

SOYBEAN VARIETY TESTS IN TENNESSEE 2017



Soybean Variety Tests in Tennessee

2017

Virginia Sykes, Assistant Professor, Variety Testing Coordinator and Agroecology Specialist

Alison Willette, Research Associate, Variety Testing and Agroecology

Ryan Blair, Extension Area Specialist, Grain Crops & Cotton

Heather Kelly, Associate Professor, Field Crops Plant Pathology Specialist

Vince Pantalone, Professor, Soybean Breeding and Genetics

Chris Smallwood, Research Scientist, Soybean Breeding and Genetics

Angela Thompson McClure, Professor, Corn & Soybean Specialist

**Agronomic Crop Variety Testing and Demonstrations
Department of Plant Sciences
Institute of Agriculture
University of Tennessee
Knoxville**

•Telephone: 865-974-7285

•FAX: 865-974-1947

•email: vsykes@utk.edu

This report is available as a pdf at:

utcrops.com

**Searchable, mobile friendly tables are available
at: search.utcrops.com/data**

Acknowledgments

This research was funded by UT AgResearch and UT Extension with partial funding from participating companies and the Tennessee Soybean Promotion Board.

We gratefully acknowledge the assistance of the following individuals in conducting these experiments:

AgResearch and Education Centers:

East Tennessee AgResearch and Education Center (Knoxville, TN)

Robert Simpson, Center Director

BJ DeLozier, Farm Manager

Cody Fust, Farm Crew Leader

Charles Summey, Senior Field Worker

Highland Rim AgResearch and Education Center (Springfield, TN)

Robert Ellis, Director

Brad S. Fisher, Research Associate

AgResearch and Education Center at Milan (Milan, TN)

Blake Brown, Center Director

Chris Bridges, Research Associate

James McClure, Research Associate

Jason Williams, Research Associate

West Tennessee AgResearch and Education Center (Jackson, TN)

Robert Hayes, Center Director

Randi Dunagan, Research Associate

Agricenter International (Memphis, TN)

Bruce Kirksey, Director

Additionally, we are grateful for the continued support of our county standard tests which would not be possible without the dedication of the many county Extension agents and cooperators who contribute to these results (for a full list of Extension agents and cooperators, see Table 2).

Table of Contents

Experimental Procedures -----	5
Interpretation of Data -----	6
Results -----	6
Tables: AgResearch and Education Center (REC), County Standard (CST), & Disease Tests	
REC location information (Table 1)-----	8
CST location information (Table 2)-----	9
<u>Maturity Group III</u>	
Table 3. 2017 Yield and Agronomic Data across REC Locations-----	11
Table 4. 2017 Yield Data by REC Location-----	12
Table 5. 2017 Roundup Ready CST -----	13
Table 6. 2017 Varieties Common to both REC and CST Tests-----	13
Table 7. 2017 Roundup Ready Disease Tests-----	14
* 2yr and 3yr Yield and Agronomic Data were not significant and are not presented for this test	
<u>Maturity Group IV Early (4.0-4.5)</u>	
Table 8. 2017 Yield and Agronomic Data across REC Locations-----	15
Table 9. 2017 Yield Data by REC Location-----	17
Table 10. 2017 Roundup Ready CST -----	18
Table 11. 2017 Liberty Link CST -----	19
Table 12. 2017 Varieties Common to both REC and CST Tests-----	20
Table 13. 2017 Roundup Ready Disease Tests-----	21
Table 14. 2017 Liberty Link Disease Tests-----	22
Table 15. 2yr Yield and Agronomic Data across REC Locations-----	23
Table 16. 2yr Yield Data by REC Location-----	24
* 3yr Yield and Agronomic Data were not significant and are not presented for this test	
<u>Maturity Group IV Late (4.6-4.9)</u>	
Table 17. 2017 Yield and Agronomic Data across REC Locations-----	25
Table 18. 2017 Yield Data by REC Location-----	28
Table 19. 2017 Roundup Ready CST -----	30
Table 20. 2017 Liberty Link CST -----	31
Table 21. 2017 Varieties Common to both REC and CST Tests-----	32
Table 22. 2017 Roundup Ready Disease Tests-----	33
Table 23. 2017 Liberty Link Disease Tests-----	34
Table 24. 2yr Yield and Agronomic Data across REC Locations-----	35
Table 25. 2yr Yield Data by REC Location-----	36
Table 26. 3yr Yield and Agronomic Data across REC Locations-----	37
Table 27. 3yr Yield Data by REC Location-----	38
<u>Maturity Group V Early (5.0-5.5)</u>	
Table 28. 2017 Yield and Agronomic Data across REC Locations-----	39
Table 29. 2017 Yield Data by REC Location-----	40
Table 30. 2017 Roundup Ready CST -----	41
Table 31. 2017 Varieties Common to both REC and CST Tests-----	42
Table 32. 2017 Roundup Ready Disease Tests-----	43
Table 33. 2yr Yield and Agronomic Data across REC Locations-----	44
Table 34. 2yr Yield Data by REC Location-----	45
Table 35. 3yr Yield and Agronomic Data across REC Locations-----	46
Table 36. 3yr Yield Data by REC Location-----	47

Maturity Group V Late (5.6-5.9)

Table 37. 2017 Yield and Agronomic Data across REC Locations-----	48
Table 38. 2017 Yield Data by REC Location-----	49
Table 39. 2yr Yield and Agronomic Data across REC Locations-----	50
Table 40. 2yr Yield Data by REC Location-----	51
Table 41. 3yr Yield and Agronomic Data across REC Locations-----	52
Table 42. 3yr Yield Data by REC Location-----	53
Soybean Variety Characteristics (Table 43) -----	54
Seed Company Contact Information (Table 44) -----	59
Abbreviations for Biotech Traits (Table 45) -----	60

SOYBEAN VARIETY TESTS IN TENNESSEE

2017

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), Highland Rim (Springfield), East Tennessee (Knoxville), Milan (Milan), and West Tennessee (Jackson) AgResearch & Education Centers (**REC**). Entries were divided into the following tests based on relative maturity: **MG-3** (relative maturity: 3.0-3.9), **MG-4E** (relative maturity: 4.0-4.5), **MG-4L** (relative maturity: 4.6-4.9), **MG-5E** (relative maturity: 5.0-5.5), and **MG-5L** (relative maturity: 5.6-5.9). Each test was treated using conventional herbicides rather than splitting tests by herbicide tolerance. Duplicate plantings of all five tests 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, 30-ft. rows with 30-inch row spacing. All varieties were planted at approximately 6 seeds per foot of row (i.e., approximately 140,000 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 detected in Giles County in Tennessee on August 23, 2017, putting late-planted soybeans at risk. 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 46. 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 five in Western Kentucky. The number of county locations depended on the test (Table 2). The County Standard Tests were divided by herbicide tolerance into Roundup Ready (RR) and Liberty Link (LL) and then further divided by relative maturity. Tests included **RR3** (relative maturity: 3.0-3.9), **RR4 Early** (relative maturity: 4.0-4.5), **RR4 Late** (relative maturity: 4.6-4.9), **RR5 Early** (relative maturity: 5.0-5.5), **LL4 Early** (relative maturity: 4.0-4.5), and **LL4 Late** (relative maturity: 4.6-4.9). 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 yield performance, the highest-yielding entry being listed first. Mean separation was performed using the **LSD (Least Significant Difference) test**. The mean trait value of any two entries being compared must differ by at least the LSD amount shown to be considered different at the 5% level of probability of significance. For example, given that the LSD for a test is 1.3 tons/a and the mean yield of Hybrid A was 9.3 tons/a and the mean yield of Hybrid B was 8.2 tons/a, then the two hybrids are not statistically different in yield because the difference of 1.1 tons/a is less than the minimum of 1.3 tons/a required for them to be significant. Similarly, if the average yield of Hybrid C was 10.6 tons/a then it is significantly higher yielding than both Hybrid B ($10.6 - 8.2 = 2.4$ tons/a > LSD of 1.3) and Hybrid A ($10.6 - 9.3 = 1.3$ tons/a = LSD of 1.3). Tests with an LSD value of N.S. indicate there were no significant differences in entry performance within that test.

To simplify interpretation, **Mean Separation Letters** have been listed next to each entry for the test of average yield across all locations. Hybrids that have any letter in common are not significantly different in yield at the 5% level of probability based on the LSD test. Hybrids with performance not significantly different from the top-performing hybrid will have an “A” included in the list of mean separation letters next to that entry.

The **coefficient of variation (C.V.)** values are also shown at the bottom of each table. This value is a measure of the error variability found within each experiment. It is calculated as the ratio of the square root of error variance to the mean yield. 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. One hundred ninety-three soybean varieties were evaluated in the 2017 **AgResearch and Education Center (REC)** tests in Tennessee. There were 17 varieties in the MG-3, 44 in the MG-4E, 87 in the MG-4L, 32 in the MG-5E, and 13 in the MG-5L. In terms of herbicide tolerance, entries were either conventional, Roundup Ready (RR, glyphosate tolerance), Roundup Ready 2 Yield (RR2, glyphosate tolerance), Roundup Ready 2 eXtend (R2X, glyphosate and dicamba tolerance), Liberty Link (glufosinate tolerance), or stacks of these tolerances with sulfonylurea (STS) tolerance. Proportional to the total number of entries, 13% were conventional, 13% were RR or RR/STS stacks, 11% were RR2 or RR2/STS stacks, 47% were RR2X or RR2X/STS stacks, and 17% were LL or LL/STS stacks. The **County Standard tests (CST)** involved 80 varieties total, including the following number of varieties and counties within each test: RR3 test - eight varieties at 10 locations, RR4E test - 21 varieties at 14 locations, LL4E test – eight varieties at nine locations, RR4L test - 24 varieties at 10 locations, LL4L test – 17 varieties at nine locations, RR5E test - 10 varieties at five locations. In addition to 22 Tennessee counties, the County Standard Tests involved three counties in Western Kentucky (Calloway, Fulton and McCracken).

Tables 3-42 contain data on yield and agronomic traits such as maturity, plant height, lodging, seed protein and oil content. **Table 43** lists the names and descriptive characteristics, as provided by the submitting seed company, of varieties included in the REC tests in 2017. **Table 44** contains the contact information for each soybean seed company with entries in the 2017 REC tests. **Table 45** contains abbreviations used for herbicide tolerance traits.

Irrigated vs. Non-irrigated Yields. Duplicate tests were conducted at the Milan and Highland Rim AgResearch and Education Centers with and without irrigation. A difference in irrigated and non-irrigated average soybean yields was observed; however, this varied by maturity group and location. Very small differences were observed at the Milan location, with less than 1 bu/a difference in average yield between irrigated and non-irrigated plots in the MG3, MG4E and MG4L tests. Slightly higher average yields were observed in the irrigated compared with non-irrigated plots within the MG5E test (+ 2.7 bu/a) and the MG5L test (+ 5.3 bu/a). Differences were greater at the Highland Rim location with earlier maturing varieties exhibiting the greatest yield differential. At this location, irrigated outperformed non-irrigated average yield within all tests (MG3: + 13.8 bu/ac, MG4E: + 22/3 bu/ac, MG4L: + 9.8 bu/ac, MG5E: + 8.3 bu/ac, MG5L: + 4.5 bu/ac).

Growing Season: All REC locations were planted between mid- and late-May. Statewide soybean planting remained on par with the 5-year average, with 53% of soybeans in Tennessee planted by late-May and 86% planted by late-June. The growing season was characterized by favorable weather with adequate rainfall throughout most of the season. By late September, 82% of the crop rated good to excellent. Harvest remained on par with the 5-year average, and 49% of soybeans had been harvested by the end of October. According to the National Agricultural Statistics Service, Tennessee producers planted 1.69 million acres of soybeans this year, an increase of 30,000 acres from 2016. Acreage harvested for grain is projected to be 1.66 million, an increase of 30,000 acres from last season. Soybean production for 2017 is projected to be 83 million bushels, an increase of 13% from the previous year. The state soybean yield average is projected to be 50 bu/ac, which is 5 bu/ac higher than the 2016 yield.

Table 1. Location information from AgResearch and Education Centers (REC) where the soybean variety tests were conducted in 2017.

Maturity Group III

AgResearch and Education Center	Location	Irrigation	Planting Date	Harvest Date	Seeding Rate	Soil Type
Highland Rim (Irrigated)	Springfield	Irrigated	May 16, 2017	October 3, 2017	140000	Sango Silt Loam
Highland Rim (Non-Irrigated)	Springfield	Non-irrigated	May 16, 2017	October 4, 2017	140000	Dickson Silt Loam
East Tennessee	Knoxville	Irrigated	May 19, 2017	October 2, 2017	140000	Shady Loam
Milan (Irrigated)	Milan	Irrigated	May 30, 2017	October 3, 2017	140000	Loring Silt Loam
Milan (Non-Irrigated)	Milan	Non-irrigated	May 23, 2017	October 3, 2017	140000	Grenada Silt Loam
West Tennessee	Jackson	Non-irrigated	May 17, 2017	September 22, 2017	140000	Memphis Silt Loam/Falaya Silt Loam

Maturity Group Early IV (4.0 - 4.5)

AgResearch and Education Center	Location	Irrigation	Planting Date	Harvest Date	Seeding Rate	Soil Type
Agricenter International	Memphis	Irrigated	June 9, 2017	November 14, 2017	140000	Falaya Silt Loam
Highland Rim (Irrigated)	Springfield	Irrigated	May 16, 2017	October 3, 2017	140000	Sango Silt Loam
Highland Rim (Non-Irrigated)	Springfield	Non-irrigated	May 16, 2017	October 17, 2017	140000	Dickson Silt Loam
East Tennessee	Knoxville	Irrigated	May 19, 2017	September 29, 2017	140000	Shady Loam
Milan (Irrigated)	Milan	Irrigated	May 30, 2017	October 3, 2017	140000	Loring Silt Loam
Milan (Non-Irrigated)	Milan	Non-irrigated	May 23, 2017	October 3, 2017	140000	Grenada Silt Loam
West Tennessee	Jackson	Non-irrigated	May 17, 2017	September 27, 2017	140000	Memphis Silt Loam/Falaya Silt Loam

Maturity Group Late IV (4.6 - 4.9)

AgResearch and Education Center	Location	Irrigation	Planting Date	Harvest Date	Seeding Rate	Soil Type
Agricenter International	Memphis	Irrigated	June 9, 2017	November 14, 2017	140000	Falaya Silt Loam
Highland Rim (Irrigated)	Springfield	Irrigated	May 16, 2017	October 4, 2017	140000	Sango Silt Loam
Highland Rim (Non-Irrigated)	Springfield	Non-irrigated	May 16, 2017	October 17, 2017	140000	Dickson Silt Loam
East Tennessee	Knoxville	Irrigated	May 19, 2017	October 12, 2017	140000	Shady Loam
Milan (Irrigated)	Milan	Irrigated	May 30, 2017	October 13, 2017	140000	Loring Silt Loam
Milan (Non-Irrigated)	Milan	Non-irrigated	May 23, 2017	October 13, 2017	140000	Grenada Silt Loam
West Tennessee	Jackson	Non-irrigated	May 17, 2017	October 2, 2017	140000	Memphis Silt Loam/Falaya Silt Loam

Maturity Group Early V (5.0 - 5.5)

AgResearch and Education Center	Location	Irrigation	Planting Date	Harvest Date	Seeding Rate	Soil Type
Agricenter International	Memphis	Irrigated	June 9, 2017	November 14, 2017	140000	Falaya Silt Loam
Highland Rim (Irrigated)	Springfield	Irrigated	May 16, 2017	October 18, 2017	140000	Sango Silt Loam
Highland Rim (Non-Irrigated)	Springfield	Non-irrigated	May 16, 2017	October 18, 2017	140000	Dickson Silt Loam
East Tennessee	Knoxville	Irrigated	May 19, 2017	October 20, 2017	140000	Shady Loam / Shady Whitewell Complex
Milan (Irrigated)	Milan	Irrigated	May 30, 2017	October 30, 2017	140000	Loring Silt Loam
Milan (Non-Irrigated)	Milan	Non-irrigated	May 23, 2017	October 25, 2017	140000	Grenada Silt Loam
West Tennessee	Jackson	Non-irrigated	May 17, 2017	October 13, 2017	140000	Memphis Silt Loam/Falaya Silt Loam

Maturity Group Late V (5.6 - 5.9)

AgResearch and Education Center	Location	Irrigation	Planting Date	Harvest Date	Seeding Rate	Soil Type
Highland Rim (Irrigated)	Springfield	Irrigated	May 16, 2017	October 18, 2017	140000	Sango Silt Loam
Highland Rim (Non-Irrigated)	Springfield	Non-irrigated	May 16, 2017	October 18, 2017	140000	Sango Silt Loam
East Tennessee	Knoxville	Irrigated	May 19, 2017	October 31, 2017	140000	Shady Loam
Milan (Irrigated)	Milan	Irrigated	May 30, 2017	October 31, 2017	140000	Loring Silt Loam
Milan (Non-Irrigated)	Milan	Non-irrigated	May 23, 2017	October 25, 2017	140000	Grenada Silt Loam
West Tennessee	Jackson	Non-irrigated	May 17, 2017	October 19, 2017	140000	Memphis Silt Loam/Falaya Silt Loam

Table 2. Location information from counties where the soybean county standard tests (CST) were conducted in 2017.

Roundup Ready Group III

County	Cooperator	Agent	Planting Date
Calloway, KY	Craig Carraway	Tim Lax	May 26, 2017
Coffee	Jared Hale	Steve Harris	June 13, 2017
Dyer	Mike Underwood	Tim Campbell	May 9, 2017
Fulton, KY	Joe & Nathan Campbell	Ben Rudy	May 10, 2017
Gibson	Denton Parkins	Philip Shelby	May 10, 2017
Hickman	Claude Callicott	Troy Dugger	May 17, 2017
Jefferson	Don Holbert	Steve Huff	June 2, 2017
Lake	Keiser Farms	Greg Allen	May 17, 2017
Madison	Jared King	Jake Mallard	May 22, 2017
Weakley	Ronnie & Jay Yeargin	Jeff Lannom	May 17, 2017

Roundup Ready Early IV (4.0 - 4.5)

County	Cooperator	Agent	Planting Date
Carroll	Larry Hillard	Kenny Herndon	June 9, 2017
Coffee	Jared Hale	Steve Harris	June 13, 2017
Dyer	Mike Underwood	Tim Campbell	May 17, 2017
Fulton, KY	Joe & Nathan Campbell	Ben Rudy	May 10, 2017
Gibson	Denton Parkins	Philip Shelby	May 10, 2017
Giles	Pat Sulcer	Kevin Rose	May 19, 2017
Haywood	Randall & Angela Taylor	Lindsay Griffen	May 19, 2017
Henry	Brannon Farms	Ranson Goodman	June 22, 2017
Lauderdale	Allen & Chad Lewis	J.C. Dupree	May 5, 2017
Madison	Jared King	Jake Mallard	May 22, 2017
McCracken, KY	Jeff Sullivan	Bob Middleton	June 29, 2017
Perry	Tim & Craig Byrd	Amanda Mathenia	June 30, 2017
Smith	John Russell	Chris Hicks	June 21, 2017
Weakley	Ronnie & Jay Yeargin	Jeff Lannom	May 31, 2017

Roundup Ready Late IV (4.6 - 4.9)

County	Cooperator	Agent	Planting Date
Coffee	Jared Hale	Steve Harris	June 14, 2017
Decatur	Stacy Vise	Dustin Watson	June 13, 2017
Dyer	Mike Underwood	Tim Campbell	May 17, 2017
Gibson	Denton Parkins	Philip Shelby	May 10, 2017
Giles	Mike Mayfield	Kevin Rose	June 12, 2017
Haywood	Randall & Angela Taylor	Lindsay Griffen	May 19, 2017
Henry	Brannon Farms	Ranson Goodman	June 27, 2017
Madison	Matt Griggs	Jake Mallard	June 12, 2017
Marion	Randy & Dewey Gilliam	Matthew Deist	June 2, 2017
McCracken, KY	Lester & Tracy Sullivan	Bob Middleton	May 27, 2017

Table 2. (cont.)**Roundup Ready Early V (5.0 - 5.5)**

County	Cooperator	Agent	Planting Date
Dyer	Mike Underwood	Tim Campbell	May 17, 2017
Gibson	Denton Parkins	Phillip Shelby	May 10, 2017
Hamblen	John Litz	Mannie Bedwell	May 10, 2017
Haywood	Randall & Angela Taylor	Lindsay Griffen	May 19, 2017
Madison	Jared King	Jake Mallard	May 22, 2017

Liberty Link Early IV (4.0 - 4.5)

County	Cooperator	Agent	Planting Date
Crockett	YF&R	Richard Buntin	May 23, 2017
Dyer	YF&R	Tim Campbell	May 25, 2017
Fulton, KY	Johnson Linder	Ben Rudy	June 6, 2017
Gibson	Denton Parkins	Philip Shelby	May 9, 2017
Henry	Wilson Farms	Ranson Goodman	May 9, 2017
Lake	John Dickey	Gregg Allen	June 9, 2017
Madison	Ward's Grove Farms	Jake Mallard	June 12, 2017
Obion	Bill Sellers	Tim Smith	June 29, 2017
Tipton	Scott Johnson	Becky Muller	May 5, 2017

Liberty Link Late IV (4.6 - 4.9)

County	Cooperator	Agent	Planting Date
Crockett	YF&R	Richard Buntin	May 23, 2017
Dyer	YF&R	Tim Campbell	May 25, 2017
Fulton, KY	Johnson Linder	Ben Rudy	June 6, 2017
Gibson	Denton Parkins	Philip Shelby	May 9, 2017
Lake	John Dickey	Gregg Allen	June 9, 2017
Madison	Ward's Grove Farms	Jake Mallard	June 12, 2017
Montgomery	Billy McCraw	Rusty Evans	May 23, 2017
Obion	Bill Sellers	Tim Smith	June 29, 2017
Tipton	Scott Johnson	Becky Muller	May 25, 2017

Table 3. Across locations mean yields and agronomic characteristics of 17 Maturity Group III soybean varieties evaluated in six REC tests in Tennessee during 2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Moisture (%)	Lodging (1-5)	Plant Height (in.)	Maturity [¶] (DAP)	Protein ^{††} (%)	Oil ^{††} (%)
A	Asgrow AG39X7 RR2X/SR	R2X,STS	64	4	12.0	1.8	38	122	39.1	21.4
AB	Warren Seed DS 3838	RR2	61	4	12.3	2.1	40	121	37.7	23.4
ABC	Asgrow AG38X6 RR2X	R2X	60	4	12.1	2.4	40	124	40.1	21.8
ABC	Credenz CZ 3945 LL	LL	60	4	12.5	1.9	38	125	40.1	22.3
ABCD	Credenz CZ 3841 LL	LL	59	4	12.4	2.4	38	123	39.2	22.3
BCD	NK S39-P5X	R2X	59	4	12.0	2.3	38	124	39.0	22.2
BCD	Pfister 39R201	RR2	58	4	12.5	1.7	38	122	40.5	21.5
BCD	Asgrow AG38X8 RR2X	R2X	57	4	12.1	1.9	36	122	39.6	21.8
BCD	Dyna-Gro S39XT08	R2X	57	4	11.9	1.9	39	123	40.7	21.6
BCDE	AgriGold G3520RX	R2X	57	4	12.1	1.9	33	121	39.9	22.1
BCDE	AgriGold G3980RX	R2X	56	4	12.4	2.7	37	125	40.0	21.2
CDE	Asgrow AG37X8 RR2X	R2X	55	4	11.7	2.0	37	122	40.4	21.4
CDE	Credenz CZ 3737 LL	LL	55	4	12.0	2.6	36	120	40.4	22.1
DE	Asgrow AG36X6 RR2X	R2X	55	4	12.1	1.9	33	121	39.0	22.3
DE	GoSoy 39C15	CONV	55	4	12.0	2.5	36	123	39.1	22.2
E	Caverndale Farms CF 387 HT-GLYn	RR	52	4	12.3	2.3	35	121	38.3	22.8
E	Warren Seed BG 3810 RR2X	R2X	52	4	11.9	1.7	35	122	40.0	21.6
Average			57	4	12.1	2.1	37	122	39.6	22.0
L.S.D._{.05}			5		0.4	0.6	2	1	0.5	0.5
n			6		6	4	6	6	1	1

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

|| Lodging = 1 to 5 scale, where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle $\geq 45^\circ$; 5 = 95+% of plants leaning at an angle $\geq 45^\circ$.

¶ Maturity = days after planting (DAP).

†† Protein and Oil on dry weight basis.

Table 4. Across and by location mean yields of 17 Maturity Group III soybean varieties evaluated in six REC tests in Tennessee during 2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Knoxville Irr. (bu/ac)	Springfield Irr. (bu/ac)	Springfield Non-Irr. (bu/ac)	Milan Irr. (bu/ac)	Milan Non-Irr. (bu/ac)	Jackson Non-Irr. (bu/ac)
A	Asgrow AG39X7 RR2X/SR	R2X,STS	64	4	69	73	49	67	67	58
AB	Warren Seed DS 3838	RR2	61	4	74	74	48	58	66	46
ABC	Asgrow AG38X6 RR2X	R2X	60	4	68	65	48	61	64	52
ABC	Credenz CZ 3945 LL	LL	60	4	70	63	51	62	58	54
ABCD	Credenz CZ 3841 LL	LL	59	4	72	57	42	63	61	60
BCD	NK S39-P5X	R2X	59	4	71	58	45	59	63	57
BCD	Pfister 39R201	RR2	58	4	75	46	55	66	61	48
BCD	Asgrow AG38X8 RR2X	R2X	57	4	67	60	42	55	65	55
BCD	Dyna-Gro S39XT08	R2X	57	4	74	52	44	58	58	57
BCDE	AgriGold G3520RX	R2X	57	4	71	52	39	62	61	56
BCDE	AgriGold G3980RX	R2X	56	4	69	55	45	60	54	55
CDE	Asgrow AG37X8 RR2X	R2X	55	4	68	56	43	54	59	50
CDE	Credenz CZ 3737 LL	LL	55	4	68	54	38	58	62	50
DE	Asgrow AG36X6 RR2X	R2X	55	4	65	52	40	58	63	50
DE	GoSoy 39C15	CONV	55	4	69	62	39	56	53	49
E	Caverndale Farms CF 387 HT-GLYn	RR	52	4	66	50	44	56	49	46
E	Warren Seed BG 3810 RR2X	R2X	52	4	62	55	38	51	59	45
Average			57	4	69	58	44	59	60	52
L.S.D._{.05}			5		4	15	N.S.	7	8	8
n			6		1	1	1	1	1	1
C.V. (%)			10		4	15	16	7	8	9

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

Table 5. Yields of eight Late Maturity Group III (3.6 - 3.9) Roundup Ready soybean varieties in 10 County Standard Tests in Tennessee during 2017.

MS [†] Avg. Yield	Variety*	Avg. Yield [§] (bu/ac)	Moisture (%)	County Locations									
				Call	Coff	Dyer	Fult	Gibs	Hick	Jeff	Lake	Madi	Weak
A	AgriGold G3520RX	67.9	12.9	64	53	67	91	54	63	89	68	53	77
A	Asgrow 39X7	67.7	12.7	69	59	63	88	64	62	81	66	55	69
A	Asgrow 36X6	67.6	12.7	69	56	68	90	58	59	86	60	51	79
A	Asgrow 38X6	67.3	12.8	71	59	68	78	55	64	85	75	52	66
A	Dyna-Gro S39XT08	67.2	12.8	65	59	66	77	57	61	92	68	60	66
A	NK S39-R9X	65.8	12.7	66	57	61	84	51	64	84	68	54	70
AB	Warren Seed DS 3838	64.8	13.2	73	53	67	80	44	62	81	65	55	68
B	Warren Seed BG 3810	61.9	12.6	65	56	66	78	44	60	85	62	47	56
Average		66.3	13	68	57	66	83	53	62	85	67	53	69

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

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

§ All yields are adjusted to 13% moisture.

County Locations include: Calloway KY, Coffee, Dyer, Fulton KY, Gibson, Hickman, Jefferson, Lake, Madison, Weakley

Table 6. Overall average yields and moistures of eight Maturity Group III (3.0 - 3.9) Roundup Ready soybean varieties evaluated in County Standard Tests (n=8) and REC Tests (n=6) in Tennessee during 2017.

Variety	Trait Package [‡]	Avg. of CST and REC Tests		CST Tests		REC Tests	
		Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)
Asgrow AG39X7 RR2X/SR	R2X,STS	66	12.4	68	12.7	64	12.0
Asgrow AG38X6 RR2X	R2X	64	12.5	67	12.8	60	12.1
Warren Seed DS 3838	RR2	63	12.8	65	13.2	61	12.3
AgriGold G3520RX	R2X	62	12.5	68	12.9	57	12.1
NK S39-P5X	R2X	62	12.3	66	12.7	59	12.0
Dyna-Gro S39XT08	R2X	62	12.4	67	12.8	57	11.9
Asgrow AG36X6 RR2X	R2X	61	12.4	68	12.7	55	12.1
Warren Seed BG 3810 RR2X	R2X	57	12.3	62	12.6	52	11.9
Average		62	12.4	66	12.8	58	12.1

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

Table 7. Yields and disease ratings of eight Maturity Group III Roundup Ready soybean varieties in 10 County Standard Tests and in small plot trials at one AgResearch and Education Center and one on-farm location in Tennessee during 2017.

Summary from 9 County Tests			Summary from Small Plot Research								
MS	Variety	Avg. Yield (bu/ac)	Research and Education Center at Milan (RECM)				On-farm Location in Jackson (JAX)				
			RECM - YLD		Frogeye leaf spot	Target Spot	Other Diseases RECM	JAX - YLD		Frogeye leaf spot	Target Spot
			*Treated	Non-treated				*Treated	Non-treated		
A	AgriGold G3520RX	67.9	55.3	51.9	MOD	MOD		48.1	45.9	MOD	HIGH
A	Asgrow 39X7	67.7	56.8	55.5	HIGH	MOD		55.9	52.5	HIGH	HIGH
A	Asgrow 36X6	67.6	56.4	51.7	MOD	MOD		49.7	50.7	MOD	HIGH
A	Asgrow 38X6	67.3	52.4	50.7	LOW	MOD		-	-	-	-
A	Dyna-Gro S39XT08	67.2	57.4	49.9	HIGH	MOD		54.6	49.9	MOD	MOD
A	NK S39-R9X	65.8	55.4	50.5	MOD	MOD	CLB	59.8	51.3	MOD	MOD
AB	Warren Seed DS 3838	64.8	58.2	54.2	MOD	LOW		-	-	-	-
B	Warren Seed BG 3810	61.9	47.1	44.3	LOW	MOD		47.1	47.9	LOW	MOD
Average		66.3	54.9	51.1				52.5	49.7		

YLD= Avg. Yield @ 13% moisture

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

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

County Locations include: Calloway KY, Coffee, Dyer, Fulton KY, Gibson, Hickman, Jefferson, Lake, Madison, Weakley

*Treated plots sprayed with Quadris TOP SBX @ 7 oz./Acre + 0.25% Induce @ R3 growth stage. RECM varieties planted May 31 and JAX planted May 23

LOW, MOD, and HIGH is a relative ranking of disease severity at each location. Other diseases noted: SC=Stem Canker, CLB=Ceroospora Leaf Blight, SDS=Sudden Death Syndrome; '-' indicate variety was not tested at that location

Disease ratings at RECM: Frogeye leaf spot ranged from 0 - 38% with an average of 13%; Target spot ranged from 0 - 16% with an average of 11%.

Disease ratings at JAX: Frogeye leaf spot ranged from 4 - 31% with an average of 18%; Target spot ranged from 15 - 25% with an average of 19%; other diseases were not rated or noted at this location for this maturity group

Disease ratings and yield data compiled by Dr. Heather Kelly from replicated plots at the AgResearch and Education Center at Milan and on-farm location in Jackson.

County data provided by Ryan Blair, Ext. Area Specialist, and the Extension agents.

Table 8. Across locations mean yields and agronomic characteristics of 44 Maturity Group IV Early (4.0-4.5) soybean varieties evaluated in seven REC tests in Tennessee during 2017.

MS ^T	Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Moisture (%)	Lodging (1-5)	Plant Height (in.)	Maturity (DAP)	Protein ^{††} (%)	Oil ^{††} (%)
A		LG Seeds C4227RX	R2X,STS	70	3	13.4	1.9	41	126	39.4	21.5
A		Dyna-Gro S41XS98	R2X,STS	69	3	13.3	2.0	41	124	39.8	21.4
AB		Warren Seed BG 4210 RR2X	R2X	69	3	13.2	1.8	39	125	40.0	21.4
AB		AgriGold G4440RX	R2X,STS	69	3	13.5	2.5	42	132	39.9	21.1
AB		Warren Seed BG 4322 RR2X	R2X	68	3	13.1	1.7	41	124	39.1	21.8
ABC		Asgrow AG41X8 RR2X	R2X	68	3	13.0	1.6	43	125	40.0	21.3
ABCD		LG Seeds C4458RX	R2X,STS	67	3	13.2	1.8	44	129	39.5	20.7
ABCD		Dyna-Gro S45XS37	R2X,STS	67	3	13.1	2.7	44	132	39.1	21.1
ABCD		Dyna-Gro S43XS27	R2X,STS	67	3	13.4	2.6	43	131	40.1	20.9
ABCD		Pfister 41RS02	RR2	67	3	13.0	2.5	40	125	40.5	21.9
ABCD		Progeny 4516RXS	R2X,STS	66	3	13.6	3.1	45	131	38.5	22.0
ABCD		Asgrow AG45X8 RR2X/SR	R2X,STS	66	3	13.4	2.3	42	130	39.2	21.0
ABCD		Hefty H45X7S	R2X,STS	66	3	13.1	2.5	39	129	39.1	21.4
ABCD		Warren Seed BG 4510 RR2X	R2X	66	3	13.0	1.7	44	128	39.8	20.8
ABCD		Armor 44-D47	R2X	66	3	13.0	1.8	44	129	40.1	20.7
ABCD		Progeny 4444RXS	R2X,STS	65	3	13.2	2.5	41	129	39.2	21.2
ABCD		Asgrow AG43X7 RR2X**	R2X,STS	65	3	13.4	2.5	44	130	39.1	20.8
ABCD		Dyna-Gro SX17844XS	R2X,STS	65	3	13.1	2.2	44	127	39.8	20.8
ABCD		Great Heart GT-4540XS	R2X	65	3	13.8	2.9	44	131	38.6	21.8
ABCD		Hefty H46X6	R2X,STS	64	3	14.6	2.9	44	131	38.4	22.0
ABCD		Croplan RX4516S	R2X	64	3	13.6	2.9	43	132	39.8	21.3
ABCD		AgriGold G4380RX	R2X,STS	64	3	13.1	2.0	43	130	39.6	20.7
ABCD		Pfister 45R23	RR2	64	3	13.5	2.5	43	129	38.8	21.5
BCDE		Asgrow AG44X6 RR2X	R2X	64	3	13.1	2.5	42	130	40.4	21.1
BCDE		Croplan R2C4300S	RR	64	3	13.3	1.9	41	129	38.3	22.0
BCDE		NK S45-K5X	R2X	64	3	13.5	2.1	39	130	40.2	21.7
CDEF		Terral REV 45L57	LL	62	3	13.1	2.0	41	129	38.8	21.7
CDEF		NK S43-V3X	R2X	62	3	13.6	2.1	41	129	38.2	22.0
DEFG		AGS GS45R216	RR2	62	3	13.0	3.0	45	131	38.5	22.2
EFGH		GoSoy 43L16	LL	62	3	13.2	2.7	41	128	40.6	22.1
FGHI		Caverndale Farms CF 427 HT	RR,STS	61	3	13.3	2.4	39	126	40.4	21.8
FGHI		Progeny 4247LL	LL	61	3	13.1	1.4	38	126	37.9	21.7
GHIJ		Hefty H43X8	R2X	60	3	13.4	2.0	42	129	39.1	20.8
GHIJ		MO S13-3851C	CONV	60	3	13.2	2.2	37	130	39.1	22.0
HIJK		Credenz CZ 4222 LL	LL	59	3	13.5	2.1	38	126	37.1	22.3
IJKL		MO S14-9051R	RR	58	3	14.1	2.3	37	133	37.7	22.8
IJKL		Progeny 4255RX	R2X	58	3	13.4	2.5	40	126	39.8	20.7
JKLM		Credenz CZ 4105 LL	LL	58	3	13.1	1.4	37	124	40.4	21.8

Table 8. (cont.)

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Moisture (%)	Lodging (1-5)	Plant Height (in.)	Maturity (DAP)	Protein ^{††} (%)	Oil ^{††} (%)
JKLM	Warren Seed DS 4340	RR2	58	3	13.1	2.9	40	128	40.4	21.4
JKLM	Credenz CZ 4044 LL	LL	57	3	13.0	1.9	37	124	39.6	22.0
KLMN	MO S13-2743C	CONV	56	3	13.4	2.3	41	127	40.0	21.8
LMN	Dyna-Gro S45LL97	LL	55	3	13.7	2.1	41	130	39.7	22.1
MN	MO S13-10590C	CONV	54	3	13.5	2.3	40	131	39.2	22.2
N	Credenz CZ 4540 LL	LL	51	3	14.8	2.9	44	133	39.3	22.2
Average			63	3	13.4	2.3	41	129	39.4	21.5
L.S.D._{.05}			5		0.7	0.7	2	2	0.6	0.3
n			7		7	5	6	6	1	1

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

|| 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).

†† Protein and Oil on dry weight basis.

Table 9. Across and by location mean yields of 44 Maturity Group IV Early (4.0-4.5) soybean varieties evaluated in seven REC tests in Tennessee during 2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Knoxville Irr. (bu/ac)	Springfield Irr. (bu/ac)	Springfield Non-Irr. (bu/ac)	Milan Irr. (bu/ac)	Milan Non-Irr. (bu/ac)	Jackson Non-Irr. (bu/ac)	Memphis Irr. (bu/ac)
A	LG Seeds C4227RX	R2X,STS	70	3	71	86	54	72	75	60	69
A	Dyna-Gro S41XS98	R2X,STS	69	3	73	83	54	73	69	62	70
AB	Warren Seed BG 4210 RR2X	R2X	69	3	83	89	49	70	69	59	66
AB	AgriGold G4440RX	R2X,STS	69	3	79	79	59	69	62	65	70
AB	Warren Seed BG 4322 RR2X	R2X	68	3	71	78	57	71	71	59	72
ABC	Asgrow AG41X8 RR2X	R2X	68	3	68	83	64	74	69	53	64
ABCD	LG Seeds C4458RX	R2X,STS	67	3	65	90	59	67	67	59	66
ABCD	Dyna-Gro S45XS37	R2X,STS	67	3	73	79	51	69	72	58	68
ABCD	Dyna-Gro S43XS27	R2X,STS	67	3	78	71	54	65	72	58	70
ABCD	Pfister 41RS02	RR2	67	3	73	82	52	66	63	59	72
ABCD	Progeny 4516RXS	R2X,STS	66	3	67	83	67	60	65	57	66
ABCD	Asgrow AG45X8 RR2X/SR	R2X,STS	66	3	69	80	49	62	74	59	71
ABCD	Hefty H45X7S	R2X,STS	66	3	70	75	54	71	65	58	68
ABCD	Warren Seed BG 4510 RR2X	R2X	66	3	69	80	51	71	67	56	69
ABCD	Armor 44-D47	R2X	66	3	70	82	53	68	65	52	68
ABCD	Progeny 4444RXS	R2X,STS	65	3	67	77	53	66	65	58	72
ABCD	Asgrow AG43X7 RR2X**	R2X,STS	65	3	68	79	54	62	69	58	66
ABCD	Dyna-Gro SX17844XS	R2X,STS	65	3	66	80	59	70	64	53	66
ABCD	Great Heart GT-4540XS	R2X	65	3	63	82	57	60	66	57	68
ABCD	Hefty H46X6	R2X,STS	64	3	63	78	63	61	64	55	67
ABCD	Croplan RX4516S	R2X	64	3	65	83	57	64	64	57	59
ABCD	AgriGold G4380RX	R2X,STS	64	3	63	79	56	65	64	57	65
ABCD	Pfister 45R23	RR2	64	3	68	71	59	65	62	57	67
BCDE	Asgrow AG44X6 RR2X	R2X	64	3	69	68	50	77	63	56	64
BCDE	Croplan R2C4300S	RR	64	3	64	81	54	69	63	53	63
BCDE	NK S45-K5X	R2X	64	3	60	73	46	76	67	53	72
CDEF	Terral REV 45L57	LL	62	3	57	63	51	71	71	51	71
CDEF	NK S43-V3X	R2X	62	3	70	71	49	63	62	58	65
DEFG	AGS GS45R216	RR2	62	3	66	67	47	66	62	57	68
EFGH	GoSoy 43L16	LL	62	3	66	74	47	59	63	54	67
FGHI	Caverndale Farms CF 427 HT-GLY/STS ⁿ	RR,STS	61	3	68	81	46	56	57	52	65
FGHI	Progeny 4247LL	LL	61	3	63	58	50	66	63	52	72
GHIJ	Hefty H43X8	R2X	60	3	62	55	47	67	65	51	70
GHIJ	MO S13-3851C	CONV	60	3	67	62	39	69	59	54	66
HIJK	Credenz CZ 4222 LL	LL	59	3	57	63	44	65	62	56	66
IJKL	MO S14-9051R	RR	58	3	64	60	38	61	57	56	71
IJKL	Progeny 4255RX	R2X	58	3	73	70	40	50	56	57	65
JKLM	Credenz CZ 4105 LL	LL	58	3	61	65	37	63	63	53	62
JKLM	Warren Seed DS 4340	RR2	58	3	68	65	46	44	53	61	70
JKLM	Credenz CZ 4044 LL	LL	57	3	56	59	50	60	59	54	62
KLMN	MO S13-2743C	CONV	56	3	64	63	48	53	61	53	53
LMN	Dyna-Gro S45LL97	LL	55	3	67	57	39	61	51	48	67
MN	MO S13-10590C	CONV	54	3	57	61	39	59	56	53	56
N	Credenz CZ 4540 LL	LL	51	3	50	53	44	58	51	48	55
	Average		63	3	67	73	51	65	64	56	67
	L.S.D._{.05}		5		8	10	9	8	7	7	7
	n		7		1	1	1	1	1	1	1
	C.V. (%)		8		7	8	11	8	6	8	7

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

Table 10. Yields of 21 Maturity Group IV Early (4.0-4.5) Roundup Ready soybean varieties in 14 County Standard Tests in Tennessee during 2017.

MS [†] Avg. Yield	Variety*	Avg. Yield [§] (bu/ac)	Moisture (%)	County Locations													
				Carr	Coff	Dyer	Fult	Gibs	Giles	Hayw	Henr	Laud	Madi	McCr	Perr	Smit	Weak
A	LG Seeds C4458RX	63.4	13.1	34	58	75	89	55	61	66	65	47	70	61	72	69	66
A	Dyna-Gro S43XS27	63.3	13.1	34	62	55	85	65	52	67	64	52	68	65	69	71	77
AB	Beck's 437R4	63.2	13.4	29	58	77	89	59	59	68	59	57	63	65	68	65	70
AB	USG 7447XTS	63.2	12.9	36	62	61	85	56	59	65	63	54	71	66	64	73	70
ABC	Dyna-Gro S45XS37	62.5	13.1	34	56	77	82	51	60	64	59	51	76	61	60	73	71
ABCD	AgriGold G4440RX	62.0	13.2	33	60	60	87	55	59	60	63	52	63	63	68	74	71
ABCD	Asgrow 43X7	61.9	13.2	34	59	71	83	49	64	63	61	55	59	62	66	71	69
ABCD	Croplan RX4316S	61.3	13.1	34	64	60	84	58	55	65	63	56	49	67	65	71	67
ABCD	NK 45-K5X	61.1	13.3	32	59	63	86	52	59	63	57	62	67	63	62	67	65
ABCDE	Warren Seed BG 4210	60.8	13.0	31	61	51	85	56	51	65	67	48	63	63	64	73	75
ABCDEF	NK 43-V3X	60.6	13.5	30	55	73	87	57	55	54	63	57	61	66	44	72	74
ABCDEF	Asgrow 44X6	60.6	13.1	31	57	60	82	58	63	55	63	57	64	62	59	67	70
ABCDEF	Croplan RX4516S	60.3	13.3	32	56	81	89	51	52	60	55	58	53	56	61	67	73
ABCDEF	Armor 44-D47	60.2	13.4	27	57	75	84	50	62	60	59	44	56	62	62	71	73
BCDEF	AgriGold G4380RX	59.7	13.2	35	56	59	85	44	60	66	56	56	60	60	60	66	73
CDEF	Beck's 4453X2	59.4	13.7	30	54	54	80	47	60	59	56	58	67	61	62	68	74
DEFG	Progeny 4255RXS	58.8	13.5	32	58	56	81	55	48	53	59	60	56	57	64	71	70
DEFG	GoSoy GS45R216	58.7	12.7	33	58	72	79	45	55	63	58	51	55	59	61	69	64
EFG	Warren Seed DS 4340	57.5	13.2	30	59	55	82	54	52	65	56	49	58	61	60	63	61
FG	Warren Seed BG 4510	57.1	13.2	34	58	62	80	45	58	55	57	48	56	61	57	71	58
G	NK S41-A1SX	55.3	13.2	31	59	74	76	46	37	55	55	49	43	60	57	65	67
Average		60.5	13.2	32	58	65	84	53	56	61	60	53	61	62	62	69	69

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

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

* Varieties marked with an asterisk were in the top performing "A" group for two (**) or three (***) consecutive years within the previous three year evaluation period.

§ All yields are adjusted to 13% moisture.

County Locations include: Carroll, Coffee, Dyer, Fulton KY, Gibson, Giles, Haywood, Henry, Lauderdale, Madison, McCracken, Perry, Smith, Weakley.

Table 11. Yields of eight Maturity Group IV Early (4.0-4.5) Liberty Link soybean varieties in 9 County Standard Tests in Tennessee during 2017.

MS [†] Avg. Yield	Variety*	Avg. Yield [§] (bu/ac)	Moisture (%)									
				Croc	Dyer	Fult	Gibs	Henr	Lake	Madi	Obio	Tipt
A	Warren Seed Micah 4400LL	57.2	13.7	50	66	51	65	66	52	65	55	45
A	Dyna-Gro S45LL97	56.7	13.8	53	67	48	62	70	50	56	58	47
A	Progeny 4247LL	56.6	13.7	61	63	50	66	66	55	49	55	44
A	Terral REV 45L57	56.1	13.6	53	53	56	56	65	54	54	65	49
A	GoSoy 43L16	55.0	13.9	49	62	52	61	88	46	45	56	37
A	Bayer CZ 3841LL	53.5	14.5	40	67	43	66	80	44	66	51	24
A	Bayer CZ 4105LL	52.7	14.6	54	61	47	66	70	47	45	54	30
A	Beck's 424L4	52.1	14.0	55	61	48	64	73	41	47	51	29
	Average	55.0	14.0	52	63	49	63	72	48	53	56	38

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

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

§ All yields are adjusted to 13% moisture.

County Locations include: Crockett, Dyer, Fulton KY, Gibson, Henry Lake, Madison, Obion, Tipton

Table 12. Overall average yields and moistures of 19 Maturity Group IV Early (4.0 - 4.5) soybean varieties evaluated in County Standard Tests (LL: n=6, RR: n=9) and REC Tests (n=7) in Tennessee during 2017.

Variety	Trait Package [‡]	Avg. of CST and REC Tests		CST Tests		REC Tests	
		Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)
AgriGold G4440RX	R2X,STS	66	13.3	62	13.2	69	13.5
LG Seeds C4458RX	R2X,STS	65	13.2	63	13.1	67	13.2
Dyna-Gro S43XS27	R2X,STS	65	13.3	63	13.1	67	13.4
Warren Seed BG 4210 RR2X	R2X	65	13.1	61	13.0	69	13.2
Dyna-Gro S45XS37	R2X,STS	65	13.1	63	13.1	67	13.1
Asgrow AG43X7 RR2X	R2X,STS	63	13.3	62	13.2	65	13.4
Armor 44-D47	R2X	63	13.2	60	13.4	66	13.0
Croplan RX4516S	R2X	63	13.4	61	13.1	64	13.6
NK S45-K5X	R2X	63	13.4	61	13.3	64	13.5
Asgrow AG44X6 RR2X	R2X	62	13.1	61	13.1	64	13.1
AgriGold G4380RX	R2X,STS	62	13.1	60	13.2	64	13.1
Warren Seed BG 4510 RR2X	R2X	62	13.1	57	13.2	66	13.0
NK S43-V3X	R2X	61	13.5	61	13.5	62	13.6
Terral REV 45L57	LL	59	13.4	56	13.6	62	13.1
Progeny 4247LL	LL	59	13.4	57	13.7	61	13.1
GoSoy 43L16	LL	59	13.6	55	13.9	62	13.2
Progeny 4255RX	R2X	58	13.4	59	13.5	58	13.4
Warren Seed DS 4340	RR2	58	13.1	58	13.2	58	13.1
Dyna-Gro S45LL97	LL	56	13.7	57	13.8	55	13.7
Credenz CZ 4105 LL	LL	55	13.8	53	14.6	58	13.1
Average		61	13.3	59	13.4	63	13.3

[‡] For a full description of abbreviated biotech traits, see Table 26.

[§] All yields are adjusted to 13% moisture.

Table 13. Yields and disease ratings of 21 Maturity Group IV Early (4.0-4.5) Roundup Ready soybean varieties in 14 County Standard Tests and in small plot trials at one AgResearch and Education Center and one on-farm location in Tennessee during 2017.

Summary from 9 County Tests			Summary from Small Plot Research									
MS	Variety	Avg. Yield (bu/ac)	Research and Education Center at Milan (RECM)				On-farm Location in Jackson (JAX)					
			RECM - YLD		Frogeye leaf spot	Target Spot	Other Diseases RECM	JAX - YLD		Frogeye leaf spot	Target Spot	Other Diseases RECM
			*Treated	Non-treated				*Treated	Non-treated			
A	LG Seeds C4458RX	63.4	45.1	45.4	LOW	LOW	SC (HIGH)	58.2	53.8	LOW	LOW	
A	Dyna-Gro S43XS27	63.3	42.3	39.8	MOD	LOW	SC (MOD)	55.2	56.0	HIGH	LOW	
AB	Beck's 437R4	63.2	59.9	55.3	LOW	LOW		61.0	59.3	LOW	LOW	
AB	USG 7447XTS	63.2	44.1	43.8	MOD	LOW	SC (LOW)	57.4	51.1	MOD	LOW	SC
ABC	Dyna-Gro S45XS37	62.5	61.1	55.9	LOW	LOW		-	-	-	-	-
ABCD	AgriGold G4440RX	62.0	37.8	26.8	LOW	LOW	SC (HIGH)	-	-	-	-	-
ABCD	Asgrow 43X7	61.9	56.8	50.9	LOW	LOW		56.1	55.7	LOW	MOD	
ABCD	Croplan RX4316S	61.3	44.8	41.7	MOD	LOW	SC (MOD)	-	-	-	-	-
ABCD	NK 45-K5X	61.1	60.8	55.7	LOW	LOW		57.2	52.6	LOW	LOW	SDS
ABCDE	Warren Seed BG 4210	60.8	47.1	39.8	MOD	LOW	SC (LOW)	51.3	57.8	HIGH	LOW	SC
ABCDEF	Asgrow 44X6	60.6	54.4	54.7	MOD	LOW		49.4	55.6	MOD	LOW	
ABCDEF	NK 43-V3X	60.6	52.3	52.2	LOW	LOW		53.3	56.1	LOW	LOW	
ABCDEF	Croplan RX4516S	60.3	62.6	57.9	LOW	LOW	SDS	42.4	56.1	LOW	LOW	
ABCDEF	Armor 44-D47	60.2	61.2	54.4	LOW	MOD	SC (LOW)	55.1	56.0	LOW	HIGH	
BCDEF	AgriGold G4380RX	59.7	56.9	53.5	LOW	MOD	SC (LOW)	54.9	57.6	LOW	HIGH	CLB
CDEF	Beck's 4453X2	59.4	47.5	44.6	LOW	LOW	SC (LOW)	55.9	54.9	LOW	LOW	
DEFG	Progeny 4255RXS	58.8	32.7	25.5	HIGH	-	SC (HIGH)	49.8	55.7	HIGH	LOW	SC
DEFG	GoSoy GS45R216	58.7	56.4	54.5	HIGH	LOW	SDS, SC (LOW)	53.1	52.6	HIGH	LOW	CLB
EFG	Warren Seed DS 4340	57.5	31.0	29.4	LOW	MOD	SC (HIGH)	43.2	46.1	HIGH	LOW	SC, CLB
FG	Warren Seed BG 4510	57.1	55.6	50.4	LOW	MOD	SC (LOW)	52.0	53.1	LOW	MOD	
G	NK S41-A1SX	55.3	54.0	49.3	HIGH	MOD		51.1	52.3	HIGH	MOD	
Average		60.5	50.7	46.7				53.1	54.6			

YLD= Avg. Yield @ 13% moisture

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

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

County Locations include: Carroll, Coffee, Dyer, Fulton KY, Gibson, Giles, Haywood, Henry, Lauderdale, Madison, McCracken, Perry, Smith, Weakley.

*Treated plots sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R3 growth stage. RECM varieties planted May 31 and JAX planted May 23

LOW, MOD, and HIGH is a relative ranking of disease severity at each location. Other diseases noted: SC=Stem Canker, CLB=Cercospora Leaf Blight, SDS=Sudden Death Syndrome; ' - ' indicate variety was not tested at that location.

Disease ratings at RECM: Frogeye leaf spot ranged from 0 - 24% with an average of 4%; Target spot ranged from 0 - 11% with an average of 2%; and Stem Canker ranged from 0 - 100% with an average of 28%.

Disease ratings at JAX: Frogeye leaf spot ranged from 1 - 40% with an average of 12%; and Target spot ranged from 0 - 23% with an average of 6%.

Disease ratings and yield data compiled by Dr. Heather Kelly from replicated plots at the AgResearch and Education Center at Milan and on-farm location in Jackson.

County data provided by Ryan Blair, Extension Area Specialist, and the Extension agents.

Table 14. Yields and disease ratings of 8 Maturity Group IV Early (4.0-4.5) Liberty Link soybean varieties in 9 County Standard Tests and in small plot trials at one AgResearch and Education Center and one on-farm location in Tennessee during 2017.

Summary from 9 County Tests			Summary from Small Plot Research							
MS	Variety	Avg. Yield (bu/ac)	Research and Education Center at Milan (RECM)				On-farm Location in Jackson (JAX)			
			RECM - YLD		Target Spot	Other Diseases RECM	JAX - YLD		Frogeye leaf spot	Target Spot
			*Treated	Non-treated			*Treated	Non-treated		
A	Warren Seed Micah 4400LL	57.2	51.5	44.9	LOW		-	-	-	-
A	Dyna-Gro S45LL97	56.7	46.5	42.6	LOW	CLB	54.5	54.8	LOW	LOW
A	Progeny 4247LL	56.6	48.8	43.6	LOW		59.4	59.8	LOW	LOW
A	Terral REV 45L57	56.1	55.0	39.9	HIGH		49.5	48.7	LOW	MOD
A	GoSoy 43L16	55.0	56.1	45.6	LOW		60.3	57.5	LOW	LOW
A	Bayer CZ 3841LL	53.5	47.0	41.4	LOW		56.4	55.3	HIGH	LOW
A	Bayer CZ 4105LL	52.7	49.4	43.2	LOW		51.8	52.2	LOW	MOD
A	Beck's 424L4	52.1	48.2	45.1	LOW		-	-	-	-
	Average	55.0	50.3	43.3			55.3	54.7		

YLD= Avg. Yield @ 13% moisture

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

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

County locations include: Crockett, Dyer, Gibson, Henry, Lake, Madison, Obion, and Tipton, TN; Fulton, KY.

*Treated plots sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R3 growth stage. RECM varieties planted May 31 and JAX planted May 23.

LOW, MOD, and HIGH is a relative ranking of disease severity at each location. Other diseases noted: SC=Stem Canker, CLB=Cercospora Leaf Blight, SDS=Sudden Death Syndrome; '-' indicate variety was not tested at that location

Disease ratings at RECM: Frogeye leaf spot is not reported due to low pressure and natural senescence; Target spot ranged from 0 - 22% with an average of 4%.

Disease ratings at JAX: Frogeye leaf spot ranged from 0 - 16% with an average of 3% and Target spot ranged from 0 - 19% with an average of 5%.

Disease ratings and yield data compiled by Dr. Heather Kelly from replicated plots at the AgResearch and Education Center at Milan and on-farm location in Jackson. County data provided by Ryan Blair, Ext. Area Specialist, and the Extension agents.

Table 15. Two year across locations mean yields and agronomic characteristics of 13 Maturity Group IV Early (4.0-4.5) soybean varieties evaluated in four REC tests in Tennessee during 2016-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Moisture (%)	Lodging (1-5)	Plant Height (in.)	Maturity [¶] (DAP)
A	LG Seeds C4458RX	R2X,STS	65	3	12.5	1.8	45	125
A	Asgrow AG43X7 RR2X	R2X,STS	63	3	12.6	2.8	44	125
A	Progeny 4516RXS	R2X,STS	61	3	13.3	2.9	45	126
A	Dyna-Gro S43XS27	R2X,STS	61	3	13.4	2.7	43	126
A	Asgrow AG44X6 RR2X	R2X	60	3	12.4	2.2	43	125
A	GoSoy 43L16	LL	59	3	13.0	2.0	41	121
A	Progeny 4247LL	LL	59	3	12.9	1.3	39	120
A	Credenz CZ 4105 LL	LL	58	3	12.9	1.4	38	119
A	Credenz CZ 4222 LL	LL	57	3	13.0	2.1	40	122
A	Credenz CZ 4044 LL	LL	56	3	12.9	2.1	39	119
A	Warren Seed DS 4340	RR2	55	3	12.3	2.7	40	122
A	Dyna-Gro S45LL97	LL	54	3	13.5	2.0	42	125
A	Credenz CZ 4540 LL	LL	51	3	14.1	2.2	46	128
Average			58	3	13.0	2.2	42	123
L.S.D._{.05}			N.S.		N.S.	N.S.	2	3
n			8		8	4	8	8

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

|| 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).

†† Protein and Oil on dry weight basis.

Table 16. Two year across and by location mean yields of 13 Maturity Group IV Early (4.0-4.5) soybean varieties evaluated in four REC tests in Tennessee during 2016-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Springfield Irr. (bu/ac)	Springfield Non-Irr. (bu/ac)	Milan Irr. (bu/ac)	Milan Non-Irr. (bu/ac)
A	LG Seeds C4458RX	R2X,STS	65	3	69	57	68	67
A	Asgrow AG43X7 RR2X	R2X,STS	63	3	68	55	65	68
A	Progeny 4516RXS	R2X,STS	61	3	65	57	62	66
A	Dyna-Gro S43XS27	R2X,STS	61	3	60	50	66	70
A	Asgrow AG44X6 RR2X	R2X	60	3	59	49	72	64
A	GoSoy 43L16	LL	59	3	61	51	62	66
A	Progeny 4247LL	LL	59	3	59	55	65	62
A	Credenz CZ 4105 LL	LL	58	3	62	46	61	65
A	Credenz CZ 4222 LL	LL	57	3	56	47	64	64
A	Credenz CZ 4044 LL	LL	56	3	57	56	55	59
A	Warren Seed DS 4340	RR2	55	3	54	52	53	57
A	Dyna-Gro S45LL97	LL	54	3	55	47	61	56
A	Credenz CZ 4540 LL	LL	51	3	52	44	56	54
	Average		58	3	60	51	62	63
	L.S.D._{.05}		N.S		N.S	N.S	N.S	6
	n		8		2	2	2	2
	C.V. (%)		8		10	9	8	6

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

Table 17. Across locations mean yields and agronomic characteristics of 87 Maturity Group IV Late (4.6-4.9) soybean varieties evaluated in seven REC tests in Tennessee during 2017.

MS ^T			Avg.	Avg.			Plant			
Avg.	Trait		Yield ^S	Yield	Moisture	Lodging ^{II}	Height	Maturity ^{II}	Protein ⁺⁺	Oil ⁺⁺
Yield	Variety*	Package ⁺	(bu/ac)	Std Err.	(%)	(1-5)	(in.)	(DAP)	(%)	(%)
A	AgriGold G4685RX	R2X,STS	76	4	11.9	1.5	49	133	39.1	21.5
AB	Asgrow AG47X6 RR2X**	R2X,STS	75	4	12.1	2.0	47	133	39.2	21.2
AB	Beck's Hybrids 4669X2	R2X,STS	75	4	11.7	1.5	46	135	39.9	21.0
ABC	LG Seeds C4615RX	R2X,STS	74	4	11.7	1.5	46	134	39.2	21.5
ABCD	Dyna-Gro S46XS87	R2X,STS	73	4	11.7	1.5	46	133	39.3	21.7
ABCD	Dyna-Gro S49XS76	R2X,STS	72	4	12.3	2.0	44	137	39.9	21.2
ABCD	USG 7496XTS**	R2X,STS	72	4	12.4	2.0	46	138	40.1	21.5
ABCD	USG 7487XTS	R2X,STS	71	4	12.1	1.9	48	134	38.7	21.7
ABCD	Asgrow AG48X8 RR2X/SR	R2X,STS	70	4	11.4	2.2	44	134	39.7	21.4
ABCD	Progeny 4620RXS	R2X,STS	69	4	11.5	2.1	43	134	39.6	21.1
ABCD	Asgrow AG46X6 RR2X	R2X	69	4	11.7	1.8	41	136	38.8	21.7
ABCD	Pfister 47R22	RR2	69	4	11.8	1.7	46	133	39.6	20.9
ABCD	Dyna-Gro S48XT56	R2X	69	4	12.5	1.5	40	136	40.2	21.4
ABCD	LG Seeds C4710RX	R2X,STS	69	4	11.8	2.4	48	135	38.0	22.6
ABCD	Terral REV 49L88	LL	69	4	12.1	2.1	45	136	40.2	21.6
ABCD	TN Exp TN14-5542R2	RR2	69	4	12.2	1.6	39	137	40.2	20.2
ABCD	Warren Seed BG 4842 RR2X	R2X	69	4	11.7	2.0	42	128	39.8	21.6
BCDE	Warren Seed DS 4850	RR2,STS	68	4	11.9	1.6	46	133	40.1	20.9
BCDE	USG 74K95RS	RR2,STS	68	4	11.8	1.7	46	134	39.3	21.1
ABCD	Progeny 4799RXS	R2X,STS	68	4	11.8	1.6	45	134	40.1	20.8
ABCD	Progeny 4816RX	R2X	68	4	12.5	1.5	40	136	39.5	21.6
ABCD	Asgrow AG46X8 R2X/SR	R2X,STS	68	4	11.9	2.1	43	133	40.5	21.2
BCDE	LG Seeds C4922RX	RR,STS	68	4	11.7	1.8	42	134	40.5	21.0
CDEF	LG Seeds C4845RX	R2X	67	4	11.5	1.5	40	135	39.8	21.3
CDEF	Pfister 48RS01	RR2	67	4	11.6	1.8	46	135	39.7	21.1
CDEF	Armor 46-D08	R2X	67	4	11.5	2.2	44	134	39.5	21.4
CDEF	Beck's Hybrids 4991X2	R2X	67	4	12.3	1.5	40	135	39.9	21.3
CDEF	Caverndale Farms CF 478 RR2Y/STSn	RR2,STS	67	4	11.7	1.5	46	133	40.2	20.6
CDEF	Armor ARX4607	R2X	67	4	11.8	2.9	43	134	40.2	20.7
CDEF	Great Heart GT-4809X	R2X	67	4	11.6	1.8	41	134	38.6	22.1
CDEF	Progeny 4851RX	R2X	67	4	11.5	3.3	44	135	39.5	21.7
DEFG	Asgrow AG46X7 RR2X	R2X,STS	66	4	11.5	1.8	43	133	38.8	21.6
CDEF	Beck's Hybrids 494L4	LL	66	4	11.3	2.2	41	132	38.6	22.1
DEFG	Croplan RX4825	R2X	66	4	12.4	1.5	39	136	39.5	21.4
DEFG	Dyna-Gro SX17648XT	R2X	66	4	11.6	1.8	41	133	37.6	22.4
DEFG	Great Heart GT-4817XS	R2X	66	4	11.9	1.9	42	133	40.4	21.1
DEFG	NK S48-R2X	R2X	66	4	11.7	1.8	43	132	41.1	21.8
DEFG	Terral REV 4927X	R2X	66	4	11.2	3.3	46	134	38.7	21.8

Table 17. (cont.)

MS ^T			Avg.	Avg.			Plant			
Avg.	Trait		Yield [§]	Yield	Moisture	Lodging	Height	Maturity [¶]	Protein ^{††}	Oil ^{††}
Yield	Variety*	Package [‡]	(bu/ac)	Std Err.	(%)	(1-5)	(in.)	(DAP)	(%)	(%)
CDEF	TN Exp TN15-4011	CONV	66	4	12.1	1.6	36	136	38.8	21.6
EFGH	Warren Seed DS 4633	RR2	65	4	11.7	2.3	42	132	38.7	21.8
DEFG	Terral REV 47R34	RR	65	4	11.6	2.2	46	133	40.6	21.2
DEFG	Dyna-Gro S49LL34	LL	65	4	14.2	1.8	44	138	38.8	22.4
EFGH	Progeny 4757RY	RR2	65	4	11.9	2.7	42	135	40.2	21.3
DEFG	Credenz HBK LL4953	LL	65	4	16.0	1.8	43	139	39.4	21.9
DEFG	Terral REV 48A26	RR	65	4	12.6	2.8	44	134	39.4	22.8
EFGH	AgriGold G4835RX	R2X,STS	65	4	11.9	1.9	43	134	40.8	21.2
EFGH	Hefty H48X8S	R2X,STS	65	4	12.2	2.0	43	133	41.0	21.1
DEFG	Progeny 4929RXS	R2X,STS	65	4	12.1	1.7	42	134	40.1	21.4
DEFG	Progeny 4716LL	LL	65	4	11.9	1.9	42	131	38.2	22.0
EFGH	USG 7478XTS	R2X,STS	65	4	11.8	1.9	43	134	40.7	21.2
FGHI	Terral REV 49R94	RR	64	4	11.6	2.4	42	134	40.2	21.4
FGHI	Credenz CZ 4748 LL	LL	64	4	11.6	1.9	40	133	39.0	21.9
FGHI	Terral REV 48A76	RR	64	4	11.5	2.9	43	133	38.9	22.1
FGHI	Armor ARX4807	R2X	64	4	12.3	1.9	43	133	40.7	21.4
EFGH	Croplan R2C4775	RR	64	4	11.8	2.5	42	134	38.6	22.0
FGHI	Dyna-Gro S48XS78	R2X,STS	64	4	11.8	1.9	42	133	40.0	21.4
FGHI	Go Soy 49L17	LL	64	4	14.7	2.6	44	138	39.4	22.3
FGHI	Warren Seed BG 4911 RR2X	R2X	64	4	12.0	1.9	43	133	40.7	21.1
FGHI	Progeny 4930LL	LL	63	4	17.6	1.9	43	139	39.4	21.6
FGHI	Terral REV 4857X	R2X	63	4	11.9	2.4	43	134	41.1	21.1
GHIJ	USG 7497XT	R2X	63	4	13.8	2.3	43	138	39.9	20.8
HIJK	GoSoy 4714LL	LL	62	4	11.6	2.3	42	131	38.2	22.3
HIJK	Terral REV 48L63	LL	62	4	11.9	2.4	47	134	41.1	21.3
IJKL	AGS GS48R216	RR2	62	4	11.9	3.4	40	135	38.4	21.9
HIJK	Hefty H49X7	R2X	62	4	11.7	2.0	41	134	38.3	20.9
HIJK	Hefty H47L5	LL	62	4	12.4	2.5	44	132	39.0	21.7
HIJK	MO S14-6391C	CONV	62	4	12.1	2.6	45	136	40.0	20.7
KLMN	GoSoy 49G16	RR	61	4	12.3	2.8	43	137	40.7	20.5
KLMN	MO S13-1805C	CONV	61	4	13.4	3.2	38	138	39.6	21.8
KLMN	Petrus Seed 479 GTS	RR,STS	61	4	11.9	1.5	45	130	40.1	22.4
JKLM	TN Exp TN16-520	RR	61	4	11.9	1.6	35	138	40.0	20.9
LMNO	USG Ellis	CONV	60	4	12.0	1.5	35	137	40.0	20.8
LMNO	AgriGold G4990RX	R2X,STS	60	4	12.3	2.1	47	138	39.4	21.5
MNOP	AR R13-1019	CONV	60	4	12.5	2.9	40	138	41.9	20.2
LMNO	Petrus Seed 4916 GT	RR	60	4	12.4	2.8	42	137	41.1	20.5
MNOP	TN Exp TN14-5021	CONV	60	4	13.5	2.5	36	139	40.9	21.6

Table 17. (cont.)

MS [†]			Avg.	Avg.			Plant			
Avg.	Trait		Yield [§]	Yield	Moisture	Lodging	Height	Maturity [¶]	Protein ^{††}	Oil ^{††}
Yield	Variety*	Package [‡]	(bu/ac)	Std Err.	(%)	(1-5)	(in.)	(DAP)	(%)	(%)
LMNO	TN Exp TN15-4546	RR2	60	4	12.3	1.6	44	134	37.5	21.3
NOPQ	GoSoy Ireane	CONV	59	4	12.5	1.7	34	139	40.2	20.8
NOPQ	Credenz CZ 4818 LL	LL	59	4	12.0	2.1	47	134	40.6	21.0
OPQR	Dyna-Gro S49XS88	R2X,STS	59	4	11.9	2.1	48	136	39.7	21.4
OPQR	AGS GS46X17	R2X	59	4	12.0	1.7	37	131	39.7	22.4
RSTU	MO S14-15146R	RR	58	4	11.7	1.7	40	132	38.2	22.4
PQRS	TN Exp TN16-532	RR	58	4	11.4	1.9	40	138	40.5	20.6
QRST	USG 74G98L	LL	58	4	16.2	2.6	44	139	39.4	22.3
TU	TN Exp TN13-4508R2	RR2	57	4	13.0	2.2	43	137	37.9	21.4
STU	Go Soy 47B17	RR	57	4	11.9	2.6	39	133	40.6	22.1
U	TN Exp TN15-5007	CONV	56	4	12.3	1.7	36	136	44.0	19.4
	Average		65	4	12.2	2.1	43	135	39.7	21.4
	L.S.D._{.05}		8		2.5	0.6	3	2	0.8	0.5
	n		6		6	6	6	6	1	1

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

|| 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).

†† Protein and Oil on dry weight basis.

Table 18. Across and by location mean yields of 87 Maturity Group IV Late (4.6-4.9) soybean varieties evaluated in seven REC tests in Tennessee during 2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Knoxville Irr. (bu/ac)	Springfield Irr. (bu/ac)	Springfield Non-Irr. (bu/ac)	Milan Irr. (bu/ac)	Milan Non-Irr. (bu/ac)	Jackson Non-Irr. (bu/ac)	Memphis Irr. (bu/ac)
A	AgriGold G4685RX	R2X,STS	76	4	68	87	72	81	82	60	72
AB	Asgrow AG47X6 RR2X**	R2X,STS	75	4	79	86	73	75	79	59	72
AB	Beck's Hybrids 4669X2	R2X,STS	75	4		89	65	83	81	57	73
ABC	LG Seeds C4615RX	R2X,STS	74	4	67	80	63	82	83	57	76
ABCD	Dyna-Gro S46XS87	R2X,STS	73	4	67	70	69	79	82	57	78
ABCD	Dyna-Gro S49XS76	R2X,STS	72	4		83	63	74	74	53	81
ABCD	USG 7496XTS**	R2X,STS	72	4	69	80	66	78	75	55	76
ABCD	USG 7487XTS	R2X,STS	71	4	61	73	74	80	75	54	66
ABCD	Asgrow AG48X8 RR2X/SR	R2X,STS	70	4	77	75	63	71	76	58	80
ABCD	Progeny 4620RXS	R2X,STS	69	4	74	87	62	72	73	58	63
ABCD	Asgrow AG46X6 RR2X	R2X	69	4		76	67	73	69	50	77
ABCD	Pfister 47R22	RR2	69	4	69	67	73	70	78	55	71
ABCD	Dyna-Gro S48XT56	R2X	69	4	70	64	58	78	70	58	84
ABCD	LG Seeds C4710RX	R2X,STS	69	4	70	84	62	65	74	59	73
ABCD	Terral REV 49L88	LL	69	4	69	72	62	70	73	58	77
ABCD	TN Exp TN14-5542R2	RR2	69	4	71	86	67	69	65	58	72
ABCD	Warren Seed BG 4842 RR2X	R2X	69	4	74	75	57	78	70	60	74
BCDE	Warren Seed DS 4850	RR2,STS	68	4	63	70	68	63	78	54	75
BCDE	USG 74K95RS	RR2,STS	68	4		69	72	69	72	53	73
ABCD	Progeny 4799RXS	R2X,STS	68	4	56	82	70	67	70	56	66
ABCD	Progeny 4816RX	R2X	68	4	69	70	57	71	68	62	80
ABCD	Asgrow AG46X8 R2X/SR	R2X,STS	68	4	81	82	53	79	73	57	68
BCDE	LG Seeds C4922RX	RR,STS	68	4	66	85	67	57	61	57	77
CDEF	LG Seeds C4845RX	R2X	67	4	66	69	57	73	70	59	77
CDEF	Pfister 48RS01	RR2	67	4	56	73	68	72	69	56	63
CDEF	Armor 46-D08	R2X	67	4	73	78	57	70	81	56	59
CDEF	Beck's Hybrids 4991X2	R2X	67	4		63	60	77	70	56	75
CDEF	Caverndale Farms CF 478 RR2Y/STS ⁿ	RR2,STS	67	4	70	71	61	72	70	49	76
CDEF	Armor ARX4607	R2X	67	4	74	71	66	61	68	55	80
CDEF	Great Heart GT-4809X	R2X	67	4	62	65	52	68	75	55	82
CDEF	Progeny 4851RX	R2X	67	4	73	79	64	63	74	55	65
DEFG	Asgrow AG46X7 RR2X	R2X,STS	66	4	68	69	61	68	67	52	74
CDEF	Beck's Hybrids 494L4	LL	66	4	57	69	56	72	70	56	77
DEFG	Croplan RX4825	R2X	66	4	67	74	51	71	67	54	76
DEFG	Dyna-Gro SX17648XT	R2X	66	4	66	66	58	74	72	53	72
DEFG	Great Heart GT-4817XS	R2X	66	4		84	63	59	58	58	74
DEFG	NK S48-R2X	R2X	66	4	67	65	49	77	72	62	72
DEFG	Terral REV 4927X	R2X	66	4	65	66	65	70	65	63	64
CDEF	TN Exp TN15-4011	CONV	66	4	72	63	55	70	73	64	75
EFGH	Warren Seed DS 4633	RR2	65	4	65	74	58	67	68	48	73
DEFG	Terral REV 47R34	RR	65	4	63	68	65	68	66	54	71
DEFG	Dyna-Gro S49LL34	LL	65	4	77	66	62	77	61	50	76
EFGH	Progeny 4757RY	RR2	65	4		63	52	71	67	58	77
DEFG	Credenz HBK LL4953	LL	65	4	71	61	59	72	60	55	84
DEFG	Terral REV 48A26	RR	65	4	74	69	62	69	67	52	72
EFGH	AgriGold G4835RX	R2X,STS	65	4	66	82	65	55	55	58	74
EFGH	Hefty H48X8S	R2X,STS	65	4	72	77	64	55	64	54	75
DEFG	Progeny 4929RXS	R2X,STS	65	4	68	80	63	57	59	57	73
DEFG	Progeny 4716LL	LL	65	4		72	60	67	67	54	71
EFGH	USG 7478XTS	R2X,STS	65	4	68	74	71	54	62	56	72

Table 18. (cont.)

MS [†]		Trait	Avg. Yield [§]	Avg. Yield	Knoxville Irr.	Springfield Irr.	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.	Jackson Non-Irr.	Memphis Irr.
Yield	Variety*	Package [‡]	(bu/ac)	Std Err.	(bu/ac)	(bu/ac)	(bu/ac)	(bu/ac)	(bu/ac)	(bu/ac)	(bu/ac)
FGHI	Terral REV 49R94	RR	64	4	70	68	65	62	67	51	73
FGHI	Credenz CZ 4748 LL	LL	64	4	58	62	57	74	73	52	69
FGHI	Terral REV 48A76	RR	64	4		67	59	61	65	56	74
FGHI	Armor ARX4807	R2X	64	4	71	75	58	57	58	55	79
EFGH	Croplan R2C4775	RR	64	4	63	61	56	76	72	52	69
FGHI	Dyna-Gro S48XS78	R2X,STS	64	4		77	62	54	61	52	75
FGHI	Go Soy 49L17	LL	64	4	68	78	61	61	61	43	78
FGHI	Warren Seed BG 4911 RR2X	R2X	64	4	74	77	64	54	59	55	73
FGHI	Progeny 4930LL	LL	63	4	63	53	58	71	66	50	80
FGHI	Terral REV 4857X	R2X	63	4	61	67	47	72	66	54	74
GHIJ	USG 7497XT	R2X	63	4		62	56	67	63	51	78
HIJK	GoSoy 4714LL	LL	62	4	60	59	65	66	67	47	69
HIJK	Terral REV 48L63	LL	62	4		66	49	69	63	53	71
IJKL	AGS GS48R216	RR2	62	4	61	71	65	53	54	55	73
HIJK	Hefty H49X7	R2X	62	4	53	58	64	66	65	53	69
HIJK	Hefty H47L5	LL	62	4		68	57	65	68	43	71
HIJK	MO S14-6391C	CONV	62	4	57	68	64	67	64	48	63
KLMN	GoSoy 49G16	RR	61	4		69	54	50	69	58	66
KLMN	MO S13-1805C	CONV	61	4	60	60	58	62	63	60	60
KLMN	Petrus Seed 479 GTS	RR,STS	61	4	62	59	60	68	64	48	63
JKLM	TN Exp TN16-520	RR	61	4	53	53	55	71	58	51	79
LMNO	USG Ellis	CONV	60	4	63	56	57	66	67	47	72
LMNO	AgriGold G4990RX	R2X,STS	60	4		79	59	36	53	54	79
MNOP	AR R13-1019	CONV	60	4	61	63	60	55	56	53	70
LMNO	Petrus Seed 4916 GT	RR	60	4	64	79	56	50	63	59	57
MNOP	TN Exp TN14-5021	CONV	60	4	66	66	53	56	62	57	68
LMNO	TN Exp TN15-4546	RR2	60	4	67	52	54	61	64	56	73
NOPQ	GoSoy Ireane	CONV	59	4	56	53	59	66	57	51	70
NOPQ	Credenz CZ 4818 LL	LL	59	4	61	63	51	56	62	52	71
OPQR	Dyna-Gro S49XS88	R2X,STS	59	4	79	79	59	32	49	57	76
OPQR	AGS GS46X17	R2X	59	4	61	55	42	68	64	48	76
RSTU	MO S14-15146R	RR	58	4	55	59	55	61	55	49	68
PQRS	TN Exp TN16-532	RR	58	4	56	52	48	72	55	52	70
QRST	USG 74G98L	LL	58	4	67	50	55	67	65	43	70
TU	TN Exp TN13-4508R2	RR2	57	4	71	53	50	52	55	57	75
STU	Go Soy 47B17	RR	57	4		60	49	65	59	39	72
U	TN Exp TN15-5007	CONV	56	4	54	65	45	61	57	46	63
	Average		65	4	66	70	60	66	67	54	73
	L.S.D. .05		8		-	11	10	9	7	6	12
	n		6		1	1	1	1	1	1	1
	C.V. (%)		9		-	10	10	8	6	6	10

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

|| An electronics malfunction caused loss of yield and moisture data on over 40 plots at the Knoxville location within the Group IV Late test. Because of this, this location was excluded from the average yield across locations. Average yield and moisture data are reported for entries for which data was available on at least 2 replicates within the test; however, an ANOVA was not performed for this location because of missing data.

Table 19. Yields of 24 Maturity Group IV Late (4.6-4.9) Roundup Ready soybean varieties in 10 County Standard Tests in Tennessee during 2017.

MS [†] Avg. Yield	Variety*	Avg. Yield [§] (bu/ac)	Moisture (%)	County									
				Coff	Deca	Dyer	Gibs	Giles	Mayw	Henr	Madi	Mari	McCr
A	Dyna-Gro S48XT56	66.7	13.2	65	46	73	69	82	68	68	59	75	62
AB	LG Seeds C4845RX	65.8	13.4	59	66	74	63	69	69	59	57	74	68
ABC	NK 48-R2X	65.3	13.1	62	65	78	64	61	77	65	53	68	60
ABC	Asgrow 46X6	64.7	13.0	63	51	87	54	67	69	64	56	72	65
ABC	USG 7496XTS	63.8	13.2	57	63	80	58	67	54	62	59	75	63
ABC	Dyna-Gro S49XS76	63.4	13.5	57	67	78	57	63	66	58	55	71	61
ABCD	Progeny 4757RY	63.2	13.3	57	61	80	51	63	65	60	62	69	62
ABC	Terral REV 4857X	63.1	13.2	65	67	75	57	62	64	61	54	62	63
ABC	Armor 48-D24	63.1	13.3	41	56	79	61	59	80	63	58	75	59
ABCD	Asgrow 46X7	63.0	13.2	63	64	76	52	58	63	58	58	77	60
ABCD	Asgrow 47X6	62.7	13.4	60	61	68	61	69	66	56	55	70	60
ABCD	Warren Seed BG 4842	62.7	13.7	60	64	60	53	69	68	62	61	69	61
ABCD	Progeny 4620RXS	62.5	13.1	64	60	73	59	62	64	61	56	64	62
ABCD	Armor 46-D08	62.4	13.0	60	66	66	55	63	68	59	60	67	59
ABCD	Croplan RX4836 S	62.2	13.4	59	54	72	56	64	69	65	59	58	67
ABCDE	GoSoy GS48R216	62.2	13.2	69	64	59	56	56	53	65	61	71	69
ABCDE	AgriGold G4835RX	62.1	13.4	63	65	58	59	65	60	59	59	70	63
ABCDE	Warren Seed BG 4911	61.7	13.3	66	62	54	53	70	65	54	55	73	64
ABCDE	Warren Seed DS 4633	61.7	13.1	67	60	68	57	55	61	62	59	64	64
BCDE	Beck's 4991X2	61.6	13.4	42	60	69	56	67	72	60	57	71	62
CDEF	Terral REV 4927X	60.5	13.2	55	56	67	46	67	64	62	63	62	63
DEF	Beck's 487R4	58.0	13.2	57	56	56	47	51	70	62	55	64	61
EF	USG 7497XTS	57.1	14.0	60	61	55	37	61	58	61	61	63	55
F	GoSoy 49G16	56.1	13.5	50	53	64	64	45	52	61	53	65	53
Average		62.3	13.3	59	60	70	56	63	65	61	58	69	62

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

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

§ All yields are adjusted to 13% moisture.

County Locations include: Coffee, Decatur, Dyer, Gibson, Giles, Haywood, Henry, Madison, Marion, McCracken KY.

Table 20. Yields of 17 Maturity Group IV Late (4.6-5.2) Liberty Link soybean varieties in 9 County Standard Tests in Tennessee during 2017.

MS [†] Avg. Yield	Variety*	Avg. Yield [§] (bu/ac)	Moisture (%)	Croc	Dyer	Fult	Gibs	Lake	Madi	Mont	Obio	Tipt
A	Bayer HBK LL4953	59.7	13.3	91	63	48	61	48	68	38	57	64
A	Progeny 4930LL	59.5	12.9	58	62	44	61	46	67	61	66	70
AB	Beck's 522L4	57.7	12.7	59	63	45	60	51	67	63	60	50
ABC	Warren Seed Micah 4910LL	56.7	12.9	63	63	44	75	45	67	44	61	50
ABC	Beck's 494L4	56.6	12.8	57	61	55	60	48	50	54	61	65
ABC	Bayer HBK LL4950	56.4	13.1	59	63	46	53	48	71	53	60	54
ABC	Bayer CZ 4820LL	56.2	13.0	64	64	52	67	51	56	43	64	47
ABC	Bayer CZ 5147LL	56.2	12.7	56	63	47	67	51	60	50	57	54
ABC	Bayer CZ 4748LL	56.1	13.1	56	54	48	65	51	60	61	66	44
ABC	Bayer CZ 5150LL	55.5	12.9	60	62	46	60	47	70	57	58	40
ABC	Warren Seed Micah 4810LL	55.4	12.6	59	61	43	56	47	67	48	57	59
ABC	GoSoy 5115LL	54.4	12.8	63	61	43	58	54	64	48	60	38
ABC	Bayer CZ 4818LL	54.2	13.2	52	59	48	63	45	70	44	56	51
BC	Croplan LL4800	52.5	12.9	59	57	47	55	50	46	41	66	50
BC	Dyna-Gro S49LL34	52.0	12.9	61	60	46	46	49	64	31	60	51
C	Terral REV 48L63	51.1	13.1	51	59	46	57	44	53	33	62	55
C	Bayer CZ 5242LL	50.8	13.0	46	61	41	55	50	52	47	61	44
Average		55.4	12.9	60	61	46	60	49	62	48	61	52

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

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

§ All yields are adjusted to 13% moisture.

County Locations include: Crockett, Dyer, Fulton, KY, Gibson, Lake, Madison, Montgomery, Obion, Tipton.

Table 21. Overall average yields and moistures of 26 Maturity Group IV Late (4.6 - 4.9) soybean varieties evaluated in County Standard Tests (LL: n=6, RR: n=7) and REC Tests (n=7) in Tennessee during 2017.

Variety	Trait Packag	Avg. of CST and REC Tests		CST Tests		REC Tests	
		Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)
Asgrow AG47X6 RR2X	R2X,STS	69	12.8	63	13.4	75	12.1
USG 7496XTS	R2X,STS	68	12.8	64	13.2	72	12.4
Dyna-Gro S48XT56	R2X	68	12.8	67	13.2	69	12.5
Dyna-Gro S49XS76	R2X,STS	68	12.9	63	13.5	72	12.3
Asgrow AG46X6 RR2X	R2X	67	12.3	65	13.0	69	11.7
LG Seeds C4845RX	R2X	66	12.5	66	13.4	67	11.5
Warren Seed BG 4842 RR2X	R2X	66	12.7	63	13.7	69	11.7
Progeny 4620RXS	R2X,STS	66	12.3	63	13.1	69	11.5
NK S48-R2X	R2X	66	12.4	65	13.1	66	11.7
Armor 46-D08	R2X	65	12.3	62	13.0	67	11.5
Asgrow AG46X7 RR2X	R2X,STS	65	12.4	63	13.2	66	11.5
Beck's Hybrids 4991X2	R2X	64	12.9	62	13.4	67	12.3
Progeny 4757RY	RR2	64	12.6	63	13.3	65	11.9
AgriGold G4835RX	R2X,STS	64	12.7	62	13.4	65	11.9
Warren Seed DS 4633	RR2	63	12.4	62	13.1	65	11.7
Terral REV 4927X	R2X	63	12.2	61	13.2	66	11.2
Terral REV 4857X	R2X	63	12.6	63	13.2	63	11.9
Warren Seed BG 4911 RR2X	R2X	63	12.6	62	13.3	64	12.0
Credenz HBK LL4953	LL	62	14.6	60	13.3	65	16.0
Beck's Hybrids 494L4	LL	61	12.0	57	12.8	66	11.3
Progeny 4930LL	LL	61	15.2	60	12.9	63	17.6
Credenz CZ 4748 LL	LL	60	12.3	56	13.1	64	11.6
USG 7497XT	R2X	60	13.9	57	14.0	63	13.8
Dyna-Gro S49LL34	LL	59	13.5	52	12.9	65	14.2
Credenz CZ 4818 LL	LL	57	12.6	54	13.2	59	12.0
Terral REV 48L63	LL	57	12.5	51	13.1	62	11.9
Average		64	12.8	61	13.2	66	12.4

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

Table 22. Yields and disease ratings of 24 Maturity Group IV Late (4.6-4.9) Roundup Ready soybean varieties in 10 County Standard Tests and in small plot trials at two AgResearch and Education Centers and one on-farm location in Tennessee during 2017.

Summary from 7 County Tests			Summary from Small Plot Research														
MS	Variety	Avg. Yield (bu/ac)	Research and Education Center at Milan (RECM)					West TN Research and Education Center			On-farm Location in Jackson (JAX)						
			RECM - YLD		Frogeye leaf spot	Target Spot	Stem Canker	Other Diseases RECM	WTREC - YLD		Target Spot	JAX - YLD		Frogeye leaf spot	Target Spot	Stem Canker	
			*Treated	Non-treated				*Treated	Non-treated		*Treated	Non-treated					
A	Dyna-Gro S48XT56	66.7	61.9	56.3	LOW	LOW	LOW	52.4	52.3	LOW							
AB	LG Seeds C4845RX	65.8	58.7	53.0	LOW	LOW	LOW	54.2	53.6	LOW	61.4	56.9	MOD	LOW			
ABC	NK 48-R2X	65.3	57.1	51.4	MOD	LOW	LOW	52.8	50.2	LOW	53.9	45.4	HIGH	LOW	MOD		
ABC	Asgrow 46X6	64.7	57.4	53.8	LOW	LOW	LOW	51.1	46.1	LOW	49.5	51.3	MOD	LOW	MOD		
ABC	USG 7496XTS	63.8	56.2	52.2	MOD	LOW	LOW	47.1	47.5	LOW	57.2	54.3	HIGH	LOW	LOW	CLB	
ABC	Dyna-Gro S49XS76	63.4	56.8	51.2	MOD	LOW	LOW	51.7	53.3	LOW	57.5	51.9	HIGH	LOW	LOW		
ABCD	Progeny 4757RY	63.2	56.2	56.0	LOW	LOW	LOW	50.8	44.9	LOW	58.5	55.2	LOW	LOW	LOW		
ABC	Armor 48-D24	63.1	57.8	52.6	LOW	LOW	LOW	51.6	51.1	LOW	58.2	58.1	MOD	LOW	LOW	CLB	
ABC	Terral REV 4857X	63.1	55.4	50.7	LOW	LOW	LOW	49.6	49.8	LOW	53.5	49.1	MOD	LOW	MOD		
ABCD	Asgrow 46X7	63.0	58.3	49.4	LOW	MOD	LOW	51.1	51.9	LOW	50.6	50.7	LOW	LOW	HIGH		
ABCD	Asgrow 47X6	62.7	59.9	54.6	LOW	LOW	LOW	49.5	47.4	LOW	58.9	56.3	LOW	MOD	LOW		
ABCD	Warren Seed BG 4842	62.7	56.3	52.0	LOW	HIGH	LOW	52.2	49.9	HIGH	-	-	-	-	-		
ABCD	Progeny 4620RXS	62.5	65.0	57.6	LOW	LOW	LOW	53.5	52.0	LOW	54.0	55.0	LOW	LOW			
ABCD	Armor 46-D08	62.4	53.2	51.2	LOW	LOW	LOW	48.2	47.0	LOW	54.2	53.1	LOW	LOW	LOW		
ABCD	Croplan RX4836 S	62.2	54.6	50.9	LOW	HIGH	LOW	52.0	51.2	HIGH	51.1	41.8	MOD	HIGH	HIGH	CLB	
ABCDE	GoSoy GS48R216	62.2	40.0	37.0	LOW	LOW	HIGH	49.7	49.2	LOW	56.8	51.3	LOW	LOW			
ABCDE	AgriGold G4835RX	62.1	42.8	36.3	LOW	LOW	HIGH	52.4	50.5	LOW	51.6	50.7	LOW	HIGH	LOW		
ABCDE	Warren Seed BG 4911	61.7	38.4	34.7	LOW	LOW	HIGH	60.3	58.1	MOD	49.0	49.2	LOW	HIGH	HIGH		
ABCDE	Warren Seed DS 4633	61.7	55.1	50.0	LOW	MOD	LOW	48.7	50.1	LOW	-	-	-	-	-		
BCDE	Beck's 4991X2	61.6	58.8	53.5	LOW	LOW	LOW	55.8	56.7	LOW	57.6	56.9	MOD	LOW			
CDEF	Terral REV 4927X	60.5	53.7	55.3	LOW	LOW	LOW	53.6	54.2	LOW	57.0	53.5	LOW	LOW	MOD		
DEF	Beck's 487R4	58.0	53.0	51.4	LOW	LOW	LOW	51.7	50.8	LOW	55.8	53.1	LOW	LOW	LOW		
EF	USG 7497XTS	57.1	51.3	45.0	LOW	MOD	LOW	50.1	48.2	LOW	44.7	44.6	LOW	HIGH	MOD		
F	GoSoy 49G16	56.1	44.3	48.0	LOW	LOW	LOW	45.5	48.6	LOW	52.9	46.8	LOW	LOW			
	Average	62.3	54.3	50.2				51.5	50.6		54.5	51.7					

YLD= Avg. Yield @ 13% moisture

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

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

County Locations include: Coffee, Decatur, Dyer, Gibson, Giles, Haywood, Henry, Madison, Marion, McCracken KY.

*Treated plots sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R3 growth stage. RECM varieties planted May 31, JAX planted May 23, and WTREC planted after wheat June 14.

LOW, MOD, and HIGH is a relative ranking of disease severity at each location. Other diseases noted: SC=Stem Canker, CLB=Cercozoa Leaf Blight, SDS=Sudden Death Syndrome; '-' indicate variety was not tested at that location

Disease ratings at RECM: Frogeye leaf spot ranged from 0 - 20% with an average of 2%; Target spot ranged from 0 - 18% with an average of 3%; and Stem Canker ranged from 0 - 33% with an average of 4%.

Disease ratings at JAX: Frogeye leaf spot ranged from 0 - 43% with an average of 8%; Target spot ranged from 0 - 21% with an average of 4%; and Stem Canker ranged from 0 - 36% with an average of 12%.

Disease ratings at WTREC: Frogeye leaf spot was <1%; Target spot was <4%; the majority of the varieties has soybean rust but at levels too low to rate.

Disease ratings and yield data compiled by Dr. Heather Kelly from replicated plots at the AgResearch and Education Center at Milan, the West Tennessee AgResearch and Education Center, and on-farm location in Jackson.

County data provided by Ryan Blair, Ext. Area Specialist, and the Extension agents

Table 23. Yields and disease ratings of 17 Maturity Group IV Late (4.6-4.9) Liberty Link soybean varieties in 10 County Standard Tests and in small plot trials at two AgResearch and Education Center and one on-farm location in Tennessee during 2017.

Summary from 10 County Tests			Summary from Small Plot Research										
MS	Variety	Avg. Yield (bu/ac)	Research and Education Center at Milan (RECM)				West TN Research and Education Center			On-farm Location in Jackson (JAX)			
			*Treated	Non-treated	Target Spot	Other Diseases RECM	*Treated	Non-treated	Target Spot	*Treated	Non-treated	Target Spot	Other Diseases RECM
A	Bayer HBK LL4953	59.7	52.5	47.9	LOW	SDS	51.8	48.1	LOW	54.9	53.3	LOW	
A	Progeny 4930LL	59.5	57.7	48.5	LOW	SDS	46.8	49.3	LOW	53.5	53.1	LOW	
AB	Beck's 522L4	57.7	52.8	46.4	LOW		50.6	50.4	LOW	-	-	-	-
ABC	Warren Seed Micah 4910LL	56.7	52.7	42.4	LOW	SDS, CLB	44.8	44.7	LOW	-	-	-	-
ABC	Beck's 494L4	56.6	52.7	48.0	MOD		48.3	49.2	LOW	51.7	45.8	HIGH	SC
ABC	Bayer HBK LL4950	56.4	54.8	42.1	LOW	SDS	44.7	42.6	LOW	55.8	54.9	LOW	
ABC	Bayer CZ 4820LL	56.2	53.2	51.4	MOD		49.6	48.6	LOW	52.4	47.8	HIGH	
ABC	Bayer CZ 5147LL	56.2	60.7	46.6	LOW		48.8	51.1	LOW	59.8	56.3	LOW	
ABC	Bayer CZ 4748LL	56.1	54.7	47.6	MOD		53.4	46.2	LOW	48.4	46.2	HIGH	
ABC	Bayer CZ 5150LL	55.5	54.3	48.1	LOW		49.5	50.0	LOW	56.9	52.6	LOW	
ABC	Warren Seed Micah 4810LL	55.4	54.2	49.2	LOW	SDS	55.5	49.5	LOW	52.7	50.2	LOW	
ABC	GoSoy 5115LL	54.4	55.8	46.3	LOW	SDS	34.6	34.4	LOW	52.4	53.1	LOW	
ABC	Bayer CZ 4818LL	54.2	51.8	38.2	LOW		51.5	54.2	LOW	56.9	51.2	LOW	
BC	Croplan LL4800	52.5	51.4	45.7	HIGH		50.1	42.1	HIGH	50.5	43.9	HIGH	SC, CLB
BC	Dyna-Gro S49LL34	52.0	-	-	-	-	44.6	41.7	LOW	52.8	51.1	LOW	
C	Terral REV 48L63	51.1	56.5	40.5	LOW	CLB	38.0	34.0	LOW	52.8	54.2	LOW	
C	Bayer CZ 5242LL	50.8	48.7	42.0	LOW	CLB	41.1	41.7	LOW	51.7	49.5	LOW	CLB
Average		55.4	54.0	45.7			47.3	45.8		53.5	50.9		

YLD= Avg. Yield @ 13% moisture

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

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

County locations include: Crockett, Dyer, Gibson, Henry, Lake, Madison, Montgomery, Obion, Tipton, TN; Fulton, KY.

*Treated plots sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R3 growth stage. RECM varieties planted May 31, JAX planted May 23, and WTREC planted after wheat June 14

LOW, MOD, and HIGH is a relative ranking of disease severity at each location. Other diseases noted: SC=Stem Canker, CLB=Cercospora Leaf Blight, SDS=Sudden Death Syndrome; ' - ' indicate variety was not tested at that location

Disease ratings at RECM: Frogeye leaf spot is not reported due to low pressure (<1%) and natural senescence; Target spot ranged from 0 - 18% with an average of 3%.

Disease ratings at JAX: Frogeye leaf spot ranged from 1 - 14% with an average of 8%; other diseases were not rated or noted at this location for this maturity group

Disease ratings at WTREC: Frogeye leaf spot is not reported due to low pressure (<1%); Target spot ranged from 0 - 18% with an average of 2%.

Disease ratings and yield data compiled by Dr. Heather Kelly from replicated plots at the AgResearch and Education Center at Milan, the West Tennessee AgResearch and Education Center, and on-farm location in Jackson.

County data provided by Ryan Blair, Ext. Area Specialist, and the Extension agents.

Table 24. Two year across locations mean yields and agronomic characteristics of 39 Maturity Group IV Late (4.6-4.9) soybean varieties evaluated in four REC tests in Tennessee during 2016-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Moisture (%)	Lodging (1-5)	Plant Height (in.)	Maturity [¶] (DAP)
A	Asgrow AG47X6 RR2X	R2X,STS	71	7	13.1	2.0	48	128
A	USG 7496XTS	R2X,STS	67	7	13.1	1.7	45	132
A	LG Seeds C4615RX	R2X,STS	67	7	12.7	1.1	47	129
A	Dyna-Gro S46XS87	R2X,STS	66	7	12.1	1.5	48	129
A	Progeny 4799RXS	R2X,STS	66	7	13.0	1.4	47	129
A	Dyna-Gro S49XS76	R2X,STS	66	7	13.0	1.9	45	132
A	USG 7487XTS	R2X,STS	65	7	12.8	1.5	49	129
A	Progeny 4620RXS	R2X,STS	65	7	12.1	2.5	45	129
A	Beck's Hybrids 494L4	LL	64	7	12.6	1.8	41	126
A	GoSoy 4714LL	LL	64	7	12.7	2.2	43	126
A	Armor 46-D08	R2X	64	7	12.3	2.4	44	129
A	Credenz CZ 4748 LL	LL	63	7	12.7	1.7	42	128
A	Terral REV 48A26	RR	63	7	13.4	2.4	45	129
A	Pfister 47R22	RR2	63	7	13.0	1.7	47	128
A	Warren Seed DS 4850	RR2,STS	63	7	12.9	1.3	48	128
A	Asgrow AG46X6 RR2X	R2X	63	7	12.6	1.9	43	131
A	Terral REV 48L63	LL	63	7	12.9	2.2	48	130
A	Warren Seed DS 4633	RR2	62	7	12.8	2.8	43	128
A	Pfister 48RS01	RR2	62	7	12.6	1.5	46	129
A	USG 74K95RS	RR2,STS	62	7	13.0	1.8	48	129
A	Caverndale Farms CF 478 RR2Y/STS ⁿ	RR2,STS	62	7	12.8	1.4	46	129
A	Progeny 4757RY	RR2	62	7	12.9	2.4	44	130
A	Terral REV 47R34	RR	61	7	12.6	2.1	45	128
A	Terral REV 49R94	RR	61	7	12.4	2.3	44	129
A	LG Seeds C4845RX	R2X	61	7	12.8	1.2	40	131
A	Asgrow AG46X7 RR2X	R2X,STS	61	7	12.5	1.8	43	128
A	Credenz HBK LL4953	LL	61	7	15.9	1.5	44	131
A	Progeny 4816RX	R2X	61	7	13.1	1.2	40	131
A	Terral REV 48A76	RR	60	7	12.5	2.4	44	128
A	Dyna-Gro S49LL34	LL	60	7	14.7	1.7	43	131
A	Beck's Hybrids 4991X2	R2X	60	7	13.1	1.2	40	131
A	Dyna-Gro S48XT56	R2X	58	7	13.3	1.1	39	131
A	Progeny 4930LL	LL	58	7	17.0	1.9	43	131
A	Credenz CZ 4818 LL	LL	57	7	13.1	2.1	47	129
A	USG Ellis	CONV	57	7	13.2	1.5	33	132
A	GoSoy Ireane	CONV	56	7	13.7	1.7	35	132
A	AGS GS48R216	RR2	56	7	13.0	3.3	39	129
A	GoSoy 49G16	RR	52	7	12.9	3.0	42	131
A	TN Exp TN13-4508R2	RR2	52	7	13.7	2.2	44	131
Average			62	7	13.1	1.9	44	130
L.S.D. _{.05}			N.S.		N.S.	0.5	3	3
n			8		8	4	8	8

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

|| 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).

††Protein and Oil on dry weight basis.

Table 25. Two year across and by location mean yields of 39 Maturity Group IV Late (4.6-4.9) soybean varieties evaluated in four REC tests in Tennessee during 2016-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Springfield Irr. (bu/ac)	Springfield Non-Irr. (bu/ac)	Milan Irr. (bu/ac)	Milan Non-Irr. (bu/ac)
A	Asgrow AG47X6 RR2X	R2X,STS	71	7	71	63	73	75
A	USG 7496XTS	R2X,STS	67	7	63	54	77	73
A	LG Seeds C4615RX	R2X,STS	67	7	61	55	75	74
A	Dyna-Gro S46XS87	R2X,STS	66	7	57	58	75	76
A	Progeny 4799RXS	R2X,STS	66	7	66	61	68	69
A	Dyna-Gro S49XS76	R2X,STS	66	7	64	53	71	74
A	USG 7487XTS	R2X,STS	65	7	61	60	71	70
A	Progeny 4620RXS	R2X,STS	65	7	66	53	71	70
A	Beck's Hybrids 494L4	LL	64	7	64	56	68	70
A	GoSoy 4714LL	LL	64	7	61	60	68	67
A	Armor 46-D08	R2X	64	7	58	53	69	75
A	Credenz CZ 4748 LL	LL	63	7	59	53	69	71
A	Terral REV 48A26	RR	63	7	62	56	68	65
A	Pfister 47R22	RR2	63	7	55	59	65	72
A	Warren Seed DS 4850	RR2,STS	63	7	59	56	65	71
A	Asgrow AG46X6 RR2X	R2X	63	7	60	54	72	65
A	Terral REV 48L63	LL	63	7	64	48	70	68
A	Warren Seed DS 4633	RR2	62	7	63	54	67	65
A	Pfister 48RS01	RR2	62	7	58	56	69	67
A	USG 74K95RS	RR2,STS	62	7	59	56	66	68
A	Caverndale Farms CF 478 RR2Y/STSn	RR2,STS	62	7	61	53	69	67
A	Progeny 4757RY	RR2	62	7	55	48	72	68
A	Terral REV 47R34	RR	61	7	56	57	65	66
A	Terral REV 49R94	RR	61	7	59	55	64	66
A	LG Seeds C4845RX	R2X	61	7	56	50	71	69
A	Asgrow AG46X7 RR2X	R2X,STS	61	7	56	53	67	68
A	Credenz HBK LL4953	LL	61	7	56	55	71	62
A	Progeny 4816RX	R2X	61	7	56	47	70	68
A	Terral REV 48A76	RR	60	7	55	56	64	64
A	Dyna-Gro S49LL34	LL	60	7	57	54	64	64
A	Beck's Hybrids 4991X2	R2X	60	7	52	47	73	66
A	Dyna-Gro S48XT56	R2X	58	7	50	49	71	63
A	Progeny 4930LL	LL	58	7	46	53	66	66
A	Credenz CZ 4818 LL	LL	57	7	59	50	57	64
A	USG Ellis	CONV	57	7	55	47	66	62
A	GoSoy Ireane	CONV	56	7	50	50	65	61
A	AGS GS48R216	RR2	56	7	55	54	59	56
A	GoSoy 49G16	RR	52	7	52	48	52	59
A	TN Exp TN13-4508R2	RR2	52	7	48	47	57	57
Average			62	7	58	54	68	67
L.S.D._{.05}			N.S.		N.S.	N.S.	11	10
n			8		2	2	2	2
C.V. (%)			9		11	9	8	6

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

Table 26. Three year across locations mean yields and agronomic characteristics of 14 Maturity Group IV Late (4.6-4.9) soybean varieties evaluated in four REC tests in Tennessee during 2015-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Moisture (%)	Lodging (1-5)	Plant Height (in.)	Maturity [¶] (DAP)
A	Credenz CZ 4748 LL	LL	65	5	12.7	2	41	130
AB	GoSoy 4714LL	LL	64	5	12.6	2.4	42	128
ABC	Warren Seed DS 4633	RR2	63	5	13.1	2.6	42	130
ABCD	Warren Seed DS 4850	RR2,STS	63	5	13.2	1.5	46	131
ABCD	Progeny 4757RY	RR2	62	5	13.3	2.6	43	132
ABCD	Terral REV 47R34	RR	61	5	12.9	2.1	44	130
ABCD	USG 74K95RS	RR2,STS	61	5	12.5	1.9	46	131
ABCD	Terral REV 49R94	RR	61	5	12.8	2.3	43	131
BCD	GoSoy Ireane	CONV	60	5	13.2	1.5	34	135
BCD	Dyna-Gro S49LL34	LL	60	5	13.9	1.8	43	135
BCD	USG Ellis	CONV	59	5	12.8	1.3	32	135
CDE	Progeny 4930LL	LL	58	5	15.4	2.0	42	134
DE	Credenz CZ 4818 LL	LL	57	5	13.0	2.3	47	131
E	TN Exp TN13-4508R2	RR2	53	5	13.8	2.2	43	133
	Average		61	5	13	2	42	132
	L.S.D._{.05}		6		N.S.	0.6	3	3
	n		12		12	10	12	12

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

|| 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).

†† Protein and Oil on dry weight basis.

Table 27. Three year across and by location mean yields of 14 Maturity Group IV Late (4.6-4.9) soybean varieties evaluated in four REC tests in Tennessee during 2015-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Springfield Irr. (bu/ac)	Springfield Non-Irr. (bu/ac)	Milan Irr. (bu/ac)	Milan Non-Irr. (bu/ac)
A	Credenz CZ 4748 LL	LL	65	5	65	51	71	74
AB	GoSoy 4714LL	LL	64	5	63	54	69	70
ABC	Warren Seed DS 4633	RR2	63	5	69	48	69	65
ABCD	Warren Seed DS 4850	RR2,STS	63	5	63	49	68	71
ABCD	Progeny 4757RY	RR2	62	5	62	43	74	67
ABCD	Terral REV 47R34	RR	61	5	64	47	70	65
ABCD	USG 74K95RS	RR2,STS	61	5	65	47	66	67
ABCD	Terral REV 49R94	RR	61	5	65	47	67	65
BCD	GoSoy Ireane	CONV	60	5	56	53	69	62
BCD	Dyna-Gro S49LL34	LL	60	5	62	49	65	64
BCD	USG Ellis	CONV	59	5	57	50	70	60
CDE	Progeny 4930LL	LL	58	5	53	47	64	67
DE	Credenz CZ 4818 LL	LL	57	5	60	45	61	63
E	TN Exp TN13-4508R2	RR2	53	5	57	42	59	55
	Average		61	5	62	48	67	65
	L.S.D._{.05}		6		N.S.	N.S.	N.S.	6
	n		12		3	3	3	3
	C.V. (%)		10		10	11	10	7

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

Table 28. Across locations mean yields and agronomic characteristics of 32 Maturity Group V Early (5.0-5.5) soybean varieties evaluated in seven REC tests in Tennessee during 2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Moisture (%)	Lodging (1-5)	Plant Height (in.)	Maturity [¶] (DAP)	Protein ^{††} (%)	Oil ^{††} (%)
A	Progeny 5016RXS**	R2X,STS	71	3	13.5	1.6	44	139	40.4	20.9
A	AgriGold G5000RX	R2X,STS	71	3	13.2	1.8	44	139	40.1	21.2
AB	Hefty H49X7S	R2X,STS	68	3	13.4	1.8	43	139	39.7	21.1
ABC	Credenz CZ 5147 LL***	LL	66	3	13.4	1.5	35	140	40.2	20.9
ABCD	Asgrow AG55X7 RR2X	R2X	64	3	12.8	1.5	36	140	39.3	21.9
BCDE	Terral REV 52A94	RR,STS	63	3	12.9	2.1	44	138	38.3	21.8
BCDE	MO S14-9017R	RR	63	3	13.3	1.6	38	141	37.7	23.4
BCDE	Dyna-Gro S52LL66	LL	63	3	13.1	2.0	42	141	40.1	21.8
BCDE	GoSoy Leland	CONV	62	3	13.3	2.8	37	140	40.3	20.7
BCDE	Asgrow AG53X6 RR2X	R2X	62	3	13.5	1.6	39	138	39.1	21.4
BCDE	Credenz CZ 5150 LL	LL	62	3	13.2	1.5	41	140	38.6	22.4
BCDE	MO S13-1955C	CONV	62	3	13.3	2.6	37	143	39.7	21.4
BCDE	Progeny 5376RX	R2X	62	3	12.9	1.5	35	138	40.1	20.8
BCDE	Credenz CZ 5242 LL	LL	62	3	13.1	1.9	42	142	40.4	21.8
BCDE	Progeny 5157RXS	R2X,STS	61	3	13.1	1.4	40	139	40.4	21.4
BCDE	Croplan RX5136S	R2X	61	3	13.3	2.0	41	139	39.0	21.7
BCDE	TN Exp TN11-5102	CONV	61	3	12.9	1.5	36	140	41.4	20.9
BCDE	GoSoy 5115LL	LL	61	3	13.3	1.4	41	139	38.8	22.5
CDE	Asgrow AG51X8 R2X/SR	R2X,STS	61	3	13.2	1.9	46	138	40.9	21.1
CDE	Dyna-Gro SX17651XS	R2X,STS	60	3	13.2	1.5	39	138	40.3	21.4
CDE	USDA JTN-5110	CONV	60	3	13.6	2.0	40	142	40.3	21.1
CDEF	TN Exp TN11-5104	CONV	60	3	12.9	1.5	37	139	41.3	20.7
CDEF	AR UA 5014C	CONV	60	3	13.6	1.2	35	138	39.8	20.8
CDEF	Progeny 5414LLS	LL,STS	60	3	13.1	2.1	44	143	40.4	21.6
CDEF	USG 7547XT	R2X	60	3	13.1	1.8	36	141	40.0	22.1
CDEF	Go Soy 54G16	RR	59	3	13.6	1.7	39	141	38.1	21.9
CDEF	Progeny 5417RX	R2X	59	3	13.1	1.6	36	142	40.3	22.1
CDEF	TN Exp TN13-4303	CONV	59	3	13.0	1.5	36	138	41.2	21.0
DEF	AR R09-430	CONV	58	3	13.4	1.8	34	139	40.9	22.1
EF	TN Exp TN16-645	RR	57	3	12.8	1.4	35	139	40.4	20.4
EF	TN Exp TN16-521	RR	56	3	13.4	1.7	35	138	40.1	20.7
F	AR UA 5414RR	RR	53	3	13.4	2.8	36	139	40.1	20.6
	Average		61	3	13.2	1.8	39	140	39.9	21.4
	L.S.D._{.05}		7		N.S.	0.5	3	2	0.7	0.4
	n		7		7	7	6	6	1	1

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

|| 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).

†† Protein and Oil on dry weight basis.

Table 29. Across and by location mean yields of 32 Maturity Group V Early (5.0-5.5) soybean varieties evaluated in seven REC tests in Tennessee during 2017.

MS†			Avg.	Avg.	Knoxville	Springfield	Springfield	Milan	Milan	Jackson	Memphis
Avg.	Variety*	Trait	Yield§	Yield	Irr.	Irr.	Non-Irr.	Irr.	Non-Irr.	Non-Irr.	Irr.
Yield		Package‡	(bu/ac)	Std Err.	(bu/ac)	(bu/ac)	(bu/ac)	(bu/ac)	(bu/ac)	(bu/ac)	(bu/ac)
A	Progeny 5016RXS**	R2X,STS	71	3	70	84	68	79	75	58	62
A	AgriGold G5000RX	R2X,STS	71	3	70	84	68	80	74	54	66
AB	Hefty H49X7S	R2X,STS	68	3	65	80	66	70	73	55	70
ABC	Credenz CZ 5147 LL***	LL	66	3	70	65	52	71	67	59	76
ABCD	Asgrow AG55X7 RR2X	R2X	64	3	64	61	51	85	65	57	65
BCDE	Terral REV 52A94	RR,STS	63	3	57	74	59	69	68	50	66
BCDE	MO S14-9017R	RR	63	3	63	68	49	76	71	59	56
BCDE	Dyna-Gro S52LL66	LL	63	3	52	62	58	72	67	45	81
BCDE	GoSoy Leland	CONV	62	3	53	60	56	52	73	59	85
BCDE	Asgrow AG53X6 RR2X	R2X	62	3	54	64	58	62	65	57	77
BCDE	Credenz CZ 5150 LL	LL	62	3	58	66	57	69	66	48	71
BCDE	MO S13-1955C	CONV	62	3	58	64	62	58	65	59	68
BCDE	Progeny 5376RX	R2X	62	3	49	73	56	68	65	53	71
BCDE	Credenz CZ 5242 LL	LL	62	3	59	59	51	69	62	50	79
BCDE	Progeny 5157RXS	R2X,STS	61	3	56	73	57	70	63	45	65
BCDE	Croplan RX5136S	R2X	61	3	58	69	54	68	66	50	62
BCDE	TN Exp TN11-5102	CONV	61	3	58	53	55	71	62	56	72
BCDE	GoSoy 5115LL	LL	61	3	50	67	54	66	60	55	74
CDE	Asgrow AG51X8 R2X/SR	R2X,STS	61	3	70	76	55	31	60	57	76
CDE	Dyna-Gro SX17651XS	R2X,STS	60	3	55	66	54	68	65	46	69
CDE	USDA JTN-5110	CONV	60	3	67	55	60	62	67	49	61
CDEF	TN Exp TN11-5104	CONV	60	3	60	54	57	71	59	57	62
CDEF	AR UA 5014C	CONV	60	3	55	53	51	68	60	56	76
CDEF	Progeny 5414LLS	LL,STS	60	3	54	76	56	62	65	48	59
CDEF	USG 7547XT	R2X	60	3	53	56	55	70	61	60	61
CDEF	Go Soy 54G16	RR	59	3	65	60	51	59	67	54	59
CDEF	Progeny 5417RX	R2X	59	3	60	57	51	63	63	59	65
CDEF	TN Exp TN13-4303	CONV	59	3	56	52	54	70	63	49	69
DEF	AR R09-430	CONV	58	3	61	54	51	63	57	57	61
EF	TN Exp TN16-645	RR	57	3	61	44	51	70	56	56	61
EF	TN Exp TN16-521	RR	56	3	54	50	44	68	54	58	65
F	AR UA 5414RR	RR	53	3	50	55	46	57	48	46	68
	Average		61	3	59	64	55	67	64	54	68
	L.S.D._{.05}		7		12	9	10	7	9	7	13
	n		7		1	1	1	1	1	1	1
	C.V. (%)		9		13	8	11	7	8	7	11

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

Table 30. Yields of 10 Maturity Group V Early (5.0-5.5) Roundup Ready soybean varieties in five County Standard Tests in Tennessee during 2017.

MS [†]		Avg.						
Avg.		Yield [§]	Moisture					
Yield	Variety*	(bu/ac)	(%)	Dyer	Gibs	Hamb	Hayw	Madi
A	Asgrow 55X7	65.5	12.2	81	56	43	80	68
AB	AgriGold G5000RX	62.5	12.5	73	55	57	59	68
ABC	Progeny 5016RXS	61.0	12.4	75	57	42	65	65
ABC	Armor 53-D04	60.3	12.6	66	56	45	67	68
ABCD	Asgrow 54X6	58.0	12.5	70	50	44	65	61
BCD	Asgrow 53X6	55.9	12.5	82	41	37	59	61
CD	GoSoy 54G16	54.9	12.0	59	53	44	59	59
D	Croplan RX5136 S	52.7	12.5	49	48	46	60	60
D	Progeny 5157RXS	52.2	12.4	60	41	42	61	57
D	NK 52-Y7X	52.2	12.6	61	41	46	60	54
	Average	57.5	12.4	67	50	45	63	62

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

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

§ All yields are adjusted to 13% moisture.

County Locations include: Dyer, Gibson, Hamblen, Haywood, Madison

Table 31. Overall average yields and moistures of 11 Maturity Group V Early (5.0 - 5.5) soybean varieties evaluated in County Standard Tests (n=8) and REC Tests (RR: n=5, LL: n=6) in Tennessee during 2017.

Variety	Trait Package [‡]	Avg. of CST and REC Tests		CST Tests		REC Tests	
		Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)
AgriGold G5000RX	R2X,STS	67	12.8	63	12.5	71	13.2
Progeny 5016RXS	R2X,STS	66	13.0	61	12.4	71	13.5
Asgrow AG55X7 RR2X	R2X	65	12.5	66	12.2	64	12.8
Credenz CZ 5147 LL	LL	61	13.1	56	12.7	66	13.4
Asgrow AG53X6 RR2X	R2X	59	13.0	56	12.5	62	13.5
Credenz CZ 5150 LL	LL	59	13.0	56	12.9	62	13.2
GoSoy 5115LL	LL	58	13.0	54	12.8	61	13.3
Go Soy 54G16	RR	57	12.8	55	12.0	59	13.6
Croplan RX5136S	R2X	57	12.9	53	12.5	61	13.3
Progeny 5157RXS	R2X,STS	57	12.8	52	12.4	61	13.1
Credenz CZ 5242 LL	LL	56	13.1	51	13.0	62	13.1
Average		60	12.9	57	12.5	64	13.3

[‡] For a full description of abbreviated biotech traits, see table 26.

[§] All yields are adjusted to 13% moisture.

Table 32. Yields and disease ratings of 10 Maturity Group V Early (5.0-5.5) Roundup Ready soybean varieties in five County Standard Tests and in small plot trials at one AgResearch and Education Center and one on-farm location in Tennessee during 2017.

Summary from 6 County Tests			Summary from Small Plot Research									
MS	Variety	Avg. Yield (bu/ac)	Research and Education Center at Milan (RECM)				On-farm Location in Jackson (JAX)					
			RECM - YLD		Frogeye leaf spot	Target Spot	Other Diseases RECM	JAX - YLD		Frogeye leaf spot	Target Spot	Other Diseases RECM
			*Treated	Non-treated				*Treated	Non-treated			
A	Asgrow 55X7	65.5	58.4	50.0	MOD	LOW		55.7	51.0	MOD	LOW	
AB	AgriGold G5000RX	62.5	54.7	51.2	MOD	LOW		59.8	58.3	MOD	LOW	CLB
ABC	Progeny 5016RXS	61.0	51.3	47.5	LOW	LOW		59.3	55.8	MOD	LOW	CLB
ABC	Armor 53-D04	60.3	55.4	50.0	LOW	LOW	CLB	56.1	52.0	LOW	LOW	CLB
ABCD	Asgrow 54X6	58.0	46.0	48.8	LOW	LOW		53.0	49.8	LOW	LOW	CLB
BCD	Asgrow 53X6	55.9	51.2	48.1	LOW	LOW		56.2	52.7	LOW	LOW	
CD	GoSoy 54G16	54.9	43.3	41.2	LOW	LOW	CLB	-	-	-	-	-
D	Croplan RX5136 S	52.7	57.3	49.2	LOW	LOW	CLB	56.8	52.4	LOW	LOW	CLB
D	NK 52-Y7X	52.2	51.3	48.0	MOD	HIGH		43.4	37.7	HIGH	HIGH	SC
D	Progeny 5157RXS	52.2	53.4	46.2	LOW	LOW	CLB	55.1	51.3	LOW	LOW	CLB
	Average	57.5	52.2	48.0				55.0	51.2			

YLD= Avg. Yield @ 13% moisture

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

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

County Locations include: Dyer, Gibson, Hamblen, Haywood, Madison

*Treated plots sprayed with Quadris TOP @ 8 oz./Acre + 1% Induce @ R3 growth stage. RECM varieties planted June 1 and JAX planted May 23

LOW, MOD, and HIGH is a relative ranking of disease severity at each location. Other diseases noted: SC=Stem Canker, CLB=Cercospora Leaf Blight, SDS=Sudden Death Syndrome; '-' indicate variety was not tested at that location

Disease ratings at RECM: Frogeye leaf spot ranged from 0 - 17% with an average of 4% and Target spot ranged from 0 - 30% with an average of 4%.

Disease ratings at JAX: Frogeye leaf spot ranged from 0 - 54% with an average of 11% and Target spot ranged from 0 - 24 with an average of 3%.

Disease ratings and yield data compiled by Dr. Heather Kelly from replicated plots at the AgResearch and Education Center at Milan and on-farm location in Jackson. County data provided by Ryan Blair, Ext. Area Specialist, and the Extension agents.

Table 33. Two year across locations mean yields and agronomic characteristics of 18 Maturity Group V Early (5.0-5.5) soybean varieties evaluated in five REC tests in Tennessee during 2016-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Moisture (%)	Lodging (1-5)	Plant Height (in.)	Maturity [¶] (DAP)	Protein ^{††} (%)	Oil ^{††} (%)
A	Progeny 5016RXS	R2X,STS	67	5	13.3	1.5	44	134	39.9	21.7
A	Credenz CZ 5147 LL	LL	63	5	12.9	1.5	35	137	40.5	21.1
A	Asgrow AG55X7 RR2X	R2X	60	5	12.2	1.4	34	135	39.2	22.1
A	Progeny 5414LLS	LL,STS	60	5	13.2	2.2	43	139	41.2	21.7
A	Dyna-Gro S52LL66	LL	60	5	12.7	1.9	43	135	39.9	22.6
A	Credenz CZ 5150 LL	LL	59	5	12.8	1.3	43	135	38.6	22.9
A	Credenz CZ 5242 LL	LL	59	5	12.8	1.7	42	137	40.0	22.6
A	GoSoy 5115LL	LL	59	5	12.9	1.4	42	134	38.5	23.2
A	AR UA 5014C	CONV	58	5	13.4	1.3	35	134	39.6	21.8
A	GoSoy Leland	CONV	58	5	13.1	2.9	38	134	40.2	21.7
A	USDA JTN-5110	CONV	58	5	13.1	2.3	38	136	40.6	21.8
A	AR R09-430	CONV	56	5	13.1	1.7	34	134	40.5	22.7
A	USG 7547XT	R2X	56	5	12.6	1.8	38	136	39.9	22.8
A	Terral REV 52A94	RR,STS	56	5	13.3	2.0	40	132	39.1	21.8
A	TN Exp TN13-4303	CONV	55	5	14.1	1.7	35	133	41.6	21.2
A	Asgrow AG53X6 RR2X	R2X	55	5	13.3	1.7	39	134	38.4	21.9
A	Progeny 5417RX	R2X	55	5	12.8	1.9	37	136	39.8	22.8
A	AR UA 5414RR	RR	50	5	13.1	2.6	38	134	39.3	21.3
Average			58	5	13	2	39	135	40	22
L.S.D._{.05}			N.S.		N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
n			10		10	8	10	10	2	2

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

|| 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).

†† Protein and Oil on dry weight basis.

Table 34. Two year across and by location mean yields of 18 Maturity Group V Early (5.0-5.5) soybean varieties evaluated in five REC tests in Tennessee during 2016-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Knoxville Irr. (bu/ac)	Springfield Irr. (bu/ac)	Springfield Non-Irr. (bu/ac)	Milan Irr. (bu/ac)	Milan Non-Irr. (bu/ac)
A	Progeny 5016RXS	R2X,STS	67	5	67	64	53	78	73
A	Credenz CZ 5147 LL	LL	63	5	66	58	50	74	70
A	Asgrow AG55X7 RR2X	R2X	60	5	62	55	42	78	62
A	Progeny 5414LLS	LL,STS	60	5	55	68	51	61	67
A	Dyna-Gro S52LL66	LL	60	5	56	61	51	68	63
A	Credenz CZ 5150 LL	LL	59	5	57	61	51	66	62
A	Credenz CZ 5242 LL	LL	59	5	60	58	47	68	60
A	GoSoy 5115LL	LL	59	5	53	59	49	69	62
A	AR UA 5014C	CONV	58	5	56	52	49	71	64
A	GoSoy Leland	CONV	58	5	57	57	51	57	69
A	USDA JTN-5110	CONV	58	5	60	51	54	62	64
A	AR R09-430	CONV	56	5	57	50	52	64	59
A	USG 7547XT	R2X	56	5	57	48	43	69	60
A	Terral REV 52A94	RR,STS	56	5	58	54	47	61	60
A	TN Exp TN13-4303	CONV	55	5	55	49	49	66	59
A	Asgrow AG53X6 RR2X	R2X	55	5	54	50	43	66	63
A	Progeny 5417RX	R2X	55	5	62	47	43	64	60
A	AR UA 5414RR	RR	50	5	55	46	39	60	49
	Average		58	5	58	55	48	67	63
	L.S.D._{.05}		N.S.		N.S.	N.S.	N.S.	11	9
	n		15		2	2	2	2	2
	C.V. (%)		10		12	8	11	8	9

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

Table 35. Three year across locations mean yields and agronomic characteristics of 12 Maturity Group V Early (5.0-5.5) soybean varieties evaluated in five REC tests in Tennessee during 2015-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Moisture (%)	Lodging (1-5)	Plant Height (in.)	Maturity (DAP)	Protein ^{††} (%)	Oil ^{††} (%)
A	Credenz CZ 5147 LL	LL	63	4	12.7	1.5	33	140	40.3	21.2
A	AR UA 5014C	CONV	61	4	13.4	1.2	34	136	39.6	21.8
A	USDA JTN-5110	CONV	60	4	12.9	2.4	37	139	40.6	21.7
A	GoSoy Leland	CONV	60	4	12.9	3.1	36	137	39.7	21.8
A	Credenz CZ 5242 LL	LL	60	4	13.0	2.1	43	140	40.4	22.3
A	AR R09-430	CONV	60	4	12.9	1.7	33	136	40.4	22.7
A	Credenz CZ 5150 LL	LL	60	4	13.0	1.4	42	138	38.8	22.9
A	Dyna-Gro S52LL66	LL	59	4	13.1	2.5	43	139	40.4	22.3
A	TN Exp TN13-4303	CONV	58	4	13.6	1.6	35	137	41.4	21.3
A	Progeny 5414LLS	LL,STS	57	4	13.1	2.7	43	139	41.2	21.8
A	Terral REV 52A94	RR,STS	57	4	13.6	2.6	39	135	39.3	21.7
A	AR UA 5414RR	RR	51	4	12.8	2.9	36	137	38.9	21.3
	Average		59	4	13.1	2	38	138	40.1	21.9
	L.S.D._{.05}		N.S.		N.S.	1	3	N.S.	1.1	1.0
	n		15		15	9	15	15	3	3

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

|| 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).

†† Protein and Oil on dry weight basis.

Table 36. Three year across and by location mean yields of 12 Maturity Group V Early (5.0-5.5) soybean varieties evaluated in five REC tests in Tennessee during 2015-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Knoxville Irr. (bu/ac)	Springfield Irr. (bu/ac)	Springfield Non-Irr. (bu/ac)	Milan Irr. (bu/ac)	Milan Non-Irr. (bu/ac)
A	Credenz CZ 5147 LL	LL	63	4	65	62	46	74	69
A	AR UA 5014C	CONV	61	4	57	58	53	73	63
A	USDA JTN-5110	CONV	60	4	62	54	58	64	65
A	GoSoy Leland	CONV	60	4	58	62	53	58	69
A	Credenz CZ 5242 LL	LL	60	4	61	62	44	71	63
A	AR R09-430	CONV	60	4	60	56	56	68	59
A	Credenz CZ 5150 LL	LL	60	4	58	64	47	67	62
A	Dyna-Gro S52LL66	LL	59	4	58	60	47	67	62
A	TN Exp TN13-4303	CONV	58	4	58	54	51	68	59
A	Progeny 5414LLS	LL,STS	57	4	54	66	44	57	66
A	Terral REV 52A94	RR,STS	57	4	61	59	39	64	61
A	AR UA 5414RR	RR	51	4	55	53	34	60	54
	Average		59	4	59	59	48	66	63
	L.S.D._{.05}		N.S.		N.S.	N.S.	N.S.	9	8
	n		15		3	3	3	3	3
	C.V. (%)		9.0		10	10	12	7	8

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

Table 37. Across locations mean yields and agronomic characteristics of 13 Maturity Group V Late (5.6-5.9) soybean varieties evaluated in six REC tests in Tennessee during 2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Moisture (%)	Lodging (1-5)	Plant Height (in.)	Maturity ^{¶¶} (DAP)	Protein ^{††} (%)	Oil ^{††} (%)
A	Progeny 5688RX	R2X	67	3	13	2.5	38	144	38.8	21.3
AB	TN Exp TN12-5712R2	RR2	66	3	13.0	2.0	38	146	40.3	21.2
AB	USG 7568XT	R2X	66	3	13.0	2.4	38	145	39.4	21.1
AB	TN Exp TN11-5140	CONV	65	3	13.5	2.5	40	146	40.3	21.9
ABC	USG 75B75R	RR2	62	3	12.7	1.9	39	145	41.2	21.1
BCD	Progeny 5752RY	RR2	61	3	12.7	1.8	38	145	41.4	21.2
CDE	USG Allen	RR	59	3	13.0	1.9	39	146	41.1	21.0
CDE	Progeny 5623LL	LL	59	3	12.7	3.3	36	143	39.2	21.9
CDE	AR UA 5715GT	RR	59	3	13.0	2.0	38	147	39.2	21.8
CDE	AR UA 5814HP	CONV	57	3	13.5	2.9	39	147	42.9	21.0
DE	AR Osage	CONV	56	3	13.3	2.3	33	140	43.1	20.3
DE	AR R11-8346	CONV	55	3	13.1	2.0	35	143	42.9	20.8
E	AR R11-7999	CONV	55	3	13.4	2.5	35	146	42.8	20.3
	Average		61	3	13.1	2	37	145	41.0	21.1
	L.S.D._{.05}		5		0.5	1	2	2	0.7	0.3
	n		6		6	5	6	6	1	1

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

|| 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).

†† Protein and Oil on dry weight basis.

Table 38. Across and by location mean yields of 13 Maturity Group V Late (5.6-5.9) soybean varieties evaluated in six REC tests in Tennessee during 2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Knoxville Irr. (bu/ac)	Springfield Irr. (bu/ac)	Springfield Non-Irr. (bu/ac)	Milan Irr. (bu/ac)	Milan Non-Irr. (bu/ac)	Jackson Non-Irr. (bu/ac)
A	Progeny 5688RX	R2X	67	3	63	77	68	69	68	55
AB	TN Exp TN12-5712R2	RR2	66	3	71	74	66	71	63	53
AB	USG 7568XT	R2X	66	3	66	77	65	66	64	55
AB	TN Exp TN11-5140	CONV	65	3	63	72	68	70	67	49
ABC	USG 75B75R	RR2	62	3	62	66	59	70	62	56
BCD	Progeny 5752RY	RR2	61	3	54	58	59	71	63	57
CDE	USG Allen	RR	59	3	61	61	66	61	56	51
CDE	Progeny 5623LL	LL	59	3	54	73	70	53	57	48
CDE	AR UA 5715GT	RR	59	3	60	60	55	68	62	46
CDE	AR UA 5814HP	CONV	57	3	50	62	56	70	65	41
DE	AR Osage	CONV	56	3	63	52	56	62	55	47
DE	AR R11-8346	CONV	55	3	55	57	52	62	55	49
E	AR R11-7999	CONV	55	3	53	63	54	64	51	47
	Average		61	3	60	66	61	66	61	50
	L.S.D._{.05}		5		9	11	9	8	8	7
	n		6		1	1	1	1	1	1
	C.V. (%)		8		9	9	9	8	7	8

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

Table 39. Two year across locations mean yields and agronomic characteristics of 5 Maturity Group V Late (5.6-5.9) soybean varieties evaluated in five REC tests in Tennessee during 2016-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Moisture (%)	Lodging (1-5)	Plant Height (in.)	Maturity [¶] (DAP)	Protein ^{††} (%)	Oil ^{††} (%)
A	AR UA 5814HP	CONV	58	6	13	2.8	41	142	43.8	20.9
A	USG 75B75R	RR2	58	6	12.4	2.0	39	139	41.4	21.4
A	Progeny 5752RY	RR2	57	6	12.4	1.8	39	138	40.7	21.7
A	AR Osage	CONV	56	6	12.7	2.0	33	135	43.1	21.0
A	AR UA 5715GT	RR	55	6	12.5	2.1	39	141	38.5	22.4
	Average		57	6	13	2	38	139	41.5	21.5
	L.S.D._{.05}		N.S.		N.S.	N.S.	2	3	2.2	N.S.
	n		10		10	6	10	10	2	2

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

|| 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).

†† Protein and Oil on dry weight basis.

Table 40. Two year across and by location mean yields of 5 Maturity Group V Late (5.6-5.9) soybean varieties evaluated in five REC tests in Tennessee during 2016-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Knoxville Irr. (bu/ac)	Springfield Irr. (bu/ac)	Springfield Non-Irr. (bu/ac)	Milan Irr. (bu/ac)	Milan Non-Irr. (bu/ac)
A	AR UA 5814HP	CONV	58	6	50	57	47	68	66
A	USG 75B75R	RR2	58	6	63	53	47	66	61
A	Progeny 5752RY	RR2	57	6	57	48	49	71	60
A	AR Osage	CONV	56	6	59	51	49	66	56
A	AR UA 5715GT	RR	55	6	55	47	43	68	59
	Average		57	6	57	51	47	68	60
	L.S.D. _{.05}		N.S.		N.S.	N.S.	N.S.	N.S.	N.S.
	n		10		2	2	2	2	2
	C.V. (%)		10		10	11	10	9	9

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

Table 41. Three year across locations mean yields and agronomic characteristics of 4 Maturity Group V Late (5.6-5.9) soybean varieties evaluated in five REC tests in Tennessee during 2015-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Moisture (%)	Lodging (1-5)	Plant Height (in.)	Maturity [¶] (DAP)	Protein ^{††} (%)	Oil ^{††} (%)
A	AR UA 5814HP	CONV	61	5	14.1	2.6	40	145	43.9	20.8
A	USG 75B75R	RR2	60	5	12.1	1.8	38	143	41.2	21.5
A	Progeny 5752RY	RR2	60	5	12.1	1.6	38	142	40.6	21.7
A	AR Osage	CONV	58	5	12.6	1.8	32	138	43.0	20.9
	Average		60	5	13	2	37	142	42	21
	L.S.D. _{.05}		N.S.		N.S.	0.7	1	2	1.2	N.S.
	n		15		15	9	15	15	3	3

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

|| 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).

†† Protein and Oil on dry weight basis.

Table 42. Three year across and by location mean yields of 4 Maturity Group V Late (5.6-5.9) soybean varieties evaluated in five REC tests in Tennessee during 2015-2017.

MS [†] Avg. Yield	Variety*	Trait Package [‡]	Avg. Yield [§] (bu/ac)	Avg. Yield Std Err.	Knoxville Irr. (bu/ac)	Springfield Irr. (bu/ac)	Springfield Non-Irr. (bu/ac)	Milan Irr. (bu/ac)	Milan Non-Irr. (bu/ac)
A	AR UA 5814HP	CONV	61	5	53	59	51	73	66
A	USG 75B75R	RR2	60	5	69	59	41	69	59
A	Progeny 5752RY	RR2	60	5	68	56	41	71	62
A	AR Osage	CONV	58	5	59	58	50	67	58
	Average		60	5	62	58	46	70	61
	L.S.D. _{.05}		N.S.		N.S.	N.S.	N.S.	N.S.	N.S.
	n		15		3	3	3	3	3
	C.V. (%)		10		9	12	13	8	10

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

* Varieties marked with an asterisk were in the top-performing "A" group for two (**) or three (***) consecutive years within the previous three-year evaluation period.

‡ For a full description of abbreviated biotech traits, see table 26.

§ All yields are adjusted to 13% moisture.

Table 43. Characteristics of soybean varieties evaluated in Tennessee during 2017, as provided by the seed company.

Variety	Relative Maturity	Herbicide Tolerance [†]	SCN Resistance [‡]	Stem Canker [‡]	SDS [‡]	Frogeye [‡]	Flower Color [§]	Pubescence Color	Seed Treatment
AgriGold G3520RX	3.5	R2X	R3, MR14, PI88	S	R	S	P	G	AgriShield F+I
AgriGold G3980RX	3.9	R2X	R3, MR14, PI88	R	R	S	P	G	AgriShield F+I
AgriGold G4380RX	4.3	R2X,STS	R3, MR14, PI88	R	S	R	P	T	AgriShield F+I
AgriGold G4440RX	4.4	R2X,STS	R3, MR14, PI88	S	S	S	W	T	AgriShield F+I
AgriGold G4685RX	4.6	R2X,STS	R3, MR14, PI88	R	S	S	P	T	AgriShield F+I
AgriGold G4835RX	4.8	R2X,STS	R3, MR14, PI88	S	S	R	P	T	AgriShield F+I
AgriGold G4990RX	4.9	R2X,STS	R3, MR14, PI88	S	S	R	W	T	AgriShield F+I
AgriGold G5000RX	5.0	R2X,STS	R3, MR14, PI88	R	R	S	P	T	AgriShield F+I
AGS GS45R216	4.5	RR2	3,14	R	MR	MR	P	T	CruiserMaxx Vibrance
AGS GS46X17	4.6	R2X	3,14	R	MR	R	P	LT	CruiserMaxx Vibrance
AGS GS48R216	4.8	RR2	3, 14	MR	MR	MR	W	LT	CruiserMaxx Vibrance
AR Osage	5.6	CONV	N	R	MR	R	P	G	ApronMaxx/Cruiser
AR R09-430	5.1	CONV					P	G	ApronMaxx/Cruiser
AR R11-7999	5.7	CONV					P	T	ApronMaxx/Cruiser
AR R11-8346	5.6	CONV					P	T	ApronMaxx/Cruiser
AR R13-1019	4.9	CONV					P	G	ApronMaxx/Cruiser
AR UA 5014C	5.0	CONV	N	R	MR	MR	P	T	ApronMaxx/Cruiser
AR UA 5414RR	5.4	RR	S2,S3,S5,S14	R	MR	MS	W	G	ApronMaxx/Cruiser
AR UA 5715GT	5.7	RR	N				W	G	ApronMaxx/Cruiser
AR UA 5814HP	5.8	CONV	N	R	S	R	P	T	ApronMaxx/Cruiser
Armor 46-D08	4.6	R2X							
Armor ARX4407	4.4	R2X							
Armor ARX4607	4.6	R2X							
Armor ARX4807	4.8	R2X							
Asgrow AG36X6 RR2X	3.6	R2X	R3						Accelaron I
Asgrow AG37X8 RR2X	3.7	R2X	R3	R	MR	MS	P	G	Accelaron I
Asgrow AG38X6 RR2X	3.8	R2X	R3	R	MR	MS	P	T	Accelaron I
Asgrow AG38X8 RR2X	3.8	R2X	R3	R	MS	R	P	G	Accelaron I
Asgrow AG39X7 RR2X/SR	3.9	R2X,STS	R3	R	MS	MR	P	G	Accelaron I
Asgrow AG41X8 RR2X	4.1	R2X	R3	R	MS	MR	P	G	Accelaron I
Asgrow AG43X7 RR2X	4.3	R2X,STS	R3	R	MS	R	L	T	Accelaron I
Asgrow AG44X6 RR2X	4.4	R2X	R3	R	MR	MR	W	LT	Accelaron I
Asgrow AG45X8 RR2X/SR	4.5	R2X,STS	R3	R	MS	MS	P	LT	Accelaron I
Asgrow AG46X6 RR2X	4.6	R2X	R3	MR	MR	MR	P	LT	Accelaron I
Asgrow AG46X7 RR2X	4.6	R2X,STS	R3	R	MS	R		LT	Accelaron I
Asgrow AG46X8 R2X/SR	4.6	R2X,STS	R3	R	MS	MS	P	LT	Accelaron I
Asgrow AG47X6 RR2X	4.7	R2X,STS	R3	R	MR	R	W	LT	Accelaron I
Asgrow AG48X8 RR2X/SR	4.8	R2X,STS	R3	R	MS	MS	P	LT	Accelaron I
Asgrow AG51X8 R2X/SR	5.1	R2X,STS	R3	MS	MR	R	W	LT	Accelaron I
Asgrow AG53X6 RR2X	5.3	R2X	R1, R3	MR	R	R	W	T	Accelaron I
Asgrow AG55X7 RR2X	5.5	R2X	S	R	MS	MS		T	Accelaron I
Beck's Hybrids 4669X2	4.6	R2X,STS	R3, MR14	R	MR	MR	P	G	Escalate
Beck's Hybrids 494L4	4.9	LL	R3, MR14	R	MR	MR	W	LT	Escalate
Beck's Hybrids 4991X2	4.9	R2X	R3, MR14	R	MR	R	W	LT	Escalate
Caverndale Farms CF 387 HT-GLYn	3.8	RR	3, 14	MR	MR	MR			TEN + Vibrance
Caverndale Farms CF 427 HT-GLY/STSn	4.2	RR,STS	3, 14	MR	MR	MR			TEN + Vibrance
Caverndale Farms CF 478 RR2Y/STSn	4.7	RR2,STS	3, 14	MR	MR	MR	P	LT	TEN + Vibrance
Credenz CZ 3737 LL	3.7	LL		3/9	4/9	3/9	P	G	Poncho Votivo + ILeVo
Credenz CZ 3841 LL	3.8	LL		2/9	3/9	3/9	W	T	Poncho Votivo + ILeVo
Credenz CZ 3945 LL	3.9	LL		2/9	2/9	3/9	W	G	Poncho Votivo + ILeVo

Table 43. (cont.)

Variety	Relative Maturity	Herbicide Tolerance [†]	SCN Resistance [‡]	Stem Canker [‡]	SDS [‡]	Frogeye [‡]	Flower Color [§]	Pubescence Color	Seed Treatment
Credenz CZ 4044 LL	4.0	LL		3/9	4/9	3/9	W	T	Poncho Votivo +ILeVO
Credenz CZ 4105 LL	4.1	LL		3/9	3/9	2/9	W	T	Poncho Votivo +ILeVO
Credenz CZ 4222 LL	4.2	LL			4/9	6/9	P	T	Poncho Votivo +ILeVO
Credenz CZ 4540 LL	4.5	LL			1/9	1/9	W	T	Poncho Votivo + ILeVO
Credenz CZ 4748 LL	4.7	LL		1/9	5/9	1/9	W	T	Poncho Votivo + ILeVO
Credenz CZ 4818 LL	4.8	LL		1/9	1/9	1/9	W	T	Poncho Votivo + ILeVO
Credenz CZ 5147 LL	5.1	LL		1/9	1/9	3/9	P	T	Poncho Votivo + ILeVO
Credenz CZ 5150 LL	5.1	LL		1/9	5/9	1/9	P	G	Poncho Votivo + ILeVO
Credenz CZ 5242 LL	5.2	LL		1/9	5/9	3/9	P	G	Poncho Votivo + ILeVO
Credenz HBK LL4953	4.9	LL		1/9	6/9	1/9	P	G	Poncho Votivo +ILeVO
Croplan R2C4300S	4.3	RR	R3, MR14	MR	R	R	P/W	LT/T	Warden CX
Croplan R2C4775	4.7	RR	R3, MR14	R	R	R	W	LT	Warden CX
Croplan RX4516S	4.5	R2X	R3, MR14	R	R	R	W	T	Warden CX
Croplan RX4825	4.8	R2X	R3, MR14	R	R	R	P	LT	Warden CX
Croplan RX5136S	5.1	R2X		R	MS	MS	P	LT	Warden CX
Dyna-Gro S39XT08	3.9	R2X	3, 14	MR	MR	MR	P	G	Equity VIP
Dyna-Gro S41XS98	4.1	R2X,STS	3, 14	MR	R	MS	P	G	Equity VIP
Dyna-Gro S43XS27	4.3	R2X,STS	3, 14	MS	MR	MR	W	LT	Equity VIP
Dyna-Gro S45LL97	4.5	LL	3	R	MR	MR	W	G	Equity VIP
Dyna-Gro S45XS37	4.5	R2X,STS	3, 14	R	MR	R	W	T	Equity VIP
Dyna-Gro S46XS87	4.6	R2X,STS	3, 14	R	MR	MR	P	G	Equity VIP
Dyna-Gro S48XS78	4.8	R2X,STS	3, 14	MS	MS	R	P	LT	Equity VIP
Dyna-Gro S48XT56	4.8	R2X	3, 14	R	R	MR	P	LT	Equity VIP
Dyna-Gro S49LL34	4.9	LL	3, 14	MR	MS	R	P	G	Equity VIP
Dyna-Gro S49XS76	4.9	R2X,STS	3, 14	R	MR	MS	P	LT	Equity VIP
Dyna-Gro S49XS88	4.9	R2X,STS	3, 14	S	MS	R	W	LT	Equity VIP
Dyna-Gro S52LL66	5.2	LL	3	R	MS	R	P	G	Equity VIP
Dyna-Gro SX17648XT	4.8	R2X	3	R		MR	W	LT	Equity VIP
Dyna-Gro SX17651XS	5.1	R2X,STS	S	R		R	P	G	Equity VIP
Dyna-Gro SX17844XS	4.4	R2X,STS	3, 14	R	MR	MR	P	LT	Equity VIP
Go Soy 47B17	4.7	RR	3,14	R	MS	MR	P	LT	CruiserMaxx Vibrance
Go Soy 49L17	4.9	LL	3,14	R		R	P	G	CruiserMaxx Vibrance
Go Soy 54G16	5.4	RR			MR	MR			CruiserMaxx Vibrance
GoSoy 39C15	3.9	CONV	3, 14			MR	W	T	CruiserMaxx Vibrance
GoSoy 43L16	4.3	LL	3, 14	MR	MR	R	P	LT	CruiserMaxx Vibrance
GoSoy 4714LL	4.7	LL	3,14	R	MS	MR	W	LT	CruiserMaxx VIB
GoSoy 49G16	4.9	RR	2,3,5,14	R	R	R	P	T	CruiserMaxx Vibrance
GoSoy 5115LL	5.1	LL	3, 14	R	MR	MR	P	G	CruiserMaxx Vibrance
GoSoy Ireane	4.9	CONV	2,5	R	MR	R	W	G	CruiserMaxx Vibrance
GoSoy Leland	5	CONV	2,3,5,14	MR	R	R	W	T	CruiserMaxx Vibrance
Great Heart GT-4540XS	4.5	R2X	R3, MR14	R	7	R	P	LT	Great Start Max Plus
Great Heart GT-4809X	4.8	R2X	R3	R		MR	W	LT	Great Start Max Plus
Great Heart GT-4817XS	4.8	R2X	R3, MR14	MS	7	R	P	LT	Great Start Max Plus
Hefty H43X8	4.3	R2X	R3, MR14	R	2.3	2.0	P	G	Dominance 2
Hefty H45X7S	4.4	R2X,STS	R3, MR14	R	2.0	1.7	P	LT	Dominance 2
Hefty H46X6	4.5	R2X,STS	MR3, MR14	R	2.8	1.9	P	LT	Dominance 2
Hefty H47L5	4.8	LL	R3, MR14	R	9/10	8/10	P	LT	Dominance 2
Hefty H48X8S	4.8	R2X,STS	R3, MR14	MS	2.3	1.0	P	LT	Dominance 2
Hefty H49X7	4.9	R2X	MR3, MR14	MR	2.4	1.0	P	LT	Dominance 2
Hefty H49X7S	5.0	R2X,STS	R3, MR14	R	1.7	2.5	P	LT	Dominance 2

Table 43. (cont.)

Variety	Relative Maturity	Herbicide Tolerance [†]	SCN Resistance [‡]	Stem Canker [‡]	SDS [‡]	Frogeye [‡]	Flower Color [§]	Pubescence Color	Seed Treatment
LG Seeds C4227RX	4.2	R2X,STS	R3, MR14	MR	MR	MS	P	T	Thiamethoxam, mefenoxam, fludioxonil, sedexane
LG Seeds C4458RX	4.6	R2X,STS	R3, MR14	MS	MR	R	P	LT	Thiamethoxam, mefenoxam, fludioxonil, sedexane
LG Seeds C4615RX	4.7	R2X,STS	R3, MR14	R	MR	MR	P	G	Thiamethoxam, mefenoxam, fludioxonil, sedexane
LG Seeds C4710RX	4.8	R2X,STS	R3, MR14	R	MR	R	W	T	Thiamethoxam, mefenoxam, fludioxonil, sedexane
LG Seeds C4845RX	4.8	R2X	R3, MR14	R	R	R	P	LT	Thiamethoxam, mefenoxam, fludioxonil, sedexane
LG Seeds C4922RX	4.9	RR,STS	R3, MR14	MS	MR	MR	P	LT	Thiamethoxam, mefenoxam, fludioxonil, sedexane
MO S13-10590C	4.3	CONV		R			W	T	CruiserMaxx Advanced
MO S13-1805C	4.8	CONV				S	W	T	CruiserMaxx Advanced
MO S13-1955C	5.5	CONV				R	W	T	CruiserMaxx Advanced
MO S13-2743C	4.1	CONV		R		MS	W	G	CruiserMaxx Advanced
MO S13-3851C	4.3	CONV					P	LT	CruiserMaxx Advanced
MO S14-15146R	4.7	RR		R		R	W	T	CruiserMaxx Advanced
MO S14-6391C	4.7	CONV		R		R	W	T	CruiserMaxx Advanced
MO S14-9017R	5.5	RR		R		R	W	LT	CruiserMaxx Advanced
MO S14-9051R	4.5	RR					W	G	CruiserMaxx Advanced
NK S39-P5X	3.9	R2X	3,14	R	R	R	P	T	Avicta Complete + Mertect
NK S43-V3X	4.3	R2X	3,14	R	R	R	P	T	Avicta Complete + Mertect
NK S45-K5X	4.5	R2X	3,14	R	S	R	P	T	Avicta Complete + Mertect
NK S48-R2X	4.8	R2X	3,14	R	R	R	P	T	Avicta Complete + Mertect
Petrus Seed 479 GTS	4.7	RR,STS	MR3, R14		R	S	W	T	Inovate 4.74/cwt
Petrus Seed 4916 GT	4.9	RR	MR - 1,2,3,5,14	R	MR	R	P	T	Inovate 4.74/cwt
Pfister 39R201	3.9	RR2	R3, MR14	R	S	S	W		Cruiser Soybean
Pfister 41RS02	4.1	RR2	R3, MR14						Cruiser Soybean
Pfister 45R23	4.5	RR2	R3, MR14	R	S	S	P		Cruiser Soybean
Pfister 47R22	4.7	RR2	R3, MR14	S	S	S	P		Cruiser Soybean
Pfister 48RS01	4.8	RR2	R3, MR14	R	R	S	P		Cruiser Soybean
Progeny 4247LL	4.2	LL		MR	MR	MR	SEG	LT	Poncho 600, Votivo, Trilex 2000
Progeny 4255RX	4.2	R2X	R3, MR14	S	MR/MS	MR/MS	P	G	Poncho 600, Votivo, Trilex 2000
Progeny 4444RXS	4.4	R2X,STS	R3, MR14	R	MR/MS	MR	P	LT	Poncho 600, Votivo, Trilex 2000
Progeny 4516RXS	4.5	R2X,STS	R3, MR14	R	MS	MR	P	LT	Poncho 600, Votivo, Trilex 2000
Progeny 4620RXS	4.6	R2X,STS	R3, MR14	R	MR	MR	W	T	Poncho 600, Votivo, Trilex 2000
Progeny 4716LL	4.7	LL	MR3, MR14	MR	MR	R	W	LT	Poncho 600, Votivo, Trilex 2000
Progeny 4757RY	4.7	RR2	R3, MR14	R	MR	R	W	LT	Poncho 600, Votivo, Trilex 2000
Progeny 4799RXS	4.7	R2X,STS	R3	R	MR	R	W	LT	Poncho 600, Votivo, Trilex 2000
Progeny 4816RX	4.8	R2X	R3	R	MR	MR	P	LT	Poncho 600, Votivo, Trilex 2000
Progeny 4851RX	4.8	R2X	R3, MR14	R	MR/MS	MR	P	LT	Poncho 600, Votivo, Trilex 2000
Progeny 4929RXS	4.9	R2X,STS	R3, MR14	MS	MR/MS	R	P	LT	Poncho 600, Votivo, Trilex 2000
Progeny 4930LL	4.9	LL	MR3	MR	MR	R	P	G	Poncho 600, Votivo, Trilex 2000
Progeny 5016RXS	5.0	R2X,STS	R3, MR14	R	MR	MR	P	LT	Poncho 600, Votivo, Trilex 2000
Progeny 5157RXS	5.1	R2X,STS		R		MR	P	G	Poncho 600, Votivo, Trilex 2000
Progeny 5376RX	5.3	R2X	R3, MR14	MR	MR	R	W	T	Poncho 600, Votivo, Trilex 2000
Progeny 5414LLS	5.4	LL,STS		R	MR	R	W	T	Poncho 600, Votivo, Trilex 2000
Progeny 5417RX	5.4	R2X	R3	MR	MR	MR	W	G	Poncho 600, Votivo, Trilex 2000
Progeny 5623LL	5.6	LL	R3, MR14	S	S	R	P	G	Poncho 600, Votivo, Trilex 2000

Table 43. (cont.)

Variety	Relative Maturity	Herbicide Tolerance [†]	SCN Resistance [‡]	Stem Canker [‡]	SDS [‡]	Frogeye [‡]	Flower Color [§]	Pubescence Color	Seed Treatment
Progeny 5688RX	5.6	R2X	R1, R3	S	MR/MS	R	W	T	Poncho 600, Votivo, Trilex 2000
Progeny 5752RY	5.7	RR2		R	MR	R	P	T	Poncho 600, Votivo, Trilex 2000
Terral REV 45L57	4.5	LL	9/3, 9/14	R	S		W		Apron + EvergolEnergy + Gaucho
Terral REV 47R34	4.7	RR	9/3, 7/14	R	R	R	P	LT	Apron, Evergol Energy, Gaucho
Terral REV 4857X	4.8	R2X	9/3, 9/14	R	R	S	W		Apron + EvergolEnergy + Gaucho
Terral REV 48A26	4.8	RR	9/3, 8/14	R	R	R	P	LT	Apron, Evergol Energy, Gaucho
Terral REV 48A76	4.8	RR	8/3, 9/14	R	R	R	P	LT	Apron, Evergol Energy, Gaucho
Terral REV 48L63	4.8	LL	8/3, 7/14	R	R	R	P	G	Apron, Evergol Energy, Gaucho
Terral REV 4927X	4.9	R2X	9/3, 6/14	R	R	R	P		Apron + EvergolEnergy + Gaucho
Terral REV 49L88	4.9	LL		R	S	R	P		Apron + EvergolEnergy + Gaucho
Terral REV 49R94	4.9	RR	8/3, 5/14	R	R	R	P	T	Apron, Evergol Energy, Gaucho
Terral REV 52A94	5.2	RR,STS	9/3, 9/14	R	R	R	W		Apron, Evergol Energy, Gaucho
TN Exp TN11-5102	5E	CONV		R			W	G	
TN Exp TN11-5104	5E	CONV		R			W	G	
TN Exp TN11-5140	5L			MR			W	G	
TN Exp TN12-5712R2	5L	RR2					P	LT	
TN Exp TN13-4303	5E	CONV					W	G	
TN Exp TN13-4508R2	4L	RR2					P	LT	
TN Exp TN14-5021	4L	CONV	2,3,5	R			W	G	
TN Exp TN14-5542R2	4L	RR2					P	T	
TN Exp TN15-4011	4L	CONV	2,3,5				W	T	
TN Exp TN15-4546	4L	RR2	2,3,5				P	LT	
TN Exp TN15-5007	4L	CONV					W	G	
TN Exp TN16-520	4L	RR					W	G	
TN Exp TN16-521	5E	RR					W	G	
TN Exp TN16-532	4L	RR					W	G	
TN Exp TN16-645	5E	RR					W	G	
USDA JTN-5110	5.5	CONV	2, 3, 5	R	R	R	P	T	Apron Maxx, Moly (5 oz/100 lb), Gaucho 600 (1.6 oz/100 lb)
USG 7478XTS	4.7	R2X,STS	R3,MR14	MS	MR	R	P	LT	Ipconazole/Metalaxyl/Imidicloprid
USG 7487XTS	4.8	R2X,STS	R3, MR14	R	MR	MS	P	G	Ipconazole, Metalaxyl, Imidicloprid
USG 7496XTS	4.9	R2X,STS	R3, MR14	R	MR	MS	P	LT	Ipconazole, Metalaxyl, Imidicloprid
USG 7497XT	4.9	R2X		R		MR	W	G	Ipconazole/Metalaxyl/Imidicloprid
USG 74G98L	4.9	LL		R		R	P	G	Ipconazole/Metalaxyl/Imidicloprid

Table 43. (cont.)

Variety	Relative Maturity	Herbicide Tolerance [†]	SCN Resistance [‡]	Stem Canker [‡]	SDS [‡]	Frogeye [‡]	Flower Color [§]	Pubescence Color	Seed Treatment
USG 74K95RS	4.9	RR2,STS	R3, MR14	MR	MR	R	P	G	Ipconazole, Metalaxyl, Imidicloprid
USG 7547XT	5.4	R2X	R3, MR14	R	MR	MR	W	G	Ipconazole, Metalaxyl, Imidicloprid
USG 7568XT	5.6	R2X	R1,R3	S	MR	R	W	T	Ipconazole/Metalaxyl/Imidicloprid
USG 75B75R	5.7	RR2	R3, MR14	R	R	R	P	T	Ipconazole, Metalaxyl, Imidicloprid
USG Allen	5.6	RR			MR	MR	W	G	Ipconazole, Metalaxyl, Imidicloprid
USG Ellis	4.9	CONV		R			W	G	Ipconazole, Metalaxyl, Imidicloprid
Warren Seed BG 3810 RR2X	3.8	R2X	3,14				P	G	Cruiser Maxx
Warren Seed BG 4210 RR2X	4.2	R2X	3,14				P	G	Cruiser Maxx
Warren Seed BG 4322 RR2X	4.3	R2X	3,14				W	LT	Cruiser Maxx
Warren Seed BG 4510 RR2X	4.5	R2X	3,14				P	LT	Cruiser Maxx
Warren Seed BG 4842 RR2X	4.8	R2X	3,14				P	G	Cruiser Maxx
Warren Seed BG 4911 RR2X	4.8	R2X	3,14				P	LT	Cruiser Maxx
Warren Seed DS 3838	3.8	RR2	3, 14				P	LT	CruiserMaxx
Warren Seed DS 4340	4.3	RR2	3, 14				P	G	Cruiser Maxx
Warren Seed DS 4633	4.6	RR2	3, 14				P	LT	Cruiser Maxx
Warren Seed DS 4850	4.8	RR2,STS	3, 14				P	G	Cruiser Maxx

[†] For a full description of abbreviated biotech traits, see table 26.

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

[§] Flower colors: P = purple, W = white, S = segregating.

^{||} Pubescence colors: T = tawny, LT = light tawny, B = brown, G = gray, S=segregating

Table 44. Contact information for soybean seed companies evaluated in yield tests in Tennessee during 2017.

Company	Contact	Phone	Email	Web site
AgriGold Hybrids	Eddie Kahle (Jackson, TN)	217-823-1198	ed.kahle@agrigo.com	www.agrigold.com
	Chad Stanfield (Murfreesboro, TN)	731-225-6906	chad.stanfield@agrigo.com	
University of Arkansas	Tina Hart	479-466-2213	tlhart@uark.edu	www.uark.edu
Armor Seed	Lane Dill	901-233-0274	lanedill@armorseed.com	www.armorseed.com
Asgrow (Monsanto)	Larry Ganann (Lakeland, TN)	901-326-7140	larry_w.ganann@monsanto.com	www.asgrowanddekalb.com
Beck's Hybrids	Beck's Hybrids	800-937-2325		www.beckshybrids.com
Caverndale Farms	Ag Central Coop	423-745-0443		www.caverndalefarms.com
	Johnson City Chemical Company	423-257-5079		
Credenz (Bayer)	Lucas Owen	731-793-3530	lucas.owen@bayer.com	www.crops.bayer.us/products/seeds/credenz
Croplan (WinField Solutions)	Caleb Robertson	731-614-5234	crobertson@landolakes.com	http://www.winfield.com/farmer/croplan/
Dyna-Gro (Crop Production Services)	Jonathan Fant (Union City, TN)	731-819-6713	jonathan.fant@cpsagu.com	www.dynagroseed.com
Great Heart Seed	Nels Kasey	217-465-4132	admin@greatheartseed.com	greatheartseed.com
Hefty Seed Company	Barry Gilmore	573-359-0765	barry.gilmore@heftyseed.com	www.heftyseed.com
LG Seeds	Security Seed and Chemical (Clarksville, TN)	931-485-7333		www.lgseeds.com
University of Missouri	Pengyin Chen	573-379-5431	chenpe@missouri.edu	www.missouri.edu
NK Brand (Syngenta)	Chuck Leonard	270-519-9600	chuck.leonard@syngenta.com	www.nk-us.com
Petrus Seed & Grain Co., Inc.	John Petrus	870-255-5001	john@petrusseed.com	petrusseed.com
Pfister Seeds LLC	Keith Niemeier	618-541-0605	kniemeier@pfisterseeds.com	www.pfisterseeds.com
Progeny Ag	Hillary Spain	870-208-6032	hillary@progenyag.com	www.progenyag.com
	Bret Mize	870-208-4423	bret@progenyag.com	
	Adam Shannon	256-777-1557	adam@progenyag.com	
Steyer Seeds	Kevin Swanks	423-506-1008	kevinswanks@steyerseeds.com	www.steyerseeds.com
Stratton Seed Company (AgSouth Genetics & Go Soy)	Heath North	870-830-5889	hnorth@strattonseed.com	www.strattonseed.com
University of Tennessee	Vince Pantalone	865-974-8801	vpantalo@utk.edu	
Terral Seed Inc	Ricky Davis	901-355-2463	rdavis@terralseed.com	www.terralseed.com
USDA-ARS TN (not available for purchase)	Lisa Fritz	731-425-4736	lisa.fritz@ars.usda.gov	
UniSouth Genetics, Inc. (USG)	Fandrich Supply Co. (Belvidere, TN)	931-967-3377		www.usgseed.com
	Huffstetler & Sons Seed Inc. (Greenfield, TN)	731-235-2167		
	Hurt Seed Co. Inc. (Halls, TN)	731-836-7574		
	Sellers Seed (Obion, TN)	731-538-2990		
Warren Seed	Lanny Warren	731-234-2921	lanny.warren@charter.net	lanny.warren@charter.net

Table 45. Abbreviations used to identify biotech traits of soybean varieties evaluated in Tennessee during 2017.

Abbreviation	Name	Characteristic
LL	Bayer CropScience LibertyLink®	Glufosinate tolerance.
RR	Monsanto Roundup Ready®	Glyphosate tolerance.
RR2	Monsanto Roundup Ready 2®	Glyphosate tolerance.
R2X	Monsanto Roundup Ready 2 eXtend®	Glyphosate tolerance, Dicamba tolerance
GT		Glyphosate tolerance.
STS		Sulfonylurea tolerance



AG.TENNESSEE.EDU

RESEARCH FUNDED IN PART BY



1/18 E12-5117-00-005-18 2.2M 18-0091

Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development. University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating. UT Extension provides equal opportunities in programs and employment.

The University of Tennessee is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA institution in the provision of its education and employment programs and services. All qualified applicants will receive equal consideration for employment without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation, gender identity, age, physical or mental disability, or covered veteran status.