

SOYBEAN VARIETY TESTS IN TENNESSEE

2003

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County	Agent	Producer
<i>Maturity Group III</i>		
Gibson	Phillip Shelby	Denton Clay Parkins
Dyer	Tim Campbell	Alan Burchfiel
Weakley	Jeff Lannom	Mike Freeman
Henry	Ken Goddard	Don Norwood
Milan Exp. Station	Blake Brown	Jason Williams & Jimmy McClure
Coffee	Dean Northcutt	L. A. Teal
Lake	Greg Allen	James Hall Shaw

Maturity Group IV Early (4.0 - 4.5)

Dyer	Tim Campbell	Mike Underwood
Lauderdale	Jerry Parker	Chris Peyton & Scott Mathis
Lake	Greg Allen	Keiser Farms
Obion	Tim Smith	Bill & Jerry Sellers
Weakley	Jeff Lannom	Greg Page
Coffee	Dean Northcutt	L. A. Teal
Ballard, Ky	Bob Middleton	Larry Eidson
Lawrence	Calvin Bryant	Bent Larson
Gibson	Phillip Shelby	Denton Clay Parkins

Maturity Group IV Late (4.6 - 4.9)

Weakley	Jeff Lannom	Mike Freeman
Gibson	Phillip Shelby	Denton Clay Parkins
Lake	Greg Allen	Jon Dickey
Dyer	Tim Campbell	Mike Underwood
Coffee	Dean Northcutt	L. A. Teal
Obion	Tim Smith	Bryant Driver
Ballard, Ky	Bob Middleton	Max Gordon
Graves, Ky	Shawn Harper	Bobby & Robert Whitford
Montgomery	Rusty Evans	Tony & Jason Hagewood
Lauderdale	Jerry Parker	Phillip Smith

County	Agent	Producer
<i>Maturity Group V Early (5.0 - 5.5)</i>		
Dyer	Tim Campbell	Mike Underwood
Gibson	Phillip Shelby	Denton Clay Parkins
Crockett	Richard Buntin	Mac Summerlin
Lake	Greg Allen	David Keefe
Obion	Tim Smith	Bill Sellers
Coffee	Dean Northcutt	L. A. Teal
Lauderdale	Jerry Parker	Rob & Bob Reviere
Weakley	Jeff Lannom	Kenneth Monroe
Carlisle, Ky	Bob Middleton	Curtsinger Farms
 <i>Maturity Group V Late (5.6 - 5/9)</i>		
Dyer	Tim Campbell	Mike Underwood
Gibson	Phillip Shelby	Denton Clay Parkins
Lauderdale	Jerry Parker	Rob & Bob Reviere
Lake	Greg Allen	Jack Haynes
W. TN Exp. Station	Bob Hayes	Angela Thompson
Madison	Bill Wyatt	Alan Ewell
Hardin	Marcus McLemore	Karl Forsbach
 <i>Maturity Group V Conventional</i>		
Lake	Greg Allen	Jeremy Hopper
Weakley	Jeff Lannom	Jimmy & Jimbo Davis
Obion	Tim Smith	William & Bill Thompson
Dyer	Tim Campbell	Johnny Dodson
Henry	Ken Goddard	David Wilson

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PERFORMANCE OF SOYBEAN VARIETIES IN TENNESSEE

EXPERIMENT STATION AND COUNTY STANDARD TESTS

2003

Experimental Procedures

Experiment Station 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) and at the Highland Rim (Springfield), Knox (Knoxville), Middle TN (Spring Hill), Milan (Milan), and Plateau (Crossville) Agricultural Experiment Stations. Duplicate plantings of all six tests [Maturity Group 3 Roundup Ready (i.e., RR3), RR4 Early (RM 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), and Conventional 5] were made at the Milan and Middle Tennessee Experiment Stations for performance testing with and without irrigation (denoted in tables as irr. and non-irr., respectively).

The plot size was two rows (except Milan non-irrigated, drilled plots), 30 feet in length. All varieties were planted at approximately 10 seeds per foot of row. Plots were replicated three times at each location in a randomized complete block design. 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.

County Standard Tests: The County Standard Soybean Tests were conducted in several counties in Tennessee, and a few in West Kentucky. The number of counties participating in testing depended on the test. The County Standard Tests were divided into RR3, RR4 Early (RM 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), and Conventional 5 tests. 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 (minimum) the amount shown 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 ($43 - 35 = 8$ bu/a = LSD of 8) and Variety A ($43 - 30 = 13$ bu/a > LSD of 8).

Also, the **coefficient of variation (C.V.)** values are shown at the bottom of each table. This value is a measure of the error variability found within each experiment. It is the percentage that the square root of error mean square 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: During 2003, 187 soybean varieties were evaluated in experiment station tests, and 103 varieties were evaluated in county standard tests. In the **experiment station tests**, there were 15 varieties in the MG 3 Roundup Ready (RR3) test, 27 in RR4 early test, 40 in the RR4 late test, 44 in the RR5 early, 46 in the RR5 late, and 15 in the Conventional MG 4/5 test. In the **standard county tests** there were 14 RR3, 16 RR4 early, 24 RR4 late, 24 RR5 early, 18 RR5 late, and 7 Conventional varieties. **Tables 2-49** contain data on yield and agronomic traits such as maturity, plant height, lodging, shattering, seed quality, seed protein and oil content. **Tables 50-55** lists the names and descriptive characteristics of the varieties included in the experiment station tests in 2003.

Disease Ratings: Ratings on SDS reaction of entries under natural infestation at the Knoxville location are shown in **Tables** . Additional ratings on variety reactions to frogeye leaf spot, stem canker, and SDS are presented in **Tables 55-** (data provided by Dr. Melvin Newman, professor, Dept. of Entomology and Plant Pathology, UT).

Weather Data: The 2003 rainfall and temperature data during the growing season for the different experiment station locations are posted on the variety test web site:

http://taes.tennessee.edu/researchprograms/Variety_trials

Table 1. Location information from experiment stations where the soybean variety tests were conducted in 2003.

Experiment Station	Location	Planting Date	Harvest Date	Seeding Rate	Soil Type
Roundup Ready Maturity Group III					
Ames	Grand Junction	5/12/2003	9/17/2003	175000	Lexington Silt Loam
Highland Rim	Springfield	5/20/2003	9/30/2003	175000	Dickson Silt Loam
Knoxville	Knoxville	5/28/2003	9/26/2003	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/23/2003	9/26/2003	175000	Loring, Henry Silt Loam
Milan (Non Irrigated)	" "	5/23/2003	9/26/2003	209000	Grenada, Routon Silt Loam
Middle TN (Irrigated)	Spring Hill	5/14/2003	9/26/2003	175000	Maury Silt Loam
Middle TN (Non Irrigated)	" "	5/14/2003	9/26/2003	175000	" " "
Roundup Ready Maturity Group Early IV (4.0 - 4.5)					
Ames	Grand Junction	5/15/2003	9/23/2003	175000	Lexington Silt Loam
Highland Rim	Springfield	5/20/2003	10/23/2003	175000	Dickson Silt Loam
Knoxville	Knoxville	4/29/2003	9/19/2003	175000	Sequatchie Fine Sandy Loam
Plateau	Crossville	5/30/2003	10/9/2003	175000	Hendon Silt Loam
Milan (Irrigated)	Milan	5/23/2003	9/29/2003	175000	Loring, Henry Silt Loam
Milan (Non Irrigated)	" "	5/23/2003	9/26/2003	209000	Grenada, Routon Silt Loam
Middle TN (Irrigated)	Spring Hill	5/14/2003	9/26/2003	175000	Maury Silt Loam
Middle TN (Non Irrigated)	" "	5/14/2003	9/29/2003	175000	" " "
Roundup Ready Maturity Group Late IV (4.6 - 4.9)					
Ames	Grand Junction	5/15/2003	10/3/2003	175000	Lexington Silt Loam
Highland Rim	Springfield	5/20/2003	11/4/2003	175000	Dickson Silt Loam
Knoxville	Knoxville	4/29/2003	9/26/2003	175000	Sequatchie Fine Sandy Loam
Plateau	Crossville	5/30/2003	10/20/2003	175000	Hendon Silt Loam
Milan (Irrigated)	Milan	5/23/2003	10/3/2003	175000	Loring, Henry Silt Loam
Milan (Non Irrigated)	" "	5/23/2003	10/7/2003	209000	Grenada, Routon Silt Loam
Middle TN (Irrigated)	Spring Hill	5/14/2003	9/29/2003	175000	Maury Silt Loam
Middle TN (Non Irrigated)	" "	5/14/2003	9/29/2003	175000	" " "
Roundup Ready Maturity Group Early V (5.0 - 5.5)					
Ames	Grand Junction	5/12/2003	10/13/2003	175000	Lexington Silt Loam
Highland Rim	Springfield	5/20/2003	11/4/2003	175000	Dickson Silt Loam
Knoxville	Knoxville	4/29/2003	10/13/2003	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/23/2003	10/20/2003	175000	Loring, Henry Silt Loam
Milan (Non Irrigated)	" "	5/23/2003	10/21/2003	209000	Grenada, Routon Silt Loam
Middle TN (Irrigated)	Spring Hill	5/14/2003	10/20/2003	175000	Maury Silt Loam
Middle TN (Non Irrigated)	" "	5/14/2003	10/21/2003	175000	" " "
Roundup Ready Maturity Group Late V (5.6 - 5.9)					
Ames (Early Planted)	Grand Junction	5/12/2003	10/29/2003	175000	Lexington Silt Loam
Ames (Late Planted)	" "	5/28/2003	10/20/2003	175000	" " "
Highland Rim	Springfield	5/20/2003	11/10/2003	175000	Dickson Silt Loam
Knoxville	Knoxville	4/29/2003	10/23/2003	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/23/2003	10/23/2003	175000	Loring, Henry Silt Loam
Milan (Non Irrigated)	" "	5/23/2003	10/21/2003	209000	Grenada, Routon Silt Loam
Middle TN (Irrigated)	Spring Hill	5/14/2003	10/30/2003	175000	Maury Silt Loam
Middle TN (Non Irrigated)	" "	5/14/2003	10/29/2003	175000	" " "
Conventional Maturity Groups IV and V					
Ames	Grand Junction	5/12/2003	10/16/2003	175000	Lexington Silt Loam
Highland Rim	Springfield	5/28/2003	12/2/2003	175000	Dickson Silt Loam
Knoxville	Knoxville	4/29/2003	10/15/2003	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/23/2003	10/22/2003	175000	Loring, Henry Silt Loam
Milan (Non Irrigated)	" "	5/23/2003	10/22/2003	209000	Grenada, Routon Silt Loam
Middle TN (Irrigated)	Spring Hill	5/14/2003	10/22/2003	175000	Maury Silt Loam
Middle TN (Non Irrigated)	" "	5/14/2003	10/21/2003	175000	" " "

Table 2. Mean yields † of 15 Maturity Group III Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2003.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Knoxville	Spring Hill		Springfield	Milan		Ames
				Irr.	Non-Irr.		Irr.	Non-Irr.	
-----bu/a-----									
USG	7393nRR	60 ± 1	67	56	53	55	66	63	59
N.K. Brand	S 39-Q4 (RR)	59 ± 1	68	64	59	53	58	59	52
Asgrow	AG 3701 (RR)	58 ± 1	70	60	62	41	60	62	52
Progeny	3900 RR	58 ± 1	69	58	55	54	61	57	53
Delta King	DK 3961 RR	58 ± 1	65	58	58	43	68	59	54
Delta King	DK XTJ 439 (RR)	57 ± 1	70	52	53	46	67	56	54
Asgrow	AG 3702 (RR)	57 ± 1	69	52	62	44	62	58	51
Pioneer	93M90 (RR)	57 ± 1	78	55	47	45	62	55	55
Schillinger Seed	393 RCP	57 ± 1	70	53	54	49	61	63	47
Vigoro	V382NRR	56 ± 1	69	56	55	50	60	53	53
Garst	3824 RR/N	56 ± 1	70	58	51	50	60	55	49
D & PL	DP 3861 RR	56 ± 1	69	56	59	42	59	51	54
Delta King	DK 3968 RR	54 ± 1	65	51	57	38	58	57	51
D & PL	DPX 3940 RR	54 ± 1	68	42	50	50	61	62	43
Armor	39-E9 (RR)	54 ± 1	69	54	52	41	62	52	44
Average (bu/a)		57	69	55	55	47	62	58	51
L.S.D._{.05} (bu/a)		3	7	5	8	11	8.4	8	7
C.V. (%)		8.2	6.5	5.8	8.8	12.7	7.9	7.9	8.3

† All yields are adjusted to 13% moisture.

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

Table 3. Mean yields † and agronomic characteristics of 15 Maturity Group III Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2003.

Brand	Variety ‡	Avg. Yield	Moisture § (n=8)¶	Lodging (n=3)	Height (n=8)¶	Maturity (n=8)¶	Shattering (n=8)¶	Late	Seed	Protein (n=5)	Oil (n=5)
		± Std Err. (n=7)						Shattering (n=1)	Quality (n=5)		
		bu/a	%	Score	in.	DAP	-----Score-----		%	%	
USG	7393nRR	60 ± 1	14.4	2.3	32	122	1.0	2.0	2.5	39.8	21.2
N.K. Brand	S 39-Q4 (RR)	59 ± 1	14.6	1.9	31	119	1.0	2.0	2.6	41.5	20.0
Asgrow	AG 3701 (RR)	58 ± 1	14.0	1.6	33	118	1.0	2.5	2.3	41.3	20.0
Progeny	3900 RR	58 ± 1	14.3	2.4	32	122	1.0	1.5	2.4	40.2	21.0
Delta King	DK 3961 RR	58 ± 1	13.6	1.8	35	119	1.0	1.5	2.3	42.2	19.8
Delta King	DK XTJ 439 (RR)	57 ± 1	13.9	2.1	32	121	1.0	1.5	2.5	40.4	20.9
Asgrow	AG 3702 (RR)	57 ± 1	14.1	1.6	30	116	1.0	2.0	2.1	43.1	19.1
Pioneer	93M90 (RR)	57 ± 1	14.4	1.8	35	120	1.0	3.0	2.6	40.4	20.4
Schillinger Seed	393 RCP	57 ± 1	14.0	2.5	33	120	1.0	2.0	2.3	39.4	21.4
Vigoro	V382NRR	56 ± 1	14.5	2.1	36	119	1.0	2.0	2.2	39.7	20.8
Garst	3824 RR/N	56 ± 1	14.5	1.5	30	117	1.0	2.5	2.7	40.3	21.0
D & PL	DP 3861 RR	56 ± 1	14.5	2.2	31	117	1.0	1.5	2.2	42.1	19.4
Delta King	DK 3968 RR	54 ± 1	14.2	1.6	30	117	1.0	3.0	2.4	40.3	20.8
D & PL	DPX 3940 RR	54 ± 1	13.9	1.7	32	118	1.0	3.5	2.2	40.4	20.8
Aarmor	39-E9 (RR)	54 ± 1	14.3	1.4	30	118	1.0	3.5	2.5	40.5	20.8

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

¶ Additional data was taken from tests which were not harvested for yield

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.

Late Shattering notes taken on 10/30/03 at Knoxville - 184 days after planting, 49 days after normal harvest.

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

Protein & Oil on dry weight basis.

Table 4. Mean yields † of five Maturity Group III Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2002 - 2003.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Spring Hill		Milan		Ames	
			Knoxville	Irr.	Springfield	Irr.		Non-Irr.
-----bu/a-----								
Delta King	DK 3961 RR	53 ± 1	56	44	45	69	50	53
D & PL	DP 3861 RR	51 ± 1	56	42	46	62	44	53
Delta King	DK 3968 RR	50 ± 1	54	40	43	61	45	53
D & PL	DPX 3940 RR	49 ± 1	56	35	47	59	49	48
Armor	39-E9 (RR)	48 ± 1	56	38	41	63	42	48
Average (bu/a)		50	56	40	44	63	46	51
L.S.D._{.05} (bu/a)		3	6	5	8	9	7	7
C.V. (%)		8.7	6.4	7.9	10.9	9.2	8.9	8.5

† 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 yields † and agronomic characteristics of five Maturity Group III Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2002 - 2003.

Brand	Variety ‡	Avg. Yield					Seed				
		± Std Err. (n=12)	Moisture § (n=13)¶	Lodging (n=4)	Height (n=14)¶	Maturity (n=14)¶	Shattering (n=3)	Quality (n=10)	Protein (n=10)	Oil (n=10)	Frogeye (n=1)
		bu/a	%	Score	in.	DAP	-----Score-----	%	%	Score	
Delta King	DK 3961 RR	53 ± 1	13.7	1.7	34	116	1.2	2.6	42.9	21.2	1.7
D & PL	DP 3861 RR	51 ± 1	14.3	2.0	30	114	1.2	2.4	42.2	21.1	1.0
Delta King	DK 3968 RR	50 ± 1	13.7	1.6	30	115	1.4	2.6	40.5	22.6	1.0
D & PL	DPX 3940 RR	49 ± 1	13.7	1.8	32	115	1.3	2.6	40.5	22.6	4.3
Armor	39-E9 (RR)	48 ± 1	13.8	1.5	30	114	1.3	2.6	40.5	22.7	2.0

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

¶ Additional data was taken from tests which were not harvested for yield

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 spots; 5 = 95%+ of leaf surfaces containing spots.

Table 6. Yields † of 14 Maturity Group III Roundup Ready soybean varieties in seven County Standard Tests in Tennessee during 2003.

MS	Brand/Variety	Avg.	Moisture ‡	Coffee	Dyer	Gibson	Henry	Lake	Milan	
		Yield							bu/a	Exp. Sta.
		bu/a	%	-----bu/a-----						
A	Pioneer 93M90	62.5	12.5	59.7	54.6	60.4	61.3	51.6	85.0	64.9
AB	*Dynagro DG3373	61.3	12.9	54.5	57.5	61.7	60.9	49.1	81.7	64.0
AB	Asgrow AG3905	61.1	12.7	55.5	51.8	59.1	58.5	55.2	81.9	65.4
AB	Golden Harvest H3945	60.7	12.8	61.1	54.1	63.3	56.0	49.1	77.9	63.5
AB	*Vigoro V382	60.5	13.0	61.0	52.0	60.4	58.4	57.9	75.9	57.7
AB	Armor 39-E9	60.3	12.7	55.3	51.4	65.3	61.1	46.8	78.3	64.2
AB	*Delta King 3968	60.1	13.0	58.1	52.1	64.0	65.3	37.7	80.8	62.5
ABC	**NK Brand S39-Q4	59.0	12.7	56.4	54.5	56.7	60.6	54.0	73.0	57.7
ABC	**Golden Harvest 3983	58.6	12.0	57.1	52.6	57.9	53.8	49.1	76.4	63.6
ABC	Croplan RC3939	58.6	12.9	54.4	54.1	54.0	63.8	43.9	79.1	60.7
ABC	Asgrow AG3801	58.4	13.0	53.9	49.9	56.6	61.4	43.9	79.7	63.6
BC	Asgrow AG3703	57.7	12.8	50.5	44.5	59.9	56.0	50.2	77.9	64.9
C	Delta King 3961	55.4	12.4	47.9	49.7	54.5	56.3	49.3	71.5	58.9
D	Steyer 3811	50.4	13.0	28.6	42.8	49.9	55.6	52.0	67.2	56.9
Average		58.9		53.9	51.5	58.8	59.2	49.3	77.6	62.0

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

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 asterick (*) or (**) were in the top performing group in 2001 & 2002.

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. Overall average yields † and moistures ‡ of six Maturity Group III Roundup Ready soybean varieties evaluated in County Standard Tests (n=7) and Experiment Stations (n=7) in Tennessee in 2003.

Brand	Variety	County Standard Trials		Experiment Station Trials	
		Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%
Pioneer	93M90 (RR)	63	12.5	57	14.4
Vigoro	V382NRR	60	13.0	56	14.5
Armor	39-E9 (RR)	60	12.7	54	14.3
Delta King	DK 3968 RR	60	13.0	54	14.2
N.K. Brand	S 39-Q4 (RR)	59	12.7	59	14.6
Delta King	DK 3961 RR	55	12.4	58	13.6
Average (bu/a)		60	12.7	56	14.3

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

Table 8. Mean yields † of 27 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in eight environments in Tennessee during 2003.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=8)	Knoxville	Crossville	Spring Hill		Springfield	Milan		Ames
					Irr.	Non-Irr.		Irr.	Non-Irr.	
Garst	4512 RR/N	67 ± 1	78	54	74	56	71	76	64	61
Morsoy	RT 4480 (RR)	66 ± 1	79	55	66	62	69	74	69	56
Trisler Seed	Trisoy 4314RR (CN)	66 ± 1	78	54	65	61	68	72	67	61
Dyna-Gro	3443 (RR)	66 ± 1	79	56	59	59	65	74	73	60
Dekalb	DKB 44-51 (RR)	64 ± 1	74	52	57	57	73	72	70	60
Asgrow	AG 4403 (RR)	64 ± 1	72	53	64	61	68	73	63	58
Armor	44-R4 (RR)	64 ± 1	76	54	59	54	67	74	61	65
D & PL	DP 4331 RR	63 ± 1	79	52	60	52	67	68	68	61
Progeny	4401 RR	63 ± 1	77	53	62	59	59	73	66	58
Armor	44-R5 (RR)	62 ± 1	62	53	72	59	66	73	62	52
Vigoro	V442NRR	61 ± 1	80	56	53	43	61	73	61	63
USG	7440nRR	61 ± 1	74	55	54	39	70	71	64	61
Asgrow	AG 4502 (RR)	60 ± 1	68	50	64	53	60	67	59	58
Asgrow	AG 4201 (RR)	59 ± 1	65	51	61	56	63	62	59	53
N.K. Brand	S 43-B1 (RR)	57 ± 1	68	50	56	48	61	66	63	46
D & PL	DPX 4446 RR	57 ± 1	66	47	54	54	59	60	57	58
Schillinger Seed	443 R	57 ± 1	59	47	54	53	65	59	64	51
Vigoro	V42N3RR	56 ± 1	57	49	53	47	58	73	67	46
USG	7423nRR	55 ± 1	62	50	51	35	61	69	62	52
Midwest Premium Genetics	MPV 457nRR	54 ± 1	63	53	48	32	66	64	55	55
USG	7403nRR	54 ± 1	62	42	56	35	64	65	58	53
USG	7401nRR	54 ± 1	63	48	52	38	59	65	58	51
Hornbeck	HBK R 4623 (RR)	53 ± 1	62	55	46	40	60	63	54	48
Pioneer	94M41 (RR)	53 ± 1	70	50	51	32	53	64	57	47
Pioneer	94B13 (RR)	52 ± 1	63	49	47	34	56	64	53	47
USG	7402nRR	51 ± 1	57	44	55	37	52	61	60	46
Golden Harvest	H 4368 RR	50 ± 1	60	46	44	32	50	69	57	44
Average (bu/a)		59	68	51	57	47	63	68	62	54
L.S.D._{.05} (bu/a)		3	6	7	11	8	8	7	8	7
C.V. (%)		8.3	5.3	8.3	12.2	10.3	7.5	6.0	8.2	8.2

† All yields are adjusted to 13% moisture.

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

Table 9. Mean yields † and agronomic characteristics of 27 Early Maturity Group IV Roundup Ready soybean varieties evaluated in eight environments in Tennessee during 2003.

Brand	Variety ‡	Avg. Yield	Moisture §	Lodging	Height	Maturity	Shattering	Seed	Protein	Oil
		± Std Err. (n=8) bu/a	(n=8) %	(n=3) Score	(n=8) in.	(n=8) DAP	(n=8) -----Score-----	Quality (n=6)	(n=6) %	(n=6) %
Garst	4512 RR/N	67 ± 1	14.1	1.3	37	126	1.0	2.4	39.1	21.1
Morsoy	RT 4480 (RR)	66 ± 1	14.6	1.6	37	127	1.0	2.4	38.6	21.4
Trisler Seed	Trisoy 4314RR (CN)	66 ± 1	14.1	1.6	37	127	1.0	2.4	38.6	21.3
Dyna-Gro	3443 (RR)	66 ± 1	14.4	1.4	37	127	1.0	2.3	38.6	21.4
Dekalb	DKB 44-51 (RR)	64 ± 1	14.1	1.3	37	126	1.0	2.4	39.0	21.2
Asgrow	AG 4403 (RR)	64 ± 1	14.2	1.4	37	127	1.0	2.4	39.1	21.2
Armor	44-R4 (RR)	64 ± 1	14.4	1.5	36	126	1.0	2.4	39.2	21.1
D & PL	DP 4331 RR	63 ± 1	14.4	1.7	36	126	1.0	2.4	39.2	21.0
Progeny	4401 RR	63 ± 1	14.0	1.5	36	126	1.0	2.3	38.9	21.2
Armor	44-R5 (RR)	62 ± 1	14.0	1.2	31	126	1.0	3.0	39.9	20.5
Vigoro	V442NRR	61 ± 1	14.4	1.5	37	127	1.0	2.2	38.0	21.7
USG	7440nRR	61 ± 1	14.8	1.5	36	127	1.0	2.4	38.1	21.5
Asgrow	AG 4502 (RR)	60 ± 1	14.1	1.8	35	127	1.0	2.9	42.3	19.4
Asgrow	AG 4201 (RR)	59 ± 1	14.1	1.6	34	124	1.0	2.6	40.4	20.1
N.K. Brand	S 43-B1 (RR)	57 ± 1	14.1	1.5	34	124	1.0	2.6	40.5	19.4
D & PL	DPX 4446 RR	57 ± 1	14.8	2.8	40	128	1.0	2.3	41.9	19.6
Schillinger Seed	443 R	57 ± 1	14.2	1.3	33	125	1.0	2.1	38.4	21.3
Vigoro	V42N3RR	56 ± 1	13.9	1.3	31	126	1.0	2.7	39.1	20.8
USG	7423nRR	55 ± 1	13.9	1.3	30	126	1.0	2.7	39.1	20.8
Midwest Premium Genetics	MPV 457nRR	54 ± 1	13.7	1.9	37	127	1.1	2.5	41.0	19.7
USG	7403nRR	54 ± 1	13.7	1.1	30	125	1.0	2.3	40.0	21.1
USG	7401nRR	54 ± 1	13.9	1.8	33	124	1.0	2.8	39.9	20.9
Hornbeck	HBK R 4623 (RR)	53 ± 1	13.7	2.2	40	125	1.1	2.2	41.0	20.4
Pioneer	94M41 (RR)	53 ± 1	13.7	1.9	36	124	1.0	2.3	40.5	20.9
Pioneer	94B13 (RR)	52 ± 1	13.7	1.3	34	123	1.0	2.5	38.6	20.7
USG	7402nRR	51 ± 1	13.9	1.3	33	123	1.0	2.5	40.5	20.7
Golden Harvest	H 4368 RR	50 ± 1	13.8	1.2	30	125	1.1	2.5	39.5	21.2

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

Protein & Oil on dry weight basis.

Table 10. Mean yields † of 10 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in eight environments (n=16) in Tennessee for two years, 2002 - 2003.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=16)	Knoxville	Crossville	Spring Hill		Springfield	Milan		Ames
					Irr.	Non-Irr.		Irr.	Non-Irr.	
Garst	4512 RR/N	57 ± 1	68	46	58	36	63	76	55	56
Dyna-Gro	3443 (RR)	57 ± 1	66	49	49	39	60	74	61	57
Armor	44-R4 (RR)	56 ± 1	64	47	47	37	62	73	54	63
Asgrow	AG 4403 (RR)	56 ± 1	64	47	52	41	59	73	56	55
USG	7440nRR	56 ± 1	65	50	50	30	57	73	58	60
Vigoro	V442NRR	55 ± 1	67	49	47	31	57	71	55	59
Asgrow	AG 4201 (RR)	52 ± 1	58	47	48	38	55	62	52	53
Vigoro	V42N3RR	51 ± 1	53	45	43	31	56	72	57	48
Midwest Premium Genetics	MPV 457nRR	49 ± 1	57	47	43	26	56	61	53	50
Pioneer	94B13 (RR)	49 ± 1	57	46	43	27	59	67	46	49
Average (bu/a)		54	62	47	48	34	58	70	55	55
L.S.D._{.05} (bu/a)		2	5	7	7	6	8	7	7	7
C.V. (%)		8.7	5.8	9.9	9.9	13.2	9.8	6.4	8.6	8.5

† All yields are adjusted to 13% moisture.

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

Table 11. Mean yields † and agronomic characteristics of 10 Early Maturity Group IV Roundup Ready soybean varieties evaluated in eight environments (n=16) in Tennessee for two years, 2002 - 2003.

Brand	Variety ‡	Avg. Yield	Moisture § (n=16)	Lodging (n=6)	Height (n=16)	Maturity (n=16)	Shattering (n=1)	Seed	Protein (n=11)	Oil (n=11)
		± Std Err. (n=16)						Quality (n=12)		
		bu/a	%	Score	in.	DAP	-----Score-----	%	%	
Garst	4512 RR/N	57 ± 1	15.0	1.4	35	124	1.8	2.6	39.8	22.6
Dyna-Gro	3443 (RR)	57 ± 1	15.0	1.4	35	124	1.5	2.5	39.2	23.0
Armor	44-R4 (RR)	56 ± 1	15.4	1.5	35	124	1.5	2.6	39.7	22.8
Asgrow	AG 4403 (RR)	56 ± 1	15.4	1.4	36	124	1.3	2.5	39.7	22.8
USG	7440nRR	56 ± 1	15.4	1.6	36	125	1.5	2.5	39.2	23.0
Vigoro	V442NRR	55 ± 1	15.0	1.5	36	124	1.7	2.4	38.7	23.3
Asgrow	AG 4201 (RR)	52 ± 1	14.7	2.1	33	122	1.5	2.8	41.0	21.6
Vigoro	V42N3RR	51 ± 1	14.9	1.3	31	124	1.7	3.1	40.0	22.2
Midwest Premium Genetics	MPV 457nRR	49 ± 1	14.8	1.8	36	125	1.5	2.8	41.5	21.3
Pioneer	94B13 (RR)	49 ± 1	14.6	1.4	33	122	1.5	2.8	39.4	22.2

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

Protein & Oil on dry weight basis.

Table 12. Mean yields † of three Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2001 - 2003.

Brand	Variety ‡	Avg. Yield ± Std Err.					
		(n=15)	Knoxville	Crossville	Springfield	Milan	Ames
							-----bu/a-----
Dyna-Gro	3443 (RR)	54 ± 1	61	47	49	60	53
Garst	4512 RR/N	52 ± 1	61	44	49	56	50
Asgrow	AG 4403 (RR)	52 ± 1	58	49	48	55	50
Average (bu/a)		53	60	47	49	57	51
L.S.D._{.05} (bu/a)		3	6	8	7	7	8
C.V. (%)		10.9	7.7	13.5	11.5	9.3	12.7

† All yields are adjusted to 13% moisture.

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

Table 13. Mean yields † and agronomic characteristics of three Early Maturity Group IV Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2001 - 2003.

Brand	Variety ‡	Avg. Yield			Lodging	Height	Maturity	Shattering	Seed			SDS		
		± Std Err. (n=15)	Moisture § (n=15)	(n=15)					Quality (n=15)	Protein (n=14)	Oil (n=14)	Frogeye (n=1)	DI (n=1)	DS (n=1)
		bu/a	%	Score	in.	DAP	-----Score-----	%	%	Score	%	0 - 9	index	
Dyna-Gro	3443 (RR)	54 ± 1	13.9	1.7	35	128	1.0	2.7	39.6	23.3	4.0	42.5	1.5	7.1
Garst	4512 RR/N	52 ± 1	13.9	1.6	34	127	1.0	2.7	40.2	23.0	3.0	45.0	1.5	7.5
Asgrow	AG 4403 (RR)	52 ± 1	13.8	1.5	34	127	1.0	2.7	40.3	23.1	1.0	51.3	1.5	8.5

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing spots; 5 = 95+% of leaf surfaces containing spots.

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.

Table 14. Yields † of 16 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties in nine County Standard Tests in Tennessee and West Kentucky during 2003.

MS	Brand/Variety	Avg. Yield bu/a	Moisture ‡ %	(KY)								
				Ballard	Coffee	Dyer	Gibson	Lake	Lauderdale	Lawrence	Obion	Weakley
A	Vigoro V42N3RR	58.2	12.8	52.3	64.2	65.6	74.2	61.2	51.7	47.0	58.4	49.5
AB	Armor 44-R5	56.3	12.8	50.6	64.1	70.8	61.3	58.0	47.7	55.6	51.7	47.3
ABC	DeKalb DKB44-51	54.7	12.7	50.3	48.9	53.6	65.5	57.8	46.6	58.5	58.6	52.0
BCD	Asgrow AG4502	54.1	12.8	53.9	47.7	61.6	64.6	59.4	46.3	50.7	53.0	50.1
BCD	*Golden Harvest H4534	54.0	12.6	51.3	56.6	58.0	64.9	55.7	43.7	50.6	56.5	48.5
BCD	**Asgrow AG4403	53.8	12.8	52.6	58.8	51.7	66.7	57.5	43.3	53.1	52.3	48.2
BCD	Steyer 4000	53.5	12.9	43.6	57.2	60.4	62.0	56.5	47.5	50.1	58.9	45.6
BCD	*USG 7440	53.2	12.7	52.0	55.6	48.2	65.4	57.8	45.2	49.8	52.5	52.7
BCD	Croplan RC4444	53.2	12.9	52.6	56.0	53.8	65.2	56.0	45.6	50.6	54.6	44.8
BCD	Asgrow AG4201	53.0	12.8	56.2	56.8	64.2	59.6	45.8	38.6	47.8	59.3	48.4
BCD	LG Seeds C4444NRR	52.7	12.8	47.4	56.0	53.7	59.3	58.4	46.5	49.3	53.9	49.8
CD	Pioneer 94M41	52.6	12.6	47.5	59.5	63.3	65.1	56.0	40.4	42.0	53.8	45.7
CD	**Delta King 4461	52.4	12.7	52.2	57.1	51.2	59.9	58.2	48.8	46.8	50.3	46.8
CD	**USG BG4401	51.8	12.8	50.7	55.5	43.6	57.3	55.1	44.4	54.3	56.9	48.1
CD	NK Brand S43-B1	51.7	12.8	49.5	55.9	54.8	61.1	56.6	39.3	46.9	51.7	49.7
D	Progeny 4401	50.7	12.7	48.3	48.9	49.2	59.8	55.4	44.6	46.2	53.9	49.5
AVERAGE		53.5		50.7	56.2	56.5	63.2	56.6	45.0	50.0	54.8	48.5

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

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 asterisk (*) or (**) were in the top performing group in 2001 & 2002.

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 15. Overall average yields † and moistures ‡ of 10 Early Maturity Group IV Roundup Ready soybean varieties evaluated in County Standard Tests (n=9) and Experiment Stations (n=8) in Tennessee in 2003.

Brand	Variety	County Standard Trials		Experiment Station Trials	
		Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %
Vigoro	V42N3RR	58	12.8	56	13.9
Armor	44-R5 (RR)	56	12.8	62	14.0
Dekalb	DKB 44-51 (RR)	55	12.7	64	14.1
Asgrow	AG 4502 (RR)	54	12.8	60	14.1
Asgrow	AG 4403 (RR)	54	12.8	64	14.2
USG	7440nRR	53	12.7	61	14.8
Asgrow	AG 4201 (RR)	53	12.8	59	14.1
Pioneer	94M41 (RR)	53	12.6	53	13.7
N.K. Brand	S 43-B1 (RR)	52	12.8	57	14.1
Progeny	4401 RR	51	12.7	63	14.0
Average (bu/a)		54	12.8	60	14.1

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

Table 16. Mean yields † of 40 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in eight environments in Tennessee during 2003.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=8)	Spring							
			Knoxville	Crossville	Hill		Springfield	Milan		Ames
			bu/a							
			Irr.	Non-Irr.	Irr.	Non-Irr.	Irr.	Non-Irr.	Irr.	Non-Irr.
Delta King	DK 4868 RR	63 ± 1	75	53	71	61	64	62	65	57
Delta King	DK 4461 RR	63 ± 1	73	54	63	60	66	66	64	60
Morsoy	RT 4809 (RR)	62 ± 1	70	59	60	65	56	70	60	59
N.K. Brand	S 49-Q9 (RR)	62 ± 1	67	53	64	58	61	70	65	54
D & PL	DP 4690 RR	61 ± 1	73	52	58	59	61	66	62	60
Armor	47-G7 (RR)	61 ± 1	69	57	62	56	63	66	65	52
FFR	4891 RR	61 ± 1	66	50	63	61	59	64	64	62
Progeny	4858 RR	60 ± 1	70	50	68	55	58	60	58	61
Trisler Seed	Trisoy 4838RR (CN)	60 ± 1	66	53	65	64	57	64	60	49
Asgrow	AG 4603 (RR)	58 ± 1	65	50	57	57	61	62	61	54
D & PL	DP 4724 RR	58 ± 1	60	50	65	61	63	61	58	46
Delta King	DK 4967 RR	58 ± 1	64	51	64	58	54	56	64	53
Delta King	DK XTJ 446 (RR)	58 ± 1	72	48	59	53	58	63	60	51
Morsoy	RT 4802 (RR)	58 ± 1	63	57	58	61	60	56	59	49
Morsoy	RT 4993 (RR)	58 ± 1	68	50	54	52	63	62	59	54
Armor	49-P9 (RR)	58 ± 1	76	48	58	52	61	58	60	48
Delta Grow	4860 RR	57 ± 1	64	54	59	60	59	51	61	49
Delta King	DK 4763 RR	57 ± 1	64	53	53	55	63	54	66	46
Hornbeck	HBK R 4920 (RR)	57 ± 1	71	49	40	47	60	64	60	61
Pioneer	94B74 (RR)	56 ± 1	76	51	61	35	52	58	53	64
Delta King	DK XTJ 448 (RR)	56 ± 1	57	50	61	53	59	61	55	54
Pioneer	94B73 (RR)	56 ± 1	64	60	57	39	55	60	59	53
Delta Grow	4960 RR	56 ± 1	39	51	41	61	63	63	69	60
Delta King	DK XTJ 447 (RR)	55 ± 1	69	50	54	53	59	52	58	47
D & PL	DP 4933 RR	55 ± 1	61	50	57	54	63	49	55	51
USG	7499nRR	55 ± 1	75	50	56	36	59	60	49	51
Hornbeck	HBK R 4820 (RR)	54 ± 1	65	53	49	43	60	60	54	53
Terral	TVX 48R1U1 (RR)	54 ± 1	58	52	60	43	57	50	61	51
Progeny	4884 RR	54 ± 1	57	47	56	55	57	53	62	43
FFR	4922 RR	53 ± 1	64	34	60	55	55	55	61	43
Trisler Seed	Trisoy 4697RR (CN)	53 ± 1	62	45	58	47	57	59	51	46
Golden Harvest	H 4772 RR	53 ± 1	64	48	54	29	50	64	58	54
Terral	TVX 47R1K2 (RR)	52 ± 1	54	46	57	53	52	52	55	47
Hornbeck	HBK R 4922 (RR)	52 ± 1	65	44	55	41	53	58	50	50
Vigoro	V49N3RR	51 ± 1	63	48	53	35	56	58	52	45
Pioneer	94M70 (RR)	51 ± 1	65	55	50	27	55	56	55	43
USG	7482nRR	50 ± 1	66	53	45	38	55	55	51	40
Terral	TVX 49R2Y4 (RR)	50 ± 1	52	41	62	47	58	45	52	43
Midwest Premium Genetics	MPV 4904nRR	50 ± 1	52	50	46	38	58	52	56	48
Terral	TVX 49R1L2 (RR)	48 ± 1	50	39	51	42	56	43	49	50
Average (bu/a)		56	64	50	57	51	58	59	58	52
L.S.D._{.05} (bu/a)		3	6	8	12	8	8	9	8	11
C.V. (%)		9.6	5.6	9.2	12.8	10.3	7.9	9.4	8.3	12.7

† All yields are adjusted to 13% moisture.

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

Table 17. Mean yields † and agronomic characteristics of 40 Late Maturity Group IV Roundup Ready soybean varieties evaluated in eight environments in Tennessee in 2003.

Brand	Variety ‡	Avg. Yield			Height	Maturity	Seed			
		± Std Err. (n=8)	Moisture § (n=8)	Lodging (n=4)			Shattering (n=8)	Quality (n=6)	Protein (n=6)	Oil (n=6)
		bu/a	%	Score	in.	DAP	-----Score-----	%	%	
Delta King	DK 4868 RR	63 ± 1	13.9	1.4	37	131	1.0	3.1	40.8	20.0
Delta King	DK 4461 RR	63 ± 1	13.6	1.7	39	129	1.0	2.3	39.0	21.3
Morsoy	RT 4809 (RR)	62 ± 1	14.1	1.5	37	131	1.0	2.8	40.6	20.0
N.K. Brand	S 49-Q9 (RR)	62 ± 1	14.6	1.5	38	132	1.0	2.2	40.5	19.2
D & PL	DP 4690 RR	61 ± 1	13.7	2.5	38	130	1.0	2.4	39.6	20.7
Armor	47-G7 (RR)	61 ± 1	13.9	1.6	35	129	1.0	2.6	41.5	19.2
FFR	4891 RR	61 ± 1	14.0	2.6	39	132	1.0	2.3	39.3	20.7
Progeny	4858 RR	60 ± 1	13.7	1.8	40	132	1.0	2.4	40.8	19.7
Trisler Seed	Trisoy 4838RR (CN)	60 ± 1	13.4	1.9	35	129	1.0	2.0	42.0	19.6
Asgrow	AG 4603 (RR)	58 ± 1	13.6	1.6	35	130	1.0	2.4	39.9	19.7
D & PL	DP 4724 RR	58 ± 1	13.4	2.2	36	130	1.0	2.0	42.0	19.5
Delta King	DK 4967 RR	58 ± 1	13.4	2.0	35	130	1.0	1.9	41.7	19.7
Delta King	DK XTJ 446 (RR)	58 ± 1	13.9	2.3	41	131	1.0	2.6	41.8	18.8
Morsoy	RT 4802 (RR)	58 ± 1	13.5	2.0	36	130	1.0	1.9	41.8	19.6
Morsoy	RT 4993 (RR)	58 ± 1	13.7	2.7	35	129	1.0	2.1	40.6	19.4
Armor	49-P9 (RR)	58 ± 1	14.4	3.1	35	130	1.0	2.3	40.6	19.4
Delta Grow	4860 RR	57 ± 1	13.3	2.1	36	129	1.0	1.9	41.7	19.6
Delta King	DK 4763 RR	57 ± 1	13.6	1.6	36	129	1.0	2.4	41.6	19.2
Hornbeck	HBK R 4920 (RR)	57 ± 1	13.8	2.4	40	131	1.0	2.4	38.8	21.0
Pioneer	94B74 (RR)	56 ± 1	13.8	2.3	39	129	1.0	2.4	41.1	20.3
Delta King	DK XTJ 448 (RR)	56 ± 1	13.5	2.6	43	131	1.0	2.4	40.0	19.9
Pioneer	94B73 (RR)	56 ± 1	13.6	2.2	38	128	1.0	2.2	41.1	20.5
Delta Grow	4960 RR	56 ± 1	21.4	3.4	38	139	1.0	2.3	42.0	18.8
Delta King	DK XTJ 447 (RR)	55 ± 1	13.8	2.1	36	130	1.0	2.1	41.8	18.9
D & PL	DP 4933 RR	55 ± 1	14.1	2.3	42	132	1.0	1.6	40.9	19.4
USG	7499nRR	55 ± 1	13.7	1.7	40	132	1.0	2.4	40.2	19.8
Hornbeck	HBK R 4820 (RR)	54 ± 1	13.6	1.3	36	131	1.0	2.5	39.5	20.4
Terral	TVX 48R1U1 (RR)	54 ± 1	14.0	2.2	40	131	1.0	2.3	40.8	19.5
Progeny	4884 RR	54 ± 1	13.2	2.0	35	129	1.0	1.9	41.6	19.7
FFR	4922 RR	53 ± 1	14.1	1.9	41	133	1.0	1.6	40.7	19.4
Trisler Seed	Trisoy 4697RR (CN)	53 ± 1	13.5	2.1	36	127	1.0	2.6	40.7	20.2
Golden Harvest	H 4772 RR	53 ± 1	13.4	1.5	34	129	1.0	2.4	41.1	19.3
Terral	TVX 47R1K2 (RR)	52 ± 1	13.8	2.2	40	131	1.0	2.2	40.7	19.5
Hornbeck	HBK R 4922 (RR)	52 ± 1	14.4	1.8	41	133	1.0	1.6	40.6	19.4
Vigoro	V49N3RR	51 ± 1	13.2	1.9	35	129	1.0	2.0	41.2	19.8
Pioneer	94M70 (RR)	51 ± 1	14.3	2.3	38	127	1.0	2.4	40.0	20.7
USG	7482nRR	50 ± 1	13.2	1.8	34	129	1.0	1.9	41.3	19.8
Terral	TVX 49R2Y4 (RR)	50 ± 1	13.4	2.5	46	132	1.0	2.5	42.5	19.0
Midwest Premium Genetics	MPV 4904nRR	50 ± 1	15.0	2.3	39	133	1.0	2.3	41.4	19.5
Terral	TVX 49R1L2 (RR)	48 ± 1	13.7	2.7	46	131	1.0	2.3	42.2	19.0

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

Protein & Oil on dry weight basis.

Table 18. Mean yields † of 18 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in eight environments (n=16) in Tennessee for two years, 2002 - 2003.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=16)	Knoxville	Crossville	Spring Hill		Springfield	Milan		Ames
					Irr.	Non-Irr.		Irr.	Non-Irr.	
-----bu/a-----										
Delta King	DK 4868 RR	58 ± 1	66	49	56	43	61	71	59	56
Morsoy	RT 4809 (RR)	57 ± 1	66	50	52	44	53	76	60	59
Delta King	DK 4461 RR	57 ± 1	64	49	56	38	59	75	59	56
N.K. Brand	S 49-Q9 (RR)	56 ± 1	61	46	54	42	57	74	57	55
FFR	4891 RR	56 ± 1	61	47	54	45	54	65	61	59
D & PL	DP 4690 RR	55 ± 1	64	47	51	43	54	69	59	56
Armor	47-G7 (RR)	55 ± 1	63	48	52	40	59	69	55	53
Asgrow	AG 4603 (RR)	53 ± 1	59	44	49	41	61	64	57	53
Delta King	DK 4763 RR	53 ± 1	61	47	49	39	58	64	57	50
Pioneer	94B73 (RR)	53 ± 1	59	50	49	33	59	66	55	52
Hornbeck	HBK R 4920 (RR)	53 ± 1	63	46	43	37	55	64	56	57
Hornbeck	HBK R 4820 (RR)	52 ± 1	60	47	45	34	57	69	52	54
Pioneer	94B74 (RR)	52 ± 1	66	45	52	29	52	62	50	58
USG	7499nRR	50 ± 1	63	46	48	30	52	65	48	50
Golden Harvest	H 4772 RR	50 ± 1	61	42	47	27	49	66	54	52
FFR	4922 RR	50 ± 1	58	36	51	41	51	61	53	47
D & PL	DP 4933 RR	50 ± 1	58	44	49	40	54	55	48	48
Vigoro	V49N3RR	49 ± 1	57	41	46	32	51	62	50	50
Average (bu/a)		53	62	46	50	38	55	67	55	54
L.S.D._{.05} (bu/a)		3	5	7	8	6	8	8	7	8
C.V. (%)		9.2	5.8	10.1	10.7	12.6	9.7	7.6	8.6	10.4

† All yields are adjusted to 13% moisture.

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

Table 19. Mean yields † and agronomic characteristics of 18 Late Maturity Group IV Roundup Ready soybean varieties evaluated in eight environments (n=16) in Tennessee for two years, 2002 - 2003.

Brand	Variety ‡	Avg. Yield					Seed			
		± Std Err. (n=16)	Moisture § (n=16)	Lodging (n=7)	Height (n=16)	Maturity (n=16)	Shattering (n=1)	Quality (n=12)	Protein (n=11)	Oil (n=11)
		bu/a	%	Score	in.	DAP	-----Score-----	%	%	
Delta King	DK 4868 RR	58 ± 1	15.6	1.4	36	129	1.0	3.3	41.3	21.6
Morsoy	RT 4809 (RR)	57 ± 1	15.4	1.5	36	129	1.2	3.1	41.1	21.7
Delta King	DK 4461 RR	57 ± 1	14.7	1.6	36	127	1.5	2.5	39.5	22.8
N.K. Brand	S 49-Q9 (RR)	56 ± 1	16.3	1.7	38	131	1.3	2.5	41.1	20.6
FFR	4891 RR	56 ± 1	16.1	2.3	38	130	1.0	2.7	40.4	22.1
D & PL	DP 4690 RR	55 ± 1	15.3	2.2	37	128	1.5	2.6	40.3	22.1
Armor	47-G7 (RR)	55 ± 1	15.3	1.8	35	127	1.2	2.8	41.8	20.8
Asgrow	AG 4603 (RR)	53 ± 1	14.8	1.6	34	127	1.3	2.6	40.5	21.1
Delta King	DK 4763 RR	53 ± 1	14.9	1.7	35	126	1.2	2.6	42.0	20.7
Pioneer	94B73 (RR)	53 ± 1	15.0	2.0	37	125	1.2	2.4	41.5	22.1
Hornbeck	HBK R 4920 (RR)	53 ± 1	15.6	2.6	39	129	1.0	2.6	39.9	22.4
Hornbeck	HBK R 4820 (RR)	52 ± 1	15.1	1.4	35	128	1.2	2.9	40.4	21.9
Pioneer	94B74 (RR)	52 ± 1	15.1	2.2	38	126	1.3	2.6	41.4	21.9
USG	7499nRR	50 ± 1	15.0	1.7	38	128	1.2	2.5	41.0	21.3
Golden Harvest	H 4772 RR	50 ± 1	14.9	1.7	34	126	1.2	2.6	41.6	20.9
FFR	4922 RR	50 ± 1	16.0	2.3	40	130	1.2	2.0	41.4	20.9
D & PL	DP 4933 RR	50 ± 1	15.8	2.3	40	130	1.3	2.0	41.4	21.1
Vigoro	V49N3RR	49 ± 1	14.5	2.0	35	127	1.3	2.2	41.8	21.4

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

Protein & Oil on dry weight basis.

Table 20. Mean yields † of seven Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2001 - 2003.

Brand	Variety ‡	Avg. Yield ± Std Err.					
		(n=15)	Knoxville	Crossville	Springfield	Milan	Ames
		-----bu/a-----					
Delta King	DK 4868 RR	54 ± 1	62	49	52	56	50
Morsoy	RT 4809 (RR)	52 ± 1	59	49	44	56	51
Hornbeck	HBK R 4820 (RR)	51 ± 1	56	50	48	51	47
Pioneer	94B73 (RR)	50 ± 1	54	46	52	53	48
D & PL	DP 4690 RR	50 ± 1	58	44	45	55	49
Hornbeck	HBK R 4920 (RR)	50 ± 1	57	45	46	49	51
USG	7499nRR	49 ± 1	58	44	46	46	50
Average (bu/a)		51	58	47	47	52	49
L.S.D._{.05} (bu/a)		3	6	8	7	7	9
C.V. (%)		10.9	7.5	13.3	11.3	9.2	13.5

† All yields are adjusted to 13% moisture.

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

Table 21. Mean yields † and agronomic characteristics of seven Late Maturity Group IV Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2001 - 2003.

Brand	Variety ‡	Avg. Yield			Moisture §	Lodging	Height	Maturity	Seed			SDS				
		± Std Err.	(n=15)	(n=15)					Quality	Protein	Oil	Frogeye	DI	DS	DX	
		bu/a		%	Score	in.	DAP	-----Score-----			%	%	Score	%	0 - 9	index
Delta King	DK 4868 RR	54 ± 1	13.8	1.6	36	133	1.0	3.4	41.6	22.0	2.0	10.0	0.8	0.9		
Morsoy	RT 4809 (RR)	52 ± 1	13.9	1.8	36	133	1.0	3.3	41.4	22.1	4.0	23.8	1.3	3.4		
Hornbeck	HBK R 4820 (RR)	51 ± 1	13.5	1.7	34	132	1.0	3.0	41.1	22.1	2.0	28.8	0.8	2.6		
Pioneer	94B73 (RR)	50 ± 1	13.7	2.4	36	129	1.0	2.6	42.1	22.4	1.0	87.5	2.0	19.4		
D & PL	DP 4690 RR	50 ± 1	13.9	2.0	36	132	1.0	2.9	40.7	22.4	3.0	17.5	0.5	1.0		
Hornbeck	HBK R 4920 (RR)	50 ± 1	13.9	2.7	38	133	1.0	2.8	40.5	22.5	2.0	23.8	0.5	1.3		
USG	7499nRR	49 ± 1	13.5	2.0	37	132	1.0	2.6	41.6	21.7	3.0	70.0	1.6	12.4		

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing spots; 5 = 95+% of leaf surfaces containing spots.

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.

Table 22. Yields † of 24 Late Maturity Group IV (4.6-4.9) Roundup Ready soybean varieties in ten County Standard Tests in Tennessee and West Kentucky during 2003.

MS	Brand/Variety	Avg. Yield bu/a	Moisture ‡ %	(KY)				(KY)					
				Ballard	Coffee	Dyer	Gibson	Graves	Lake	Lauderdale	Montgomery	Obion	Weakley
A	Delta King 4763	55.5	12.7	35.1	65.0	69.1	69.5	58.8	58.6	50.4	31.8	49.3	67.4
A	Armor 47-G7	55.3	13.1	31.5	66.4	57.8	69.3	61.9	58.0	55.5	35.6	48.3	69.2
A	*Pioneer 94B73	55.3	12.2	46.2	56.7	62.7	61.4	60.7	58.8	48.8	33.2	62.8	61.8
AB	Mershman Dallas	55.0	12.9	42.3	60.2	63.6	57.7	48.8	58.9	54.1	35.3	55.7	73.7
ABC	*Golden Harvest H4772	54.7	12.5	42.9	63.3	60.1	64.2	52.8	57.6	55.6	28.9	54.0	68.0
ABCD	*Hornbeck 4820	54.3	12.8	53.3	57.9	59.1	63.1	54.2	51.8	56.8	20.5	57.7	68.6
ABCD	Delta King 4967	54.2	12.7	35.1	61.1	60.0	59.8	62.3	56.1	48.8	30.7	60.6	67.9
ABCD	Croplan RC4842	54.2	12.5	43.9	58.2	61.0	59.5	52.4	56.3	43.3	37.9	59.6	70.3
ABCD	USG 7482	54.2	13.5	42.2	58.8	57.3	61.1	55.8	59.8	53.0	29.0	58.0	67.4
ABCD	Vigoro V49N3RR	53.6	12.4	43.9	61.9	51.9	62.5	51.7	53.8	55.2	29.4	58.0	67.3
ABCD	**Delta King 4868	53.5	12.6	54.2	58.6	56.0	61.8	53.9	48.3	50.6	34.3	54.8	62.7
ABCD	*NK Brand S49-Q9	53.1	13.6	47.6	52.9	62.2	61.2	49.8	47.6	50.6	36.4	50.7	71.9
ABCD	*Asgrow AG4603	53.0	12.7	49.7	58.7	53.2	59.4	58.3	42.5	52.5	36.6	51.3	68.4
ABCD	Steyer 4700	52.9	12.7	49.8	53.2	55.1	61.4	56.6	51.6	46.9	37.7	49.2	67.9
ABCDE	Dynagro DG3484	52.1	12.7	46.4	60.2	51.8	60.1	53.8	45.6	52.8	32.2	49.7	68.9
ABCDE	*Progeny 4858	51.9	13.2	41.1	58.1	55.3	59.7	53.7	51.5	45.5	29.8	56.7	67.3
BCDEF	Pioneer 94M70	51.0	12.7	40.2	57.0	52.2	61.5	59.1	44.7	48.4	30.9	48.8	67.1
BCDEF	*Deltapine 4690	50.9	13.8	42.8	54.7	55.6	62.7	51.6	51.7	46.5	31.1	51.7	60.3
CDEF	*USG 7499	50.5	12.7	45.0	55.9	53.4	58.9	52.6	46.6	42.9	29.4	53.0	67.6
DEF	FFR 4891	50.1	13.7	46.0	50.5	52.3	52.8	59.7	44.1	46.6	38.6	46.2	64.0
EFG	Hornbeck 4922	48.1	13.0	42.3	54.4	37.8	55.7	49.3	38.5	48.8	32.0	58.2	63.4
FG	Dynagro DG3468	47.6	12.6	48.1	42.7	50.9	55.9	55.8	42.4	43.5	26.9	44.4	65.5
G	FFR 4922	45.2	12.8	26.8	50.5	47.3	50.9	51.2	39.1	46.2	25.4	51.9	62.4
G	Terral 47R12	44.5	13.2	44.0	47.9	50.8	52.2	47.6	48.7	35.7	38.5	36.5	43.3
Average		52.1		43.4	56.9	55.7	60.1	54.7	50.5	49.1	32.2	52.8	65.9

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

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 asterisk (*) or (**) were in the top performing group in 2001 & 2002.

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 23. Overall average yields † and moistures ‡ of 18 Late Maturity Group IV Roundup Ready soybean varieties evaluated in County Standard Tests (n=10) and Experiment Stations (n=8) in Tennessee in 2003.

Brand	Variety	County Standard Trials		Experiment Station Trials	
		Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%
Delta King	DK 4763 RR	56	12.7	57	13.6
Armor	47-G7 (RR)	55	13.1	61	13.9
Pioneer	94B73 (RR)	55	12.2	56	13.6
Golden Harvest	H 4772 RR	55	12.5	53	13.4
Hornbeck	HBK R 4820 (RR)	54	12.8	54	13.6
Delta King	DK 4967 RR	54	12.7	58	13.4
USG	7482nRR	54	13.5	50	13.2
Vigoro	V49N3RR	54	12.4	51	13.2
Delta King	DK 4868 RR	54	12.6	63	13.9
N.K. Brand	S 49-Q9 (RR)	53	13.6	62	14.6
Asgrow	AG 4603 (RR)	53	12.7	58	13.6
Progeny	4858 RR	52	13.2	60	13.7
Pioneer	94M70 (RR)	51	12.7	51	14.3
D & PL	DP 4690 RR	51	13.8	61	13.7
USG	7499nRR	51	12.7	55	13.7
FFR	4891 RR	50	13.7	61	14.0
Hornbeck	HBK R 4922 (RR)	48	13.0	52	14.4
FFR	4922 RR	45	12.8	53	14.1
Average (bu/a)		52	12.9	56	13.8

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

Table 24. Mean yields † of 44 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2003.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Spring						
			Knoxville	Hill		Springfield	Milan		Ames
				Irr.	Non-Irr.		Irr.	Non-Irr.	
-----bu/a-----									
Delta Grow	5460 RR	65 ± 1	62	59	59	66	75	61	72
Morsoy	RT 5553 (RR)	65 ± 1	70	59	61	64	67	60	73
Asgrow	AG 5501 (RR)	64 ± 1	72	63	62	63	65	58	68
Asgrow	AG 5301 (RR)	63 ± 1	54	61	70	62	67	62	66
Delta King	DK 5465 RR	63 ± 1	69	64	63	59	67	57	63
Delta King	DK 5561 RR	63 ± 1	65	53	62	66	67	61	64
Armor	53-K3 (RR)	61 ± 1	64	66	67	58	57	63	56
USG	7553nRR	61 ± 1	66	54	60	55	66	58	70
Morsoy	RT 5252 (RR)	61 ± 1	68	58	58	61	60	54	67
Progeny	5250 RR	60 ± 1	59	59	61	59	63	58	62
Terral	TV 54R11 (RR)	60 ± 1	66	58	57	58	60	61	60
Delta King	DK XTJ 452 (RR)	60 ± 1	42	63	66	56	63	61	69
Delta King	DK 5366 RR	60 ± 1	61	55	63	61	63	61	58
Pioneer	95B42 (RR)	60 ± 1	57	53	62	62	63	55	67
USG	510nRR	60 ± 1	59	47	62	63	64	57	67
Armor	52-Q2 (RR)	59 ± 1	40	63	67	55	64	61	66
USG	540nRR	59 ± 1	72	46	58	53	61	59	66
Dekalb	DKB 53-51 (RR)	59 ± 1	61	53	63	55	61	57	64
Garst	5212 RR/N	59 ± 1	61	59	58	60	63	51	60
Delta Grow	5260 RR	59 ± 1	59	54	57	59	63	53	67
FFR	5225 RR	59 ± 1	60	54	62	61	60	53	63
VA	99VPI-67 (RR)	58 ± 1	50	57	65	56	62	56	62
N.K. Brand	S 50-N3 (RR)	58 ± 1	65	57	59	57	57	55	57
FFR	RT 5485 (RR)	58 ± 1	58	54	58	60	65	54	56
Hornbeck	HBK R 5422 (RR)	57 ± 1	56	50	60	59	66	49	62
Pioneer	95B32 (RR)	57 ± 1	53	52	62	57	58	56	62
Dyna-Gro	SX 03152 (RR)	57 ± 1	37	59	63	65	63	58	55
Vigoro	V52N3RR	57 ± 1	66	50	61	50	61	50	63
D & PL	DP 5414 RR	57 ± 1	53	49	57	58	64	51	67
Delta King	DK XTJ 450 (RR)	57 ± 1	41	54	62	55	63	58	67
Dyna-Gro	33B52 (RR)	57 ± 1	44	60	57	56	62	58	62
Pioneer	95B43 (RR)	57 ± 1	57	47	63	51	57	50	72
FFR	5542 RR	56 ± 1	54	56	59	56	57	57	55
Midwest Premium Genetics	MPV 5502nRR	56 ± 1	41	76	61	50	55	53	58
USG	7524nRR	56 ± 1	53	57	58	55	52	58	59
Asgrow	AG 5402 (RR)	55 ± 1	57	53	53	56	59	51	59
Midwest Premium Genetics	MPV 5504nRR	55 ± 1	51	49	60	52	60	54	61
N.K. Brand	S 52-U3 (RR)	55 ± 1	33	57	57	57	65	56	62
MO Exp	S99-2447-09 RR	55 ± 1	55	57	54	53	51	55	59
Midwest Premium Genetics	MPV 5302nRR	54 ± 1	57	50	57	48	52	53	64
USG	7522nRR	53 ± 1	56	43	57	54	59	48	54
USG	7547 RR	52 ± 1	41	49	62	54	47	55	53
Hornbeck	HBK R 5123 (RR)	51 ± 1	46	45	57	50	55	54	51
Golden Harvest	H 5183 RR	50 ± 1	34	43	54	54	58	50	57
Average (bu/a)		58	56	55	60	57	61	56	62
L.S.D._{.05} (bu/a)		3	8	8	7	7	8	7	7
C.V. (%)		7.8	8.9	8.5	7.2	7.4	8.2	7.7	6.6

† All yields are adjusted to 13% moisture.

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

Table 25. Mean yields † and agronomic characteristics of 44 Early Maturity Group V Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2003.

Brand	Variety ‡	Avg. Yield		Moisture §	Lodging	Height	Maturity	Shattering	Seed		
		± Std Err.	(n=7)						(n=7)	(n=5)	Quality
		bu/a	%	%	Score	in.	DAP	-----Score-----	(n=5)	(n=5)	(n=5)
Delta Grow	5460 RR	65 ± 1	13.8	13.8	1.3	38	145	1.0	1.7	39.5	19.3
Morsoy	RT 5553 (RR)	65 ± 1	14.4	14.4	1.6	44	144	1.0	2.0	40.2	19.8
Asgrow	AG 5501 (RR)	64 ± 1	14.1	14.1	1.6	39	145	1.0	2.0	40.4	19.0
Asgrow	AG 5301 (RR)	63 ± 1	14.6	14.6	1.4	38	140	1.0	1.5	39.4	19.6
Delta King	DK 5465 RR	63 ± 1	13.9	13.9	1.2	37	145	1.0	1.9	39.6	19.5
Delta King	DK 5561 RR	63 ± 1	14.5	14.5	1.1	38	142	1.0	1.8	39.0	19.7
Armor	53-K3 (RR)	61 ± 1	14.4	14.4	1.3	35	142	1.0	1.7	38.3	20.3
USG	7553nRR	61 ± 1	13.6	13.6	1.3	39	144	1.0	1.8	39.1	19.4
Morsoy	RT 5252 (RR)	61 ± 1	14.5	14.5	1.6	36	141	1.0	2.1	39.8	19.4
Progeny	5250 RR	60 ± 1	14.3	14.3	1.7	37	142	1.0	1.9	39.9	19.4
Terral	TV 54R11 (RR)	60 ± 1	13.9	13.9	1.3	38	144	1.0	2.0	39.5	19.6
Delta King	DK XTJ 452 (RR)	60 ± 1	14.3	14.3	2.8	36	140	1.0	1.8	38.9	20.4
Delta King	DK 5366 RR	60 ± 1	14.0	14.0	2.6	39	146	1.0	1.8	39.4	19.0
Pioneer	95B42 (RR)	60 ± 1	14.1	14.1	1.7	42	142	1.0	1.9	40.1	19.5
USG	510nRR	60 ± 1	14.0	14.0	1.2	40	142	1.0	2.0	40.0	19.0
Armor	52-Q2 (RR)	59 ± 1	14.3	14.3	2.9	34	141	1.0	1.9	39.1	20.1
USG	540nRR	59 ± 1	14.0	14.0	1.2	39	145	1.0	2.0	39.6	19.4
Dekalb	DKB 53-51 (RR)	59 ± 1	14.2	14.2	2.1	38	141	1.0	1.7	40.9	19.5
Garst	5212 RR/N	59 ± 1	14.3	14.3	1.6	42	142	1.0	2.1	41.0	18.3
Delta Grow	5260 RR	59 ± 1	14.1	14.1	2.3	38	141	1.0	1.6	40.9	19.4
FFR	5225 RR	59 ± 1	14.4	14.4	1.4	42	141	1.0	1.9	40.8	18.6
VA	99VPI-67 (RR)	58 ± 1	14.2	14.2	1.7	38	141	1.0	1.8	38.8	20.7
N.K. Brand	S 50-N3 (RR)	58 ± 1	13.9	13.9	1.6	40	140	1.1	2.2	39.9	19.1
FFR	RT 5485 (RR)	58 ± 1	14.4	14.4	1.5	39	142	1.0	1.9	40.8	18.7
Hornbeck	HBK R 5422 (RR)	57 ± 1	14.2	14.2	1.6	42	141	1.0	1.9	40.7	18.5
Pioneer	95B32 (RR)	57 ± 1	14.2	14.2	1.4	36	140	1.0	1.8	38.7	19.8
Dyna-Gro	SX 03152 (RR)	57 ± 1	14.2	14.2	1.3	38	141	1.0	1.8	39.8	19.1
Vigoro	V52N3RR	57 ± 1	14.4	14.4	1.5	36	141	1.0	1.9	39.4	19.5
D & PL	DP 5414 RR	57 ± 1	14.6	14.6	2.2	43	143	1.0	1.9	42.8	17.6
Delta King	DK XTJ 450 (RR)	57 ± 1	14.9	14.9	1.7	40	139	1.1	2.1	41.9	18.6
Dyna-Gro	33B52 (RR)	57 ± 1	14.1	14.1	3.3	35	141	1.0	2.0	39.2	20.3
Pioneer	95B43 (RR)	57 ± 1	14.6	14.6	2.4	41	142	1.0	1.7	38.1	19.3
FFR	5542 RR	56 ± 1	14.4	14.4	1.7	35	140	1.0	1.8	39.1	20.2
Midwest Premium Genetics	MPV 5502nRR	56 ± 1	14.1	14.1	1.5	38	144	1.0	1.7	38.6	19.9
USG	7524nRR	56 ± 1	14.3	14.3	2.4	45	138	1.0	2.0	40.9	18.7
Asgrow	AG 5402 (RR)	55 ± 1	14.2	14.2	2.7	42	143	1.0	1.9	40.1	18.7
Midwest Premium Genetics	MPV 5504nRR	55 ± 1	14.1	14.1	1.8	37	143	1.0	1.8	39.9	19.7
N.K. Brand	S 52-U3 (RR)	55 ± 1	14.5	14.5	2.3	35	140	1.0	1.5	39.0	19.2
MO Exp	S99-2447-09 RR	55 ± 1	14.1	14.1	1.8	36	143	1.0	1.9	40.0	19.8
Midwest Premium Genetics	MPV 5302nRR	54 ± 1	14.3	14.3	1.4	35	144	1.0	1.9	39.9	19.7
USG	7522nRR	53 ± 1	14.4	14.4	1.5	40	138	1.0	1.8	41.7	18.1
USG	7547 RR	52 ± 1	14.4	14.4	1.9	39	142	1.0	1.9	40.9	18.5
Hornbeck	HBK R 5123 (RR)	51 ± 1	14.2	14.2	2.1	42	139	1.0	1.8	39.3	20.2
Golden Harvest	H 5183 RR	50 ± 1	14.5	14.5	2.3	37	140	1.0	1.7	40.3	18.9

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

Protein & Oil on dry weight basis.

Table 26. Mean yields † and SDS ratings of 44 Early Maturity Group V Roundup Ready soybean varieties evaluated in Knoxville during 2003.

Brand	Variety ‡	Knoxville	SDS		
			DI (n=1)	DS (n=1)	DX (n=1)
		bu/a	%	0 - 9	index
Asgrow	AG 5501 (RR)	72	63.3	1.3	9.1
USG	540nRR	72	56.7	1.3	8.2
Morsoy	RT 5553 (RR)	70	23.3	1.3	3.4
Delta King	DK 5465 RR	69	46.7	1.0	5.2
Morsoy	RT 5252 (RR)	68	43.3	1.7	8.2
Terral	TV 54R11 (RR)	66	63.3	1.3	9.1
USG	7553nRR	66	83.3	2.0	18.5
Vigoro	V52N3RR	66	43.3	1.3	6.3
N.K. Brand	S 50-N3 (RR)	65	30.0	2.0	6.7
Delta King	DK 5561 RR	65	21.7	1.3	3.1
Armor	53-K3 (RR)	64	45.0	1.7	8.5
Delta Grow	5460 RR	62	86.7	1.7	16.4
Garst	5212 RR/N	61	56.7	1.3	8.2
Delta King	DK 5366 RR	61	76.7	1.0	8.5
Dekalb	DKB 53-51 (RR)	61	66.7	2.3	17.0
FFR	5225 RR	60	80.0	2.0	17.8
Progeny	5250 RR	59	83.3	2.0	18.5
USG	510nRR	59	83.3	2.0	18.5
Delta Grow	5260 RR	59	73.3	2.0	16.3
FFR	RT 5485 (RR)	58	56.7	1.7	10.7
Pioneer	95B43 (RR)	57	86.7	3.0	28.9
Midwest Premium Genetics	MPV 5302nRR	57	100.0	4.0	44.4
Asgrow	AG 5402 (RR)	57	75.0	2.0	16.7
Pioneer	95B42 (RR)	57	100.0	3.7	41.1
Hornbeck	HBK R 5422 (RR)	56	53.3	1.3	7.7
USG	7522nRR	56	60.0	1.3	8.7
MO Exp	S99-2447-09 RR	55	100.0	4.0	44.4
Asgrow	AG 5301 (RR)	54	66.7	2.7	20.0
FFR	5542 RR	54	95.0	2.3	24.3
USG	7524nRR	53	76.7	3.0	25.6
Pioneer	95B32 (RR)	53	98.3	3.7	40.4
D & PL	DP 5414 RR	53	90.0	2.0	20.0
Midwest Premium Genetics	MPV 5504nRR	51	100.0	4.3	47.8
VA	99VPI-67 (RR)	50	66.7	3.3	24.4
Hornbeck	HBK R 5123 (RR)	46	93.3	3.3	34.2
Dyna-Gro	33B52 (RR)	44	100.0	3.0	33.3
Delta King	DK XTJ 452 (RR)	42	96.7	4.3	46.2
Midwest Premium Genetics	MPV 5502nRR	41	100.0	5.7	63.3
Delta King	DK XTJ 450 (RR)	41	96.7	4.3	46.2
USG	7547 RR	41	100.0	4.0	44.4
Armor	52-Q2 (RR)	40	93.3	4.0	41.5
Dyna-Gro	SX 03152 (RR)	37	100.0	6.3	70.0
Golden Harvest	H 5183 RR	34	100.0	5.3	58.9
N.K. Brand	S 52-U3 (RR)	33	100.0	6.7	74.4

† All yields are adjusted to 13% moisture.

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

DI = disease incidence = percentage of plants with symptoms

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

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

Table 27. Mean yields † of 24 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2002 - 2003.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Knoxville	Spring Hill		Springfield	Milan		Ames
				Irr.	Non-Irr.		Irr.	Non-Irr.	
-----bu/a-----									
Asgrow	AG 5501 (RR)	58 ± 1	66	55	47	59	68	53	60
Delta King	DK 5465 RR	56 ± 1	61	57	45	53	65	54	57
Terral	TV 54R11 (RR)	56 ± 1	61	55	42	56	62	59	54
Armor	53-K3 (RR)	55 ± 1	61	57	48	56	57	57	53
Delta King	DK 5366 RR	55 ± 1	58	51	46	59	61	57	57
Morsoy	RT 5252 (RR)	55 ± 1	62	50	45	55	61	53	59
Asgrow	AG 5301 (RR)	54 ± 1	51	50	49	57	61	54	59
FFR	5225 RR	54 ± 1	58	51	45	57	58	51	58
USG	510nRR	54 ± 1	57	44	45	59	59	53	59
USG	540nRR	53 ± 1	65	44	42	52	57	55	58
FFR	5542 RR	53 ± 1	53	52	46	55	59	53	55
Vigoro	V52N3RR	53 ± 1	59	49	43	50	63	48	57
VA	99VPI-67 (RR)	53 ± 1	54	51	46	53	59	52	54
Pioneer	95B42 (RR)	52 ± 1	54	51	42	55	61	50	54
D & PL	DP 5414 RR	52 ± 1	50	48	47	53	63	49	55
Pioneer	95B32 (RR)	52 ± 1	53	50	45	52	61	51	51
Pioneer	95B43 (RR)	52 ± 1	56	45	46	50	60	47	60
N.K. Brand	S 52-U3 (RR)	52 ± 1	42	51	44	55	66	51	54
Hornbeck	HBK R 5422 (RR)	52 ± 1	55	46	43	54	65	45	53
USG	7522nRR	51 ± 1	56	42	44	52	60	46	54
Midwest Premium Genetics	MPV 5302nRR	50 ± 1	57	50	43	50	51	47	51
USG	7524nRR	50 ± 1	54	48	40	46	54	53	52
Midwest Premium Genetics	MPV 5502nRR	49 ± 1	50	62	45	45	49	46	48
USG	7547 RR	49 ± 1	46	47	45	53	50	47	52
Average (bu/a)		53	56	50	45	54	60	51	55
L.S.D._{.05} (bu/a)		3	6	7	6	7	9	8	8
C.V. (%)		9.2	7.6	9.1	10.0	8.8	9.5	10.2	9.3

† All yields are adjusted to 13% moisture.

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

Table 28. Mean yields † and agronomic characteristics of 24 Early Maturity Group V Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2002 - 2003.

Brand	Variety ‡	Avg. Yield		Moisture §	Lodging	Height	Maturity	Seed				SDS		
		± Std Err.	(n=14)					Shattering	Quality	Protein	Oil	Frogeye	DI	DS
		bu/a	%	(n=9)	in.	DAP	-----Score-----	%	%	Score	%	0 - 9	index	
Asgrow	AG 5501 (RR)	58 ± 1	16.2	1.6	38	140	1.0	2.4	40.4	19.8	2.3	63.3	1.3	9.1
Delta King	DK 5465 RR	56 ± 1	15.6	1.2	37	138	1.0	2.3	39.9	20.1	3.8	46.7	1.0	5.2
Terral	TV 54R11 (RR)	56 ± 1	15.9	1.3	38	138	1.0	2.3	39.7	20.2	3.7	63.3	1.3	9.1
Armor	53-K3 (RR)	55 ± 1	16.6	1.3	34	138	1.0	2.1	38.6	21.1	3.7	45.0	1.7	8.5
Delta King	DK 5366 RR	55 ± 1	16.8	2.6	39	141	1.0	2.1	39.4	19.8	1.5	76.7	1.0	8.5
Morsoy	RT 5252 (RR)	55 ± 1	16.0	1.7	36	135	1.0	2.5	40.0	20.1	3.0	43.3	1.7	8.2
Asgrow	AG 5301 (RR)	54 ± 1	16.6	1.5	38	136	1.0	2.2	39.4	20.3	3.3	66.7	2.7	20.0
FFR	5225 RR	54 ± 1	16.0	1.5	41	135	1.0	2.3	40.9	19.4	2.0	80.0	2.0	17.8
USG	510nRR	54 ± 1	16.2	1.4	39	138	1.0	2.7	40.2	19.7	4.2	83.3	2.0	18.5
USG	540nRR	53 ± 1	15.4	1.4	38	139	1.1	2.3	39.8	20.0	4.3	56.7	1.3	8.2
FFR	5542 RR	53 ± 1	16.3	2.0	35	137	1.0	2.1	39.5	20.9	2.2	95.0	2.3	24.3
Vigoro	V52N3RR	53 ± 1	16.2	1.7	36	136	1.0	2.3	39.6	20.2	2.5	43.3	1.3	6.3
VA	99VPI-67 (RR)	53 ± 1	16.3	1.8	37	137	1.0	2.1	38.9	21.3	3.5	66.7	3.3	24.4
Pioneer	95B42 (RR)	52 ± 1	15.5	1.8	40	136	1.0	2.2	40.1	20.3	2.2	100.0	3.7	41.1
D & PL	DP 5414 RR	52 ± 1	16.1	2.4	42	137	1.0	2.2	42.7	18.4	1.2	90.0	2.0	20.0
Pioneer	95B32 (RR)	52 ± 1	16.0	1.5	34	134	1.1	2.1	39.0	20.4	3.2	98.3	3.7	40.4
Pioneer	95B43 (RR)	52 ± 1	16.5	2.4	40	137	1.0	2.1	38.0	20.2	3.0	86.7	3.0	28.9
N.K. Brand	S 52-U3 (RR)	52 ± 1	16.5	2.3	35	136	1.0	2.0	39.0	20.0	2.3	100.0	6.7	74.4
Hornbeck	HBK R 5422 (RR)	52 ± 1	15.9	1.6	41	136	1.0	2.2	40.9	19.2	1.7	53.3	1.3	7.7
USG	7522nRR	51 ± 1	16.4	1.8	40	133	1.1	2.5	41.8	18.9	2.7	60.0	1.3	8.7
Midwest Premium Genetics	MPV 5302nRR	50 ± 1	16.0	1.6	34	138	1.0	2.2	40.1	20.5	4.2	100.0	4.0	44.4
USG	7524nRR	50 ± 1	15.9	2.4	44	133	1.1	2.4	40.9	19.5	3.2	76.7	3.0	25.6
Midwest Premium Genetics	MPV 5502nRR	49 ± 1	15.7	1.7	36	139	1.0	2.1	38.6	20.7	3.8	100.0	5.7	63.3
USG	7547 RR	49 ± 1	16.1	2.1	38	136	1.0	2.1	41.0	19.3	3.5	100.0	4.0	44.4

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing spots; 5 = 95+% of leaf surfaces containing spots.

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.

Table 29. Mean yields † of 10 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2001 - 2003.

Brand	Variety ‡	Avg. Yield	Knoxville	Spring Hill	Springfield	Milan	Ames
		± Std Err. (n=15)					
-----bu/a-----							
Asgrow	AG 5501 (RR)	53 ± 1	64	50	49	51	51
Delta King	DK 5366 RR	52 ± 1	55	51	50	55	48
Delta King	DK 5465 RR	51 ± 1	60	53	45	52	47
USG	510nRR	51 ± 1	55	52	48	50	49
USG	540nRR	50 ± 1	60	48	43	51	48
D & PL	DP 5414 RR	49 ± 1	51	53	46	48	47
Pioneer	95B32 (RR)	48 ± 1	47	52	45	48	45
USG	7522nRR	47 ± 1	53	49	45	45	45
N.K. Brand	S 52-U3 (RR)	47 ± 1	38	50	48	49	48
USG	7547 RR	46 ± 1	45	50	45	45	45
Average (bu/a)		49	53	51	46	49	47
L.S.D._{.05} (bu/a)		3	6	7	6	7	6
C.V. (%)		9.6	7.9	10.2	10.1	10.1	10.2

† All yields are adjusted to 13% moisture.

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

Table 30. Mean yields † and agronomic characteristics of 10 Early Maturity Group V Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2001 - 2003.

Brand	Variety ‡	Avg. Yield	Moisture § (n=15)	Lodging (n=10)	Height (n=15)	Maturity (n=15)	Shattering (n=12)	Seed	Protein (n=10)	Oil (n=10)	Frogeye (n=2)	SDS		
		± Std Err. (n=15)						Quality (n=13)				DI (n=2)	DS (n=2)	DX (n=2)
		bu/a	%	Score	in.	DAP	-----Score-----	%	%	Score	%	0 - 9	index	
Asgrow	AG 5501 (RR)	53 ± 1	14.1	1.8	38	142	1.0	2.3	41.5	20.8	1.0	43.6	1.1	5.3
Delta King	DK 5366 RR	52 ± 1	14.4	3.0	38	143	1.0	2.3	40.7	20.7	1.0	72.1	1.6	12.8
Delta King	DK 5465 RR	51 ± 1	13.8	1.5	36	142	1.0	2.5	41.3	20.8	3.0	46.4	1.3	6.7
USG	510nRR	51 ± 1	14.2	1.7	38	140	1.0	2.7	41.4	20.6	1.0	82.9	2.0	18.4
USG	540nRR	50 ± 1	13.8	1.8	37	142	1.0	2.4	41.2	20.8	3.0	37.9	1.1	4.6
D & PL	DP 5414 RR	49 ± 1	14.4	2.6	41	140	1.0	2.3	43.3	19.5	1.0	65.0	1.7	12.3
Pioneer	95B32 (RR)	48 ± 1	14.4	2.0	33	137	1.1	2.4	40.7	21.2	1.0	97.9	3.3	35.9
USG	7522nRR	47 ± 1	14.5	2.3	39	135	1.1	2.5	42.5	19.9	2.0	66.4	1.9	14.0
N.K. Brand	S 52-U3 (RR)	47 ± 1	14.6	2.7	35	138	1.0	2.3	40.1	21.0	2.0	96.4	5.3	56.8
USG	7547 RR	46 ± 1	14.4	2.4	36	139	1.0	2.3	42.1	20.3	2.0	83.6	3.0	27.9

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing spots; 5 = 95+% of leaf surfaces containing spots.

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.

Table 31. Yields † of 24 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties in 11 County Standard Tests in Tennessee and West Kentucky during 2003.

MS	Brand/Variety	Avg. Yield bu/a	Moisture ‡ %	(KY)										Milan Exp.	
				Carlisle	Coffee	Crockett	Dyer	Gibson	Hardin	Lake	Lauderdale	Station	Obion	Weakley	
A	Progeny 5250	55.6	11.9	55.5	55.1	57.7	56.0	60.5	69.0	51.3	47.3	52.2	54.3	52.3	
AB	NK Brand S50-N3	54.8	11.7	52.7	60.5	56.9	48.8	60.5	68.9	52.4	44.8	54.7	49.4	53.5	
ABC	*Croplan RC5252	54.3	11.9	48.1	54.3	57.2	49.8	60.8	71.2	54.9	45.2	54.1	49.6	52.1	
ABC	Steyer 5300	54.2	12.0	51.6	57.5	50.4	50.2	59.9	69.2	52.9	44.4	51.7	58.9	49.9	
ABCD	Vigoro V52N3RR	53.9	12.0	54.2	52.2	56.7	53.4	59.2	65.2	53.5	40.8	56.0	54.5	47.4	
ABCD	*USG 510nRR	53.8	11.9	51.6	53.4	55.0	50.5	62.5	74.4	50.4	41.5	50.0	47.6	55.2	
ABCD	**Asgrow AG5501	53.8	12.2	53.6	58.6	49.7	49.3	60.5	70.0	48.5	42.0	49.8	55.1	54.5	
ABCD	**NK Brand S52-U3	53.7	12.0	47.2	58.5	60.2	47.4	58.7	68.1	51.9	40.1	55.8	49.7	53.0	
ABCD	*Asgrow AG5301	53.4	11.9	46.9	53.7	53.5	49.8	61.0	73.6	52.3	32.5	56.8	51.6	55.7	
ABCDE	*FFR 5485	53.1	11.9	50.9	50.6	54.7	54.7	57.4	64.6	50.1	41.4	52.6	54.9	51.7	
ABCDE	*Delta King 5366	52.8	12.5	47.7	49.3	53.7	55.7	55.4	69.3	52.8	44.9	48.9	51.6	51.4	
BCDEF	Dynagro DG3535	52.6	12.5	50.3	48.1	54.4	57.5	60.4	69.2	45.6	40.5	50.7	50.5	51.3	
BCDEF	FFR 5225	52.5	12.0	47.9	53.2	53.8	55.1	55.2	66.6	50.6	37.5	52.0	51.5	53.8	
BCDEFG	Terral 54R11	52.2	12.1	40.4	58.9	53.4	46.1	60.1	71.1	44.6	37.3	55.5	55.9	51.4	
BCDEFG	Pioneer 95B42	52.1	12.1	40.6	57.0	51.6	48.5	60.6	66.2	48.9	41.0	57.8	50.7	49.9	
BCDEFG	**Pioneer 95B32	52.0	12.3	53.4	51.7	54.9	48.0	62.1	71.8	45.1	36.0	48.2	50.5	50.7	
CDEFG	*Deltapine 5414	51.8	12.0	43.2	59.8	52.8	52.7	52.3	63.8	48.2	46.8	55.2	48.8	45.8	
DEFG	**Delta King 5465	51.3	12.0	42.3	59.1	52.1	41.5	56.6	70.1	51.9	38.5	46.1	52.8	53.0	
EFGH	DeKalb DKB53-51	50.2	11.6	48.1	55.3	56.9	46.0	53.3	64.6	45.1	32.5	50.8	47.8	51.8	
FGH	*USG 7522nRR	49.8	12.2	44.5	55.4	53.2	45.6	51.6	63.6	48.2	32.2	57.3	48.3	47.9	
FGH	*Pioneer 95B43	49.7	12.2	45.3	48.0	56.5	43.4	53.7	72.0	52.1	31.3	44.6	50.5	49.7	
GH	Hornbeck 5123	49.5	12.1	42.6	49.6	57.9	39.0	56.3	69.3	50.6	28.7	51.5	52.5	47.1	
GH	Mershman Olympus	49.5	12.0	47.6	54.0	51.3	41.3	55.2	64.4	45.7	37.4	48.7	53.3	45.9	
H	Golden Harvest H5183	48.3	12.1	41.2	52.1	51.3	39.0	59.1	66.5	48.7	27.5	49.7	48.8	47.6	
Average (bu/a)		52.3		47.8	54.4	54.4	48.7	58.0	68.4	49.8	38.8	52.1	51.6	50.9	

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

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 asterick (*) or (**) were in the top performing group in 2001 & 2002.

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 32. Overall average yields † and moistures ‡ of 20 Early Maturity Group V Roundup Ready soybean varieties evaluated in County Standard Tests (n=11) and Experiment Stations (n=7) in Tennessee in 2003.

Brand	Variety	County Standard Trials		Experiment Station Trials	
		Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%
Progeny	5250 RR	56	11.9	60	14.3
N.K. Brand	S 50-N3 (RR)	55	11.7	58	13.9
Vigoro	V52N3RR	54	12.0	57	14.4
Asgrow	AG 5501 (RR)	54	12.2	64	14.1
USG	510nRR	54	11.9	60	14.0
N.K. Brand	S 52-U3 (RR)	54	12.0	55	14.5
Asgrow	AG 5301 (RR)	53	11.9	63	14.6
FFR	RT 5485 (RR)	53	11.9	58	14.4
Delta King	DK 5366 RR	53	12.5	60	14.0
FFR	5225 RR	53	12.0	59	14.4
Terral	TV 54R11 (RR)	52	12.1	60	13.9
Pioneer	95B42 (RR)	52	12.1	60	14.1
Pioneer	95B32 (RR)	52	12.3	57	14.2
D & PL	DP 5414 RR	52	12.0	57	14.6
Delta King	DK 5465 RR	51	12.0	63	13.9
Dekalb	DKB 53-51 (RR)	50	11.6	59	14.2
USG	7522nRR	50	12.2	53	14.4
Pioneer	95B43 (RR)	50	12.2	57	14.6
Hornbeck	HBK R 5123 (RR)	50	12.1	51	14.2
Golden Harvest	H 5183 RR	48	12.1	50	14.5
Average (bu/a)		52	12.0	58	14.3

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

Table 33. Mean yields † of 46 Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in eight environments in Tennessee during 2003.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=8)	Spring				Ames			
			Knoxville	Hill		Springfield	Milan	Early Planted	Late Planted	
				Irr.	Non-Irr.		Irr.	Non-Irr.		
-----bu/a-----										
Delta King	DK 5967 RR	67 ± 1	60	68	80	61	70	67	63	67
Asgrow	AG 5903 (RR)	66 ± 1	65	70	67	57	68	67	64	73
Armor	58-V8 (RR)	66 ± 1	54	69	80	61	62	67	67	66
Asgrow	AG 5605 (RR)	65 ± 1	71	66	70	53	64	69	60	71
Dyna-Gro	3583 (RR)	64 ± 1	61	60	78	57	58	65	64	67
Terral	TVX 57R2M1 (RR)	63 ± 1	66	74	67	57	56	58	55	72
Delta King	DK 5767 RR	63 ± 1	62	67	66	55	60	62	67	63
Delta Grow	5960 RR	63 ± 1	55	69	75	58	57	66	59	62
Hornbeck	HBK R 5823 (RR)	62 ± 1	84	62	70	51	66	50	51	64
D & PL	DP 5634 RR	62 ± 1	66	68	65	57	61	55	60	66
Dekalb	DKB 57-51 (RR)	62 ± 1	64	61	68	56	59	61	58	67
D & PL	DP 5806 RR	62 ± 1	60	66	66	53	61	60	67	61
Dyna-Gro	SX 03157 (RR)	62 ± 1	70	62	65	54	59	61	59	63
Terral	TV 59R98 (RR)	61 ± 1	58	65	69	57	54	63	64	61
Progeny	5660 RR	61 ± 1	65	59	70	55	53	70	55	65
Vigoro	V56N4RR	61 ± 1	67	66	62	52	63	58	59	63
D & PL	DP 5915 RR	61 ± 1	58	62	72	53	55	60	61	68
Terral	TVX 56R1B2 (RR)	61 ± 1	71	61	61	56	58	56	64	59
Terral	TV 56R11 (RR)	61 ± 1	66	66	63	54	52	65	58	63
VA	99VPI-120 (RR)	61 ± 1	68	76	67	53	58	59	51	52
Asgrow	AG 5701 (RR)	60 ± 1	60	58	59	54	60	60	70	61
Terral	TVX 58R1V2 (RR)	60 ± 1	62	65	66	55	55	60	56	62
Armor	56-J6 (RR)	60 ± 1	60	63	69	49	61	61	61	56
Vigoro	V562NRR	60 ± 1	56	67	63	54	54	63	62	60
Delta Grow	5630 RR	59 ± 1	60	65	64	49	50	64	56	66
Terral	TVX 58R2W1 (RR)	59 ± 1	59	67	65	52	52	60	58	61
Dyna-Gro	38K57 (RR)	59 ± 1	60	67	56	58	52	65	55	60
N.K. Brand	S 57-P1 (RR)	59 ± 1	59	57	57	54	56	59	57	73
TN Exp	TN01-360RR	59 ± 1	62	67	60	51	52	58	46	76
Delta King	DK 5661 RR	59 ± 1	63	62	58	53	58	62	57	59
Delta Grow	5650 RR	58 ± 1	56	62	61	52	53	59	59	67
Hornbeck	HBK R 5620 (RR)	58 ± 1	62	58	60	49	53	63	52	65
USG	7562nRR	58 ± 1	56	67	64	55	43	59	56	62
USG	7563nRR	58 ± 1	61	52	59	53	57	61	55	64
TN Exp	TN03-99RR	57 ± 1	59	69	64	51	55	59	50	53
TN Exp	TN03-97RR	57 ± 1	51	68	69	52	52	64	53	51
Delta King	DK 5668 RR	57 ± 1	58	64	61	51	55	58	55	57
TN Exp	TN03-94RR	57 ± 1	50	68	68	49	53	63	52	51
Dyna-Gro	3562 (RR)	56 ± 1	56	56	56	47	54	57	58	64
D & PL	DP 5644 RR	56 ± 1	55	62	61	52	52	56	54	55
TN Exp	TN03-100RR	56 ± 1	44	68	69	51	47	53	56	58
TN Exp	TN01-340RR	55 ± 1	53	68	68	54	43	55	47	51
TN Exp	TN01-331RR	55 ± 1	50	56	58	52	50	61	56	58
Armor	AXR 5881 (RR)	55 ± 1	61	56	61	50	55	54	47	56
TN Exp	TN03-98RR	55 ± 1	48	66	68	50	57	56	50	43
TN Exp	TN03-101RR	54 ± 1	44	68	60	49	53	57	51	49
Average (bu/a)		60	60	64	65	53	56	61	57	61
L.S.D._{.05} (bu/a)		3	12	9	9	6	10	7	9	13
C.V. (%)		9.7	12.1	8.4	8.4	7.3	10.8	6.7	9.4	12.7

† All yields are adjusted to 13% moisture.

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

Table 34. Mean yields † and agronomic characteristics of 46 Late Maturity Group V Roundup Ready soybean varieties evaluated in eight environments in Tennessee during 2003.

Brand	Variety ‡	Avg. Yield		Moisture §	Lodging	Height	Maturity	Shattering	Seed		
		± Std Err.	(n=8)						(n=8)	(n=6)	(n=8)
		(n=8)	(n=8)	(n=8)	(n=6)	(n=8)	(n=7)	(n=8)	(n=5)	(n=5)	(n=5)
		bu/a	%	%	Score	in.	DAP	-----Score-----	%	%	%
Delta King	DK 5967 RR	67 ± 1	12.9	2.0	40	147	1.0	1.8	38.9	19.3	
Asgrow	AG 5903 (RR)	66 ± 1	13.1	2.5	40	145	1.0	2.0	38.3	20.0	
Armor	58-V8 (RR)	66 ± 1	13.2	2.1	40	148	1.0	1.9	38.9	19.5	
Asgrow	AG 5605 (RR)	65 ± 1	13.0	1.7	38	144	1.0	1.8	39.2	19.5	
Dyna-Gro	3583 (RR)	64 ± 1	13.0	1.7	38	147	1.0	1.9	38.5	19.6	
Terral	TVX 57R2M1 (RR)	63 ± 1	13.5	2.5	42	142	1.0	1.7	39.3	19.0	
Delta King	DK 5767 RR	63 ± 1	13.1	2.7	40	145	1.0	1.8	40.6	18.9	
Delta Grow	5960 RR	63 ± 1	13.0	2.1	40	147	1.0	1.8	38.6	19.6	
Hornbeck	HBK R 5823 (RR)	62 ± 1	13.1	1.9	43	146	1.0	2.0	40.3	19.2	
D & PL	DP 5634 RR	62 ± 1	12.9	2.6	40	145	1.0	1.8	40.0	18.8	
Dekalb	DKB 57-51 (RR)	62 ± 1	13.2	2.6	40	144	1.0	2.1	40.8	18.8	
D & PL	DP 5806 RR	62 ± 1	13.2	3.0	42	149	1.0	1.9	40.6	18.2	
Dyna-Gro	SX 03157 (RR)	62 ± 1	13.3	3.2	39	141	1.0	1.9	39.7	19.6	
Terral	TV 59R98 (RR)	61 ± 1	13.3	2.6	43	145	1.0	1.7	40.3	18.6	
Progeny	5660 RR	61 ± 1	13.1	2.4	40	147	1.0	1.9	39.3	19.2	
Vigoro	V56N4RR	61 ± 1	13.0	2.6	39	144	1.0	1.9	40.6	18.8	
D & PL	DP 5915 RR	61 ± 1	13.1	2.4	40	148	1.0	2.0	40.8	18.8	
Terral	TVX 56R1B2 (RR)	61 ± 1	13.7	2.3	43	143	1.0	1.8	39.4	19.0	
Terral	TV 56R11 (RR)	61 ± 1	13.2	2.6	40	146	1.0	2.0	39.1	19.4	
VA	99VPI-120 (RR)	61 ± 1	13.1	1.9	38	143	1.0	1.6	38.7	20.1	
Asgrow	AG 5701 (RR)	60 ± 1	13.5	2.6	40	147	1.0	1.7	40.5	18.4	
Terral	TVX 58R1V2 (RR)	60 ± 1	13.1	2.4	43	147	1.0	2.1	39.7	18.9	
Armor	56-J6 (RR)	60 ± 1	13.3	2.3	41	147	1.0	2.2	38.9	19.3	
Vigoro	V562NRR	60 ± 1	13.1	2.6	40	147	1.0	2.1	39.6	19.2	
Delta Grow	5630 RR	59 ± 1	13.2	2.6	39	147	1.0	1.9	39.2	19.2	
Terral	TVX 58R2W1 (RR)	59 ± 1	13.1	2.4	42	147	1.0	2.3	39.7	19.0	
Dyna-Gro	38K57 (RR)	59 ± 1	13.1	2.6	39	143	1.0	1.9	40.3	19.0	
N.K. Brand	S 57-P1 (RR)	59 ± 1	13.3	2.8	38	142	1.0	2.1	42.8	18.1	
TN Exp	TN01-360RR	59 ± 1	13.3	2.0	38	149	1.0	1.8	40.3	19.4	
Delta King	DK 5661 RR	59 ± 1	13.2	2.2	39	147	1.0	2.0	40.3	18.8	
Delta Grow	5650 RR	58 ± 1	13.0	2.7	39	144	1.0	1.9	40.4	19.0	
Hornbeck	HBK R 5620 (RR)	58 ± 1	13.0	2.4	41	147	1.0	2.1	39.3	19.1	
USG	7562nRR	58 ± 1	13.0	2.5	40	146	1.0	2.0	38.9	19.4	
USG	7563nRR	58 ± 1	13.0	2.4	39	145	1.0	1.9	40.1	18.9	
TN Exp	TN03-99RR	57 ± 1	13.2	2.3	38	142	1.0	1.8	38.6	20.6	
TN Exp	TN03-97RR	57 ± 1	13.2	2.2	38	143	1.0	1.7	38.4	20.6	
Delta King	DK 5668 RR	57 ± 1	13.3	2.9	37	145	1.0	2.2	39.3	19.0	
TN Exp	TN03-94RR	57 ± 1	13.3	2.2	38	142	1.0	1.7	38.2	20.8	
Dyna-Gro	3562 (RR)	56 ± 1	13.4	2.9	38	145	1.0	2.1	39.0	19.0	
D & PL	DP 5644 RR	56 ± 1	13.1	2.4	38	145	1.0	1.9	41.6	17.9	
TN Exp	TN03-100RR	56 ± 1	13.3	2.2	38	141	1.0	1.6	38.5	20.6	
TN Exp	TN01-340RR	55 ± 1	13.2	2.1	38	142	1.0	1.8	38.2	20.6	
TN Exp	TN01-331RR	55 ± 1	13.3	2.6	35	146	1.0	1.8	40.3	19.8	
Armor	AXR 5881 (RR)	55 ± 1	13.2	2.6	39	143	1.0	1.8	41.5	18.7	
TN Exp	TN03-98RR	55 ± 1	13.2	2.2	38	142	1.0	1.9	38.5	20.8	
TN Exp	TN03-101RR	54 ± 1	13.1	2.3	38	142	1.0	1.6	38.1	20.8	

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

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

Protein & Oil on dry weight basis.

Table 35. Mean yields † and SDS ratings of 46 Late Maturity Group V Roundup Ready soybean varieties evaluated in Knoxville during 2003.

Brand	Variety ‡	Yield	SDS		
			DI (n=1)	DS (n=1)	DX (n=1)
		bu/a	%	0 - 9	index
Hornbeck	HBK R 5823 (RR)	84	53.3	1.7	10.1
Terral	TVX 56R1B2 (RR)	71	100.0	2.0	22.2
Asgrow	AG 5605 (RR)	71	66.7	1.7	12.6
Dyna-Gro	SX 03157 (RR)	70	86.7	1.3	12.5
VA	99VPI-120 (RR)	68	96.7	2.7	29.0
Vigoro	V56N4RR	67	90.0	2.3	23.0
Terral	TV 56R11 (RR)	66	93.3	1.7	17.6
Terral	TVX 57R2M1 (RR)	66	100.0	1.7	18.9
D & PL	DP 5634 RR	66	76.7	1.3	11.1
Progeny	5660 RR	65	93.3	2.0	20.7
Asgrow	AG 5903 (RR)	65	96.7	2.7	29.0
Dekalb	DKB 57-51 (RR)	64	96.7	2.3	24.7
Delta King	DK 5661 RR	63	33.3	1.0	3.7
Delta King	DK 5767 RR	62	100.0	2.7	30.0
Hornbeck	HBK R 5620 (RR)	62	86.7	2.0	19.3
TN Exp	TN01-360RR	62	73.3	2.0	16.3
Terral	TVX 58R1V2 (RR)	62	96.7	2.3	24.7
Dyna-Gro	3583 (RR)	61	96.7	3.0	32.2
Armor	AXR 5881 (RR)	61	33.3	1.0	3.7
USG	7563nRR	61	100.0	2.7	30.0
Asgrow	AG 5701 (RR)	60	53.3	1.7	10.1
Armor	56-J6 (RR)	60	86.7	2.0	19.3
Delta Grow	5630 RR	60	90.0	1.7	17.0
Delta King	DK 5967 RR	60	100.0	2.7	30.0
D & PL	DP 5806 RR	60	83.3	2.0	18.5
Dyna-Gro	38K57 (RR)	60	96.7	2.3	24.7
N.K. Brand	S 57-P1 (RR)	59	100.0	2.0	22.2
Terral	TVX 58R2W1 (RR)	59	100.0	2.7	30.0
TN Exp	TN03-99RR	59	96.7	3.0	32.2
D & PL	DP 5915 RR	58	63.3	1.3	9.1
Terral	TV 59R98 (RR)	58	100.0	2.3	25.6
Delta King	DK 5668 RR	58	80.0	2.0	17.8
Dyna-Gro	3562 (RR)	56	73.3	1.3	10.6
Delta Grow	5650 RR	56	93.3	2.7	28.0
USG	7562nRR	56	90.0	2.0	20.0
Vigoro	V562NRR	56	70.0	1.7	13.2
D & PL	DP 5644 RR	55	83.3	2.0	18.5
Delta Grow	5960 RR	55	100.0	2.7	30.0
Armor	58-V8 (RR)	54	100.0	3.7	41.1
TN Exp	TN01-340RR	53	100.0	3.3	36.7
TN Exp	TN03-97RR	51	100.0	2.7	30.0
TN Exp	TN03-94RR	50	100.0	3.3	36.7
TN Exp	TN01-331RR	50	100.0	2.7	30.0
TN Exp	TN03-98RR	48	100.0	2.7	30.0
TN Exp	TN03-101RR	44	93.3	2.3	23.9
TN Exp	TN03-100RR	44	100.0	3.0	33.3

† All yields are adjusted to 13% moisture.

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

DI = disease incidence = percentage of plants with symptoms

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

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

Table 36. Mean yields † of 17 Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2002 - 2003.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Knoxville	Spring Hill		Springfield	Milan		Ames
				Irr.	Non-Irr.		Irr.	Non-Irr.	
-----bu/a-----									
Asgrow	AG 5903 (RR)	59 ± 1	61	61	50	55	63	63	64
Dyna-Gro	3583 (RR)	58 ± 1	62	53	53	57	65	57	63
Terral	TV 56R11 (RR)	57 ± 1	60	58	46	57	61	62	58
Terral	TV 59R98 (RR)	57 ± 1	59	60	50	54	56	57	60
Armor	56-J6 (RR)	56 ± 1	58	55	48	57	64	58	54
D & PL	DP 5915 RR	56 ± 1	55	58	51	55	59	55	60
Vigoro	V562NRR	56 ± 1	57	57	43	54	63	59	56
D & PL	DP 5634 RR	55 ± 1	59	59	46	54	65	51	53
D & PL	DP 5806 RR	55 ± 1	56	58	50	50	66	53	55
Delta Grow	5630 RR	55 ± 1	56	57	46	53	59	58	56
Delta King	DK 5661 RR	55 ± 1	56	56	45	58	59	57	53
Asgrow	AG 5701 (RR)	55 ± 1	58	52	44	52	62	58	56
Hornbeck	HBK R 5620 (RR)	54 ± 1	59	52	44	52	59	56	55
Delta King	DK 5668 RR	54 ± 1	54	55	45	52	57	57	57
USG	7562nRR	53 ± 1	55	56	46	56	48	55	55
Dyna-Gro	3562 (RR)	53 ± 1	56	53	41	48	58	55	60
VA	99VPI-120 (RR)	53 ± 1	60	58	47	52	56	50	45
Average (bu/a)		55	58	56	47	54	60	57	56
L.S.D._{.05} (bu/a)		3	8	7	7	7	9	8	10
C.V. (%)		10.1	9.4	9.0	10.7	8.8	10.5	9.7	12.1

† All yields are adjusted to 13% moisture.

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

Table 37. Mean yields † and agronomic characteristics of 17 Late Maturity Group V Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2002 - 2003.

Brand	Variety ‡	Avg. Yield		Moisture §	Lodging	Height	Maturity	Shattering	Seed			SDS		
		± Std Err.	(n=14)						Quality	Protein	Oil	Frogeye	DI	DS
		(n=14)	(n=14)	(n=10)	(n=14)	(n=13)	(n=13)	(n=10)	(n=6)	(n=6)	(n=1)	(n=1)	(n=1)	
		bu/a	%	Score	in.	DAP	-----Score-----	%	%	Score	%	0 - 9	index	
Asgrow	AG 5903 (RR)	59 ± 1	16.1	2.7	40	142	1.0	2.3	38.1	20.9	1.7	96.7	2.7	29.0
Dyna-Gro	3583 (RR)	58 ± 1	16.7	1.7	38	143	1.0	2.3	38.6	20.3	1.5	96.7	3.0	32.2
Terral	TV 56R11 (RR)	57 ± 1	16.5	2.6	41	144	1.0	2.3	39.3	20.1	1.5	93.3	1.7	17.6
Terral	TV 59R98 (RR)	57 ± 1	16.3	2.5	42	142	1.0	2.2	40.5	19.3	2.5	100.0	2.3	25.6
Armor	56-J6 (RR)	56 ± 1	16.6	2.3	41	144	1.0	2.4	39.1	20.1	1.3	86.7	2.0	19.3
D & PL	DP 5915 RR	56 ± 1	15.8	2.4	39	145	1.0	2.3	40.8	19.6	1.3	63.3	1.3	9.1
Vigoro	V562NRR	56 ± 1	16.6	2.5	40	143	1.0	2.4	39.6	19.9	1.7	70.0	1.7	13.2
D & PL	DP 5634 RR	55 ± 1	15.3	2.4	40	139	1.0	2.2	40.0	19.6	1.2	76.7	1.3	11.1
D & PL	DP 5806 RR	55 ± 1	17.4	2.9	41	145	1.0	2.3	40.7	19.0	2.7	83.3	2.0	18.5
Delta Grow	5630 RR	55 ± 1	16.8	2.4	39	144	1.0	2.3	39.3	20.0	1.8	90.0	1.7	17.0
Delta King	DK 5661 RR	55 ± 1	16.0	2.0	39	142	1.0	2.3	40.5	19.6	1.8	33.3	1.0	3.7
Asgrow	AG 5701 (RR)	55 ± 1	16.2	2.5	39	143	1.0	2.2	40.5	19.2	1.5	53.3	1.7	10.1
Hornbeck	HBK R 5620 (RR)	54 ± 1	16.7	2.4	41	142	1.0	2.4	39.4	19.9	1.5	86.7	2.0	19.3
Delta King	DK 5668 RR	54 ± 1	16.1	2.8	37	140	1.0	2.4	39.6	19.7	1.0	80.0	2.0	17.8
USG	7562nRR	53 ± 1	15.9	2.3	39	137	1.0	2.2	39.2	20.1	2.7	90.0	2.0	20.0
Dyna-Gro	3562 (RR)	53 ± 1	15.9	2.7	38	140	1.0	2.4	39.2	19.7	1.3	73.3	1.3	10.6
VA	99VPI-120 (RR)	53 ± 1	15.3	1.8	37	139	1.0	2.0	38.9	20.8	3.7	96.7	2.7	29.0

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing spots; 5 = 95+% of leaf surfaces containing spots.

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.

Table 38. Mean yields † of eight Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2001 - 2003.

Brand	Variety ‡	Avg. Yield	Knoxville	Spring Hill	Springfield	Milan	Ames
		± Std Err. (n=15)					
-----bu/a-----							
D & PL	DP 5915 RR	53 ± 1	58	56	46	52	53
Asgrow	AG 5701 (RR)	51 ± 1	59	48	44	55	49
Delta King	DK 5668 RR	51 ± 1	55	49	45	56	49
Vigoro	V562NRR	51 ± 1	54	49	46	56	48
Delta King	DK 5661 RR	51 ± 1	55	50	48	54	47
Delta Grow	5630 RR	50 ± 1	54	51	45	53	48
D & PL	DP 5806 RR	49 ± 1	54	53	43	49	47
Dyna-Gro	3562 (RR)	49 ± 1	56	46	40	53	51
Average (bu/a)		51	56	50	45	53	49
L.S.D._{.05} (bu/a)		3	7	7	6	7	8
C.V. (%)		10.3	9.1	10.5	10.0	9.7	12.3

† 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 eight Late Maturity Group V Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2001 - 2003.

Brand	Variety ‡	Avg. Yield		Moisture §	Lodging	Height	Maturity	Seed				SDS		
		± Std Err.	(n=15)					Shattering	Quality	Protein	Oil	Frogeye	DI	DS
		(n=15)	(n=15)	(n=11)	(n=15)	(n=14)	(n=12)	(n=13)	(n=10)	(n=10)	(n=2)	(n=2)	(n=2)	(n=2)
		bu/a	%	Score	in.	DAP	-----Score-----	%	%	Score	%	0 - 9	index	
D & PL	DP 5915 RR	53 ± 1	14.2	2.1	38	148	1.0	2.4	41.5	20.5	1.0	41.4	1.2	5.5
Asgrow	AG 5701 (RR)	51 ± 1	14.3	2.7	38	146	1.0	2.4	41.8	19.9	1.0	55.0	1.4	8.6
Delta King	DK 5668 RR	51 ± 1	14.1	3.1	36	143	1.0	2.5	40.7	20.6	1.0	68.6	1.8	13.7
Vigoro	V562NRR	51 ± 1	14.7	2.7	39	146	1.0	2.3	40.5	20.8	1.0	64.3	1.4	10.0
Delta King	DK 5661 RR	51 ± 1	14.3	2.3	38	146	1.0	2.5	42.0	20.4	1.0	41.4	1.0	4.6
Delta Grow	5630 RR	50 ± 1	14.9	2.7	38	147	1.0	2.5	40.6	20.8	1.0	81.4	1.6	14.5
D & PL	DP 5806 RR	49 ± 1	15.3	3.1	41	148	1.0	2.3	41.9	19.9	3.0	76.4	1.6	13.6
Dyna-Gro	3562 (RR)	49 ± 1	14.0	3.2	36	143	1.0	2.4	40.6	20.6	1.0	78.6	1.8	15.7

† All yields are adjusted to 13% moisture.

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

§ Average moisture at harvest

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

Maturity = days after planting (DAP).

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

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing spots; 5 = 95+% of leaf surfaces containing spots.

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.

Table 40. Yields † of 18 Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties in seven County Standard Tests in Tennessee during 2003.

MS	Brand/Variety	Avg.	Moisture ‡	Dyer	Gibson	Hardin	Lake	Lauderdale	Madison	W. TN Exp.
		Yield								Station
		bu/a	%	-----bu/a-----						
A	Asgrow AG5903	58.7	11.8	59.7	58.0	67.4	52.1	55.7	63.9	54.4
A	Asgrow AG5605	58.7	12.0	60.7	58.0	63.7	54.4	50.7	69.2	54.3
AB	Delta King 5767	56.6	11.8	54.8	54.5	66.9	53.2	51.3	65.0	50.7
ABC	Dekalb DKB57-51	56.2	11.8	59.0	52.8	64.4	47.7	51.1	65.4	53.0
ABC	Deltapine 5915	56.2	11.7	56.7	54.6	62.4	50.9	52.7	61.7	54.2
ABC	*Hornbeck 5620	55.9	12.1	60.9	54.2	64.7	49.4	49.4	62.9	49.6
BC	*USG 570nRR	55.6	12.1	56.3	56.8	64.0	51.2	48.3	61.6	51.1
BCD	Armor 56-J6	55.3	12.0	55.5	55.6	61.3	50.7	51.0	61.0	51.7
BCD	**Delta King 5661	55.2	11.8	59.4	57.0	62.9	51.2	50.4	59.6	45.8
BCD	*Progeny 5660	54.6	12.1	59.4	50.3	59.1	53.7	50.0	60.1	49.7
BCD	Deltapine 5634	54.4	11.9	59.1	52.5	60.8	54.2	48.7	59.8	45.7
BCDE	Dynagro DG3562	53.8	12.1	55.2	53.9	62.3	49.7	46.8	60.4	48.5
BCDE	NK Brand S57-P1	53.8	11.6	56.0	53.9	62.6	48.6	47.6	55.7	52.1
CDE	Delta King 5668	53.5	11.8	56.2	55.6	61.0	48.7	46.1	60.4	46.9
DEF	Delta King 5561	52.5	12.1	49.6	52.5	57.2	47.5	45.5	60.7	54.6
EF	*FFR 5542	51.1	12.1	47.5	51.4	58.0	49.7	46.8	53.7	50.7
EF	Terral 56R12	51.0	11.9	41.1	48.3	64.9	48.3	41.4	62.0	51.1
F	Terral 58R12	49.8	12.0	45.7	49.4	53.2	47.2	40.8	61.6	50.6
Average (bu/a)		54.6		55.2	53.9	62.0	50.5	48.6	61.4	50.8

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

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 asterick (*) or (**) were in the top performing group in 2001 & 2002.

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 41. Overall average yields † and moistures ‡ of 13 Late Maturity Group V Roundup Ready soybean varieties evaluated in County Standard Tests (n=7) and Experiment Stations (n=8) in Tennessee in 2003.

Brand	Variety	County Standard Trials		Experiment Station Trials	
		Avg. Yield bu/a	Moisture %	Avg. Yield bu/a	Moisture %
Asgrow	AG 5605 (RR)	59	12.0	65	13.0
Asgrow	AG 5903 (RR)	59	11.8	66	13.1
Delta King	DK 5767 RR	57	11.8	63	13.1
D & PL	DP 5915 RR	56	11.7	61	13.1
Dekalb	DKB 57-51 (RR)	56	11.8	62	13.2
Hornbeck	HBK R 5620 (RR)	56	12.1	58	13.0
Armor	56-J6 (RR)	55	12.0	60	13.3
Delta King	DK 5661 RR	55	11.8	59	13.2
Progeny	5660 RR	55	12.1	61	13.1
D & PL	DP 5634 RR	54	11.9	62	12.9
Dyna-Gro	3562 (RR)	54	12.1	56	13.4
N.K. Brand	S 57-P1 (RR)	54	11.6	59	13.3
Delta King	DK 5668 RR	54	11.8	57	13.3
Average (bu/a)		56	11.9	61	13.2

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

Table 42. Mean yields † of 15 Maturity Group IV and V Conventional soybean varieties evaluated in seven environments in Tennessee during 2003.

Brand	Variety	Avg. Yield ± Std Err. (n=7)	Knoxville	Spring Hill		Springfield	Milan		Ames
				Irr.	Non-Irr.		Irr.	Non-Irr.	
-----bu/a-----									
Armor	56-C4	65 ± 1	88	63	60	48	67	63	70
D & PL	DPX 5520 S	65 ± 1	79	64	71	44	68	62	68
MO	Anand	63 ± 1	67	53	66	55	70	62	68
NC Exp	N99-186	63 ± 1	71	68	70	56	62	57	54
USG	5601T	62 ± 1	83	55	62	58	62	56	61
VA	Hutcheson	62 ± 1	83	60	68	47	63	57	54
D & PL	DP 5110 S	61 ± 1	77	60	62	48	63	57	60
NC	Holladay	60 ± 1	76	55	65	58	62	59	48
Progeny (IV)	4910	59 ± 1	82	58	59	50	60	51	51
USG	5002T	58 ± 1	72	48	62	52	65	62	45
Armor	52-C2	58 ± 1	75	59	67	47	59	50	49
MD (IV)	Manokin	57 ± 1	72	57	65	47	57	54	48
Hornbeck (IV)	HBK 4944 CX	56 ± 1	78	44	58	46	60	49	56
D & PL (IV)	DP 4748 S	56 ± 1	73	50	55	39	60	58	55
USG	550nSTS	52 ± 1	76	46	51	48	54	48	38
Average (bu/a)		60	77	56	63	50	62	57	55
L.S.D._{.05} (bu/a)		3	13	9	6	7	8	9	13
C.V. (%)		9.3	9.7	9.9	5.7	8.1	7.7	9.5	13.3

† All yields are adjusted to 13% moisture.

(IV) Denotes that the entry is a maturity group IV variety

Table 43. Mean yields † and agronomic characteristics of 15 Maturity Group IV and V Conventional soybean varieties evaluated in seven environments in Tennessee during 2003.

Brand	Variety	Avg. Yield	Moisture ‡ (n=7)	Lodging (n=3)	Height (n=7)	Maturity (n=7)	Shattering (n=7)	Seed	Protein (n=5)	Oil (n=5)
		± Std Err. (n=7)						Quality (n=5)		
		bu/a	%	Score	in.	DAP	-----Score-----	%	%	
Armor	56-C4	65 ± 1	13.2	2.2	37	152	1.0	2.1	40.1	18.5
D & PL	DPX 5520 S	65 ± 1	13.4	1.9	42	149	1.0	2.7	40.9	18.7
MO	Anand	63 ± 1	13.5	1.3	32	148	1.0	2.3	39.9	19.1
NC Exp	N99-186	63 ± 1	13.8	2.4	32	143	1.0	2.2	39.8	19.1
USG	5601T	62 ± 1	13.1	1.5	36	147	1.0	2.1	41.6	18.4
VA	Hutcheson	62 ± 1	13.2	2.3	36	145	1.0	1.9	39.7	19.9
D & PL	DP 5110 S	61 ± 1	13.3	2.2	44	140	1.0	2.4	41.6	18.9
NC	Holladay	60 ± 1	13.8	2.1	30	144	1.0	2.3	38.8	19.4
Progeny (IV)	4910	59 ± 1	13.6	2.1	41	138	1.1	2.7	40.7	19.3
USG	5002T	58 ± 1	13.4	1.7	29	143	1.0	2.0	39.9	19.8
Armor	52-C2	58 ± 1	13.6	2.6	37	147	1.0	2.2	40.6	18.5
MD (IV)	Manokin	57 ± 1	13.3	2.6	35	140	1.0	2.1	39.6	19.7
Hornbeck (IV)	HBK 4944 CX	56 ± 1	13.9	2.4	42	135	1.1	3.1	40.5	19.6
D & PL (IV)	DP 4748 S	56 ± 1	13.2	1.8	41	137	1.1	2.6	41.6	19.3
USG	550nSTS	52 ± 1	13.4	1.6	32	136	1.0	2.0	40.7	19.4

† All yields are adjusted to 13% moisture.

‡ Average moisture at harvest.

(IV) Denotes that the entry is a maturity group IV variety

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

Maturity = days after planting (DAP).

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

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

Protein & Oil on dry weight basis.

Table 44. Mean yields † of 11 Maturity Group IV and V Conventional soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2002 - 2003.

Brand	Variety	Avg. Yield ± Std Err. (n=14)	Knoxville	Spring Hill		Springfield	Milan		Ames
				Irr.	Non-Irr.		Irr.	Non-Irr.	
MO	Anand	57 ± 1	52	46	51	54	67	63	63
USG	5601T	56 ± 1	60	49	48	56	64	58	57
D & PL	DP 5110 S	54 ± 1	57	51	47	48	61	59	58
USG	5002T	54 ± 1	56	44	45	53	66	64	47
VA	Hutcheson	53 ± 1	60	50	49	50	61	56	49
NC	Holladay	53 ± 1	55	45	47	54	58	63	50
Armor	52-C2	50 ± 1	54	49	46	46	55	51	48
Hornbeck (IV)	HBK 4944 CX	48 ± 1	60	41	41	45	47	51	51
D & PL (IV)	DP 4748 S	48 ± 1	55	40	37	42	55	58	50
MD (IV)	Manokin	48 ± 1	51	44	46	44	52	54	44
USG	550nSTS	45 ± 1	53	40	37	45	49	48	45
Average (bu/a)		52	56	45	45	49	58	57	51
L.S.D._{.05} (bu/a)		3	9	7	5	6	9	8	11
C.V. (%)		10.7	11.2	10.9	7.5	8.8	10.8	9.4	14.4

† All yields are adjusted to 13% moisture.

(IV) Denotes that the entry is a maturity group IV variety

Table 45. Mean yields † and agronomic characteristics of 11 Maturity Group IV and V Conventional soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2002 - 2003.

Brand	Variety	Avg. Yield			Lodging	Height	Maturity	Seed			
		± Std Err. (n=14)	Moisture ‡ (n=14)	(n=8)				(n=14)	(n=14)	Shattering (n=12)	Quality (n=10)
		bu/a	%	Score	in.	DAP	-----Score-----	%	%	Score	
MO	Anand	57 ± 1	15.8	1.5	32	140	1.0	2.7	40.2	19.8	1.3
USG	5601T	56 ± 1	15.7	2.0	37	140	1.0	2.3	41.8	19.1	1.2
D & PL	DP 5110 S	54 ± 1	15.3	2.1	44	134	1.0	2.7	41.8	19.6	2.3
USG	5002T	54 ± 1	15.4	1.9	31	136	1.0	2.5	40.2	20.6	1.1
VA	Hutcheson	53 ± 1	16.8	2.2	36	140	1.0	2.3	40.0	20.5	3.2
NC	Holladay	53 ± 1	16.1	2.2	31	136	1.0	2.5	38.9	20.1	1.7
Armor	52-C2	50 ± 1	16.1	2.4	35	139	1.0	2.6	40.8	19.3	3.1
Hornbeck (IV)	HBK 4944 CX	48 ± 1	15.7	2.5	42	129	1.1	3.6	40.8	20.2	3.8
D & PL (IV)	DP 4748 S	48 ± 1	15.0	2.3	41	131	1.1	3.1	41.8	20.0	1.5
MD (IV)	Manokin	48 ± 1	15.2	2.7	35	134	1.0	2.4	39.9	20.4	1.7
USG	550nSTS	45 ± 1	15.0	2.0	32	130	1.0	2.5	41.0	20.0	3.3

† All yields are adjusted to 13% moisture.

‡ Average moisture at harvest.

(IV) Denotes that the entry is a maturity group IV variety

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

Maturity = days after planting (DAP).

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

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing spots; 5 = 95+% of leaf surfaces containing spots.

Table 46. Mean yields † of eight Maturity Group IV and V Conventional soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2001 - 2003.

Brand	Variety	Avg. Yield	Spring					
		± Std Err. (n=15)	Knoxville	Hill	Springfield	Milan	Ames	
		-----bu/a-----						
MO	Anand	54 ± 1	56	56	47	59	54	
USG	5601T	54 ± 1	57	54	50	58	49	
USG	5002T	52 ± 1	56	52	45	63	43	
D & PL	DP 5110 S	52 ± 1	57	52	43	56	49	
NC	Holladay	51 ± 1	55	52	46	55	45	
VA	Hutcheson	50 ± 1	57	54	43	49	44	
D & PL (IV)	DP 4748 S	49 ± 1	54	.	40	59	44	
MD (IV)	Manokin	47 ± 1	49	.	41	55	43	
Average (bu/a)		51	55	53	44	57	46	
L.S.D._{.05} (bu/a)		4	8	5	7	9	9	
C.V. (%)		12.1	11.0	7.6	12.9	12.7	14.9	

† All yields are adjusted to 13% moisture.

(IV) Denotes that the entry is a maturity group IV variety

Table 47. Mean yields † and agronomic characteristics of eight Maturity Group IV and V Conventional soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2001 - 2003.

Brand	Variety	Avg. Yield		Moisture ‡	Lodging	Height	Maturity	Seed			Frogeye	SDS			
		± Std Err.	(n=15)					Quality	Protein	Oil		DI	DS	DX	
		(n=15)	(n=15)	(n=15)	(n=10)	(n=15)	(n=15)	(n=10)	(n=13)	(n=10)	(n=10)	(n=2)	(n=1)	(n=1)	(n=1)
		bu/a	%	%	Score	in.	DAP	-----Score-----	%	%	Score	%	0 - 9	index	
MO	Anand	54 ± 1	14.4	14.4	1.5	31	143	1.0	2.8	40.9	21.0	1.0	23.8	0.6	1.6
USG	5601T	54 ± 1	14.4	14.4	2.0	36	142	1.0	2.4	42.7	20.2	1.0	90.0	3.5	35.0
USG	5002T	52 ± 1	14.3	14.3	2.6	31	138	1.0	2.7	41.4	21.7	1.0	83.8	1.9	17.7
D & PL	DP 5110 S	52 ± 1	14.0	14.0	2.2	43	135	1.0	2.7	42.9	20.8	1.6	7.5	0.9	0.8
NC	Holladay	51 ± 1	15.0	15.0	2.4	30	138	1.0	2.5	39.6	21.4	1.0	63.8	1.9	13.5
VA	Hutcheson	50 ± 1	15.2	15.2	2.4	34	144	1.0	2.5	41.3	21.3	3.3	81.3	2.3	20.8
D & PL (IV)	DP 4748 S	49 ± 1	14.3	14.3	2.4	40	132	1.1	3.3	41.9	21.2	1.0	8.8	1.0	1.0
MD (IV)	Manokin	47 ± 1	14.7	14.7	2.8	33	136	1.0	2.6	40.7	21.5	1.1	25.0	1.3	3.6

† All yields are adjusted to 13% moisture.

‡ Average moisture at harvest.

(IV) Denotes that the entry is a maturity group IV variety

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

Maturity = days after planting (DAP).

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

Protein & Oil on dry weight basis.

Frogeye = 1 to 5 scale; where 1 = < 5% of leaf surfaces containing spots; 5 = 95+% of leaf surfaces containing spots.

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.

Table 48. Yields † of seven Maturity Group V conventional soybean varieties in five County Standard Tests in Tennessee during 2003.

MS	Brand/Variety	Avg.	Moisture ‡	Dyer	Henry	Lake	Obion	Weakley
		Yield						
		bu/a	%	-----bu/a-----				
A	**Anand	53.9	14.6	62.3	61.6	33.0	63.7	48.8
A	*USG 5601T	52.3	15.2	60.4	61.3	40.9	55.7	43.2
A	*Asgrow A5427	51.4	14.3	63.2	53.2	36.2	60.7	43.8
A	USG 5002T	49.2	14.4	55.7	48.2	41.2	54.7	46.2
A	**Holladay	49.0	15.3	58.7	42.2	37.8	58.0	48.3
A	Deltapine 5110s	48.6	14.4	58.4	50.3	31.0	60.7	42.5
A	Aarmor 52-C2	48.3	14.1	50.5	49.0	44.9	55.3	41.7
Average (bu/a)		50.4		58.5	52.3	37.9	58.4	44.9

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

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 asterick (*) or (**) were in the top performing group in 2001 & 2002.

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. Overall average yields † and moistures ‡ of six Maturity Group V Conventional soybean varieties evaluated in County Standard Tests (n=5) and Experiment Stations (n=7) in Tennessee in 2003.

Brand	Variety	County Standard Trials		Experiment Station Trials	
		Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%
MO	Anand	54	14.6	63	13.5
USG	5601T	52	15.2	62	13.1
USG	5002T	49	14.4	58	13.4
NC	Holladay	49	15.3	60	13.8
D & PL	DP 5110 S	49	14.4	61	13.3
Armor	52-C2	48	14.1	58	13.6
Average (bu/a)		50	14.7	60	13.5

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

Table 50. Characteristics of Maturity Group III Roundup Ready soybean varieties evaluated in Tennessee during 2003.

Brand	Variety	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color
Armor	39-E9 (RR)	3.9	RR	3,14	-	MR	MR	W	G
Asgrow	AG 3701	3.7	RR	3	-	MS	R	P	G
Asgrow	AG 3702	3.7	RR	S	-	M	MR	P	G
D & PL	DP 3861 RR	3.8	RR	MR 3,14	-	MR	-	P	G
D & PL	DPX 3940 RR	3.9	RR	R 3, MR 5,14	R	MR	-	P	T
Delta King	DK 3961 RR	3.9	RR	R 5	R	MR	MR	P	T
Delta King	DK 3968 RR	3.9	RR	R 3	R	MS	MR	W	G
Delta King	DK XTJ 439 (RR)	3.9	RR	R 3	-	MR	-	P	T
Garst	3824 RR/N	3.8	RR	3	-	-	-	W	G
N.K. Brand	S 39-Q4 (RR)	3.9	RR	-	R	MR	-	P	G
Pioneer	93M90 (RR)	3.9	RR	3,14	-	R	-	P	G
Progeny	3900 RR	3.9	RR	R 3,MR 14	R	R	R	P	LT
Schillinger Seed	393 RCP	3.9	RR	3,14	-	-	-	P	T
USG	7393nRR	3.9	RR	MR 3	S	R	S	P	LT
Vigoro	V382NRR	3.8	RR	MR 3	-	MS	R	P	G

RR = Contains a gene for tolerance to glyphosate herbicide.

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

T = tawny, LT = light tawny, G = gray, P = purple, W = white.

Most information supplied by companies.

Table 51. Characteristics of Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in Tennessee during 2003.

Brand	Variety	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color
Armor	44-R4 (RR)	4.4	RR	3,14	MR	MR	MS	P	G
Armor	44-R5 (RR)	4.4	RR / STS	3,14	MR	MR	R	P	B
Asgrow	AG 4201 (RR)	4.2	RR	R 3, MR 14	MR	MS	R	W	T
Asgrow	AG 4403 (RR)	4.4	RR	MR 3	R	MS	MS	P	LT
Asgrow	AG 4502 (RR)	4.5	RR	-	-	-	-	P	T
D & PL	DP 4331 RR	4.3	RR	MR 3,14	S	MR	-	P	T
D & PL	DPX 4446 RR	4.4	RR	S	R	-	-	W	T
Dekalb	DKB 44-51 (RR)	4.4	RR	-	-	-	-	P	LT
Dyna-Gro	3443 (RR)	4.4	RR	3,14	R	MR	MR	P	T
Garst	4512 RR/N	4.5	RR	3	-	MR	MR	P	LT
Golden Harvest	H 4368 RR	4.3	RR	R 3,MR 14	-	-	-	P	T
Hornbeck	HBK R 4623 (RR)	4.5	RR	R 3,6 MS 14	R	MR	R	P	T
Midwest Premium Genetics	MPV 457nRR	4.5	RR	3,14	-	MR	MS	W	T
Morsoy	RT 4480 (RR)	4.4	RR	3,14	R	R	S	P	T
N.K. Brand	S 43-B1 (RR)	4.3	RR	3,14	R	R	-	P	T
Pioneer	94B13 (RR)	4.1	RR	3,14	-	R	-	W	T
Pioneer	94M41 (RR)	4.4	RR	3	-	R	R	W	T
Progeny	4401 RR	4.4	RR	MR 3,14	MR	R	R	P	LT
Schillinger Seed	443 R	4.4	RR	S	-	-	-	P	T
Trisler Seed	Trisoy 4314RR (CN)	4.3	RR	MR 3,14	S	S	S	P	T
USG	7401nRR	4.0	RR	R 3	S	R	S	P	LT
USG	7402nRR	4.0	RR	R 3, MR 14	MS	MR	S	W	T
USG	7403nRR	4.0	RR	R 3,14	MR	S	S	P	T
USG	7423nRR	4.2	RR	R 3, MR 14	S	R	R	P	T
USG	7440nRR	4.4	RR	MR 3,14	S	S	MR	P	T
Vigoro	V42N3RR	4.2	RR	R 3,MR 14	-	MR	R	P	T
Vigoro	V442NRR	4.4	RR	MR 3,14	S	MR	MS	P	LT

RR = Contains a gene for tolerance to glyphosate herbicide; STS = tolerance to sulfonyleurea class of herbicides.

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

T = tawny, LT = light tawny, G = gray, P = purple, W = white.

Most information supplied by companies.

Table 52. Characteristics of Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in Tennessee during 2003.

Brand	Variety	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color
Armor	47-G7 (RR)	4.7	RR	3,6,14	MR	MR	MR	W	B
Armor	49-P9 (RR)	4.9	RR	-	-	-	-	P	T
Asgrow	AG 4603 (RR)	4.6	RR	-	MR	MS	MS	W	T
D & PL	DP 4690 RR	4.7	RR	S	R	R	S	P	T
D & PL	DP 4724 RR	4.7	RR	R 3, MR 14	R	MR	-	P	T
D & PL	DP 4933 RR	4.9	RR	R 3, MR 14	R	R	-	W	G
Delta Grow	4860 RR	4.8	RR	3,14	MR	-	MR	P	T
Delta Grow	4960 RR	4.9	RR	3,14	R	-	MS	P	G
Delta King	DK 4461 RR	4.6	RR	R 5, MR 2	S	MR	MR	P	T
Delta King	DK 4763 RR	4.7	RR	R 3, MR 5	S	MS	MR	W	T
Delta King	DK 4868 RR	4.8	RR	R 5	MS	MR	MR	W	LT
Delta King	DK 4967 RR	4.9	RR	R 3	-	MR	-	P	T
Delta King	DK XTJ 446 (RR)	4.6	RR	MR 3	R	R	MR	P	T
Delta King	DK XTJ 447 (RR)	4.7	RR	R 3	MS	MR	MR	W	T
Delta King	DK XTJ 448 (RR)	4.8	RR	-	-	R	-	W	T
FFR	4891 RR	4.8	RR	3	R	R	MR	P	LT
FFR	4922 RR	4.9	RR	3,14	R	MR	S	W	G
Golden Harvest	H 4772 RR	4.7	RR	R 3, MR 14	-	-	-	W	T
Hornbeck	HBK R 4820 (RR)	4.8	RR	-	S	MR	MR	W	LT
Hornbeck	HBK R 4920 (RR)	4.9	RR	-	R	R	MR	P	LT
Hornbeck	HBK R 4922 (RR)	4.9	RR	R 3, MR 14	R	MR	MR	W	G
Midwest Premium Genetics	MPV 4904nRR	4.9	RR	3,14	R	MR	MS	W	T
Morsoy	RT 4802 (RR)	4.8	RR	3,14	R	R	S	P	T
Morsoy	RT 4809 (RR)	4.8	RR	-	S	R	S	W	T
Morsoy	RT 4993 (RR)	4.9	RR	3,14	R	R	S	P	T
N.K. Brand	S 49-Q9 (RR)	4.9	RR	3,14	MR	R	-	P	G
Pioneer	94B73 (RR)	4.7	RR	-	-	R	-	P	G
Pioneer	94B74 (RR)	4.7	RR	2,3,14	-	R	-	P	G
Pioneer	94M70 (RR)	4.7	RR	3,6	-	R	-	W	G
Progeny	4858 RR	4.8	RR	R 3, MR 14	MS	R	MR	W	T
Progeny	4884 RR	4.8	RR	R 3	MR	-	R	P	T
Terral	TVX 47R1K2 (RR)	4.7	RR	MR 3	M	-	MR	P	G
Terral	TVX 48R1U1 (RR)	4.8	RR	MR 3	M	-	MR	P	G
Terral	TVX 49R1L2 (RR)	4.9	RR	MS 3	R	-	R	P	T
Terral	TVX 49R2Y4 (RR)	4.9	RR	MS 3	R	-	R	P	T
Trisler Seed	Trisoy 4697RR (CN)	4.6	RR	MR 3,14	S	S	S	W	T
Trisler Seed	Trisoy 4838RR (CN)	4.8	RR	MR 1, R 3	S	S	S	P	T
USG	7482nRR	4.8	RR	R 3, MR 14	S	MR	MR	P	T
USG	7499nRR	4.9	RR	R 3, MR 14	R	MR	S	W	T
Vigoro	V49N3RR	4.9	RR	R 3, MR 14	-	MR	R	P	T

RR = Contains a gene for tolerance to glyphosate herbicide.

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

T = tawny, LT = light tawny, G = gray, P = purple, W = white.

Most information supplied by companies.

Table 53. Characteristics of Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in Tennessee during 2003.

Brand	Variety	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color
Armor	53-K3 (RR)	5.3	RR	3,6,14	R	MR	M	P	G
Armor	52-Q2 (RR)	5.3	RR	-	-	-	-	W	G
Asgrow	AG 5301 (RR)	5.3	RR	MR 3	MR	MR	MS	W	G
Asgrow	AG 5402 (RR)	5.4	RR	-	-	-	-	W	T
Asgrow	AG 5501 (RR)	5.5	RR	R 3	R	R	MR	P	G
D & PL	DP 5414 RR	5.4	RR	R 3	R	-	R	W	T
Dekalb	DKB 53-51 (RR)	5.3	RR	-	-	-	-	W	G
Delta Grow	5260 RR	5.2	RR	3,14	MR	-	MS	W	G
Delta Grow	5460 RR	5.4	RR	3,14	MR	-	MR	W	G
Delta King	DK 5366 RR	5.3	RR	R 5	MS	MR	R	P	G
Delta King	DK 5465 RR	5.4	RR	R 3	R	R	MR	W	T
Delta King	DK 5561 RR	5.5	RR	R 3, 14	-	-	-	W	G
Delta King	DK XTJ 452 (RR)	5.2	RR	MR 3, 14	MS	MS	MR	W	G
Dyna-Gro	33B52 (RR)	5.2	RR	3,14	-	-	-	W	G
Dyna-Gro	SX 03152 (RR)	5.2	RR	3	R	MR	MR	P	G
FFR	5225 RR	5.2	RR	3,14	R	MR	R	P	T
FFR	5542 RR	5.5	RR	3	R	MR	MS	W	G
FFR	RT 5485 (RR)	5.3	RR	3,14	MR	R	R	P	T
Garst	5212 RR/N	5.2	RR	3,14	R	MR	MR	P	T
Golden Harvest	H 5183 RR	5.1	RR	R 3	R	-	-	P	G
Hornbeck	HBK R 5123 (RR)	5.1	RR	S	R	R	MR	W	G
Hornbeck	HBK R 5422 (RR)	5.4	RR	MR 3,14	-	R	R	P	T
Midwest Premium Genetics	MPV 5302nRR	5.3	RR	3,14	R	MR	MS	W	T
Midwest Premium Genetics	MPV 5502nRR	5.5	RR	3,14	R	MR	MS	W	T
Midwest Premium Genetics	MPV 5504nRR	5.5	RR	3,14	R	MR	MS	W	T
MO Exp	S99-2447-09 RR	5.5	RR	R 3, MR 14	MR	MS	-	W	T
Morsoy	RT 5252 (RR)	5.2	RR	3,14	R	R	S	W	T
Morsoy	RT 5553 (RR)	5.5	RR	3,14	R	R	R	W	G
N.K. Brand	S 50-N3 (RR)	5.0	RR	3,14	-	R	-	P	T
N.K. Brand	S 52-U3 (RR)	5.2	RR	3,9,14	R	MR	-	W	G
Pioneer	95B32 (RR)	5.3	RR	3,14	R	R	R	W	G
Pioneer	95B42 (RR)	5.4	RR	3	R	R	R	P	G
Pioneer	95B43 (RR)	5.4	RR	-	R	R	R	W	G
Progeny	5250 RR	5.2	RR	R 3, MR 1	MS	R	R	W	T
Terral	TV 54R11 (RR)	5.4	RR	R 3,14	R	-	MR	W	T
USG	510nRR	5.1	RR	MR 3,14	R	R	MR	P	G
USG	540nRR	5.4	RR	MR 3, R 14	S	R	MR	W	T
USG	7522nRR	5.2	RR	R 3,14	R	S	MR	P	G
USG	7524nRR	5.2	RR	R 3	S	S	MR	W	G
USG	7547 RR	5.4	RR	-	S	R	MR	P	G
USG	7553nRR	5.5	RR	MR 3,14	S	R	MR	W	G
VA	99VPI-67 (RR)	5.4	RR	-	R	-	-	W	G
Vigoro	V52N3RR	5.2	RR	MR 3,14	MS	MR	MR	W	T
Delta King	DK XTJ 450 (RR)	5.0	RR	-	-	-	-	P	G

RR = Contains a gene for tolerance to glyphosate herbicide.

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

T = tawny, LT = light tawny, G = gray, P = purple, W = white.

Most information supplied by companies.

Table 54. Characteristics of Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in Tennessee during 2003.

Brand	Variety	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color
Armor	56-J6 (RR)	5.6	RR	3,6,14	MR	MR	MS	W	G
Armor	AXR 5881 (RR)	5.8	RR	-	-	-	-	P	G
Armor	58-V8 (RR)	5.9	RR	-	-	-	-	W	G
Asgrow	AG 5605 (RR)	5.6	RR	-	-	-	-	P	G
Asgrow	AG 5701 (RR)	5.7	RR	MR 3	MS	R	MR	W	G
Asgrow	AG 5903 (RR)	5.9	RR	R 3	MR	MS	R	W	G
D & PL	DP 5634 RR	5.6	RR	R 1,3	R	MR	-	W	T
D & PL	DP 5644 RR	5.6	RR	R 3, MR 14	R	MR	R	W	T
D & PL	DP 5806 RR	5.8	RR	MR 3,14	R	-	MR	W	G
D & PL	DP 5915 RR	5.9	RR	R 3, MR 14	MR	MR	R	W	T
Dekalb	DKB 57-51 (RR)	5.7	RR	-	-	-	-	W	G
Delta Grow	5630 RR	5.6	RR	3,6,14	MR	-	MR	W	G
Delta Grow	5650 RR	5.6	RR	3,14	MR	-	R	W	G
Delta Grow	5960 RR	5.9	RR	3,14	MS	-	MS	W	G
Delta King	DK 5661 RR	5.6	RR	MR 3,14	MS	R	MR	W	G
Delta King	DK 5668 RR	5.6	RR	R 3	R	R	R	W	G
Delta King	DK 5767 RR	5.7	RR	R 3	-	MS	-	W	G
Delta King	DK 5967 RR	5.9	RR	MR 3,14	-	MR	-	W	G
Dyna-Gro	3562 (RR)	5.6	RR	3,14	R	MR	MR	W	G
Dyna-Gro	3583 (RR)	5.8	RR	3,14	-	MR	MR	W	G
Dyna-Gro	38K57 (RR)	5.7	RR	3,14	-	-	-	W	G
Dyna-Gro	SX 03157 (RR)	5.7	RR	3,14	S	-	-	W	T
Hornbeck	HBK R 5620 (RR)	5.6	RR	R 3,6 MR 14	MS	MR	R	W	G
Hornbeck	HBK R 5823 (RR)	5.8	RR	R 3, 6 MS 14	R	R	MR	P	G
N.K. Brand	S 57-P1 (RR)	5.7	RR / STS	3,14	-	-	-	P	G
Progeny	5660 RR	5.6	RR	R 3, MR 14	S	-	MR	W	G
Terral	TV 56R11 (RR)	5.6	RR	R 3,MR 14	S	-	M	W	G
Terral	TV 59R98 (RR)	5.9	RR	-	R	-	R	P	G
Terral	TVX 56R1B2 (RR)	5.6	RR	R 3	R	-	M	W	T
Terral	TVX 57R2M1 (RR)	5.6	RR	R 3	R	-	M	W	T
Terral	TVX 58R1V2 (RR)	5.8	RR	MR 3	R	-	MR	P	T
Terral	TVX 58R2W1 (RR)	5.8	RR	MR 3	R	-	MR	P	T
TN Exp	TN01-331RR	5.7	RR	-	-	-	-	P	G
TN Exp	TN01-340RR	5.6	RR	-	-	-	-	W	G
TN Exp	TN01-360RR	5.9	RR	-	-	-	-	W	G
TN Exp	TN03-100RR	5.7	RR	-	R	-	-	W	G
TN Exp	TN03-101RR	5.8	RR	-	R	-	-	W	G
TN Exp	TN03-94RR	5.8	RR	-	R	-	-	W	G
TN Exp	TN03-97RR	5.7	RR	-	R	-	-	W	G
TN Exp	TN03-98RR	5.6	RR	-	R	-	-	W	G
TN Exp	TN03-99RR	5.6	RR	-	R	-	-	W	G
USG	7562nRR	5.6	RR	R 3, MR 14	S	S	MR	W	G
USG	7563nRR	5.6	RR	R 3, MR 14	S	MR	R	W	G
VA	99VPI-120 (RR)	5.7	RR	-	R	-	-	W	G
Vigoro	V562NRR	5.6	RR	R3, MR14	MS	MR	MR	W	G
Vigoro	V56N4RR	5.6	RR	R 3,MR 14	MS	MR	R	W	G

RR = Contains a gene for tolerance to glyphosate herbicide; STS = tolerance to sulfonylurea class of herbicides.

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

T = tawny, LT = light tawny, G = gray, P = purple, W = white.

Most information supplied by companies.

Table 55. Characteristics of Maturity Group IV and V Conventional soybean varieties evaluated in Tennessee during 2003.

Brand	Variety	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color
Armor	52-C2	5.2	-	3,14	R	MR	R	W	G
Armor	56-C4	5.6	-	3,14	MR	MR	R	W	G
D & PL (IV)	DP 4748 S	4.7	STS	S	R	MR	MS	W	T
D & PL	DP 5110 S	5.1	STS	S	R	R	R	W	T
D & PL	DPX 5520 S	5.5	STS	S	R	-	-	W	T
Hornbeck (IV)	HBK 4944 CX	4.9	-	ALL	R	M	MS	P	G
MD (IV)	Manokin	4.9	-	1,3	R	R	R	W	T
MO	Anand	5.6	-	2,3,14,5	R	R	R	P	T
NC	Holladay	5.3	-	S	MS	MR	R	P	G
NC Exp	N99-186	5.5	-	-	S	S	R	P	G
Progeny (IV)	4910	4.9	-	R 3,MR 14	MR	R	MR	P	LT
USG	550nSTS	5.0	STS	MR 3, 14	S	S	S	P	T
USG	5601T	5.6	-	S	R	S	R	W	G
USG	5002T	5.0	-	S	R	S	R	W	T
VA	Hutcheson	5.7	-	S	R	MR	MS	W	G

STS = tolerance to sulfonylurea class of herbicides.

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

T = tawny, LT = light tawny, G = gray, P = purple, W = white.

(IV) Denotes that the entry is a maturity group IV variety

Most information supplied by companies.

Table 56. Yields and disease ratings of Maturity Group III Roundup Ready soybean varieties evaluated in Tennessee Standard County Tests during 2003.

Brand/Variety	Avg. Yield (n=7)	*SDS(02)/(03)	*FLS(02)/(03)	*SC(02)	Cyst Number
Pioneer 93M90	62.5	/ 1.0	/ 3.0		130
Dynagro DG3373	61.3	1.0 / 7.0	0.3 / 0.0	0.0	110
Asgrow AG3905	61.1	/ 1.0	/ 2.0		100
Golden Harvest H3945	60.7	/ 4.0	/ 3.0		180
Vigoro V382NRR	60.5	1.7 / 3.0	0.0 / 1.0	0.0	30
Armor 39-E9	60.3	/ 6.0	/ 4.0		200
Delta King 3968	60.1	1.3 / 5.0	4.3 / 4.0	0.7	110
NK BRAND S39-Q4	59.0	0.7 / 3.0	4.7 / 4.0	1.3	70
Golden Harvest 3983	58.6	0.3 / 2.0	5.3 / 4.0	5.0	80
Croplan RC3939	58.6	/ 5.0	/ 3.0		120
Asgrow AG3801	58.4	/ 4.0	/ 8.0		70
Asgrow AG3703	57.7	0.0 / 0.0	5.7 / 6.0	0.0	50
Delta King 3961	55.4	/ 3.0	/ 5.0		10
Steyer 3811	50.4	/ 1.0	/ 8.0		90
Average	58.9				

*Disease ratings (02)/(03) for SDS, Frogeye Leaf Spot & Stem Canker are from 0-10, where 0=no disease & 10=maximum level of disease or plant death.

Disease ratings compiled by Dr. Melvin Newman

Nematode ratings for Race 2, 3 & 14 are from 0-5, where 0=maximum resistance & 5=susceptible variety.

Ratings by Dr. Lawrence Young

Cyst Number = Cyst count/pint of soil after the growing season.

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

Avg. yield @13% moisture.

Table 57. Yields and disease ratings of early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in Tennessee Standard County Tests during 2003.

Brand/Variety	Avg. Yield	*SDS(02)/(03)	*FLS(02)/(03)	*SC(01)/(02)	SCN			Cyst Number
					RACE 2	RACE 3	RACE 14	
Vigoro V42N3RR	58.2	/ 5.0	/ 0.0					190
Armor 44-R5	56.3	/ 6.0	/ 0.0					110
Dekalb DKB44-51	54.7	/ 1.0	/ 8.0					70
Asgrow AG4502	54.1	/ 6.0	/ 5.0					70
Golden Harvest H4534	54.0	0.0 / 2.0	5.0 / 7.0	/ 5.3				
Asgrow AG4403	53.8	1.0 / 4.0	5.3 / 6.0	/ 5.0	5.0	4.1	4.7	110
Steyer 4000	53.5	/ 5.0	/ 6.0					190
USG 7440	53.2	2.3 / 3.0	6.0 / 7.0	/ 4.3				320
Croplan RC4444	53.2	/ 2.0	/ 7.0					140
Asgrow AG4201	53.0	/ 8.0	5.0					50
LG Seeds C4444NRR	52.7	/ 1.0	/ 7.0					70
Pioneer 94M41	52.6	/ 4.0	/ 0.0					220
Delta King 4461	52.4	0.7 /	5.0 /	2.0 /	4.9	2.7	4.5	
USG BG4401	51.8	0.7 / 2.0	5.3 / 7.0	5.3 /				90
NK Brand S43-B1	51.7	/ 3.0	/ 8.0					60
Progeny 4401	50.7	/ 2.0	/ 7.0					170
Average	53.5							

*Disease ratings (02)/(03) for SDS, Frogeye Leaf Spot & Stem Canker are from 0-10, where 0=no disease & 10=maximum level of disease or plant death.

Disease ratings compiled by Dr. Melvin Newman

Nematode ratings for Race 2, 3 & 14 are from 0-5, where 0=maximum resistance & 5=susceptible variety. Ratings by Dr. Lawrence Young

Cyst Number = Cyst count/pint of soil after the growing season.

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

Avg. yield @13% moisture.

Table 58. Yields and disease ratings of late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in Tennessee Standard County Tests during 2003.

Brand/Variety	Avg. Yield	*SDS(02)/(03)	*FLS(02)/(03)	*SC(01)/(02)	SCN			FLS* sp/unsp	Cyst Number
					RACE 2	RACE 3	RACE 14		
Delta King 4763	55.5	/ 6.0	/ 7.0					1.0 / 6.0	30
Armor 47-G7	55.3		/ 5.0						20
Pioneer 94B73	55.3	0.7 / 5.0	0.0 / 1.0	0.3 / 1.3	5.0	4.4	5.0	0.0 0.0	
Merschman Dallas	55.0	/ 1.0	/ 2.0						90
Golden Harvest H4772	54.7	4.3 / 5.0	4.3 / 7.0	/ 4.3					30
Hornbeck 4820	54.3	0.7 / 2.0	6.7 / 6.0	/ 4.7	4.6	4.5	5.0	1.0 / 6.0	120
Delta King 4967	54.2	/ 4.0	/ 3.0						50
Croplan RC4842	54.2	/ 4.0	/ 2.0						80
USG 7482	54.2	/ 4.0	/ 3.0						110
Vigoro V49N3RR	53.6	/ 3.0	/ 3.0						10
Delta King 4868	53.5	0.7 / 1.0	6.3 / 6.0	2.0 / 8.3	5.0	4.2	4.5	1.0 / 7.0	60
NK Brand S49-Q9	53.1	1.0 / 5.0	6.3 / 7.0	/ 0.0					40
Asgrow AG4603	53.0	0.3 / 4.0	7.3 / 8.0	/ 0.3				2.0 / 8.0	30
Steyer 4700	52.9	/ 2.0	/ 6.0						130
Dynagro DG3484	52.1	1.7 / 3.0	6.3 / 8.0	/ 0.7					100
Progeny 4858	51.9	0.7 /	6.0 / 3.0	/ 0.3				2.0 / 8.0	50
Pioneer 94M70	51.0	/ 3.0	/ 8.0					2.0 / 8.0	30
Deltopine 4690	50.9	0.0 / 1.0	4.3 / 6.0	0.7 / 0.3	5.0	4.8	4.4	2.0 / 8.0	120
USG 7499	50.5	1.7 / 2.0	6.0 / 8.0	0.0 / 0.7	5.0	1.0	1.2	2.0 / 9.0	60
FFR 4891	50.1	0.3 / 1.0	4.7 / 5.0	1.3 / 0.0					30
Hornbeck 4922	48.1	/ 2.0	/ 9.0						160
Dynagro DG3468	47.6	/ 4.0	/ 9.0					2.0 / 9.0	130
FFR 4922	45.2	/ 1.0	/ 8.0					2.0 / 8.0	120
Terral 47R12	44.5								
AVERAGE	52.1								

*Disease ratings (02)/(03) for SDS, Frogeye Leaf Spot & Stem Canker are from 0-10, where 0=no disease & 10=maximum level of disease or plant death.

Disease ratings compiled by Dr. Melvin Newman

Nematode ratings for Race 2, 3 & 14 are from 0-5, where 0=maximum resistance & 5=susceptible variety. Ratings by Dr. Lawrence Young

Cyst Number = Cyst count/pint of soil after the growing season.

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

Avg. yield @13% moisture.

Table 59. Yields and disease ratings of early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in Tennessee Standard County Tests during 2003.

Variety/Brand	Avg. Yield	*SDS(02)/(03)	*FLS(02)/(03)	*SC(01)/(02)	SCN			FLS* sp/unsp	Cyst Number
					RACE 2	RACE 3	RACE 14		
Progeny 5250	55.6	/ 2.0	/ 5.0						90
NK Brand S50-N3	54.8		/ 5.0					3.0 / 8.0	70
Croplan RC5252	54.3	4.3 / 4.0	5.3 / 4.0	/ 0.0					40
Steyer 5300	54.2	/ 4.0	/ 4.0						110
Vigoro V52N3RR	53.9	/ 3.0	/ 6.0						90
USG 510nRR	53.8	3.3 / 4.0	5.7 / 4.0	0.3 / 0.0	4.5	1.0	2.2	1.0 / 8.0	70
Asgrow AG5501	53.8	0.3 / 2.0	6.0 / 5.0	1.0 / 0.0	5.0	1.0	2.6	1.0 / 5.0	160
NK Brand S52-U3	53.7	6.0 / 9.0	6.0 / 7.0	1.0 / 0.0	5.0	1.0	2.0	2.0 / 6.0	110
Asgrow AG5301	53.4	3.7 / 7.0	5.3 / 3.0	/ 0.0				2.0 / 6.0	120
FFR 5485	53.1	0.3 / 2.0	1.0 / 0.0	/ 3.0				1.0 / 2.0	90
Delta King 5366	52.8	2.7 / 2.0	2.0 / 2.0	2.7 / 0.0	4.9	1.0	2.3	1.0 / 4.0	50
Dynagro DG3535	52.6	/ 4.0	/ 3.0					1.0 / 3.0	130
FFR 5225	52.5	/ 4.0	/ 1.0					0.0 / 1.0	100
Terral 54R11	52.2	/ 2.0	/ 7.0						120
Pioneer 95B42	52.1	2.7 / 5.0	5.3 / 5.0	/ 2.0				1.0 / 6.0	260
Pioneer 95B32	52.0	0.7 / 6.0	7.7 / 6.0	6.7 / 4.7	4.6	1.4	3.0	2.0 / 7.0	60
Deltapine 5414	51.8	1.7 / 4.0	0.0 / 0.0	0.0 / 0.0	5.0	1.3	4.8	0.0 / 1.0	420
Delta King 5465	51.3	0.7 / 1.0	8.0 / 7.0	0.0 / 0.0	4.6	1.0	2.3	3.0 / 8.0	70
Dekalb DKB53-51	50.2	/ 3.0	/ 6.0						290
USG 7522nRR	49.8	4.7 / 4.0	6.0 / 7.0	0.0 / 0.0	4.8	1.0	2.7	3.0 / 7.0	50
Pioneer 95B43	49.7	2.3 / 3.0	6.7 / 6.0	/ 0.0				2.0 / 8.0	50
Hornbeck 5123	49.5	/ 9.0	/ 8.0					3.0 / 8.0	130
Merschman Olympus	49.5								
Golden Harvest H5183	48.3	/ 6.0	/ 9.0					3.0 / 8.0	20
Average	52.3								

*Disease ratings (02)/(03) for SDS, Frogeye Leaf Spot & Stem Canker are from 0-10, where 0=no disease & 10=maximum level of disease or plant death.

Disease ratings compiled by Dr. Melvin Newman

Nematode ratings for Race 2, 3 & 14 are from 0-5, where 0=maximum resistance & 5=susceptible variety. Ratings by Dr. Lawrence Young

Cyst Number = Cyst count/pint of soil after the growing season.

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

Avg. yield @13% moisture.

Table 60. Yields and disease ratings of late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in Tennessee Standard County Tests during 2003.

Brand/Variety	Avg. Yield	*SDS(02)/(03)	*FLS(02)/(03)	*SC(02)/(03)	SCN			FLS* sp/unsp	Cyst Number
					RACE 2	RACE 3	RACE 14		
Asgrow AG5903	58.7	/ 3.0	/ 3.0	/ 0.0				1.0 / 3.0	170
Asgrow AG5605	58.7	/ 3.0	/ 5.0	/ 0.0				1.0 / 4.0	170
Delta King 5767	56.6	/ 5.0	/ 1.0	/ 0.0				1.0 / 2.0	150
Dekalb DKB57-51	56.2	/ 4.0	/ 2.0	/ 1.0				0.0 / 2.0	220
Deltapine 5915	56.2	/ 1.0	/ 0.0	/ 0.0					50
Hornbeck 5620	55.9	3.7 / 4.0	2.7 / 3.0	0.3 / 1.0					140
*USG 570nRR	55.6	2.0 / 2.0	3.3 / 2.0	0.0 / 0.0				1.0 / 4.0	290
Armor 56-J6	55.3	/ 3.0	/ 3.0	/ 0.0					280
Delta King 5661	55.2	0.7 /	2.3 /	0.0 /				1.0 / 5.0	170
Progeny 5660	54.6	2.0 / 4.0	2.7 / 2.0	0.0 / 0.0				1.0 / 3.0	270
Deltapine 5634	54.4	/ 1.0	/ 1.0	/ 0.0				0.0 / 1.0	60
Dynagro DG3562	53.8	1.0 /	1.3 /	0.0 /					150
NK Brand S57-P1	53.8	/ 6.0	/ 1.0	/ 2.0				0.0 / 1.0	380
Delta King 5668	53.5	0.3 /	1.0 /	0.0 /	4.6	1.0	1.8		140
Delta King 5561	52.5	/ 6.0	/ 4.0					1.0 / 5.0	0
FFR 5542	51.1	2.7 / 4.0	6.3 / 6.0	0.0 /				1.0 / 5.0	170
Terral 56R12	51.0								
Terral 58R12	49.8								
Average	54.6								

*Disease ratings (02)/(03) for SDS, Frogeye Leaf Spot & Stem Canker are from 0-10, where 0=no disease & 10=maximum level of disease or plant death.

Disease ratings compiled by Dr. Melvin Newman

Nematode ratings for Race 2, 3 & 14 are from 0-5, where 0=maximum resistance & 5=susceptible variety. Ratings by Dr. Lawrence Young

Cyst Number = Cyst count/pint of soil after the growing season.

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

Avg. yield @13% moisture.

Table 61. Yields and disease ratings of Maturity Group V Conventional soybean varieties evaluated in Tennessee Standard County Tests during 2003.

Brand/Variety	Avg. Yield	*SDS(02)/(03)	*FLS(02)/(03)	*SC(02)	SCN		
					RACE 2	RACE 3	RACE 14
Anand	53.9	0.7 / 1.0	1.3 / 2.0	0.0	1.3	1.0	1.2
USG 5601T	52.3	2.0 / 2.0	2.3 / 4.0	0.0	5.0	4.3	4.9
Asgrow A5427	51.4	6.3 / 4.0	1.0 / 0.0	3.7			
USG 5002T	49.2	/ 3.0	/ 1.0				
Holladay	49.0	2.3 / 3.0	1.0 / 2.0	3.0	5.0	5.0	5.0
Deltapine 5110s	48.6	2.7 / 1.0	4.7 / 6.0	1.0	5.0	4.0	5.0
Armor 52-C2	48.3						
Average	50.4						

*Disease ratings (02)/(03) for SDS, Frogeye Leaf Spot & Stem Canker are from 0-10, where 0=no disease & 10=maximum level of disease or plant death.

Disease ratings compiled by Dr. Melvin Newman

Nematode ratings for Race 2, 3 & 14 are from 0-5, where 0=maximum resistance & 5=susceptible variety.

Ratings by Dr. Lawrence Young

Cyst Number = Cyst count/pint of soil after the growing season.

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

Avg. yield @13% moisture.