty Link soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Non-Irr.	Ames	Agricenter Memphis
					bu/a			
Hornbeck	CZ 5242 LL	58 ± 1	68	61	49	63	44	59
USG	75G24L (LL)	56 ± 1	66	58	50	60	36	68
Beck's Hybrids	522L4 (LL)	56 ± 1	67	57	44	58	41	69
Hornbeck	CZ 5150 LL	55 ± 1	64	64	47	56	40	62
Progeny	5960LL	53 ± 1	56	57	44	63	43	52
Progeny	5460LL	52 ± 1	60	60	44	50	34	63
Progeny	5160LL	47 ± 1	57	54	40	48	38	45
Average (bu/a)		**54**	**63**	**59**	**45**	**57**	**39**	**60**
L.S.D.$_{.05}$ (bu/a)		**4**	**8**	**10**	**5.3**	**10**	**12**	**7**
C.V. (%)		**10.9**	**8.0**	**11.2**	**7.7**	**11.7**	**13.2**	**10.7**

Table 52. Mean yields † and agronomic characteristics of seven Maturity Group V Liberty Link soybean varieties evaluated in four environments (n=12) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=5)	Height (n=8)	Maturity (n=8)	Leaf Holding (n=1)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	Score		%	%	%
Hornbeck	CZ 5242 LL	58 ± 1	12.7	2.1	40	145	1.5	1.9	35.7	19.2	1.0
USG	75G24L (LL)	56 ± 1	13.0	2.1	40	142	1.0	1.7	35.6	19.2	1.7
Beck's Hybrids	522L4 (LL)	56 ± 1	12.8	1.4	37	143	1.0	1.4	33.8	19.8	1.0
Hornbeck	CZ 5150 LL	55 ± 1	13.2	1.2	39	144	1.3	1.3	33.9	19.9	1.0
Progeny	5960LL	53 ± 1	13.1	1.3	32	145	1.5	1.8	35.6	18.7	1.7
Progeny	5460LL	52 ± 1	13.4	1.5	40	142	1.0	1.7	34.6	19.7	1.0
Progeny	5160LL	47 ± 1	12.4	1.1	28	144	2.0	1.6	34.6	19.6	1.0
	Average	**54**	**12.9**	**1.5**	**37**	**144**	**1.3**	**1.6**	**34.8**	**19.4**	**1.2**

† 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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 9=maximum amount of plant disease or plant death. Ratings were taken at the East Tennessee AgResearch and Education Center on 8/28/14

Table 53. Mean yields † of three Maturity Group V Liberty Link soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Ames
		bu/a				
Progeny	5460LL	55 ± 1	58	58	47	57
Progeny	5960LL	52 ± 1	58	54	49	45
Progeny	5160LL	48 ± 1	56	51	45	39
Average (bu/a)		**52**	**57**	**54**	**47**	**47**
L.S.D.$_{.05}$ (bu/a)		**4**	**7**	**10**	**6**	**11**
C.V. (%)		**10.3**	**7.7**	**11.3**	**7.7**	**13.4**

† 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 54. Mean yields † and agronomic characteristics of three Maturity Group V Liberty Link soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=4)	Height (n=9)	Maturity (n=9)	Leaf Holding (n=1)	Seed Quality (n=3)	Protein (n=3)	Oil (n=3)	Frogeye (n=2)
		bu/a	%	Score	in.	DAP	Score		%	%	%
Progeny	5460LL	55 ± 1	13.8	1.5	37	142	1.0	1.6	34.8	19.6	1.5
Progeny	5960LL	52 ± 1	13.5	1.3	31	145	1.5	1.6	35.6	18.6	1.8
Progeny	5160LL	48 ± 1	12.6	1.2	26	143	2.0	1.5	34.8	19.5	1.7
	Average	**52**	**13.3**	**1.3**	**31**	**143**	**1.5**	**1.6**	**35.1**	**19.2**	**1.7**

† 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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

Disease ratings for Frogeye Leaf Spot are from 1-9, where 0=no disease & 9=maximum amount of plant disease or plant death. Ratings were taken at the East Tennessee AgResearch and Education Center on 8/26/13, 8/28/14

Table 55. Mean yields † of 20 Maturity Group IV Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=5)	Knoxville	Springfield		Milan	
				Irr.	Non-Irr.	Irr.	Non-Irr.
		----------bu/a----------					
Armor	47-R13 (RR CHECK)	72 ± 2	68	86	68	82	58
GoSoy	Ireane	67 ± 2	66	68	56	81	64
AR	UA 5014C	66 ± 2	62	71	61	76	58
Armor	X48C (STS)	65 ± 2	66	80	53	75	52
TN Exp	TN13-4304	63 ± 2	61	65	55	78	55
TN Exp	TN13-4303	63 ± 2	62	67	56	70	57
USG	Ellis	63 ± 2	62	59	56	75	61
MO	S12-3791	62 ± 2	65	79	60	59	48
AR	R09-1589	62 ± 2	66	73	53	62	54
TN Exp	TN11-5083	60 ± 2	61	64	52	72	54
Armor	48-C5 (STS)	60 ± 2	54	62	54	73	58
Armor	X49C	60 ± 2	62	61	54	70	53
Hornbeck	HBK LL4950 (LL CHECK)	59 ± 2	61	75	58	60	43
GoSoy	Glider	56 ± 2	54	57	45	76	48
TN Exp	TN14-4401	51 ± 2	58	69	52	39	37
TN Exp	TN12-4036	48 ± 2	49	53	43	55	42
TN Exp	TN12-4013	47 ± 2	45	52	42	57	39
TN Exp	TN12-4059	47 ± 2	44	52	42	56	40
TN Exp	TN09-193	47 ± 2	51	48	44	54	37
TN Exp	TN14-4402	44 ± 2	45	57	51	33	34
Average (bu/a)		**58**	**58**	**65**	**53**	**65**	**50**
L.S.D.$_{.05}$ (bu/a)		**4**	**9**	**13**	**8**	**10**	**8**
C.V. (%)		**10.1**	**9.4**	**11.9**	**9.3**	**9.2**	**9.9**

† 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 56. Mean yields † and agronomic characteristics of 20 Maturity Group IV Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=5)	Moisture § (n=5)	Lodging (n=5)	Height (n=5)	Maturity (n=5)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	Score	%	%	%	0 - 9	index
Armor	47-R13 (RR CHECK)	72 ± 2	13.2	1.3	48	136	2.3	34.7	18.5	0.0	0.0	0.0
GoSoy	Ireane	67 ± 2	12.2	1.2	32	140	1.7	33.9	18.8	6.7	1.3	1.5
AR	UA 5014C	66 ± 2	13.3	1.2	33	140	1.0	34.5	18.8	1.7	0.7	0.4
Armor	X48C (STS)	65 ± 2	12.6	1.9	42	135	2.7	34.7	18.2	3.3	1.0	0.6
TN Exp	TN13-4304	63 ± 2	12.5	1.3	34	143	1.8	35.7	18.7	12.3	2.7	4.0
TN Exp	TN13-4303	63 ± 2	12.5	1.2	35	143	1.8	35.7	18.7	11.7	1.7	3.5
USG	Ellis	63 ± 2	12.3	1.2	30	142	1.3	33.9	18.8	11.7	1.7	3.5
MO	S12-3791	62 ± 2	13.3	2.1	40	131	1.7	33.2	19.1	3.3	0.7	0.7
AR	R09-1589	62 ± 2	13.5	1.6	34	140	1.0	32.4	19.6	1.7	0.7	0.4
TN Exp	TN11-5083	60 ± 2	13.4	1.5	31	141	1.3	35.1	19.5	2.7	1.0	0.5
Armor	48-C5 (STS)	60 ± 2	13.2	1.9	38	134	2.8	35.6	18.2	5.0	1.3	1.1
Armor	X49C	60 ± 2	13.3	2.7	47	137	3.0	36.6	17.8	1.0	0.7	0.2
Hornbeck	HBK LL4950 (LL CHECK)	59 ± 2	13.8	2.2	49	141	2.5	33.6	19.8	11.7	2.0	2.6
GoSoy	Glider	56 ± 2	13.1	2.2	39	133	2.0	34.9	18.6	1.7	0.7	0.4
TN Exp	TN14-4401	51 ± 2	12.4	1.3	34	136	1.5	31.9	19.6	2.7	1.0	0.5
TN Exp	TN12-4036	48 ± 2	13.4	2.7	42	127	2.8	36.0	18.5	8.3	1.7	2.4
TN Exp	TN12-4013	47 ± 2	13.5	2.9	42	126	2.8	37.2	18.3	10.0	1.7	3.0
TN Exp	TN12-4059	47 ± 2	13.5	2.9	42	127	3.0	36.2	18.4	20.0	3.3	7.4
TN Exp	TN09-193	47 ± 2	12.9	2.0	40	128	2.3	36.2	18.1	46.7	3.0	15.6
TN Exp	TN14-4402	44 ± 2	13.0	1.2	32	138	1.3	34.2	18.7	6.7	1.0	1.3
	Average	**58**	**13.0**	**1.8**	**38**	**136**	**2.0**	**34.8**	**18.7**	**8.4**	**1.4**	**2.5**

† 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).

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.

SDS disease ratings were taken at the Highland Rim AgResearch and Education Center on 9/3/2015

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)

Table 57. Mean yields † of six Maturity Group IV Conventional and Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=10)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.
				bu/a			
AR	UA 5014C	60 ± 1	63	68	43	69	58
Armor	X48C (STS)	58 ± 1	64	68	40	66	55
TN Exp	TN13-4304	58 ± 1	62	56	44	69	58
USG	Ellis	57 ± 1	61	52	49	66	59
Armor	48-C5 (STS)	55 ± 1	54	63	37	65	58
Armor	X49C	55 ± 1	59	56	42	60	56
Average (bu/a)		**57**	**61**	**61**	**43**	**66**	**57**
L.S.D.$_{.05}$ (bu/a)		**4**	**7**	**12**	**8**	**11**	**8**
C.V. (%)		**11.1**	**7.6**	**13.1**	**11.7**	**11.8**	**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 58. Mean yields † and agronomic characteristics of six Maturity Group IV Conventional and Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=10)	Moisture § (n=10)	Lodging (n=10)	Height (n=10)	Maturity (n=10)	Leaf Holding (n=1)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)	Frogeye (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	Score		%	%	Score	%	0 - 9	index
AR	UA 5014C	60 ± 1	13.6	1.4	32	138	1.0	1.1	34.6	19.0	1.0	1.7	0.7	0.4
Armor	X48C (STS)	58 ± 1	13.3	2.0	38	135	1.3	2.3	35.4	18.5	3.0	3.3	1.0	0.6
TN Exp	TN13-4304	58 ± 1	12.9	1.7	33	140	1.0	1.6	36.0	18.8	2.3	12.3	2.7	4.0
USG	Ellis	57 ± 1	12.8	1.5	30	140	1.3	1.3	34.5	18.9	1.3	11.7	1.7	3.5
Armor	48-C5 (STS)	55 ± 1	13.5	2.1	35	135	1.2	3.1	35.9	18.5	4.3	5.0	1.3	1.1
Armor	X49C	55 ± 1	13.6	2.8	43	136	1.7	3.3	36.8	18.1	4.0	1.0	0.7	0.2
	Average	**57**	**13.3**	**1.9**	**35**	**137**	**1.3**	**2.1**	**35.5**	**18.6**	**2.7**	**5.8**	**1.4**	**1.6**

† 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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

SDS disease ratings were taken at the Highland Rim AgResearch and Education Center on 9/3/2015

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)

Table 59. Mean yields † of three Maturity Group IV Conventional and Roundup Ready soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.
				bu/a		
Armor	X48C (STS)	58 ± 1	62	62	44	65
Armor	48-C5 (STS)	56 ± 1	56	61	43	67
Armor	X49C	55 ± 1	57	55	48	58
Average (bu/a)		**56**	**58**	**59**	**45**	**63**
L.S.D.$_{.05}$ (bu/a)		**5**	**7**	**12**	**8**	**11**
C.V. (%)		**11.2**	**7.2**	**13.3**	**10.6**	**12.5**

† 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 60. Mean yields † and agronomic characteristics of three Maturity Group IV Conventional and Roundup Ready soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=12)	Height (n=12)	Maturity (n=12)	Leaf Holding (n=1)	Seed Quality (n=3)	Protein (n=3)	Oil (n=3)	Frogeye (n=2)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	---------- Score ----------		%	%	Score	%	0 - 9	index
Armor	X48C (STS)	58 ± 1	13.4	2.1	36	134	1.3	2.1	35.0	18.6	3.3	3.3	1.0	0.6
Armor	48-C5 (STS)	56 ± 1	14.0	2.0	34	133	1.2	2.5	35.8	18.6	4.0	5.0	1.3	1.1
Armor	X49C	55 ± 1	14.1	2.9	41	134	1.7	3.2	37.0	18.1	4.5	1.0	0.7	0.2
	Average	**56**	**13.8**	**2.3**	**37**	**134**	**1.4**	**2.6**	**35.9**	**18.4**	**3.9**	**3.1**	**1.0**	**0.6**

† 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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

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 8/28/14 in Knoxville,

TN SDS disease ratings were taken at the Highland Rim AgResearch and Education Center on 9/3/2015

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)

Table 61. Mean yields † of 16 Maturity Group V Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=5)	Knoxville	Springfield		Milan	
				Irr.	Non-Irr.	Irr.	Non-Irr.
		bu/a					
USG	75J23R (RR CHECK)	71 ± 2	61	82	62	87	66
TN Exp	TN08-100	69 ± 2	68	90	55	77	58
Asgrow	AG5533 (RR CHECK)	69 ± 2	61	76	75	74	61
MO	S11-16653	67 ± 2	63	68	68	70	66
Hornbeck	CZ 5242 LL (LL CHECK)	67 ± 2	67	69	57	78	63
AR	R10-230	66 ± 2	68	71	55	74	64
AR	R09-430	66 ± 2	65	69	63	76	56
USDA-TN	JTN-5110	65 ± 2	65	59	66	68	68
AR	UA 5814HP	64 ± 2	60	60	56	82	64
GoSoy	Leland	64 ± 2	62	70	58	62	66
USDA-TN	JTN-5203	63 ± 2	65	63	68	54	68
MO	S11-17025	62 ± 2	65	63	56	64	63
AR	Osage	61 ± 2	60	69	49	69	59
AR	UA 5612	61 ± 2	64	51	55	65	69
AR	UA 5213C	61 ± 2	58	65	50	76	56
TN Exp	TN12-5014	60 ± 2	53	73	50	68	59
Average (bu/a)		**65**	**63**	**69**	**59**	**72**	**63**
L.S.D.$_{.05}$ (bu/a)		**4**	**9**	**18**	**7**	**8**	**8**
C.V. (%)		**9.2**	**8.2**	**14.0**	**7.1**	**7.1**	**7.7**

† 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.

Table 62. Mean yields † and agronomic characteristics of 16 Maturity Group V Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=5)	Moisture § (n=5)	Lodging (n=5)	Height (n=5)	Maturity (n=5)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	Score	%	%	%	0 - 9	index
USG	75J23R (RR CHECK)	71 ± 2	12.5	1.6	44	139	3.0	34.5	19.4	0.0	0.0	0.0
TN Exp	TN08-100	69 ± 2	12.4	1.4	34	144	1.8	34.3	19.2	6.7	1.3	1.5
Asgrow	AG5533 (RR CHECK)	69 ± 2	12.2	2.2	41	145	2.0	33.0	19.9	3.3	1.3	0.7
MO	S11-16653	67 ± 2	12.8	1.6	34	144	1.8	33.9	19.5	0.0	0.0	0.0
Hornbeck	CZ 5242 LL (LL CHECK)	67 ± 2	12.8	2.2	45	144	1.7	34.9	19.2	1.7	0.3	0.2
AR	R10-230	66 ± 2	12.9	2.1	37	148	1.5	34.7	18.9	10.0	1.3	4.4
AR	R09-430	66 ± 2	12.5	1.5	31	142	1.7	35.0	19.7	1.0	0.3	0.1
USDA-TN	JTN-5110	65 ± 2	12.5	1.8	36	145	2.0	35.3	18.7	0.0	0.0	0.0
AR	UA 5814HP	64 ± 2	16.3	2.2	39	152	2.0	38.4	17.8	6.7	0.7	1.5
GoSoy	Leland	64 ± 2	12.7	2.3	33	143	1.3	33.6	19.2	0.0	0.0	0.0
USDA-TN	JTN-5203	63 ± 2	12.6	1.5	32	144	1.5	34.8	19.0	0.0	0.0	0.0
MO	S11-17025	62 ± 2	12.7	2.6	33	145	1.8	34.1	19.1	0.0	0.0	0.0
AR	Osage	61 ± 2	12.4	1.4	30	145	1.3	37.2	17.9	30.0	2.7	26.7
AR	UA 5612	61 ± 2	12.7	2.1	36	147	1.7	34.3	18.6	16.7	1.7	9.3
AR	UA 5213C	61 ± 2	12.4	2.1	33	143	1.5	36.1	17.7	35.0	3.3	27.8
TN Exp	TN12-5014	60 ± 2	12.2	1.1	30	144	2.0	36.5	18.3	3.3	0.7	0.7
	Average	**65**	**12.8**	**1.9**	**36**	**145**	**1.8**	**35.0**	**18.9**	**7.2**	**0.9**	**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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

SDS disease ratings were taken at the Highland Rim AgResearch and Education Center on 9/3/2015

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)

Table 63. Mean yields † of six Maturity Group V Conventional and Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=10)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Irr.
				bu/a			
AR	R09-430	62 ± 1	71	67	47	70	55
USDA-TN	JTN-5110	60 ± 1	66	55	49	64	64
USDA-TN	JTN-5203	58 ± 1	70	57	48	52	61
AR	UA 5612	57 ± 1	64	53	43	62	61
AR	Osage	55 ± 1	60	58	39	61	55
AR	UA 5213C	53 ± 1	54	52	40	65	52
Average (bu/a)		**58**	**64**	**57**	**44**	**62**	**58**
L.S.D.$_{.05}$ (bu/a)		**4**	**9**	**16**	**6**	**9**	**7**
C.V. (%)		**10.8**	**8.9**	**16.5**	**8.9**	**9.3**	**7.9**

† 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 64. Mean yields † and agronomic characteristics of six Maturity Group V Conventional soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2014 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=10)	Moisture § (n=10)	Lodging (n=9)	Height (n=10)	Maturity (n=10)	Leaf Holding (n=1)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	--------- Score ---------		%	%	%	0 - 9	index
AR	R09-430	62 ± 1	12.8	1.7	30	142	2.0	1.6	34.9	19.9	1	0	0
USDA-TN	JTN-5110	60 ± 1	12.7	2.3	34	143	3.8	1.8	35.1	18.9	0	0	0
USDA-TN	JTN-5203	58 ± 1	13.0	1.9	32	143	2.5	1.5	34.9	19.1	0	0	0
AR	UA 5612	57 ± 1	12.9	2.5	35	145	3.5	1.5	34.7	18.8	17	2	9
AR	Osage	55 ± 1	12.6	1.8	31	144	2.2	1.3	37.2	18.0	30	3	27
AR	UA 5213C	53 ± 1	12.8	2.6	32	142	1.5	1.4	36.2	17.7	35	3	28
	Average	**58**	**12.8**	**2.1**	**32**	**143**	**2.6**	**1.5**	**35.5**	**18.7**	**14**	**1**	**11**

† 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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

SDS disease ratings were taken at the Highland Rim AgResearch and Education Center on 9/3/2015

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)

Table 65. Mean yields † of four Maturity Group V Conventional soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Knoxville	Springfield Irr.	Springfield Non-Irr.	Milan Irr.
				bu/a		
USDA-TN	JTN-5110	61 ± 1	69	53	53	66
USDA-TN	JTN-5203	58 ± 1	72	56	54	53
AR	UA 5612	55 ± 1	63	52	46	60
AR	Osage	54 ± 1	60	53	44	58
Average (bu/a)		**57**	**66**	**54**	**49**	**59**
L.S.D.$_{.05}$ (bu/a)		**5**	**9**	**13**	**7**	**9**
C.V. (%)		**11.3**	**9.0**	**15.9**	**9.3**	**10.1**

Table 66. Mean yields † and agronomic characteristics of four Maturity Group V Conventional soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2013 - 2015.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=11)	Height (n=12)	Maturity (n=12)	Leaf Holding (n=1)	Seed Quality (n=3)	Protein (n=3)	Oil (n=3)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	Score		%	%	%	0 - 9	index
USDA-TN	JTN-5110	61 ± 1	13.3	2.3	33	141	3.8	1.6	35.3	18.8	0	0	0
USDA-TN	JTN-5203	58 ± 1	13.8	1.7	31	142	2.5	1.4	35.2	18.9	0	0	0
AR	UA 5612	55 ± 1	13.4	2.6	34	145	3.5	1.6	34.8	18.7	17	2	9
AR	Osage	54 ± 1	13.0	1.7	29	143	2.2	1.3	37.3	18.0	30	3	27
	Average	**55**	**13.4**	**2.1**	**32**	**143**	**3.0**	**1.5**	**35.7**	**18.6**	**12**	**1**	**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).

Leaf Holding = 1 to 5 scale; where 1 = no leaves remaining on stems at maturity; 5 = 90+% of leaves remaining on stems at 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.

SDS disease ratings were taken at the Highland Rim AgResearch and Education Center on 9/3/2015

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)

Table 67. Yields † of 10 Conventional soybean varieties in three County Standard Tests in Tennessee and Kentucky during 2015.

MS	Brand/Variety/Maturity	Avg. Yield †	Moist. ‡	Gibson	Lauderdale	Weakley
		bu/a	%	7/15 §	6/10	6/10
A	Ellis	61	10	55	52	75
AB	eMerge 4993	59	10	56	50	71
ABC	Progeny 5191	57	10	49	52	69
ABC	Armor 49-C3	56	10	48	52	69
ABC	USG 5002T	56	11	49	48	70
BC	eMerge 4510S	54	10	47	46	70
BC	eMerge 4892S	55	11	47	50	65
C	Armor 48-C5	53	10	50	43	65
C	USG 5601T	53	10	52	39	67
C	Progeny 4910	52	10	46	49	60
	Average (bu/a)	**55**	**10**	**50**	**48**	**68**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each loction, 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 Ryan H. Blair, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 68. Overall average yields † and moistures of two Conventional soybean varieties evaluated in County Standard Tests (n=3) and AgResearch and Education Centers (n=5) in Tennessee in 2015.

		Averages of CST & REC Tests		County Standard Trials		AgResearch and Education Center Trials	
Brand	Variety ‡	Avg. Yield	Moisture	Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%	bu/a	%
USG	Ellis	62	11.3	61	10.2	63	12.3
Armor	48-C5 (STS)	57	11.8	53	10.4	60	13.2
Average (bu/a)		**59**	**11.5**	**57**	**10.3**	**62**	**12.8**

† 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 69. Characteristics of soybean varieties evaluated in Tennessee during 2015, as provided by the seed company.

Brand	Variety ‡	2015 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
AR	Osage	CONV5	5.6	CONV		R	R	R	P	G	Apron Maxx
AR	R09-1589	CONV4	4.9	CONV					P	T	Apron-Maxx
AR	R09-430	CONV5	5.0	CONV					P	G	Apron-Maxx
AR	R10-197RY	RR5L	5.6	RR2					P	G	Apron-Maxx
AR	R10-230	CONV5	5.6	CONV					W	G	Apron-Maxx
AR	R11-89RY	RR5E	5.4	RR2					P	G	Apron-Maxx
AR	UA 5014C	CONV4	4.9	CONV					P	T	Apron-Maxx
AR	UA 5213C	CONV5	5.2	CONV					P	G	Apron Maxx
AR	UA 5414RR	RR5E	5.4	RR					W	G	Apron Maxx
AR	UA 5612	CONV5	5.6	CONV		R			P	G	Apron Maxx
AR	UA 5814HP	CONV5	5.8	CONV					P	T	Apron-Maxx
Armor	41X5L (LL)	LL4	4.1	LL							AL/M/C
Armor	440L (LL)	LL4	4.4	LL							AL/M/C
Armor	47-L10	LL4	4.7	LL							AL/M/C
Armor	46-R65 (RR/STS)	RR4L	4.6	RR/STS	MR 3	R	MR	MR	W	G	AL/M/C
Armor	47-R13 (RR CHECK)	CONV4	4.7	RR/STS	R 3, MR 14	MR	MR	MR	P	G	AL/M/C
Armor	47-R13 (RR/STS)	RR4L	4.7	RR/STS	R 3, MR 14	MR	MR	MR	P	G	AL/M/C
Armor	48-C5 (STS)	CONV4	4.8	CONV/STS							AL/M/C
Armor	497L (LL)	LL4	4.9	LL							AL/M/C
Armor	49-R56 (RR)	RR4L	4.9	RR	R 3	R	MR	MR	P	T	AL/M/C
Armor	49X5L (LL)	LL4	4.9	LL							AL/M/C
Armor	50-R21 (RR)	RR5E	5.0	RR							AL/M/C
Armor	51X5L (LL)	LL5	5.1	LL							AL/M/C
Armor	53-L55 (LL/STS)	LL5	5.3	LL/STS							AL/M/C
Armor	AR43-R51RR2	RR4E	4.3	RR2							AL/M/C
Armor	AR4615 (RR)	RR4L	4.6	RR							AL/M/C
Armor	47-R70RR2	RR4L	4.7	RR2							AL/M/C
Armor	49-R44RR2/STS	RR4L	4.9	RR2/STS							AL/M/C
Armor	AR5205 (RR)	RR5E	5.2	RR							AL/M/C
Armor	X48C (STS)	CONV4	4.8	CONV/STS							AL/M/C
Armor	X49C	CONV4	4.9	CONV							AL/M/C
Asgrow	AG3832 (RR2/SR)	RR3	3.8	RR2/SR	R 3	R	S	MR	P	G	Acceleron I
Asgrow	AG3931 (RR2)	RR3	3.9	RR2	R 3	R	MR	MS	P	G	Acceleron I
Asgrow	AG4135 (RR2/SR)	RR4E	4.1	RR2/SR	MR 3	R	MR	MR	W	LT	Acceleron I
Asgrow	AG4336 (RR2/SR)	RR4E	4.3	RR2/SR	MR 3	R	MS	MS	P	LT	Acceleron I
Asgrow	AG4533 (RR2)	RR4E	4.5	RR2	MR 3	MR	MS	MR	P	LT	Acceleron I
Asgrow	AG4632 (RR2/SR)	RR4L	4.6	RR2/SR	R 3	MS	R	MR	P	LT	Acceleron I
Asgrow	AG4835 (RR2/SR)	RR4L	4.8	RR2/SR	R 3	R	MR	R	P	LT	Acceleron I
Asgrow	AG4934 (RR2/SR)	RR4L	4.9	RR2/SR	MR 3	MR		MS	P	LT	Acceleron I
Asgrow	AG5233 (RR2/SR)	RR5E	5.2	RR2/SR	R 3	R	R	S	P	LT	Acceleron I
Asgrow	AG5335 (RR2/SR)	RR5E	5.3	RR2/SR	R 3	R	MR	MS	W	LT	Acceleron I
Asgrow	AG5533 (RR CHECK)	CONV5	5.5	RR2/STS	R 3	MR	S	MS	P	G	Acceleron I
Asgrow	AG5535 (RR2)	RR5E	5.5	RR2	R1, R 3	MR	MR	R	W	T	Acceleron I
Beck's Hybrids	421R2	RR4E									
Beck's Hybrids	424L4 (LL)	LL4	4.2	LL	Y	R	R	R	W		Escalate
Beck's Hybrids	454L4 (LL)	LL4	4.5	LL	Y	R	R	S	P		Escalate
Beck's Hybrids	474L4 (LL)	LL4	4.7	LL	Y	R	R	R	W		Escalate
Beck's Hybrids	522L4 (LL)	LL5	5.2	LL	Y	R	R	R	P	G	Escalate
Beck's XL Brand	433R2	RR4E	4.3	RR2	Y	R	R	S	W		Escalate
Beck's XL Brand	453R4 (RR)	RR4E	4.5	RR	Y	R	R	R	P		Escalate
Beck's XL Brand	465R4 (RR/STS)	RR4L	4.6	RR/STS	Y	R	R	R	W		Escalate
Beck's XL Brand	485R2 (RR2/STS)	RR4L	4.8	RR2/STS	Y	R	R	S	W	LT	Escalate
Caverndale Farms	CF 415 LLn	LL4	4.1	LL	3, 14	MR	MR	R	W	LT	Metaxyl, Fluidoxonil, Thiabendazole, Imidicloprid, Tag Team, N-Hibit
Caverndale Farms	CF 452 RR2Yn	RR4E	4.5	RR2	3, 14	R	MR	MR	P	LT	Metaxyl, Fluidoxonil, Thiabendazole, Imidicloprid, Tag Team, N-Hibit
Caverndale Farms	CF 472 RR2Y/STSn	RR4L	4.7	RR2/STS	3, 14	R	MR	MR	P	LT	Metaxyl, Fluidoxonil, Thiabendazole, Imidicloprid, Tag Team, N-Hibit
Caverndale Farms	CF 479 LLn	LL4	4.7	LL	3, 14	MR	MR	MR	W	LT	Metaxyl, Fluidoxonil, Thiabendazole, Imidicloprid, Tag Team, N-Hibit
Croplan	3984 (RR)	RR3	3.9	RR	R 3, MR 14	R	S	R	W		Warden CX
Croplan	4700 (RR)	RR4L	4.7	RR	R 3, MR 14	R	S	S	P		Warden CX
Croplan	R2C 4752 S (RR/STS)	RR4L	4.7	RR/STS	R 3 MR 14	R	R	R	P	G	
Delta Grow	4670 RR2	RR4L	4.6	RR2	3	R	R	R	P	T	Cruiser Maxx
Delta Grow	4765 RR2/STS	RR4L	4.7	RR2/STS	3, 14	R	R	R	P	G	Cruiser Maxx
Delta Grow	4825 RR2/STS	RR4L	4.8	RR2/STS	3, 14	R	R	S	W	T	Cruiser Maxx

Table 69 (continued)

Brand	Variety ‡	2014 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
Delta Grow	4880 RR	RR4L	4.8	RR	3, 14	R	R	R	W	T	Cruiser Maxx
Delta Grow	4935 RR2	RR4L	4.9	RR	3, 14	R	R	R	P	G	CruiserMaxx
Delta Grow	4967 LL	LL4	4.9	LL	3, 14	R	S	R	W	G	Cruiser Maxx
Delta Grow	4970 RR	RR4L	4.9	RR	3, 14	R	R	R	P	T	Cruiser Maxx
Delta Grow	4977 LL/STS	LL4	4.9	LL/STS	3, 14	R	S	R	P	G	CruiserMaxx
Delta Grow	4990 LL	LL4	4.9	LL	3, 14	R	R	R	P	G	Cruiser Maxx
Delta Grow	5067 LL	LL5	5.0	LL		R	R	R	P	G	Cruiser Maxx
Delta Grow	5230 RR2	RR5E	5.2	RR	3, 14	R	R	R	W	T	CruiserMaxx
Delta Grow	5367 LL	LL5	5.3	LL		S	S	S	P	G	Cruiser Maxx
Dyna-Gro	31RY45 (RR2)	RR4E	4.5	RR2	3,14	R	MS	R	P	LTB	CruiserMaxx Vibrance
Dyna-Gro	32RY55 (RR2)	RR5E	5.5	RR2	3, 14	R	MS	MR	P	GT	CruiserMaxx Vibrance
Dyna-Gro	39RY43 (RR2)	RR4E	4.3	RR2	3,14	MS	MR	MS	P	GT	CruiserMaxx Vibrance
Dyna-Gro	S42RY46 (RR2)	RR4E	4.2	RR2	3, 14	MR	R	MS	P	LTT	CruiserMaxx Vibrance
Dyna-Gro	S43RY95 (RR2)	RR4E	4.3	RR2	3, 14	R	MS	MR	P	TB	CruiserMaxx Vibrance
Dyna-Gro	S46LL05 (LL)	LL4	4.6	LL	3, 14	MR	MS	MS	W	GT	CruiserMaxx Vibrance
Dyna-Gro	S46RY85 (RR2)	RR4L	4.6	RR2	3, 14	R	MR	S	P	GB	CruiserMaxx Vibrance
Dyna-Gro	S47RY13 (RR2)	RR4L	4.7	RR2	3, 14	R	MR	MR	P	LTB	CruiserMaxx Vibrance
Dyna-Gro	S48RS53 (RR2/STS)	RR4L	4.8	RR2/STS	3, 14	R	MS	MR	P	GT	CruiserMaxx Vibrance
Dyna-Gro	S49LL34 (LL)	LL4	4.9	LL	3, 14	MR	MR	MR	P	GT	CruiserMaxx Vibrance
Dyna-Gro	S49LS65 (LL/STS)	LL4	4.9	LL/STS	3, 14	MR	MS	MR	P	GT	CruiserMaxx Vibrance
Dyna-Gro	S49RY25 (RR2)	RR4L	4.9	RR2	3, 14	MR	R	MR	P	GB	CruiserMaxx Vibrance
Dyna-Gro	S51RY45 (RR2)	RR5E	5.1	RR2	3, 14	R	MR	MS	P	LTB	CruiserMaxx Vibrance
Dyna-Gro	S52LL66 (LL)	LL5	5.2	LL	3, 14	MR	MR	MR	P	GT	CruiserMaxx Vibrance
Dyna-Gro	S52RY75 (RR2)	RR5E	5.2	RR2	1	R	MR	R	W	LTT	CruiserMaxx Vibrance
Dyna-Gro	S55LS75 (LL/STS)	LL5	5.5	LL/STS	S	R	MR	R	W	TT	CruiserMaxx Vibrance
Dyna-Gro	S56RY84 (RR2)	RR5L	5.6	RR2	3, 14	MR	MR	R	P	TT	CruiserMaxx Vibrance
Dyna-Gro	S52RS86 (RR2/STS)	RR5E	5.2	RR2/STS	3, 14	R	R	MS	P	LTT	CruiserMaxx Vibrance
GoSoy	4115R2	RR4E	4.1	RR			MS	MS	P	LT	CruiserMaxx VIB
GoSoy	4415LL (STS)	LL4	4.4	LL/STS		MR	MR	MR	P	LT	CruiserMaxx VIB
GoSoy	4714GTS (RR)	RR4L	4.7	RR		R	MR	MS	P	LT	CruiserMaxx VIB
GoSoy	4714LL	LL4	4.7	LL		MR	MS	MR	W	LT	CruiserMaxx VIB
GoSoy	4914GTS (RR)	RR4L	4.9	RR				R	P	T	CruiserMaxx VIB
GoSoy	4915R2	RR4L	4.9	RR/STS		MR	MR	MR	P	G	CruiserMaxx VIB
GoSoy	5215LL	LL5	5.2	LL		MR	MS	MR	P	G	CruiserMaxx VIB
GoSoy	Glider	CONV4	4.7	CONV		R		MS	W	LT	CruiserMaxx VIB
GoSoy	Ireane	CONV4	4.9	CONV		MR		MR	W	G	CruiserMaxx VIB
GoSoy	Leland	CONV5	5.0	CONV	1, 2, 3, 5, 14	MR	R	R	W	T	CruiserMaxx VIB
Hornbeck	CZ 3560 RY	RR3	3.5	RR2		S	R	R	P	G	Poncho, Votivo, ILeVO
Hornbeck	CZ 4181 RY (STS)	RR4E	4.1	RR2/STS		S	R	R	P	T	Poncho, Votivo, ILeVO
Hornbeck	CZ 4540 LL	LL4	4.5	LL		R	S	S	W	T	Poncho, Votivo, ILeVO
Hornbeck	CZ 4590 RY	RR4E	4.5	RR2		S	S	R	P	T	Poncho, Votivo, ILeVO
Hornbeck	CZ 4748 LL	LL4	4.7	LL		S	S	S	W	T	Poncho, Votivo, ILeVO
Hornbeck	CZ 4818 LL	LL4	4.8	LL		S	S	S	W	T	Poncho, Votivo, ILeVO
Hornbeck	CZ 4959 RY	RR4L	4.9	RR2		S	S	S	P	T	Poncho, Votivo, ILeVO
Hornbeck	CZ 5147 LL	LL5	5.1	LL		S	S	S	P	T	Poncho, Votivo, ILeVO
Hornbeck	CZ 5150 LL	LL5	5.1	LL		S	S	R	G	T	Poncho, Votivo, ILeVO
Hornbeck	CZ 5225 LL (STS)	LL5	5.2	LL/STS					W	T	Poncho, Votivo, ILeVO
Hornbeck	CZ 5242 LL	LL5	5.2	LL		S	S	R	G	T	Poncho, Votivo, ILeVO
Hornbeck	CZ 5242 LL (LL CHECK)	CONV5	5.2	LL		S	S	R	G	T	Poncho, Votivo, ILeVO
Hornbeck	CZ 5445 LL	LL5	5.4	LL		S	S	R	W	T	Poncho, Votivo, ILeVO
Hornbeck	CZ 5515 LL (STS)	LL5	5.5	LL/STS		S	S	R	P	T	Poncho, Votivo, ILeVO
Hornbeck	HBK LL4653	LL4	4.6	LL		S	S	S	G	T	Poncho, Votivo, ILeVO
Hornbeck	HBK LL4950	LL4	4.9	LL		S	S	R	G	T	Poncho, Votivo, ILeVO
Hornbeck	HBK LL4950 (LL CHECK	CONV4	4.9	LL			MR	R	P	G	Imidicloprid, Metalaxyl, Ipconazole
Hornbeck	HBK LL4953	LL4	4.9	LL		S	S	R	G	T	Poncho, Votivo, ILeVO
Hornbeck	HBK RY4721 (RR2/STS)	RR4L	4.7	RR2/STS		S	R	R	P	T	Poncho, Votivo, ILeVO
Hornbeck	HBK RY5221 (RR2)	RR5E	5.2	RR2		S	S	S	P	G	Poncho, Votivo, ILeVO
LG Seeds	C4221R2 (STS)	RR4E	4.2	RR2/STS	R 3, MR 14	S	MR	MR	P	LT	Poncho/Votivo, metalaxyl, fluxapyroxad, pyraclostrobin
LG Seeds	C4322R2	RR4E	4.3	RR2	R 3, MR 14	R	MR	MR	P	LT	Poncho/Votivo, metalaxyl, fluxapyroxad, pyraclostrobin
LG Seeds	C4780R2 (STS)	RR4L	4.7	RR2/STS	R 3, MR 14	R	MR	R	P	G	Poncho/Votivo, metalaxyl, fluxapyroxad, pyraclostrobin
LG Seeds	C4867R2 (STS)	RR4L	4.8	RR2/STS	R 3, MR 14	MR	MR	MS	W	LT	Poncho/Votivo, metalaxyl, fluxapyroxad, pyraclostrobin
LG Seeds	C4994R2	RR4L	4.9	RR2	R 3, MR 14	MR	R	MR	P	G	Poncho/Votivo, metalaxyl, fluxapyroxad, pyraclostrobin

Table 69 (continued)

Brand	Variety ‡	2014 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
MO	S11-16653	CONV5	5.2	CONV	1, 3, 5	R	MR	R	W	G	CruiserMaxx Advanced
MO	S11-17025	CONV5	5.3	CONV	1, 2, 3, 5, 14	R	MR	S	W	T	CruiserMaxx Advanced
MO	S11-20195 (RR)	RR5E	5.3	RR	1, 2, 3, 5, 14	R	MR	S	P	T	CruiserMaxx Advanced
MO	S11-20337 (RR)	RR4L	4.9	RR	1, 2, 3, 5, 14	R	MR	R	P	T	CruiserMaxx Advanced
MO	S12-3791	CONV4	4.7	CONV	3, 14	R		R	W	G	CruiserMaxx Advanced
Mycogen	5N404R2	RR4E	4.0	RR2	3, 14	R	R	S	P	G	CruiserMaxx
Mycogen	5N433R2	RR4E	4.3	RR2	3, 14	R	R		P	T	CruiserMaxx
Mycogen	5N452R2	RR4E	4.5	RR2	3, 14	R	R	R	P	T	Cruiser Maxx
Mycogen	5N479R2 (STS)	RR4L	4.7	RR2/STS	3, 14	R	R	R	P	G	Cruiser Maxx
Mycogen	5N490R2 (STS)	RR4L	4.5	RR2/STS	3, 14	R	R	S	P	T	CruiserMaxx
Mycogen	5N501R2	RR5E	5.0	RR2	3, 14	R	R	R	P	G	CruiserMaxx
Mycogen	5N522R2	RR5E	5.2	RR2	3, 14	R	R	R	W	T	CruiserMaxx
NK Seed	S39-T3 (RR2/STS)	RR3	3.9	RR2/STS	R 3, MR 14		R	MR	W	T	Mefenoxam, Fludioxonil, Sedaxane, Thiamethoxam, Clariva PN
NK Seed	S45-R7 (RR2/STS)	RR4E	4.5	RR2/STS	R 3, MR 14		R	MR	W	T	Mefenoxam, Fludioxonil, Sedaxane, Thiamethoxam, Clariva PN
NK Seed	S48-D9 (RR2)	RR4L	4.8	RR2	R 3, MR 14		MR	R	W	T	Mefenoxam, Fludioxonil, Sedaxane, Thiamethoxam, Clariva PN
Progeny	4211RY	RR4E	4.2	RR2	R 3, MR 14		MR	MR	P	G	Poncho 600, Votivo
Progeny	4214RY	RR4E	4.3	RR2	R 3, MR 14	MR	MR	MR	P	LT	Poncho 600, Votivo
Progeny	4613RYS	RR4L	4.6	RR2/STS	R	R	MR	MR	W	G	Poncho 600, Votivo
Progeny	4757RY	RR4L	4.7	RR2	R 3, MR 14	R	MR	R	W	LT	Poncho 600, Votivo
Progeny	4788RY	RR4L	4.7	RR2	R 3, MR 14	MR	MS	R	P	LT	Poncho 600, Votivo
Progeny	4814LL	LL4	4.8	LL/STS					P	T	Poncho 600, Votivo
Progeny	4850RYS	RR4L	4.8	RR2/STS	R-3, MR-14	R	MR	MR	P	G	Poncho 600, Votivo
Progeny	4900RY	RR4L	4.9	RR2	R 3, MR 14	MR	MR	MR	P	LT	Poncho 600, Votivo
Progeny	4930LL	LL4	4.9	LL	MR 3	MR	MR	R	P	G	Poncho 600, Votivo
Progeny	5160LL	LL5	5.1	LL	MR 3	MR	MR	R	P	G	Poncho 600, Votivo
Progeny	5213RY	RR5E	5.2	RR2	R-3	R	MR	MR	P	LT	Poncho 600, Votivo
Progeny	5226RYS	RR5E	5.2	RR2/STS	R 3, MR 14	R	MR	MR	P	LT	Poncho 600, Votivo
Progeny	5333RY	RR5E	5.3	RR2	R 3	R	MR	MR	W	G	Poncho 600, Votivo
Progeny	5414LLS	LL5	5.4	LL/STS					W	T	Poncho 600, Votivo
Progeny	5460LL	LL5	5.4	LL	MR 3	MR	MR	MR	P	LT	Poncho 600, Votivo
Progeny	5555RY	RR5E	5.5	RR2	R-3	MR	MR	MR	P	T	Poncho 600, Votivo
Progeny	5610RY	RR5L	5.6	RR2	R 3, MR 14			R	P	G	Poncho 600, Votivo
Progeny	5752RY	RR5L	5.7	RR2		R	MR	R	P	T	Poncho 600, Votivo
Progeny	5960LL	LL5	5.9	LL	MR 3	MR	MR	MR	W	G	Poncho 600, Votivo
Schillinger Seed	495.RC (RR)	RR4L	4.9	RR	3,14	R	S		P	LT	CruiserMaxx VIB
Schillinger Seed	5220.RC	RR5E	5.2	RR	3	R	S		W	LT	Cruiser Maxx VIB
Steyer	4503R2	RR4E	4.5	RR	3, 14	MR	MR	MR	P	LT	Surestand-Maxim, Apron, Cruiser
Steyer	4602R2	RR4L	4.6	RR	3, 14	MR	MR	MR	P	G	Surestand-Maxim, Apron, Cruiser
Steyer	4703R2 (STS)	RR4L	4.7	RR/STS	3, 14	MR	MS	MS	P	LT	Surestand-Maxim, Apron, Cruiser
Steyer	5002R2	RR5E	5.0	RR	3, 14	MR	MR	MR	P	G	Surestand-Maxim, Apron, Cruiser
Steyer	5302R2 (STS)	RR5E	5.3	RR/STS	3, 14	R	MR	MS	P	LT	Surestand-Maxim, Apron, Cruiser
Terral-REV Brand	39A35 (RR)	RR3	3.9	RR				S	P	LT	Apron, Evergol Energy, Gaucho
Terral-REV Brand	44A14 (RR2)	RR4E	4.4	RR2	MS 1, MR 3			S	W	LT	Apron, Evergol Energy, Gaucho
Terral-REV Brand	47R34 (RR)	RR4L	4.7	RR	R 3, MR 14	R			P	LT	Apron, Evergol Energy, Gaucho
Terral-REV Brand	47R53 (RR)	RR4L	4.7	RR	MS 3, MS 4	R		R	P	TW	Apron, Evergol Energy, Gaucho
Terral-REV Brand	49A14 (RR2/STS)	RR4L	4.9	RR2/STS	MR 3			S	W	LT	Apron, Evergol Energy, Gaucho
Terral-REV Brand	49A55 (RR)	RR4L	4.9	RR	MR 3, MR 14	R			W	G	Apron, Evergol Energy, Gaucho
Terral-REV Brand	49A75 (RR)	RR4L	4.9	RR		R		S	P	T	Apron, Evergol Energy, Gaucho
Terral-REV Brand	49L29 (LL)	LL4	4.9	LL		R	R	R	PW	G	Apron, Evergol Energy, Gaucho
Terral-REV Brand	49R94 (RR)	RR4L	4.9	RR	R 3, MR 14				P	T	Cruiser Maxx
Terral-REV Brand	51A56 (RR)	RR5E	5.1	RR							Apron, Evergol Energy, Gaucho
Terral-REV Brand	52A94 (RR/STS)	RR4L	5.2	RR/STS	R 3, MR 14	R			P	G	Apron, Evergol Energy, Gaucho
Terral-REV Brand	54R84 (RR)	RR5E	5.4	RR	MR 3, MR 14	R			P	T	Apron, Evergol Energy, Gaucho
Terral-REV Brand	55L95 (LL)	LL5	5.5	LL							Apron, Evergol Energy, Gaucho
Terral-REV Brand	55R53 (RR)	RR5E	5.5	RR	MR 3, R 14			R	W	T	Apron, Evergol Energy, Gaucho
Terral-REV Brand	56R63 (RR)	RR5L	5.6	RR	MR 3, MR 14	R		R	W	G	Apron, Evergol Energy, Gaucho
Terral-REV Brand	57R21 (RR)	RR5L	5.7	RR	MS 3	R		R	P	T	Apron, Evergol Energy, Gaucho
TN Exp	TN08-100	CONV5	V	CONV					W	G	
TN Exp	TN09-193	CONV4	IV-E	CONV					W	LT	
TN Exp	TN11-4506R2	RR4E	IV-E	RR2					P	LT	
TN Exp	TN11-5083	CONV4	IV-L	CONV					W	T	
TN Exp	TN12-4013	CONV4	IV-E	CONV					W	G	

Table 69 (continued)

Brand	Variety ‡	2014 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
TN Exp	TN12-4036	CONV4	IV-E	CONV					W	G	
TN Exp	TN12-4059	CONV4	IV-E	CONV					W	G	
TN Exp	TN12-4711R2	RR4L	IV-L	RR2					P	G	
TN Exp	TN12-4715R2	RR4E	IV-E	RR2					P	LT	
TN Exp	TN12-5014	CONV5	V	CONV					W	G	
TN Exp	TN12-5507R2	RR5E	V-E	RR2					P	G	
TN Exp	TN12-5508R2	RR4L	IV-L	RR2					P	G	
TN Exp	TN12-5707R2	RR5L	V-L	RR2					P	T	
TN Exp	TN12-5712R2	RR5L	V-L	RR2					P	LT	
TN Exp	TN13-4303	CONV4	IV-L	CONV					W	G	
TN Exp	TN13-4304	CONV4	4.9	CONV					W	G	
TN Exp	TN13-4504R2	RR4E	IV-E	RR2					P	G	
TN Exp	TN13-4508R2	RR4L	IV-L	RR2					P	LT	
TN Exp	TN13-5508R2	RR5E	V-E	RR2					W	LT	
TN Exp	TN13-5513R2	RR5L	V-L	RR2					W	G	
TN Exp	TN13-5531RR1	RR5E	V-E	RR					W	G	
TN Exp	TN13-5537RR1	RR5E	5.2	RR	2, 5			R	W	G	
TN Exp	TN13-5745RR1	RR5L	V-L	RR					W	G	
TN Exp	TN14-4401	CONV4	IV-L	CONV					P	T	
TN Exp	TN14-4402	CONV4	IV-L	CONV					P	T	
USDA-TN	JTN-5110	CONV5	5.5	CONV	2, 3, 5	R	R	R	P	T	Apron Maxx, Moly, Gaucho 600
USDA-TN	JTN-5203	CONV5	5.3	CONV	2, 3, 5, 14	R	R	R	W	G	Apron Maxx, Moly, Gaucho 600
USG	73P93R (RR2)	RR3	3.9	RR2	R 3, MR 14				P	G	Imidicloprid, Metalaxyl, Ipconazole
USG	74A74RS (RR2/STS)	RR4L	4.7	RR2/STS	R 3, MR 14	R	MR	MS	P	LT	Imidicloprid, Metalaxyl, Ipconazole
USG	74A79R (RR2/STS)	RR4L	4.7	RR2/STS		R	MR		P	LT	Imidicloprid, Metalaxyl, Ipconazole
USG	74B83R (RR2/STS)	RR4L	4.8	RR2/STS	R 3, MR 14	MR	R	MR	W	LT	Imidicloprid, Metalaxyl, Ipconazole
USG	74D95RS (RR2/STS)	RR4L	4.9	RR2/STS	R 3, MR 14	R	MR	MR	P	G	Imidicloprid, Metalaxyl, Ipconazole
USG	74F24RS (RR2/STS)	RR4E	4.2	RR2/STS	R 3, MR 14	R	MR	MS	P	LT	Imidicloprid, Metalaxyl, Ipconazole
USG	74F24RS (RR4E CHECK	RR3	4.2	RR2/STS	R 3, MR 14	R	MR	MS	P	LT	Imidicloprid, Metalaxyl, Ipconazole
USG	74F53RS (RR2/STS)	RR4E	4.5	RR2/STS		R	R	MS	P	G	Imidicloprid, Metalaxyl, Ipconazole
USG	74G74LS (LL/STS)	LL4	4.7	LL/STS		MR	MR	MR	P	G	Imidicloprid, Metalaxyl, Ipconazole
USG	74G99L (LL)	LL4	4.9	LL			MR	R	P	G	Imidicloprid, Metalaxyl, Ipconazole
USG	74K95RS (RR2/STS)	RR5E	5.4	RR2/STS	R 3, MR 14	MR	MR	R	P	G	Imidicloprid, Metalaxyl, Ipconazole
USG	75B75R (RR2)	RR5L	5.7	RR2	MR 1	R	R	R	P	T	Imidicloprid, Metalaxyl, Ipconazole
USG	75G24L (LL)	LL5	5.2	LL			MR	MR	P	G	Imidicloprid, Metalaxyl, Ipconazole
USG	75J23R (RR CHECK)	CONV5	5.2	RR2	R 3	R	R	MR	P	LT	Imidicloprid, Metalaxyl, Ipconazole
USG	75J23R (RR2)	RR5E	5.2	RR2	R 3	R	R	MR	P	LT	Imidicloprid, Metalaxyl, Ipconazole
USG	75J45R (RR2)	RR5E	5.4	RR2	R 3, MR 14	MR	R	R	P	T	Imidicloprid, Metalaxyl, Ipconazole
USG	75T40 (RR)	RR5E	5.4	RR	R 2, MR 14		MR		W	G	Imidicloprid, Metalaxyl, Ipconazole
USG	Ellis	CONV4	4.9	CONV					W	G	Imidicloprid, Metalaxyl, Ipconazole
Warren Seed	DS 3780 R2Y	RR3	3.7	RR2	3, 14						Cruiser Maxx
Warren Seed	DS 3838 R2Y	RR3	3.8	RR2	3, 14				P	LT	CruiserMaxx
Warren Seed	DS 43-003 R2Y	RR4E	4.3	RR2	3, 14						Cruiser Maxx
Warren Seed	DS 4340 R2Y	RR4E	4.3	RR2	3, 14				P	G	Cruiser Maxx
Warren Seed	DS 4633 R2Y	RR4L	4.6	RR2	3, 14				P	LT	Cruiser Maxx
Warren Seed	DS 4720 R2Y/STS	RR4L	4.7	RR2/STS	3, 14						Cruiser Maxx
Warren Seed	DS 4850 R2Y/STS	RR4L	4.8	RR2/STS	3, 14				P	LT	Cruiser Maxx

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

RR / RR2 = 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.

RR3 = Roundup Ready 3

R4E = Roundup Ready Early Group 4

R4L = Roundup Ready Late Group 4

R5E = Roundup Ready Early Group 5

R5L = Roundup Ready Late Group 5

CONV4 = Conventional Group 4

CONV5 = Conventional Group 5

LL4 = Liberty Link Group 4

LL5 = Liberty Link Group 5

Table 70. Contact information for soybean seed companies evaluated in yield tests in Tennessee during 2015.

Company	Contact	Phone	Email	Web site	Address
University of Arkansas	Tina Hart	479-466-2213	tlhard@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	2532 Alexander Drive Suite B, Jonesboro, AR 72401
Asgrow (Monsanto)	Larry Ganann	901-326-7140	larry.w.ganann@monsanto.com	www.asgrowanddekalb.com	5329 Cypress Hollow Drive, Lakeland, TN 38002
Beck's Hybrids	Craig Hurley	317-984-3508	craig.hurley@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 Farmers Co-op Valley Farmers Co-op Johnson City Chemical Co. Maury County Co-op
Croplan Genetics (Winfield)	Caleb Robertson	731-614-5234	clrobertson@landolakes.com	http://www.winfield.com/farmer/croplan/	
Delta Grow Seed	Lee Hughes	501-842-2572	leehughes19@hotmail.com	www.deltagrow.com	P O Box 219, England, AR 72046
Dyna-Gro (Crop Production Services)	Crop Production Services Brandon Sheridan, Dyna-Gro Rep Scott Mitchell, Seed Manager	731-885-1212 901-461-3061 731-446-8506	 brandon.sheridan@cpsagu.com scott.mitchell@cpsagu.com	www.dynagroseed.com	Crop Production Services 710 S. First Street, Union City, TN 38261
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	Jesse Grogan	765-426-2763	jesse.grogan@lgseeds.com	www.lgseeds.com	303 Sherwood Dr., Hokinsville, KY 42240
University of Missouri	Grover Shannon	573-379-5431	shannong@missouri.edu		University of Missouri, 147 State Hwy T Partageville, MO 63873
Mycogen Seed	Tom McDow Mckenzie Clifton	901-495-5137 405-368-3867	TMMcDow@dow.com MDClifton@dow.com	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	11055 Wayzata Blvd, Minnetonka, MN 55305
Progeny	Hillary Spain	870-208-6032	hillary@progenyag.com	www.progenyag.com	1529 Hwy 193, Wynne, AR 72396
Steyer Seeds	Kevin Swanks	423-506-1008	kevinswanks@steyerseeds.com	www.steyerseeds.com	720 Woody Rd., Ten Mile, TN 37880
Stratton Seed Company (Go Soy, Midwest Premium Genetics)	Heath North	800-264-4433	hnorth@strattonseed.com	www.strattonseed.com	1530 Hwy 79 South, Stuttgart, AR 72160
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	Marty Hale	318-231-8800	mhale@terralseed.com	www.terralseed.com	111 Ellington Dr., Rayville, LA 71269
USDA-ARS TN	Lisa Fritz	731-425-4736	lisa.fritz@ars.usda.gov		Not available for purchase
Unisouth Genetics (USG)	Stacy Burwick Fandrich Supply Co. Huffstetler & Sons Seed Inc. Hurt Seed Co. Inc. Obion Grain Co. Inc. Sellers Seed	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 Belvidere, TN 484 Hwy 45 South, Greenfield, TN 38230 P.O. Box 276, Halls, TN 38040 P.O. Box 119, Obion, TN 38240 4818 Jim Carver Rd., Obion, TN 38240
Warren Seed	Lanny Warren	731-234-2921	lanny.warren@charter.net	lanny.warren@charter.net	208 South Thompson St., Union City, TN 38261



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