

# 1988 Kentucky Soybean Performance Tests

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## Acknowledgements

In addition to the county agents and farm cooperators mentioned in Table 1, several people have contributed greatly to the production of this publication: Eugene Lacefield, Brenda Hays, José Carlos, and John Byars.

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 a variety that will give the highest total production in a specific situation.

Soybean tests in 1988 were planted at six locations in the state. The testing locations, soil types, planting dates, and other information are shown on the following page.

The date of a 50% chance of a fall killing frost is important in determining which variety you select to plant (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 Princeton, Wickliffe, and Lexington locations in Tables 6, 7, and 8. Particular attention should be given to the maturity date of a variety when double-cropping soybeans (see the discussion on double-crop soybeans).

The dates presented in Table 1 are average dates over a long term. Actual dates will vary from year to year. For the

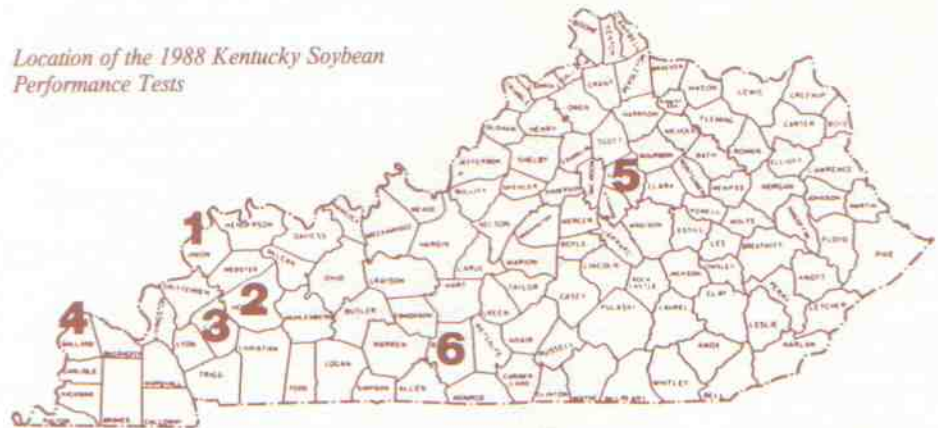
date of a 1 year out of 10 chance of a fall killing frost subtract 13-18 days from the dates in Table 1.

## Methods

All tests were planted in a randomized complete block design with three replications (plots) of each variety. Individual plots were 20 feet long and 4 rows wide with 30 inches between rows in the conventional tests; in the double-crop tests the plots were 20 feet long and 8 rows wide with 15 inches between rows. The seeding rate for the conventional tests was 8-10 viable seeds per foot of row and for the double-crop tests was 5-6 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.

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 beans that may have been lost as a result of combining or shattering.

*Location of the 1988 Kentucky Soybean Performance Tests*





## 1. Location, Planting Date, and Climatic Data for the 1988 Soybean Performance Tests.

	1	2	3	3	4	5	6
	Morganfield	Nebo	Princeton	Princeton <sup>1</sup> Double Crop	Wickliffe	Lexington	Glasgow <sup>1</sup> Double Crop
Farmer Cooperator	Ben Dyer	John Hayes	Exp. Sta.	Exp. Sta.	Allen Ross	Exp. Sta.	LeRoyce Burkes
Extension Agent	Gene Brown	George Kelley			Rory DeWeese		Gary Tilghman
Soil Type	Patton Silt Loam (Overwash)	Grenada Silt Loam	Grider Silt Loam	Grider Silt Loam	Grenada Silt Loam	Maury Silt Loam	Dickson Silt Loam
Date of Planting	5/12	5/27	5/26		5/17	5/16	6/8
Row Width (inches)	30	30	30	15	30	30	15
Herbicides <sup>2*</sup>	2 pt. Treflan 1½ pt. Storm	1½ pt. Commence ½ lb. Canopy	1½ pt. Treflan 6 pt. Lasso	2 pt. Lasso 2 pt. Lorox 10 pt. Bronco	4 pt. Lasso 1½ pt. Lorox	8 pt. Lasso ½ lb. Canopy	6 pt. Lasso
Soil Test							
P	95	86	111	111	92	240+	182
K	306	104	500	500	424	244	368
pH	6.1	7.1	6.3	6.3	6.1	6.2	7.1
Fertilizer Applied	1T. 18-46-90	None	None	None	None	1T. Line	None
50% chance of Killing Frost <sup>3</sup>	10/25	10/20	10/19	10/19	10/24	10/26	10/23

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

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

<sup>3</sup> Based on a 30-year average.

\* Trade names or products mentioned or similar products not named is neither intended as an endorsement nor criticism of such products by the Kentucky Agricultural Experiment Station.

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

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

**Maturity date**—A variety was considered mature when 95% 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 may also be expressed as days earlier (–) or later (+) than that of a standard variety (Williams 82). Maturity dates were recorded at the Lexington, Wickliffe, and Princeton 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.

## Interpretation

An important step in profitable soybean production is selecting good quality seed of the best variety 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 season, 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. 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. Data from the location nearest to a soybean grower's farm probably provide the best estimate of the potential of the soybean varieties in that area. **The yields as reported in this publication should be used for relative comparisons; absolute yields on a grower's farm may be different.**

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

Performance of the soybean varieties will vary from year to year and location to location depending on adaptability, weather conditions, and management. The average performance of a variety over a period of years provides a better estimate of its potential and stability than its performance in a particular year. **When selecting a variety it is important to consider the three- or two-year average presented in the tables; this provides an estimate of a variety's stability and performance potential over years.**

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) even though the inherent yielding ability is the same. To decide if an observed yield difference is real, use the



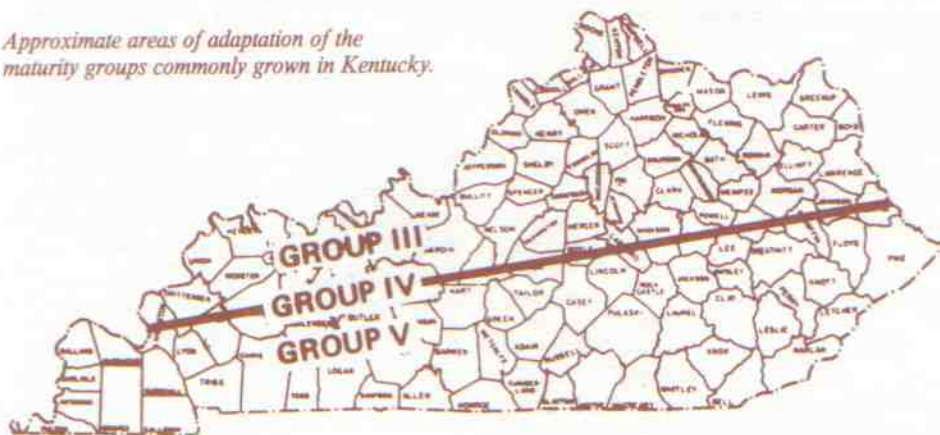
LSD (least significant difference) value quoted at the bottom of the tables. The significance level used in the tables is 0.10. If the difference in yield is greater than the LSD value, you may be reasonably certain that the entries actually do differ in yielding ability. "N.S." in the tables indicates that no statistically significant differences were determined.

## Soybean Production in Kentucky

### Variety Adaptation

Early-maturing varieties (Group III), such as Pella 86 and Williams 82, are best adapted in areas of Kentucky north of the line indicated on the following map. The line is approximately the same as where the Western Kentucky Parkway is located. Late-maturing varieties (Group V), such as Essex and Forrest, are best adapted in areas south of the indicated line. Mid-season varieties (Group IV), such as Union and Pennyrile, can be successfully grown in most areas in Kentucky.

Approximate areas of adaptation of the maturity groups commonly grown in Kentucky.



than normally used should be selected to prevent a yield reduction due to frost injury.

### Soil Fertility and Inoculation

Failure to adjust soil acidity is often the most limiting fertility practice. Acid soils should be limed to pH 6.4. If soil pH is below 6.2 at planting, molybdenum should be applied. Apply phosphate and potash as needs are indicated by soil test results. For double-cropped beans, phosphate and potash can be applied for both crops when seeding the small grain. Foliar applications may be necessary to correct manganese deficiency problems on some soils with high pH levels in the Western Coal Field region.

No nitrogen is recommended for soybeans. However, if soybeans have not been planted in the field in the past 3

years, seed should be inoculated as close to planting time as possible. See Kentucky Cooperative Extension publication AGR-1 for specific fertility and inoculation recommendations.

### Seeding Rates

Soybean seeding rates should be governed by the final stand desired in terms of plants per foot of row. To obtain a given number of plants per foot of row, seed size and percent germination of the seed lot must be considered. Soybean varieties differ considerably in seed size, with the more common varieties ranging from 2,600 to 3,500 seed per pound. After selecting the variety, row spacing, and the number of seeds per foot, the planting rate in pounds per acre can be determined from Table 2. If the field conditions are nearly ideal and the seed is of high quality

### Double-Crop Soybeans

Planting soybeans in a double-cropping system usually results in a later planting date than conventional-planted beans. Previous research has shown that soybean yields are generally reduced by 1/2-3/4 bu/acre per day for each day planting is delayed after mid-June and 1 bu/acre per day when planted after the last part of June. Practices such as high-moisture harvesting or swathing of the small grains and no-till planting of the soybeans all help to get the soybeans planted earlier and should be used where possible.

The shorter growing season of a double-cropping system results in a shorter vegetative growth period, reduced plant height, and a smaller plant canopy. Row spacing research has indicated that the highest yields in double-crop plantings are obtained using narrow rows (10-12 in.), particularly when the planting date is in late June and July.

Variety selection is very important in a soybean double-cropping system. Research has shown that the mid- to full-season maturing varieties adapted in your area perform best in a double-crop planting. Caution must be used to select a variety that will mature before the first fall frost. When plantings are made in July, a variety that is one maturity group earlier

## 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



use the lower rate. Adjustments also need to be made for differences in seed lot germination. The seeding rates in Table 2 are recommended for both conventional plantings and double-crop plantings. **When planting with a no-till system, the seeding rates should be increased by 10% to compensate for higher seedling mortality.**

### Certified Seed

Always plant high quality seed of the variety you select. Certified seed is a reliable source of good seed. Certified seed has passed rigid field and laboratory standards for genetic identity and purity of a variety. Certified soybean seed also has good germination and is free of noxious weed seed and other crop seed. The Agricultural Experiment Station recommends that Kentucky-certified seed be used whenever possible for growing a commercial crop of soybeans. Information on certified seed growers in Kentucky can be obtained from your local county Extension agent or the Kentucky Seed Improvement Association (P.O. Box 12008, Lexington, KY 40579).

### For More Information

The Kentucky Cooperative Extension Service has a series of publications which contain a more detailed discussion of soybean production practices: "Soybean Production in Kentucky"—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).

### Growing Conditions

The worst drought in several decades occurred during the first half of the soybean growing season over most of Kentucky. Some areas of Kentucky then received adequate rainfall during the latter half of the growing season. This was true for the test locations at Morganfield and Princeton, resulting in higher yields than at the other locations.

### Special Notes

Due to the early to mid-season drought, reasonable stands from a timely planting date were unattainable for the 1988 double crop tests. Thus no data are presented for the Glasgow or Princeton double crop tests in 1988; however, 1987 and 1986 data are presented for the Princeton double crop test.

Yields at the Nebo test location were affected by the soybean cyst nematode (SCN). The average yield for all susceptible varieties was 31.4 bu/acre, while the average yield for resistant varieties was 39.8 bu/acre. SCN counts taken at harvest averaged 377 cysts per pint of soil for susceptible varieties, while counts for resistant varieties averaged 30 cysts per pint of soil. This should be taken into account when evaluating the 1988 Nebo data.

The soybean cyst nematode was also present at the Wickliffe test. Because there was no indication of SCN in 1987 at Wickliffe the test field was not rotated. Also, an initial SCN count in March 1988 did not indicate a potential SCN problem; however, the average final cyst count was 550 cysts per pint of soil. Although there were no apparent visual symptoms of SCN damage, resistant varieties did yield at the top of the test in each maturity group. This should be considered while evaluating the information from Wickliffe 1988.

### Average Statewide Performance

The performance data presented in Table 3 have been averaged across all locations. **Performance of a variety across a period of years and at several locations in the state is a good indicator of its production potential.** Varieties that have shown satisfactory yields and lodging resistance in Table 3 can be expected to have satisfactory field performance under similar conditions and locations in Kentucky. If you have soybean cyst nematode problems a resistant variety should be used in your production system in conjunction with a recommended crop rotation program (see Kentucky Cooperative Extension publication PPA-3, "Soybean Cyst Nematode," available at your county Extension office.)

### 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% of the whole and the percentage by weight of each component. All soybean seed blends should be labeled as to the percentage composition of each variety that makes up the mixture. No blends were tested in 1988.

### Changes In Data Presentation

This year the data are presented differently. In the past, there was one table with one-year, two-year and three-year data for each location; varieties were listed alphabetically. There will now be three separate tables (one-year, two-year and three-year) for each location with varieties within each maturity group ranked by yield. Also, averages of all data within a maturity group will be presented in addition to a grand average over all maturity groups. Data are viewed on an agronomic regional basis rather than strictly a location basis. This will allow us to always present three years of data despite any location moves within a region.

Also, the across years and locations data are combined across all locations to better predict yielding ability. (See *Agronomy Notes* Volume 21, No.3, "Using Performance Test Results in Soybean Variety Selection in Kentucky.")

We have made these changes in format so that the data will be easier to understand and use.

## Source of Seed

The seed planted in the 1988 Soybean Performance Tests was acquired from the following sources:

*AgriPro AP4321, AgriPro AP350*

AgriPro Seeds,  
RR2, Hwy 30 E.,  
Ames, IA 50010

*A4595, A3935, A4393, A4906*

Asgrow Seed Company,  
7000 Portage Rd.,  
Kalamazoo, MI 49001

*DeKalb CX366, DeKalb CX415, DeKalb CX 458*

DeKalb-Pfizer Genetics,  
3100 Sycamore,  
DeKalb, IL 60115

*HyPerformer Brand 401, HSC B2J, Stevens, Shenandoah*

HyPerformer Seed Company,  
5100 Poplar, Suite 3200,  
Memphis, TN 38137

*Hartz 5164, Hartz 5252*

Jacob Hartz Seed Co., Inc.  
P.O. Box 946  
Stuttgart, AR 72160

*Jacques J-442*

Jacques Seed Company,  
Box 370,  
Lincoln, IL 62656

*Esau, Jacob*

Miles Farm Supply, Inc.,  
2760 Keller Rd.,  
Owensboro, KY 42301

*Pioneer \* Brand 9442, Pioneer \* Brand 9471,*

*Pioneer \* Brand 9531, Pioneer \* Brand 9541,*

*Pioneer \* Brand 9581, Pioneer \* Brand 5482,*

*Pioneer \* Brand 9391*

Pioneer Hi-Bred Int., Inc.,  
1000 W. Jefferson St.,  
Tipton, IN 46072

*Coker 393, Coker 425, Coker 614,*

*Coker 6925, Coker 6804, RA-452*

Coker's Pedigreed Seed Co.,

P.O. Box 507,  
Lebanon, IN 46052

*SS-487, SS-391, SS-443, FFR-561, FFR-451,*

*FFR-398, FFR-565, FFR-499, FFR-544*

Southern States Cooperative, Inc.,  
P.O. Box 26234,  
Richmond, VA 23230

*Bailey 469 cm 497, Barlow 412*

Barlow's Farm Center, Inc.,  
P.O. Box 155,  
Glendale, KY 42740

*Barlow B424, Barlow B405*

Baugh Farm,  
1105 S. Long Grove Rd.,  
Glendale, KY 42740

*Seedex 500*

Seedex,  
P.O. Box 770,  
Noblesville, IN 46060

*S-42-30, S-42-40, S-44-77, S-53-34, S-59-19*

The New Northrup King,  
RR #2, Box 200,  
Highland, IL 62249

*Avery, Bay, Douglas, Essex, Fayette, Flyer,*

*Forrest, Hutcheson, Lawrence, Pella 86,*

*Pennyrile, Pershing, Pixie, Pyramid, Ripley,*

*Spencer, Stafford, TN5-85, TN4-86, Union,*

*Vance, Williams 82*

Kentucky Foundation Seed Project,

P.O. Box 11950,  
Lexington, KY 40579



3. Summary for all Locations Statewide — Year 1

Year 2

Year 3

BRAND/ VARIETY	YIELD		LODG	HT <sup>o</sup>	MAT.	Approx. Seed/lb.
	BU/AC 1988	BU/AC 1988	-ING 1988	(IN) 1988	DATE 1988	
EARLY (GROUPS II AND III)						
A3935	41.5	1.5	36	+1	3000	
SS-391	40.9	1.7	37	+1	2500	
PIONEER® BRAND 9391	40.1	2.0	39	-1	3250	
FLYER	39.8	1.6	33	0	2900	
FFR-398	39.6	1.4	35	+1	3000	
DEKALB CX366	38.3	1.8	36	-4	3000	
COKER 393	38.2	1.5	34	-1	3000	
ESAU	37.9	1.8	37	0	2900	
WILLIAMS 82	37.5	1.9	39	0	2500	
FAYETTE <sup>e</sup>	36.7	2.0	39	0	2500	
PELLA 86	36.2	1.2	33	-6	2000	
GROUP III AVERAGE	38.8	1.7	36			
MID-SEASON (GROUP IV)						
STAFFORD	45.0	1.9	35	+16	3300	
PERSHING	43.0	1.5	31	+17	3800	
RA-452	43.0	1.8	45	+18	3200	
DEKALB CX458	42.9	1.4	39	+7	2650	
SS-487	42.4	1.4	38	+8	2800	
PIONEER® BRAND 9442	42.2	1.7	36	+4	3400	
S-42-40	41.5	1.6	37	+2	2800	
S-44-77	41.5	2.3	43	+1	2500	
S-42-30	41.3	1.4	36	+1	2800	
TN 4-86 <sup>e</sup>	41.4	2.2	48	+9	3800	
PIONEER® BRAND 9471	41.4	2.1	43	+9	3200	
JACQUES J-442	41.3	2.0	39	+6	2800	
SPENCER	41.2	1.3	36	+3	2700	
COKER 614	40.9	1.8	38	+11	2700	
JACOB	40.8	2.0	40	+5	3000	
BAILEY 469 cm 497	40.7	2.6	45	+9	3000	
A4393	40.7	1.7	37	+3	2900	
AVERY <sup>e</sup>	40.5	2.4	51	+16	3100	
HYPERFORMER BRAND 401	40.0	2.3	45	+7	2800	
PENNYRILE	39.7	1.5	42	+8	2800	
DOUGLAS	39.6	1.7	40	+7	2600	
A4906	39.3	1.5	42	+16	3000	
COKER 6804	39.2	1.6	35	0	2900	
A4595	39.2	1.8	41	+7	2900	
AGRIPRO AP4321	38.7	1.4	36	+2	2400	
DEKALB CX 415	38.3	1.9	39	+3	2600	
PIXIE	38.3	1.3	23	0	2600	
PYRAMID <sup>d</sup>	38.3	2.5	44	+7	3300	
SS-443	38.2	2.1	36	+4	2900	
RIPLY	37.8	1.3	24	+3	3450	
LAWRENCE	37.6	1.2	38	+1	2600	
FFR-451	36.6	1.4	39	+7	3000	
AGRIPRO AP350	36.6	2.0	43	+6	2600	
UNION	36.1	2.6	43	+1	2600	
BARLOW 412	36.0	1.8	46	+9	2700	
BARLOW 405	35.4	1.9	45	+9	3000	
BARLOW B424	34.2	3.2	51	+9	2800	
STEVENS	33.9	2.0	45	+7	2800	
GROUP IV AVERAGE	39.6	1.8	40			
LATE (GROUPS V AND VI)						
COKER 425	47.7	2.1	34	+23	3000	
COKER 6925 <sup>d</sup>	45.0	2.0	38	+22	3000	
PIONEER® BRAND 5482	44.9	2.3	37	+20	3000	
PIONEER® BRAND 9531 <sup>e</sup>	44.4	2.5	40	+21	3200	
TN 5-85 <sup>d</sup>	44.1	3.1	45	+23	3300	
S-59-19 <sup>e</sup>	43.8	3.5	42	+22	3000	
FFR-561	43.6	1.9	38	-f	3400	
ESSEX	43.6	1.9	32	+22	3500	
PIONEER® BRAND 9541	43.4	2.2	33	+20	3200	
FORREST <sup>d</sup>	42.8	3.0	43	-f	3500	
PIONEER® BRAND 9581 <sup>e</sup>	42.6	2.8	43	-f	3400	
HARTZ 5252 <sup>d</sup>	42.0	3.0	45	-f	3700	
HUTCHESON	41.8	2.0	36	-f	3000	
S-53-34	41.5	1.8	34	-f	2800	
VANCE	41.0	1.7	31	-f	4500	
FFR-544	40.6	2.3	44	-f	3400	
FFR-499	40.4	1.8	42	+16	3000	
SEDEX 500	38.7	2.0	42	+10	2600	
HARTZ 5164 <sup>e</sup>	38.2	3.4	43	-f	2800	
BAY	37.8	2.4	41	+23	2800	
FFR-565 <sup>e</sup>	37.5	3.2	44	-f	3400	
SHENANDOAH	37.3	2.4	43	-f	3200	
HSC B2J <sup>d</sup>	31.7	3.4	46	-f	3000	
GROUPS V AND VI AVG	41.5	2.5	40			
GRAND AVERAGE	40.1	2.0	39			
LSD (.10)	4.4	0.4	2			

<sup>a</sup>No data from 1988 Princeton double crop or Glasgow double crop location. Data from Nebo affected by soybean cyst nematode. See page 4.

<sup>b</sup>Days earlier (-) or later (+) than Williams 82.

<sup>c</sup>Data based on 1988 observations at Lexington, Princeton and Wickliffe.

<sup>d</sup>Resistant to the soybean cyst nematode (Race 3)

<sup>e</sup>Resistant to the soybean cyst nematode (Race 3 and Race 4).

<sup>f</sup>Not mature when frost occurred, Lexington 10/6, Princeton 10/14, and Wickliffe 10/14.

<sup>g</sup>Plant height.

BRAND/ VARIETY	YIELD		LODG	HT <sup>o</sup>
	BU/AC 87-88	BU/AC 87-88	-ING 87-88	(IN) 87-88
EARLY (GROUPS II AND III)				
A3935	43.8	1.5	37	
SS-391	42.7	1.7	37	
FFR-398	41.9	1.4	35	
PELLA 86	40.4	1.4	34	
COKER 393	40.4	1.7	36	
DEKALB CX366	40.3	1.8	37	
WILLIAMS 82	40.0	1.9	38	
FAYETTE <sup>d</sup>	38.5	2.0	40	
GROUP III AVERAGE	41.0	1.7	37	
MID-SEASON (GROUP IV)				
STAFFORD	42.9	1.9	35	
S-42-40	42.8	1.6	37	
PIONEER® BRAND 9442	42.4	1.5	35	
A4393	41.7	1.8	38	
SPENCER	41.7	1.3	37	
A4595	41.6	2.0	41	
AGRIPRO AP4321	41.4	1.5	37	
S-44-77	41.1	2.5	44	
RIPLY	41.0	1.2	24	
LAWRENCE	40.8	1.4	38	
PERSHING	40.5	1.4	31	
RA-452	40.4	1.9	45	
PIONEER® BRAND 9471	40.4	2.0	42	
SS-487	40.1	1.5	39	
PENNYRILE	39.9	1.4	42	
DOUGLAS	39.9	1.8	39	
DEKALB CX 415	39.7	2.0	39	
PIXIE	39.3	1.2	21	
SS-443	39.2	2.2	36	
HYPERFORMER BRAND 401	38.9	2.5	45	
FFR-451	38.4	1.5	39	
AVERY <sup>d</sup>	38.2	2.3	49	
PYRAMID <sup>d</sup>	38.1	2.5	45	
A4906	37.8	1.5	43	
AGRIPRO AP350	37.4	2.3	43	
UNION	37.3	2.9	43	
STEVENS	34.7	2.1	44	
GROUP IV AVERAGE	39.9	1.9	39	
LATE (GROUPS V AND VI)				
COKER 425	43.9	1.9	33	
ESSEX	42.4	1.9	33	
PIONEER® BRAND 5482	41.6	2.1	37	
FFR-561	41.1	1.8	40	
PIONEER® BRAND 9531 <sup>d</sup>	40.9	2.3	40	
S-53-34	40.6	1.7	34	
PIONEER® BRAND 9541	40.3	2.1	34	
TN 5-85 <sup>c</sup>	40.3	2.9	45	
PIONEER® BRAND 9581 <sup>d</sup>	39.7	2.6	42	
HARTZ 5252 <sup>c</sup>	39.3	3.1	41	
FORREST <sup>c</sup>	38.6	2.7	41	
VANCE	38.2	1.6	31	
BAY	37.9	2.5	40	
FFR-499	37.7	1.9	42	
FFR-565 <sup>d</sup>	37.7	2.9	42	
SHENANDOAH	36.1	2.2	41	
HARTZ 5164 <sup>d</sup>	35.7	3.4	41	
HSC B2J <sup>c</sup>	31.0	3.2	43	
GROUPS V AND VI AVG	39.0	2.4	39	
GRAND AVERAGE	39.8	2.0	39	
LSD (.10)	3.2	0.3	2	

<sup>a</sup>No data from 1988 Princeton double crop or Glasgow double crop.

<sup>b</sup>No data from 1987 Glasgow double crop.

<sup>c</sup>Resistant to the soybean cyst nematode (Race 3).

<sup>d</sup>Resistant to the soybean cyst nematode (Race 3 and Race 4).

<sup>e</sup>Plant height.

BRAND/ VARIETY	YIELD		LODG	HT <sup>o</sup>
	BU/AC 86-88	BU/AC 86-88	-ING 86-88	(IN) 86-88
EARLY (GROUPS II AND III)				
SS-391	41.9	1.6	35	
COKER 393	40.4	1.6	34	
WILLIAMS 82	40.3	1.8	37	
PELLA 86	39.7	1.4	33	
FAYETTE <sup>d</sup>	38.9	1.8	39	
GROUP III AVERAGE	40.3	1.6	36	
MID-SEASON (GROUP IV)				
STAFFORD	43.1	1.9	33	
PERSHING	41.9	1.4	30	
RA-452	41.8	1.8	43	
A4595	41.7	1.9	39	
PIONEER® BRAND 9471	41.7	1.9	40	
PENNYRILE	41.0	1.5	41	
AGRIPRO AP4321	40.8	1.4	34	
DEKALB CX 415	40.7	1.9	38	
RIPLY	40.0	1.2	22	
DOUGLAS	39.8	1.7	37	
LAWRENCE	39.8	1.4	36	
SS-443	39.5	2.0	34	
PIXIE	39.3	1.2	21	
AGRIPRO AP350	38.6	2.2	42	
UNION	38.4	2.5	41	
PYRAMID <sup>d</sup>	38.3	2.2	42	
STEVENS	36.9	2.0	43	
GROUP IV AVERAGE	40.2	1.8	36	
LATE (GROUPS V AND VI)				
COKER 425	44.6	1.9	31	
ESSEX	42.9	1.8	31	
FFR-561	42.2	1.8	37	
PIONEER® BRAND 9541	40.9	2.0	32	
PIONEER® BRAND 9531 <sup>d</sup>	40.9	2.2	38	
BAY	40.3	2.4	39	
PIONEER® BRAND 9581 <sup>d</sup>	40.1	2.6	40	
HARTZ 5252 <sup>c</sup>	39.7	2.8	40	
FORREST <sup>c</sup>	38.8	2.5	40	
SHENANDOAH	36.0	2.1	39	
GROUPS V AND VI AVG	40.6	2.2	37	
GRAND AVERAGE	40.3	1.9	36	
LSD (.10)	2.4	0.2	1	

<sup>a</sup>No data from 1988 Princeton double crop or Glasgow double crop.

<sup>b</sup>No data from 1987 Glasgow double crop.

<sup>c</sup>Resistant to the soybean cyst nematode (Race 3).

<sup>d</sup>Resistant to the soybean cyst nematode (Race 3 and Race 4).

<sup>e</sup>Plant height.

4. Morganfield — Year 1

BRAND/ VARIETY	YIELD	LODG	HT <sup>a</sup>	POD
	BU/AC 1988	-ING 1988	(IN) 1988	HT. 1988
EARLY (GROUPS II AND III)				
A3935	58.2	2.2	47	8.7
PIONEER <sup>®</sup> BRAND 9391	57.4	3.5	51	9.3
FFR-398	56.5	1.8	47	10.3
DEKALB CX366	54.3	2.7	47	8.3
WILLIAMS 82	53.6	3.7	51	8.3
FLYER	53.5	3.0	44	10.7
SS-391	53.2	3.2	48	9.3
COKER 393	52.9	2.3	47	8.3
ESAU	50.4	3.5	52	8.3
PELLA 86	49.7	1.7	42	7.3
FAYETTE <sup>c</sup>	49.2	2.8	51	9.0
GROUP III AVERAGE	53.5	2.8	48	8.9
MID-SEASON (GROUP IV)				
S-42-30	61.8	1.8	49	9.7
PIXIE	61.3	1.5	27	6.0
COKER 614	59.2	3.7	49	10.0
A4595	58.8	3.2	52	9.0
SPENCER	58.3	1.8	50	10.3
COKER 6804	57.1	2.8	50	10.0
S-42-40	56.8	3.0	50	8.3
A4393	56.4	2.7	51	10.7
JACOB	56.3	3.7	52	9.3
SS-487	56.2	2.0	50	9.0
JACQUES J-442	55.6	3.5	50	9.0
DEKALB CX458	55.4	1.8	50	11.7
PIONEER <sup>®</sup> BRAND 9442	55.3	2.5	46	7.3
UNION	54.6	4.3	54	10.0
AGRIPRO AP4321	54.3	2.2	50	9.0
HYPERFORMER BRAND 401	54.2	4.5	57	9.7
LAWRENCE	53.9	1.7	52	8.7
STAFFORD	53.6	3.8	43	9.7
PERSHING	53.4	2.5	38	9.0
RIPLEY	53.1	1.8	30	7.0
S-44-77	52.7	4.2	56	8.3
DEKALB CX 415	52.6	3.2	50	7.0
DOUGLAS	52.5	3.2	53	9.0
AGRIPRO AP350	52.1	3.3	58	9.0
A4906	52.1	2.3	56	11.3
RA-452	50.8	2.7	56	12.7
PYRAMID <sup>c</sup>	49.5	4.5	53	11.0
FFR-451	49.1	2.2	53	10.7
BAILEY 469 cm 497	49.1	4.7	55	8.3
PIONEER <sup>®</sup> BRAND 9471	48.9	3.0	52	10.7
PENNYRILE	47.8	2.7	56	13.0
SS-443	45.7	4.3	45	10.0
AVERY <sup>c</sup>	45.6	4.0	60	11.0
TN 4-86 <sup>c</sup>	45.4	3.7	60	10.0
BARLOW 405	42.5	4.0	57	10.3
BARLOW 412	42.3	3.5	56	8.7
BARLOW B424	41.6	4.0	62	14.0
STEVENS	39.6	4.0	54	8.7
GROUP IV AVERAGE	52.3	3.1	51	9.7
LATE (GROUPS V AND VI)				
FFR-561	57.9	3.0	45	9.7
HUTCHESON	56.7	3.5	44	11.3
COKER 425	55.9	3.2	42	9.7
ESSEX	55.6	3.5	41	11.7
COKER 692 <sup>b</sup>	55.4	3.2	41	12.0
TN 5-85 <sup>b</sup>	55.2	4.5	52	10.3
PIONEER <sup>®</sup> BRAND 9541	55.1	3.5	41	8.7
FORREST <sup>b</sup>	53.0	4.3	45	11.0
S-53-34	52.8	3.0	44	11.0
SHENANDOAH	52.6	3.0	48	12.0
PIONEER <sup>®</sup> BRAND 5482	52.5	4.3	46	10.7
PIONEER <sup>®</sup> BRAND 9531 <sup>c</sup>	52.0	4.3	47	10.7
S-59-19 <sup>c</sup>	52.0	4.8	45	11.0
VANCE	51.9	3.0	36	7.3
PIONEER <sup>®</sup> BRAND 9581 <sup>c</sup>	51.8	4.3	47	12.0
FFR-544	51.2	3.8	51	11.0
HARTZ 5252 <sup>b</sup>	51.1	5.0	52	14.0
HARTZ 5164 <sup>c</sup>	50.9	5.0	51	11.7
SEDEX 500	49.1	4.0	54	6.7
FFR-499	47.8	3.2	54	14.0
HSC B23 <sup>b</sup>	47.5	4.5	52	11.7
FFR-565 <sup>c</sup>	47.3	4.7	46	12.3
BAY	45.3	4.3	52	10.7
GROUPS V AND VI AVG	52.2	3.9	47	10.9
GRAND AVERAGE	52.4	3.3	49	9.9
LSD (.10)	3.6	0.5	4	2

<sup>a</sup>Plant height.

<sup>b</sup>Resistant to the soybean cyst nematode (Race 3).

<sup>c</sup>Resistant to the soybean cyst nematode (Race 3 and Race 4).

Morganfield/Owensboro — Year 2

BRAND/ VARIETY	YIELD	LODG	HT <sup>a</sup>	POD
	BU/AC 87-88	-ING 87-88	(IN) 87-88	HT. 87-88
EARLY (GROUPS II AND III)				
A3935	62.8	2.1	43	7.2
FFR-398	59.6	1.6	41	8.2
DEKALB CX366	58.9	2.5	43	7.2
COKER 393	57.6	2.3	43	7.3
SS-391	57.7	2.7	44	7.8
WILLIAMS 82	57.0	3.2	46	6.8
PELLA 86	56.0	1.7	38	6.3
FAYETTE <sup>c</sup>	54.6	2.5	45	7.2
GROUP III AVERAGE	58.0	2.4	43	7.2
MID-SEASON (GROUP IV)				
S-42-40	61.0	2.5	43	7.7
A4595	61.0	3.2	47	8.2
AGRIPRO AP4321	60.5	2.3	44	7.5
PIONEER <sup>®</sup> BRAND 9442	60.5	2.2	43	6.7
SPENCER	60.0	1.8	46	7.8
A4393	59.2	2.8	47	8.5
LAWRENCE	58.7	1.9	47	7.2
SS-487	58.3	1.8	47	8.5
DOUGLAS	57.9	2.7	44	7.3
PIXIE	57.5	1.5	23	4.7
STAFFORD	56.9	2.9	39	9.5
DEKALB CX 415	56.7	2.9	46	6.0
PENNYRILE	56.5	2.2	50	11.2
HYPERFORMER BRAND 401	56.4	4.4	54	9.0
PERSHING	56.4	2.1	35	8.5
UNION	54.7	4.6	49	8.7
AGRIPRO AP350	54.3	3.6	50	7.7
S-44-77	54.0	3.9	52	7.3
FFR-451	53.3	2.2	49	9.8
PYRAMID <sup>c</sup>	53.0	4.2	51	10.3
RIPLEY	53.0	1.7	26	6.0
RA-452	52.9	2.8	54	11.5
PIONEER <sup>®</sup> BRAND 9471	52.9	2.7	48	9.5
A4906	51.8	2.0	55	10.5
SS-443	50.1	3.7	43	8.5
STEVENS	46.7	3.7	50	9.0
AVERY <sup>c</sup>	45.9	2.8	54	10.5
GROUP IV AVERAGE	55.6	2.8	46	8.4
LATE (GROUPS V AND VI)				
ESSEX	58.9	2.9	38	9.8
COKER 425	58.7	2.7	36	8.2
FFR-561	58.0	2.6	42	9.3
TN 5-85 <sup>b</sup>	56.4	3.8	48	10.2
FORREST <sup>b</sup>	55.8	3.6	41	9.0
S-53-34	54.3	2.3	40	9.7
PIONEER <sup>®</sup> BRAND 9541	54.3	2.9	37	8.3
VANCE	54.0	2.2	34	6.8
PIONEER <sup>®</sup> BRAND 5482	53.7	3.6	41	9.5
HARTZ 5164 <sup>c</sup>	53.6	4.7	45	11.3
PIONEER <sup>®</sup> BRAND 9531 <sup>c</sup>	53.4	3.5	43	9.8
SHENANDOAH	53.3	2.7	42	10.7
PIONEER <sup>®</sup> BRAND 9581 <sup>c</sup>	52.3	3.8	43	10.7
FFR-565 <sup>c</sup>	52.2	4.0	43	10.8
HARTZ 5252 <sup>b</sup>	52.1	4.7	43	11.3
BAY	51.5	3.8	43	9.8
FFR-499	49.8	2.8	52	12.0
HSC B23 <sup>b</sup>	46.6	3.9	47	11.0
GROUPS V AND VI AVG	53.8	3.4	42	9.9
GRAND AVERAGE	55.3	2.9	44	8.6
LSD (.10)	4.2	0.6	3	1.5

<sup>a</sup>Plant height.

<sup>b</sup>Resistant to the soybean cyst nematode (Race 3).

<sup>c</sup>Resistant to the soybean cyst nematode (Race 3 and Race 4).

Morganfield/Owensboro — Year 3

BRAND/ VARIETY	YIELD	LODG	HT <sup>a</sup>	POD
	BU/AC 86-88	-ING 86-88	(IN) 86-88	HT. 86-88
EARLY (GROUPS II AND III)				
SS-391	57.6	2.3	40	6.8
WILLIAMS 82	56.8	2.6	43	6.3
COKER 393	54.4	2.0	39	6.3
PELLA 86	54.4	1.6	35	5.8
FAYETTE <sup>c</sup>	53.0	2.2	42	6.2
GROUP III AVERAGE	55.2	2.1	40	6.3
MID-SEASON (GROUP IV)				
PERSHING	58.3	1.9	32	7.4
A4595	58.2	2.7	42	7.0
DEKALB CX 415	58.2	2.5	43	5.6
DOUGLAS	57.8	2.4	41	6.9
PIXIE	57.8	1.5	21	4.4
STAFFORD	57.5	2.5	35	8.3
PENNYRILE	56.1	1.9	46	10.1
PIONEER <sup>®</sup> BRAND 9471	55.9	2.3	44	8.2
AGRIPRO AP350	55.5	2.9	45	6.9
RA-452	55.2	2.5	50	9.6
UNION	54.9	3.6	46	7.6
PYRAMID <sup>c</sup>	54.2	3.4	46	9.1
LAWRENCE	53.9	1.8	42	6.2
AGRIPRO AP4321	53.3	1.9	37	6.3
SS-443	52.6	3.0	40	7.2
RIPLEY	52.1	1.5	23	5.0
STEVENS	51.1	3.1	48	8.2
GROUP IV AVERAGE	55.4	2.4	40	7.3
LATE (GROUPS V AND VI)				
FFR-561	60.6	2.2	38	8.6
COKER 425	59.0	2.2	32	6.9
ESSEX	58.1	2.4	34	8.7
BAY	55.4	3.2	39	9.1
FORREST <sup>b</sup>	55.3	3.0	38	8.6
PIONEER <sup>®</sup> BRAND 9541	54.3	2.4	33	7.6
PIONEER <sup>®</sup> BRAND 9531 <sup>c</sup>	53.9	2.8	39	8.9
PIONEER <sup>®</sup> BRAND 9581 <sup>c</sup>	53.8	3.3	40	10.8
HARTZ 5252 <sup>b</sup>	53.3	3.8	41	10.3
SHENANDOAH	51.5	2.4	40	9.7
GROUPS V AND VI AVG	55.5	2.8	37	8.9
GRAND AVERAGE	55.4	2.5	39	7.6
LSD (.10)	5.2	0.6	3	1.5

<sup>a</sup>Plant height.

<sup>b</sup>Resistant to the soybean cyst nematode (Race 3).

<sup>c</sup>Resistant to the soybean cyst nematode (Race 3 and Race 4).



5. Nebo — Year 1

BRAND/ VARIETY	YIELD	LOGG	HT <sup>a</sup>	POD
	BU/AC 1988	-ING 1988	(IN) 1988	HT. 1988
EARLY (GROUPS II AND III)				
SS-391	37.4	1.8	34	8.7
FAYETTE <sup>c</sup>	36.4	2.7	36	9.7
FLYER	35.6	1.5	31	9.0
ESAU	32.6	1.7	34	10.7
COMER 393	32.0	1.3	33	9.0
FFR-398	31.4	1.3	31	10.0
PELLA 86	31.0	1.2	29	9.0
DEKALB CX366	28.0	1.8	32	8.3
WILLIAMS 82	27.0	1.7	33	8.7
A3935	25.1	1.5	30	9.0
PIONEER <sup>®</sup> BRAND 9391	23.7	2.0	32	9.3
GROUP III AVERAGE	30.9	1.7	32	9.2
MID-SEASON (GROUP IV)				
TH 4-86 <sup>c</sup>	40.5	2.3	47	9.7
SS-487	39.3	1.5	35	11.7
STAFFORD	38.8	1.8	34	11.7
AVERY <sup>c</sup>	38.3	2.7	51	10.7
PYRAMID <sup>c</sup>	37.4	3.5	45	11.3
DEKALB CX458	35.9	1.5	35	10.0
PIONEER <sup>®</sup> BRAND 9471	35.6	1.8	40	13.7
COMER 6804	34.3	1.5	32	9.3
S-44-77	33.6	2.8	39	9.3
JACOB	33.0	2.2	38	9.7
HYPERFORMER BRAND 401	32.9	2.3	41	9.7
COMER 614	32.6	1.8	35	11.0
BAILEY 469 cm 497	32.5	2.7	42	11.3
BARLOW 405	32.5	2.0	40	11.0
FIXIE	32.3	1.2	23	8.3
PENSHING	32.3	1.5	31	11.7
A4393	31.8	1.7	31	9.7
RA-452	31.5	1.5	41	14.0
S-42-30	31.5	1.5	31	10.7
RIPLEY	31.3	1.3	23	6.3
JACQUES J-442	31.0	2.2	36	11.0
SS-443	30.7	1.7	30	11.3
BARLOW 412	30.1	1.7	41	11.3
SPENCER	29.8	1.2	30	10.0
S-42-40	28.3	1.3	31	10.7
PENNYRILE	28.1	1.2	34	13.3
STEVENS	28.1	1.7	44	9.0
UNION	27.4	2.3	36	10.7
AGRIPRO AP4321	27.1	1.5	28	9.0
PIONEER <sup>®</sup> BRAND 9442	26.6	1.5	32	11.0
DOUGLAS	26.2	1.5	33	10.3
AGRIPRO AP350	25.8	2.2	40	13.3
BARLOW B424	25.8	3.7	48	13.3
DEKALB CX 415	25.0	2.3	33	10.0
A4906	24.2	1.3	35	12.7
A4595	21.9	1.7	33	11.0
LAWRENCE	20.7	1.0	29	10.0
FFR-451	18.6	1.3	28	10.7
GROUP IV AVERAGE	30.6	1.9	36	10.8
LATE (GROUPS V AND VI)				
COMER 6925 <sup>b</sup>	45.8	2.2	37	10.7
COMER 425	44.9	1.8	32	14.0
PIONEER <sup>®</sup> BRAND 9581 <sup>c</sup>	44.3	2.8	45	11.3
FORREST <sup>b</sup>	43.4	3.2	45	11.0
PIONEER <sup>®</sup> BRAND 9531 <sup>c</sup>	42.9	2.7	39	12.7
S-59-19 <sup>c</sup>	42.0	4.2	44	11.0
TH 5-85 <sup>b</sup>	41.7	3.5	45	11.3
FFR-544	41.1	1.7	45	9.7
HARTE 5252 <sup>b</sup>	40.5	2.8	45	11.7
FFR-561	39.9	2.2	38	12.3
HUTCHESON	38.9	2.0	38	14.3
ESSEX	38.0	1.8	32	14.0
FFR-565 <sup>c</sup>	37.8	3.8	46	10.7
S-53-34	37.2	1.7	31	11.3
HARTE 5164 <sup>c</sup>	37.1	2.8	43	8.7
VANCE	36.9	2.0	32	9.3
PIONEER <sup>®</sup> BRAND 5482	36.8	2.3	35	14.0
PIONEER <sup>®</sup> BRAND 9541	35.0	2.2	33	12.0
BAY	33.9	2.2	37	7.7
SHENANDOAH	32.5	2.8	45	14.0
SEDEX 500	30.8	2.0	41	10.0
HSC B27 <sup>b</sup>	28.9	3.3	47	13.7
FFR-499	26.0	1.5	35	12.7
GROUPS V AND VI AVG	38.1	2.5	40	11.7
GRAND AVERAGE	33.1	2.0	36	10.8
LSD (.10)	6.1	0.4	4	1.8

<sup>a</sup>Plant height.  
<sup>b</sup>Resistant to the soybean cyst nematode (Race 3).  
<sup>c</sup>Resistant to the soybean cyst nematode (Race 3 and Race 4).  
<sup>d</sup>Nebo yields affected by soybean cyst nematode infestation. See Special Notes p.4 for detailed discussion.

Year 2

BRAND/ VARIETY	YIELD	LOGG	HT <sup>a</sup>	POD
	BU/AC 87-88	-ING 87-88	(IN) 87-88	HT. 87-88
EARLY (GROUPS II AND III)				
SS-391	40.6	1.9	37	7.7
FAYETTE <sup>c</sup>	39.4	2.4	41	8.3
PELLA 86	38.0	1.5	33	8.0
FFR-398	37.2	1.3	35	9.0
WILLIAMS 82	35.7	2.1	36	7.5
COMER 393	34.4	1.8	36	8.6
DEKALB CX366	32.3	1.9	35	7.5
A3935	31.5	1.5	33	7.3
GROUP III AVERAGE	36.1	1.8	36	8.0
MID-SEASON (GROUP IV)				
STAFFORD	41.3	1.9	36	11.0
PYRAMID <sup>c</sup>	40.4	3.2	46	10.2
AVERY <sup>c</sup>	39.5	2.6	51	11.7
RIPLEY	39.1	1.2	24	8.2
RA-452	38.2	1.7	44	12.5
SS-443	38.1	2.3	33	9.0
FIXIE	37.6	1.1	22	6.7
A4595	36.2	2.1	38	9.7
AGRIPRO AP4321	35.8	1.4	33	7.7
S-44-77	35.7	3.1	42	9.7
PIONEER <sup>®</sup> BRAND 9471	35.6	1.8	41	12.2
SPENCER	34.2	1.2	35	9.2
PENNYRILE	33.8	1.5	42	12.7
PENSHING	32.9	1.3	31	10.2
STEVENS	32.5	1.8	46	9.0
A4393	32.2	1.9	37	8.7
DEKALB CX 415	31.9	2.5	37	8.2
SS-487	31.8	1.4	36	10.7
AGRIPRO AP350	31.6	2.7	43	11.2
HYPERFORMER BRAND 401	31.6	2.5	45	9.7
LAWRENCE	31.6	1.1	34	9.8
UNION	31.4	2.7	40	8.7
S-42-40	31.4	1.3	34	8.8
FFR-451	31.2	1.3	34	9.7
DOUGLAS	31.1	1.6	37	9.2
PIONEER <sup>®</sup> BRAND 9442	31.0	1.6	34	10.0
A4906	28.0	1.4	40	11.8
GROUP IV AVERAGE	34.3	1.9	38	9.8
LATE (GROUPS V AND VI)				
COMER 425	46.9	1.7	32	12.2
TH 5-85 <sup>b</sup>	45.3	3.1	47	12.0
PIONEER <sup>®</sup> BRAND 9581 <sup>c</sup>	44.2	2.8	45	11.7
HARTE 5252 <sup>b</sup>	43.8	3.1	43	11.8
ESSEX	43.1	1.7	34	12.2
PIONEER <sup>®</sup> BRAND 9531 <sup>c</sup>	42.6	2.1	38	11.8
HARTE 5164 <sup>c</sup>	41.4	2.8	43	10.2
FORREST <sup>b</sup>	41.1	3.0	45	10.8
PIONEER <sup>®</sup> BRAND 5482	40.8	2.2	37	13.0
FFR-565 <sup>c</sup>	40.7	2.9	44	11.2
FFR-561	39.7	2.0	40	11.8
S-53-34	38.5	1.6	34	10.3
BAY	37.8	2.2	40	9.7
VANCE	37.0	1.7	31	8.8
PIONEER <sup>®</sup> BRAND 9541	36.7	2.0	35	11.5
SHENANDOAH	33.3	2.3	42	12.2
HSC B27 <sup>b</sup>	32.2	3.0	48	13.7
FFR-499	30.4	1.6	38	11.3
GROUPS V AND VI AVG	39.8	2.3	40	11.5
GRAND AVERAGE	36.4	2.0	38	10.1
LSD (.10)	6.7	0.5	4	1.4

<sup>a</sup>Plant height.  
<sup>b</sup>Resistant to the soybean cyst nematode (Race 3).  
<sup>c</sup>Resistant to the soybean cyst nematode (Race 3 and Race 4).  
<sup>d</sup>Nebo 1988 yields affected by soybean cyst nematode. See Special Notes p.4 for detailed discussion.

Nebo/Morgantown — Year 3

BRAND/ VARIETY	YIELD	LOGG	HT <sup>a</sup>	POD
	BU/AC 86-88	-ING 86-88	(IN) 86-88	HT. 86-88
EARLY (GROUPS II AND III)				
SS-391	41.1	1.8	36	7.0
FAYETTE <sup>c</sup>	40.3	2.2	42	7.9
WILLIAMS 82	39.0	1.9	36	7.9
PELLA 86	38.9	1.4	34	7.6
COMER 393	36.8	1.8	36	8.1
GROUP III AVERAGE	39.2	1.8	37	7.7
MID-SEASON (GROUP IV)				
STAFFORD	43.9	2.0	36	10.4
RA-452	43.5	1.8	44	11.3
PYRAMID <sup>c</sup>	42.3	3.0	45	10.0
RIPLEY	41.0	1.3	24	6.1
FIXIE	40.5	1.2	23	6.1
SS-443	40.0	2.4	34	8.7
AGRIPRO AP4321	39.8	1.5	34	7.6
A4595	39.7	1.9	38	8.8
PIONEER <sup>®</sup> BRAND 9471	39.3	2.0	42	10.9
PENNYRILE	38.0	1.7	41	11.8
PENSHING	37.9	1.6	31	9.8
AGRIPRO AP350	36.6	2.4	43	10.3
STEVENS	36.0	2.1	46	8.4
LAWRENCE	35.3	1.2	35	9.1
UNION	35.2	2.6	42	8.3
DOUGLAS	35.1	1.8	37	8.8
DEKALB CX 415	34.4	2.4	38	8.0
GROUP IV AVERAGE	38.7	1.9	37	9.1
LATE (GROUPS V AND VI)				
COMER 425	48.9	2.1	32	11.6
ESSEX	45.4	1.8	33	11.6
PIONEER <sup>®</sup> BRAND 9581 <sup>c</sup>	45.2	3.1	44	12.2
PIONEER <sup>®</sup> BRAND 9531 <sup>c</sup>	44.1	2.3	39	11.9
HARTE 5252 <sup>b</sup>	41.9	3.1	42	11.7
FFR-561	41.8	2.1	38	11.4
BAY	41.2	2.5	39	10.0
FORREST <sup>b</sup>	40.2	3.1	44	10.9
PIONEER <sup>®</sup> BRAND 9541	40.0	2.2	34	11.3
SHENANDOAH	35.2	2.4	41	11.6
GROUPS V AND VI AVG	42.4	2.5	39	11.4
GRAND AVERAGE	40.0	2.1	38	9.6
LSD (.10)	4.8	0.4	3	1.5

<sup>a</sup>Plant height.  
<sup>b</sup>Resistant to the soybean cyst nematode (Race 3).  
<sup>c</sup>Resistant to the soybean cyst nematode (Race 1 and Race 4).  
<sup>d</sup>Nebo 1988 yields affected by soybean cyst nematode. See Special Notes p.4 for detailed discussion.



6. Princeton — Year 1

Year 2

Year 3

BRAND/ VARIETY	YIELD	LOGG	HT <sup>a</sup>	MAT.	POD
	BU/AC 1988	-ING 1988	(IN) 1988	DATE 1988	HT. 1988
EARLY (GROUPS II AND III)					
A1935	59.5	1.0	42	9/25	4.7
SS-391	52.8	1.0	42	9/24	5.0
FLYER	51.8	1.0	35	9/21	3.7
PIONEER® BRAND 9391	51.3	1.3	39	9/21	4.3
DEKALB CX366	50.8	1.3	38	9/19	4.3
ESAU	50.6	1.0	39	9/21	4.7
COKER 393	50.0	1.0	39	9/20	5.7
FFR-398	47.3	1.0	40	9/21	7.0
WILLIAMS #2	46.1	1.0	43	9/20	4.3
PELLA #6	45.1	1.0	36	9/19	5.3
FAYETTE <sup>c</sup>	39.1	1.3	41	9/21	4.7
GROUP III AVERAGE	49.5	1.1	39	9/21	4.9
MID-SEASON (GROUP IV)					
PIONEER® BRAND 9442	61.6	2.0	40	9/28	5.3
SPENCER	57.2	1.0	42	9/24	6.7
S-42-40	54.7	1.0	41	9/24	7.7
DEKALB CX 415	54.5	1.3	46	9/26	4.7
PERSHING	54.5	1.0	32	10/8	4.3
A4393	54.2	1.3	42	9/25	4.7
SS-443	53.5	2.0	41	9/27	5.3
STAFFORD	52.6	1.0	33	10/9	6.7
DEKALB CX458	52.1	1.0	42	9/27	6.3
AGRIPRO AP4321	51.9	1.0	41	9/23	5.0
PENNYRILE	51.4	1.0	46	9/29	7.7
LAWRENCE	51.3	1.0	47	9/24	6.3
PIONEER® BRAND 9471	51.0	2.7	48	10/4	6.7
JACQUES J-442	50.9	1.3	41	9/27	5.3
RA-452	50.8	1.7	49	10/9	7.3
BAILEY 469 cm 497	50.2	2.7	49	10/2	6.3
S-42-30	50.2	1.0	37	9/24	4.3
DOUGLAS	50.1	1.3	45	9/28	6.7
S-44-77	49.6	1.7	48	9/25	5.3
A4595	48.4	1.3	44	9/28	6.0
A4906	48.0	1.7	48	10/10	7.7
JACOB	47.7	1.0	40	9/27	4.3
COKER 6804	47.3	1.0	37	9/22	5.7
TN 4-86 <sup>c</sup>	46.7	2.3	52	10/1	6.0
SS-487	46.3	1.0	40	9/30	6.7
PIXIE	45.5	1.0	20	9/22	3.0
HYPERFORMER BRAND 401	45.0	2.0	49	9/30	4.7
FFR-451	44.5	1.0	45	9/29	5.3
UNION	44.4	2.7	47	9/22	4.3
AGRIPRO AP350	43.8	1.7	45	9/29	6.3
COKER 614	43.8	1.0	43	10/1	5.3
RIPLEY	43.6	1.0	20	9/26	3.7
PYRAMID <sup>c</sup>	43.1	1.7	45	9/28	6.7
BARLOW 412	42.8	1.0	49	9/30	7.0
BARLOW #424	40.1	4.3	52	10/2	7.0
STEVENS	38.9	1.3	46	9/29	4.3
AVERY <sup>c</sup>	37.5	1.3	50	10/10	6.7
BARLOW 405	33.7	1.0	45	9/29	8.0
GROUP IV AVERAGE	48.3	1.5	43	9/29	5.9
LATE (GROUPS V AND VI)					
COKER 425	53.3	2.3	35	- <sup>d</sup>	7.0
PIONEER® BRAND 9482	53.1	1.0	38	10/6	7.0
PIONEER® BRAND 9541	51.2	2.0	32	10/1	5.3
PIONEER® BRAND 9531 <sup>c</sup>	51.1	1.7	41	10/12	7.7
HARTZ 5252 <sup>b</sup>	50.4	3.0	43	- <sup>d</sup>	8.3
TN 5-85 <sup>d</sup>	50.0	2.3	48	- <sup>d</sup>	7.0
VANCE	49.5	1.0	31	- <sup>d</sup>	4.7
S-53-34	49.1	1.7	37	- <sup>d</sup>	6.0
ESSEX	49.0	1.0	32	- <sup>d</sup>	6.0
FFR-544	48.9	2.3	40	- <sup>d</sup>	7.0
FORREST <sup>b</sup>	48.7	3.0	48	- <sup>d</sup>	7.0
BAY	47.9	1.3	41	- <sup>d</sup>	6.0
SEEDEX 300	47.9	1.3	45	10/2	7.7
HUTCHESON	47.1	1.3	37	- <sup>d</sup>	6.3
S-59-19 <sup>c</sup>	46.0	3.7	44	- <sup>d</sup>	7.0
COKER 6925 <sup>b</sup>	45.9	1.3	38	10/12	6.7
FFR-499	45.8	1.3	46	10/8	8.7
FFR-561	45.2	1.3	38	- <sup>d</sup>	6.7
HARTZ 5164 <sup>c</sup>	44.5	3.7	44	- <sup>d</sup>	7.3
SHENANDOAH	41.2	2.0	44	- <sup>d</sup>	7.7
PIONEER® BRAND 9581 <sup>c</sup>	40.3	2.3	45	- <sup>d</sup>	8.3
FFR-565 <sup>c</sup>	37.9	3.3	48	- <sup>d</sup>	9.3
HSC B2J <sup>b</sup>	35.0	4.0	47	- <sup>d</sup>	8.7
GROUPS V AND VI AVG	46.9	2.1	41	10/7	7.1
GRAND AVERAGE	48.0	1.6	42	9/28	6.1
LSD (.10)	6.1	0.8	3		1.0

BRAND/ VARIETY	YIELD	LOGG	HT <sup>a</sup>	POD
	BU/AC 87-88	-ING 87-88	(IN) 87-88	HT. 87-88
EARLY (GROUPS II AND III)				
A1935	60.3	1.2	42	4.8
SS-391	56.0	1.5	42	5.3
DEKALB CX366	53.8	1.8	38	4.7
COKER 393	50.7	1.8	39	5.0
FFR-398	50.1	1.2	39	6.3
WILLIAMS #2	49.8	1.5	41	5.2
PELLA #6	49.7	1.5	37	5.7
FAYETTE <sup>c</sup>	49.6	2.0	42	5.7
GROUP III AVERAGE	51.7	1.6	40	5.3
MID-SEASON (GROUP IV)				
PIONEER® BRAND 9442	57.9	1.5	37	5.0
S-42-40	56.9	1.8	41	6.5
STAFFORD	55.4	1.8	35	6.7
A4393	54.6	1.5	41	5.5
SPENCER	53.9	1.2	43	6.2
LAWRENCE	53.5	1.5	44	5.8
DOUGLAS	53.2	2.2	43	6.5
DEKALB CX 415	52.9	2.0	44	5.2
AGRIPRO AP4321	52.5	1.2	41	4.8
A4595	52.1	2.2	43	5.8
RIPLEY	51.3	1.0	21	3.8
SS-487	51.3	1.7	42	6.7
SS-443	51.3	2.5	39	6.0
PIONEER® BRAND 9471	50.9	2.7	45	6.8
PERSHING	50.0	1.0	32	5.2
PIXIE	49.9	1.0	19	3.0
A4906	49.8	1.8	47	6.8
S-44-77	49.4	2.2	47	5.8
HYPERFORMER BRAND 401	49.0	3.0	47	4.7
RA-452	48.9	2.3	47	7.3
PENNYRILE	48.1	1.2	45	7.2
UNION	48.1	3.2	47	6.0
AGRIPRO AP350	47.5	2.2	45	6.3
FFR-451	46.1	1.3	44	5.7
AVERY <sup>c</sup>	42.8	2.8	48	8.3
PYRAMID <sup>c</sup>	42.5	1.7	43	6.5
STEVENS	40.9	2.2	45	5.2
GROUP IV AVERAGE	50.4	1.9	41	5.9
LATE (GROUPS V AND VI)				
PIONEER® BRAND 9541	52.5	2.8	32	6.2
COKER 425	51.9	2.5	32	7.3
BAY	51.7	2.7	39	6.2
S-53-34	51.6	2.0	35	6.0
HARTZ 5252 <sup>b</sup>	51.2	3.5	40	7.0
PIONEER® BRAND 9531 <sup>c</sup>	51.2	2.8	40	7.0
PIONEER® BRAND 9482	50.6	1.5	36	6.7
FFR-499	50.0	2.5	46	8.3
ESSEX	49.8	1.8	32	6.3
VANCE	48.9	1.5	32	4.8
FFR-561	48.9	1.8	39	6.0
TN 5-85 <sup>d</sup>	47.4	3.3	43	7.3
FORREST <sup>b</sup>	46.8	3.2	42	6.2
FFR-565 <sup>c</sup>	44.9	3.3	40	7.8
PIONEER® BRAND 9581 <sup>c</sup>	44.2	2.8	40	8.0
SHENANDOAH	43.1	2.5	41	5.8
HSC B2J <sup>b</sup>	42.9	4.3	41	8.3
HARTZ 5164 <sup>c</sup>	42.8	4.2	41	7.3
GROUPS V AND VI AVG	48.4	2.7	38	6.8
GRAND AVERAGE	49.9	2.1	40	6.1
LSD (.10)	5.4	0.7	4	1.0

BRAND/ VARIETY	YIELD	LOGG	HT <sup>a</sup>	POD
	BU/AC 86-88	-ING 86-88	(IN) 86-88	HT. 86-88
EARLY (GROUPS II AND III)				
SS-391	52.5	1.3	38	4.7
PELLA #6	49.2	1.3	34	5.1
COKER 393	48.3	1.6	35	4.6
WILLIAMS #2	48.2	1.3	38	4.9
FAYETTE <sup>c</sup>	44.6	1.7	39	5.1
GROUP III AVERAGE	48.6	1.4	37	4.9
MID-SEASON (GROUP IV)				
AGRIPRO AP4321	51.9	1.1	37	4.4
LAWRENCE	51.1	1.3	39	5.4
A4595	50.6	1.8	40	5.1
STAFFORD	50.1	1.7	33	6.1
DOUGLAS	50.0	1.8	39	5.9
DEKALB CX 415	49.4	1.7	40	4.7
PIONEER® BRAND 9471	49.1	2.1	42	6.4
RIPLEY	48.8	1.0	20	3.6
SS-443	48.8	2.0	36	5.4
PIXIE	48.0	1.0	19	2.9
PENNYRILE	47.1	1.1	42	6.9
PERSHING	47.1	1.0	30	5.0
AGRIPRO AP350	46.9	2.1	44	6.1
UNION	46.5	2.4	44	5.6
RA-452	44.8	1.9	44	6.7
PYRAMID <sup>c</sup>	41.7	1.4	41	6.4
STEVENS	40.8	2.0	44	5.2
GROUP IV AVERAGE	47.8	1.6	37	5.4
LATE (GROUPS V AND VI)				
COKER 425	48.7	2.0	29	6.4
PIONEER® BRAND 9541	48.3	2.2	30	5.8
ESSEX	47.4	1.7	30	5.9
HARTZ 5252 <sup>b</sup>	47.1	2.9	39	6.6
BAY	46.1	2.1	38	5.6
PIONEER® BRAND 9531 <sup>c</sup>	45.8	2.2	37	6.1
FFR-561	43.0	1.6	37	5.9
FORREST <sup>b</sup>	42.0	2.4	39	5.8
PIONEER® BRAND 9581 <sup>c</sup>	39.4	2.4	38	7.4
SHENANDOAH	37.6	2.0	40	5.9
GROUPS V AND VI AVG	44.6	2.2	36	6.1
GRAND AVERAGE	46.9	1.8	37	5.5
LSD (.10)	4.4	0.5	3	1.0

<sup>a</sup>Plant height.  
<sup>b</sup>Resistant to the soybean cyst nematode (Race 3).  
<sup>c</sup>Resistant to the soybean cyst nematode (Race 3 and Race 4).

<sup>a</sup>Plant height.  
<sup>b</sup>Resistant to the soybean cyst nematode (Race 3).  
<sup>c</sup>Resistant to the soybean cyst nematode (Race 3 and Race 4).  
<sup>d</sup>Not mature when frost occurred on 10/14.

