

# SOYBEAN VARIETY PERFORMANCE TESTS IN TENNESSEE

2011

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## RESEARCH & EDUCATION CENTERS AND COUNTY STANDARD TESTS

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

**<http://varietytrials.tennessee.edu/>  
and  
[www.utcrops.com](http://www.utcrops.com)**

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## 2011 County Standard Tests -- Soybean Cooperators & Agents

### Group III

Coffee  
Dyer  
*Fulton, KY*  
Gibson  
Lake  
Madison  
REC at Milan 1 & 2  
Obion  
Weakley  
WTREC

### Cooperator(s)

L.A. Teal & Mike England  
Alan Burchfield  
Johnson Linder  
Denton Clay Parkins  
Jack Haynes  
Matt Griggs  
Dr. Blake Brown  
Kenneth & Blake Cheatham  
Ronnie & Jay Yeargin  
Dr. Bob Hayes

### Agent

Steve Harris  
Tim Campbell  
Ben Mullins/Cam Kenimer  
Philip Shelby  
Greg Allen  
Bill Wyatt/Jake Mallard  
Dr. Melvin Newman  
Tim Smith  
Jeff Lannom  
Dr. Angela McClure

### Group IV Early

*Ballard, KY*  
Coffee  
Dyer  
*Fulton, KY*  
Gibson  
Hickman  
Lake  
Lauderdale 1 & 2  
REC at Milan 1 & 2  
Obion  
Weakley

Jeff Sullivan  
L.A. Teal & Mike England  
Mike Underwood  
Johnson Linder  
Denton Clay Parkins  
Clint & Claude Callicott  
Jon Dickey  
  
Dr. Blake Brown  
Kenneth & Blake Cheatham  
J.D. McDaniel

Bob Middleton  
Steve Harris  
Tim Campbell  
Ben Mullins/Cam Kenimer  
Philip Shelby  
Troy Dugger  
Greg Allen  
Dr. Melvin Newman  
Dr. Melvin Newman  
Tim Smith  
Jeff Lannom

### Group IV Late

Coffee  
Dyer  
Fayette  
Franklin  
*Fulton, KY*  
Gibson  
Giles  
Hardeman  
Haywood  
Lake  
Lauderdale 1 & 2  
Madison  
Marion  
*McCracken, KY*  
Montgomery  
REC at Milan 1 & 2  
Obion  
Weakley

L.A. Teal & Mike England  
Mike Underwood  
Lee Graves  
Sam Jones  
Mark Yaussi  
Denton Clay Parkins  
Brian Flowers  
Daniel Jacobs  
John King  
Jon Dickey  
  
Matt Griggs  
Dewey & Randy Gilliam  
Lester & Tracy Sullivan  
Steve Joiner/Michael Suiter  
Dr. Blake Brown  
Kenneth & Blake Cheatham  
Brian Garner

Steve Harris  
Tim Campbell  
Jeff Via  
Ed Burns/Creig Kimbro  
Cam Kenimer/Ben Mullins  
Philip Shelby  
Kevin Rose  
Lee Sammons/Mike Morris  
Walter Battle  
Greg Allen  
Dr. Melvin Newman  
Bill Wyatt/Jake Mallard  
Matt Webb/Jared Goad  
Bob Middleton  
Rusty Evans  
Dr. Melvin Newman  
Tim Smith  
Jeff Lannom

**Group V Early**

*Carlisle, KY*  
 Coffee  
 Crockett  
 Dyer  
 Franklin  
 Gibson  
 Hardeman  
 Haywood  
 Lake  
 Lauderdale 1 & 2  
 REC at Milan 1 & 2  
 Obion  
 Shelby  
 Shelby

**Cooperator(s)**

Curtsinger Farms  
 L.A. Teal & Mike England  
 Stoney Hargett  
 David Sentell  
 Sam Jones  
 Denton Clay Parkins  
 Daniel Jacobs  
 John King  
 Jack Haynes  
  
 Dr. Blake Brown  
 Bill Thompson  
 Scott Johnson  
 Jerry Tolbert

**Agent**

Bob Middleton  
 Steve Harris  
 Richard Buntin  
 Tim Campbell  
 Ed Burns/Creig Kimbro  
 Philip Shelby  
 Lee Sammons/Mike Morris  
 Walter Battle  
 Greg Allen  
 Dr. Melvin Newman  
 Dr. Melvin Newman  
 Tim Smith  
 Becky Muller  
 Becky Muller

**Liberty Link MG4 Late (4.6 – 4.9)**

Dyer  
 Lake  
 REC at Milan (irr./fung.)  
 REC at Milan (irr./no fung.)  
 REC at Milan  
 Obion

Tommy Cross  
 Keith Hulme  
 Dr. Blake Brown  
 Dr. Blake Brown  
 Dr. Blake Brown  
 Bill Sellers

Tim Campbell  
 Greg Allen  
 Dr. Melvin Newman  
 Dr. Melvin Newman  
 Dr. Angela McClure  
 Tim Smith

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# PERFORMANCE OF SOYBEAN VARIETIES IN TENNESSEE

## RESEARCH & EDUCATION CENTERS AND COUNTY STANDARD TESTS

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### Experimental Procedures

**Research & Education Center Tests:** All soybean variety trials were conducted in each of the physiographic regions of the state. Tests were conducted at the Ames Plantation (Grand Junction), Highland Rim (Springfield), East Tennessee (Knoxville), and Milan (Milan), Research & Education Centers (REC). Three of the Roundup Ready tests (RR4 early, RR4 late, RR5 early) were also planted at the Agricenter International Research Center (Memphis), but were not harvested due to intense weed competition from Palmer pigweed. Duplicate plantings of all seven tests [**Maturity Group 3 Roundup Ready (i.e., RR3), RR4 early (relative maturity 4.0–4.5), RR4 late (RM 4.6-4.9) RR5 early (RM 5.0-5.5), RR5 late (RM 5.6-5.9), Conventional / Liberty Link RM 4, and Conventional / Liberty Link RM5**] were made at the Milan and Highland Rim RECs for performance testing with and without irrigation.

The plot size at all REC locations was two rows, 30 feet in length with 30 inch row spacings. All varieties were planted at approximately 10 seeds per foot of row (i.e., approximately 175,000 seed per acre REC tests). Plots were replicated three times at each location in a randomized complete block design. Plots at Milan and Springfield were sprayed with a foliar fungicide approximately one month after planting, and again approximately 21 days later as a preventative treatment for fungal diseases such as soybean rust. Soybean rust was not detected in Tennessee this year. Because of the large number of varieties in some tests and the field variation at each location, an incomplete block design was imposed *ex post facto* prior to data analysis in order to reduce the within-block field variability and the experimental error.

**Genetics and Seed Treatments:** Seed of all varieties included in the REC tests were treated with one or more fungicides plus an insecticide. Research has shown that seed treatments can influence yield, therefore **the yields of varieties reported herein are the combined result of the genetic potential of the varieties plus the seed treatment “packages”**. The seed treatments that were included on each variety were determined by the company or organization and are listed in Table 57. Many soybean varieties are now being marketed with combinations of fungicide and insecticides on the seed, similar to corn. A decision was made to test the varieties in the UT soybean performance tests with the seed treatments so the results would be comparable to what producers could expect from seed they purchase.

**County Standard Tests:** The County Standard Soybean Tests were conducted in 18 counties in Tennessee, and 4 in Western Kentucky. The number of county locations depended on the test (e.g., 6 - 20). The County Standard Tests were divided into **RR3, RR4 early (relative maturity 4.0-4.5), RR4 late (RM 4.6-4.9), RR5 early (RM 5.0-5.5) and a Liberty Link (RM 4) test**. Each variety was evaluated in a large strip-plot at each location, thus each county test was considered as one replication of the test in calculating the overall average yield and in conducting the statistical analysis to determine significant differences. At each location, plots were planted, sprayed, fertilized, and harvested with the equipment used in the cooperating producer's farming operation. The width and length of strip-plots were different in each county; however, within a location in a county, the strips were trimmed on the ends so that the lengths were the same for each variety, or if the lengths were different then the harvested length was measured for each variety and appropriate harvested area adjustments were made to determine the yield per acre.

## **Interpretation of Data**

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

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

## **RESULTS**

**Yield and Agronomic Traits.** Two hundred and twenty four soybean varieties were evaluated in the 2011 **Research & Education Center (REC)** tests in Tennessee. There were five varieties in the RR3, 37 in the RR4E, 69 in the RR4L, 47 in the RR5E, 11 in the RR5L, 27 in the conventional / Liberty Link MG4, and 28 in the conventional / Liberty Link MG5 test. The **County Standard tests (CST)** involved 55 varieties total, consisting of a RR3 test (7 varieties at 11 locations), a RR4E test (12 varieties at 13 locations), a RR4L test (19 varieties at 20 locations), a RR5E test (10 varieties at 15 locations) and a Conventional / Liberty Link MG4/MG5 test (7 varieties at 6 locations). In addition to 18 Tennessee counties, the County Standard Tests involved four counties in Western Kentucky (Ballard, Carlisle, Fulton, and McCracken). **Tables 2-56** contain data on yield and agronomic traits such as maturity, plant height, lodging, shattering, seed quality, seed protein and oil content. **Table 57** lists the names and the companies descriptive characteristics of the varieties included in the REC tests in 2011. **Table 58** contains the contact information for each soybean seed company with entries in the 2011 REC tests.

**Growing Season:** The 2011 growing season was characterized by a wet spring resulting in some flooded fields and planting delays followed by hotter than normal conditions through June. However, much of the state received frequent rains from the second week of June through the second week of July. Afterwards, the weather conditions were hot and dry through August with cooler and wetter conditions in September providing relief for the double-crop soybeans. According to the Tennessee Agricultural Statistics Service, acreage harvested is projected to be 1.25 million acres, down 160,000 acres from last season. Soybean production for 2011 is projected to be 42.5 million bushels, down about 3 percent from the previous year. The state soybean yield average is projected to be 34 bu/a, 3 bushels above the 2010 yield.

**CST Disease & SCN Ratings:** Ratings on variety reactions to SDS, frogeye leaf spot, anthracnose, stem canker, and cercospora blight are presented in **Tables 7, 16, 25, 34, and 49** (data provided by Dr. Melvin Newman, professor, Dept. of Entomology and Plant Pathology, UT). Soybean cyst nematode (races 2, 3, and 5) ratings in these tables provided by Dr. Pat Donald, USDA-ARS, Jackson, TN.

**Table 1. Location information from research centers where the soybean variety tests were conducted in 2011.**

<b>Research Center</b>	<b>Location</b>	<b>Planting Date</b>	<b>Harvest Date</b>	<b>Seeding Rate</b>	<b>Soil Type</b>
<b>Roundup Ready Maturity Group III</b>					
Highland Rim (Irrigated)	Springfield	5/17/2011	10/5/2011	175000	Mountview Silt Loam
Highland Rim (Non Irrigated)	"	5/18/2011	10/7/2011	175000	Dickson Silt Loam
Knoxville	Knoxville	4/25/2011	9/12/2011	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	6/1/2011	9/29/2011	175000	Loring Silt Loam
Milan (Non Irrigated)	"	5/31/2011	9/29/2011	175000	Grenada Silt Loam
Milan (Non Irrigated) planting 2	"	7/6/2011	10/11/2011	175000	Grenada Silt Loam
<b>Roundup Ready Maturity Group Early IV (4.0 - 4.5)</b>					
Ames	Grand Junction	5/7/2011	9/29/2011	175000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/17/2011	10/5/2011	175000	Mountview Silt Loam
Highland Rim (Non Irrigated)	"	5/31/2011	10/10/2011	175000	Dickson Silt Loam
Knoxville	Knoxville	4/25/2011	9/27/2011	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	6/1/2011	10/4/2011	175000	Loring Silt Loam
Milan (Non Irrigated)	"	5/31/2011	10/3/2011	175000	Grenada Silt Loam
Milan (Non Irrigated) planting 2	"	7/6/2011	10/21/2011	175000	Grenada Silt Loam
<b>Roundup Ready Maturity Group Late IV (4.6 - 4.9)</b>					
Ames	Grand Junction	5/7/2011	9/30/2011	175000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/17/2011	10/10/2011	175000	Mountview Silt Loam
Highland Rim (Non Irrigated)	"	5/31/2011	10/11/2011	175000	Dickson Silt Loam
Knoxville	Knoxville	4/25/2011	10/4/2011	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	6/1/2011	10/6/2011	175000	Loring Silt Loam
Milan (Non Irrigated)	"	5/31/2011	10/11/2011	175000	Grenada Silt Loam
Milan (Non Irrigated) planting 2	"	7/6/2011	11/8/2011	175000	Grenada Silt Loam
<b>Roundup Ready Maturity Group Early V (5.0 - 5.5)</b>					
Ames	Grand Junction	5/7/2011	10/3/2011	175000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/17/2011	10/17/2011	175000	Mountview Silt Loam
Highland Rim (Non Irrigated)	"	5/31/2011	10/26/2011	175000	Hamblen Silt Loam
Knoxville	Knoxville	4/25/2011	10/21/2011	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	6/1/2011	10/17/2011	175000	Loring Silt Loam
Milan (Non Irrigated)	"	5/31/2011	10/21/2011	175000	Grenada Silt Loam
Milan (Non Irrigated) planting 2	"	7/6/2011	11/9/2011	175000	Grenada Silt Loam
<b>Roundup Ready Maturity Group Late V (5.6 - 5.9)</b>					
Ames	Grand Junction	5/7/2011	10/3/2011	175000	Lexington Silt Loam
Highland Rim (Irrigated)	Springfield	5/17/2011	10/20/2011	175000	Mountview Silt Loam
Highland Rim (Non Irrigated)	"	5/31/2011	10/26/2011	175000	Hamblen Silt Loam
Knoxville	Knoxville	4/25/2011	10/25/2011	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	6/1/2011	10/17/2011	175000	Loring Silt Loam
Milan (Non Irrigated)	"	5/31/2011	10/21/2011	175000	Grenada Silt Loam
Milan (Non Irrigated) planting 2	"	7/6/2011	11/9/2011	175000	Grenada Silt Loam
<b>Conventional / Liberty Link Maturity Group IV</b>					
Highland Rim (Irrigated)	Springfield	5/17/2011	10/6/2011	175000	Sango Silt Loam
Highland Rim (Non Irrigated)	"	5/18/2011	10/12/2011	175000	Mountview Silt Loam
Knoxville	Knoxville	5/2/2011	10/10/2011	175000	Stasser Silt Loam
Milan (Irrigated)	Milan	6/1/2011	10/7/2011	175000	Loring Silt Loam
Milan (Non Irrigated)	"	6/2/2011	10/6/2011	175000	Memphis, Loring Silt Loam
<b>Conventional / Liberty Link Maturity Group V</b>					
Highland Rim (Irrigated)	Springfield	5/17/2011	10/17/2011	175000	Sango Silt Loam
Highland Rim (Non Irrigated)	"	5/18/2011	11/2/2011	175000	Mountview Silt Loam
Knoxville	Knoxville	5/2/2011	10/25/2011	175000	Stasser Silt Loam
Milan (Irrigated)	Milan	6/1/2011	10/20/2011	175000	Loring Silt Loam
Milan (Non Irrigated)	"	6/2/2011	10/20/2011	175000	Memphis, Loring Silt Loam

**Table 2. Mean yields † of five Maturity Group III Roundup Ready soybean varieties evaluated in six environments in Tennessee during 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err. (n=6)	Springfield		Milan			
			Knoxville	Irr.	Non-Irr.	Irr.	Non-Irr.	Non-Irr 2
-----bu/a-----								
Progeny	3911 RY (RR2Y)	44 ± 1	71	40	23	67	35	30
NK	S 39-U2 (RR2Y)	44 ± 1	77	41	21	56	39	31
Terral-REV Brand	38R10 (RR)	44 ± 1	68	41	26	62	38	29
Dairyland	DSR-3805/R2Y	42 ± 1	79	40	23	55	30	27
NK	S 38-H8 (RR)	41 ± 1	65	40	25	58	34	27
<b>Average (bu/a)</b>		<b>43</b>	<b>72</b>	<b>40</b>	<b>24</b>	<b>59</b>	<b>35</b>	<b>29</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>3</b>	<b>9</b>	<b>6</b>	<b>8</b>	<b>5</b>	<b>7</b>	<b>3</b>
<b>C.V. (%)</b>		<b>8.3</b>	<b>6.6</b>	<b>8.6</b>	<b>18.2</b>	<b>4.6</b>	<b>10.4</b>	<b>6.6</b>

**Table 3. Mean yields † and agronomic characteristics of five Maturity Group III Roundup Ready soybean varieties evaluated in six environments in Tennessee during 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err. (n=6)	Moisture § (n=6)	Lodging (n=2)	Height (n=6)	Maturity (n=6)	Shattering (n=3)	Seed			
								Quality (n=1)	Protein (n=1)	Oil (n=1)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	----- Score -----	-----	%	%	Score
Progeny	3911 RY (RR2Y)	44 ± 1	13.1	1.6	34	117	1.0	2.0	40.7	22.2	1.2
NK	S 39-U2 (RR2Y)	44 ± 1	13.4	2.6	32	117	1.0	1.8	38.7	22.6	1.5
Terral-REV Brand	38R10 (RR)	44 ± 1	12.6	2.3	36	117	1.0	1.7	39.1	23.1	1.0
Dairyland	DSR-3805/R2Y	42 ± 1	12.5	2.7	32	119	1.0	1.7	38.7	22.7	1.5
NK	S 38-H8 (RR)	41 ± 1	12.6	2.1	32	117	1.0	1.3	38.2	23.3	1.2
<b>Average</b>		<b>43</b>	<b>12.9</b>	<b>2.3</b>	<b>33</b>	<b>117</b>	<b>1.0</b>	<b>1.7</b>	<b>39.1</b>	<b>22.8</b>	<b>1.3</b>

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest.

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

Maturity = days after planting (DAP).

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

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

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing disease spots; 5 = 95% + of leaf surfaces containing disease spots. Ratings from Knoxville on 8/22/11.

**Table 4. Mean yield † of one Maturity Group III Roundup Ready soybean variety evaluated in five environments (n=10) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err. (n=10)		Springfield		Milan	
		Knoxville		Irr.	Non-Irr.	Irr.	Non-Irr.
Terral-REV Brand	38R10 (RR)	42 ± 1	52	33	22	61	41
<b>Average (bu/a)</b>		<b>42</b>	<b>52</b>	<b>33</b>	<b>22</b>	<b>61</b>	<b>41</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>							
<b>C.V. (%)</b>							

† All yields are adjusted to 13% moisture.

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

**Table 5. Mean yield † and agronomic characteristics of one Maturity Group III Roundup Ready soybean variety evaluated in five environments (n=10) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err. (n=10)		Moisture § (n=10)	Lodging (n=5)	Height (n=10)	Maturity (n=8)	Shattering (n=5)	Leaf	Seed	Protein (n=2)	Oil (n=2)	Frogeye (n=1)
		Retention (n=1)	Quality (n=2)										
Terral-REV Brand	38R10 (RR)	42 ± 1	13.2	1.7	37	122	1.2	4.3	3.1	40.8	22.7	1.0	
<b>Average</b>		<b>42</b>	<b>13.2</b>	<b>1.7</b>	<b>37</b>	<b>122</b>	<b>1.2</b>	<b>4.3</b>	<b>3.1</b>	<b>40.8</b>	<b>22.7</b>	<b>1.0</b>	

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

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

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing disease spots; 5 = 95% + of leaf surfaces containing disease spots. Ratings from Knoxville on 8/22/11.

**Table 6. Yields † of seven Maturity Group III Roundup Ready soybean varieties in 11 County Standard Tests in Tennessee & Kentucky during 2011.**

MS	Brand/Variety	Avg. Yield bu/a	Moisture ‡ %	Coffee 5/10 §	Dyer 5/17	(KY)				REC at Milan irrig. fung.	REC at Milan irrig. no fung.	Obion 6/1	Weakley 6/10	West TN REC
						Fulton 6/14	Gibson 5/31	Lake 6/4	Madison 5/12	5/10	5/10			5/10
A	Terral REV-38R10	48.1	10.7	71.9	41.4	43.1	43.1	52.7	46.7	56.0	50.8	60.7	14.0	48.3
AB	Asgrow AG3831 GENRR2Y	46.9	11.8	65.3	42.1	43.7	32.8	54.4	46.3	50.7	49.1	67.6	13.0	51.4
ABC	Dairyland 3805 RR2Y	45.6	10.4	66.0	37.4	39.8	33.1	58.2	47.0	50.2	45.6	66.6	11.6	46.7
ABC	***NK Brand S39-A3	44.5	10.6	68.8	38.9	26.7	39.4	50.3	46.8	47.7	39.2	69.6	15.1	47.2
ABC	Steyer 3402R2 GENRR2Y	44.4	10.1	66.8	38.6	31.7	43.2	51.4	44.1	47.0	44.7	55.9	12.7	51.7
BC	Asgrow AG3803RR	44.1	11.1	70.8	39.5	38.7	30.1	49.5	43.8	47.4	45.6	55.7	14.3	49.4
C	Steyer 3102R2 GENRR2Y	42.0	10.8	67.1	36.6	24.1	40.9	56.1	43.6	43.4	37.1	44.7	14.7	53.2
<b>Average (bu/a)</b>		<b>45.1</b>	<b>10.8</b>	<b>68.1</b>	<b>39.2</b>	<b>35.4</b>	<b>37.5</b>	<b>53.2</b>	<b>45.5</b>	<b>48.9</b>	<b>44.6</b>	<b>60.1</b>	<b>13.6</b>	<b>49.7</b>

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

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

Variety denoted with an asterisk (\*\*\*) was in the top performing group in 2010, 2009 and 2008.

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

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

**Table 7. Yields † and disease ratings § of seven Maturity Group III Roundup Ready soybean varieties evaluated in 11 Tennessee and Kentucky County Standard Tests during 2011.**

MS	Brand/Variety	CST	----- Research and Education Center at Milan -----								
		Avg. Yield (n=11)	Moisture ‡	SDS	Frogeye	Anthracnose	Sprayed ¶ Yield	Unsprayed Yield	SCN		
		bu/a	%	2009 / 10 / 2011	2009 / 10 / 2011	2010 / 11	bu/a	bu/a	Race 2	Race 3	Race 5
A	Terral REV-38R10	48.1	10.7	---	/ / 0.0	/ 4.8	56.0	50.8	S	R	S
AB	Asgrow AG3831 GENRR2Y	46.9	11.8	---	/ / 0.8	/ 4.3	50.7	49.1	S	R	S
ABC	Dairyland 3805 RR2Y	45.6	10.4	---	/ / 1.0	/ 4.5	50.2	45.6	S	R	HS
ABC	***NK Brand S39-A3	44.5	10.6	1.7 / 0.0 /	2.3 / 7.5 / 5.5	5.3 / 5.5	47.7	39.2	S	R	S
ABC	Steyer 3402R2 GENRR2Y	44.4	10.1	---	/ / 0.0	/ 4.8	47.0	44.7	S	R	MR
BC	Asgrow AG3803RR	44.1	11.1	2.3 / 0.0 /	0.7 / 2.0 / 0.8	3.3 / 4.5	47.4	45.6	S	R	S
C	Steyer 3102R2 GENRR2Y	42.0	10.8	---	/ / 0.0	/ 8.0	43.4	37.1	S	MR	S
<b>Average (bu/a)</b>		<b>45.1</b>	<b>10.8</b>				<b>48.9</b>	<b>44.6</b>			

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Disease ratings for SDS, Frogeye Leaf Spot, and Anthracnose are from 0-10, where 0=no disease & 10=maximum level of disease or plant death. SDS = Sudden Death Syndrome.

¶ Sprayed plots at Milan treated with Headline @ 6 oz./Acre + 0.25% Penetrator Plus at R3 growth stage.

Disease ratings compiled by Dr. Melvin Newman from replicated plots at the Research and Education Center at Milan.

SCN ratings; HS = highly susceptible, S = susceptible, MS = moderately susceptible, MR = moderately resistant R = resistant.

Race 2 (HG Type 1.2.5.7); Race 3 (HG Type 5.7); Race 5 (HG Type 2.5.7)

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, West TN REC.

MS= Varieties with one or more letters in common are not statistically different at the .05 level of probability.

Variety denoted with an asterisk (\*\*\*) was in the top performing group in 2010, 2009 & 2008.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops.

**Table 8. Overall average yields † and moistures of two Maturity Group III Roundup Ready soybean varieties evaluated in County Standard Tests (n=11) and Research and Education Centers (n=6) in Tennessee during 2011.**

<b>Brand</b>	<b>Variety ‡</b>	<b>Averages of CST &amp; REC Tests</b>		<b>County Standard Trials</b>		<b>Research and Education Center Trials</b>	
		<b>Avg. Yield</b>	<b>Moisture</b>	<b>Avg. Yield</b>	<b>Moisture</b>	<b>Avg. Yield</b>	<b>Moisture</b>
		bu/a	%	bu/a	%	bu/a	%
Terral-REV Brand	38R10 (RR)	46	12	48	10.7	44	12.6
Dairyland	DSR-3805/R2Y	44	11	46	10.4	42	12.5
<b>Average (bu/a)</b>		<b>45</b>	<b>11.6</b>	<b>47</b>	<b>10.6</b>	<b>43</b>	<b>12.6</b>

† Yields have been adjusted to 13% moisture.

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

**Table 9. Mean yields † of 37 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)		Springfield		Milan		Ames	
		Knoxville		Irr.	Non-Irr.	Irr.	Non-Irr.		Non-Irr2
-----bu/a-----									
Steyer	4501 R2 (RR2Y/STS)	57 ± 1	80	85	39	69	40	32	56
Croplan	R2C 4541 (RR2Y)	56 ± 1	88	70	34	69	40	35	53
USG	74H81 (RR)	55 ± 1	79	78	39	55	46	31	57
Dairyland	DST45-001/R2Y	55 ± 1	87	73	32	64	40	34	54
Dairyland	DST43-001/R2Y	55 ± 1	78	82	36	64	41	28	56
Progeny	4510 RY (RR2Y)	54 ± 1	81	75	34	65	40	37	48
Croplan	R2C 4391 (RR2Y)	54 ± 1	74	78	32	61	36	33	61
Armor	46-R42 (RR2Y)	53 ± 1	74	80	29	62	37	36	55
Progeny	4211 RY (RR2Y)	53 ± 1	79	80	33	55	37	33	55
Dyna-Gro	39RY43 (RR2Y)	53 ± 1	76	79	32	62	35	32	56
Armor	44-R08 (RR2Y)	53 ± 1	73	79	28	62	37	33	59
Armor	46-R64 (RR2Y)	53 ± 1	69	75	30	69	42	33	52
Asgrow	AG4531 GENRR2Y (STS)	53 ± 1	72	80	34	61	41	34	47
USG	74B58 (RR/STS)	52 ± 1	75	67	30	65	39	35	56
Schillinger Seed	458 RCS	52 ± 1	71	73	35	68	38	27	54
Dyna-Gro	V42N9RS	52 ± 1	73	77	29	68	34	29	53
Asgrow	AG4232 GENRR2Y (STS)	52 ± 1	69	73	31	68	36	33	53
Dyna-Gro	31RY45 (RR2Y)	52 ± 1	76	70	31	59	41	33	52
Caverndale Farms	CF 436 RR2Yn	51 ± 1	67	76	32	58	37	33	57
Dairyland	DSR-4300 RR	51 ± 1	64	70	35	64	36	34	53
Steyer	4430 RR (STS)	51 ± 1	73	67	31	62	32	34	58
USG	74D41R (RR2Y)	50 ± 1	65	75	35	58	35	32	53
Dairyland	DSR-4242/R2Y	50 ± 1	70	69	31	63	39	28	51
Beck's XL Brand	432NR (RR/STS)	50 ± 1	64	67	30	65	37	35	52
Dyna-Gro	35X43 (RR)	50 ± 1	69	68	30	62	35	33	53
Croplan	R2C 4520 (RR2Y)	50 ± 1	71	69	34	59	31	33	53
NK	S 44-D5 Brand (RR)	50 ± 1	68	73	32	62	38	29	46
Dairyland	DST45-002/R2Y	50 ± 1	74	70	33	57	34	28	51
USG	74F11R (RR2Y)	49 ± 1	65	70	28	62	36	29	54
Terral-REV Brand	45R10 (RR)	49 ± 1	70	63	23	64	34	33	56
Delta Grow	4460 RR	48 ± 1	63	60	35	61	37	29	50
Dairyland	DSR-4500 RR/STS	47 ± 1	60	67	30	64	33	32	45
Terral-REV Brand	44R22 (RR)	46 ± 1	60	63	28	54	35	31	52
TN Exp	TN09-45,432 (RR2Y)	46 ± 1	58	67	31	53	31	35	45
TN Exp	TN09-46,551 (RR2Y)	43 ± 1	50	67	32	56	31	30	37
TN Exp	TN09-47,387 (RR2Y)	43 ± 1	55	63	32	40	36	31	44
TN Exp	TN09-47,024 (RR2Y)	39 ± 1	51	58	28	37	29	29	40
<b>Average (bu/a)</b>		<b>51</b>	<b>70</b>	<b>71</b>	<b>32</b>	<b>61</b>	<b>36</b>	<b>32</b>	<b>52</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>3</b>	<b>12</b>	<b>9</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>4</b>	<b>7</b>
<b>C.V. (%)</b>		<b>9.3</b>	<b>10.0</b>	<b>8.0</b>	<b>12.1</b>	<b>7.3</b>	<b>11.0</b>	<b>7.6</b>	<b>7.7</b>

† All yields are adjusted to 13% moisture.

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

**Table 10. Mean yields † and agronomic characteristics of 37 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2011.**

Brand	Variety ‡	Avg. Yield		Moisture §	Lodging	Height	Maturity	Shattering	Seed		
		± Std Err. (n=7)	bu/a						Quality (n=1)	Protein (n=1)	Oil (n=1)
			%	%	Score	in.	DAP	Score	%	%	Score
Steyer	4501 R2 (RR2Y/STS)	57 ± 1	13.5	2.0	39	128	1.0	1.8	39.8	22.0	3.2
Croplan	R2C 4541 (RR2Y)	56 ± 1	13.3	2.5	40	128	1.0	2.2	37.5	23.1	1.0
USG	74H81 (RR)	55 ± 1	13.3	2.4	42	128	1.0	2.5	40.3	22.1	1.0
Dairyland	DST45-001/R2Y	55 ± 1	13.5	1.8	40	128	1.0	2.8	37.5	23.2	1.0
Dairyland	DST43-001/R2Y	55 ± 1	13.2	2.1	41	127	1.0	2.5	40.5	22.1	1.3
Progeny	4510 RY (RR2Y)	54 ± 1	12.9	2.3	40	128	1.0	2.0	39.6	22.1	3.3
Croplan	R2C 4391 (RR2Y)	54 ± 1	12.6	2.3	37	125	1.0	2.8	38.7	23.0	1.2
Armor	46-R42 (RR2Y)	53 ± 1	13.2	1.3	37	125	1.0	2.0	38.8	23.0	1.5
Progeny	4211 RY (RR2Y)	53 ± 1	12.9	2.2	37	125	1.0	2.5	39.1	23.1	2.0
Dyna-Gro	39RY43 (RR2Y)	53 ± 1	13.2	2.3	36	125	1.0	2.7	39.3	22.8	2.7
Armor	44-R08 (RR2Y)	53 ± 1	13.0	2.1	36	125	1.0	1.8	39.1	22.9	2.0
Armor	46-R64 (RR2Y)	53 ± 1	13.7	2.2	39	128	1.0	2.5	37.5	22.8	1.0
Asgrow	AG4531 GENRR2Y (STS)	53 ± 1	13.8	1.9	39	128	1.0	2.3	40.2	21.7	2.7
USG	74B58 (RR/STS)	52 ± 1	12.4	1.5	35	124	1.0	2.5	39.0	23.1	1.2
Schillinger Seed	458 RCS	52 ± 1	13.2	1.9	39	128	1.0	2.3	40.4	22.1	1.3
Dyna-Gro	V42N9RS	52 ± 1	12.8	2.0	37	124	1.0	3.2	38.3	23.4	1.2
Asgrow	AG4232 GENRR2Y (STS)	52 ± 1	12.6	2.0	39	124	1.0	2.3	38.6	22.4	1.5
Dyna-Gro	31RY45 (RR2Y)	52 ± 1	12.8	2.3	39	127	1.0	2.3	37.0	23.3	1.0
Caverndale Farms	CF 436 RR2Yn	51 ± 1	13.1	2.3	35	125	1.0	2.8	39.2	22.9	1.2
Dairyland	DSR-4300 RR	51 ± 1	12.3	2.8	39	124	1.0	2.5	40.2	22.6	2.8
Steyer	4430 RR (STS)	51 ± 1	12.3	2.3	36	125	1.0	1.8	39.2	22.8	1.0
USG	74D41R (RR2Y)	50 ± 1	13.3	2.4	36	127	1.0	2.0	40.8	21.1	1.2
Dairyland	DSR-4242/R2Y	50 ± 1	12.7	2.0	40	127	1.0	2.7	40.2	21.7	2.2
Beck's XL Brand	432NR (RR/STS)	50 ± 1	12.7	1.8	35	124	1.0	2.0	39.6	22.6	1.2
Dyna-Gro	35X43 (RR)	50 ± 1	13.0	2.8	38	124	1.0	2.5	40.2	22.8	2.2
Croplan	R2C 4520 (RR2Y)	50 ± 1	12.6	1.3	36	126	1.0	1.7	38.2	23.2	1.5
NK	S 44-D5 Brand (RR)	50 ± 1	12.6	1.9	37	127	1.0	2.0	40.4	21.7	2.5
Dairyland	DST45-002/R2Y	50 ± 1	13.5	1.9	41	128	1.0	1.8	40.6	22.0	2.3
USG	74F11R (RR2Y)	49 ± 1	11.9	1.9	39	123	1.0	2.3	38.8	22.4	1.2
Terral-REV Brand	45R10 (RR)	49 ± 1	13.5	2.1	43	124	1.0	2.0	39.6	22.9	1.3
Delta Grow	4460 RR	48 ± 1	12.4	2.3	41	127	1.0	2.2	39.1	22.5	1.3
Dairyland	DSR-4500 RR/STS	47 ± 1	12.8	2.9	40	127	1.0	2.2	39.0	23.0	2.5
Terral-REV Brand	44R22 (RR)	46 ± 1	12.1	2.2	38	126	1.0	1.8	41.2	22.2	1.0
TN Exp	TN09-45,432 (RR2Y)	46 ± 1	14.7	2.1	38	129	1.0	2.0	37.9	21.9	1.0
TN Exp	TN09-46,551 (RR2Y)	43 ± 1	15.8	3.1	46	129	1.0	2.8	38.2	22.5	1.0
TN Exp	TN09-47,387 (RR2Y)	43 ± 1	13.0	2.2	41	127	1.0	2.8	39.4	22.0	1.0
TN Exp	TN09-47,024 (RR2Y)	39 ± 1	14.4	2.8	46	127	1.0	2.8	39.3	22.3	1.0
<b>Average</b>		<b>51</b>	<b>13.1</b>	<b>2.2</b>	<b>39</b>	<b>126</b>	<b>1.0</b>	<b>2.3</b>	<b>39.2</b>	<b>22.5</b>	<b>1.6</b>

† All yields are adjusted to 13% moisture.

§ Average moisture at harvest

Maturity = days after planting (DAP).

Protein & Oil on dry weight basis.

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

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

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

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

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing disease spots; 5 = 95% + of leaf surfaces containing disease spots. Ratings from Knoxville on 8/22/11.

**Table 11. Mean yields † of 15 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err.		Springfield		Milan		Ames
		(n=12)	Knoxville	Irr.	Non-Irr.	Irr.	Non-Irr.	
		-----bu/a-----						
Steyer	4501 R2 (RR2Y/STS)	53 ± 1	71	57	36	67	39	47
Progeny	4510 RY (RR2Y)	53 ± 1	76	55	32	66	41	46
Schillinger Seed	458 RCS	51 ± 1	65	50	36	67	40	48
NK	S 44-D5 Brand (RR)	50 ± 1	67	52	39	61	39	44
Asgrow	AG4531 GENRR2Y (STS)	50 ± 1	65	56	32	65	42	42
USG	74B58 (RR/STS)	50 ± 1	67	48	34	63	41	45
Dyna-Gro	V42N9RS	50 ± 1	62	51	32	66	39	46
Steyer	4430 RR (STS)	49 ± 1	65	47	34	60	37	50
Dyna-Gro	35X43 (RR)	49 ± 1	62	49	36	60	39	46
Beck's XL Brand	432NR (RR/STS)	49 ± 1	60	45	35	67	39	45
Croplan	R2C 4520 (RR2Y)	49 ± 1	62	47	35	62	37	47
Dairyland	DSR-4300 RR	48 ± 1	58	50	34	60	41	47
Dairyland	DSR-4500 RR/STS	47 ± 1	63	46	33	60	37	43
Terral-REV Brand	44R22 (RR)	46 ± 1	55	45	33	57	40	48
Terral-REV Brand	45R10 (RR)	46 ± 1	61	42	27	62	37	45
<b>Average (bu/a)</b>		<b>49</b>	<b>64</b>	<b>49</b>	<b>34</b>	<b>63</b>	<b>39</b>	<b>46</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>3</b>	<b>9</b>	<b>7</b>	<b>9</b>	<b>7</b>	<b>5</b>	<b>6</b>
<b>C.V. (%)</b>		<b>10.0</b>	<b>9.8</b>	<b>9.1</b>	<b>17.5</b>	<b>7.4</b>	<b>9.0</b>	<b>8.9</b>

† All yields are adjusted to 13% moisture.

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

**Table 12. Mean yields † and agronomic characteristics of 15 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield		Moisture §	Lodging	Height	Maturity	Shattering	Leaf	Seed	Protein	Oil	Frogeye
		± Std Err.	(n=12)						(n=12)	(n=7)			
		bu/a	%	Score	in.	DAP	-----	Score	-----	%	%	Score	
Steyer	4501 R2 (RR2Y/STS)	53 ± 1	13.2	1.7	38	129	1.0	1.5	2.0	40.6	21.8	3.2	
Progeny	4510 RY (RR2Y)	53 ± 1	13.0	1.8	39	129	1.0	1.2	2.2	40.4	21.9	3.3	
Schillinger Seed	458 RCS	51 ± 1	12.5	1.6	40	130	1.0	2.8	2.6	41.5	21.8	1.3	
NK	S 44-D5 Brand (RR)	50 ± 1	12.4	1.6	37	128	1.0	1.5	2.1	40.8	22.0	2.5	
Asgrow	AG4531 GENRR2Y (STS)	50 ± 1	13.8	1.6	38	129	1.0	2.0	2.7	41.5	21.5	2.7	
USG	74B58 (RR/STS)	50 ± 1	12.3	1.4	34	126	1.0	1.2	2.7	40.3	22.7	1.2	
Dyna-Gro	V42N9RS	50 ± 1	12.8	1.5	37	125	1.1	1.2	3.3	39.6	23.1	1.2	
Steyer	4430 RR (STS)	49 ± 1	12.1	1.8	36	126	1.0	1.5	2.3	40.5	22.5	1.0	
Dyna-Gro	35X43 (RR)	49 ± 1	12.4	2.2	39	125	1.0	1.2	2.5	40.7	22.9	2.2	
Beck's XL Brand	432NR (RR/STS)	49 ± 1	12.3	1.5	34	125	1.0	1.7	2.8	40.7	22.3	1.2	
Croplan	R2C 4520 (RR2Y)	49 ± 1	12.3	1.1	36	126	1.0	1.0	2.0	39.2	23.0	1.5	
Dairyland	DSR-4300 RR	48 ± 1	11.9	2.3	39	125	1.0	1.0	2.5	40.3	22.9	2.8	
Dairyland	DSR-4500 RR/STS	47 ± 1	12.9	2.5	41	129	1.1	1.7	2.4	39.8	23.0	2.5	
Terral-REV Brand	44R22 (RR)	46 ± 1	12.3	1.7	37	127	1.0	1.0	2.2	41.5	22.2	1.0	
Terral-REV Brand	45R10 (RR)	46 ± 1	12.9	1.7	43	126	1.1	1.7	2.6	40.6	22.7	1.3	
<b>Average</b>		<b>49</b>	<b>12.6</b>	<b>1.7</b>	<b>38</b>	<b>127</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>40.5</b>	<b>22.4</b>	<b>1.9</b>	

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

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

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing disease spots; 5 = 95% + of leaf surfaces containing disease spots. Ratings from Knoxville on 8/22/11.

**Table 13. Mean yields † of seven Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2009 - 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err.					
		(n=15)	Knoxville	Springfield Non-Irr.	Milan Irr.	Milan Non-Irr.	Ames
		-----bu/a-----					
Schillinger Seed	458 RCS	55 ± 1	71	41	66	47	52
USG	74B58 (RR/STS)	55 ± 1	70	42	65	48	48
Steyer	4430 RR (STS)	54 ± 1	69	43	61	45	54
Terral-REV Brand	45R10 (RR)	51 ± 1	66	35	62	45	48
Dyna-Gro	V42N9RS	51 ± 1	65	39	62	42	47
Dairyland	DSR-4300 RR	50 ± 1	63	40	60	45	44
Dairyland	DSR-4500 RR/STS	49 ± 1	66	38	58	41	43
<b>Average (bu/a)</b>		<b>52</b>	<b>67</b>	<b>40</b>	<b>62</b>	<b>45</b>	<b>48</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>3</b>	<b>8</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>7</b>
<b>C.V. (%)</b>		<b>9.7</b>	<b>8.5</b>	<b>12.5</b>	<b>8.2</b>	<b>9.6</b>	<b>10.6</b>

† All yields are adjusted to 13% moisture.

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

**Table 14. Mean yields † and agronomic characteristics of seven Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2009 - 2011**

Brand	Variety ‡	Avg. Yield		Moisture §	Lodging	Height	Maturity	Shattering	Leaf	Seed	Oil	Frogeye	SDS		
		± Std Err.	(n=15)						(n=1)	(n=3)			(n=3)	(n=1)	(n=1)
		bu/a	%	Score	in.	DAP	-----	Score	-----	%	%	Score	%	0 - 9	index
Schillinger Seed	458 RCS	55 ± 1	13.4	1.5	40	130	1.0	2.8	2.7	41.1	21.8	1.3	56.7	1.3	8.2
USG	74B58 (RR/STS)	55 ± 1	13.3	1.5	35	126	1.0	1.2	2.6	39.9	22.8	1.2	31.7	1.3	4.7
Steyer	4430 RR (STS)	54 ± 1	13.0	1.5	35	126	1.0	1.5	2.3	40.0	22.7	1.0	17.0	1.0	1.9
Terral-REV Brand	45R10 (RR)	51 ± 1	13.8	1.8	44	126	1.1	1.7	2.4	40.1	22.7	1.3	50.0	1.7	12.2
Dyna-Gro	V42N9RS	51 ± 1	13.5	1.5	36	125	1.1	1.2	3.4	39.2	23.1	1.2	30.3	2.0	9.5
Dairyland	DSR-4300 RR	50 ± 1	13.1	2.3	40	125	1.0	1.0	2.6	40.1	22.8	2.8	48.3	1.7	10.2
Dairyland	DSR-4500 RR/STS	49 ± 1	13.7	2.4	40	128	1.1	1.7	2.4	39.5	23.0	2.5	63.3	2.0	17.0
<b>Average</b>		<b>52</b>	<b>13.4</b>	<b>1.8</b>	<b>39</b>	<b>126</b>	<b>1.0</b>	<b>1.6</b>	<b>2.6</b>	<b>40.0</b>	<b>22.7</b>	<b>1.6</b>	<b>42.5</b>	<b>1.6</b>	<b>9.1</b>

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

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

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing disease spots; 5 = 95% + of leaf surfaces containing disease spots. Ratings from Knoxville on 8/22/11.

DI = disease incidence = percentage of plants with symptoms

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

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 8/26/09.

**Table 15. Yields † of 12 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties in 13 County Standard Tests in Tennessee and Kentucky during 2011.**

MS	Brand/Variety	Avg. Yield bu/a	Moisture ‡ %	(KY)			(KY)		Lauderdale				REC at Milan irrig.	REC at Milan irrig.	Obion	Weakley
				Ballard 7/7 §	Coffee 5/10	Dyer 6/1	Fulton 6/14	Gibson 5/31	Hickman 5/31	Lake 5/31	fung. 6/7	no fung. 6/7	fung. 5/10	no fung. 5/10		
A	Armor 46-R64 RR2Y	55.4	11.8	55.6	72.8	66.5	40.4	47.1	63.5	34.4	58.4	55.3	50.6	50.9	62.1	62.0
AB	Armor 46-R42 RR2Y	54.5	10.9	57.8	72.3	61.1	40.0	43.0	61.5	44.9	56.4	54.7	51.3	50.2	63.3	52.5
AB	*Asgrow AG4531 GENRR2Y	54.5	12.2	58.8	65.2	60.4	46.0	41.5	61.5	41.9	61.8	58.9	51.3	44.3	61.0	55.5
ABC	Progeny 4510 RY/STS	52.8	12.0	55.6	59.7	61.4	43.3	37.6	60.4	42.9	62.6	57.7	47.6	40.2	58.2	59.8
ABCD	**Asgrow AG4303	52.4	11.3	48.1	64.7	63.2	35.7	45.3	64.9	43.0	52.3	48.3	52.2	51.9	54.4	57.7
BCD	Dairyland 4300RR	51.8	11.0	51.4	58.0	60.2	41.3	37.5	65.3	38.4	54.8	51.5	54.6	41.8	61.8	57.0
BCD	NK Brand S44-D5	51.1	11.7	50.3	65.1	56.1	36.4	34.2	60.1	45.4	58.4	53.9	46.2	40.4	62.7	55.4
CD	USG 74A45 RR	50.3	11.7	48.4	60.8	59.5	35.0	31.1	54.1	47.4	57.4	49.5	47.9	46.4	60.8	56.0
CD	Steyer 4430 RR/STS	49.8	10.9	44.1	68.4	53.5	27.4	34.8	62.2	34.6	52.0	56.1	49.0	51.2	52.8	61.1
CD	Terral REV-44R22	49.7	11.4	52.5	45.4	58.4	44.6	34.5	54.2	34.2	57.3	54.9	47.9	46.8	57.8	58.0
D	Schillinger 458RCS	49.2	12.3	46.1	65.3	57.5	35.4	32.1	61.3	44.5	46.6	47.4	47.6	37.4	52.6	65.6
E	USG 74B58 RR/STS	45.5	11.0	45.5	68.3	57.0	21.7	32.5	60.1	39.1	36.5	37.2	39.9	40.1	55.4	58.5
<b>Average (bu/a)</b>		<b>51.4</b>	<b>11.5</b>	<b>51.2</b>	<b>63.8</b>	<b>59.6</b>	<b>37.3</b>	<b>37.6</b>	<b>60.8</b>	<b>40.9</b>	<b>54.5</b>	<b>52.1</b>	<b>48.8</b>	<b>45.1</b>	<b>58.6</b>	<b>58.3</b>

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

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

Variety denoted with an asterisk (\*) and/or (\*\*) were in the top performing group in 2010 and/or 2009, respectively.

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

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

**Table 16. Yields † and disease ratings § of 12 early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in 13 Tennessee and Kentucky County Standard Tests during 2011.**

MS	Brand/Variety	CST Avg. Yield (n=13) bu/a	Moisture ‡ %	----- Research and Education Center at Milan -----						SCN		
				SDS 2009 / 10 / 2011	Frogeye 2009 / 10 / 2011	Anthracnose 2010 / 11	Sprayed ¶ Yield bu/a	Unsprayed Yield bu/a	Race 2 2011	Race 3 2011	Race 5 2011	
A	Armor 46-R64 RR2Y	55.4	11.8	---	/ / 0.0	/ 4.0	50.6	50.9	S	MR	S	
AB	Armor 46-R42 RR2Y	54.5	10.9	---	/ / 4.0	/ 3.8	51.3	50.2	S	R	S	
AB	*Asgrow AG4531 GENRR2Y	54.5	12.2	/ 0.0 /	/ 5.8 / 5.5	3.0 / 3.5	51.3	44.3	S	HS	S	
ABC	Progeny 4510 RY/STS	52.8	12.0	---	/ / 6.3	/ 3.3	47.6	40.2	MS	MS	S	
ABCD	**Asgrow AG4303	52.4	11.3	0.7 / 0.0 /	0.0 / 0.3 / 0.3	2.8 / 3.5	52.2	51.9	S	S	S	
BCD	Dairyland 4300RR	51.8	11.0	2.0 / 0.0 /	3.7 / 6.3 / 7.3	4.0 / 3.0	54.6	41.8	S	S	MS	
BCD	NK Brand S44-D5	51.1	11.7	/ 0.0 /	/ 3.3 / 4.8	2.5 / 3.0	46.2	40.4	MS	R	MS	
CD	USG 74A45 RR	50.3	11.7	---	/ / 3.0	/ 3.0	47.9	46.4	S	R	MS	
CD	Steyer 4430 RR/STS	49.8	10.9	1.0 / 0.0 /	0.0 / 0.0 / 0.8	4.0 / 3.8	49.0	51.2	S	MR	MS	
CD	Terral REV-44R22	49.7	11.4	---	/ / 0.0	/ 3.0	47.9	46.8	HS	R	S	
D	Schillinger 458RCS	49.2	12.3	0.3 / 0.0 /	2.7 / 4.0 / 5.8	3.8 / 3.0	47.6	37.4	MS	R	S	
E	USG 74B58 RR/STS	45.5	11.0	0.3 / 0.0 /	0.0 / 0.0 / 0.0	3.3 / 3.5	39.9	40.1	MS	MS	S	
<b>Average (bu/a)</b>		<b>51.4</b>	<b>11.5</b>				<b>48.8</b>	<b>45.1</b>				

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Disease ratings for SDS, Frogeye Leaf Spot, and Anthracnose are from 0-10, where 0=no disease & 10=maximum level of disease or plant death. SDS = Sudden Death Syndrome.

¶ Sprayed plots at Milan treated with Headline @ 6 oz./Acre + 0.25% Penetrator Plus at 20 gpa at R3 growth stage.

Disease ratings compiled by Dr. Melvin Newman from replicated plots at the Research and Education Center at Milan.

SCN ratings; HS = highly susceptible, S = susceptible, MS = moderately susceptible, MR = moderately resistant R = resistant.

Race 2 (HG Type 1.2.5.7); Race 3 (HG Type 5.7); Race 5 (HG Type 2.5.7)

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, West TN REC.

MS= Varieties with one or more letters in common are not statistically different at the .05 level of probability.

Varieties denoted with an asterisk (\*) and/or (\*\*) were in the top performing group in 2010 and/or 2009, respectively.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops.

**Table 17. Overall average yields † and moistures of 10 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in County Standard Tests (n=13) and Research and Education Centers (n=7) in Tennessee during 2011.**

Brand	Variety ‡	Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
		Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %
Armor	46-R64 (RR2Y)	54	12.8	55	11.8	53	13.7
Armor	46-R42 (RR2Y)	54	12.0	55	10.9	53	13.2
Asgrow	AG4531 GENRR2Y (STS)	54	13.0	54	12.2	53	13.8
Progeny	4510 RY (RR2Y)	53	12.5	53	12.0	54	12.9
Dairyland	DSR-4300 RR	51	11.6	52	11.0	51	12.3
Schillinger Seed	458 RCS	51	12.7	49	12.3	52	13.2
NK	S 44-D5 Brand (RR)	51	12.1	51	11.7	50	12.6
Steyer	4430 RR (STS)	50	11.6	50	10.9	51	12.3
USG	74B58 (RR/STS)	49	11.7	46	11.0	52	12.4
Terral-REV Brand	44R22 (RR)	48	11.8	50	11.4	46	12.1
<b>Average (bu/a)</b>		<b>51</b>	<b>12.2</b>	<b>51</b>	<b>11.5</b>	<b>52</b>	<b>12.9</b>

† Yields have been adjusted to 13% moisture.

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

**Table 18. Mean yields † of 69 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err.		Springfield		Milan		Ames	
		(n=7)	Knoxville	Irr.	Non-Irr.	Irr.	Non-Irr.		
				-----bu/a-----					
Morsoy Xtra	46X29 (RR2Y/STS)	49 ± 1	74	43	33	65	45	36	52
Progeny	4611 RY (RR2Y)	49 ± 1	73	43	25	68	43	35	54
Armor	48-R40 (RR2Y/STS)	49 ± 1	80	41	37	56	46	34	47
Asgrow	AG4632 GENRR2Y	48 ± 1	74	39	28	65	44	37	52
Delta Grow	4670 R2Y	48 ± 1	79	36	33	66	41	32	52
Morsoy Xtra	47X31 (RR2Y)	48 ± 1	70	42	34	67	42	31	50
Beck's XL Brand	477NR (RR)	48 ± 1	68	39	37	63	44	34	50
Progeny	4710 RY (RR2Y)	48 ± 1	68	42	35	60	45	38	45
Progeny	4908 RR	48 ± 1	61	53	36	60	40	38	45
Dairyland	DST47-002/R2Y	48 ± 1	65	43	34	68	41	34	48
Terral-REV Brand	48R33 (RR)	47 ± 1	69	43	31	66	40	33	50
Asgrow	AG4730 GENRR2Y (STS)	47 ± 1	72	41	34	58	43	33	49
Dairyland	DSR-4810 RR	47 ± 1	73	41	32	59	43	32	52
Morsoy Xtra	46X71 (RR2Y)	47 ± 1	77	38	34	64	38	32	47
Armor	X1209 (RR2Y/STS)	47 ± 1	67	37	28	72	42	34	49
Caverndale Farms	CF 476 RR2Yn	47 ± 1	71	45	34	58	38	31	52
USG	74A79R (RR2Y/STS)	47 ± 1	66	38	31	62	41	37	52
Armor	48-R91 (RR2Y/STS)	47 ± 1	65	39	35	64	41	34	49
Morsoy Xtra	49X10 (RR2Y)	47 ± 1	63	37	33	59	46	39	50
Dyna-Gro	33RY47 (RR2Y)	47 ± 1	67	43	30	62	44	31	50
Delta Grow	4875 R2Y	47 ± 1	69	43	27	65	39	33	50
Asgrow	AG4832 GENRR2Y	47 ± 1	66	44	34	64	39	31	49
Steyer	4701 R2 (RR2Y)	47 ± 1	74	37	31	62	39	30	54
Dyna-Gro	39D48 (RR)	47 ± 1	71	36	32	60	39	33	53
Croplan	R2C 4801 (RR2Y)	46 ± 1	68	40	28	65	41	34	50
Progeny	4811 RY (RR2Y)	46 ± 1	66	37	33	64	42	35	49
Asgrow	AG4732 GENRR2Y	46 ± 1	76	37	36	55	38	33	51
Hornbeck	HBK RY 4620 (RR2Y)	46 ± 1	70	42	31	64	38	32	47
Armor	X1211 (RR2Y)	46 ± 1	61	37	34	58	46	40	46
Morsoy Xtra	48X00 (RR2Y/STS)	46 ± 1	67	39	36	55	37	34	53
Dyna-Gro	37RY47 (RR2Y)	46 ± 1	69	37	32	61	44	34	46
TN Exp	TN09-48,552 (RR2Y)	46 ± 1	59	40	34	59	38	43	49
Terral-REV Brand	47R53 (RR)	46 ± 1	64	40	36	56	38	32	55
Dairyland	DSR-8482 RR	46 ± 1	58	39	36	59	39	38	51
Armor	X1247 (RR2Y/STS)	45 ± 1	64	37	34	58	42	33	51
MO Exp	S08-14087 (RR)	45 ± 1	63	45	30	60	36	35	48
Delta Grow	4880 RR	45 ± 1	67	43	32	50	44	30	50
Schillinger Seed	495 RC	44 ± 1	59	42	35	61	37	35	43
Terral-REV Brand	48R21 (RR)	44 ± 1	69	41	30	50	39	33	50
Terral-REV Brand	49R43 (RR)	44 ± 1	59	37	34	62	40	31	46
Terral-REV Brand	48R10 (RR)	44 ± 1	66	41	32	57	37	29	49
Terral-REV Brand	49R22 (RR)	44 ± 1	64	39	32	58	40	33	43
NK	S 49-A5 Brand (RR)	44 ± 1	69	30	34	54	39	36	46
Delta Grow	4770 RR	44 ± 1	60	38	27	62	35	33	53
Terral-REV Brand	49R11 (RR)	44 ± 1	61	34	29	58	41	30	54
Armor	X1210 (RR)	44 ± 1	62	37	32	54	40	30	52
USG	74E88 (RR)	44 ± 1	59	40	30	59	36	29	53
Progeny	4906 RR	44 ± 1	57	43	32	50	41	36	47
Croplan	RC 4877 RR	44 ± 1	61	39	26	59	37	36	46
NK	S 47-R3 Brand (RR)	43 ± 1	58	38	26	55	45	34	47
USG	74A91 (RR)	43 ± 1	56	36	30	56	38	34	51
Terral-REV Brand	47R22 (RR)	43 ± 1	63	39	31	61	34	27	46

**Table 18 (continued)**

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Knoxville	Springfield		Milan		Ames	
				Irr.	Non-Irr.	Irr.	Non-Irr. 2		
-----bu/a-----									
Beck's XL Brand	495NR	43 ± 1	53	38	33	63	37	34	44
Asgrow	AG4932 GENRR2Y	43 ± 1	67	41	26	58	34	30	44
Terral-REV Brand	48R22 (RR)	43 ± 1	63	43	26	55	34	29	50
Terral-REV Brand	49R10 (RR)	43 ± 1	61	40	34	53	38	34	40
Hornbeck	HBK R 4924 (RR)	43 ± 1	67	40	27	52	38	30	44
NK	S 46-A1 (RR2Y)	42 ± 1	62	37	30	49	36	33	50
Schillinger Seed	478 RCS	42 ± 1	67	40	27	54	35	33	40
TN Exp	TN09-48,343 (RR2Y)	42 ± 1	55	37	34	57	35	33	43
TN Exp	TN09-46,128 (RR2Y)	42 ± 1	50	36	32	56	38	41	42
Hornbeck	HBK R 4829 (RR)	42 ± 1	64	38	29	55	35	29	46
Schillinger Seed	4990 RC	42 ± 1	62	39	27	53	41	33	38
Delta Grow	4970 RR	42 ± 1	54	44	35	54	35	33	37
Steyer	4710 RR	41 ± 1	59	29	26	58	35	31	53
Delta Grow	4975 RR	41 ± 1	55	38	31	55	33	30	48
Progeny	4911 RY (RR2Y)	41 ± 1	50	38	39	48	41	36	38
Hornbeck	HBK R 4729 (RR)	40 ± 1	63	36	27	46	32	29	45
Hornbeck	HBK R 4830 (RR)	37 ± 1	49	42	25	55	32	25	34
<b>Average (bu/a)</b>		<b>45</b>	<b>65</b>	<b>39</b>	<b>32</b>	<b>59</b>	<b>39</b>	<b>33</b>	<b>48</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>3</b>	<b>10</b>	<b>9</b>	<b>7</b>	<b>7</b>	<b>5</b>	<b>4</b>	<b>7</b>
<b>C.V. (%)</b>		<b>10.2</b>	<b>9.9</b>	<b>13.6</b>	<b>13.9</b>	<b>7.9</b>	<b>8.6</b>	<b>7.7</b>	<b>8.8</b>

† All yields are adjusted to 13% moisture.

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

**Table 19. Mean yields † and agronomic characteristics of 69 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in seven environments in Tennessee in 2011.**

Brand	Variety ‡	Avg. Yield					Seed				
		± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=2)	Height (n=6)	Maturity (n=6)	Shattering (n=3)	Quality (n=1)	Protein (n=1)	Oil (n=1)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	Score	
Morsoy Xtra	46X29 (RR2Y/STS)	49 ± 1	12.2	2.0	35	132	1.0	2.5	39.1	22.1	3.0
Progeny	4611 RY (RR2Y)	49 ± 1	12.2	1.9	37	131	1.0	2.3	37.2	22.9	1.0
Armor	48-R40 (RR2Y/STS)	49 ± 1	12.0	2.4	34	132	1.0	1.8	38.9	21.9	3.2
Asgrow	AG4632 GENRR2Y	48 ± 1	12.4	2.4	36	132	1.0	2.3	36.8	22.6	1.0
Delta Grow	4670 R2Y	48 ± 1	11.7	2.0	35	131	1.0	2.8	37.1	23.0	1.0
Morsoy Xtra	47X31 (RR2Y)	48 ± 1	12.5	2.2	39	133	1.0	3.5	38.4	21.8	1.2
Beck's XL Brand	477NR (RR)	48 ± 1	12.0	2.7	41	130	1.0	2.5	38.5	22.8	1.0
Progeny	4710 RY (RR2Y)	48 ± 1	12.3	1.8	35	133	1.0	1.5	39.3	22.4	2.0
Progeny	4908 RR	48 ± 1	12.8	2.5	37	136	1.0	2.2	39.4	22.1	1.5
Dairyland	DST47-002/R2Y	48 ± 1	12.2	2.3	39	133	1.0	2.8	38.7	21.8	1.0
Terral-REV Brand	48R33 (RR)	47 ± 1	11.9	2.0	39	130	1.0	2.3	38.0	23.0	1.0
Asgrow	AG4730 GENRR2Y (STS)	47 ± 1	12.1	2.5	34	129	1.0	1.5	39.0	22.4	1.2
Dairyland	DSR-4810 RR	47 ± 1	12.0	3.0	37	132	1.0	2.5	40.4	21.9	1.0
Morsoy Xtra	46X71 (RR2Y)	47 ± 1	11.9	2.1	36	130	1.0	2.7	36.6	22.9	1.0
Armor	X1209 (RR2Y/STS)	47 ± 1	12.7	2.0	37	133	1.0	2.3	38.7	22.6	1.5
Caverndale Farms	CF 476 RR2Yn	47 ± 1	12.2	2.2	36	129	1.0	2.3	38.4	22.1	1.0
USG	74A79R (RR2Y/STS)	47 ± 1	11.8	2.3	35	131	1.0	2.2	38.7	22.4	3.0
Armor	48-R91 (RR2Y/STS)	47 ± 1	12.4	2.2	39	132	1.0	3.0	38.1	21.8	1.0
Morsoy Xtra	49X10 (RR2Y)	47 ± 1	13.0	2.6	35	136	1.0	2.5	39.6	21.7	3.0
Dyna-Gro	33RY47 (RR2Y)	47 ± 1	12.2	2.2	39	132	1.0	3.0	38.1	21.9	1.8
Delta Grow	4875 R2Y	47 ± 1	12.2	2.7	39	132	1.0	3.3	38.4	21.9	1.3
Asgrow	AG4832 GENRR2Y	47 ± 1	12.7	1.9	39	134	1.0	2.7	38.7	22.3	1.3
Steyer	4701 R2 (RR2Y)	47 ± 1	12.0	1.7	35	129	1.0	2.2	38.0	22.2	1.0
Dyna-Gro	39D48 (RR)	47 ± 1	11.9	2.6	39	131	1.0	2.8	40.3	21.8	1.3
Croplan	R2C 4801 (RR2Y)	46 ± 1	12.3	2.6	40	132	1.0	3.3	38.5	21.9	1.2
Progeny	4811 RY (RR2Y)	46 ± 1	12.5	2.7	40	133	1.0	3.0	38.6	21.8	1.0
Asgrow	AG4732 GENRR2Y	46 ± 1	12.1	2.4	39	132	1.0	2.8	38.0	22.4	1.0
Hornbeck	HBK RY 4620 (RR2Y)	46 ± 1	11.9	2.3	34	132	1.0	2.0	38.3	22.4	3.3
Armor	X1211 (RR2Y)	46 ± 1	12.8	2.8	35	134	1.0	3.0	39.4	21.9	2.7
Morsoy Xtra	48X00 (RR2Y/STS)	46 ± 1	11.9	2.3	34	133	1.0	2.5	38.5	22.6	2.3
Dyna-Gro	37RY47 (RR2Y)	46 ± 1	12.1	2.1	36	131	1.0	1.7	38.9	21.9	3.7
TN Exp	TN09-48,552 (RR2Y)	46 ± 1	13.1	2.2	35	135	1.0	1.7	37.6	22.0	1.0
Terral-REV Brand	47R53 (RR)	46 ± 1	11.5	2.8	36	132	1.0	2.5	39.4	23.7	1.0
Dairyland	DSR-8482 RR	46 ± 1	12.6	2.6	37	135	1.0	2.0	39.5	22.0	2.2
Armor	X1247 (RR2Y/STS)	45 ± 1	12.3	2.4	33	133	1.0	2.3	39.4	21.8	3.2
MO Exp	S08-14087 (RR)	45 ± 1	12.1	2.2	38	132	1.0	2.3	39.2	22.7	2.0
Delta Grow	4880 RR	45 ± 1	11.9	3.6	37	133	1.0	2.5	41.6	21.1	1.0

**Table 19 (continued)**

Brand	Variety ‡	Avg. Yield					Seed				
		± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=2)	Height (n=6)	Maturity (n=6)	Shattering (n=3)	Quality (n=1)	Protein (n=1)	Oil (n=1)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	Score	
Schillinger Seed	495 RC	44 ± 1	13.0	3.7	39	134	1.0	2.7	40.6	21.5	1.0
Terral-REV Brand	48R21 (RR)	44 ± 1	11.7	1.8	35	134	1.0	2.2	38.1	23.0	3.7
Terral-REV Brand	49R43 (RR)	44 ± 1	11.4	3.6	37	134	1.0	2.5	40.0	22.7	1.2
Terral-REV Brand	48R10 (RR)	44 ± 1	11.8	2.0	37	131	1.0	2.0	38.3	22.7	2.0
Terral-REV Brand	49R22 (RR)	44 ± 1	11.8	2.4	40	131	1.0	1.5	39.8	21.2	1.5
NK	S 49-A5 Brand (RR)	44 ± 1	11.2	2.4	41	132	1.0	2.5	38.4	22.8	1.0
Delta Grow	4770 RR	44 ± 1	12.1	2.8	38	127	1.0	2.2	39.0	22.3	2.0
Terral-REV Brand	49R11 (RR)	44 ± 1	10.9	1.8	35	130	1.0	2.3	42.0	21.6	1.3
Armor	X1210 (RR)	44 ± 1	12.2	3.7	36	133	1.0	1.8	42.1	21.1	1.0
USG	74E88 (RR)	44 ± 1	11.7	1.7	39	129	1.0	2.2	38.6	24.0	2.3
Progeny	4906 RR	44 ± 1	13.1	2.3	37	135	1.0	2.0	40.1	21.8	1.8
Croplan	RC 4877 RR	44 ± 1	11.8	2.7	38	133	1.0	1.8	38.2	22.8	1.2
NK	S 47-R3 Brand (RR)	43 ± 1	12.2	3.4	38	135	1.0	2.7	41.1	21.0	1.0
USG	74A91 (RR)	43 ± 1	12.7	2.4	39	134	1.0	2.2	39.7	22.0	2.0
Terral-REV Brand	47R22 (RR)	43 ± 1	11.5	2.5	39	130	1.0	1.7	40.2	21.7	1.0
Beck's XL Brand	495NR	43 ± 1	11.4	3.6	36	133	1.0	2.0	39.7	22.8	1.0
Asgrow	AG4932 GENRR2Y	43 ± 1	12.1	2.2	39	133	1.0	3.0	38.4	21.7	1.0
Terral-REV Brand	48R22 (RR)	43 ± 1	11.2	2.5	34	131	1.0	2.2	39.1	21.8	1.3
Terral-REV Brand	49R10 (RR)	43 ± 1	12.1	3.3	42	132	1.0	2.5	39.6	22.7	1.2
Hornbeck	HBK R 4924 (RR)	43 ± 1	13.3	2.8	41	134	1.0	1.8	37.9	22.8	1.0
NK	S 46-A1 (RR2Y)	42 ± 1	11.4	1.8	36	129	1.0	1.8	39.9	21.8	2.3
Schillinger Seed	478 RCS	42 ± 1	12.2	2.3	36	134	1.0	2.3	38.5	21.8	2.0
TN Exp	TN09-48,343 (RR2Y)	42 ± 1	12.4	1.5	32	133	1.0	1.5	39.6	21.3	2.7
TN Exp	TN09-46,128 (RR2Y)	42 ± 1	12.6	1.7	34	133	1.0	1.7	39.4	21.4	1.0
Hornbeck	HBK R 4829 (RR)	42 ± 1	12.0	3.1	36	134	1.0	2.0	41.3	21.6	1.0
Schillinger Seed	4990 RC	42 ± 1	13.4	2.6	37	136	1.0	2.3	39.4	21.9	1.0
Delta Grow	4970 RR	42 ± 1	13.6	3.6	39	135	1.0	2.8	40.3	21.6	1.0
Steyer	4710 RR	41 ± 1	11.3	2.2	38	132	1.0	2.0	37.1	23.0	1.0
Delta Grow	4975 RR	41 ± 1	12.4	2.7	38	135	1.0	2.0	39.2	22.2	2.5
Progeny	4911 RY (RR2Y)	41 ± 1	12.6	2.8	41	133	1.0	1.8	40.3	21.3	1.7
Hornbeck	HBK R 4729 (RR)	40 ± 1	11.7	2.3	34	132	1.0	1.8	40.8	22.0	3.8
Hornbeck	HBK R 4830 (RR)	37 ± 1	12.8	3.4	39	133	1.0	1.5	37.5	22.8	1.2
<b>Average</b>		<b>45</b>	<b>12.2</b>	<b>2.5</b>	<b>37</b>	<b>132</b>	<b>1.0</b>	<b>2.3</b>	<b>39.1</b>	<b>22.2</b>	<b>1.6</b>

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

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

Protein & Oil on dry weight basis.

Maturity = days after planting (DAP).

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

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

**Table 20. Mean yields † of 33 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err.						
		(n=12)	Knoxville	Springfield		Milan		Ames
		-----bu/a-----						
Morsoy Xtra	46X29 (RR2Y/STS)	51 ± 1	73	36	37	65	49	45
Armor	48-R40 (RR2Y/STS)	50 ± 1	78	36	40	58	45	44
Dairyland	DSR-4810 RR	50 ± 1	75	37	38	58	43	50
Asgrow	AG4730 GENRR2Y (STS)	50 ± 1	73	37	39	59	44	48
Hornbeck	HBK R 4924 (RR)	50 ± 1	77	36	37	60	39	48
Progeny	4908 RR	50 ± 1	68	44	39	60	42	46
Dairyland	DSR-8482 RR	49 ± 1	68	36	40	61	40	49
USG	74A79R (RR2Y/STS)	49 ± 1	67	34	36	64	43	49
Dyna-Gro	37RY47 (RR2Y)	49 ± 1	73	31	37	61	43	45
Hornbeck	HBK RY 4620 (RR2Y)	48 ± 1	73	36	31	65	39	47
Morsoy Xtra	49X10 (RR2Y)	48 ± 1	69	33	33	61	46	45
Morsoy Xtra	48X00 (RR2Y/STS)	47 ± 1	68	36	37	59	38	47
Terral-REV Brand	49R22 (RR)	47 ± 1	72	37	36	57	40	43
Armor	X1211 (RR2Y)	47 ± 1	68	34	34	59	44	44
NK	S 49-A5 Brand (RR)	47 ± 1	72	32	34	61	40	45
Schillinger Seed	495 RC	47 ± 1	65	38	40	55	38	44
Schillinger Seed	478 RCS	46 ± 1	69	34	34	62	38	42
Delta Grow	4880 RR	46 ± 1	66	37	36	49	43	46
Terral-REV Brand	47R22 (RR)	46 ± 1	69	34	30	62	40	43
Terral-REV Brand	49R10 (RR)	46 ± 1	66	36	36	54	42	42
USG	74A91 (RR)	46 ± 1	66	32	36	55	40	47
Terral-REV Brand	48R22 (RR)	46 ± 1	67	37	31	56	41	44
NK	S 47-R3 Brand (RR)	46 ± 1	66	34	29	58	43	46
Progeny	4906 RR	46 ± 1	63	36	33	56	42	45
Terral-REV Brand	48R21 (RR)	46 ± 1	68	35	36	50	41	44
Schillinger Seed	4990 RC	46 ± 1	70	36	29	55	42	42
Terral-REV Brand	48R10 (RR)	45 ± 1	70	36	30	55	38	41
Delta Grow	4770 RR	45 ± 1	61	33	30	59	41	46
Delta Grow	4970 RR	45 ± 1	63	40	36	53	39	38
Hornbeck	HBK R 4829 (RR)	45 ± 1	67	34	35	50	38	45
Terral-REV Brand	49R11 (RR)	45 ± 1	60	30	30	60	44	44
Delta Grow	4975 RR	44 ± 1	60	32	34	58	38	44
Hornbeck	HBK R 4729 (RR)	43 ± 1	69	32	32	47	35	44
<b>Average (bu/a)</b>		<b>47</b>	<b>68</b>	<b>35</b>	<b>35</b>	<b>58</b>	<b>41</b>	<b>45</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>3</b>	<b>10</b>	<b>6</b>	<b>8</b>	<b>7</b>	<b>5</b>	<b>6</b>
<b>C.V. (%)</b>		<b>10.3</b>	<b>9.5</b>	<b>12.1</b>	<b>16.0</b>	<b>8.3</b>	<b>8.9</b>	<b>8.3</b>

† All yields are adjusted to 13% moisture.

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

**Table 21. Mean yields † and agronomic characteristics of 33 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield					Leaf		Seed		Oil	Frogeye
		± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=6)	Height (n=11)	Maturity (n=8)	Shattering (n=5)	Retention (n=2)	Quality (n=2)	Protein (n=2)		
		bu/a	%	Score	in.	DAP	-----	Score	-----	%	%	Score
Morsoy Xtra	46X29 (RR2Y/STS)	51 ± 1	12.2	1.6	37	136	1.0	1.3	2.6	40.2	21.9	3.0
Armor	48-R40 (RR2Y/STS)	50 ± 1	11.7	1.9	36	136	1.0	1.2	2.3	39.9	21.8	3.2
Dairyland	DSR-4810 RR	50 ± 1	12.0	2.3	40	135	1.0	1.1	2.8	39.9	22.4	1.0
Asgrow	AG4730 GENRR2Y (STS)	50 ± 1	11.9	1.9	36	134	1.0	1.5	2.1	39.5	22.5	1.2
Hornbeck	HBK R 4924 (RR)	50 ± 1	13.7	2.5	44	138	1.0	1.5	2.0	38.7	22.7	1.0
Progeny	4908 RR	50 ± 1	12.5	2.1	41	139	1.0	1.5	2.6	39.8	22.3	1.5
Dairyland	DSR-8482 RR	49 ± 1	12.5	2.3	41	138	1.1	1.5	2.5	39.9	22.2	2.2
USG	74A79R (RR2Y/STS)	49 ± 1	11.6	1.9	37	136	1.0	1.3	2.6	39.7	22.3	3.0
Dyna-Gro	37RY47 (RR2Y)	49 ± 1	12.2	1.6	38	135	1.0	1.3	2.4	40.1	21.8	3.7
Hornbeck	HBK RY 4620 (RR2Y)	48 ± 1	12.2	2.0	36	137	1.0	1.3	2.6	39.6	22.3	3.3
Morsoy Xtra	49X10 (RR2Y)	48 ± 1	13.2	2.0	37	139	1.0	1.5	2.8	39.7	22.0	3.0
Morsoy Xtra	48X00 (RR2Y/STS)	47 ± 1	12.1	2.0	36	137	1.0	1.3	2.9	39.7	22.5	2.3
Terral-REV Brand	49R22 (RR)	47 ± 1	12.0	1.8	42	136	1.0	1.2	1.8	40.3	21.3	1.5
Armor	X1211 (RR2Y)	47 ± 1	12.7	2.1	37	138	1.0	1.5	3.2	39.6	22.1	2.7
NK	S 49-A5 Brand (RR)	47 ± 1	11.3	1.9	44	137	1.0	1.4	2.8	38.3	23.2	1.0
Schillinger Seed	495 RC	47 ± 1	14.0	2.9	42	137	1.0	1.1	2.9	41.3	21.3	1.0
Schillinger Seed	478 RCS	46 ± 1	13.3	1.9	39	138	1.0	1.3	2.5	38.9	21.9	2.0
Delta Grow	4880 RR	46 ± 1	11.8	2.6	39	136	1.0	1.2	2.7	42.0	21.3	1.0
Terral-REV Brand	47R22 (RR)	46 ± 1	11.2	1.9	42	134	1.0	1.3	2.3	40.4	21.8	1.0
Terral-REV Brand	49R10 (RR)	46 ± 1	12.1	2.4	46	137	1.0	1.0	2.7	39.7	23.1	1.2
USG	74A91 (RR)	46 ± 1	12.8	1.8	40	139	1.0	1.3	2.5	39.8	22.5	2.0
Terral-REV Brand	48R22 (RR)	46 ± 1	10.6	2.0	38	135	1.0	1.0	2.3	39.6	22.1	1.3
NK	S 47-R3 Brand (RR)	46 ± 1	11.8	2.3	40	138	1.0	1.3	2.8	40.9	21.5	1.0
Progeny	4906 RR	46 ± 1	12.9	1.8	41	138	1.0	1.3	2.5	39.2	22.4	1.8
Terral-REV Brand	48R21 (RR)	46 ± 1	12.0	1.5	38	137	1.0	1.2	2.3	38.6	23.1	3.7
Schillinger Seed	4990 RC	46 ± 1	14.3	2.4	40	139	1.1	1.3	2.4	39.9	21.8	1.0
Terral-REV Brand	48R10 (RR)	45 ± 1	11.8	1.6	38	135	1.0	1.2	2.4	38.8	23.0	2.0
Delta Grow	4770 RR	45 ± 1	11.9	2.0	40	132	1.0	1.1	2.7	39.2	22.5	2.0
Delta Grow	4970 RR	45 ± 1	15.0	3.2	42	137	1.0	1.6	3.0	41.2	21.3	1.0
Hornbeck	HBK R 4829 (RR)	45 ± 1	12.4	2.6	38	137	1.0	1.1	2.4	41.7	21.6	1.0
Terral-REV Brand	49R11 (RR)	45 ± 1	11.1	1.4	36	135	1.0	1.1	2.9	41.9	22.1	1.3
Delta Grow	4975 RR	44 ± 1	12.8	1.8	40	137	1.0	1.2	2.4	39.1	22.7	2.5
Hornbeck	HBK R 4729 (RR)	43 ± 1	12.1	2.1	37	137	1.0	1.1	2.2	41.8	21.7	3.8
<b>Average</b>		<b>47</b>	<b>12.4</b>	<b>2.1</b>	<b>39</b>	<b>137</b>	<b>1.0</b>	<b>1.3</b>	<b>2.5</b>	<b>40.0</b>	<b>22.1</b>	<b>1.9</b>

† All yields are adjusted to 13% moisture.

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

Maturity = days after planting (DAP).

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°.

Protein & Oil on dry weight basis.

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

§ Average moisture at harvest

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

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

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

**Table 22. Mean yields † of 15 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2009 - 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err. (n=15)		Springfield		Milan		Ames
		Knoxville	Non-Irr.	Irr.	Non-Irr.			
		-----bu/a-----						
Armor	48-R40 (RR2Y/STS)	57 ± 1	80	44	63	51	46	
USG	74A79R (RR2Y/STS)	57 ± 1	73	44	67	50	49	
Hornbeck	HBK R 4924 (RR)	56 ± 1	80	44	61	46	51	
Dairyland	DSR-8482 RR	56 ± 1	71	45	65	45	54	
Dairyland	DSR-4810 RR	56 ± 1	76	43	65	48	49	
Progeny	4908 RR	55 ± 1	70	45	63	48	49	
Progeny	4906 RR	53 ± 1	68	40	61	48	50	
USG	74A91 (RR)	53 ± 1	69	42	58	45	51	
Schillinger Seed	4990 RC	53 ± 1	71	38	59	48	47	
Delta Grow	4975 RR	52 ± 1	65	40	62	45	48	
Delta Grow	4970 RR	51 ± 1	65	43	55	46	45	
Terral-REV Brand	49R10 (RR)	50 ± 1	67	42	53	48	43	
Schillinger Seed	495 RC	50 ± 1	62	46	54	44	43	
Delta Grow	4770 RR	49 ± 1	67	35	59	40	46	
Hornbeck	HBK R 4729 (RR)	48 ± 1	68	38	53	39	44	
<b>Average (bu/a)</b>		<b>53</b>	<b>70</b>	<b>42</b>	<b>60</b>	<b>46</b>	<b>48</b>	
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>3</b>	<b>8</b>	<b>7</b>	<b>8</b>	<b>7</b>	<b>7</b>	
<b>C.V. (%)</b>		<b>9.7</b>	<b>8.1</b>	<b>11.7</b>	<b>9.2</b>	<b>10.3</b>	<b>9.9</b>	

† All yields are adjusted to 13% moisture.

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

**Table 23. Mean yields † and agronomic characteristics of 15 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2009 - 2011.**

Brand	Variety ‡	Avg. Yield		Moisture §	Lodging	Height	Maturity	Shattering	Leaf Retention	Seed Quality	Protein	Oil	Frogeye	SDS		
		± Std Err. (n=15)	bu/a											DI (n=1)	DS (n=1)	DX (n=1)
Armor	48-R40 (RR2Y/STS)	57 ± 1	12.6	12.6	1.8	38	135	1.0	1.2	2.4	39.7	21.9	3.2	20.3	1.0	4.5
USG	74A79R (RR2Y/STS)	57 ± 1	12.3	12.3	1.8	38	135	1.0	1.3	2.6	39.5	22.3	3.0	5.0	1.0	0.7
Hornbeck	HBK R 4924 (RR)	56 ± 1	14.2	14.2	2.4	47	139	1.0	1.5	2.3	38.8	22.7	1.0	12.0	1.0	1.3
Dairyland	DSR-8482 RR	56 ± 1	13.3	13.3	2.2	43	138	1.1	1.5	2.7	39.8	22.2	2.2	23.3	1.7	4.3
Dairyland	DSR-4810 RR	56 ± 1	12.9	12.9	2.1	42	135	1.0	1.1	2.7	40.0	22.2	1.0	41.7	2.7	13.3
Progeny	4908 RR	55 ± 1	13.1	13.1	2.2	43	139	1.0	1.5	2.7	39.5	22.4	1.5	7.0	1.0	0.8
Progeny	4906 RR	53 ± 1	13.3	13.3	1.8	44	138	1.0	1.3	2.5	39.0	22.6	1.8	26.7	1.7	4.8
USG	74A91 (RR)	53 ± 1	13.1	13.1	1.9	43	138	1.0	1.3	2.5	39.4	22.5	2.0	30.3	1.7	6.7
Schillinger Seed	4990 RC	53 ± 1	14.5	14.5	2.1	43	139	1.1	1.3	2.6	39.9	21.9	1.0	53.3	2.3	14.4
Delta Grow	4975 RR	52 ± 1	13.7	13.7	1.8	43	137	1.0	1.2	2.7	38.9	22.7	2.5	30.0	2.3	9.2
Delta Grow	4970 RR	51 ± 1	15.7	15.7	2.7	43	140	1.0	1.6	2.9	40.7	21.5	1.0	66.7	3.0	22.6
Terral-REV Brand	49R10 (RR)	50 ± 1	12.9	12.9	2.7	47	137	1.0	1.0	2.7	39.9	22.9	1.2	53.3	2.0	11.9
Schillinger Seed	495 RC	50 ± 1	14.4	14.4	3.0	45	138	1.0	1.1	2.9	41.1	21.5	1.0	73.3	4.0	32.9
Delta Grow	4770 RR	49 ± 1	12.6	12.6	2.0	42	132	1.0	1.1	2.7	39.1	22.4	2.0	56.7	2.3	14.8
Hornbeck	HBK R 4729 (RR)	48 ± 1	12.7	12.7	2.1	39	137	1.0	1.1	2.4	41.7	21.6	3.8	66.7	3.0	22.2
<b>Average</b>		<b>53</b>	<b>13.4</b>	<b>13.4</b>	<b>2.2</b>	<b>43</b>	<b>137</b>	<b>1.0</b>	<b>1.3</b>	<b>2.6</b>	<b>39.8</b>	<b>22.2</b>	<b>1.9</b>	<b>37.8</b>	<b>2.0</b>	<b>11.0</b>

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

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

Protein & Oil on dry weight basis.

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

DI = disease incidence = percentage of plants with symptoms

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

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 8/26/09.

Table 24. Yields † of 19 Late Maturity Group IV (4.6-4.9) Roundup Ready soybean varieties in 20 County Standard Tests in Tennessee and Kentucky during 2011.

MS	Brand/Variety	Avg. Yield bu/a	Moist† %	(KY)																		REC at Milan irrig.	REC at Milan irrig.
				Coffee	Dyer	Fayette	Franklin	Fulton	Gibson	Giles	Hardin	Haywood	Lauderdale Lake fung. no fung.			Madison	Marion	McCracken	Montgomery	Obion	Weakley		
				5/11 §	6/1	6/8	5/24	6/6	5/31	5/19	6/3	6/7	5/31	6/7	6/7	5/12	5/24	5/15	7/1	5/10	5/10	5/26	6/14
A	Armor 48-R91 RR2Y/STS	47.4	12.4	64.0	63.5	19.5	43.0	60.2	31.8	42.0	18.6	29.6	41.7	50.2	49.2	71.1	43.9	57.4	49.3	55.9	49.9	69.0	38.1
AB	Morsoy RTS46X29 RR2Y/STS	45.5	11.2	57.0	64.3	20.2	33.2	63.8	38.8	37.6	14.5	29.7	44.6	58.3	54.4	54.7	39.2	57.3	50.4	46.6	41.4	66.3	38.1
AB	*Schillinger 4990RC	45.1	12.5	57.8	62.8	16.7	31.1	59.4	41.9	37.9	24.7	33.2	50.8	52.8	54.4	45.9	38.4	57.0	47.7	52.2	47.3	57.0	33.5
BC	USG 74A79R RR2Y/STS	44.9	11.7	58.0	66.7	20.3	37.6	63.8	39.8	38.2	18.7	29.7	39.7	59.1	57.2	48.2	40.2	61.3	53.5	40.9	36.9	57.6	31.3
BCD	Asgrow AG4907 RR	44.9	11.6	58.1	64.2	22.2	39.6	63.7	30.6	34.0	17.6	31.7	45.9	55.3	55.8	51.6	39.2	56.0	45.6	47.2	41.9	67.2	30.2
BCDE	Asgrow AG4730 GENRR2Y/STS	44.7	11.7	54.0	62.4	22.5	30.5	64.1	33.7	37.7	21.2	31.4	42.6	53.2	54.0	53.4	34.6	57.9	49.5	47.0	43.3	65.4	34.9
BCDE	Terral REV-48R22	44.5	11.3	63.2	58.8	19.8	36.7	60.2	35.9	36.9	16.9	31.8	45.4	55.6	54.8	56.2	32.7	58.3	51.1	44.6	39.0	63.8	27.5
BCDE	Dyna-Gro V47N8RR	44.4	11.2	51.8	64.9	19.8	36.3	62.4	30.8	40.9	10.5	32.3	41.4	49.3	51.9	50.1	37.7	58.0	48.0	49.2	43.9	72.2	36.8
BCDE	Armor 48-R40 RR2Y/STS	44.3	11.5	55.9	64.0	19.7	32.2	63.5	31.8	37.2	15.0	32.9	44.5	53.9	51.0	54.9	35.4	65.1	47.7	46.7	39.4	63.6	31.1
BCDEF	Dyna-Gro 37RY47 GENRR2Y/STS	44.0	11.5	59.5	60.7	15.1	36.0	62.8	33.7	43.6	20.2	30.5	44.5	57.9	53.1	54.1	30.4	56.3	48.8	39.1	37.6	64.0	32.6
BCDEF	Terral REV-49R22	43.8	11.3	53.7	61.4	16.1	36.6	60.3	36.2	35.9	21.2	30.2	41.1	54.6	53.6	46.5	31.1	55.4	47.3	48.2	43.0	67.4	36.6
BCDEF	Hornbeck R4924	43.5	13.0	53.9	62.2	16.1	39.9	57.2	36.5	43.8	14.9	36.1	35.2	56.4	51.6	42.8	49.2	50.6	45.9	48.4	41.4	58.1	30.6
CDEFG	USG 74E88 RR/STS	42.7	11.4	57.2	60.7	21.9	34.9	55.3	36.0	33.9	25.5	29.5	45.7	53.9	50.1	52.4	24.0	53.5	42.6	44.5	40.0	56.7	35.9
CDEFG	Dairyland 4810RR	42.7	11.8	57.6	60.9	19.3	32.0	61.8	30.5	43.4	16.4	29.4	39.6	51.9	47.9	52.2	28.3	54.7	46.7	47.3	44.2	65.5	24.4
CDEFG	Dairyland 8482RR	42.6	11.9	48.2	61.6	25.3	33.5	60.6	31.7	37.2	18.7	32.0	39.9	50.8	51.6	46.5	36.8	54.8	38.8	45.4	40.7	60.2	38.2
DEFG	Dyna-Gro V48N7RS	42.5	11.4	52.4	63.3	21.9	34.8	60.2	34.2	37.6	13.8	25.5	47.2	38.5	41.3	47.3	41.3	60.0	42.6	48.1	46.0	62.0	32.4
EFG	Schillinger 478RCS RR/STS	42.4	12.3	61.4	63.7	16.7	37.1	53.2	31.4	41.0	17.9	27.5	39.1	52.4	49.4	46.4	31.5	54.8	44.6	40.4	36.5	68.5	35.0
FG	Progeny 4908RR	41.8	11.5	48.1	61.3	15.2	27.7	60.0	36.7	41.1	20.7	29.5	36.6	52.1	47.7	43.1	36.3	53.6	42.3	50.3	44.6	61.7	28.2
G	NK Brand S49-A5	40.7	10.9	41.5	63.3	14.4	31.0	59.5	32.7	33.7	11.0	33.8	40.5	49.8	48.3	41.7	32.8	56.9	42.8	47.0	41.6	61.8	29.8
<b>Average (bu/a)</b>		<b>43.8</b>	<b>11.7</b>	<b>55.4</b>	<b>62.6</b>	<b>19.1</b>	<b>34.9</b>	<b>60.6</b>	<b>34.5</b>	<b>38.6</b>	<b>17.8</b>	<b>30.9</b>	<b>42.4</b>	<b>52.9</b>	<b>51.4</b>	<b>50.5</b>	<b>35.9</b>	<b>56.8</b>	<b>46.6</b>	<b>46.8</b>	<b>42.0</b>	<b>63.6</b>	<b>32.9</b>

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

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

Variety denoted with an asterisk (\*) was in the top performing group in 2010.

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

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

**Table 25. Yields † and disease ratings § of 19 late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in 20 Tennessee and Kentucky County Standard Tests during 2011.**

MS	Brand/Variety	CST Avg.		----- Research and Education Center at Milan -----										
		Yield		SDS	Frogeye			Stem		Sprayed ††	Unsprayed	SCN		
		(n=20)	Moisture ‡		2009 / 10 / 2011	2009 / 10 / 2011	2010 / 11	2010 / 11	Yield	Yield	Race 2	Race 3	Race 5	
bu/a	%	2009 / 10 / 2011	2009 / 10 / 2011	2010 / 11	2010 / 11	bu/a	bu/a	2011	2011	2011				
A	Armor 48-R91 RR2Y/STS	47.4	12.4	---	/ 0.0	/ 3.8	/ 0.0	55.9	49.9	S	R	S		
AB	Morsoy RTS46X29 RR2Y/STS	45.5	11.2	---	/ 5.5	/ 4.3	/ 3.0	46.6	41.4	S	HS	MS		
AB	*Schillinger 4990RC	45.1	12.5	/ 0.0 /	/ 0.0 / 0.0	2.3 / 2.8	0.0 / 0.0	52.2	47.3	S	R	MS		
BC	USG 74A79R RR2Y/STS	44.9	11.7	---	/ 4.8	/ 3.3	/ 2.3	40.9	36.9	HS	HS	S		
BCD	Asgrow AG4907 RR	44.9	11.6	---	/ 7.3	/ 3.3	/ 0.0	47.2	41.9	S	R	MS		
BCDE	Asgrow AG4730 GENRR2Y/STS	44.7	11.7	/ 0.0 /	/ 4.3 / 4.8	2.3 / 4.0	0.3 / 0.0	47.0	43.3	S	MR	S		
BCDE	Terral REV-48R22	44.5	11.3	---	/ 4.3	/ 3.3	/ 0.0	44.6	39.0	S	R	S		
BCDE	Dyna-Gro V47N8RR	44.4	11.2	---	/ 0.3	/ 1.5	/ 0.0	49.2	43.9	S	R	S		
BCDE	Armor 48-R40 RR2Y/STS	44.3	11.5	/ 0.0 /	/ 7.0 / 5.8	2.0 / 4.8	0.5 / 0.0	46.7	39.4	S	S	S		
BCDEF	Dyna-Gro 37RY47 GENRR2Y/STS	44.0	11.5	/ 0.0 /	/ 6.5 / 5.3	3.0 / 4.8	0.0 / 2.0	39.1	37.6	S	R	S		
BCDEF	Terral REV-49R22	43.8	11.3	---	/ 7.0	/ 4.0	/ 0.0	48.2	43.0	MS	R	S		
BCDEF	Hornbeck R4924	43.5	13.0	---	/ 4.5	/ 3.0	/ 0.0	48.4	41.4	S	R	S		
CDEFG	USG 74E88 RR/STS	42.7	11.4	---	/ 7.3	/ 1.5	/ 0.0	44.5	40.0	S	R	MS		
CDEFG	Dairyland 4810RR	42.7	11.8	/ 0.0 /	/ 0.3 / 2.3	2.8 / 4.0	0.0 / 0.0	47.3	44.2	S	MS	S		
CDEFG	Dairyland 8482RR	42.6	11.9	1.3 / 0.0 /	2.7 / 5.0 / 5.8	2.0 / 2.0	0.0 / 0.0	45.4	40.7	S	S	MS		
DEFG	Dyna-Gro V48N7RS	42.5	11.4	---	/ 0.0	/ 4.5	/ 0.0	48.1	46.0	HS	R	S		
EFG	Schillinger 478RCS RR/STS	42.4	12.3	3.3 / 0.0 /	5.7 / 8.5 / 7.0	2.3 / 4.3	0.0 / 0.0	40.4	36.5	MS	R	S		
FG	Progeny 4908RR	41.8	11.5	1.0 / 0.0 /	3.7 / 5.5 / 5.3	2.5 / 3.0	0.0 / 0.0	50.3	44.6	S	S	S		
G	NK Brand S49-A5	40.7	10.9	/ 0.0 /	/ 0.0 / 0.0	2.3 / 2.8	0.0 / 0.0	47.0	41.6	S	R	MS		
<b>Average (bu/a)</b>		<b>43.8</b>	<b>11.7</b>					<b>46.8</b>	<b>41.9</b>					

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Disease ratings for SDS, Frogeye Leaf Spot, Anthracnose and Stem Canker are from 0-10, where 0=no disease & 10=maximum level of disease or plant death. SDS = Sudden Death Syndrome.

†† Sprayed plots at Milan treated with Headline @ 6 oz./Acre + 0.25% Penetrator Plus at R3 growth stage.

Disease ratings compiled by Dr. Melvin Newman from replicated plots at the Research and Education Center at Milan.

SCN ratings; HS = highly susceptible, S = susceptible, MS = moderately susceptible, MR = moderately resistant R = resistant.

Race 2 (HG Type 1.2.5.7); Race 3 (HG Type 5.7); Race 5 (HG Type 2.5.7)

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, West TN REC.

MS= Varieties with one or more letters in common are not statistically different at the .05 level of probability.

Variety denoted with an asterisk (\*) was in the top performing group in 2010.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops.

**Table 26. Overall average yields † and moistures of 16 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in County Standard Tests (n=20) and Research and Education Centers (n=7) in Tennessee during 2011.**

Brand	Variety ‡	Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
		Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %
Morsoy Xtra	46X29 (RR2Y/STS)	47	11.7	46	11.2	49	12.2
Armor	48-R91 (RR2Y/STS)	47	12.4	47	12.4	47	12.4
Armor	48-R40 (RR2Y/STS)	47	11.7	44	11.5	49	12.0
USG	74A79R (RR2Y/STS)	46	11.8	45	11.7	47	11.8
Asgrow	AG4730 GENRR2Y (STS)	46	11.9	45	11.7	47	12.1
Dyna-Gro	37RY47 (RR2Y)	45	11.8	44	11.5	46	12.1
Progeny	4908 RR	45	12.1	42	11.5	48	12.8
Dairyland	DSR-4810 RR	45	11.9	43	11.8	47	12.0
Dairyland	DSR-8482 RR	44	12.3	43	11.9	46	12.6
Terral-REV Brand	49R22 (RR)	44	11.6	44	11.3	44	11.8
Terral-REV Brand	48R22 (RR)	44	11.2	44	11.3	43	11.2
Schillinger Seed	4990 RC	44	13.0	45	12.5	42	13.4
USG	74E88 (RR)	43	11.5	43	11.4	44	11.7
Hornbeck	HBK R 4924 (RR)	43	13.1	44	13.0	43	13.3
NK	S 49-A5 Brand (RR)	42	11.1	41	10.9	44	11.2
Schillinger Seed	478 RCS	42	12.3	42	12.3	42	12.2
<b>Average (bu/a)</b>		<b>44.6</b>	<b>12.0</b>	<b>43.8</b>	<b>11.7</b>	<b>45.5</b>	<b>12.2</b>

† Yields have been adjusted to 13% moisture.

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

**Table 27. Mean yields † of 47 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2011.**

Brand	Variety ‡	Avg. Yield		Springfield		Milan		Ames	
		± Std Err. (n=7)	Knoxville	Irr.	Non-Irr.	Irr.	Non-Irr. Non-Irr2		
-----bu/a-----									
USG	75T40 (RR)	54 ± 1	67	56	59	63	46	40	48
Terral-REV Brand	51R53 (RR)	54 ± 1	66	54	50	66	46	37	59
Armor	X1217 (RR2Y/STS)	54 ± 1	57	59	68	67	44	41	42
Armor	X1255 (RR2Y)	54 ± 1	59	61	63	67	42	40	43
Schillinger Seed	5220 RC	53 ± 1	68	58	57	57	42	41	51
Croplan	RC 5007S (RR/STS)	53 ± 1	67	61	53	66	42	36	48
Delta Grow	5565 R2Y	53 ± 1	67	52	63	65	38	38	46
Armor	X1215 (RR2Y)	53 ± 1	57	53	62	68	41	42	46
Asgrow	AG5532 GENRR2Y	52 ± 1	69	56	54	56	42	42	45
Morsoy Xtra	54X41 (RR2Y)	52 ± 1	66	48	60	67	42	41	42
Delta Grow	5275 R2Y	52 ± 1	55	58	53	72	46	37	43
Armor	55-R22 (RR2Y)	52 ± 1	69	50	59	65	41	37	42
Asgrow	AG5232 GENRR2Y	52 ± 1	69	50	53	65	45	37	43
Armor	53-R15 (RR2Y)	52 ± 1	71	49	48	65	43	37	48
USG	7553nRS (RR2Y)	52 ± 1	63	55	59	63	44	34	44
Delta Grow	5300 RR/STS	51 ± 1	59	47	62	64	43	38	47
Armor	X1213 (RR2Y)	51 ± 1	71	54	48	55	48	36	48
Schillinger Seed	557 RC	51 ± 1	65	65	43	60	44	42	39
USG	75B21R (RR2Y)	51 ± 1	69	59	47	63	41	36	43
TN Exp	TN09-46,277 (RR2Y)	51 ± 1	56	60	59	52	45	42	40
Dyna-Gro	37RY52 (RR2Y)	51 ± 1	56	52	59	64	43	36	44
Asgrow	AG5332 GENRR2Y	50 ± 2	57	57	43	60	48	38	51
Progeny	5330 RR	50 ± 1	65	52	50	56	41	39	49
USG	75M49 (RR)	50 ± 1	56	48	60	65	40	38	42
Progeny	5210 RY (RR2Y)	50 ± 1	57	57	56	61	38	37	43
Armor	X1253 (RR2Y)	50 ± 1	58	48	53	65	43	36	46
Armor	X1216 (RR2Y)	50 ± 1	63	52	46	56	42	37	51
NK	S 51-J3 (RR2Y)	49 ± 1	61	58	51	55	39	39	42
Morsoy Xtra	51X31 (RR2Y)	49 ± 1	67	49	49	57	38	36	45
Terral-REV Brand	55R21 (RR)	49 ± 1	54	57	50	56	45	39	39
Progeny	5111 RY (RR2Y)	49 ± 1	64	52	45	61	41	35	42
Delta Grow	5160 RR/STS	48 ± 1	61	51	50	48	44	35	51
Dyna-Gro	35P53 (RR)	48 ± 1	63	49	53	50	39	38	47
TN Exp	TN09-48,205 (RR2Y)	48 ± 1	57	45	49	65	39	40	41
Delta Grow	5555 RR	47 ± 1	65	49	44	49	43	37	45
Terral-REV Brand	54R10 (RR)	47 ± 1	59	58	40	48	43	38	45
USG	75J32 (RR)	47 ± 1	51	53	53	61	38	29	43
Hornbeck	HBK R 5525 (RR)	47 ± 1	66	47	51	58	31	35	39
Hornbeck	HBK R 5529 (RR)	46 ± 1	60	41	47	58	35	36	46
Delta Grow	5280 RR	46 ± 1	62	51	49	47	35	35	41
NK	S 51-T8 Brand (RR)	46 ± 1	48	52	52	46	39	38	43
USG	75T18 (RR)	45 ± 1	54	42	51	52	37	38	41
Hornbeck	HBK R 5226 (RR)	44 ± 1	50	53	52	42	35	35	41
Progeny	5321 RY (RR2Y)	44 ± 1	44	55	47	52	34	36	39
Morsoy Xtra	53X51 (RR2Y)	44 ± 1	49	54	48	51	30	34	41
USG	75R31R (RR2Y)	43 ± 1	49	43	50	50	40	33	37
Delta Grow	5545 RR	43 ± 1	49	54	47	44	31	30	43
<b>Average (bu/a)</b>		<b>49</b>	<b>60</b>	<b>53</b>	<b>52</b>	<b>58</b>	<b>41</b>	<b>37</b>	<b>44</b>
<b>L.S.D..05 (bu/a)</b>		<b>4</b>	<b>14</b>	<b>10</b>	<b>15</b>	<b>9</b>	<b>7</b>	<b>5</b>	<b>6</b>
<b>C.V. (%)</b>		<b>12.6</b>	<b>14.7</b>	<b>11.3</b>	<b>18.3</b>	<b>9.3</b>	<b>10.4</b>	<b>7.5</b>	<b>8.3</b>

† All yields are adjusted to 13% moisture.

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

**Table 28. Mean yields † and agronomic characteristics of 47 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2011.**

Brand	Variety ‡	Avg. Yield			Lodging	Height	Maturity	Shattering	Seed		
		± Std Err. (n=7)	Moisture § (n=7)	Score (n=4)					Quality (n=1)	Protein (n=1)	Oil (n=1)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	Score	
USG	75T40 (RR)	54 ± 1	12.6	1.5	39	140	1.0	1.3	37.7	22.2	1.0
Terral-REV Brand	51R53 (RR)	54 ± 1	12.0	1.8	40	137	1.0	2.5	40.3	22.7	3.0
Armor	X1217 (RR2Y/STS)	54 ± 1	12.7	1.7	39	138	1.0	1.8	37.8	23.0	1.3
Armor	X1255 (RR2Y)	54 ± 1	12.9	2.1	39	141	1.0	1.8	39.1	21.5	1.0
Schillinger Seed	5220 RC	53 ± 1	12.4	1.7	42	138	1.0	3.0	41.3	21.7	1.2
Croplan	RC 5007S (RR/STS)	53 ± 1	12.2	2.3	40	138	1.0	1.8	38.4	22.0	1.8
Delta Grow	5565 R2Y	53 ± 1	12.5	1.9	38	141	1.0	1.7	38.9	21.7	1.0
Armor	X1215 (RR2Y)	53 ± 1	14.4	2.5	40	142	1.0	2.0	40.3	21.5	1.0
Asgrow	AG5532 GENRR2Y	52 ± 1	11.9	1.7	40	138	1.0	2.0	39.6	21.7	3.5
Morsoy Xtra	54X41 (RR2Y)	52 ± 1	12.5	1.8	39	142	1.0	1.8	38.6	21.8	1.0
Delta Grow	5275 R2Y	52 ± 1	13.1	2.8	38	138	1.0	2.0	38.5	22.2	1.0
Armor	55-R22 (RR2Y)	52 ± 1	12.5	1.7	40	140	1.0	1.7	38.9	21.8	1.2
Asgrow	AG5232 GENRR2Y	52 ± 1	12.2	1.9	37	137	1.0	2.0	38.3	22.5	1.0
Armor	53-R15 (RR2Y)	52 ± 1	13.4	2.5	37	138	1.0	2.2	38.4	22.4	1.0
USG	7553nRS (RR2Y)	52 ± 1	12.1	2.1	39	139	1.0	1.8	39.3	21.7	1.2
Delta Grow	5300 RR/STS	51 ± 1	12.0	2.0	39	138	1.0	1.8	38.8	22.1	1.3
Armor	X1213 (RR2Y)	51 ± 1	13.6	2.8	37	139	1.0	1.7	39.7	21.9	1.0
Schillinger Seed	557 RC	51 ± 1	12.0	1.6	38	140	1.0	1.8	40.2	21.5	1.0
USG	75B21R (RR2Y)	51 ± 1	12.6	2.2	41	136	1.0	2.3	38.6	22.6	1.0
TN Exp	TN09-46,277 (RR2Y)	51 ± 1	15.5	2.5	40	142	1.0	1.7	38.2	22.2	1.0
Dyna-Gro	37RY52 (RR2Y)	51 ± 1	12.6	2.2	39	138	1.0	1.8	38.0	22.4	1.0
Asgrow	AG5332 GENRR2Y	50 ± 2	12.2	3.1	39	139	1.0	3.2	39.9	21.5	1.0
Progeny	5330 RR	50 ± 1	12.6	2.5	40	138	1.0	1.8	39.4	22.3	1.0
USG	75M49 (RR)	50 ± 1	13.2	2.5	38	139	1.0	1.7	40.1	22.5	1.0
Progeny	5210 RY (RR2Y)	50 ± 1	13.0	2.5	39	138	1.0	1.8	38.1	22.5	1.0
Armor	X1253 (RR2Y)	50 ± 1	13.2	2.4	38	138	1.0	1.7	38.6	22.3	1.2
Armor	X1216 (RR2Y)	50 ± 1	12.8	1.8	37	136	1.0	1.5	40.1	21.7	2.7
NK	S 51-J3 (RR2Y)	49 ± 1	12.2	1.3	37	135	1.0	2.0	38.5	22.5	1.0
Morsoy Xtra	51X31 (RR2Y)	49 ± 1	12.3	2.2	42	136	1.0	2.0	38.3	22.7	1.0
Terral-REV Brand	55R21 (RR)	49 ± 1	12.8	2.2	41	142	1.0	1.8	39.9	22.0	1.0
Progeny	5111 RY (RR2Y)	49 ± 1	12.4	1.9	40	136	1.0	2.2	38.3	22.7	1.0
Delta Grow	5160 RR/STS	48 ± 1	12.5	3.0	41	136	1.0	2.5	40.1	22.2	2.8
Dyna-Gro	35P53 (RR)	48 ± 1	12.0	2.8	41	140	1.0	1.7	40.2	21.3	1.3
TN Exp	TN09-48,205 (RR2Y)	48 ± 1	12.5	1.8	39	141	1.0	1.8	38.3	21.9	1.0
Delta Grow	5555 RR	47 ± 1	12.3	2.7	39	141	1.0	1.8	40.0	21.6	1.7
Terral-REV Brand	54R10 (RR)	47 ± 1	11.9	3.1	42	139	1.0	1.8	40.3	21.3	1.0
USG	75J32 (RR)	47 ± 1	12.3	1.5	37	138	1.0	2.3	39.7	21.7	1.0

**Table 28 (continued)**

Brand	Variety ‡	Avg. Yield	Moisture §	Lodging	Height	Maturity	Shattering	Seed	Protein	Oil	Frogeye
		± Std Err. (n=7)	(n=7)	(n=4)	(n=6)	(n=6)	(n=3)	Quality (n=1)	(n=1)	(n=1)	(n=1)
		bu/a	%	Score	in.	DAP	----- Score -----		%	%	Score
Hornbeck	HBK R 5525 (RR)	47 ± 1	13.3	2.0	37	140	1.0	1.7	38.8	22.3	1.0
Hornbeck	HBK R 5529 (RR)	46 ± 1	12.4	2.2	36	139	1.0	1.8	39.8	22.6	1.0
Delta Grow	5280 RR	46 ± 1	13.6	2.6	39	140	1.0	1.3	39.6	22.2	1.0
NK	S 51-T8 Brand (RR)	46 ± 1	12.1	2.0	44	137	1.0	4.0	41.4	21.4	2.0
USG	75T18 (RR)	45 ± 1	12.7	2.7	37	135	1.0	1.7	37.9	23.0	1.0
Hornbeck	HBK R 5226 (RR)	44 ± 1	12.9	3.0	38	139	1.0	2.2	39.8	22.1	1.2
Progeny	5321 RY (RR2Y)	44 ± 1	12.2	2.5	48	137	1.0	2.2	41.3	21.6	1.0
Morsoy Xtra	53X51 (RR2Y)	44 ± 1	12.4	3.0	39	141	1.0	1.5	40.9	21.1	2.8
USG	75R31R (RR2Y)	43 ± 1	12.6	2.8	47	137	1.0	2.0	41.7	21.3	1.0
Delta Grow	5545 RR	43 ± 1	12.8	2.9	38	140	1.0	1.8	40.6	21.9	1.2
<b>Average</b>		<b>49</b>	<b>12.7</b>	<b>2.3</b>	<b>39</b>	<b>139</b>	<b>1.0</b>	<b>2.0</b>	<b>39.4</b>	<b>22.0</b>	<b>1.3</b>

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

Protein & Oil on dry weight basis.

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

**Table 29. Mean yields † of 22 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err.		Springfield		Milan		Ames
		(n=12)	Knoxville	Irr.	Non-Irr.	Irr.	Non-Irr.	
-----bu/a-----								
USG	75T40 (RR)	49 ± 1	68	42	39	58	44	41
Schillinger Seed	557 RC	48 ± 1	67	47	32	57	44	41
Armor	53-R15 (RR2Y)	48 ± 1	73	37	30	59	43	46
USG	75M49 (RR)	48 ± 1	64	38	39	61	41	44
Progeny	5330 RR	48 ± 1	68	41	37	55	39	45
Delta Grow	5275 R2Y	48 ± 1	55	45	34	69	46	36
Croplan	RC 5007S (RR/STS)	47 ± 1	67	46	34	61	42	34
Dyna-Gro	37RY52 (RR2Y)	47 ± 1	64	40	35	61	41	40
Dyna-Gro	35P53 (RR)	47 ± 1	69	39	37	49	40	47
Terral-REV Brand	55R21 (RR)	47 ± 1	62	43	37	54	43	42
Progeny	5210 RY (RR2Y)	47 ± 1	67	41	34	58	39	42
Delta Grow	5300 RR/STS	47 ± 1	61	38	41	61	41	37
Delta Grow	5555 RR	46 ± 1	69	42	33	49	40	45
Hornbeck	HBK R 5525 (RR)	46 ± 1	69	37	38	58	32	40
Hornbeck	HBK R 5529 (RR)	44 ± 1	66	34	31	53	39	42
USG	75J32 (RR)	44 ± 1	55	40	37	57	38	37
Hornbeck	HBK R 5226 (RR)	44 ± 1	61	42	38	46	37	39
USG	75T18 (RR)	43 ± 1	61	37	34	50	38	40
Terral-REV Brand	54R10 (RR)	43 ± 1	65	43	30	43	38	39
Delta Grow	5160 RR/STS	43 ± 1	61	39	28	51	39	40
Delta Grow	5280 RR	42 ± 1	65	40	34	42	34	37
NK	S 51-T8 Brand (RR)	41 ± 1	55	41	33	44	36	39
<b>Average (bu/a)</b>		<b>46</b>	<b>64</b>	<b>41</b>	<b>35</b>	<b>54</b>	<b>40</b>	<b>41</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>4</b>	<b>11</b>	<b>7</b>	<b>10</b>	<b>8</b>	<b>6</b>	<b>8</b>
<b>C.V. (%)</b>		<b>12.6</b>	<b>11.2</b>	<b>11.9</b>	<b>19.9</b>	<b>10.3</b>	<b>10.2</b>	<b>12.9</b>

† All yields are adjusted to 13% moisture.

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

**Table 30. Mean yields † and agronomic characteristics of 22 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield					Leaf	Seed	Protein	Oil	Frogeye	
		± Std Err.	Moisture §	Lodging	Height	Maturity	Shattering	Retention				Quality
		(n=12)	(n=12)	(n=6)	(n=11)	(n=8)	(n=6)	(n=2)	(n=2)	(n=2)	(n=2)	(n=1)
		bu/a	%	Score	in.	DAP	-----	Score	-----	%	%	Score
USG	75T40 (RR)	49 ± 1	11.7	1.4	37	144	1.0	1.3	1.7	37.3	22.3	1.0
Schillinger Seed	557 RC	48 ± 1	11.4	1.6	36	145	1.0	1.2	1.7	39.8	21.7	1.0
Armor	53-R15 (RR2Y)	48 ± 1	11.8	2.3	36	143	1.0	1.1	2.1	38.1	22.6	1.0
USG	75M49 (RR)	48 ± 1	11.9	2.4	36	143	1.0	1.4	2.1	40.3	22.5	1.0
Progeny	5330 RR	48 ± 1	11.6	2.4	39	143	1.0	1.3	1.9	39.2	22.4	1.0
Delta Grow	5275 R2Y	48 ± 1	11.6	2.4	37	143	1.0	1.4	2.8	39.7	21.7	1.0
Croplan	RC 5007S (RR/STS)	47 ± 1	11.1	2.1	37	143	1.0	1.0	1.9	38.1	22.1	1.8
Dyna-Gro	37RY52 (RR2Y)	47 ± 1	11.2	2.1	37	143	1.0	1.3	1.8	37.6	22.7	1.0
Dyna-Gro	35P53 (RR)	47 ± 1	11.9	2.7	39	144	1.0	1.0	1.7	40.2	21.4	1.3
Terral-REV Brand	55R21 (RR)	47 ± 1	12.9	2.2	39	146	1.0	1.3	1.8	39.7	22.0	1.0
Progeny	5210 RY (RR2Y)	47 ± 1	12.0	2.2	38	143	1.0	1.4	1.8	37.8	22.6	1.0
Delta Grow	5300 RR/STS	47 ± 1	10.8	1.9	38	143	1.0	1.2	1.8	38.3	22.2	1.3
Delta Grow	5555 RR	46 ± 1	12.4	4.4	40	145	1.0	1.1	1.8	40.1	21.5	1.7
Hornbeck	HBK R 5525 (RR)	46 ± 1	13.3	1.9	37	145	1.0	1.3	1.9	39.3	22.4	1.0
Hornbeck	HBK R 5529 (RR)	44 ± 1	11.7	2.2	35	144	1.0	1.5	2.1	39.9	22.7	1.0
USG	75J32 (RR)	44 ± 1	10.9	1.4	37	143	1.0	1.7	2.3	40.0	21.5	1.0
Hornbeck	HBK R 5226 (RR)	44 ± 1	12.5	2.7	37	144	1.0	1.3	1.8	39.5	22.3	1.2
USG	75T18 (RR)	43 ± 1	11.2	2.4	35	140	1.0	1.0	1.7	37.7	23.0	1.0
Terral-REV Brand	54R10 (RR)	43 ± 1	11.3	3.0	40	144	1.0	1.2	1.9	39.8	21.4	1.0
Delta Grow	5160 RR/STS	43 ± 1	11.1	2.8	41	141	1.0	1.3	3.1	40.0	22.7	2.8
Delta Grow	5280 RR	42 ± 1	13.0	2.7	37	145	1.0	1.7	1.8	39.6	22.3	1.0
NK	S 51-T8 Brand (RR)	41 ± 1	11.1	2.2	43	143	1.0	1.1	3.8	40.8	21.8	2.0
<b>Average</b>		<b>46</b>	<b>11.7</b>	<b>2.3</b>	<b>38</b>	<b>144</b>	<b>1.0</b>	<b>1.3</b>	<b>2.1</b>	<b>39.2</b>	<b>22.2</b>	<b>1.2</b>

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

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

Protein & Oil on dry weight basis.

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

**Table 31. Mean yields † of 10 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2009 - 2011.**

Brand	Variety ‡	Avg. Yield	Springfield		Milan		Ames	
		± Std Err. (n=15)	Knoxville	Non-Irr.	Irr.	Non-Irr.		
			-----bu/a-----					
USG	75T40 (RR)	55 ± 1	70	47	62	48	49	
USG	75M49 (RR)	54 ± 1	66	45	66	49	46	
Delta Grow	5300 RR/STS	54 ± 1	60	48	66	48	46	
Schillinger Seed	557 RC	52 ± 1	64	40	60	48	45	
Hornbeck	HBK R 5525 (RR)	50 ± 1	63	43	59	40	44	
Delta Grow	5555 RR	49 ± 1	60	38	55	46	49	
USG	75J32 (RR)	49 ± 1	56	42	61	44	41	
Delta Grow	5160 RR/STS	49 ± 1	65	40	58	45	36	
Hornbeck	HBK R 5226 (RR)	46 ± 1	56	42	48	42	42	
Delta Grow	5280 RR	43 ± 1	56	38	46	37	40	
<b>Average (bu/a)</b>		<b>50</b>	<b>62</b>	<b>42</b>	<b>58</b>	<b>45</b>	<b>44</b>	
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>4</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>7</b>	<b>9</b>	
<b>C.V. (%)</b>		<b>13.0</b>	<b>12.3</b>	<b>17.0</b>	<b>10.7</b>	<b>11.3</b>	<b>14.7</b>	

† All yields are adjusted to 13% moisture.

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

**Table 32. Mean yields † and agronomic characteristics of 10 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2009 - 2011.**

Brand	Variety ‡	Avg. Yield		Moisture §	Lodging	Height	Maturity	Shattering	Leaf Retention	Seed Quality	Protein	Oil	Frogeye	SDS		
		± Std Err. (n=15)	bu/a											DI (n=1)	DS (n=1)	DX (n=1)
USG	75T40 (RR)	55 ± 1	12.7	1.7	37	147	1.0	1.5	1.8	37.6	22.2	1.0	13.333	1.667	2.8	
USG	75M49 (RR)	54 ± 1	12.9	2.1	36	146	1.0	1.8	2.2	40.3	22.5	1.0	66.7	2.3	17.4	
Delta Grow	5300 RR/STS	54 ± 1	12.1	1.9	39	145	1.0	1.3	2.1	38.6	22.1	1.3	68.3	2.3	22.0	
Schillinger Seed	557 RC	52 ± 1	12.6	1.7	38	147	1.0	1.3	1.9	40.0	21.5	1.0	68.3	4.3	37.2	
Hornbeck	HBK R 5525 (RR)	50 ± 1	14.3	2.0	37	147	1.0	1.5	2.0	39.3	22.3	1.0	71.7	3.3	30.3	
Delta Grow	5555 RR	49 ± 1	13.3	3.6	40	146	1.0	1.2	1.9	40.0	21.4	1.7	76.7	5.3	56.7	
USG	75J32 (RR)	49 ± 1	12.2	1.4	38	144	1.0	2.3	2.4	40.0	21.4	1.0	56.7	2.3	21.9	
Delta Grow	5160 RR/STS	49 ± 1	12.3	2.5	44	141	1.0	1.7	3.4	40.1	22.9	2.8	56.7	1.8	11.5	
Hornbeck	HBK R 5226 (RR)	46 ± 1	13.2	2.7	37	145	1.0	1.5	2.1	39.7	22.1	1.2	100.0	5.0	55.6	
Delta Grow	5280 RR	43 ± 1	13.9	2.7	37	146	1.0	2.3	2.1	40.0	22.2	1.0	93.3	5.0	52.6	
<b>Average</b>		<b>50</b>	<b>13.0</b>	<b>2.2</b>	<b>38</b>	<b>145</b>	<b>1.0</b>	<b>1.7</b>	<b>2.2</b>	<b>39.6</b>	<b>22.1</b>	<b>1.3</b>	<b>67.2</b>	<b>3.4</b>	<b>30.8</b>	

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

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

Protein & Oil on dry weight basis.

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

DI = disease incidence = percentage of plants with symptoms

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

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 8/26/09.

**Table 33. Yields † of 10 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties in 15 County Standard Tests in Tennessee and Kentucky during 2011.**

MS	Brand/Variety	Avg. Yield bu/a	Moist‡ %	KY		Crockett			Lauderdale				REC	REC	Shelby			
				Carlisle 6/21 §	Coffee 5/10	(irrig.) 6/24	Franklin 5/24	Gibson 5/31	Hardeman 6/3	Haywood 6/7	Lake 6/9	fung. 6/7	no fung. 6/7	fung. 5/10	no fung. 5/10	Obion 6/2	(Johnson) 5/19	(Tolbert) 6/8
A	Asgrow AG5332 GENRR2Y	48.3	11.8	41.0	57.9	69.0	40.5	49.8	34.5	26.0	66.6	59.7	63.0	55.3	51.2	35.3	40.2	34.8
AB	*Morsoy RT5429 RR	46.7	12.1	41.2	58.6	64.5	45.7	46.9	29.9	28.5	57.2	60.5	59.0	42.8	42.4	36.5	40.9	45.4
ABC	Armor 53-R15 RR2Y	46.3	11.9	37.6	51.6	63.1	47.7	45.5	30.2	26.6	62.7	57.8	61.8	48.2	46.4	35.5	40.0	38.9
BC	Schillinger 557RC	45.1	12.0	41.8	53.8	58.5	46.6	43.5	31.4	29.1	55.5	62.1	59.4	40.4	38.9	39.8	37.2	38.8
BC	Asgrow AG5532 GENRR2Y	44.9	11.5	34.6	51.4	64.4	48.3	44.1	31.1	30.4	58.1	58.6	59.2	42.8	37.5	37.1	35.0	41.4
BC	Dyna-Gro 35P53 RR	44.3	11.6	35.9	38.7	62.4	33.1	47.1	32.0	37.7	48.7	61.5	71.3	39.0	40.1	31.2	38.0	48.6
BCD	Hornbeck R5525	44.0	12.9	29.9	42.9	67.6	47.3	46.8	31.3	30.7	52.2	58.2	55.0	43.4	40.4	35.7	34.8	43.7
BCD	Progeny 5330RR	43.6	11.7	35.8	35.1	64.7	38.2	41.4	30.0	37.6	52.3	61.9	66.8	43.9	39.4	31.8	36.0	39.8
CD	Dairyland 8509	43.3	11.6	38.3	58.4	62.9	35.3	39.5	28.7	25.2	61.9	54.8	53.4	51.5	41.9	31.2	32.0	35.1
D	NK Brand S51-T8	40.8	11.7	30.8	49.5	53.1	35.2	35.9	28.1	25.6	59.6	51.4	53.1	42.5	37.7	35.0	35.6	39.1
<b>Average (bu/a)</b>		<b>44.7</b>	<b>11.9</b>	<b>36.7</b>	<b>49.8</b>	<b>63.0</b>	<b>41.8</b>	<b>44.1</b>	<b>30.7</b>	<b>29.7</b>	<b>57.5</b>	<b>58.7</b>	<b>60.2</b>	<b>45.0</b>	<b>41.6</b>	<b>34.9</b>	<b>37.0</b>	<b>40.6</b>

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

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

Variety denoted with an asterisk (\*) was in the top performing group in 2010.

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

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

**Table 34. Yields † and disease ratings § of 10 early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in 15 Tennessee and Kentucky County Standard Tests during 2011.**

MS	Brand/Variety	CST		----- Research and Education Center at Milan -----										
		Avg. Yield (n=15)	Moisture ‡	SDS	Frogeye	Cercospora Blight	Stem Canker	Anthracnose	Sprayed ¶ Yield	Unsprayed Yield	SCN			
		bu/a	%	2009 / 10 / 2011	2009 / 10 / 2011	2010 / 11	2011	2011		bu/a	bu/a	Race 2	Race 3	Race 5
A	Asgrow AG5332 GENRR2Y	48.3	11.8	---	/ 4.0	/ 0.5	0.3	1.8		55.3	51.2	MS	R	S
AB	*Morsoy RT5429 RR	46.7	12.1	/ 0.5 /	/ 0.8 / 0.5	0.5 / 7.5	1.5	2.0		42.8	42.4	S	MR	S
ABC	Armor 53-R15 RR2Y	46.3	11.9	---	/ 1.3	/ 7.0	0.0	3.0		48.2	46.4	S	R	S
BC	Schillinger 557RC	45.1	12.0	/ 0.5 /	/ 5.8 / 4.5	5.5 / 8.3	0.0	3.0		40.4	38.9	MS	MR	S
BC	Asgrow AG5532 GENRR2Y	44.9	11.5	---	/ 5.0	/ 6.8	0.0	5.8		42.8	37.5	MS	R	S
BC	Dyna-Gro 35P53 RR	44.3	11.6	---	/ 4.5	/ 5.8	2.0	5.5		39.0	40.1	S	HS	S
BCD	Hornbeck R5525	44.0	12.9	---	/ 0.3	/ 6.5	1.3	2.0		43.4	40.4	S	MS	S
BCD	Progeny 5330RR	43.6	11.7	/ 0.8 /	/ 1.0 / 0.0	3.5 / 6.5	0.5	2.0		43.9	39.4	S	HS	S
CD	Dairyland 8509	43.3	11.6	7.0 / 1.0 /	0.0 / 1.8 / 6.3	0.5 / 0.0	0.0	6.0		51.5	41.9	S	R	S
D	NK Brand S51-T8	40.8	11.7	---	/ 7.3	/ 0.0	0.0	5.3		42.5	37.7	S	R	MS
<b>Average (bu/a)</b>		<b>44.7</b>	<b>11.9</b>							<b>45.0</b>	<b>41.6</b>			

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Disease ratings for SDS, Frogeye Leaf Spot, and Cercospora Blight, Stem Canker, and Anthracnose are from 0-10, where 0=no disease & 10=maximum level of disease or plant death. SDS = Sudden Death Syndrome.

¶ Sprayed plots at Milan treated with Headline @ 6 oz./Acre + 0.25% Penetrator Plus at R3 growth stage.

Disease ratings compiled by Dr. Melvin Newman from replicated plots at the Research and Education Center at Milan.

SCN ratings; HS = highly susceptible, S = susceptible, MS = moderately susceptible, MR = moderately resistant R = resistant.

Race 2 (HG Type 1.2.5.7); Race 3 (HG Type 5.7); Race 5 (HG Type 2.5.7)

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, West TN REC.

MS= Varieties with one or more letters in common are not statistically different at the .05 level of probability.

Variety denoted with an asterisk (\*) was in the top performing group in 2010.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops.

**Table 35. Overall average yields † and moistures of seven Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in County Standard Tests (n=15) and Research and Education Centers (n=7) in Tennessee in 2011.**

Brand	Variety ‡	Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
		Avg. Yield	Moisture	Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%	bu/a	%
Asgrow	AG5332 GENRR2Y	49	12.0	48	11.8	50	12.2
Armor	53-R15 (RR2Y)	49	12.7	46	11.9	52	13.4
Asgrow	AG5532 GENRR2Y	48	11.7	45	11.5	52	11.9
Schillinger Seed	557 RC	48	12.0	45	12.0	51	12.0
Dyna-Gro	35P53 (RR)	46	11.8	44	11.6	48	12.0
Hornbeck	HBK R 5525 (RR)	45	13.1	44	12.9	47	13.3
NK	S 51-T8 Brand (RR)	43	11.9	41	11.7	46	12.1
<b>Average (bu/a)</b>		<b>47</b>	<b>12.2</b>	<b>45</b>	<b>11.9</b>	<b>49</b>	<b>12.4</b>

† Yields have been adjusted to 13% moisture.

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

**Table 36. Mean yields † of 11 Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	bu/a						
			Knoxville	Springfield		Milan		Ames	
				Irr.	Non-Irr.	Irr.	Non-Irr.	Non-Irr2	
Progeny	5711 RY (RR2Y)	60 ± 1	91	58	68	69	46	40	44
TN Exp	TN09-44,121 (RR2Y)	56 ± 1	84	55	62	56	54	43	36
Progeny	5655 RY (RR2Y)	55 ± 1	84	55	58	60	45	42	45
Croplan	R2C 5820 (RR2Y)	55 ± 1	75	65	57	61	41	40	46
USG	Allen (RR)	54 ± 1	81	51	61	63	43	40	40
Asgrow	AG5831 GENRR2Y	53 ± 1	75	55	59	61	41	34	43
Terral-REV Brand	56R21 (RR)	52 ± 1	71	50	58	64	42	36	43
Asgrow	AG5632 GENRR2Y (STS)	52 ± 1	74	60	53	54	42	37	40
Progeny	5610 RY (RR2Y)	51 ± 1	63	59	57	62	43	38	39
TN Exp	TN09-48,263 (RR2Y)	49 ± 1	59	53	56	55	46	42	33
Progeny	5811 RY (RR2Y)	49 ± 1	68	43	56	53	42	36	43
<b>Average (bu/a)</b>		<b>53</b>	<b>74</b>	<b>56</b>	<b>58</b>	<b>60</b>	<b>44</b>	<b>39</b>	<b>41</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>3</b>	<b>14</b>	<b>13</b>	<b>7</b>	<b>9</b>	<b>7</b>	<b>5</b>	<b>7</b>
<b>C.V. (%)</b>		<b>10.2</b>	<b>10.9</b>	<b>13.5</b>	<b>6.6</b>	<b>8.9</b>	<b>10.1</b>	<b>6.9</b>	<b>9.6</b>

† All yields are adjusted to 13% moisture.

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

**Table 37. Mean yields † and agronomic characteristics of 11 Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2011.**

Brand	Variety ‡	Avg. Yield					Seed				
		± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=3)	Height (n=6)	Maturity (n=6)	Shattering (n=3)	Quality (n=1)	Protein (n=1)	Oil (n=1)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	Score	
Progeny	5711 RY (RR2Y)	60 ± 1	12.8	2.1	38	144	1.0	2.5	37.2	22.1	1.2
TN Exp	TN09-44,121 (RR2Y)	56 ± 1	15.3	2.1	38	145	1.0	2.5	38.5	21.1	1.0
Progeny	5655 RY (RR2Y)	55 ± 1	12.6	1.4	40	143	1.0	2.7	37.5	22.3	1.5
Croplan	R2C 5820 (RR2Y)	55 ± 1	12.8	1.6	38	142	1.0	2.2	37.2	21.7	1.2
USG	Allen (RR)	54 ± 1	13.5	1.6	40	145	1.0	2.0	39.2	21.3	1.0
Asgrow	AG5831 GENRR2Y	53 ± 1	13.2	1.4	35	142	1.0	1.8	38.0	21.0	1.0
Terral-REV Brand	56R21 (RR)	52 ± 1	13.2	2.0	39	143	1.0	2.2	38.8	21.6	1.0
Asgrow	AG5632 GENRR2Y (STS)	52 ± 1	12.5	1.8	40	141	1.0	1.8	37.5	22.3	1.7
Progeny	5610 RY (RR2Y)	51 ± 1	12.8	1.7	38	143	1.0	1.7	37.3	21.7	1.0
TN Exp	TN09-48,263 (RR2Y)	49 ± 1	13.1	1.5	36	144	1.0	1.5	37.0	21.1	1.0
Progeny	5811 RY (RR2Y)	49 ± 1	12.4	1.9	38	142	1.0	2.2	39.4	21.0	1.0
<b>Average</b>		<b>53</b>	<b>13.1</b>	<b>1.7</b>	<b>38</b>	<b>143</b>	<b>1.0</b>	<b>2.1</b>	<b>38.0</b>	<b>21.6</b>	<b>1.1</b>

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

Protein & Oil on dry weight basis.

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

**Table 38. Mean yields † of three Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Avg. Yield ± Std Err. (n=12)				Ames	
			Knoxville	Springfield		Milan		
			Irr.	Non-Irr.	Irr.	Non-Irr.		
-----bu/a-----								
Progeny	5610 RY (RR2Y)	51 ± 1	75	45	41	61	42	41
USG	Allen (RR)	50 ± 1	83	40	42	61	37	38
Terral-REV Brand	56R21 (RR)	49 ± 1	73	41	40	57	39	41
<b>Average (bu/a)</b>		<b>50</b>	<b>77</b>	<b>42</b>	<b>41</b>	<b>60</b>	<b>40</b>	<b>40</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>3</b>	<b>11</b>	<b>10</b>	<b>5</b>	<b>7</b>	<b>8</b>	<b>9.0</b>
<b>C.V. (%)</b>		<b>10.7</b>	<b>9.5</b>	<b>13.7</b>	<b>7.3</b>	<b>8.2</b>	<b>11.8</b>	<b>13.6</b>

† All yields are adjusted to 13% moisture.

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

**Table 39. Mean yields † and agronomic characteristics of three Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=5)	Height (n=11)	Maturity (n=10)	Shattering (n=6)	Leaf	Seed	Protein (n=2)	Oil (n=2)	Frogeye (n=1)
								Retention (n=1)	Quality (n=2)			
		bu/a	%	Score	in.	DAP	Score	Score	%	%	Score	
Progeny	5610 RY (RR2Y)	51 ± 1	11.5	1.7	37	144	1.0	1.2	2.0	37.7	22.0	1.0
USG	Allen (RR)	50 ± 1	13.0	1.7	39	148	1.0	1.7	1.9	39.5	21.4	1.0
Terral-REV Brand	56R21 (RR)	49 ± 1	11.6	2.0	39	145	1.0	1.5	2.0	39.1	21.8	1.0
<b>Average</b>		<b>50</b>	<b>12.0</b>	<b>1.8</b>	<b>38</b>	<b>146</b>	<b>1.0</b>	<b>1.4</b>	<b>2.0</b>	<b>38.8</b>	<b>21.7</b>	<b>1.0</b>

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

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

Protein & Oil on dry weight basis.

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

**Table 40. Mean yields † of one Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2009 - 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err.		Springfield		Milan	
		(n=12)	Knoxville	Non-Irr.	Irr.	Non-Irr.	
-----bu/a-----							
USG	Allen (RR)	58 ± 1	77	47	63	47	
<b>Average (bu/a)</b>		<b>58</b>	<b>77</b>	<b>47</b>	<b>63</b>	<b>47</b>	
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>4</b>	<b>11</b>	<b>7</b>	<b>10</b>	<b>8</b>	
<b>C.V. (%)</b>		<b>10.7</b>	<b>10.6</b>	<b>10.0</b>	<b>10.9</b>	<b>10.5</b>	

**Table 41. Mean yields † and agronomic characteristics of one Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2009 - 2011**

Brand	Variety ‡	Avg. Yield ± Std Err.		Moisture § (n=12)	Lodging (n=9)	Height (n=12)	Maturity (n=12)	Shattering (n=6)	Leaf	Seed	Oil (n=3)	Frogeye (n=1)	SDS		
		Retention (n=1)	Quality (n=3)						Protein (n=3)	DI (n=1)			DS (n=1)	DX (n=1)	
		bu/a	%	Score	in.	DAP	-----	Score -----	%	%	Score	%	0 - 9	index	
USG	Allen (RR)	58 ± 1	13.8	1.9	42	150	1.0	1.7	2.1	39.8	21.4	1.0	80.0	3.0	26.9
<b>Average</b>		<b>58</b>	<b>13.8</b>	<b>1.9</b>	<b>42</b>	<b>150</b>	<b>1.0</b>	<b>1.7</b>	<b>2.1</b>	<b>39.8</b>	<b>21.4</b>	<b>1.0</b>	<b>80.0</b>	<b>3.0</b>	<b>26.9</b>

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

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

Protein & Oil on dry weight basis.

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

DI = disease incidence = percentage of plants with symptoms

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

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 8/26/09.

**Table 42. Mean yields † of 27 Maturity Group IV Conventional, Liberty Link and Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err.		Springfield		Milan	
		(n=5)	Knoxville	Irr.	Non-Irr.	Irr.	Non-Irr.
TN Exp	TN05-5018	53 ± 1	42	61	44	65	52
Stine	47LC32 (LL)	51 ± 1	52	61	39	58	47
VA	Hanover	51 ± 1	41	64	36	66	46
NC Exp	NCC06-339	49 ± 1	41	60	29	62	51
GoSoy	4411 LL	48 ± 1	54	52	32	60	44
MO Exp	S08-17361	48 ± 1	49	51	34	64	41
Beck's	426NL	47 ± 1	47	57	29	61	39
USG	74B58 (RR Check)	46 ± 1	44	58	29	59	40
Halo	4:65 (LL)	46 ± 1	53	49	34	55	40
Stine	45LC82 (LL)	46 ± 1	49	46	30	65	39
Beck's	456NL	45 ± 1	47	54	26	62	38
Progeny	4910	45 ± 1	42	57	34	56	38
USG	74A91 (RR Check)	45 ± 1	42	54	31	56	42
USG	74G99L (LL)	44 ± 1	40	63	33	46	41
TN Exp	TN09-029	44 ± 1	37	54	33	58	40
Stine	43LC23 (LL)	44 ± 1	47	50	27	55	41
AR	UA 4910	44 ± 1	39	45	35	62	38
GoSoy	4810 LL	44 ± 1	42	47	35	54	40
Progeny	4928 LL	44 ± 1	46	51	28	50	44
TN Exp	TN09-016	44 ± 1	34	54	29	59	43
Halo	4:94 (LL)	44 ± 1	45	48	33	49	43
Hornbeck	HBK C 4926	43 ± 1	38	57	31	52	40
Beck's	476NL	43 ± 1	42	48	28	54	42
Halo	4:75 (LL)	42 ± 1	49	44	29	50	36
TN Exp	TN10-4037	41 ± 1	43	49	29	53	33
Delta Grow	4861 LL	41 ± 1	43	46	29	52	36
Beck's	392NL	39 ± 1	40	44	23	52	36
<b>Average (bu/a)</b>		<b>45</b>	<b>44</b>	<b>52</b>	<b>31</b>	<b>57</b>	<b>41</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>3</b>	<b>8</b>	<b>11</b>	<b>8</b>	<b>7</b>	<b>3</b>
<b>C.V. (%)</b>		<b>10.8</b>	<b>10.5</b>	<b>12.8</b>	<b>16.5</b>	<b>7.9</b>	<b>5.2</b>

† All yields are adjusted to 13% moisture.

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

**Table 43. Mean yields † and agronomic characteristics of 27 Maturity Group IV Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2011.**

Brand	Variety ‡	Avg. Yield					Seed				
		± Std Err. (n=5)	Moisture § (n=5)	Lodging (n=2)	Height (n=5)	Maturity (n=5)	Shattering (n=2)	Quality (n=1)	Protein (n=1)	Oil (n=1)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	Score	
TN Exp	TN05-5018	53 ± 1	15.0	1.1	36	138	1.0	1.8	40.1	20.9	1.2
Stine	47LC32 (LL)	51 ± 1	14.7	2.8	46	135	1.0	3.0	40.9	21.3	1.2
VA	Hanover	51 ± 1	17.0	1.2	37	137	1.0	1.5	41.4	20.6	1.0
NC Exp	NCC06-339	49 ± 1	14.4	1.0	35	136	1.0	1.5	40.1	20.7	1.7
GoSoy	4411 LL	48 ± 1	13.3	2.3	41	130	1.0	2.5	39.2	23.1	1.0
MO Exp	S08-17361	48 ± 1	18.7	2.3	42	139	1.0	1.5	37.4	22.6	2.3
Beck's	426NL	47 ± 1	12.7	2.0	39	127	1.1	2.5	40.4	22.6	2.2
USG	74B58 (RR Check)	46 ± 1	12.6	1.6	35	128	1.1	2.2	39.9	22.3	1.0
Halo	4:65 (LL)	46 ± 1	13.1	2.5	40	128	1.2	2.2	39.1	23.2	1.2
Stine	45LC82 (LL)	46 ± 1	13.5	1.9	41	129	1.0	2.5	38.7	22.9	1.2
Beck's	456NL	45 ± 1	14.2	2.4	41	129	1.0	2.5	39.7	22.5	1.0
Progeny	4910	45 ± 1	16.6	2.8	44	136	1.0	2.3	39.1	22.1	3.7
USG	74A91 (RR Check)	45 ± 1	13.3	2.1	39	134	1.0	2.5	40.4	21.5	3.0
USG	74G99L (LL)	44 ± 1	15.8	1.8	41	137	1.0	2.0	37.9	22.7	1.2
TN Exp	TN09-029	44 ± 1	12.9	1.2	36	134	1.0	1.5	38.8	20.3	1.0
Stine	43LC23 (LL)	44 ± 1	12.9	2.3	41	131	1.3	3.3	39.6	23.0	1.2
AR	UA 4910	44 ± 1	13.9	1.5	38	134	1.0	2.0	39.2	21.6	2.5
GoSoy	4810 LL	44 ± 1	12.1	2.7	40	131	1.0	2.0	38.8	22.4	1.2
Progeny	4928 LL	44 ± 1	13.5	1.6	39	135	1.0	1.8	38.4	22.2	1.2
TN Exp	TN09-016	44 ± 1	14.8	1.3	36	134	1.0	1.3	40.2	20.6	1.0
Halo	4:94 (LL)	44 ± 1	13.6	1.8	40	135	1.0	1.8	38.2	22.3	1.0
Hornbeck	HBK C 4926	43 ± 1	13.1	3.3	41	133	1.0	1.5	39.1	22.7	1.0
Beck's	476NL	43 ± 1	13.5	3.1	42	132	1.2	2.2	40.4	21.9	1.0
Halo	4:75 (LL)	42 ± 1	12.7	1.4	43	129	1.1	1.8	39.3	23.7	1.0
TN Exp	TN10-4037	41 ± 1	11.3	2.8	37	122	1.8	1.8	40.2	21.9	2.8
Delta Grow	4861 LL	41 ± 1	12.9	2.3	43	130	1.0	2.2	40.3	23.5	1.0
Beck's	392NL	39 ± 1	12.0	2.3	34	124	1.5	1.8	41.4	21.4	1.3
<b>Average</b>		<b>45</b>	<b>13.9</b>	<b>2.0</b>	<b>40</b>	<b>132</b>	<b>1.1</b>	<b>2.1</b>	<b>39.6</b>	<b>22.1</b>	<b>1.5</b>

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

Protein & Oil on dry weight basis.

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

**Table 44. Mean yields † of 10 Maturity Group IV Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err. (n=10)	Knoxville	Springfield		Milan	
				Irr.	Non-Irr.	Irr.	Non-Irr.
-----bu/a-----							
VA	Hanover	43 ± 1	41	47	27	59	41
Halo	4:65 (LL)	43 ± 1	46	42	30	52	44
USG	74A91 (RR Check)	42 ± 1	44	43	26	57	40
Progeny	4910	42 ± 1	45	47	27	53	37
AR	UA 4910	42 ± 1	41	41	29	59	38
USG	74G99L (LL)	41 ± 1	43	50	27	46	39
Halo	4:94 (LL)	40 ± 1	45	40	28	45	41
Progeny	4928 LL	39 ± 1	44	44	25	43	41
Hornbeck	HBK C 4926	38 ± 1	40	44	27	44	36
Delta Grow	4861 LL	38 ± 1	42	39	24	49	37
<b>Average (bu/a)</b>		<b>41</b>	<b>43</b>	<b>44</b>	<b>27</b>	<b>51</b>	<b>39</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>3</b>	<b>6</b>	<b>8</b>	<b>8</b>	<b>10</b>	<b>4</b>
<b>C.V. (%)</b>		<b>12.0</b>	<b>9.4</b>	<b>12.7</b>	<b>18.3</b>	<b>13.1</b>	<b>5.9</b>

† All yields are adjusted to 13% moisture.

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

**Table 45. Mean yields † and agronomic characteristics of 10 Maturity Group IV Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield		Moisture § (n=10)	Lodging (n=5)	Height (n=10)	Maturity (n=10)	Shattering (n=5)	Leaf	Seed	Protein (n=2)	Oil (n=2)	Frogeye (n=1)
		± Std Err. (n=10)	Score						Retention (n=2)	Quality (n=2)			
VA	Hanover	43 ± 1	14.8	1.7	36	135	1.0	1.4	1.9	41.7	21.0	1.0	
Halo	4:65 (LL)	43 ± 1	12.4	2.1	40	127	1.2	1.2	2.7	39.7	23.3	1.2	
USG	74A91 (RR Check)	42 ± 1	12.4	1.8	39	133	1.0	1.8	3.1	40.5	22.2	3.0	
Progeny	4910	42 ± 1	14.8	2.5	44	134	1.0	1.7	2.9	39.6	22.4	3.7	
AR	UA 4910	42 ± 1	12.5	1.4	38	132	1.0	1.4	2.3	39.4	22.3	2.5	
USG	74G99L (LL)	41 ± 1	13.7	1.7	40	134	1.0	1.2	2.4	39.1	22.3	1.2	
Halo	4:94 (LL)	40 ± 1	12.6	1.7	39	133	1.1	1.3	2.1	39.1	22.2	1.0	
Progeny	4928 LL	39 ± 1	12.7	1.5	38	133	1.0	1.3	2.2	39.0	22.3	1.2	
Hornbeck	HBK C 4926	38 ± 1	12.2	2.8	41	131	1.0	1.3	1.8	39.5	23.0	1.0	
Delta Grow	4861 LL	38 ± 1	12.2	1.8	43	129	1.1	1.4	3.0	41.1	23.6	1.0	
<b>Average</b>		<b>41</b>	<b>13.0</b>	<b>1.9</b>	<b>40</b>	<b>132</b>	<b>1.0</b>	<b>1.4</b>	<b>2.4</b>	<b>39.9</b>	<b>22.4</b>	<b>1.7</b>	

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

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

Protein & Oil on dry weight basis.

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

**Table 46. Mean yields † of two Maturity Group IV Conventional and one Liberty Link varieties evaluated in four environments (n=12) in Tennessee for three years, 2009 - 2011.**

Brand	Variety	Avg. Yield ± Std Err. (n=12)	Springfield		Milan	
			Knoxville	Non-Irr.	Irr.	Non-Irr.
AR	UA 4910	49 ± 1	48	36	62	48
Progeny	4910	47 ± 1	51	36	55	46
USG	74G99L (LL)	44 ± 1	41	38	54	45
<b>Average (bu/a)</b>		<b>47</b>	<b>47</b>	<b>37</b>	<b>57</b>	<b>46</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>4</b>	<b>9</b>	<b>8</b>	<b>10</b>	<b>7</b>
<b>C.V. (%)</b>		<b>11.4</b>	<b>12.1</b>	<b>13.4</b>	<b>11.5</b>	<b>8.5</b>

**Table 47. Mean yields † and agronomic characteristics of two Maturity Group IV Conventional and one Liberty Link soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2009 - 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=9)	Height (n=12)	Maturity (n=12)	Shattering (n=6)	Leaf	Seed	SDS					
								Retention (n=2)	Quality (n=3)	Protein (n=3)	Oil (n=3)	Frogeye (n=1)	DI (n=1)	DS (n=1)	DX (n=1)
AR	UA 4910	49 ± 1	13.3	1.4	39	133	1.0	1.4	2.8	39.3	22.4	2.5	70.0	1.7	12.2
Progeny	4910	47 ± 1	15.1	2.6	45	135	1.0	1.7	3.2	39.7	22.6	3.7	66.7	2.3	18.3
USG	74G99L (LL)	44 ± 1	14.6	1.6	42	135	1.0	1.2	2.7	39.5	22.4	1.2	98.3	5.0	55.0
<b>Average</b>		<b>47</b>	<b>14.3</b>	<b>1.9</b>	<b>42</b>	<b>135</b>	<b>1.0</b>	<b>1.4</b>	<b>2.9</b>	<b>39.5</b>	<b>22.4</b>	<b>2.4</b>	<b>78.3</b>	<b>3.0</b>	<b>28.5</b>

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

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

Protein & Oil on dry weight basis.

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

DI = disease incidence = percentage of plants with symptoms

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

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 8/26/09.

**Table 48. Yields † of seven Late Maturity Group IV (4.6 - 4.9) Liberty-Link (LL) soybean varieties in six County Standard Tests in Tennessee during 2011.**

MS	Brand/Variety	Avg. Yield bu/a	Moist‡ %	Dyer 6/6 §	Lake 6/7	REC at Milan	REC at Milan	REC at Milan	Obion 6/15
						irrig./fung. 5/10	irrig./no fung. 5/10	Obion 6/2	
A	*USG 74G99LL	48.9	11.6	58.0	51.4	55.7	50.6	40.0	38.0
AB	Warren Seed Micah 4900LL	48.7	12.4	57.9	54.5	48.8	42.4	45.4	43.1
ABC	Hornbeck HALO 4:94	47.2	11.8	56.1	52.5	45.6	45.6	40.8	42.4
ABC	Schillinger Go-Soy 4910L	46.7	12.1	55.2	53.6	42.0	41.0	45.4	43.1
ABC	*Progeny 4928LL	45.6	12.1	50.6	50.6	51.5	46.7	38.5	35.5
BC	Progeny 4960LL	44.4	11.1	50.7	49.9	51.6	45.4	36.1	32.7
C	Warren Seed Micah 4600LL	43.3	11.4	51.9	53.0	38.5	37.9	36.9	41.9
<b>Average (bu/a)</b>		<b>46.4</b>	<b>11.8</b>	<b>54.4</b>	<b>52.2</b>	<b>47.7</b>	<b>44.2</b>	<b>40.4</b>	<b>39.5</b>

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

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

Varieties denoted with an asterisks (\*) were in the top performing group in 2010.

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

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

**Table 49. Yields † and disease ratings § of seven Late Maturity Group IV (4.6 - 4.9) Liberty Link (LL) soybean varieties evaluated in six Tennessee County Standard Tests during 2011.**

MS	Brand/Variety	CST Avg. Yield (n=6) bu/a	Moisture ‡ %	----- Research and Education Center at Milan -----								
				SDS 2010	Cercospora Frogeye 2010 / 11		Anthracnose 2011		Sprayed ¶ Yield bu/a		Unsprayed Yield bu/a	
A	*USG 74G99LL	48.9	11.6	0.8	1.8 / 0.0	1.8 / 0.0	3.5	55.7	50.6	S	HS	S
AB	Warren Seed Micah 4900LL	48.7	12.4	---	/ 0.5	/ 0.0	2.4	48.8	42.4	S	S	S
ABC	Hornbeck HALO 4:94	47.2	11.8	---	/ 0.0	/ 0.1	3.8	45.6	45.6	S	S	S
ABC	Schillinger Go-Soy 4910L	46.7	12.1	---	/ 0.0	/ 0.3	3.3	42.0	41.0	S	S	S
ABC	*Progeny 4928LL	45.6	12.1	0.3	1.8 / 0.0	0.8 / 0.1	3.1	51.5	46.7	S	S	S
BC	Progeny 4960LL	44.4	11.1	---	/ 0.0	/ 0.0	3.0	51.6	45.4	S	HS	S
C	Warren Seed Micah 4600LL	43.3	11.4	---	/ 0.0	/ 0.1	3.5	38.5	37.9	S	R	S
<b>Average (bu/a)</b>		<b>46.4</b>	<b>11.8</b>					<b>47.7</b>	<b>44.2</b>			

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Disease ratings for SDS, Frogeye Leaf Spot, Cercospora Blight, and Anthracnose are from 0-10, where 0=no disease & 10=maximum level of disease or plant death. SDS = Sudden Death Syndrome.

¶ Sprayed plots at Milan treated with Headline @ 6 oz./Acre + 0.25% Penetrator Plus at 20 gpa at R3 growth stage.

Disease ratings compiled by Dr. Melvin Newman from replicated plots at the Research and Education Center at Milan.

SCN ratings; HS = highly susceptible, S = susceptible, MS = moderately susceptible, MR = moderately resistant R = resistant.

Race 2 (HG Type 1.2.5.7); Race 3 (HG Type 5.7); Race 5 (HG Type 2.5.7)

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, West TN REC.

MS= Varieties with one or more letters in common are not statistically different at the .05 level of probability.

Varieties denoted with an asterisk (\*) were in the top performing group in 2010.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops.

**Table 50. Overall average yields † and moistures of two Maturity Group IV Liberty Link soybean varieties evaluated in County Standard Tests (n=6) and Research and Education Centers (n=5) in Tennessee in 2011.**

Brand	Variety ‡	Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
		Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %
USG	74G99L (LL)	46	13.7	49	11.6	44	15.8
Progeny	4928 LL	45	12.8	46	12.1	44	13.5
<b>Average (bu/a)</b>		<b>46</b>	<b>13.2</b>	<b>47</b>	<b>11.8</b>	<b>44</b>	<b>14.6</b>

† Yields have been adjusted to 13% moisture.

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

**Table 51. Mean yields † of 28 Maturity Group V Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2011.**

Brand	Variety ‡	Avg. Yield ± Std Err.		Springfield		Milan	
		(n=5)	Knoxville	Irr.	Non-Irr.	Irr.	Non-Irr.
		-----bu/a-----					
NC Exp	NCC06-579	55 ± 1	54	60	38	70	50
USG	Allen (RR Check)	54 ± 1	52	59	36	69	52
USG	5601T	54 ± 1	52	62	37	66	52
NC Exp	NCC04-1555	53 ± 1	44	63	39	61	58
NC Exp	NCC06-2188	52 ± 1	46	61	39	66	48
GoSoy	5111 LL	52 ± 1	45	54	39	68	54
AR	Osage	50 ± 1	48	57	31	65	51
AR	R04-357	50 ± 1	50	53	36	61	48
Progeny	5261 LL	49 ± 1	43	62	31	62	48
Progeny	5191	49 ± 1	43	58	25	69	50
Halo	5:65 (LL)	49 ± 1	45	55	39	58	48
Progeny	5960 LL	48 ± 1	46	51	33	66	46
AR	Ozark	48 ± 1	46	60	27	59	49
Hornbeck	HBK C 5528	48 ± 1	52	49	39	61	39
Progeny	5770	48 ± 1	48	51	30	64	47
NC Exp	NCC05-1261	48 ± 1	43	57	28	65	46
Progeny	5160 LL	48 ± 1	40	57	31	60	50
NC Exp	NCC05-1168	48 ± 1	42	59	26	65	45
TN Exp	TN09-008	47 ± 1	43	50	27	65	52
USDA - NC Exp	N02-417	47 ± 1	40	57	33	57	49
Halo	5:25 (LL)	47 ± 1	43	50	34	58	49
VA	Glenn	47 ± 1	42	51	26	64	52
USDA-TN	JTN-5203	45 ± 1	40	49	23	66	46
USDA-TN	JTN-4408	45 ± 1	43	48	28	60	46
USDA-TN	JTN-5110	44 ± 1	42	49	26	58	46
Delta Grow	5461 LL	44 ± 1	46	54	22	52	48
Progeny	5460 LL	43 ± 1	46	52	22	52	42
USG	75J32 (RR Check)	43 ± 1	38	44	25	60	46
<b>Average (bu/a)</b>		<b>48</b>	<b>45</b>	<b>55</b>	<b>31</b>	<b>62</b>	<b>48</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>3</b>	<b>5</b>	<b>8</b>	<b>6</b>	<b>8</b>	<b>5</b>
<b>C.V. (%)</b>		<b>8.3</b>	<b>6.5</b>	<b>8.9</b>	<b>12.6</b>	<b>7.6</b>	<b>6.8</b>

† All yields are adjusted to 13% moisture.

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

**Table 52. Mean yields † and agronomic characteristics of 28 Maturity Group V Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2011.**

Brand	Variety ‡	Avg. Yield					Seed				
		± Std Err. (n=5)	Moisture § (n=5)	Lodging (n=2)	Height (n=5)	Maturity (n=5)	Shattering (n=2)	Quality (n=1)	Protein (n=1)	Oil (n=1)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	----- Score -----	%	%	Score	
NC Exp	NCC06-579	55 ± 1	13.6	1.6	41	148	1.0	2.3	40.7	20.9	2.2
USG	Allen (RR Check)	54 ± 1	13.1	1.3	42	149	1.0	2.3	39.6	21.5	1.5
USG	5601T	54 ± 1	12.4	1.3	40	144	1.0	2.7	41.6	20.8	1.3
NC Exp	NCC04-1555	53 ± 1	12.9	1.3	35	147	1.0	2.5	37.2	23.0	1.3
NC Exp	NCC06-2188	52 ± 1	12.4	1.3	39	144	1.0	2.3	41.5	20.6	2.8
GoSoy	5111 LL	52 ± 1	12.4	1.4	35	142	1.0	2.3	40.2	22.5	1.0
AR	Osage	50 ± 1	12.4	1.0	32	143	1.2	2.2	42.8	20.6	1.2
AR	R04-357	50 ± 1	12.9	2.0	39	145	1.2	2.3	40.5	20.8	1.0
Progeny	5261 LL	49 ± 1	12.9	1.5	36	142	1.0	1.7	41.1	21.7	1.2
Progeny	5191	49 ± 1	12.6	1.8	35	142	1.0	3.3	41.0	21.0	1.0
Halo	5:65 (LL)	49 ± 1	12.5	1.2	37	146	1.0	1.8	40.4	20.9	1.0
Progeny	5960 LL	48 ± 1	13.3	1.2	35	146	1.0	2.2	40.2	21.2	1.0
AR	Ozark	48 ± 1	13.0	1.9	37	141	1.2	2.5	39.5	21.5	1.0
Hornbeck	HBK C 5528	48 ± 1	15.0	1.8	41	149	1.0	2.2	41.3	20.9	1.0
Progeny	5770	48 ± 1	13.4	1.9	37	148	1.0	2.2	39.9	21.9	1.0
NC Exp	NCC05-1261	48 ± 1	12.9	1.8	35	140	1.0	2.5	41.0	20.2	1.0
Progeny	5160 LL	48 ± 1	12.3	1.3	32	143	1.0	2.0	40.0	22.3	1.2
NC Exp	NCC05-1168	48 ± 1	12.6	1.8	35	140	1.0	3.0	40.6	20.6	1.0
TN Exp	TN09-008	47 ± 1	12.8	1.3	35	144	1.2	2.7	38.7	21.1	1.0
USDA - NC Exp	N02-417	47 ± 1	13.2	1.3	34	145	1.2	2.3	38.3	22.4	1.0
Halo	5:25 (LL)	47 ± 1	12.5	1.5	33	143	1.0	2.7	40.7	21.9	1.0
VA	Glenn	47 ± 1	12.7	1.9	31	141	1.2	3.0	41.2	21.0	1.3
USDA-TN	JTN-5203	45 ± 1	13.0	1.4	35	143	1.3	2.2	41.0	20.6	1.0
USDA-TN	JTN-4408	45 ± 1	12.4	1.8	37	141	1.0	2.8	40.5	21.4	1.2
USDA-TN	JTN-5110	44 ± 1	12.7	1.4	36	143	1.2	1.8	40.2	21.3	1.2
Delta Grow	5461 LL	44 ± 1	12.4	1.3	38	141	1.2	3.2	38.7	22.4	1.2
Progeny	5460 LL	43 ± 1	12.6	1.3	38	141	1.2	2.5	38.4	22.6	1.5
USG	75J32 (RR Check)	43 ± 1	12.1	1.1	36	144	1.0	2.7	40.4	21.1	2.3
<b>Average</b>		<b>48</b>	<b>12.8</b>	<b>1.5</b>	<b>36</b>	<b>144</b>	<b>1.1</b>	<b>2.4</b>	<b>40.3</b>	<b>21.4</b>	<b>1.3</b>

† All yields are adjusted to 13% moisture.

Protein & Oil on dry weight basis.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

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

**Table 53. Mean yields † of 19 Maturity Group V Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield	Springfield		Milan		
		± Std Err. (n=10)	Knoxville	Irr.	Non-Irr.	Irr.	Non-Irr.
				-----bu/a-----			
USG	5601T	49 ± 1	51	52	31	66	45
USG	Allen (RR Check)	49 ± 1	54	48	30	70	43
AR	R04-357	48 ± 1	55	48	32	66	41
NC Exp	NCC06-2188	48 ± 1	47	51	31	68	43
AR	Osage	48 ± 1	52	48	27	64	47
NC Exp	NCC04-1555	48 ± 1	48	48	32	65	45
AR	Ozark	47 ± 1	50	48	26	64	45
Halo	5:65 (LL)	46 ± 1	47	47	32	61	43
Progeny	5770	45 ± 1	49	45	26	63	41
NC Exp	NCC05-1261	45 ± 1	45	48	26	61	44
VA	Glenn	45 ± 1	44	44	26	64	45
Progeny	5960 LL	44 ± 1	45	45	28	65	38
USDA - NC Exp	N02-417	44 ± 1	41	47	27	61	42
NC Exp	NCC05-1168	44 ± 1	47	47	23	59	43
TN Exp	TN09-008	43 ± 1	44	45	26	58	43
Halo	5:25 (LL)	43 ± 1	44	43	26	58	42
Progeny	5160 LL	43 ± 1	40	45	26	58	45
USG	75J32 (RR Check)	41 ± 1	41	39	24	59	41
Progeny	5460 LL	39 ± 1	41	46	21	50	38
<b>Average (bu/a)</b>		<b>45</b>	<b>47</b>	<b>47</b>	<b>27</b>	<b>62</b>	<b>43</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>3</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>8</b>	<b>4</b>
<b>C.V. (%)</b>		<b>9.2</b>	<b>7.2</b>	<b>8.9</b>	<b>14.2</b>	<b>9.4</b>	<b>7.2</b>

† All yields are adjusted to 13% moisture.

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

**Table 54. Mean yields † and agronomic characteristics of 19 Maturity Group V Conventional, Liberty Link, and Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2010 - 2011.**

Brand	Variety ‡	Avg. Yield		Lodging §	Height	Maturity	Shattering	Leaf Retention	Seed Quality	Protein	Oil	Frogeye
		± Std Err. (n=10)	Moisture § (n=10)									
		bu/a	%	Score	in.	DAP	-----	Score -----	%	%	Score	
USG	5601T	49 ± 1	11.6	1.5	39	141	1.0	2.5	2.3	41.5	21.3	1.3
USG	Allen (RR Check)	49 ± 1	13.0	1.5	40	145	1.0	1.2	2.4	40.1	21.5	1.5
AR	R04-357	48 ± 1	11.8	2.2	38	142	1.0	2.0	2.2	40.7	21.0	1.0
NC Exp	NCC06-2188	48 ± 1	11.8	1.5	39	141	1.0	2.3	2.4	41.3	21.1	2.8
AR	Osage	48 ± 1	11.2	1.1	32	140	1.0	2.0	2.3	42.6	21.0	1.2
NC Exp	NCC04-1555	48 ± 1	12.2	1.4	34	145	1.0	1.0	2.3	37.9	23.1	1.3
AR	Ozark	47 ± 1	12.0	1.7	35	139	1.0	1.5	1.9	39.3	21.9	1.0
Halo	5:65 (LL)	46 ± 1	11.4	1.2	36	142	1.0	1.5	1.8	40.3	21.4	1.0
Progeny	5770	45 ± 1	12.5	2.1	37	144	1.0	2.5	2.1	39.8	22.5	1.0
NC Exp	NCC05-1261	45 ± 1	12.0	1.6	34	136	1.0	1.0	2.3	41.0	20.9	1.0
VA	Glenn	45 ± 1	11.9	2.0	30	138	1.0	1.3	2.3	40.9	21.5	1.3
Progeny	5960 LL	44 ± 1	11.8	1.2	36	141	1.0	1.2	1.8	39.7	21.6	1.0
USDA - NC Exp	N02-417	44 ± 1	12.5	1.4	33	142	1.0	1.3	1.9	38.1	22.9	1.0
NC Exp	NCC05-1168	44 ± 1	11.4	1.8	34	136	1.0	1.7	2.5	40.5	21.3	1.0
TN Exp	TN09-008	43 ± 1	11.9	1.5	34	141	1.0	1.7	2.2	38.6	21.8	1.0
Halo	5:25 (LL)	43 ± 1	11.2	1.5	31	139	1.0	2.0	2.2	40.8	22.0	1.0
Progeny	5160 LL	43 ± 1	11.1	1.5	30	139	1.0	1.3	2.2	40.3	22.4	1.2
USG	75J32 (RR Check)	41 ± 1	11.0	1.2	36	141	1.0	2.3	2.8	40.8	21.3	2.3
Progeny	5460 LL	39 ± 1	11.6	1.4	38	137	1.0	1.3	2.5	38.6	22.8	1.5
<b>Average</b>		<b>45</b>	<b>11.8</b>	<b>1.5</b>	<b>35</b>	<b>141</b>	<b>1.0</b>	<b>1.7</b>	<b>2.2</b>	<b>40.1</b>	<b>21.7</b>	<b>1.3</b>

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

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

Protein & Oil on dry weight basis.

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



**Table 56. Mean yields † and agronomic characteristics of nine Maturity Group V Conventional soybean varieties and one Roundup ready check evaluated in four environments (n=12) in Tennessee for three years, 2009 - 2011.**

Brand	Variety ‡	Avg. Yield					Maturity	Shattering	Leaf Retention	Seed Quality	Protein	Oil	Frogeye	SDS		
		± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=10)	Height (n=12)	Height (n=12)								DI (n=1)	DS (n=1)	DX (n=1)
		bu/a	%	Score	in.	DAP	-----	Score -----		%	%	Score	%	0 - 9	index	
NC Exp	NCC04-1555	54 ± 1	13.4	1.7	34	146	1.0	1.0	2.3	38.2	22.7	1.3	75.0	2.0	16.7	
USG	Allen (RR Check)	54 ± 1	14.1	1.7	40	147	1.0	1.2	2.4	40.1	21.5	1.5	93.3	3.7	39.3	
AR	Osage	53 ± 1	12.5	1.4	33	141	1.0	2.0	2.3	42.7	20.8	1.2	83.3	2.7	25.9	
AR	Ozark	53 ± 1	13.5	1.9	36	141	1.0	1.5	1.9	39.4	21.7	1.0	83.3	2.0	18.5	
AR	R04-357	53 ± 1	13.1	2.6	38	143	1.0	2.0	2.2	40.6	21.0	1.0	86.7	3.7	36.3	
USG	5601T	53 ± 1	12.8	1.8	38	142	1.0	2.5	2.5	41.5	21.4	1.3	100.0	3.3	37.0	
VA	Glenn	52 ± 1	13.1	2.2	31	139	1.0	1.3	2.6	41.0	21.5	1.3	93.3	2.3	24.4	
USDA - NC Exp	N02-417	49 ± 1	13.6	1.6	33	143	1.0	1.3	2.0	38.0	23.0	1.0	98.3	3.0	32.9	
NC Exp	NCC05-1261	48 ± 1	13.3	1.9	34	136	1.0	1.0	2.7	40.8	20.8	1.0	45.0	2.3	13.0	
NC Exp	NCC05-1168	48 ± 1	12.7	2.1	34	136	1.0	1.7	2.9	40.4	21.3	1.0	50.0	2.3	14.4	
<b>Average</b>		<b>52</b>	<b>13.2</b>	<b>1.9</b>	<b>35</b>	<b>141</b>	<b>1.0</b>	<b>1.6</b>	<b>2.4</b>	<b>40.3</b>	<b>21.6</b>	<b>1.2</b>	<b>80.8</b>	<b>2.7</b>	<b>25.8</b>	

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

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

Protein & Oil on dry weight basis.

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

DI = disease incidence = percentage of plants with symptoms

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

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 8/26/09.

Table 57. Characteristics of soybean varieties evaluated in Tennessee during 2011, as provided by the seed company.

Brand	Variety ‡	2011 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
AR	UA 4910	Cv/LL4	4.9	---	---	---	R	R	W	T	Apron Maxx
AR	Osage	Cv/LL5	5.6	---	---	R	R	R	P	G	Apron Maxx
AR	Ozark	Cv/LL5	5.2	---	3	R	R	R	P	G	Apron Maxx
AR	R04-357	Cv/LL5	5.6	---	---	R	---	---	P	G	Apron Maxx
Armor	44-R08 (RR2Y)	RR4E	4.4	RR2Y	---	---	M	M	P	G	ApronMaxx/Cruiser
Armor	46-R42 (RR2Y)	RR4E	4.4	RR2Y	---	R	MR	MR	P	G	ApronMaxx/Cruiser
Armor	46-R64 (RR2Y)	RR4E	4.4	RR2Y	---	R	M	MR	P	LT	ApronMaxx/Cruiser
Armor	48-R40 (RR2Y/STS)	RR4L	4.8	RR2Y/STS	---	MS	MR	MS	P	LT	ApronMaxx/Cruiser
Armor	48-R91 (RR2Y/STS)	RR4L	4.7	RR2Y/STS	---	R	M	MR	P	LT	ApronMaxx/Cruiser
Armor	X1209 (RR2Y/STS)	RR4L	4.7	RR2Y/STS	---	MR	M	M	P	LT	ApronMaxx/Cruiser
Armor	X1210 (RR)	RR4L	4.8	RR	---	R	MR	MR	W	T	ApronMaxx/Cruiser
Armor	X1211 (RR2Y)	RR4L	4.9	RR2Y	---	R	M	MS	P	LT	ApronMaxx/Cruiser
Armor	X1247 (RR2Y/STS)	RR4L	4.7	RR2Y/STS	---	MS	MR	MS	P	LT	ApronMaxx/Cruiser
Armor	53-R15 (RR2Y)	RR5E	5.3	RR2Y	---	R	M	MR	P	G	ApronMaxx/Cruiser
Armor	X1213 (RR2Y)	RR5E	5.4	RR2Y	---	R	---	R	P	G	ApronMaxx/Cruiser
Armor	X1215 (RR2Y)	RR5E	5.5	RR2Y	---	R	---	R	P	G	ApronMaxx/Cruiser
Armor	X1216 (RR2Y)	RR5E	5.5	RR2Y	---	R	---	M	P	G	ApronMaxx/Cruiser
Armor	X1217 (RR2Y/STS)	RR5E	5.4	RR2Y/STS	---	R	MR	M	P	G	ApronMaxx/Cruiser
Armor	55-R22 (RR2Y)	RR5E	5.5	RR2Y	---	R	MR	MR	P	G	ApronMaxx/Cruiser
Armor	X1253 (RR2Y)	RR5E	5.3	RR2Y	---	R	MS	MR	P	G	ApronMaxx/Cruiser
Armor	X1255 (RR2Y)	RR5E	5.5	RR2Y	---	R	MR	MR	P	G	ApronMaxx/Cruiser
Asgrow	AG4232 GENRR2Y (STS)	RR4E	4.2	RR2Y/STS	R3	MR	MS	MS	P	LT	Acceleron
Asgrow	AG4531 GENRR2Y (STS)	RR4E	4.5	RR2Y/STS	S	S	MR	MS	P	LT	Acceleron
Asgrow	AG4632 GENRR2Y	RR4L	4.6	RR2Y	MR3	MR	MS	MR	P	LT	Acceleron
Asgrow	AG4730 GENRR2Y (STS)	RR4L	4.7	RR2Y/STS	S	S	MS	MS	P	LT	Acceleron
Asgrow	AG4732 GENRR2Y	RR4L	4.7	RR2Y	R3	MR	MS	MR	P	LT	Acceleron
Asgrow	AG4832 GENRR2Y	RR4L	4.8	RR2Y	R3	MS	MS	MS	P	LT	Acceleron
Asgrow	AG4932 GENRR2Y	RR4L	4.9	RR2Y	R3	MR	MR	MR	P	T	Acceleron
Asgrow	AG5232 GENRR2Y	RR5E	5.2	RR2Y	R3	MS	MS	MS	P	G	Acceleron
Asgrow	AG5332 GENRR2Y	RR5E	5.3	RR2Y	R3	MR	MS	MR	P	T	Acceleron
Asgrow	AG5532 GENRR2Y	RR5E	5.5	RR2Y	S	MS	---	MS	W	G	Acceleron
Asgrow	AG5632 GENRR2Y (STS)	RR5L	5.6	RR2Y/STS	R3	MR	---	MR	W	G	Acceleron
Asgrow	AG5831 GENRR2Y	RR5L	5.7	RR2Y	S	MS	MR	MS	P	T	Acceleron
Beck's	392NL	Cv/LL4	3.9	LL	R3, MR14	MR	MR	MR	W	LT	Escalate
Beck's	426NL	Cv/LL4	4.2	LL	R3, MR14	MR	MR	MR	W	LT	Escalate
Beck's	456NL	Cv/LL4	4.5	LL	R3, MR14	MR	MR	MR	P	LT	Escalate
Beck's	476NL	Cv/LL4	4.7	LL	R3, MR14	MR	MR	MR	P	G	Escalate
Beck's XL Brand	432NR (RR/STS)	RR4E	4.3	RR/STS	R3, MR14	MR	MR	MR	P	LT	Escalate
Beck's XL Brand	477NR (RR)	RR4L	4.7	RR	R3, MR14	MR	MR	MR	P	T	Escalate
Beck's XL Brand	495NR	RR4L	4.9	RR	R3, MR14	MR	MR	MR	W	T	Escalate
Caverndale Farms	CF 436 RR2Yn	RR4E	4.3	RR2Y	R3, R14	R	MR	MR	P	G	Ranconna, Metastar, Optomiz
Caverndale Farms	CF 476 RR2Yn	RR4L	4.7	RR2Y	R3, R14	R	MR	MR	P	G	Ranconna, Metastar, Optomiz
Croplan	R2C 4391 (RR2Y)	RR4E	4.3	RR2Y	---	---	---	---	P	G	Acceleron

Table 57 (continued)

Brand	Variety ‡	2011 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
Croplan	R2C 4520 (RR2Y)	RR4E	4.5	RR2Y	R 3,14	R	R	R	P	G	Acceleron
Croplan	R2C 4541 (RR2Y)	RR4E	4.5	RR2Y	---	---	---	R	P	LT	Acceleron
Croplan	R2C 4801 (RR2Y)	RR4L	4.8	RR2Y	---	R	S	R	P	LT	Acceleron
Croplan	RC 4877 RR	RR4L	4.8	RR	R3	R	R	R	P	T	Acceleron
Croplan	RC 5007S (RR/STS)	RR5E	5.0	RR/STS	R 3	R	R	R	W	G	Acceleron
Croplan	R2C 5820 (RR2Y)	RR5L	5.8	RR2Y	R 3, 14	R	---	---	P	G	Cruiser Maxx
Dairyland	DSR-3805/R2Y	RR3	3.8	RR2Y	MR3	---	---	---	W	T	Cruiser Maxx
Dairyland	DSR-4242/R2Y	RR4E	4.2	RR2Y	MR3	---	---	---	W	T	Cruiser Maxx
Dairyland	DSR-4300 RR	RR4E	4.3	RR	MR 3	---	---	---	P	T	Cruiser Maxx
Dairyland	DSR-4500 RR/STS	RR4E	4.5	RR/STS	MR 3	---	---	---	P	T	Cruiser Maxx
Dairyland	DST43-001/R2Y	RR4E	4.3	RR2Y	R3	---	---	---	W	T	Cruiser Maxx
Dairyland	DST45-001/R2Y	RR4E	4.5	RR2Y	R3	---	---	---	P	T	Cruiser Maxx
Dairyland	DST45-002/R2Y	RR4E	4.5	RR2Y	R3	---	---	---	W	T	Cruiser Maxx
Dairyland	DSR-4810 RR	RR4L	4.8	RR	R3	---	---	---	P	T	Cruiser Maxx
Dairyland	DSR-8482 RR	RR4L	4.8	RR	---	---	---	---	W	T	Cruiser Maxx
Dairyland	DST47-002/R2Y	RR4L	4.7	RR2Y	R3	---	---	---	P	T	Cruiser Maxx
Delta Grow	4861 LL	Cv/LL4	4.8	LL	3,9,14,r.knot	R	M	R	P	T	Cruiser Maxx
Delta Grow	5461 LL	Cv/LL5	5.4	LL	3,9,rt knot	R	R	R	P	T	Cruiser Maxx
Delta Grow	4460 RR	RR4E	4.4	RR	3,14	---	---	---	W	T	Cruiser Maxx
Delta Grow	4670 R2Y	RR4L	4.6	RR2Y	3,14	R	M	R	P	T	Cruiser Maxx
Delta Grow	4770 RR	RR4L	4.7	RR	3, 6, 14	R	R	R	P	T	Cruiser Maxx
Delta Grow	4875 R2Y	RR4L	4.8	RR2Y	3,14	R	M	R	P	T	Cruiser Maxx
Delta Grow	4880 RR	RR4L	4.8	RR	3, 9	R	R	MR	P	T	Cruiser Maxx
Delta Grow	4970 RR	RR4L	4.9	RR	3, 14	R	R	R	P	T	Cruiser Maxx
Delta Grow	4975 RR	RR4L	4.9	RR	S	R	R	MR	P	T	Cruiser Maxx
Delta Grow	5160 RR/STS	RR5E	5.1	RR/STS	3, 14	R	R	R	P	G	Cruiser Maxx
Delta Grow	5275 R2Y	RR5E	5.2	RR2Y	3, 14	MR	M	R	P	G	Cruiser Maxx
Delta Grow	5280 RR	RR5E	5.2	RR	3,14, rt knot	R	R	R	P	T	Cruiser Maxx
Delta Grow	5300 RR/STS	RR5E	5.3	RR/STS	2,3,6,9,14	MR	MR	MR	W	G	Cruiser Maxx
Delta Grow	5545 RR	RR5E	5.5	RR	3,9,14	R	R	R	---	---	Cruiser Maxx
Delta Grow	5555 RR	RR5E	5.5	RR	1,3,5,9	MR	MR	MR	P	G	Cruiser Maxx
Delta Grow	5565 R2Y	RR5E	5.5	RR2Y	3	M	M	M	P	LT	Cruiser Maxx
Dyna-Gro	31RY45 (RR2Y)	RR4E	4.5	RR2Y	3,14	R	MS	R	P	LT	Acceleron
Dyna-Gro	35X43 (RR)	RR4E	4.3	RR	MR3	R	R	MS	P	LT	ApronMaxx/Gaicho
Dyna-Gro	39RY43 (RR2Y)	RR4E	4.3	RR2Y	3,14	---	Mr	MS	P	G	Acceleron
Dyna-Gro	V42N9RS	RR4E	4.2	RR/STS	R 3, MR 14	R	MR	R	P	LT	ApronMaxx/Gaicho
Dyna-Gro	33RY47 (RR2Y)	RR4L	4.7	RR2Y	3,14	R	MR	R	P	LT	Acceleron
Dyna-Gro	37RY47 (RR2Y)	RR4L	4.7	RR2Y/STS	S	MS	R	S	P	LT	Acceleron
Dyna-Gro	39D48 (RR)	RR4L	4.8	RR	3	R	MR	R	P	LT	ApronMaxx/Gaicho
Dyna-Gro	35P53 (RR)	RR5E	5.3	RR	2	R	MR	R	P	G	ApronMaxx/Gaicho
Dyna-Gro	37RY52 (RR2Y)	RR5E	5.2	RR2Y	R3, MR 14	R	MS	R	P	G	Acceleron
GoSoy	4411 LL	Cv/LL4	4.4	LL	3	MR	MR	MR	P	LT	Cruiser Maxx
GoSoy	4810 LL	Cv/LL4	4.8	LL	3	MR	MS	---	P	G	Cruiser Maxx

Table 57 (continued)

Brand	Variety ‡	2011 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
GoSoy	5111 LL	Cv/LL5	5.1	LL	3	MR	MR	MR	P	G	Cruiser Maxx
Halo	4:65 (LL)	Cv/LL4	4.6	LL	MR 3	R	MR	R	P	LT	Trilex 2000, Gaucho 600
Halo	4:75 (LL)	Cv/LL4	4.7	LL	---	R	---	MR	P	T	Trilex 2000, Gaucho 600
Halo	4:94 (LL)	Cv/LL4	4.9	LL	MR 3	R	MR	MR	P	G	Trilex 2000, Gaucho 600
Halo	5:25 (LL)	Cv/LL5	5.2	LL	MR 3	R	MR	MR	W	T	Trilex 2000, Gaucho 600
Halo	5:65 (LL)	Cv/LL5	5.6	LL	MR 3	R	MR	R	W	G	Trilex 2000, Gaucho 600
Hornbeck	HBK C 4926	Cv/LL4	4.9	---	S 3	R	---	R	P	G	Trilex 2000, Gaucho 600
Hornbeck	HBK C 5528	Cv/LL5	5.5	---	R 3	R	---	R	P	T	Trilex 2000, Gaucho 600
Hornbeck	HBK R 4729 (RR)	RR4L	4.7	RR	MS 3	MR	---	MR	P	T	Trilex 2000, Gaucho 600
Hornbeck	HBK R 4829 (RR)	RR4L	4.8	RR	MR3	R	MR	R	W	T	Trilex 2000, Gaucho 600
Hornbeck	HBK R 4830 (RR)	RR4L	4.8	RR	S 3	R	MS	R	S	LT	Trilex 2000, Gaucho 600
Hornbeck	HBK R 4924 (RR)	RR4L	4.9	RR	R 3, MR 14	R	MR	MR	P	LT	Trilex 2000, Gaucho 600
Hornbeck	HBK RY 4620 (RR2Y)	RR4L	4.8	RR2Y	MR 3	MS	R	MS	P	LT	Trilex 2000, Gaucho 600
Hornbeck	HBK R 5226 (RR)	RR5E	5.2	RR	MR 3	R	MS	R	P	T	Trilex 2000, Gaucho 600
Hornbeck	HBK R 5525 (RR)	RR5E	5.5	RR	MR 3,14	R	MR	R	P	T	Trilex 2000, Gaucho 600
Hornbeck	HBK R 5529 (RR)	RR5E	5.5	RR	ME 1, 2	R	MS	R	W	T	Trilex 2000, Gaucho 600
MO Exp	S08-17361	Cv/LL4	4.9	---	---	R	---	S	W	T	Trilex 2000, Gaucho 600
MO Exp	S08-14087 (RR)	RR4L	4.6	RR	---	R	---	S	P	LT	Trilex 2000, Gaucho 600
Morsoy Xtra	46X29 (RR2Y/STS)	RR4L	4.6	RR2Y/STS	---	---	---	---	P	LT	Cruiser Maxx
Morsoy Xtra	46X71 (RR2Y)	RR4L	4.6	RR2	3,14	R	---	R	P	LT	Cruiser Maxx
Morsoy Xtra	47X31 (RR2Y)	RR4L	4.7	RR2	---	R	---	R	P	LT	Cruiser Maxx
Morsoy Xtra	48X00 (RR2Y/STS)	RR4L	4.8	RR2Y/STS	---	MR	---	---	P	LT	Cruiser Maxx
Morsoy Xtra	49X10 (RR2Y)	RR4L	4.9	RR2Y	---	MR	---	---	P	LT	Cruiser Maxx
Morsoy Xtra	51X31 (RR2Y)	RR5E	5.1	RR2	---	S	---	R	W	G	Cruiser Maxx
Morsoy Xtra	53X51 (RR2Y)	RR5E	5.3	RR2	---	R	---	S	P	G	Cruiser Maxx
Morsoy Xtra	54X41 (RR2Y)	RR5E	5.4	RR2	---	R	MR	R	P	G	Cruiser Maxx
NC Exp	NCC06-339	Cv/LL4	4.9	---	---	---	---	---	P	T	Thiram Cruiser
NC Exp	NCC04-1555	Cv/LL5	5.7	---	---	---	---	---	P	T	Thiram Cruiser
NC Exp	NCC05-1168	Cv/LL5	5.0	---	---	---	---	---	W	G	Thiram Cruiser
NC Exp	NCC05-1261	Cv/LL5	5.0	---	---	---	---	---	W	G	Thiram Cruiser
NC Exp	NCC06-2188	Cv/LL5	5.6	---	---	---	---	---	W	G	Thiram Cruiser
NC Exp	NCC06-579	Cv/LL5	5.8	---	---	---	---	---	P	G	Thiram Cruiser
NK	S 38-H8 (RR)	RR3	3.8	RR	R3, MR 14	R	S	S	W	T	Cruiser Maxx
NK	S 39-U2 (RR2Y)	RR3	3.9	RR2Y	R3, 14	---	R	S	W	T	Cruiser Maxx
NK	S 44-D5 Brand (RR)	RR4E	4.4	RR	R 3,14	R	R	S	W	LT	Cruiser Maxx
NK	S 46-A1 (RR2Y)	RR4L	4.6	RR2Y	R3, MR 14	R	R	S	P	T	Cruiser Maxx
NK	S 47-R3 Brand (RR)	RR4L	4.7	RR	R 3, MR 14	R	R	R	W	G	Cruiser Maxx
NK	S 49-A5 Brand (RR)	RR4L	4.9	RR	R 3, MS 14	R	R	R	P	T	Cruiser Maxx
NK	S 51-J3 (RR2Y)	RR5E	5.1	RR2Y	MR 3, 14	---	S	R	P	G	Cruiser Maxx
NK	S 51-T8 Brand (RR)	RR5E	5.1	RR	R 3, MR 14	R	R	S	P	T	Cruiser Maxx
Progeny	4910	Cv/LL4	4.9	---	R 3,MR 14	R	S	R	S	LT	Cruiser Maxx
Progeny	4928 LL	Cv/LL4	4.9	LL	MR3	---	---	MR	P	G	Cruiser Maxx
Progeny	5191	Cv/LL5	5.1	---	---	MS	R	R	W	T	Cruiser Maxx

Table 57 (continued)

Brand	Variety ‡	2011 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
Progeny	5770	Cv/LL5	5.7	---	R3, MR 6,9	R	R	T	P	G	Cruiser Maxx
Progeny	5160 LL	Cv/LL5	5.1	LL	---	MR	MR	MR	W	T	Cruiser Maxx
Progeny	5261 LL	Cv/LL5	5.2	LL	---	MR	MR	MR	P	G	Cruiser Maxx
Progeny	5460 LL	Cv/LL5	5.4	LL	---	MR	MS	MR	P	LT	Cruiser Maxx
Progeny	5960 LL	Cv/LL5	5.9	LL	---	MR	MR	MR	W	G	Cruiser Maxx
Progeny	3911 RY (RR2Y)	RR3	3.9	RR2Y	---	R	R	R	P	G	Cruiser Maxx
Progeny	4211 RY (RR2Y)	RR4E	4.2	RR2Y	---	---	MR	MR	P	G	Cruiser Maxx
Progeny	4510 RY (RR2Y)	RR4E	4.5	RR2Y	---	MS	R	S	P	LT	Cruiser Maxx
Progeny	4611 RY (RR2Y)	RR4L	4.6	RR2Y	---	R	MS	MR	P	T	Cruiser Maxx
Progeny	4710 RY (RR2Y)	RR4L	4.7	RR2Y	---	MS	MR	MR	P	T	Cruiser Maxx
Progeny	4811 RY (RR2Y)	RR4L	4.8	RR2Y	---	R	MS	MR	P	T	Cruiser Maxx
Progeny	4906 RR	RR4L	4.9	RR	---	S	MR	MR	P	T	Cruiser Maxx
Progeny	4908 RR	RR4L	4.9	RR	MR 3	MR	MR	MR	W	T	Cruiser Maxx
Progeny	4911 RY (RR2Y)	RR4L	4.9	RR2Y	---	MS	MR	MS	P	T	Cruiser Maxx
Progeny	5111 RY (RR2Y)	RR5E	5.1	RR2Y	---	MS	MS	MR	W	G	Cruiser Maxx
Progeny	5210 RY (RR2Y)	RR5E	5.2	RR2Y	R3, MR14	R	MS	MR	P	G	Cruiser Maxx
Progeny	5321 RY (RR2Y)	RR5E	5.3	RR2Y	---	MR	MR	MR	P	G	Cruiser Maxx
Progeny	5330 RR	RR5E	5.3	RR	R 1, MR 2	R	MR	R	P	T	Cruiser Maxx
Progeny	5610 RY (RR2Y)	RR5L	5.6	RR2Y	R3, MR14	---	---	MS	P	G	Cruiser Maxx
Progeny	5655 RY (RR2Y)	RR5L	5.6	RR2Y	---	MS	MS	MS	W	G	Cruiser Maxx
Progeny	5711 RY (RR2Y)	RR5L	5.7	RR2Y	---	MS	---	MS	P	T	Cruiser Maxx
Progeny	5811 RY (RR2Y)	RR5L	5.8	RR2Y	---	R	---	R	P	G	Cruiser Maxx
Schillinger Seed	458 RCS	RR4E	4.5	RR/STS	R 3	R	MS	R	W	LT	Cruiser Maxx
Schillinger Seed	478 RCS	RR4L	4.7	RR/STS	3	R	MR	MS	P	LT	Cruiser Maxx
Schillinger Seed	495 RC	RR4L	4.9	RR	R 3	R	S	R	P	LT	Cruiser Maxx
Schillinger Seed	4990 RC	RR4L	4.9	RR	R 3	R	MR	MR	P	LT	Cruiser Maxx
Schillinger Seed	5220 RC	RR5E	5.2	RR	3	R	---	---	W	LT	Cruiser Maxx
Schillinger Seed	557 RC	RR5E	5.5	RR	R 3	R	MR	MR	P	G	Cruiser Maxx
Steyer	4430 RR (STS)	RR4E	4.4	RR/STS	R 3, MR 14	S	MR	MR	P	T	Trilex,Allegiance, Gaucho
Steyer	4501 R2 (RR2Y/STS)	RR4E	4.5	RR2Y/STS	R 3, MR 14	S	MR	MS	P	LT	Trilex,Allegiance, Gaucho
Steyer	4701 R2 (RR2Y)	RR4L	4.7	RR2Y	R 3, MR 14	---	---	---	---	---	Trilex,Allegiance, Gaucho
Steyer	4710 RR	RR4L	4.7	RR	R 3, MR 14	S	MR	MR	P	T	Trilex,Allegiance, Gaucho
Stine	43LC23 (LL)	Cv/LL4	4.3	LL	---	---	---	---	---	---	Cruiser Maxx
Stine	45LC82 (LL)	Cv/LL4	4.5	LL	---	---	---	---	---	---	Cruiser Maxx
Stine	47LC32 (LL)	Cv/LL4	4.7	LL	---	---	---	---	---	---	Cruiser Maxx
Terral-REV Brand	38R10 (RR)	RR3	3.8	RR	3	---	R	R	P	T	ApronMaxx/Moly
Terral-REV Brand	44R22 (RR)	RR4E	4.4	RR	---	---	MR	R	P	T	ApronMaxx/Moly
Terral-REV Brand	45R10 (RR)	RR4E	4.5	RR	3	MR	MR	S	P	T	ApronMaxx/Moly
Terral-REV Brand	47R22 (RR)	RR4L	4.7	RR	---	---	R	MR	W	T	ApronMaxx/Moly
Terral-REV Brand	47R53 (RR)	RR4L	4.7	RR	---	---	---	---	---	T	ApronMaxx/Moly
Terral-REV Brand	48R10 (RR)	RR4L	4.8	RR	3	R	MR	S	W	T	ApronMaxx/Moly
Terral-REV Brand	48R21 (RR)	RR4L	4.8	RR	---	---	MR	S	P	T	ApronMaxx/Moly
Terral-REV Brand	48R22 (RR)	RR4L	4.8	RR	---	---	MR	S	W	T	ApronMaxx/Moly

Table 57 (continued)

Brand	Variety ‡	2011 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
Terral-REV Brand	48R33 (RR)	RR4L	4.8	RR	---	---	---	---	---	T	ApronMaxx/Moly
Terral-REV Brand	49R10 (RR)	RR4L	4.9	RR	9	MR	MR	S	W	T	ApronMaxx/Moly
Terral-REV Brand	49R11 (RR)	RR4L	4.9	RR	3	R	MR	S	W	T	ApronMaxx/Moly
Terral-REV Brand	49R22 (RR)	RR4L	4.9	RR	---	---	R	---	P	T	ApronMaxx/Moly
Terral-REV Brand	49R43 (RR)	RR4L	4.9	RR	---	---	---	---	---	T	ApronMaxx/Moly
Terral-REV Brand	51R53 (RR)	RR5E	5.1	RR	---	---	---	---	---	T	ApronMaxx/Moly
Terral-REV Brand	54R10 (RR)	RR5E	5.4	RR	3	R	MR	S	P	G	ApronMaxx/Moly
Terral-REV Brand	55R21 (RR)	RR5E	5.5	RR	3	R	MR	R	W	G	ApronMaxx/Moly
Terral-REV Brand	56R21 (RR)	RR5L	5.6	RR	---	MR	MR	S	P	G	ApronMaxx/Moly
TN Exp	TN05-5018	Cv/LL4	4.9	---	---	---	---	---	W	G	Cruiser Maxx
TN Exp	TN09-016	Cv/LL4	4.9	---	3, 14	---	---	---	P	T	Cruiser Maxx
TN Exp	TN09-029	Cv/LL4	4.8	---	2, 3, 14	---	---	---	P	T	Cruiser Maxx
TN Exp	TN10-4037	Cv/LL4	4.3	---	---	---	---	---	W	G	Cruiser Maxx
TN Exp	TN09-008	Cv/LL5	5.1	---	2, 14	---	---	---	P	T	Cruiser Maxx
TN Exp	TN09-45,432 (RR2Y)	RR4E	4.1	RR2Y	---	---	---	---	P	T	Cruiser Maxx
TN Exp	TN09-46,551 (RR2Y)	RR4E	4.3	RR2Y	---	---	---	---	P	T	Cruiser Maxx
TN Exp	TN09-47,024 (RR2Y)	RR4E	4.4	RR2Y	---	---	---	---	P	T	Cruiser Maxx
TN Exp	TN09-47,387 (RR2Y)	RR4E	4.0	RR2Y	---	---	---	---	P	T	Cruiser Maxx
TN Exp	TN09-46,128 (RR2Y)	RR4L	4.7	RR2Y	---	---	---	---	P	T	Cruiser Maxx
TN Exp	TN09-48,343 (RR2Y)	RR4L	4.9	RR2Y	---	---	---	---	---	---	Cruiser Maxx
TN Exp	TN09-48,552 (RR2Y)	RR4L	4.9	RR2Y	---	---	---	---	P	T	Cruiser Maxx
TN Exp	TN09-46,277 (RR2Y)	RR5E	5.5	RR2Y	---	---	---	---	P	G	Cruiser Maxx
TN Exp	TN09-48,205 (RR2Y)	RR5E	5.5	RR2Y	---	---	---	---	---	---	Cruiser Maxx
TN Exp	TN09-44,121 (RR2Y)	RR5L	5.9	RR2Y	---	---	---	---	P	T	Cruiser Maxx
TN Exp	TN09-48,263 (RR2Y)	RR5L	5.9	RR2Y	---	---	---	---	P	T	Cruiser Maxx
USDA - NC Exp	N02-417	Cv/LL5	5.5	---	---	---	---	---	P	G	Apron Maxx
USDA-TN	JTN-4408	Cv/LL5	5.0	---	MR 2, R 3,14	MR	MR	R	W	T	ApronMaxx/Cruiser
USDA-TN	JTN-5110	Cv/LL5	5.5	---	2,3	R	---	---	P	T	ApronMaxx/Cruiser
USDA-TN	JTN-5203	Cv/LL5	5.3	---	2, 3, 14	R	R	R	W	G	ApronMaxx/Cruiser
USG	74A91 (RR Check)	Cv/LL4	4.9	RR	---	---	MR	MR	P	LT	Cruiser Maxx
USG	74B58 (RR Check)	Cv/LL4	4.5	RR/STS	R 3, MR 14	R	MR	S	P	LT	ApronMaxx/Cruiser
USG	74G99L (LL)	Cv/LL4	4.9	LL	---	---	MR	R	P	G	ApronMaxx/Cruiser
USG	5601T	Cv/LL5	5.6	---	---	---	MR	MR	W	G	Cruiser Maxx
USG	75J32 (RR Check)	Cv/LL5	5.3	RR	MR 3,14	R	MR	MR	P	G	Cruiser Maxx
USG	Allen (RR Check)	Cv/LL5	5.6	RR	---	---	MR	MR	W	G	Cruiser Maxx
USG	74B58 (RR/STS)	RR4E	4.5	RR/STS	R 3, MR 14	R	MR	S	P	LT	ApronMaxx/Cruiser
USG	74D41R (RR2Y)	RR4E	4.4	RR2Y	---	---	MR	MR	P	LT	ApronMaxx/Cruiser
USG	74F11R (RR2Y)	RR4E	4.1	RR2Y	MR 3	---	MR	MR	W	G	ApronMaxx/Cruiser
USG	74H81 (RR)	RR4E	4.5	RR	R3, MR14	---	---	---	P	G	ApronMaxx/Cruiser
USG	74A79R (RR2Y/STS)	RR4L	4.7	RR2Y/STS	---	MS	MR	---	P	LT	ApronMaxx/Cruiser
USG	74A91 (RR)	RR4L	4.9	RR	---	---	MR	MR	P	LT	ApronMaxx/Cruiser
USG	74E88 (RR)	RR4L	4.6	RR	M 3	R	MR	---	P	T	ApronMaxx/Cruiser
USG	7553nRS (RR2Y)	RR5E	5.5	RR2Y	---	S	MR	MR	P	T	ApronMaxx/Cruiser

Table 57 (continued)

Brand	Variety ‡	2011 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color	Seed Treatment
USG	75B21R (RR2Y)	RR5E	5.2	RR2Y	R 3	MR	MR	MR	P	T	ApronMaxx/Cruiser
USG	75J32 (RR)	RR5E	5.3	RR	MR 3,14	R	MR	MR	P	G	ApronMaxx/Cruiser
USG	75M49 (RR)	RR5E	5.4	RR	MR 3	R	MR	R	W	G	ApronMaxx/Cruiser
USG	75R31R (RR2Y)	RR5E	5.3	RR2Y	---	---	---	MR	P	G	ApronMaxx/Cruiser
USG	75T18 (RR)	RR5E	5.1	RR	MR 3,14	---	R	---	P	G	ApronMaxx/Cruiser
USG	75T40 (RR)	RR5E	5.3	RR	---	---	---	---	W	G	ApronMaxx/Cruiser
USG	Allen (RR)	RR5L	5.6	RR	---	---	MR	MR	W	G	ApronMaxx/Cruiser
VA	Hanover	Cv/LL4	4.9	---	---	---	---	---	P	T	Cruiser Maxx
VA	Glenn	Cv/LL5	5.3	---	2,3	R	---	---	W	T	Cruiser Maxx

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

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

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

Most information supplied by companies.

RR3 = Roundup Ready 3

R5E = Roundup Ready Early Group 5

R4E = Roundup Ready Early Group 4

R5L = Roundup Ready Late Group 5

R4L = Roundup Ready Late Group 4

Cv/LL4, Cv/LL5 = Conventional Group 4 & 5 (with LL & RR Checks)

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

**Table 58. Contact information for soybean seed companies evaluated in yield tests in Tennessee during 2011.**

<b>Company</b>	<b>Contact</b>	<b>Phone</b>	<b>Email</b>	<b>Web site</b>	<b>Address</b>
University of Arkansas	Pengyin Chen	479-575-7564	<a href="mailto:pchen@uark.edu">pchen@uark.edu</a>		Dept of Crop, Soil & Env. Sciences 115 Plant Science Bldg Fayetteville, AK 72701
Armor Seed	Lane Dill Jimmy Wray	877-336-2290 901-233-0274 270-832-3843	<a href="mailto:lanedill@armorseed.com">lanedill@armorseed.com</a> <a href="mailto:jimmywray@armorseed.com">jimmywray@armorseed.com</a>	<a href="http://www.armorseed.com">www.armorseed.com</a>	2528 Alexander Drive, Jonesboro, AR 72401 P.O. Box 178, Fisher, AR 72429 6497 Turner Landing Rd., LaCenter, KY 42056
Asgrow (Monsanto)	Larry Ganann	901-3267140	<a href="mailto:larry.w.ganann@monsanto.com">larry.w.ganann@monsanto.com</a>	<a href="http://www.asgrowanddekab.com">www.asgrowanddekab.com</a>	
Beck's Superior Hybrids (Beck's & XL Brand)		800-937-2325		<a href="http://www.beckshybrids.com">www.beckshybrids.com</a>	6767 East 276th Street, Atlanta, IN 46031
Caverndale Farms	Barry Welty	859-236-2150	<a href="mailto:bwelty@kywimax.com">bwelty@kywimax.com</a>	<a href="http://www.caverndalefarms.com">www.caverndalefarms.com</a>	1921 Bluegrass Pike, Danville, KY 40422
Croplan Genetics (Land o Lakes)	Jesse Witt Keith Saum Darrin Holder Jim Payne Ashley Plymale Matt Sowder	256-221-5932 731-610-7006 270-207-0190 901-652-0903 270-719-1570 901-355-7267	<a href="mailto:JBWitt@landolakes.com">JBWitt@landolakes.com</a> <a href="mailto:kdsaum@landolakes.com">kdsaum@landolakes.com</a> <a href="mailto:jpayne@ourcoop.com">jpayne@ourcoop.com</a>	<a href="http://www.croplangenetics.com">www.croplangenetics.com</a> <a href="http://www.ourcoop.com">www.ourcoop.com</a>	Consolidated Ag Products (Agrilience) and Tennessee Farmers Co-op Locations
Dairyland Seed Co	Lanny Warren	731-234-2921	<a href="mailto:lanny.warren@charter.net">lanny.warren@charter.net</a>	<a href="http://www.dairylandseed.com">www.dairylandseed.com</a>	208 South Thompson St., Union City, TN 38261
Delta Grow Seed	Lee Hughes	800-530-7933	<a href="mailto:leehughes19@hotmail.com">leehughes19@hotmail.com</a>	<a href="http://www.deltagrow.com">www.deltagrow.com</a>	P O Box 219, England, AR 72046
Dyna-Gro (Crop Production Services)	Todd Theobald	731-885-1212	<a href="mailto:todd.theobald@cpsagu.com">todd.theobald@cpsagu.com</a>	<a href="http://www.dynagroseed.com">www.dynagroseed.com</a>	710 S. First Street, Union City, TN 38261
GoSoy (Stratton Seed Co.)	Jim Craig Scooter Hodges	870-673-4433	<a href="mailto:jcraig@strattonseed.com">jcraig@strattonseed.com</a> <a href="mailto:shodges@strattonseed.com">shodges@strattonseed.com</a>	<a href="http://www.strattonseed.com">www.strattonseed.com</a>	1530 Hwy 79 South, Stuttgart, AR 72160
Halo (US Seeds)	Jamie Boone	870-336-0111	<a href="mailto:jamieboone@usseeds.net">jamieboone@usseeds.net</a>		2528 Alexander Drive, Jonesboro, AR 72401
Hornbeck Seed Co	Monte Malone Sunni Booker	870-351-0390 501-472-2507	<a href="mailto:monty.malone@bayer.com">monty.malone@bayer.com</a> <a href="mailto:sunni.booker@bayer.com">sunni.booker@bayer.com</a>	<a href="http://www.hbkseed.com">www.hbkseed.com</a>	P O Box 472, 210 Drier Rd, DeWitt, AR 72042
University of Missouri	Grover Shannon	573-379-5431	<a href="mailto:shannong@missouri.edu">shannong@missouri.edu</a>		University of Missouri, 147 State Hwy T Partageville, MO 63873
Morsoy Xtra (Cache River Valley Seed)	Josh Rupard	870-897-9112	<a href="mailto:joshr@crvseed.com">joshr@crvseed.com</a>	<a href="http://www.crvseed.com">www.crvseed.com</a>	P.O. Box 10, Cash, AR 72421
NK Brand (Syngenta)	Mike Saxton	270-745-7333	<a href="mailto:mike.saxton@syngenta.com">mike.saxton@syngenta.com</a>	<a href="http://www.nk-us.com">www.nk-us.com</a>	424 Jamie Way Bowling Green, KY 42104
North Carolina State Univ.	Andrea Cardinal	919-513-0913	<a href="mailto:andrea_cardinal@ncsu.com">andrea_cardinal@ncsu.com</a>		

**Table 58 (continued)**

<b>Company</b>	<b>Contact</b>	<b>Phone</b>	<b>Email</b>	<b>Web site</b>	<b>Address</b>
Progeny (Erwin Keith Seed Inc)	Brian Murray	870-238-2079	<a href="mailto:bmurray@progenyag.com">bmurray@progenyag.com</a>	<a href="http://www.progenyag.com">www.progenyag.com</a>	1529 Hwy 193, Wynne, AR 72396
Schillinger Genetics and eMerge Genetics	Jim Craig Cory Nikkel	800-264-4433 515-225-1166	<a href="mailto:jcraig@strattonseed.com">jcraig@strattonseed.com</a> <a href="mailto:cnikkel@schillgen.com">cnikkel@schillgen.com</a>	<a href="http://www.eMergeGenetics.com">www.eMergeGenetics.com</a>	4401 Westtown Parkway, Suite 225 West Des Moines, IA 50266
Steyer Seeds	Phil Coffman Tom Jones Joe Steyer	270-832-7362 270-213-0020 800-231-4274	<a href="mailto:joesteyer@yahoo.com">joesteyer@yahoo.com</a>	<a href="http://www.steyerseeds.com">www.steyerseeds.com</a>	Clay, KY Sebree, KY 6154 N. Co. Rd. 33, Tiffin, OH 44883
Stine	Brian Cornelious	901-574-2213	<a href="mailto:brianc@mertecllc.com">brianc@mertecllc.com</a>	<a href="http://www.stineseed.com">www.stineseed.com</a>	252 Blair Drive, Marion, AR 72364
University of Tennessee	Vince Pantalone	865-974-8801	<a href="mailto:vpantalo@utk.edu">vpantalo@utk.edu</a>		Dept. of Plant Sciences, Ellington 252 2431 Joe Johnson Drive Knoxville, TN 37996-4561
Terral Seed Inc	Larry Mullen	318-231-8811	<a href="mailto:lmullen@terralseed.com">lmullen@terralseed.com</a>	<a href="http://www.terralseed.com">www.terralseed.com</a>	P O Box 826, Lake Providence, LA 71254
USDA-ARS NC	Lillian Miranda	919-856-4387	<a href="mailto:lillian.miranda@ars.usda.gov">lillian.miranda@ars.usda.gov</a>		
USDA-ARS TN	Prakash Arelli	731-425-4736	<a href="mailto:parelli@ars.usda.gov">parelli@ars.usda.gov</a>		605 Airways Blvd, Jackson, TN 38301
Unisouth Genetics (USG)	Stacy Burwick David Fandrich Mark Huffstetler Trey Hurt Wes Miller Billy Sellers	800-505-3133 931-967-3377 731-235-2167 731-836-7574 731-536-6251 731-538-2990	<a href="mailto:sburwick@usgseed.com">sburwick@usgseed.com</a> <a href="mailto:fandrichsupply@aol.com">fandrichsupply@aol.com</a> <a href="mailto:huffy1@crunet.com">huffy1@crunet.com</a> <a href="mailto:treyhurt@bellsouth.com">treyhurt@bellsouth.com</a> <a href="mailto:wes@obiongrain.com">wes@obiongrain.com</a>	<a href="http://www.usgseed.com">www.usgseed.com</a>	3205-C Highway 46S, Dickson, TN 37055 Fandrich Supply Co, Belvidere, TN Huffstetler & Sons Seed Inc, Greenfield, TN Hurt Seed Co. Inc, Halls, TN Obion Grain Co. Inc, Obion, TN Sellers Seed, Obion, TN
Virginia Tech	Bruce Beahm Katy Rainey	804-746-4884 540-231-6496	<a href="mailto:bbeahm@rivnet.net">bbeahm@rivnet.net</a> <a href="mailto:kmrainey@vt.edu">kmrainey@vt.edu</a>	<a href="http://www.viriniacrop.org">www.viriniacrop.org</a>	Virginia Crop Improvement Assoc. P.O. Box 78 Mt. Holly, VA 22524