

# 1996 Kentucky Soybean Performance Tests

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## Acknowledgments

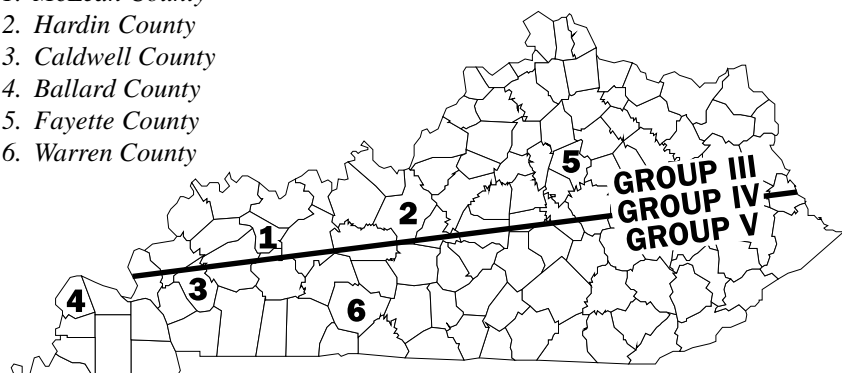
In addition to the county agents and farm cooperators mentioned in Table 1, David Pilcher and Julie Scollin have contributed greatly to the production of this publication.

The Kentucky Soybean Performance Tests are conducted to provide an unbiased, objective estimate of the relative performance of soybean varieties in Kentucky. This information may be used by growers and seedsmen to aid in selecting varieties that will give the highest total production in a specific situation.

Eight soybean tests were planted in 1996 in Kentucky. The testing locations are shown below. Soil types, planting dates, and other information are shown in Table 1.

### Location of the 1996 Kentucky Soybean Tests

1. McLean County
2. Hardin County
3. Caldwell County
4. Ballard County
5. Fayette County
6. Warren County



## Methods

All tests were planted in a randomized complete block design with two replications (plots) of each variety. In the conventional tests, individual plots were 20 feet long and 4 rows wide with 30 inches between rows. In the double-crop tests, the plots were 20 feet long and 6 rows wide with 15 inches between rows. The seeding rate for the conventional tests was 8 to 10 viable seeds per foot of row, and for the double-crop tests was 5 to 6 viable seeds per foot of row. All plots were planted with a modified soybean planter. All plots were treated with herbicides and maintained as weed-free as possible.

One test (SCN test in McLean Co., three replications) was planted at a site infested with soybean cyst nematode. Only varieties with some genetic resistance to SCN and susceptible check varieties were tested at this site.

Harvesting was done with a small plot combine according to maturity; thus, several harvests were made at each location. Sixteen feet of the center rows were harvested from the plots. No allowances were made for soybeans that may have been lost because of combining or shattering.

**Yield**—Yield is reported in bushels per acre adjusted to 13 percent moisture.

**Lodging**—Lodging is rated on a scale of 1 to 5, where 1 = almost all plants erect; 2 = all plants over slightly or a few down; 3 = all plants over moderately or 25 percent down; 4 = all plants over considerably or 50 to 80 percent down; 5 = all plants over badly.

**Maturity date**—A variety is considered mature when 95 percent of the pods had turned their normal mature color. One to two weeks of good drying weather will be needed beyond the date given before the beans will be ready to combine. Maturity dates were recorded at the Fayette Co., Ballard Co., and Caldwell Co. locations.

**Plant height**—Plant height was measured in inches from the soil surface to the tip of the main stem.

**Pod height**—Height of the lowest pod was measured in inches from the soil surface to the point of attachment of the lowest pod on the plant.

**TABLE 1. LOCATION, PLANTING DATA, AND CLIMATIC DATA FOR THE 1996 SOYBEAN PERFORMANCE TESTS.**

	Farmer	Extension Agent	Soil Type	Date of Planting	Soil Test	Fertilizer Applied <sup>2</sup>	50% Change of Killing Frost <sup>3</sup>
McLean Co.	Caraway Farms	Greg Henson	McGary Silt Loam	6/24	P 65 K 380 pH 6.7	none	10/25
McLean Co. SCN	Caraway Farms	Greg Henson	Calloway Silt Loam	6/24	P 70 K 350 pH 6.4	none	10/25
Hardin Co.	Robert Wade	Rod Grusy	Crider Silt Loam	5/23	P 57 K 241 pH 7.0	none	10/20
Caldwell Co.	Princeton Exp. Station		Crider Silt Loam	5/24	P 95 K 501 pH 6.9	none	10/19
Caldwell Co. <sup>1</sup> Double-crop	Princeton Exp. Station		Crider Silt Loam	7/3	P 95 K 501 pH 6.9	none	10/19
Ballard Co.	Lynn Denton	Kenny Perry	Grenada Silt Loam	5/31	P 66 K 240 pH 6.6	none	10/19
Fayette Co.	Lexington Exp. Station		Maury Silt Loam	5/31	P 200+ K 242 pH 6.4	60 lb KCL	10/26
Warren Co. <sup>1</sup> Double-crop	Joe Duncan	Luther Smith	Pembroke Silt Loam	6/17	P 89 K 344 pH 6.4	125 lb 18-46-0 100 lb 0-46-0	10/23

<sup>1</sup> No-till double cropped after wheat.

<sup>2</sup> Amount per acre.

<sup>3</sup> Based on 30 year average

**Soybean cyst nematode (SCN)**—SCN populations were determined at planting and at harvest by measuring SCN egg densities in plots. Egg densities, reported as the number of eggs/100 cubic centimeters of soil (about 1/4 pint of soil), were determined from soil samples consisting of ten 6-inch deep soil probes from the center two rows of each plot. Soil was thoroughly mixed. Cysts were extracted from two 100-cubic-centimeter soil samples from each plot by wet sieving. Eggs were freed from cysts by crushing the cysts. Eggs were then stained and counted. The two egg counts from each plot were averaged to give a single egg density per plot. This data was provided by Don Hershman and Debbie Morgan of the Soybean Cyst Nematode Laboratory at Princeton, Kentucky.

## Interpretation

An important step in profitable soybean production is selecting good quality seed of the best varieties for your management system. The Kentucky Soybean Performance Tests are conducted to provide information useful in making this selection.

Performance of soybean varieties is affected by many factors including year, location, soil type and time of planting. A particular soybean variety is adapted for full-season growth in a band approximately 100 miles wide from north to south. (Map, page 1) Thus, the best variety in northern Kentucky may not be the best in southern areas. For this reason the Kentucky Soybean Performance Tests are conducted at several locations in the major soybean producing areas of the state. The

yields as reported in this publication should be used for relative comparisons; actual yields on a grower's farm may be different.

Performance of the soybean varieties will vary from year to year and location to location depending on adaptability, weather conditions, and management. The performance data presented in Tables 3 and 4 have been averaged across years and locations. Performance of a variety across a period of years and at several locations in the state is the best indicator of its production potential. (See *Agronomy Notes*, Volume 21, No. 3, "Using Performance Test Results in Soybean Variety Selection in Kentucky.")

Small differences in yield are usually of little importance. The yield of two varieties at a single location may differ because of chance factors (difference in soil characteristics, fertility, or availability of moisture) although the inherent yielding ability is the same. To decide if an observed yield difference is real, use the LSD (least significant difference) values cited at the bottom of the tables. The significance level used in the tables is 0.10. If the difference in yield is greater than the LSD value, you may be reasonably certain that the entries actually do differ in yielding ability. "N.S." in the tables indicates that no statistically significant differences were determined.

Yield is only one factor to consider in selecting a variety for your production system. Maturity, lodging resistance, disease resistance, and time and equipment availability are other factors that need to be considered.

The data provided have been divided into maturity groups. Due to weather patterns at a location, maturity alone can affect yield; this will be reflected by large differences in the maturity group averages. Selecting varieties from several maturity groups can reduce the impact of these maturity group fluctuations. (See *Agronomy Notes*, Volume 25, No. 3, "Growing Soybean Varieties from Multiple Maturity Groups Can Reduce Yearly Yield Volatility.")

The date of a 50 percent chance of a fall killing frost is important in determining which variety you select to plant. The dates presented in Table 1 are average dates over a long term. Actual dates will vary from year to year. For the date of a one year out of ten chance of a fall killing frost, subtract 13-18 days from the dates in Table 1. For maximum yield, a variety must mature before the first killing frost in the fall. Maturity dates of varieties are listed for the Fayette Co., Ballard Co., and Caldwell Co. locations, and in the combined summary (Table 3).

If you have a soybean cyst nematode (SCN) problem, a resistant variety should be used in your production system with a recommended crop rotation program. (See Kentucky Cooperative Extension Service publication PPA-3, "Soybean Cyst Nematode," available at your County Extension office.) The level of SCN infestation as well as the SCN race can be determined through the SCN laboratory at Princeton. Contact your County Extension office for more information on collecting and submitting samples. The importance of resistant varieties has increased as the number of acres affected by SCN has increased. When evaluating the performance of resistant varieties in the SCN infested location, note the change in cyst numbers as well as the yield presented in this table.

## Growing Conditions

Wet soil conditions early in the growing season delayed planting dates at all conventional locations. Inadequate soil moisture reduced emergence in one replication of the Princeton double-crop test; data from this replication were discarded. Inadequate summer rainfall reduced growth at the McLean Co. conventional test where canopy closure did not occur.

## Soybean Production Information

The Kentucky Cooperative Extension Service has a series of publications, "Soybean Production in Kentucky," which contain a more detailed discussion of soybean production practices: Part I. Status, Uses, and Planning (AGR 128); Part II. Seed Selection, Variety Selection, and Fertilization (AGR 129); Part III. Planting Practices and Double Cropping (AGR 130); and Part IV. Weed, Disease, and Insect Control (AGR 131). A soybean planting rate guide, reproduced from this series, is provided for your convenience (Table 2).

## Oil and Protein Data

The average protein and oil concentration for all soybean varieties entered in the Kentucky Soybean Performance Tests is presented in Table 12. The Federal Grain Inspection Service is offering soybean oil and protein testing as official criteria for grade. At this time the testing is optional. Soybean varieties differ in their protein and oil concentrations, which are influenced by the production environments. Because soybeans are grown primarily for oil and protein, these data are provided to indicate differences that exist between varieties produced in Kentucky.

## Kentucky State Seed Law

The Kentucky state seed law requires all seed exposed, offered for sale, or sold in Kentucky to be labeled as to kind and variety for each agricultural seed component present in excess of 5 percent of the whole and the percentage by weight of each component. All soybean seed blends should be labeled as to the percentage of each variety that makes up the mixture. The term "variety unknown" may no longer be used in place of a variety designation for soybeans, as all soybean seed must be labeled by variety name.

TABLE 2. SOYBEAN PLANTING GUIDE					
	Row Spacing (inches)				
	7	15	20	30	36
	Seeding Rate (seeds per ft. of row)				
	2-3	5-6	6-8	8-10	9-11
Viable seeds per pound	Pounds of Seed per Acre				
2000	80-110	85-105	78-104	70-87	65-80
2200	73-100	77-95	71-95	64-79	59-72
2400	66-93	71-88	65-87	58-73	54-66
2600	61-86	65-81	60-80	54-67	50-61
2800	57-80	61-75	56-75	50-62	46-56
3000	53-75	57-70	52-70	46-58	43-53
3200	50-70	53-66	49-65	44-54	41-49
3400	47-66	50-62	46-61	41-51	38-46
3600	44-62	47-58	44-58	39-48	36-44
3800	42-59	45-55	41-55	37-46	34-42
4000	40-56	43-53	39-52	35-44	33-40



## Sources of Seed

The seed planted in the 1996 Soybean Performance Tests was acquired from the following sources:

### AgraTech Seeds, Inc.

5559 N 500W  
McCordsville, IN 46278  
AT 460  
AT 480  
AT 425

### Asgrow Seed Company

P.O. Box 109  
Matthews, MO 63867  
Asgrow A4922  
Asgrow A4341  
Asgrow A4715  
Asgrow A4045  
Asgrow A5547  
Asgrow A5403

### Callahan Seeds

1122 E. 169th Street  
P.O. Box 367  
Westfield, IN 46074-0367  
Callahan 3444  
Callahan 3484  
Callahan 5410  
Callahan 5510  
Callahan 6440

### Caverndale Farms Inc.

1921 Bluegrass Road  
Danville, KY 40422  
CF 461  
CF 492  
CF 478

### Ciba Seeds Division

218 Beckworth Lane  
Irmo, SC 29063  
Ciba Seeds 3474  
Ciba Seeds 3505

### DeKalb Genetics Corporation

3100 Sycamore Road  
DeKalb, IL 60115  
DeKalb CX455  
DeKalb CX450C  
DeKalb CX494  
DeKalb CX510C

### Delta King Seed Co.

P.O. Box 970  
McCrary, AR 72101  
Delta King 4860  
Delta King 4875  
Delta King 5475  
Delta King 5850

### Delta and Pine Land Company

P.O. Box 157  
Scott, MS 38772  
Deltapine DP 3478  
Deltapine DP 3480  
Deltapine DP 3519S

### Gateway Seed Co.

Box 337  
Ridgway, IL 62979  
Gateway 470  
Gateway 511

### Golden Harvest

RR 3 Box 257  
Clinton, IL 61727  
Golden Harvest H1383  
Golden Harvest H1485  
Golden Harvest H1500  
Golden Harvest H1454

### Hartz Seed

P.O. Box 946  
Stuttgart, AR 72160  
Hartz H4994

### Kentucky for Progress

1105 S. Long Grove Road  
Glendale, KY 42740  
KFP 462  
KFP 471

### Kentucky-American Seeds, Inc

205 Means Avenue  
P.O. Box 1104  
Hopkinsville, Ky 42240  
KAS Cherokee 516

### Kentucky Foundation Seed Project

P.O. Box 11950  
Lexington, KY 40579  
Accomac  
Calhoun  
Charleston  
Chesapeake  
Clifford  
Delsoy 4710  
Delsoy 4900  
Essex  
Hartwig  
Holladay  
Hutcheson  
KS 4694

KS 5292

Macon  
Manokin  
Nile  
Omaha  
Pennyrile  
Pharaoh  
Probst  
Stressland  
TN 4-86  
TN 4-94  
TN 5-95  
Wicomico  
Yale

### LG Seeds

P.O. Box 457  
State Route 213 S.  
Windfall, IN 46076  
LG Seeds LG6462C  
LG Seeds LG6484  
LG Seeds LG6509C

### Miles Seed

2760 Keller Road  
Owensboro, KY 42301  
Southern Cross David  
Southern Cross Joshua  
Southern Cross Samuel  
Southern Cross Saul

### Mycogen Plant Sciences

720 St. Croix Street  
Prescott, WI 54021  
Mycogen 429  
Mycogen 470

### Northrup King Co.

410 Woodbridge Drive  
Somerville, TN 38068  
Northrup King S39-11  
Northrup King S42-60  
Northrup King S46-44  
Northrup King S52-25

### Pioneer Hi-Bred

International, Inc.  
6767 Old Madison Pike #110  
Huntsville, AL 35806  
Pioneer Brand 9392  
Pioneer Brand 9395  
Pioneer Brand 9396  
Pioneer Brand 9421  
Pioneer Brand 9452  
Pioneer Brand 9481  
Pioneer Brand 9482  
Pioneer Brand 9552

### Southern States Cooperative

P.O. Box 26234  
Richmond, VA 23260  
S. States Exp. 4640  
S. States Exp. 4782  
S. States Exp. 5390  
S. States Exp. 5610  
S. States Exp. 20933  
S. States Exp. 21549  
S. States Exp. 21814  
S. States Exp. 22232  
S. States Exp. 54005  
S. States FFR-365  
S. States FFR-396  
S. States FFR-414N  
S. States FFR-439  
S. States FFR-455  
S. States FFR-474N  
S. States FFR-493  
S. States FFR-495  
S. States FFR-514N  
S. States FFR-542N  
S. States FFR-545  
S. States FFR-553  
S. States SS-HT-381-STS  
S. States SS-HT-551-STS

### Terra International Inc.

P.O. Box 171376  
Memphis, TN 38187  
Riverside 499  
Riverside 549  
Riverside Robin 5

**TABLE 3. COMBINED SUMMARY, ALL CONVENTIONAL LOCATIONS**

VARIETY / BRAND	YIELD (BU/AC)			LODGING			PLANT <sup>A</sup> HEIGHT (IN)	MATURITY <sup>A</sup> DATE	POD <sup>B</sup> HEIGHT (IN)
	1996	95-96	94-96	1996	95-96	94-96	1996	1996	1996
<b>EARLY ( GROUP III )</b>									
GOLDEN HARVEST H1383	52.0			1.7			30	9/19/96	5
S.STATES SS-HT-381-STS	47.9	44.1	48.0	1.7	1.8	2.1	35	9/21/96	5
NORTHRUP KING S39-11 **	47.3	45.1	48.9	1.8	2.0	2.2	37	9/19/96	8
PIONEER BRAND 9395	46.8			2.0			29	9/15/96	4
PIONEER BRAND 9392	46.1	44.8	47.2	1.6	1.5	1.7	33	9/17/96	5
S.STATES FFR-396	45.4	43.4	46.9	1.5	1.3	1.4	27	9/16/96	5
MACON	45.3	43.0		1.5	1.4		28	9/16/96	5
YALE **	43.7	41.5	44.0	1.6	1.5	1.8	32	9/14/96	6
PROBST	42.9	41.7		1.9	1.6		29	9/13/96	4
CHARLESTON	42.9			2.0			20	9/14/96	4
S.STATES FFR-365	41.7	43.1		1.4	1.3		31	9/17/96	6
S.STATES EXP 21814	40.8			1.7			37	9/19/96	5
SOUTHERN CROSS SAUL **	40.1	40.5		1.7	1.5		32	9/15/96	5
PIONEER BRAND 9396	37.6			1.6			29	9/15/96	5
GROUP III AVERAGE	44.3	43.0	47.0	1.7	1.5	1.8	31	9/16/96	5
<b>MID-SEASON ( GROUP IV )</b>									
PIONEER BRAND 9482	50.5			1.8			36	9/27/96	6
DELTA PINE DP 3478	50.2	48.8	52.8	1.9	2.0	2.2	40	9/25/96	6
S.STATES FFR-439	49.9	46.6	51.7	1.6	1.5	1.8	40	9/23/96	6
AGRATECH AT460 **	49.6			2.1			39	9/26/96	7
NORTHRUP KING S46-44 **	49.4	45.0	48.8	1.8	1.7	1.9	39	9/25/96	8
MANOKIN *	48.6	47.0	50.0	2.5	2.5	2.7	33	10/14/96	8
CIBA SEEDS 3474	48.6	47.0	50.8	1.8	2.0	2.2	38	9/26/96	8
SOUTHERN CROSS DAVID **	48.5			1.8			38	9/21/96	7
MYCOGEN 470	48.2	45.9		2.2	2.1		39	9/26/96	7
DEKALB CX445	48.2			1.8			38	9/23/96	5
ASGROW A4341	48.1	47.1		1.5	1.5		31	9/23/96	5
STRESSLAND	48.0	47.0	50.7	1.9	1.9	2.2	35	9/19/96	6
CF 492	47.6	46.0	50.5	2.3	2.1	2.0	28	10/3/96	6
LG SEEDS LG6484	47.6			2.5			37	9/26/96	6
ASGROW A4715 **	47.2	45.5	49.8	1.9	1.6	1.7	39	9/28/96	7
HARTZ H4994 **	47.2	46.1	49.8	2.5	2.4	2.5	34	10/15/96	7
MYCOGEN 429 **	47.2			1.6			35	9/22/96	6
CALLAHAN 3484 *	47.1	46.1	50.8	2.1	2.1	2.3	37	9/27/96	6
KFP 462 **	47.1			2.0			44	9/26/96	7
DEKALB CX494	47.0			2.4			39	9/25/96	6
SOUTHERN CROSS JOSHUA	46.7	45.2	50.1	2.1	2.1	2.2	38	9/26/96	7
PIONEER BRAND 9452	46.7	42.1	46.5	1.8	1.7	1.7	30	9/23/96	5
LG SEEDS LG6462C **	46.6	46.0		1.8	1.6		37	9/28/96	6
DELTA KING 4860 **	46.4			1.8			37	9/27/96	6
PIONEER BRAND 9421	46.3			1.8			37	9/19/96	5
GOLDEN HARVEST H1485	46.2			2.0			37	9/26/96	5
S.STATES FFR-493	46.1	44.2	49.6	1.9	1.7	1.8	41	10/8/96	6
S.STATES EXP 4782 *	46.0			1.8			35	10/2/96	6
GATEWAY 470	45.6	46.6	51.5	2.0	1.9	2.1	40	9/28/96	6
PIONEER BRAND 9481 **	45.6	43.6		1.9	2.0		39	9/26/96	5
KS 4694	44.9	44.9	49.3	1.9	1.7	1.7	31	9/23/96	5
KFP 471	44.7			1.8			39	9/23/96	6
CALHOUN	44.6	43.5	47.1	1.5	1.5	1.5	22	9/22/96	5
NORTHRUP KING S42-60	44.4	43.8	47.8	1.9	1.9	2.2	33	9/19/96	6
TN 4-94	44.3			2.0			44	10/7/96	6
CALLAHAN 5410 *	44.2	45.3	47.7	1.9	1.8	2.1	36	9/22/96	5
CALLAHAN 6440 *	44.1			1.7			40	9/25/96	7
DEKALB CX450C *	44.0			1.8			37	9/23/96	6
S.STATES EXP 22232	44.0			1.9			41	9/26/96	6
DELSOY 4900 *	43.8	42.1	47.6	2.5	2.1	2.5	37	10/13/96	8
DELTA PINE DP 3480	43.6			2.5			38	9/29/96	7
ASGROW A4045	43.5			1.7			33	9/19/96	5
ASGROW A4922 **	43.4	43.6		2.0	2.0		41	9/30/96	7

**TABLE 3. COMBINED SUMMARY, ALL CONVENTIONAL LOCATIONS** (continued)

VARIETY / BRAND	YIELD (BU/AC)			LODGING			PLANT <sup>A</sup> HEIGHT (IN)	MATURITY <sup>A</sup> DATE	POD <sup>B</sup> HEIGHT (IN)
	1996	95-96	94-96	1996	95-96	94-96	1996	1996	1996
CALLAHAN 3444 *	43.3	43.3	46.8	1.8	1.8	2.1	39	9/24/96	7
CF 461	43.3	44.0	47.9	2.0	2.1	2.3	39	9/25/96	6
DELSOY 4710 **	43.2	42.1	47.1	2.6	2.2	2.6	43	9/29/96	8
DELTA KING 4875 **	42.9	43.3		2.3	2.2		39	9/26/96	7
CHESAPEAKE	42.5	43.8	48.0	1.9	1.9	2.1	38	10/1/96	7
S.STATES FFR-495	42.5	44.0		1.8	1.7		41	10/5/96	7
AGRATECH AT480	42.2	44.1		1.8	1.9		37	9/29/96	7
S.STATES EXP 4640 *	42.1			1.6			35	9/26/96	6
S.STATES FFR-455	41.8	40.5		2.0	1.9		35	9/26/96	6
RIVERSIDE 499	40.8			2.1			50	10/9/96	8
PHARAOH **	40.7	39.4	43.9	2.6	2.5	2.4	36	10/1/96	7
S.STATES EXP 20933	39.8			1.5			32	9/22/96	5
OMAHA	39.5			1.6			29	9/20/96	5
TN 4-86 **	38.8	39.7	42.9	1.9	2.0	2.2	44	9/25/96	6
NILE *	36.6	37.4	40.9	2.2	2.1	2.4	39	9/18/96	6
PENNYRILE	36.2	38.9	44.0	1.6	1.6	1.7	40	9/30/96	6
GROUP IV AVERAGE	45.0	44.2	48.3	2.0	1.9	2.1	37	9/27/96	6
<b>LATE ( GROUP V )</b>									
CIBA SEEDS 3505 *	48.8	47.1	50.3	2.4	2.2	2.2	32	10/4/96	8
KAS CHEROKEE 516 *	48.2	44.0		2.2	2.1		32	10/5/96	7
DEKALB CX510C *	47.4			2.0			27	10/10/96	6
ASGROW A5547 **	47.3			2.4			37	10/17/96	6
HOLLADAY	46.9	47.2	50.8	2.1	1.9	2.1	26	10/14/96	6
HUTCHESON	46.5	47.5	51.2	2.2	2.1	2.2	35	10/18/96	7
SOUTHERN CROSS SAMUEL **	46.3	45.2	49.6	2.2	2.1	2.1	28	10/15/96	7
DELTA KING 5475 *	46.2	45.7		2.3	2.2		33	10/19/96	7
ASGROW A5403 **	45.7	45.5		2.3	2.1		35	10/15/96	7
S.STATES EXP 5610	45.7			2.2			33	10/19/96	7
DELTA PINE DP 3519S **	45.0			2.3			35	10/15/96	7
KS 5292 *	44.9	43.7	49.0	2.0	2.0	2.1	30	10/10/96	7
S.STATES FFR-545	44.9	44.2		2.3	2.1		29	10/16/96	7
S.STATES FFR-514N **	44.8	43.4	46.7	2.2	2.1	2.4	40	10/9/96	7
GOLDEN HARVEST H1500 *	44.7			2.2			32	10/7/96	8
S.STATES EXP 5390	44.4			2.2			36	10/6/96	8
S.STATES FFR-553	44.1	44.5	47.9	2.1	1.9	2.0	31	10/16/96	8
LG SEEDS LG6509C *	43.5			1.9			33	10/4/96	8
S.STATES EXP 54005 **	43.5			2.3			37	10/17/96	7
TN 5-95	43.5			2.5			36	10/14/96	8
S.STATES SS-HT-551-STS	43.2	44.5		2.1	2.0		34	10/17/96	7
NORTHROP KING S52-25 *	43.1	42.9	46.1	2.1	2.0	2.1	30	10/11/96	9
S.STATES FFR-542N **	42.9	43.1	48.3	2.0	2.0	2.1	34	10/15/96	8
WICOMICO *	42.8			2.6			30	10/13/96	6
RIVERSIDE 549	42.7			1.9			35	10/18/96	8
CALLAHAN 5510 *	42.5	42.9	47.9	2.0	1.9	2.0	29	10/5/96	7
ACCOMAC*	42.2	43.2		2.5	2.4		39	10/18/96	8
GATEWAY 511 *	41.7			2.1			34	10/11/96	7
DELTA KING 5850 **	41.3			2.8			36	10/18/96	8
RIVERSIDE ROBIN 5	41.2			2.2			30	10/20/96	7
ESSEX	40.1	40.7	46.2	2.2	2.2	2.2	27	10/13/96	6
CLIFFORD	38.7	41.5	46.9	2.3	2.3	2.4	30	10/14/96	7
GROUP V AVERAGE	44.2	44.3	48.4	2.2	2.1	2.2	33	10/13/96	7
GRAND MEAN	44.7	44.0	48.2	2.0	1.9	2.1	35		6
LSD (0.10)	3.3	2.3	2.0	0.2	0.2	0.2	2		1

\* Resistant to the soybean cyst nematode (Race 3)

\*\* Resistant to the soybean cyst nematode (Race 3 and Race 14)

<sup>A</sup> Data based on observations in Fayette Co., Caldwell Co., and Ballard Co.

<sup>B</sup> Data based on observations in Fayette Co., and Caldwell Co.

**TABLE 4. COMBINED SUMMARY, ALL DOUBLE-CROP LOCATIONS**

VARIETY / BRAND	YIELD (BU/AC)			LODGING		
	1996	95-96	94-96	1996	95-96	94-96
<b>EARLY ( GROUP III )</b>						
S.STATES SS-HT-381-STS	51.0	47.6	43.4	3.5	3.1	2.5
S.STATES FFR-396	51.0	45.0	38.9	2.0	1.6	1.4
GOLDEN HARVEST H1383	50.3			2.5		
PIONEER BRAND 9395	49.5			2.2		
S.STATES EXP 21814	48.5			3.0		
SOUTHERN CROSS SAUL **	46.7	48.2		2.2	1.6	
NORTHRUP KING S39-11 **	46.5	44.9	42.2	3.2	2.6	2.1
PIONEER BRAND 9396	46.5			2.7		
YALE **	46.3	42.4	38.3	2.7	2.1	1.7
PIONEER BRAND 9392	46.0	49.1	45.1	2.3	1.7	1.5
S.STATES FFR-365	46.0	44.9		1.3	1.4	
MACON	44.4	40.3		2.0	1.8	
PROBST	42.3	41.3		2.7	2.0	
CHARLESTON	37.3			2.0		
GROUP III AVERAGE	46.6	44.9	41.6	2.5	2.0	1.8
<b>MID-SEASON ( GROUP IV )</b>						
CALLAHAN 3484 *	56.8	53.7	49.2	2.8	2.3	1.9
PIONEER BRAND 9482	55.6			2.5		
CF 461	54.6	47.4	46.6	2.8	2.5	2.2
DELTA PINE DP 3480	54.5			3.7		
MYCOGEN 470	54.4	50.8		3.7	2.8	
STRESSLAND	53.9	52.7	49.0	2.7	2.3	2.0
DEKALB CX450C *	53.6			3.2		
ASGROW A4341	53.3	52.3		1.7	1.4	
GATEWAY 470	52.9	55.0	50.8	3.2	2.3	2.1
CHESAPEAKE	52.9	50.0	46.9	2.8	2.4	2.0
S.STATES EXP 4640 *	52.6			2.2		
NORTHRUP KING S42-60	52.5	48.4	45.8	2.7	2.3	1.9
DELTA PINE DP 3478	52.3	49.8	47.2	2.8	2.4	2.3
CF 492	52.0	49.2	47.1	3.2	2.1	1.9
S.STATES FFR-439	52.0	51.5	49.2	2.7	2.2	1.9
LG SEEDS LG6462C **	51.8	44.8		1.8	1.5	
DEKALB CX494	51.5			3.5		
PIONEER BRAND 9421	51.5			2.7		
KFP 471	51.0			2.2		
LG SEEDS LG6484	50.3			3.2		
SOUTHERN CROSS DAVID **	50.2			2.0		
CIBA SEEDS 3474	50.0	47.7	46.8	2.8	2.3	2.1
SOUTHERN CROSS JOSHUA	49.9	51.1	48.0	3.0	2.5	2.2
KS 4694	49.9	48.2	44.4	2.8	2.2	1.8
DEKALB CX445	49.5			3.3		
MANOKIN *	49.3	50.4	48.2	3.3	3.1	2.6
GOLDEN HARVEST H1485	49.3			3.0		
ASGROW A4922 **	49.2	47.3		2.7	2.1	
PIONEER BRAND 9452	49.0	47.5	44.7	2.5	1.8	1.5
S.STATES EXP 4782 *	48.8			2.2		
ASGROW A4715 **	48.7	42.1	41.0	2.3	1.7	1.5
PIONEER BRAND 9481 **	48.7	45.0		3.0	2.0	
MYCOGEN 429 **	48.5			2.7		
CALLAHAN 3444 *	48.2	52.2	48.6	3.0	2.3	1.9
S.STATES FFR-493	48.1	50.5	47.3	2.8	2.0	1.6
KFP 462 **	48.1			2.7		
AGRATECH AT480	47.8	52.4		2.3	2.2	
DELSOY 4900 *	47.4	48.1	46.6	3.7	2.6	2.1
DELTA KING 4875 **	47.4	43.0		3.0	2.6	
DELSOY 4710 **	46.9	44.2	41.1	3.7	2.6	2.1
CALLAHAN 5410 *	46.7	47.9	45.3	2.8	2.6	2.0
CALHOUN	46.3	47.4	45.6	2.5	1.9	1.6



**TABLE 4. COMBINED SUMMARY, ALL DOUBLE-CROP LOCATIONS (continued)**

VARIETY / BRAND	YIELD (BU/AC)			LODGING		
	1996	95-96	94-96	1996	95-96	94-96
CALLAHAN 6440 *	46.3			2.8		
ASGROW A4045	46.3			2.7		
DELTA KING 4860 **	46.2			1.8		
OMAHA	46.0			3.0		
HARTZ H4994 **	45.7	53.6	49.1	3.3	3.0	2.6
S.STATES EXP 20933	45.3			2.5		
S.STATES FFR-455	44.9	42.4		2.5	2.1	
AGRATECH AT460 **	44.8			2.7		
TN 4-94	44.2			3.0		
TN 4-86 **	43.3	42.7	40.0	3.3	2.6	2.2
NILE *	43.2	39.8	38.1	3.5	3.4	2.6
RIVERSIDE 499	42.7			2.8		
NORTHROP KING S46-44 **	41.5	39.3	39.8	2.7	1.9	1.6
S.STATES EXP 22232	41.5			2.5		
S.STATES FFR-495	40.3	43.4		2.3	1.9	
PENNYRILE	38.8	42.2	43.5	2.3	2.0	1.6
PHARAOH **	37.5	40.1	38.4	3.5	2.5	2.2
GROUP IV AVERAGE	48.6	47.6	45.5	2.8	2.3	2.0
<b>LATE ( GROUP V )</b>						
S.STATES SS-HT-551-ST5	54.9	47.8		3.0	2.2	
S.STATES EXP 5610	54.5			3.0		
ASGROW A5547 **	54.1			3.3		
HOLLADAY	53.5	53.1	51.2	3.5	2.5	2.1
S.STATES FFR-545	52.6	51.1		3.0	2.5	
WICOMICO *	52.1			3.7		
DEKALB CX510C *	51.5			3.0		
DELTA PINE DP 3519S **	51.5			3.0		
CALLAHAN 5510 *	51.4	47.2	47.1	3.5	2.7	2.2
DELTA KING 5475 *	51.2	49.6		3.0	2.9	
TN 5-95	50.5			3.0		
CLIFFORD	50.1	51.1	48.8	3.2	2.5	2.2
S.STATES FFR-542N **	49.1	47.9	45.0	3.5	2.6	2.2
HUTCHESON	48.2	48.6	44.0	3.2	2.4	2.0
SOUTHERN CROSS SAMUEL **	48.2	47.1	43.1	3.0	2.1	1.8
GOLDEN HARVEST H1500 *	48.2			3.3		
NORTHROP KING S52-25 *	47.2	45.8	46.4	3.7	2.9	2.4
RIVERSIDE ROBIN 5	47.1			3.7		
DELTA KING 5850 **	47.0			3.5		
S.STATES FFR-553	46.9	52.0	47.8	3.2	2.3	2.0
S.STATES EXP 5390	46.5			3.3		
ASGROW A5403 **	46.4	46.6		3.0	2.5	
S.STATES EXP 54005 **	46.3			3.2		
S.STATES FFR-514N **	46.2	42.2	43.9	3.5	2.5	2.1
ACCOMAC*	46.1	45.4		3.5	2.9	
CIBA SEEDS 3505 *	45.7	49.3	48.8	3.0	2.2	1.9
LG SEEDS LG6509C *	45.5			3.2		
ESSEX	45.1	43.8	42.5	3.0	2.1	1.9
KS 5292 *	45.1	45.1	44.6	3.3	2.6	2.2
GATEWAY 511 *	44.7			3.7		
RIVERSIDE 549	44.2			3.0		
KAS CHEROKEE 516 *	39.6	44.3		3.0	2.4	
GROUP V AVERAGE	48.5	47.7	46.1	3.3	2.5	2.1
GRAND MEAN	48.3	47.2	45.2	2.9	2.3	2.0
LSD (0.10)	5.5	4.6	3.7	0.6	0.4	0.2

\* Resistant to the soybean cyst nematode (Race 3)

\*\* Resistant to the soybean cyst nematode (Race 3 and Race 14)

**TABLE 5. CONVENTIONAL VARIETY TEST IN FAYETTE CO.**

VARIETY / BRAND	YIELD (BU/AC)			LODGING			PLANT HEIGHT (IN)	MATURITY DATE	POD HEIGHT (IN)
	1996	95-96	94-96	1996	95-96	94-96	1996	1996	1996
<b>EARLY ( GROUP III )</b>									
PROBST	66.4	56.5		3.0	2.5		32	9/20/96	6
GOLDEN HARVEST H1383	65.9			2.0			29	9/24/96	6
CHARLESTON	62.6			2.5			26	9/22/96	5
S.STATES SS-HT-381-STS	60.7	53.4	54.0	2.0	2.3	2.1	36	9/28/96	6
S.STATES FFR-396	60.7	55.4	53.8	1.5	1.4	1.3	26	9/22/96	5
NORTHROP KING S39-11 **	59.7	56.2	56.1	3.0	3.0	2.7	38	9/24/96	9
S.STATES FFR-365	57.4	52.7		1.5	1.5		30	9/20/96	6
PIONEER BRAND 9395	57.4			3.3			29	9/18/96	4
MACON	56.9	54.6		1.5	1.6		23	9/22/96	5
PIONEER BRAND 9392	56.0	53.0	52.6	2.3	1.9	1.8	33	9/24/96	5
PIONEER BRAND 9396	53.6			1.5			29	9/24/96	5
SOUTHERN CROSS SAUL **	52.7	52.3		2.0	1.8		31	9/23/96	6
YALE **	52.6	46.5	45.5	2.0	1.8	1.6	30	9/19/96	6
S.STATES EXP 21814	52.2			2.3			38	9/21/96	6
GROUP III AVERAGE	58.2	53.4	52.4	2.2	2.0	1.9	31	9/22/96	6
<b>MID-SEASON ( GROUP IV )</b>									
ASGROW A4045	67.4			2.8			32	9/26/96	5
NORTHROP KING S46-44 **	66.4	54.8	57.6	2.3	2.4	2.1	42	9/29/96	9
PIONEER BRAND 9482	65.9			2.8			40	10/3/96	6
SOUTHERN CROSS JOSHUA	65.4	53.5	58.6	2.5	2.6	2.3	41	10/1/96	8
DELTA PINE DP 3478	65.0	56.0	58.4	3.0	2.9	2.5	39	9/29/96	7
CIBA SEEDS 3474	64.0	55.0	57.9	2.5	2.8	2.5	37	9/30/96	9
STRESSLAND	64.0	54.7	55.0	3.3	3.1	2.7	36	9/26/96	6
MYCOGEN 429 **	62.6			1.8			33	9/28/96	6
DEKALB CX494	62.6			3.5			38	9/30/96	7
OMAHA	62.6			2.3			32	9/24/96	5
KS 4694	61.7	57.1	57.4	2.5	2.1	2.0	34	10/1/96	5
ASGROW A4341	61.7	57.7		1.8	2.0		31	9/27/96	6
S.STATES FFR-439	61.6	54.1	55.7	2.0	2.3	2.1	41	9/30/96	5
AGRATECH AT460 **	61.6			2.5			38	10/2/96	8
CALLAHAN 3484 *	60.7	55.0	57.4	2.8	3.0	2.6	38	10/1/96	7
SOUTHERN CROSS DAVID **	60.7			2.0			42	9/27/96	7
KFP 471	60.7			2.3			41	10/1/96	6
S.STATES EXP 22232	60.7			2.8			43	10/2/96	7
GATEWAY 470	60.2	51.5	56.7	2.8	2.6	2.3	41	10/3/96	6
PIONEER BRAND 9481 **	60.2	51.5		3.0	3.3		40	10/2/96	7
GOLDEN HARVEST H1485	59.8			2.5			37	10/1/96	6
MYCOGEN 470	59.3	50.3		3.3	3.4		37	10/1/96	8
DELTA PINE DP 3480	58.8			4.0			41	10/4/96	8
PIONEER BRAND 9421	58.4			2.8			38	9/29/96	5
S.STATES FFR-455	58.3	49.3		2.8	2.4		39	10/2/96	6
LG SEEDS LG6484	57.8			3.5			35	9/30/96	6
CALLAHAN 5410 *	57.4	52.5	53.7	2.5	2.6	2.3	32	9/30/96	6
NORTHROP KING S42-60	57.4	54.1	52.3	3.0	2.5	2.4	32	9/26/96	7
PIONEER BRAND 9452	57.4	52.7	54.7	2.5	2.4	2.2	33	9/29/96	5
DELTA KING 4860 **	57.4			2.3			38	10/3/96	6
CF 461	56.9	49.7	51.6	3.0	3.1	2.8	42	10/1/96	6
S.STATES EXP 4782 *	56.9			2.0			38	10/4/96	6
TN 4-94	56.4			3.0			46	10/14/96	7
CALLAHAN 3444 *	56.0	53.3	56.5	2.8	2.6	2.3	41	10/2/96	8
ASGROW A4715 **	55.9	52.2	54.1	2.5	2.3	2.0	42	10/3/96	7
CALLAHAN 6440 *	55.9			2.5			42	10/1/96	8
S.STATES EXP 20933	55.5			1.5			33	9/28/96	5
DELTA KING 4875 **	55.0	47.6		4.0	3.8		39	10/3/96	7
ASGROW A4922 **	55.0	48.9		3.0	2.6		41	10/8/96	7
S.STATES EXP 4640 *	55.0			2.0			39	10/2/96	7
CF 492	54.6	49.6	52.9	4.0	3.3	2.8	35	10/7/96	6
DEKALB CX450C *	54.5			2.5			40	9/30/96	7

TABLE 5. CONVENTIONAL VARIETY TEST IN FAYETTE CO. (continued)

VARIETY / BRAND	YIELD (BU/AC)			LODGING			PLANT HEIGHT (IN)	MATURITY DATE	POD HEIGHT (IN)
	1996	95-96	94-96	1996	95-96	94-96	1996	1996	1996
DEKALB CX445	54.5			2.8			37	9/30/96	6
CALHOUN	54.1	51.9	53.5	1.8	1.8	1.7	26	9/29/96	5
LG SEEDS LG6462C **	54.1	51.8		2.0	2.0		40	10/4/96	7
S.STATES FFR-493	53.6	46.8	53.1	3.3	2.5	2.2	45	10/12/96	7
KFP 462 **	53.6			3.5			43	9/30/96	6
AGRATECH AT480	52.2	50.7		2.3	2.6		40	10/4/96	8
PENNYRILE	51.2	46.5	52.1	1.8	2.1	1.9	45	10/6/96	7
CHESAPEAKE	51.2	49.6	53.4	2.5	2.6	2.3	41	10/5/96	7
TN 4-86 **	50.3	45.8	48.9	2.8	2.9	2.5	44	9/30/96	6
DELISOY 4710 **	49.8	46.9	51.6	3.5	3.3	2.8	41	10/3/96	9
HARTZ H4994 **	49.8	45.8	51.4	3.8	3.6	3.5	41	10/17/96	9
NILE *	49.3	46.8	45.4	3.5	3.6	3.0	40	9/24/96	7
MANOKIN *	47.9	43.5	50.8	4.0	3.9	3.4	39	10/16/96	9
PHARAOH **	47.4	44.2	48.2	3.5	3.8	3.0	40	10/8/96	8
DELISOY 4900 *	47.0	41.4	47.4	4.3	3.1	2.9	44	10/18/96	9
S.STATES FFR-495	43.2	40.9		2.5	2.0		45	10/14/96	8
RIVERSIDE 499	38.4			3.8			52	10/14/96	9
GROUP IV AVERAGE	56.8	50.4	53.6	2.8	2.8	2.5	39	10/2/96	7
<b>LATE ( GROUP V )</b>									
CIBA SEEDS 3505 *	57.4	50.1	55.7	3.3	3.0	2.6	39	10/7/96	8
KS 5292 *	56.0	49.9	55.7	3.5	3.5	2.9	39	10/17/96	9
KAS CHEROKEE 516 *	53.6	46.8		2.8	3.1		43	10/9/96	9
HOLLADAY	52.2	47.2	50.7	3.8	3.0	2.5	31	10/16/96	7
LG SEEDS LG6509C *	52.2			2.8			41	10/11/96	9
GOLDEN HARVEST H1500 *	51.2			3.3			43	10/14/96	9
S.STATES FFR-545	50.8	45.4		3.8	3.1		33	10/19/96	8
S.STATES FFR-542N **	49.8	45.9	49.0	3.0	2.9	2.5	43		9
GATEWAY 511 *	49.8			3.5			39	10/18/96	8
TN 5-95	49.8			3.0			43	10/17/96	9
SOUTHERN CROSS SAMUEL **	49.3	44.7	49.4	3.3	2.9	2.5	38		7
DEKALB CX510C *	47.4			3.3			35	10/17/96	7
S.STATES FFR-514N **	47.0	40.5	47.4	3.5	3.0	2.6	41	10/14/96	8
WICOMICO *	47.0			3.5			43	10/17/96	7
DELTA KING 5850 **	46.0			3.8			39	10/19/96	9
ASGROW A5547 **	46.0			4.3			42		8
CALLAHAN 5510 *	45.6	42.9	47.7	3.0	2.8	2.4	39	10/9/96	8
CLIFFORD	45.5	43.8	49.7	3.8	3.3	2.8	38	10/16/96	8
S.STATES EXP 54005 **	45.1			3.5			47		9
S.STATES FFR-553	44.6	43.3	47.4	3.5	2.9	2.5	37		10
ASGROW A5403 **	44.1	41.5		3.3	3.3		38	10/17/96	7
DELTA KING 5475 *	43.7	43.1		3.3	3.1		41		9
RIVERSIDE 549	43.6			2.8			44	10/19/96	10
HUTCHESON	43.2	43.9	48.6	3.3	3.0	2.7	45		8
ESSEX	42.2	39.9	45.9	3.8	3.6	2.9	35		8
ACCOMAC*	42.2	40.5		2.8	2.9		46		9
DELTA PINE DP 3519S **	41.8			3.5			42	10/17/96	7
NORTHROP KING S52-25 *	41.7	41.8	46.2	3.3	3.1	2.7	39	10/16/96	10
S.STATES EXP 5610	41.7			3.3			40		8
S.STATES EXP 5390	39.9			2.8			41	10/1/96	10
S.STATES SS-HT-551-STS	38.9	38.2		3.0	2.5		40		7
RIVERSIDE ROBIN 5	38.9			2.8			39		7
GROUP V AVERAGE	46.5	43.9	49.5	3.3	3.1	2.6	40	10/14/96	8
GRAND MEAN	53.8	48.9	52.3	2.9	2.7	2.5	38		7
LSD (0.10)	5.5	3.9	3.7	0.5	0.3	0.3	4.0		2

\* Resistant to the soybean cyst nematode (Race 3)

\*\* Resistant to the soybean cyst nematode (Race 3 and Race 14)

**TABLE 6. CONVENTIONAL VARIETY TEST IN BALLARD CO.**

VARIETY / BRAND	YIELD (BU/AC)			LODGING			PLANT HEIGHT (IN)	MATURITY DATE
	1996	95-96	94-96	1996	95-96	94-96		
<b>EARLY ( GROUP III )</b>								
GOLDEN HARVEST H1383	37.5			1.0	1.0		31	9/9/96
SOUTHERN CROSS SAUL **	37.1	34.6		1.0	1.0		33	9/10/96
MACON	36.4	38.6		1.0	1.0		29	9/9/96
PIONEER BRAND 9395	36.2			1.0	1.0		27	9/10/96
NORTHRUP KING S39-11 **	34.9	40.0	47.4	1.0	1.0	2.2	34	9/12/96
PIONEER BRAND 9392	34.1	36.7	40.0	1.0	1.0	2.2	32	9/10/96
YALE **	33.5	39.1	44.6	1.0	1.0	2.3	32	9/8/96
S.STATES SS-HT-381-ST5	31.8	37.1	46.9	1.0	1.0	2.2	32	9/16/96
PIONEER BRAND 9396	31.7			1.0	1.0		29	9/7/96
S.STATES FFR-365	30.9	40.1		1.0	1.0		30	9/10/96
S.STATES EXP 21814	30.1			1.0	1.0		36	9/8/96
S.STATES FFR-396	28.1	31.0	42.8	1.0	1.0	1.5	27	9/10/96
PROBST	26.7	32.7		1.0	1.0		29	9/7/96
CHARLESTON	26.0			1.0	1.0		17	9/7/96
GROUP III AVERAGE	32.5	36.7	44.3	1.0	1.0	2.1	30	9/9/96
<b>MID-SEASON ( GROUP IV )</b>								
DEKALB CX445	42.7			1.0	1.0		36	9/15/96
DELTA KING 4860 **	41.3			1.0	1.0		35	9/22/96
KFP 462 **	40.3			1.0	1.0		44	9/22/96
MANOKIN *	39.4	42.7	49.4	1.0	1.0	1.8	30	10/10/96
LG SEEDS LG6484	39.4			1.0	1.0		36	9/21/96
ASGROW A4715 **	39.2	42.1	50.1	1.0	1.0	1.5	33	9/23/96
LG SEEDS LG6462C **	39.1	42.5		1.0	1.0		37	9/24/96
SOUTHERN CROSS DAVID **	38.5			1.0	1.0		36	9/15/96
DEL50Y 4710 **	37.7	42.0	48.7	1.0	1.0	2.3	42	9/24/96
CF 461	37.1	44.5	50.4	1.0	1.0	1.8	37	9/19/96
TN 4-86 **	36.8	38.6	42.8	1.0	1.0	2.0	44	9/18/96
S.STATES EXP 22232	36.5			1.0	1.0		41	9/21/96
S.STATES FFR-439	36.3	39.7	51.0	1.0	1.0	2.0	41	9/17/96
ASGROW A4341	36.2	39.2		1.0	1.0		30	9/18/96
HARTZ H4994 **	36.1	44.8	52.2	1.0	1.0	1.5	34	10/12/96
NORTHRUP KING S42-60	36.0	40.9	52.5	1.0	1.0	2.3	37	9/14/96
AGRATECH AT460 **	35.5			1.0	1.0		38	9/18/96
CIBA SEEDS 3474	35.4	43.1	51.1	1.0	1.0	2.0	39	9/18/96
MYCOGEN 470	35.2	43.1		1.0	1.0		40	9/17/96
SOUTHERN CROSS JOSHUA	35.1	41.6	54.9	1.0	1.0	2.2	36	9/20/96
CALLAHAN 3484 *	35.0	43.0	51.9	1.0	1.0	1.8	35	9/21/96
PIONEER BRAND 9452	34.7	31.6	39.9	1.0	1.0	1.5	28	9/16/96
DEL50Y 4900 *	34.5	40.9	46.6	1.0	1.0	2.2	29	10/10/96
GOLDEN HARVEST H1485	34.5			1.0	1.0		37	9/19/96
PIONEER BRAND 9421	34.5			1.0	1.0		34	9/10/96
RIVERSIDE 499	34.3			1.0	1.0		49	10/2/96
PIONEER BRAND 9482	34.2			1.0	1.0		30	9/20/96
GATEWAY 470	34.1	48.2	57.4	1.0	1.0	2.0	37	9/20/96
STRESSLAND	34.1	42.4	49.9	1.0	1.0	2.2	34	9/11/96
DELTA PINE DP 3478	34.1	42.0	50.7	1.0	1.0	1.8	38	9/17/96
S.STATES FFR-455	34.0	32.3		1.0	1.0		32	9/23/96
KS 4694	33.9	40.5	48.4	1.0	1.0	1.5	30	9/17/96
S.STATES FFR-495	33.9	40.4		1.0	1.0		37	9/25/96
MYCOGEN 429 **	33.7			1.0	1.0		36	9/16/96
DELTA KING 4875 **	33.5	41.4		1.0	1.0		39	9/21/96
PIONEER BRAND 9481 **	33.4	39.6		1.0	1.0		38	9/22/96
CALLAHAN 6440 *	33.1			1.0	1.0		38	9/17/96
NORTHRUP KING S46-44 **	33.0	37.7	43.8	1.0	1.0	1.8	36	9/20/96
CF 492	32.9	38.8	48.4	1.0	1.0	1.5	22	9/30/96
S.STATES FFR-493	32.5	39.6	45.8	1.0	1.0	1.3	33	9/29/96
DELTA PINE DP 3480	32.2			1.0	1.0		36	9/27/96
ASGROW A4922 **	32.0	36.3		1.0	1.0		40	9/24/96
CALHOUN	31.8	37.7	45.9	1.0	1.0	1.0	19	9/17/96
CHESAPEAKE	31.3	40.3	49.3	1.0	1.0	1.8	34	9/25/96
CALLAHAN 3444 *	30.5	39.0	46.9	1.0	1.0	2.2	35	9/16/96

**TABLE 6. CONVENTIONAL VARIETY TEST IN BALLARD CO. (continued)**

VARIETY / BRAND	YIELD (BU/AC)			LODGING			PLANT HEIGHT (IN)	MATURITY DATE
	1996	95-96	94-96	1996	95-96	94-96	1996	1996
KFP 471	30.5			1.0	1.0		35	9/13/96
OMAHA	30.3			1.0	1.0		28	9/13/96
CALLAHAN 5410 *	30.2	40.7	48.1	1.0	1.0	2.0	38	9/15/96
S.STATES EXP 4782 *	28.7			1.0	1.0		32	9/25/96
TN 4-94 **	28.5			1.0	1.0		39	9/29/96
ASGROW A4045	28.4			1.0	1.0		30	9/11/96
DEKALB CX494	28.3			1.0	1.0		38	9/16/96
AGRATECH AT480	28.2	37.0		1.0	1.0		33	9/25/96
NILE *	27.5	33.9	40.7	1.0	1.0	1.8	40	9/12/96
S.STATES EXP 4640 *	27.1			1.0	1.0		29	9/20/96
S.STATES EXP 20933	26.3			1.0	1.0		30	9/16/96
DEKALB CX450C *	24.5			1.0	1.0		34	9/18/96
PHARAOH **	23.9	32.8	42.4	1.0	1.0	1.3	33	9/26/96
PENNYRILE	20.9	33.8	43.6	1.0	1.0	1.3	34	9/27/96
GROUP IV AVERAGE	33.4	39.9	48.3	1.0	1.0	1.8	35	9/21/96
<b>LATE ( GROUP V )</b>								
HUTCHESON	45.2	47.2	54.4	1.0	1.0	2.0	32	10/13/96
ASGROW A5547 **	43.5			1.0	1.0		35	10/14/96
HOLLADAY	42.8	46.1	55.0	1.0	1.0	1.7	26	10/14/96
SOUTHERN CROSS SAMUEL **	40.6	43.6	52.8	1.0	1.0	1.2	26	10/9/96
ASGROW A5403 **	39.7	43.7		1.0	1.0		35	10/11/96
CLIFFORD	39.0	40.2	49.8	1.0	1.0	2.0	27	10/10/96
S.STATES FFR-545	39.0	41.9		1.0	1.0		29	10/12/96
DELTA KING 5475 *	38.9	42.5		1.0	1.0		30	10/16/96
RIVERSIDE 549	38.0			1.0	1.0		29	10/17/96
S.STATES EXP 5610	37.8			1.0	1.0		29	10/15/96
DEKALB CX510C *	37.1			1.0	1.0		24	10/6/96
S.STATES FFR-553	36.7	41.1	50.4	1.0	1.0	1.3	32	10/10/96
ACCOMAC*	36.2	44.7		1.0	1.0		37	10/13/96
RIVERSIDE ROBIN 5	35.8			1.0	1.0		25	10/18/96
WICOMICO *	35.3			1.0	1.0		23	10/11/96
S.STATES SS-HT-551-ST5	34.8	44.0		1.0	1.0		32	10/12/96
CIBA SEEDS 3505 *	34.4	46.3	54.2	1.0	1.0	1.3	33	10/2/96
KAS CHEROKEE 516 *	34.2	33.2		1.0	1.0		30	10/2/96
S.STATES EXP 5390	34.2			1.0	1.0		31	10/5/96
ESSEX	34.1	41.8	50.4	1.0	1.0	1.3	27	10/5/96
DELTA PINE DP 3519S **	34.0			1.0	1.0		35	10/9/96
TN 5-95 **	34.0			1.0	1.0		33	10/10/96
S.STATES EXP 54005 **	33.9			1.0	1.0		33	10/10/96
NORTHRUP KING S52-25 *	33.0	39.4	48.9	1.0	1.0	1.3	26	10/5/96
S.STATES FFR-542N **	32.7	39.3	47.7	1.0	1.0	1.5	29	10/6/96
S.STATES FFR-514N **	31.7	39.4	47.6	1.0	1.0	2.3	41	10/4/96
CALLAHAN 5510 *	31.6	41.0	53.3	1.0	1.0	1.5	27	10/1/96
KS 5292 *	30.0	38.7	49.8	1.0	1.0	1.7	29	10/3/96
GOLDEN HARVEST H1500 *	29.9			1.0	1.0		31	10/1/96
LG SEEDS LG6509C *	29.4			1.0	1.0		30	10/1/96
GATEWAY 511 *	27.2			1.0	1.0		31	10/4/96
DELTA KING 5850 **	24.4			1.0	1.0		37	10/17/96
GROUP V AVERAGE	35.3	41.9	51.2	1.0	1.0	1.6	30	10/9/96
GRAND MEAN	33.9	40.0	48.6	1.0	1.0	1.8	33	
LSD (0.10)	6.6	5.4	4.6	N.S.	N.S.	0.3	4	

\* Resistant to the soybean cyst nematode (Race 3)

\*\* Resistant to the soybean cyst nematode (Race 3 and Race 14)

**TABLE 7. CONVENTIONAL VARIETY TEST IN CALDWELL CO.**

VARIETY / BRAND	YIELD (BU/AC)			LODGING			PLANT HEIGHT (IN)	MATURITY DATE	POD HEIGHT (IN)
	1996	95-96	94-96	1996	95-96	94-96	1996	1996	1996
<b>EARLY ( GROUP III )</b>									
GOLDEN HARVEST H1383	66.3			1.0			29	9/23/96	4
PIONEER BRAND 9392	57.6	51.3	49.5	1.0	1.0	1.0	35	9/19/96	5
S.STATES SS-HT-381-STS	53.2	46.2	47.6	1.0	1.0	1.0	37	9/20/96	5
PIONEER BRAND 9395	53.0			1.0			32	9/16/96	4
S.STATES EXP 21814	52.4			1.0			39	9/29/96	5
MACON	50.1	50.4		1.0	1.0		33	9/17/96	5
S.STATES FFR-396	50.0	47.3	44.8	1.0	1.0	1.0	29	9/17/96	6
NORTHRUP KING S39-11 **	49.5	47.3	46.5	1.0	1.0	1.0	38	9/20/96	7
YALE **	47.6	46.9	44.0	1.0	1.0	1.0	35	9/17/96	5
S.STATES FFR-365	47.1	47.4		1.0	1.0		33	9/21/96	5
PROBST	45.8	47.5		1.0	1.0		28	9/13/96	3
PIONEER BRAND 9396	41.9			1.0			28	9/14/96	5
SOUTHERN CROSS SAUL **	41.6	45.4		1.0	1.0		33	9/14/96	4
CHARLESTON	39.9			1.0			19	9/14/96	4
GROUP III AVERAGE	49.7	47.7	46.5	1.0	1.0	1.0	32	9/18/96	5
<b>MID-SEASON ( GROUP IV )</b>									
PIONEER BRAND 9421	64.2			1.0			40	9/20/96	6
MANOKIN *	64.0	57.0	54.6	1.5	1.3	1.2	29	10/13/96	6
DEKALB CX494	62.2			2.0			41	9/30/96	6
S.STATES FFR-493	59.9	53.5	55.8	1.0	1.0	1.0	46	10/5/96	6
MYCOGEN 470	58.5	51.7		2.0	1.5		42	10/1/96	5
DEKALB CX445	58.1			1.0			41	9/23/96	5
PIONEER BRAND 9452	58.0	47.1	43.6	1.0	1.0	1.0	31	9/23/96	5
HARTZ H4994 **	57.3	54.5	53.1	1.0	1.0	1.0	28	10/16/96	6
CIBA SEEDS 3474	56.7	51.6	50.3	1.0	1.0	1.0	38	9/30/96	6
CF 492	56.6	51.2	51.6	1.0	1.0	1.0	26	10/2/96	6
DELTA PINE DP 3478	56.6	51.3	52.8	1.0	1.0	1.0	42	9/29/96	6
S.STATES FFR-495	55.6	53.8		1.0	1.0		43	10/6/96	6
PHARAOH **	55.1	46.6	44.3	1.0	1.0	1.0	35	9/30/96	7
NORTHRUP KING S46-44 **	54.0	51.2	51.5	1.0	1.0	1.0	40	9/25/96	7
AGRATECH AT460 **	53.6			1.5			42	9/27/96	5
LG SEEDS LG6484	53.5			1.5			40	9/27/96	6
S.STATES FFR-439	53.4	50.8	51.6	1.0	1.0	1.0	39	9/22/96	7
DELSON 4900 *	53.1	52.4	54.9	1.5	1.3	1.8	38	10/11/96	6
STRESSLAND	52.5	52.3	51.0	1.0	1.0	1.0	35	9/19/96	6
LG SEEDS LG6462C **	52.5	47.4		1.0	1.0		35	9/28/96	6
CALHOUN	52.3	49.2	47.7	1.0	1.0	1.0	21	9/19/96	5
PIONEER BRAND 9482	52.3			1.0			39	9/29/96	6
SOUTHERN CROSS JOSHUA	52.2	47.5	44.5	1.0	1.0	1.0	37	9/28/96	7
ASGROW A4341	51.9	51.1		1.0	1.0		33	9/26/96	5
PIONEER BRAND 9481 **	51.5	45.1		1.0	1.0		39	9/25/96	4
CHESAPEAKE	51.3	49.5	48.4	1.5	1.3	1.2	38	10/3/96	6
CALLAHAN 3444 *	50.9	46.2	42.3	1.0	1.0	1.0	40	9/25/96	6
ASGROW A4045	50.9			1.0			36	9/19/96	5
GOLDEN HARVEST H1485	50.8			1.0			37	9/27/96	5
KFP 462 **	50.1			1.0			46	9/27/96	8
SOUTHERN CROSS DAVID **	49.3			1.0			38	9/22/96	7
MYCOGEN 429 **	49.2			1.0			36	9/23/96	5
DELTA KING 4860 **	48.8			1.0			37	9/27/96	5
DEKALB CX450C *	48.6			1.0			37	9/22/96	6
CF 461	48.5	46.7	47.4	1.5	1.3	1.2	38	9/25/96	5
ASGROW A4922 **	47.5	46.3		1.0	1.0		43	9/30/96	7
DELTA KING 4875 **	47.4	47.8		2.0	1.5		39	9/25/96	6
DELTA PINE DP 3480	47.2			1.0			38	9/27/96	7
CALLAHAN 3484 *	47.0	45.8	47.3	1.5	1.3	1.2	37	9/28/96	5
CALLAHAN 5410 *	47.0	47.9	42.5	1.0	1.0	1.0	38	9/21/96	5
RIVERSIDE 499	46.9			1.0			50	10/12/96	7
ASGROW A4715 **	46.7	44.3	48.6	1.0	1.0	1.0	43	9/28/96	7
NORTHRUP KING S42-60	46.3	46.4	42.7	1.0	1.0	1.0	31	9/17/96	6
S.STATES EXP 4640 *	46.3			1.0			37	9/25/96	6
S.STATES EXP 4782 *	46.0			1.1			35	9/26/96	5
TN 4-94	45.3			1.5			47	10/7/96	6

**TABLE 7. CONVENTIONAL VARIETY TEST IN CALDWELL CO. (continued)**

VARIETY / BRAND	YIELD (BU/AC)			LODGING			PLANT HEIGHT (IN)	MATURITY DATE	POD HEIGHT (IN)
	1996	95-96	94-96	1996	95-96	94-96	1996	1996	1996
GATEWAY 470	45.2	45.2	45.6	1.0	1.0	1.0	43	10/1/96	6
KFP 471	44.9			1.0			40	9/24/96	7
S.STATES EXP 22232	44.5			1.0			39	9/26/96	6
PENNYRILE	44.3	42.3	40.3	1.0	1.0	1.0	42	9/28/96	6
KS 4694	43.0	41.7	44.4	1.0	1.0	1.0	31	9/23/96	5
AGRATECH AT480	42.7	44.0		1.0	1.0		39	9/28/96	6
CALLAHAN 6440 *	42.4			1.0			40	9/28/96	6
DELISOY 4710 **	40.0	39.2	42.7	2.0	1.5	1.5	45	9/30/96	7
NILE *	39.1	40.6	41.9	1.5	1.3	1.5	36	9/19/96	6
S.STATES FFR-455	38.8	40.5		1.0	1.0		36	9/24/96	5
S.STATES EXP 20933	38.5			1.0			33	9/22/96	5
TN 4-86 **	37.1	39.2	40.9	1.5	1.3	1.2	45	9/28/96	7
OMAHA	32.0			1.0			27	9/23/96	4
GROUP IV AVERAGE	49.8	47.7	47.5	1.2	1.1	1.1	38	9/27/96	6
<b>LATE ( GROUP V )</b>									
DELTA PINE DP 3519S **	62.3			1.0			28	10/15/96	8
S.STATES FFR-514N **	60.5	51.5	50.0	1.0	1.0	1.0	40	10/10/96	5
S.STATES EXP 5610	58.1			1.0			30	10/17/96	6
S.STATES SS-HT-551-ST5	57.6	53.9		1.0	1.0		32	10/15/96	7
S.STATES FFR-553	56.9	53.1	50.0	1.0	1.0	1.0	25	10/15/96	7
NORTHRUP KING S52-25 *	56.2	50.5	47.5	1.0	1.0	1.0	26	10/13/96	7
DELTA KING 5475 *	56.0	52.3		1.0	1.0		27	10/17/96	6
S.STATES EXP 54005 **	55.2			1.0			31	10/15/96	6
HUTCHESON	55.0	55.9	54.6	1.5	1.3	1.2	30	10/15/96	6
DEKALB CX510C *	55.0			1.0			22	10/6/96	5
S.STATES FFR-542N **	53.1	48.6	48.2	1.0	1.0	1.0	31	10/13/96	6
RIVERSIDE ROBIN 5	53.1			1.5			27	10/16/96	7
RIVERSIDE 549	52.7			1.5			33	10/17/96	7
DELTA KING 5850 **	52.4			2.0			33	10/16/96	8
CIBA SEEDS 3505 *	52.0	46.3	45.0	1.0	1.0	1.0	25	10/5/96	7
S.STATES FFR-545	52.0	49.8		1.0	1.0		27	10/15/96	7
ASGROW A5547 **	51.8			1.0			34	10/13/96	5
TN 5-95	50.9			1.0			33	10/11/96	8
HOLLADAY	50.8	53.7	51.6	1.0	1.0	1.0	21	10/12/96	6
KS 5292 *	50.5	48.8	49.5	1.0	1.0	1.0	22	10/10/96	5
ASGROW A5403 **	50.1	49.8		1.0	1.0		33	10/13/96	8
S.STATES EXP 5390	50.0			1.0			35	10/13/96	6
GATEWAY 511 *	49.1			1.0			32	10/11/96	7
KAS CHEROKEE 516 *	48.9	44.6		1.0	1.0		23	10/5/96	6
ACCOMAC*	48.2	47.5		1.0	1.0		35	10/17/96	8
CLIFFORD	45.3	49.1	49.6	1.0	1.0	1.0	27	10/15/96	6
ESSEX	44.9	41.4	45.7	1.0	1.0	1.2	19	10/10/96	5
SOUTHERN CROSS SAMUEL **	44.4	47.0	47.3	1.0	1.0	1.0	21	10/10/96	6
CALLAHAN 5510 *	44.2	43.6	45.1	1.0	1.0	1.0	23	10/5/96	5
GOLDEN HARVEST H1500 *	43.1			1.0			22	10/7/96	7
WICOMICO *	41.2			1.0			24	10/12/96	5
LG SEEDS LG6509C *	40.7			1.0			27	10/2/96	7
GROUP V AVERAGE	51.3	49.3	48.7	1.1	1.0	1.0	28	10/12/96	6
GRAND MEAN	50.2	48.2	47.7	1.1	1.1	1.1	34		6
LSD (0.10)	9.5	5.0	4.4	0.4	0.2	0.2	4		1

\* Resistant to the soybean cyst nematode (Race 3)

\*\* Resistant to the soybean cyst nematode (Race 3 and Race 14)

**TABLE 8. CONVENTIONAL VARIETY TEST IN MCLEAN CO.**

VARIETY / BRAND	YIELD (BU/AC)			LODGING		
	1996	95-96	94-96	1996	95-96	94-96
<b>EARLY ( GROUP III )</b>						
NORTHRUP KING S39-11 **	40.0	33.7	42.5	1.0	2.0	2.5
S.STATES SS-HT-381-ST5	34.2	32.5	37.7	1.0	1.4	2.3
PIONEER BRAND 9395	33.6			1.0		
S.STATES FFR-396	33.0	31.1	39.9	1.0	1.3	1.5
SOUTHERN CROSS SAUL **	30.7	29.7		1.0	1.4	
YALE **	30.4	26.1	34.7	1.0	1.4	1.8
PIONEER BRAND 9392	28.7	29.5	39.2	1.0	1.9	1.9
GOLDEN HARVEST H1383	28.2			1.0		
S.STATES EXP 21814	27.9			1.0		
CHARLESTON	27.0			1.0		
PROBST	25.1	24.0		1.0	1.4	
MACON	24.9	18.6		1.0	1.4	
PIONEER BRAND 9396	22.0			1.0		
S.STATES FFR-365	19.5	23.1		1.0	1.1	
GROUP III AVERAGE	28.9	27.6	38.8	1.0	1.5	2.0
<b>MID-SEASON ( GROUP IV )</b>						
AGRATECH AT460 **	43.5			1.3		
ASGROW A4715 **	41.4	42.1	46.9	1.0	1.4	1.9
NORTHRUP KING S46-44 **	40.9	35.1	41.8	1.0	1.3	1.9
SOUTHERN CROSS DAVID **	40.6			1.0		
S.STATES EXP 4782 *	40.3			1.0		
TN 4-94 **	39.7			1.0		
DELTA PINE DP 3478	39.6	40.0	45.3	1.0	2.0	2.8
MYCOGEN 429 **	39.1			1.0		
HARTZ H4994 **	38.2	36.8	44.6	2.5	2.9	3.3
KFP 462 **	38.0			1.0		
DELTA KING 4860 **	37.8			1.0		
DELTA KING 4875 **	37.5	34.0		1.0	1.3	
GATEWAY 470	36.6	37.8	43.7	1.0	1.5	2.2
DEKALB CX450C *	36.3			1.0		
AGRATECH AT480	35.1	36.9		1.0	1.8	
MYCOGEN 470	35.1	35.4		1.0	1.5	
S.STATES FFR-439	34.7	36.3	43.0	1.0	1.5	1.7
LG SEEDS LG6462C **	34.6	36.0		1.0	1.4	
MANOKIN *	34.5	38.0	44.1	2.0	2.3	3.0
KFP 471	34.5			1.0		
PHARAOH **	34.2	33.1	40.8	2.5	2.5	2.4
ASGROW A4922 **	34.2	36.7		1.0	1.8	
PIONEER BRAND 9482	34.2			1.0		
STRESSLAND	34.1	31.2	40.0	1.0	1.1	2.0
DELSOY 4710 **	33.6	35.2	42.3	1.0	1.4	2.4
S.STATES EXP 20933	32.6			1.0		
CALLAHAN 6440 *	32.3			1.0		
DELSOY 4900 *	31.8	30.7	41.6	1.0	1.8	2.3
CALLAHAN 5410 *	31.8	33.8	40.6	1.0	1.4	2.3
S.STATES FFR-493	31.7	33.0	40.6	1.0	1.4	1.9
S.STATES EXP 22232	31.5			1.0		
CALHOUN	31.4	29.4	38.0	1.3	1.4	2.1
LG SEEDS LG6484	31.4			1.0		
RIVERSIDE 499	31.1			1.0		
CALLAHAN 3484 *	30.9	34.8	41.3	1.0	1.8	2.8
CIBA SEEDS 3474	30.6	36.4	41.1	1.0	2.0	2.5
CF 492	30.4	35.7	43.7	1.0	1.5	1.8
GOLDEN HARVEST H1485	30.2			1.0		
S.STATES EXP 4640 *	30.2			1.0		
S.STATES FFR-495	30.0	34.3		1.0	1.5	
SOUTHERN CROSS JOSHUA	29.7	35.2	40.8	1.0	1.8	2.1
DEKALB CX494	29.6			1.0		



**TABLE 8. CONVENTIONAL VARIETY TEST IN MCLEAN CO. (continued)**

VARIETY / BRAND	YIELD (BU/AC)			LODGING		
	1996	95-96	94-96	1996	95-96	94-96
NORTHRUP KING S42-60	29.3	30.5	40.7	1.0	1.5	2.1
NILE *	28.9	28.1	35.1	1.3	1.6	2.4
CHESAPEAKE	28.8	33.5	36.5	1.0	1.4	2.3
ASGROW A4045	28.5			1.0		
DELTA PINE DP 3480	27.8			1.0		
S.STATES FFR-455	27.5	31.9		1.0	1.5	
CALLAHAN 3444 *	27.0	29.9	36.6	1.0	1.5	2.4
TN 4-86 **	26.8	30.8	36.9	1.0	1.8	2.5
ASGROW A4341	26.6	29.1		1.0	1.3	
CF 461	26.5	31.3	38.5	1.0	1.5	2.6
PIONEER BRAND 9481 **	26.4	29.5		1.0	1.5	
PIONEER BRAND 9421	26.2			1.0		
DEKALB CX445	26.0			1.0		
PIONEER BRAND 9452	25.2	27.1	39.3	1.0	1.5	1.5
KS 4694	24.5	32.1	39.5	1.0	1.4	1.6
OMAHA	19.6			1.0		
PENNYRILE	18.4	25.6	34.6	1.0	1.3	1.7
GROUP IV AVERAGE	32.2	33.5	40.7	1.1	1.6	2.2
<b>LATE ( GROUP V )</b>						
KAS CHEROKEE 516 *	51.5	48.4		2.0	2.0	
CIBA SEEDS 3505 *	47.1	43.7	46.6	2.0	2.3	2.8
SOUTHERN CROSS SAMUEL **	46.0	40.6	45.1	1.5	1.8	2.4
ASGROW A5403 **	43.9	43.6		2.3	2.1	
WICOMICO *	43.4			3.0		
DELTA KING 5475 *	42.1	42.2		2.0	2.0	
ASGROW A5547 **	42.1			2.0		
GOLDEN HARVEST H1500 *	41.4			1.5		
TN 5-95 **	41.0			3.0		
S.STATES EXP 5610	40.2			1.5		
DEKALB CX510C *	39.6			1.0		
RIVERSIDE ROBIN 5	39.1			1.3		
S.STATES SS-HT-551-STS	38.2	38.6		1.3	1.9	
LG SEEDS LG6509C *	37.7			1.3		
CALLAHAN 5510 *	37.3	40.3	45.1	1.5	1.8	2.4
ACCOMAC*	36.6	38.3		2.8	2.9	
KS 5292 *	36.2	34.0	41.1	1.0	1.4	2.0
HUTCHESON	36.0	38.6	44.5	1.3	1.6	2.1
S.STATES FFR-545	35.7	37.7		1.8	1.9	
DELTA KING 5850 **	35.6			2.8		
S.STATES EXP 54005 **	35.3			1.8		
DELTA PINE DP 3519S **	34.2			1.3		
HOLLADAY	33.5	36.7	42.4	1.0	1.4	2.2
NORTHRUP KING S52-25 *	33.1	34.8	39.3	1.5	1.6	2.4
S.STATES FFR-553	32.8	37.1	41.5	1.0	1.5	2.3
GATEWAY 511 *	32.7			1.3		
S.STATES EXP 5390	32.2			1.5		
S.STATES FFR-542N **	31.1	35.2	44.0	1.0	1.5	2.2
S.STATES FFR-514N **	30.8	35.4	36.9	1.0	1.5	2.3
RIVERSIDE 549	30.6			1.0		
ESSEX	27.1	32.0	38.9	1.0	1.5	2.1
CLIFFORD	22.1	29.5	38.8	1.0	2.0	2.6
GROUP V AVERAGE	37.1	38.2	42.0	1.6	1.8	2.3
GRAND MEAN	33.2	34.0	40.8	1.2	1.6	2.2
LSD (0.10)	7.9	4.8	4.0	0.5	0.3	0.4

\* Resistant to the soybean cyst nematode (Race 3)

\*\* Resistant to the soybean cyst nematode (Race 3 and Race 14)

**TABLE 9. CONVENTIONAL VARIETY TEST IN HARDIN CO.**

VARIETY / BRAND	YIELD (BU/AC)			LODGING		
	1996	95-96	94-96	1996	95-96	94-96
<b>EARLY ( GROUP III )</b>						
GOLDEN HARVEST H1383	62.7			2.8		
S.STATES SS-HT-381-STS	60.0	51.4	53.6	3.3	3.1	2.9
CHARLESTON	59.2			4.5		
MACON	58.9	52.8		2.5	2.1	
S.STATES FFR-396	55.6	52.1	53.4	2.0	1.8	1.6
YALE **	55.0	48.9	51.2	2.5	2.5	2.1
PIONEER BRAND 9392	54.7	53.5	54.6	2.0	1.9	1.8
PIONEER BRAND 9395	54.3			3.0		
S.STATES FFR-365	53.9	52.1		1.8	1.6	
NORTHRUP KING S39-11 **	52.7	48.5	52.2	3.0	2.8	2.5
PROBST	51.0	47.7		2.8	2.3	
S.STATES EXP 21814	42.2			2.8		
PIONEER BRAND 9396	39.4			2.8		
SOUTHERN CROSS SAUL **	39.1	40.6		2.8	2.1	
GROUP III AVERAGE	52.8	49.7	53.0	2.8	2.2	2.2
<b>MID-SEASON ( GROUP IV )</b>						
PIONEER BRAND 9482	66.5			3.0		
ASGROW A4341	64.7	58.4		2.3	2.3	
S.STATES FFR-439	64.0	52.1	57.1	2.3	1.9	2.0
CF 492	63.8	54.9	55.9	4.5	3.5	2.8
CALLAHAN 3484 *	62.4	52.1	56.2	3.8	3.4	3.0
KS 4694	62.1	53.4	57.0	3.5	2.9	2.6
DEKALB CX445	60.2			2.5		
PIONEER BRAND 9452	58.5	52.1	54.9	3.3	2.8	2.3
S.STATES EXP 4782 *	58.5			3.5		
MANOKIN *	57.6	53.6	51.0	4.0	4.1	4.2
CALLAHAN 6440 *	57.3			2.8		
PIONEER BRAND 9481 **	57.1	52.1		3.5	3.1	
CIBA SEEDS 3474	56.7	49.3	53.6	3.3	3.1	2.8
LG SEEDS LG6484	56.6			4.8		
DELTA PINE DP 3478	56.4	54.8	56.9	3.0	3.3	2.9
GOLDEN HARVEST H1485	56.4			3.8		
DEKALB CX450C *	56.3			3.0		
STRESSLAND	55.5	54.2	57.6	2.8	3.4	3.2
DELSOY 4710 **	55.4	47.4	50.2	4.8	3.9	3.7
CALLAHAN 5410 *	55.0	51.4	53.6	3.3	3.0	2.7
HARTZ H4994 **	54.9	48.7	48.0	3.5	3.4	3.3
AGRATECH AT460 **	54.4			3.3		
SOUTHERN CROSS DAVID **	54.2			3.5		
KFP 462 **	54.1			3.0		
RIVERSIDE 499	53.8			3.5		
CALHOUN	53.8	49.6	50.5	1.8	2.1	1.9
NORTHRUP KING S42-60	53.6	47.0	50.9	3.5	3.3	3.0
LG SEEDS LG6462C **	53.5	52.2		3.3	2.6	
OMAHA	53.5			2.3		
NORTHRUP KING S46-44 **	53.4	46.4	49.4	3.3	2.8	2.6
KFP 471	53.3			3.3		
ASGROW A4715 **	53.2	46.9	49.2	3.5	2.5	2.3
AGRATECH AT480	53.2	52.1		3.0	3.3	
MYCOGEN 470	53.2	49.1		3.5	3.1	
DELSOY 4900 *	53.1	45.0	47.4	4.3	3.5	3.3
S.STATES FFR-493	53.0	48.3	52.6	2.8	2.6	2.4
DEKALB CX494	52.7			3.5		
CALLAHAN 3444 *	52.6	48.0	51.4	2.8	2.9	2.6
S.STATES EXP 4640 *	52.4			2.8		
GATEWAY 470	52.3	50.4	54.0	3.5	3.3	3.2
DELTA PINE DP 3480	52.3			5.0		
TN 4-94	52.1			3.0		

**TABLE 9. CONVENTIONAL VARIETY TEST IN HARDIN CO. (continued)**

VARIETY / BRAND	YIELD (BU/AC)			LODGING		
	1996	95-96	94-96	1996	95-96	94-96
MYCOGEN 429 **	51.6			3.0		
SOUTHERN CROSS JOSHUA	51.4	48.2	51.5	4.0	3.9	3.4
S.STATES FFR-455	50.7	48.3		3.5	3.4	
S.STATES FFR-495	50.4	50.8		3.0	2.9	
CHESAPEAKE	50.2	46.2	52.7	3.0	3.3	3.1
ASGROW A4922 **	48.8	49.9		4.0	3.5	
PIONEER BRAND 9421	48.6			2.8		
CF 461	48.0	48.1	51.5	3.5	3.8	3.2
S.STATES EXP 22232	47.6			3.3		
DELTA KING 4860 **	47.5			3.3		
S.STATES EXP 20933	46.7			2.3		
PENNYRILE	46.3	46.5	49.5	2.8	2.6	2.3
TN 4-86 **	43.3	44.1	45.2	3.0	2.9	2.7
PHARAOH **	43.3	40.5	43.9	4.3	4.4	4.0
ASGROW A4045	42.7			2.5		
DELTA KING 4875 **	41.7	45.7		3.3	3.6	
NILE *	38.8	37.8	41.2	3.5	3.1	3.0
GROUP IV AVERAGE	53.4	49.3	51.6	3.3	3.2	2.9
<b>LATE ( GROUP V )</b>						
S.STATES EXP 5390	66.2			3.8		
DEKALB CX510C *	58.3			3.5		
GOLDEN HARVEST H1500 *	58.3			3.5		
LG SEEDS LG6509C *	57.7			3.0		
HOLLADAY	55.7	52.4	54.5	3.3	3.0	2.9
S.STATES FFR-514N **	54.7	50.2	51.8	4.0	4.1	3.8
CALLAHAN 5510 *	54.2	46.6	48.3	3.0	2.8	2.8
CIBA SEEDS 3505 *	53.8	49.1	50.1	4.5	3.5	3.1
ASGROW A5547 **	53.6			3.5		
HUTCHESON	53.5	52.0	54.2	3.5	3.4	3.2
DELTA PINE DP 3519S **	53.2			4.0		
KAS CHEROKEE 516 *	53.1	47.2		4.0	3.5	
ESSEX	52.6	48.4	50.3	4.0	3.8	3.3
KS 5292 *	52.1	47.2	48.9	3.0	2.9	2.7
NORTHROP KING S52-25 *	52.1	48.0	48.5	3.0	3.1	3.0
SOUTHERN CROSS SAMUEL **	52.0	50.3	53.4	3.5	3.9	3.4
ASGROW A5403 **	51.2	48.6		3.5	3.3	
DELTA KING 5475 *	51.0	48.5		3.5	3.6	
S.STATES EXP 5610	51.0			3.5		
GATEWAY 511 *	50.3			3.0		
S.STATES FFR-553	49.9	48.2	50.2	3.5	3.3	3.0
RIVERSIDE 549	49.4			3.0		
DELTA KING 5850 **	48.7			4.0		
S.STATES EXP 54005 **	48.7			3.5		
S.STATES FFR-542N **	48.2	46.5	52.7	3.5	3.4	3.3
ACCOMAC*	48.2	44.7		4.3	4.0	
S.STATES FFR-545	47.7	46.5		3.5	3.3	
WICOMICO *	47.7			4.0		
S.STATES SS-HT-551-ST5	46.9	48.1		3.0	3.4	
TN 5-95	42.3			3.8		
CLIFFORD	42.2	45.2	46.7	4.3	4.1	3.8
RIVERSIDE ROBIN 5	39.6			3.8		
GROUP V AVERAGE	51.4	48.2	50.8	3.6	3.5	3.2
GRAND MEAN	52.7	49.1	51.5	3.3	3.1	2.9
LSD (0.10)	6.8	4.6	3.6	0.7	0.5	0.4

\* Resistant to the soybean cyst nematode (Race 3)

\*\* Resistant to the soybean cyst nematode (Race 3 and Race 14)

TABLE 10. SCN TEST IN MCLEAN CO.

VARIETY / BRAND	YIELD (BU/AC)		LODGING		PLANT HEIGHT (IN)		POD HEIGHT (IN)	1996 SCN EGG DENSITIES/100CC SOIL		1996 REPORTED SCN RESISTANCE <sup>B</sup>		
	1996	95-96	94-96	1996	95-96	94-96		1996	PLANTING(Pi)		HARVEST(Pf)	
								Pf/Pi <sup>A</sup>				
<b>EARLY (GROUP III)</b>												
NORTHROP KING S39-11	46.3	37.7	36.1	1.7	1.8	1.7	31	6	988	3036	3.3	3,14
YALE	35.7	33.3	32.1	1.0	1.1	1.2	24	4	1224	804	0.7	3,14
S.STATES EXP 21549	31.0			1.0			25	5	1128	1596	1.8	3,14
MACON	29.0			1.0			23	5	1528	23100	54.7	sus
GROUP III AVERAGE	35.5	35.5	34.1	1.2	1.5	1.5	26	5				
<b>MID-SEASON (GROUP IV)</b>												
CF 478	53.4			1.2			32	6	1792	1056	0.7	3,14
MANOKIN	48.8	43.0	43.0	3.2	2.6	2.4	33	6	1488	824	0.5	3
NORTHROP KING S46-44	48.4	38.2	36.4	1.2	1.6	1.5	35	7	1144	2628	3.6	3,14
ASGROW A4922	48.1			1.0			33	6	1788	1168	0.7	3,14
S.STATES EXP 4782	47.6			1.0			31	6	820	1208	1.4	3
S.STATES FFR-414N	45.0	37.2	38.9	2.2	2.1		39	6	1676	3376	1.7	3,14
PHARAOH	44.7	41.2		3.0	2.3	1.9	35	8	1156	1232	1.3	3,14
TN 4-94	44.6			1.2			34	9	1064	8448	8.1	3,14
PIONEER BRAND 9481	43.7	38.3		1.7	2.0		35	7	1148	3060	2.2	3,14
DELROY 4710	43.4	41.1	37.4	2.0	1.8	1.7	33	6	1508	3128	2.3	3,14
TN 4-86	42.1	37.3	36.7	1.8	1.8	1.6	35	7	2224	2272	1.8	3,14
CALLAHAN 6440	39.6	38.2		1.0	1.3		33	7	716	5308	6.3	3
SOUTHERN CROSS DAVID	37.8			1.0			31	6	1248	5636	4.4	3,14
S.STATES FFR-474N	37.6	36.3	35.4	2.0	2.5	2.2	32	6	844	3860	4.3	3,14
GOLDEN HARVEST H1454	37.3			1.2			32	6	932	9636	12.1	3,14
ASGROW A4715	36.9	35.5	38.8	1.0	1.1	1.1	27	6	1804	3916	3.8	3,14
NILE	35.5	34.6	33.8	2.0	2.3	2.2	29	6	1316	1256	0.9	3
AGRATECH AT425	34.8	32.1	33.2	1.0	1.4	1.4	31	6	1064	4384	5.8	3,14
KFP 462	34.6			1.2			32	6	1140	5392	4.9	3,14
AGRATECH AT460	29.9	20.4	22.9	1.3	1.0	1.1	27	6	1612	36664	22.1	3,14
CALHOUN	17.9	23.0	24.3	1.0	1.5	1.4	25	6	1516	34844	29.8	sus
PENNYRILE	12.9			1.0	1.5	1.4	25	6	1916	23700	14.5	sus
GROUP IV AVERAGE	39.3	35.5	34.6	1.5	1.8	1.7	32	6				

TABLE 10. SCN TEST IN MCLEAN CO. (continued)

VARIETY / BRAND	YIELD (BU/AC)		LODGING		PLANT HEIGHT (IN)		POD HEIGHT (IN)	1996 SCN EGG DENSITIES/100CC SOIL	Pf/Pi <sup>a</sup>	1996 REPORTED SCN RESISTANCE <sup>b</sup>
	1996	95-96	94-96	1996	95-96	94-96				
<b>LATE ( GROUP V )</b>										
KAS CHEROKEE 516	52.2			3.0		34	8	1488	6.5	3
WICOMICO	50.1			3.3		35	8	1276	0.3	3
TN 5-95	50.1			3.7		36	9	1472	3.4	3,14
KS 5292	47.7	39.0	36.8	2.7	1.8	33	8	1808	1.5	3
S.STATES FFR-542N	47.0			2.3		35	8	2552	5.5	3,14
ACCOMAC	46.0	43.9		3.8	3.3	42	7	1028	0.4	3
S.STATES FFR-514N	45.8	39.0	38.9	1.2	1.5	31	7	2488	2.0	3,14
DELTA PINE DP 3519S	45.4			3.0		35	8	984	2.4	3,14
PIONEER BRAND 9552	44.2			1.3		32	8	1652	3.1	3,14
HARTWIG	43.5	39.2	39.2	4.0	3.1	35	8	904	0.3	ALL
CALLAHAN 5510	43.2	41.2	38.7	2.7	2.0	31	7	2344	2.7	3
S.STATES EXP 54005	41.6			2.5		34	8	1540	3.5	3,14
HUTCHESON	34.8			1.2		28	8	1112	56.9	sus
SOUTHERN CROSS SAMUEL	34.8			1.3		26	7	1340	3.2	3,14
GROUP V AVERAGE	44.7	40.5	38.4	2.6	2.3	1.9	33	8		
GRAND MEAN	40.8	36.6	35.4	1.8	1.9	1.7	32	7		
LSD (0.10)	8.9	4.0	3.0	0.5	0.4	0.3	4	1		

<sup>a</sup> Pf/Pi represents relative SCN reproduction during the growing season. Changes in SCN populations are best gauged by following SCN egg development through the season; cyst numbers only provide an estimate of population change. Pf is the SCN egg count at the end of the season. Pi is the number of eggs present at planting. A ratio of 1 indicates no additional SCN development relative to the population at planting. A ratio of less than 1 indicates a population decrease during the growing season (Example: a ratio of 0.1 indicates a 10-fold population decrease). A ratio of greater than 1 indicates a population increase (Example: a ratio of 5.0 indicates a 5-fold population increase).

<sup>b</sup> Resistance to cyst nematode races are indicated for race 3 and race 14, the predominant races in Kentucky.  
 SUS - susceptible to SCN  
 ALL - Hartwig was developed using a different source of SCN resistance which, so far, provides resistance to all known races of SCN.

Note: Yield loss in soybeans caused by SCN is determined by the SCN population at planting - not the population at harvest.  
 A race test indicated that the field was infested with SCN Race 3.

**TABLE 11. DOUBLE CROP VARIETY TEST IN WARREN CO.**

VARIETY / BRAND	YIELD (BU/AC)			LODGING		
	1996	95-96	94-96	1996	95-96	94-96
<b>EARLY ( GROUP III )</b>						
GOLDEN HARVEST H1383	67.2			3.3		
S.STATES FFR-396	64.0	51.4	47.1	2.5	2.1	1.8
PIONEER BRAND 9395	60.8			2.8		
YALE **	60.0	50.4	48.0	3.5	2.9	2.3
S.STATES SS-HT-381-STS	59.2	48.8	48.9	4.8	4.0	3.2
MACON	58.8	47.1		2.5	2.4	
S.STATES EXP 21814	58.1			4.0		
SOUTHERN CROSS SAUL **	57.1	52.4		2.8	2.1	
PIONEER BRAND 9396	55.9			3.5		
PIONEER BRAND 9392	55.8	48.3	47.1	3.0	2.3	1.8
NORTHROP KING S39-11 **	54.9	46.0	45.0	4.3	3.6	2.8
S.STATES FFR-365	54.0	49.8		1.5	1.6	
PROBST	51.6	45.5		3.5	2.8	
CHARLESTON	49.9			2.5		
GROUP III AVERAGE	57.7	48.9	47.2	3.2	2.6	2.4
<b>MID-SEASON ( GROUP IV )</b>						
ASGROW A4341	66.1	55.7		2.0	1.8	
MYCOGEN 470	66.1	57.6		5.0	3.9	
GATEWAY 470	64.5	56.0	55.2	4.3	3.3	3.0
S.STATES EXP 4640 *	63.8			2.8		
S.STATES FFR-439	63.5	54.0	53.9	3.5	2.9	2.4
DELTA PINE DP 3480	63.0			5.0		
CF 461	62.7	52.1	52.3	3.8	3.6	3.3
PIONEER BRAND 9482	62.7			3.3		
STRESSLAND	62.4	53.8	53.4	3.5	3.3	2.8
DEKALB CX450C *	62.3			4.3		
CALLAHAN 3484 *	61.9	53.1	50.9	3.8	3.3	2.7
S.STATES EXP 4782 *	61.9			2.8		
DELTA PINE DP 3478	61.5	52.3	51.6	3.8	3.3	3.3
NORTHROP KING S42-60	61.5	51.1	49.1	3.5	3.3	2.7
PIONEER BRAND 9452	61.5	49.6	47.8	3.3	2.4	1.9
DELTA KING 4860 **	61.5			2.3		
CALLAHAN 3444 *	61.3	52.3	50.7	4.0	3.0	2.5
MANOKIN *	61.2	53.2	52.4	4.5	4.0	3.5
DEKALB CX494	61.2			4.8		
CF 492	60.8	53.0	50.7	4.3	3.0	2.7
CHESAPEAKE	60.7	55.3	52.2	3.8	3.1	2.8
CALLAHAN 6440 *	60.6			3.8		
LG SEEDS LG6462C **	60.4	52.8		2.3	1.9	
PIONEER BRAND 9421	60.4			3.5		
ASGROW A4715 **	60.3	48.6	47.6	3.0	2.3	2.0
SOUTHERN CROSS DAVID **	60.0			2.5		
DELLOY 4900 *	59.9	47.1	47.6	5.0	3.6	2.9
AGRATECH AT480	59.8	54.7		3.0	2.9	
KS 4694	59.5	52.9	50.9	3.8	3.1	2.4
OMAHA	59.2			4.0		
CALLAHAN 5410 *	58.7	51.1	53.0	3.8	3.3	2.5
MYCOGEN 429 **	58.5			3.5		
KFP 471	58.5			2.8		
DEKALB CX445	57.9			4.5		
KFP 462 **	57.6			3.5		
LG SEEDS LG6484	57.5			4.3		
S.STATES FFR-493	56.6	50.6	49.6	3.8	2.8	2.2
SOUTHERN CROSS JOSHUA	56.5	54.6	54.8	4.0	3.6	3.3
GOLDEN HARVEST H1485	56.0			4.0		
S.STATES EXP 20933	55.4			3.3		
HARTZ H4994 **	55.1	47.8	47.4	4.5	3.8	3.4

**TABLE 11. DOUBLE CROP VARIETY TEST IN WARREN CO. (continued)**

VARIETY / BRAND	YIELD (BU/AC)			LODGING		
	1996	95-96	94-96	1996	95-96	94-96
DELTA KING 4875 **	54.9	47.3		4.0	3.5	
CIBA SEEDS 3474	54.6	50.2	51.2	3.8	3.3	3.1
CALHOUN	54.4	51.0	50.1	3.3	2.5	2.2
S.STATES FFR-455	54.0	46.0		3.3	2.9	
ASGROW A4045	53.7			3.5		
ASGROW A4922 **	53.3	48.6		3.5	2.6	
NORTHRUP KING S46-44 **	53.2	47.7	47.4	3.5	2.6	2.1
S.STATES FFR-495	53.0	48.3		3.0	2.4	
S.STATES EXP 22232	52.8			3.3		
PIONEER BRAND 9481 **	52.4	43.5		4.0	2.8	
RIVERSIDE 499	50.9			3.8		
DELSOY 4710 **	49.8	45.3	44.6	5.0	3.8	3.1
TN 4-94 **	49.8			4.0		
AGRATECH AT460 **	49.3			3.5		
PENNYRILE	49.1	45.2	47.5	3.0	2.5	2.0
TN 4-86 **	48.6	41.4	41.6	4.5	3.8	3.2
NILE *	48.4	41.9	42.5	4.8	4.1	3.3
PHARAOH **	42.6	42.9	42.8	4.8	3.6	3.2
GROUP IV AVERAGE	57.7	50.2	49.6	3.7	3.1	2.8
<b>LATE ( GROUP V )</b>						
S.STATES SS-HT-551-STS	67.5	53.5		4.0	3.1	
S.STATES EXP 5610	63.2			4.0		
S.STATES FFR-545	62.9	55.1		4.0	3.6	
HOLLADAY	62.5	54.2	52.8	4.8	3.6	3.1
ASGROW A5547 **	61.3			4.5		
DELTA PINE DP 3519S **	61.2			4.0		
WICOMICO *	61.2			4.5		
CLIFFORD	59.7	52.9	51.0	4.3	3.6	3.3
DELTA KING 5475 *	59.7	49.8		4.0	3.4	
TN 5-95 **	59.6			4.0		
GOLDEN HARVEST H1500 *	59.3			4.5		
CALLAHAN 5510 *	58.5	51.7	53.0	4.8	4.0	3.2
DEKALB CX510C *	58.0			4.0		
S.STATES FFR-553	56.8	49.6	47.5	4.3	3.3	2.8
NORTHRUP KING S52-25 *	56.7	49.2	51.2	5.0	4.0	3.3
SOUTHERN CROSS SAMUEL **	56.3	50.7	46.4	4.0	3.0	2.5
S.STATES FFR-514N **	56.2	48.3	48.5	4.8	3.6	3.0
S.STATES FFR-542N **	56.1	48.9	47.8	4.3	3.6	3.1
DELTA KING 5850 **	55.8			4.3		
S.STATES EXP 54005 **	55.6			4.3		
HUTCHESON	55.2	49.2	46.9	4.3	3.4	2.8
RIVERSIDE ROBIN 5	55.2			5.0		
GATEWAY 511 *	55.0			5.0		
ESSEX	54.3	46.6	46.2	4.0	2.9	2.6
LG SEEDS LG6509C *	53.7			4.3		
CIBA SEEDS 3505 *	53.1	50.1	51.3	4.0	3.1	2.6
ACCOMAC*	52.9	48.4		4.3	3.5	
ASGROW A5403 **	51.8	45.5		4.0	3.6	
KAS CHEROKEE 516 *	51.2	49.8		4.0	3.4	
RIVERSIDE 549	50.3			4.0		
KS 5292 *	49.7	43.4	45.6	4.5	3.5	3.0
S.STATES EXP 5390	49.6			4.5		
GROUP V AVERAGE	56.9	49.8	49.0	4.3	3.5	2.9
GRAND MEAN	57.4	49.9	49.2	3.8	3.1	2.8
LSD (0.10)	7.0	4.7	3.9	0.7	0.5	0.4

\* Resistant to the soybean cyst nematode (Race 3)

\*\* Resistant to the soybean cyst nematode (Race 3 and Race 14)

**TABLE 12. 1996 KENTUCKY SOYBEAN PERFORMANCE TEST PROTEIN AND OIL COMPOSITION<sup>A</sup>**

VARIETY/BRAND	PROTEIN %	OIL %	VARIETY/BRAND	PROTEIN %	OIL %
ACCOMAC*	33.5	16.9	MANOKIN *	34.8	17.2
AGRATECH AT460 **	35.3	18.0	MYCOGEN 429 **	36.4	17.4
AGRATECH AT480	35.8	17.5	MYCOGEN 470	35.2	18.2
ASGROW A4045	35.4	18.4	NILE *	36.0	17.1
ASGROW A4341	35.1	18.2	NORTHRUP KING S39-11 **	37.2	17.6
ASGROW A4715 **	36.2	17.4	NORTHRUP KING S42-60	35.4	18.7
ASGROW A4922 **	36.6	17.4	NORTHRUP KING S46-44 **	36.3	17.5
ASGROW A5403 **	36.2	16.4	NORTHRUP KING S52-25 *	34.9	16.7
ASGROW A5547 **	34.8	16.6	OMAHA	36.8	18.2
CALHOUN	36.4	17.4	PENNYRILE	36.1	17.6
CALLAHAN 3444 *	34.2	18.4	PHARAOH **	35.2	17.1
CALLAHAN 3484 *	33.9	18.9	PIONEER BRAND 9392	37.1	17.7
CALLAHAN 5410 *	35.7	17.3	PIONEER BRAND 9395	36.8	17.3
CALLAHAN 5510 *	34.9	17.0	PIONEER BRAND 9396	35.7	18.3
CALLAHAN 6440 *	36.9	17.3	PIONEER BRAND 9421	36.2	18.1
CF 461	35.6	17.6	PIONEER BRAND 9452	37.2	17.4
CF 492	36.4	16.6	PIONEER BRAND 9481 **	36.8	17.7
CHARLESTON	36.7	17.3	PIONEER BRAND 9482	35.8	17.9
CHESAPEAKE	36.9	16.8	PROBST	37.4	17.4
CIBA SEEDS 3474	34.4	18.4	RIVERSIDE 499	34.6	17.1
CIBA SEEDS 3505 *	34.8	16.9	RIVERSIDE 549	34.6	17.0
CLIFFORD	35.3	16.9	RIVERSIDE ROBIN 5	33.9	17.4
DEKALB CX445	34.9	17.4	S.STATES EXP 20933	35.9	17.4
DEKALB CX450C *	37.2	17.1	S.STATES EXP 21814	37.2	16.9
DEKALB CX494	34.3	18.3	S.STATES EXP 22232	36.2	17.3
DEKALB CX510C *	33.9	17.1	S.STATES EXP 4640 *	36.0	17.5
DELSOY 4710 **	34.8	17.4	S.STATES EXP 4782 *	35.7	17.6
DELSOY 4900 *	35.2	16.9	S.STATES EXP 5390	36.9	15.7
DELTA KING 4860 **	36.5	17.4	S.STATES EXP 54005 **	35.3	16.4
DELTA KING 4875 **	35.9	18.2	S.STATES EXP 5610	35.2	17.2
DELTA KING 5475 *	35.1	16.9	S.STATES FFR-365	36.3	18.0
DELTA KING 5850 **	35.3	16.3	S.STATES FFR-396	36.9	17.2
DELTA PINE DP 3478	34.9	18.3	S.STATES FFR-439	36.2	17.5
DELTA PINE DP 3480	36.4	17.5	S.STATES FFR-455	35.5	17.8
DELTA PINE DP 3519S **	36.3	15.9	S.STATES FFR-493	35.2	17.3
ESSEX	36.7	16.9	S.STATES FFR-495	36.0	17.2
GATEWAY 470	34.8	18.3	S.STATES FFR-514N **	34.2	17.5
GATEWAY 511 *	34.4	17.3	S.STATES FFR-542N **	35.4	16.5
GOLDEN HARVEST H1383	34.4	18.8	S.STATES FFR-545	35.3	16.9
GOLDEN HARVEST H1485	35.1	18.4	S.STATES FFR-553	34.3	17.0
GOLDEN HARVEST H1500 *	33.9	17.5	S.STATES SS-HT-381-STS	36.2	17.2
HARTZ H4994 **	34.8	16.6	S.STATES SS-HT-551-STS	35.2	16.9
HOLLADAY	34.6	17.2	SOUTHERN CROSS DAVID **	36.9	17.0
HUTCHESON	35.1	17.6	SOUTHERN CROSS JOSHUA	34.5	18.3
KAS CHEROKEE 516 *	34.9	16.8	SOUTHERN CROSS SAMUEL **	35.9	16.7
KFP 462 **	37.5	17.2	SOUTHERN CROSS SAUL **	35.7	17.9
KFP 471	36.2	17.3	STRESSLAND	36.8	17.6
KS 4694	34.8	17.9	TN 4-86 **	35.7	17.9
KS 5292 *	34.6	17.3	TN 4-94 **	34.9	17.9
LG SEEDS LG6462C **	36.1	17.4	TN 5-95 **	35.2	16.5
LG SEEDS LG6484	36.3	18.1	WICOMICO *	35.8	16.7
LG SEEDS LG6509C *	34.1	17.2	YALE **	36.3	18.4
MACON	36.1	17.9			

<sup>A</sup> Variety protein and oil concentration means were determined across the Fayette Co., Hardin Co., and Warren Co. locations and expressed on the basis of 13% moisture. The mean protein concentration was 35.6%, and the mean oil concentration was 17.4%. Significant differences existed among locations and among varieties. The LSD (0.10) among varieties was 0.9% for protein and 0.5% for oil.

\* Resistant to the cyst nematode (Race 3)

\*\* Resistant to the cyst nematode (Race 3 and Race 14)



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