Progress Report 293

Kentucky Soybean Performance Tests–1985

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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 1985 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 and Lexington locations in Tables 6 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.

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

Location of the 1985 Kentucky Soybean Performance Tests

Table 1.—Location, Planting Date, and Climatic Data for the 1985 Soybean Performance Tests.

	1 Owensboro	2 Morgantown	3 Princeton	4 Princeton[1] Double-Crop	5 Paducah	6 Lexington	7 Bowling Green[1] Double-Crop
Farmer Cooperator	Billy Joe Miles	Maitland Rice	Exp. Sta.	Exp. Sta.	Mike Boatwright	Exp. Sta.	James & Mike Reynolds
Extension Agent	Tom Curtsinger	Michael Jackson			George Martin		Kelcy Driskill
Soil Type	Waverly Silt Loam	Newark Silt Loam	Pembroke Silt Loam	Pembroke Silt Loam	Grenada Silt Loam	Maury Silt Loam	Pembroke Silt Loam
Date of Planting	6/20	6/19	5/28	7/8	5/29	5/30	6/27
Row Width (inches)	30	30	30	15	30	30	15
Herbicides[2*]	3 pt. Prowl 3/4 lb Lexone	2 pt. Sonalan	2 pt. Treflan 6 pt. Lasso	4 pt. Lasso 1 1/2 pt. Lorox 2 1/2 pt. Paraquat	4 pt. Lasso 1 1/2 pt. Lorox	8 pt. Lasso	6 pt. Lasso 1 pt. Lorox 4L 2 pt. Paraquat
Soil Test							
P	200+	48	129	129	200	200+	97
K	500+	194	361	361	223	150	351
pH	6.9	6.9	6.1	6.1	6.8	5.9	7.1
Fertilizer Applied	None	None	None	None	None	100 lb/A K_2O 3 T/A Lime	None
50% Chance of Killing Frost[3]	10/21	10/13	10/19	10/19	10/24	10/26	10/23

[1] No-till double-cropped after wheat.
[2] Amount per acre.
[3] 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.

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). Maturity dates were recorded at the Lexington 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.

GROWING CONDITIONS FOR THE 1985 TESTS

Soybean growing conditions over most of Kentucky were quite good in 1985. One exception was the Paducah area where inadequate rainfall reduced yields. Wet fields in late spring delayed planting at most locations. Heavy rainfall during the harvest season likewise delayed harvesting over the whole state.

SPECIAL NOTES

No data were taken at Bowling Green in 1984 due to extreme drought damage to the plots. Data from 1983 and 1985 are presented. No 1983 data from Lexington are presented due to drought damage. Only 1985 data are presented at Owensboro as this is a new test location.

VARIETY ADAPTATION

Early-maturing varieties (Group III), such as Cumberland and Williams, 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 Franklin, can be successfully grown in most areas in Kentucky.

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

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/A per day for each day planting is delayed after mid-June and 1 bu/A 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. **Reseach 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 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 use the lower rate. Adjustments also need to be made for differences in seed lot germination. The seeding

Table 2.—Pounds of Seed per Acre for the Given Row Width and Seed Size at the Recommended Seeding Rate.*

Row spacing (inches)	10	20	30	40
Seeding Rate (seeds per foot)	3-4	6-8	8-10	10-12
Seeds per pound				
2,600	60-80	60-80	54-67	50-60
2,800	56-75	56-75	50-62	47-56
3,000	52-70	52-70	46-58	44-52
3,200	49-65	49-65	44-54	41-49
3,400	46-61	46-61	41-51	38-46
3,600	44-58	44-58	39-48	36-44

*Germination assumed to be 100%.

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).

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 1985.

AVERAGE STATEWIDE PERFORMANCE

The performance data of varieties that have been in the Kentucky variety tests for at least 2 years are averaged over years and across locations in maturity zones and are shown in Table 4. **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 4 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 conjunction with a recommended crop rotation in your production system (see Kentucky Cooperative Extension publication PPA-3, "Soybean Cyst Nematode," available at your county Extension office.)

SOURCE OF SEED

The seed planted in 1985 Soybean Performance Tests was acquired from the following sources:

Entry	Source
AgriPro AP350, AgriPro HP3700	AgriPro Seeds, RR 2, Hwy. 30 East, Ames, IA 50010
A3803, A3966, A4271, A4595, A5149	Asgrow Seed Company, 7000 Portage Road, Kalamazoo, MI 49001
Bailey 468, Bailey 469	Barlow Farm Center, Inc., P.O. Box 155, Glendale, KY 42740
CX482, CX415	DeKalb-Pfizer Genetics, 3100 Sycamore, DeKalb, IL 60115
Stevens, Shenandoah, Shiloh	HyPerformer Seed Company, 5100 Poplar, Suite 3200, Memphis, TN 38137
J-130, J-125, J-112	Jacques Seed Company, Box 370, Lincoln, IL 62656
Stutts, Miles 400	Miles Farm Supply, Inc., Route 3, Owensboro, KY 42301
Pioneer®9531, Pioneer®9541, Pioneer®9441, Pioneer®5482, Pioneer®9471, Pioneer®9561, Pioneer®9571	Pioneer Hi-Bred Int. Inc., 1000 W. Jefferson Street, Tipton, IN 46072
Coker 393, Coker 425, Coker 355, RA 404, RA 451, RA 452, RA 405, Mitchell, Mitchell 450	Rohm & Haas Seed, Inc., P.O. Box 507, Lebanon, IN 46052
JMS 4982, JMS 5484	J.M. Schultz Seed Co., 105 N. Pine Street, Dieterich, IL 62424
Scott Brand 8047	Scott Seed Company, Box 849, New Albany, IN 47150
FFR-561, FFR-562, FFR-441, SS-391, SS-443	Southern States Cooperative Inc., P.O. Box 26234, Richmond, VA 23230
G.A. 8450A	Taylor-Evans Seed Company, Route 2, Danville, KY 40422
Voris 467	Voris Seed Inc., P.O. Box 457, Windfall, IN 46076
Bay, Cumberland, DeSoto, Douglas, Egyptian, Epps, Essex, Fayette, Forrest, Franklin, Harper, Lawrence, Nathan, Pella, Pershing, Pixie, Pyramid, Ripley, Sherman, Sparks, Union, Williams 82, York, Zane	Kentucky Foundation Seed Project, P.O. Box 11950, Lexington, KY 40579

TABLE 3.—AVERAGE PERFORMANCE ACROSS YEARS AND LOCATIONS

Variety/Brand	Lexington, Morgantown and Owensboro[a]		Paducah and Princeton		Princeton and Bowling Green[b] Double Crop			
	Yield Bu/Ac 84-85	Lodging 84-85	Yield Bu/Ac 84-85	Lodging 84-85	Yield Bu/Ac 84-85	Lodging 84-85	Approx. Seed/Lb	Approx. c,d Maturity
Early (Group II & III)								
A3966	46.2	2.1	47.2	1.3	36.6	1.2	2600	+ 6
Bailey 468	41.5	2.6	43.7	1.3	36.7	1.2	2550	+ 8
Coker 393	43.7	1.9	44.3	1.1	37.3	1.1	3000	+ 2
Cumberland	42.5	2.5	42.0	1.2	37.8	1.1	2600	0
Fayette[e]	42.0	2.6	44.8	1.2	31.8	1.1	2500	+ 2
Harper	41.2	1.5	43.0	1.0	35.9	1.0	2100	0
J-112	39.7	2.4	39.7	1.6	34.8	1.5	2500	+ 2
Pella	45.2	1.6	38.1	1.1	37.1	1.0	2100	- 4
Williams 82	41.9	2.3	43.7	1.0	37.9	1.0	2600	0
Mid-Season (Group IV)								
AgriPro AP350	41.0	2.4	43.7	1.6	37.6	1.3	2600	+13
A4271	44.9	1.9	45.1	1.0	34.8	1.0	2900	+ 4
CX482	43.1	2.9	49.8	2.4	34.1	1.3	3000	+15
Desoto	42.9	2.7	44.3	1.3	34.1	1.2	2700	+ 5
Douglas	41.7	2.1	49.4	1.1	32.6	1.1	2600	+12
Franklin[e]	38.1	3.3	44.2	1.7	34.2	1.3	2600	+ 7
J-125	42.2	2.4	45.6	1.3	34.4	1.2	2500	+ 8
J-130	42.9	2.8	48.4	2.2	34.2	1.3	2900	+15
JMS4982	42.0	2.8	48.5	2.3	34.8	1.3	3200	+14
Lawrence	42.4	1.2	43.6	1.0	35.8	1.0	2600	+ 2
Mitchell	42.3	2.8	46.2	2.2	38.2	1.7	2900	+ 8
Mitchell 450	39.6	2.5	43.0	1.2	38.3	1.3	2600	+17
Pershing	35.5	2.0	44.6	1.0	34.6	1.3	3800	+21
Pioneer® 9441	42.2	1.8	45.1	1.0	34.7	1.0	3300	+ 6
Pioneer® 9471	41.9	2.4	47.2	1.2	35.4	1.2	3200	+13
Pixie	41.3	1.3	37.3	1.0	33.5	1.0	2600	+ 2
RA-404	45.1	2.2	46.2	1.1	35.7	1.2	2400	+ 9
RA-405	38.3	2.9	43.2	2.2	36.0	1.4	2900	+18
RA-451	36.8	2.6	42.9	1.8	33.8	1.4	2400	+20
Scott Brand 8047	42.7	3.0	44.1	2.5	39.5	1.3	2975	+15
SS-443	43.6	1.9	49.2	1.5	34.4	1.0	2900	+ 8
Stevens	37.1	2.5	42.5	1.7	33.7	1.3	2800	+14
Union	41.2	2.7	43.2	1.7	36.8	1.5	2600	+ 4
Late (Group V & VI)								
Bailey 469	42.8	2.8	46.2	1.7	37.0	1.2	3000	+12
Bay	32.6	3.0	43.8	1.8	37.6	1.8	2800	+30
Coker 355[f]	30.2	3.4	42.2	2.8	31.1	2.6	3300	+30
Coker 425	37.9	2.4	49.2	1.2	36.2	1.6	3000	+19
Epps[f]	29.3	4.4	38.1	4.1	29.2	4.6	3500	+30
Essex	34.9	2.5	45.7	1.9	32.9	1.5	3500	+20
FFR-561	36.9	2.1	46.6	1.5	39.4	1.4	3400	+27
Forrest[e]	31.8	3.7	43.8	2.5	35.0	3.1	3500	+31
Nathan[f]	30.7	4.0	40.3	3.3	31.1	2.2	3500	+24
Pioneer® 5482	33.4	3.3	42.2	2.5	33.6	2.4	3000	+31
Pioneer® 9561[e]	34.9	3.2	45.1	2.2	32.8	1.8	3300	+31
Pioneer® 9571[f]	34.4	3.7	43.5	3.2	33.0	3.6	3400	+32
Stutts	31.8	2.8	42.7	1.7	30.3	1.7	3500	+27
York	32.8	3.0	40.9	1.7	35.1	2.0	2600	+28
Average	39.3	2.6	44.2	1.7	35.0	1.5		
LSD(.10)	5.3	0.8	7.1	0.7	5.8	0.8		

a 1985 data only for Owensboro.
b 1985 data only for Bowling Green double crop.
c Days earlier (-) or later (+) than Williams 82.
d Data based on 1985 observations at Princeton and Lexington.
e Resistant to the soybean cyst nematode (Race 3).
f Resistant to the soybean cyst nematode (Race 3 and Race 4).

TABLE 4.—SOYBEAN VARIETY TESTS—OWENSBORO

VARIETY/Brand	YIELD BU/AC 1985	LODG -ING 1985	HT[a] (IN) 1985	POD HT 1985
EARLY (GROUPS II AND III)				
AGRIPRO HP-3700	35.3	1.3	28	3.7
A3803	42.8	1.0	25	4.7
A3966	43.5	1.6	34	5.7
BAILEY 468	38.8	2.3	33	4.3
COKER 393	48.8	1.5	31	4.0
CUMBERLAND	42.4	2.0	31	4.0
FAYETTE[c]	45.6	2.7	37	4.0
HARPER	38.2	1.3	29	5.3
J-112	36.2	2.2	36	6.0
PELLA	38.6	1.3	33	5.7
SHERMAN	45.6	1.5	26	3.3
SS-391	45.2	1.7	31	6.3
WILLIAMS 82	43.8	2.0	33	4.3
ZANE	38.0	1.0	27	3.7
MID-SEASON (GROUP IV)				
AGRIPRO AP350	39.7	2.7	36	6.3
A4271	49.4	2.0	36	6.3
A4595	41.4	1.7	32	5.7
CX 415	45.7	2.0	34	4.0
CX 482	42.7	3.2	39	5.7
DESOTO	40.0	2.3	35	6.7
DOUGLAS	34.0	1.2	29	6.0
EGYPTIAN[c]	38.7	3.7	33	6.7
FFR-441	40.3	1.7	31	6.7
FRANKLIN[b]	42.2	4.0	39	6.0
G A 8450A	41.9	3.0	35	6.7
J-125	41.2	2.5	33	5.7
J-130	43.4	2.7	36	5.3
JMS 4982	41.9	2.5	35	6.3
LAWRENCE	37.8	1.2	29	4.7
MILES 400	44.2	2.3	34	4.3
MITCHELL	46.7	3.0	36	7.7
MITCHELL 450	44.5	2.5	40	10.3
PERSHING	38.3	1.8	30	7.3
PIONEER®9441	37.5	1.2	29	6.0
PIONEER®9471	43.4	2.0	33	6.3
PIXIE	36.9	1.3	18	4.0
PYRAMID[c]	40.5	3.2	39	7.3
RA-404	46.0	2.2	35	6.7
RA-405	40.2	3.5	36	6.7
RA-451	37.8	2.5	36	7.0
RIPLEY	37.6	1.5	20	4.7
SCOTT BRAND 8047	41.7	3.2	38	6.3
SPARKS	38.1	2.7	35	7.3
SS-443	49.9	2.0	33	7.0
STEVENS	35.4	2.8	38	6.3
UNION	41.6	2.3	34	5.3
VORIS 467	44.0	2.2	32	5.7
LATE (GROUPS V AND VI)				
A5149	40.6	1.7	38	11.3
BAILEY 469	42.4	2.8	38	6.3
BAY	38.0	2.8	36	8.0
COKER 355[c]	37.5	3.7	37	9.0
COKER 425	41.3	2.5	31	10.0
EPPS[c]	32.7	4.3	34	8.0
ESSEX	37.7	2.0	31	10.0
FFR-561	39.0	1.8	35	9.0
FFR-562	35.2	3.0	37	10.7
FORREST[b]	41.9	4.2	40	10.3
JMS 5484	39.4	4.5	37	9.0
NATHAN[c]	42.0	3.7	42	10.0
PIONEER®5482	40.3	3.3	38	11.3
PIONEER®9531[c]	41.7	3.5	36	9.0
PIONEER®9541	36.7	2.2	30	8.7
PIONEER®9561[b]	41.3	3.7	38	10.3
PIONEER®9571[c]	40.5	4.2	37	9.7
SHENANDOAH	33.5	2.0	34	8.0
SHILOH[c]	37.9	4.2	42	10.3
STUTTS	37.7	3.3	36	10.0
YORK	33.7	3.2	33	7.7
GRAND AVERAGE	40.6	2.5	34	6.9
LSD(.10)	4.5	0.6	2.4	1.5

[a] Plant height.
[b] Resistant to the soybean cyst nematode (Race 3).
[c] Resistant to the soybean cyst nematode (Race 3 and Race 4).

TABLE 5.—SOYBEAN VARIETY TESTS—MORGANTOWN

VARIETY /Brand	YIELD BU/AC 84-85	YIELD BU/AC 1985	LODG -ING 84-85	LODG -ING 1985	HT[a] (IN) 1985	POD HT. 1985
EARLY (GROUPS II AND III)						
AGRIPRO HP-3700	-	45.8	-	2.0	35	5.3
A3803	-	46.5	-	1.8	31	3.7
A3966	49.7	46.9	2.3	2.8	37	6.7
BAILEY 468	46.6	45.1	2.7	3.0	38	7.0
COKER 393	45.5	43.9	2.2	2.8	34	6.7
CUMBERLAND	45.4	41.4	3.2	4.3	34	5.0
FAYETTE[c]	45.3	41.3	2.9	3.7	39	6.3
HARPER	44.4	42.5	1.3	1.3	32	6.3
J-112	45.6	43.7	2.6	3.3	45	7.7
PELLA	47.7	44.9	1.7	2.2	37	5.3
SHERMAN	-	42.9	-	3.0	30	5.7
SS-391	-	48.2	-	2.8	33	6.3
WILLIAMS 82	45.0	40.6	2.6	3.5	36	6.0
ZANE	-	46.6	-	1.8	33	6.3
MID-SEASON (GROUP IV)						
AGRIPRO AP350	45.3	41.3	2.8	3.0	41	9.0
A4271	47.7	45.4	2.1	2.7	38	8.7
A4595	-	46.1	-	2.5	39	8.0
CX 415	-	49.3	-	3.3	38	5.3
CX 482	49.7	47.8	3.6	3.5	42	8.3
DESOTO	48.0	46.9	3.3	3.8	37	6.0
DOUGLAS	49.3	45.8	2.7	2.5	34	7.3
EGYPTIAN[c]	-	43.2	-	2.7	36	8.0
FFR-441	-	42.2	-	3.0	42	7.7
FRANKLIN[b]	41.3	41.2	2.8	3.2	43	7.7
G.A. 8450A	-	43.0	-	3.2	40	6.7
J-125	46.0	44.2	2.9	2.7	40	6.0
J-130	48.2	44.6	3.6	3.3	44	8.0
JMS 4982	48.9	47.9	3.5	3.0	44	8.7
LAWRENCE	47.1	43.5	1.2	1.2	34	6.7
MILES 400	-	46.1	-	2.7	40	7.0
MITCHELL	45.3	43.6	3.1	3.5	41	10.0
MITCHELL 450	46.8	42.1	3.0	3.0	44	12.0
PERSHING	45.6	42.3	2.2	2.2	30	7.7
PIONEER®9441	46.3	45.2	1.9	2.2	33	6.3
PIONEER®9471	44.9	43.2	2.9	3.3	37	8.7
PIXIE	46.4	45.9	1.0	1.0	23	4.3
PYRAMID[c]	-	41.9	-	2.7	44	9.3
RA-404	50.8	46.1	2.5	2.2	38	8.3
RA-405	46.5	43.9	3.4	3.5	43	7.3
RA-451	43.0	39.0	2.9	2.5	44	10.0
RA-452	-	40.8	-	2.0	40	8.3
RIPLEY	-	44.6	-	1.2	25	5.3
SCOTT BRAND 8047	49.2	47.1	3.7	3.7	46	8.0
SPARKS	-	41.1	-	3.5	40	7.3
SS-443	47.8	45.4	2.0	2.5	34	9.3
STEVENS	42.3	40.3	2.7	3.2	45	6.7
UNION	43.7	43.4	3.2	3.8	43	7.3
VORIS 467	-	44.9	-	2.3	40	8.0
LATE (GROUPS V AND VI)						
A5149	-	45.3	-	1.8	36	10.3
BAILEY 469	48.2	46.5	3.6	3.0	45	7.0
BAY	40.5	34.1	3.1	2.5	41	8.7
COKER 355[c]	36.9	35.1	3.3	2.2	42	12.0
COKER 425	47.2	45.4	2.7	2.7	30	11.3
EPPS[c]	38.8	32.3	4.8	4.8	38	15.3
ESSEX	43.0	40.1	2.7	2.0	31	9.3
FFR-561	45.4	43.9	2.3	2.2	36	8.7
FFR-562	-	44.3	-	2.5	42	12.7
FORREST[b]	40.4	38.4	3.7	2.8	40	9.3
JMS 5484	-	40.5	-	3.0	36	8.7
NATHAN[c]	38.5	37.7	4.0	3.3	45	9.3
PIONEER®5482	42.7	39.0	3.4	2.8	44	10.7
PIONEER®9531[c]	-	39.8	-	3.2	38	9.7
PIONEER®9541	-	39.8	-	2.3	32	8.7
PIONEER®9561[b]	44.2	40.2	3.2	2.8	41	12.0
PIONEER®9571[c]	42.9	38.4	3.7	3.3	44	11.3
SHENANDOAH	-	37.6	-	2.3	41	11.3
SHILOH[c]	-	36.3	-	2.5	42	10.7
STUTTS	38.3	36.6	2.4	1.7	36	10.3
YORK	41.6	40.7	3.0	1.8	35	5.0
GRAND AVERAGE	45.1	42.8	2.8	2.7	38	8.1
LSD(.10)	2.7	3.3	1.0	0.5	2.6	1.6

[a] Plant height.
[b] Resistant to the soybean cyst nematode (Race 3).
[c] Resistant to the soybean cyst nematode (Race 3 and Race 4).