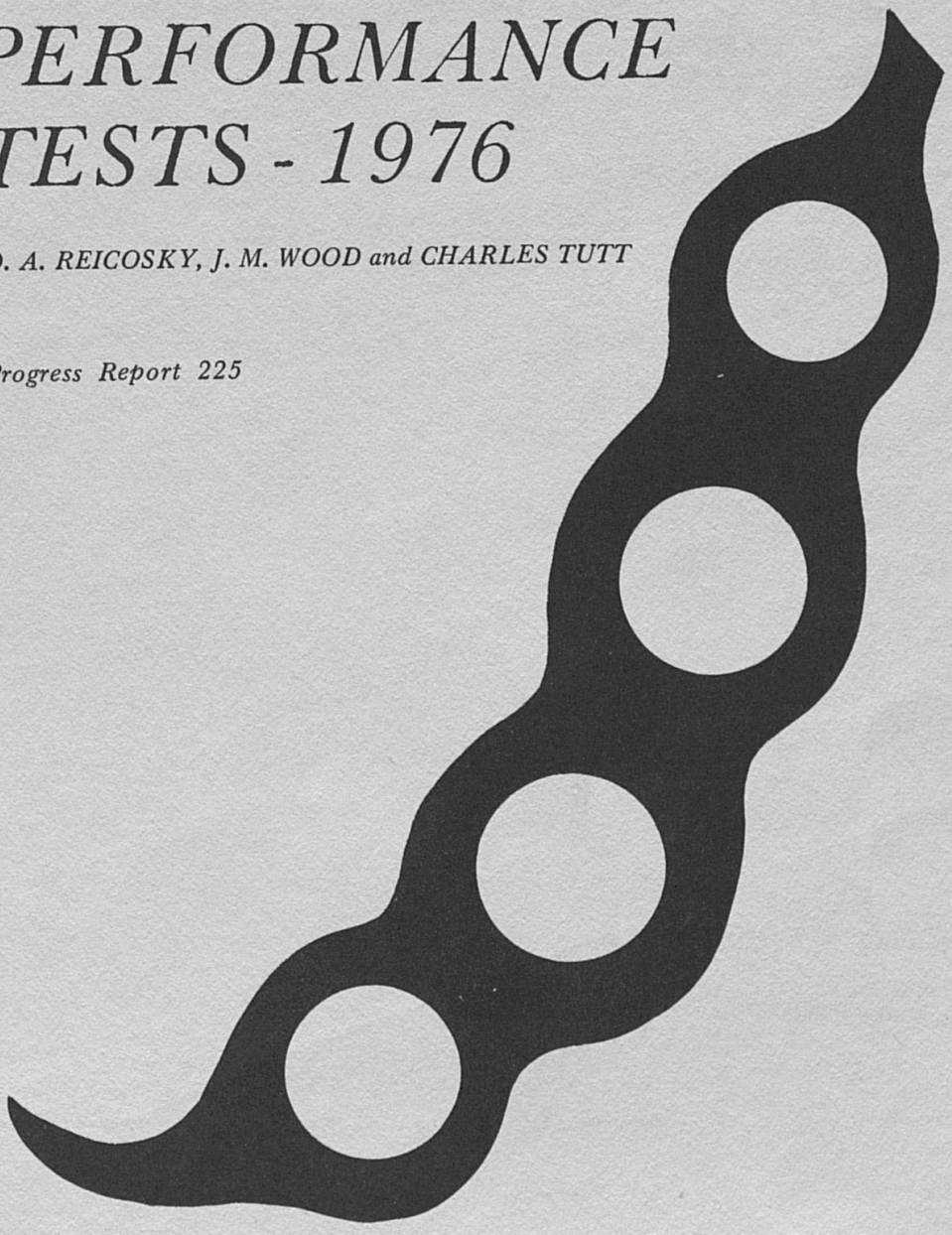
KENTUCKY SOYBEAN PERFORMANCE TESTS - 1976

D. A. REICOSKY, J. M. WOOD and CHARLES TUTT

Progress Report 225



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Agricultural Experiment Station • Department of Agronomy • Lexington

LOCATION OF THE 1976 SOYBEAN PERFORMANCE TESTS

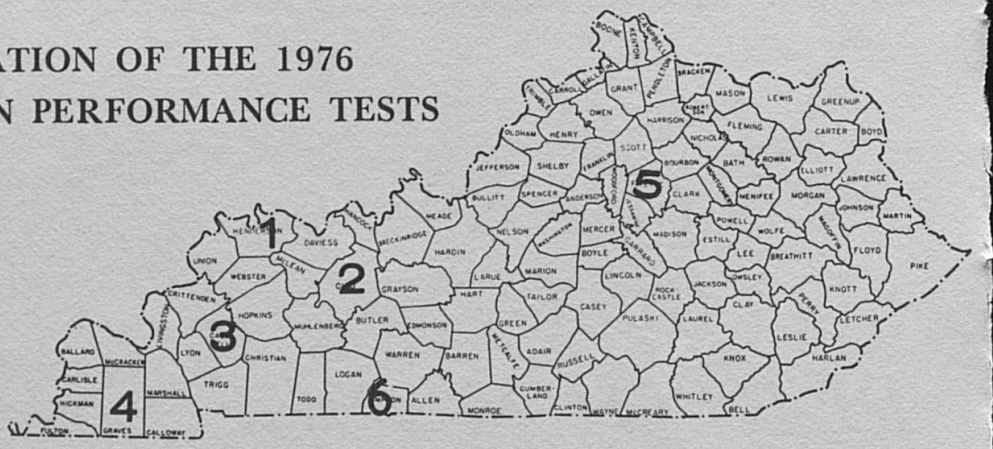

Table 1.—Location, Planting Data and Climatic Data for the 1976 Soybean Performance Tests.

	1 Henderson	2 Hartford	3 Princeton	3 Princeton Double-crop	4 Mayfield	5 Lexington	6 Franklin Double-crop
Farmer cooperator	James McConathy	Preston Vaught	Exp. Sta.	Exp. Sta.	Gayle Dobson	Exp. Sta.	Joe & Ben Neely
Extension agent	William Hendrick	John Kavanaugh	-	-	William Green	-	Don Kessler
Soil type	Wakeland silt loam	Melvin silt loam	Crider silt loam	Crider silt loam	Collins silt loam	Maury silt loam	Nicholson silt loam
Date of planting	6/9[1/]	6/10[1/]	5/25	6/29[2/]	5/27	5/21	6/18[2/]
Row width (inches)	30	30	30	20	30	30	20
Herbicide	1 lb Lorox 2 qt Lasso	1 qt Treflan	1 lb Lorox 2 qt Lasso	1 lb Lorox 2 qt Lasso 1 qt Paraquat	None applied	1 lb Lorox 2 qt Lasso	1 lb Lorox 2 qt Lasso 1 qt Paraquat
Soil test[3/]							
P	90	67	50	24	9	300+	61
K	231	247	167	277	95	157	336
pH	6.2	6.3	6.4	6.2	6.3	6.3	6.3
Fertilizer applied[4/]	None	15 lb N 60 lb P 60 lb K	58 lb P 75 lb K	None	119 lb P 110 lb K	120 lb K	on 10-13-75: 15 lb N, 60 lb K on 2-6-76: 50 lb N
Date soil temp reaches 65°F in the spring[5/]	5/2	4/25	4/18	4/18	4/22	5/12	5/6
50% chance spring killing frost[6/]	4/11	4/22	4/10	4/10	4/13	4/22	4/13
50% chance fall killing frost[6/]	10/26	10/13	10/19	10/19	10/24	10/23	10/24

See footnotes at bottom of opposite page.

Kentucky Soybean Performance Tests–1976

By D. A. Reicosky, J. M. Wood and Charles Tutt

The objective of the Kentucky Soybean Performance tests is to provide an estimate of the relative performance of soybean varieties in Kentucky. This information may be used by growers and seedsmen in selecting the variety that will give the highest total production for a specific situation. Experimental strains of soybeans provided by the U.S. Regional Soybean Laboratory are also tested at several locations in Kentucky.

Soybean tests in 1976 were conducted at five locations in the major soybean-producing areas of the state and at Lexington. The testing locations, soil types, planting date, row width, and other information are shown on the opposite page.

The information on the dates that soil temperatures reach 65°F and the date of a 50% chance of a *spring* killing frost is provided for various areas of the state as guidelines for planting of soybeans (Table 1.) *To obtain good germination and stand establishment it is recommended that soybean planting be delayed until after there is a low probability of a killing frost and until the soil temperature at the 2-inch depth reaches 65°F.*

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 7 and 9. Particular

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(These footnotes concern Table 1 and material on page 2.)

[1]Originally planted on May 8 and 9 but owing to poor stands caused by heavy rains, the test was replanted on the indicated dates.

[2]No-till double-cropped after wheat.

[3]No soybean cyst nematodes were found at any of the test sites.

[4]Applied at planting unless otherwise specified.

[5]Temperature at 2-inch depth of bare soil for years 1967-72 (weekly average).

[6]Based on a 30-year average.

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

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, and the date for each factor may vary from year to year. For the date of a 10% chance of a spring killing frost, add 13-16 days to the dates in Table 1 and for the date of a 10% chance of a fall killing frost subtract 13-18 days from the dates in Table 1.

Methods

Each variety was planted in three plots (replications) at all locations, with individual plots being 20 feet long and 3 rows wide except for the double-crop tests which were 4 rows wide. The seeding rate was approximately 8-10 viable seeds per foot of row. It should be noted that there were no soybean cyst nematodes at any of the test locations.

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

This is the date when the pods are dry and most of the leaves have dropped. Stems are also dry, under most conditions. Maturity may also be expressed as days earlier (–) or later (+) than that of a standard variety (Williams). Maturity dates were recorded at the Princeton and Lexington locations.

Height

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

Shattering

Shattering was scored 3 weeks after maturity and was based on estimates of the percent of open pods on a scale of 1 to 5; 1 = No shattering; 2 = 1%-10% shattered; 3 = 10-25% shattered; 4 = 25-30% shattered; and 5 = over 50% shattered. Shattering scores were taken at the Princeton and Lexington locations.

INTERPRETATION

An important step of profitable soybean production is to select good 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.

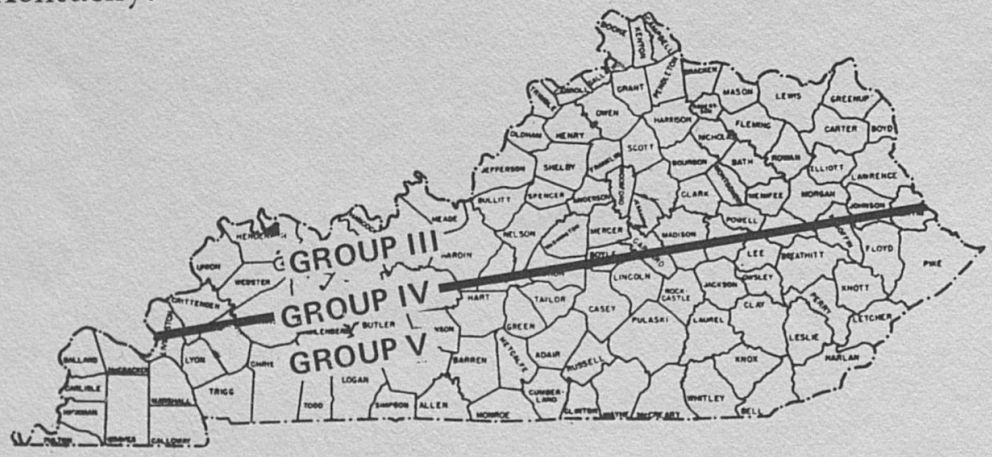
Yield is only one factor to consider in selecting a variety for your production system. Maturity, lodging resistance, disease resistance, seed shattering resistance, and time and equipment availability are other factors that need to be considered.

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 to get 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. 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.

Variety Adaptation

Early-maturing varieties (Group III), such as Calland and Williams, are best adapted in areas of Kentucky north of the line indicated on the map shown below. The line is approximately the same as where the Western Kentucky Parkway is located. Late-maturing varieties (Groups V and VI), such as Dare, York and Forrest are best adapted in areas south of the indicated line. Mid-season varieties (Group IV), such as Cutler 71, Custer and Kent, 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.

*Varieties for other groups not named are not adapted for growing in Kentucky.

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 (10-20") 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 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 when seeding the small grain. Manganese (Mn) applications may be necessary on some soils with high pH levels.

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 Ky. Coop. Ext. 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 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. If field conditions or seed quality are marginal use the higher 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 slightly higher seedling mortality.*

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				
2600	60–80	60–80	54–67	50–60
2800	56–75	56–75	50–62	47–56
3000	52–70	52–70	46–58	44–52
3200	49–65	49–65	44–54	41–49
3400	46–61	46–61	41–51	38–46
3600	44–58	44–58	39–48	36–44

Certified Seed

Always plant high quality seed of the variety you select. Certified soybean 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 extension agent or the Kentucky Seed Improvement Association (P.O. Box 12008, Lexington, Ky. 40511).

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. Table 3 lists the soybean blends tested in 1976 and the components of the mixture.

Table 3.—Percentage Composition of Each Variety in the Soybean Blends Tested in 1976.

Name	Variety 1	Variety 2	Variety 3
NKB 100	33.3% Dare	33.3% Essex	33.3% Mack
RA-31	50% SB 27	50% Williams	
RA Expt 1	50% Cross I(a)11	50% Offtype of Mitchell	

Average Statewide Performance

The performance data of varieties that have been in the Kentucky variety test for at least 3 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 Ky. Coop. Ext. PPA-3, "Soybean Cyst Nematode," available at your county extension office.)

Table 4.—Average Performance Across Years and Location.

	Henderson, Hartford and Lexington 1974-76		Princeton and Mayfield, 1974-76			
	Yield (Bu/A)	Lodging[1]	Yield (Bu/A)	Lodging[1]	Approx. seed/pound	Approx. Maturity[2]
Early (Group III)						
Calland	45.5	2.8	--	-	2600	- 1
SRF 307P	46.5	3.2	--	-	2800	- 3
Williams	47.9	2.0	47.3	2.0	2600	0
Mid-Season (Group IV)						
Bonus	48.2	2.0	47.6	2.2	2600	+ 2
Cutler 71	44.0	2.6	44.6	2.6	2600	+ 4
FFR 444	44.6	2.7	43.7	2.8	3100	+ 4
Kent	43.9	2.4	45.8	1.3	2600	+13
Pomona	43.1	2.2	--	-	2600	+13
SRF 425	43.1	3.0	--	-	3200	+ 5
SRF 450	41.2	2.6	43.7	2.3	2700	+13
Late (Group V and VI)						
Essex	44.1	2.5	46.9	1.8	3500	+27
Forrest[3]	37.8	3.5	41.9	2.0	3500	+33
York	40.2	3.3	43.0	2.2	2600	+31
Coker 136	--	-	39.7	2.3	--	+42
Average	43.8	2.7	44.4	2.2		
LSD (.05)	4.4	0.5	6.4	0.8		

SOURCES OF SEED

The seed planted in the 1976 Soybean Performance Tests was acquired from the following sources:

Entry	Source
NKB 100	Northrup, King & Co., P.O. Box 49, Washington, Iowa 52353
SRF 307P, 425, 450, 72-89[1], 72-3299[1]	Soybean Research Foundation Inc., Mason City, Ill. 62664
McNair 500, 600	McNair Seed Company, P.O. Box 706, Laurinburg, N.C. 28352
RA-31, Expt. 1[1] Mitchell	Ring Around Products Inc., P.O. Box 1629, Plainview, Texas 79072
G3333	Funks Seed International, 1300 W. Washington, Bloomington, Ill. 61701
Coker 136	Coker's Pedigreed Seed Co., P.O. Box 340, Hartsville, S.C. 29550
NAPB 418	North American Plant Breeders, P.O. Box 568, Hutchinson, Ks. 67501
Green-Soy 74-45[1]	Green Seed Co., Box 943, Gallatin, Tenn. 37066
FFR 444, 556	Farmers Forage Research Coop., 4112 E. State Road 225, Lafayette, Ind. 47906
SSF 402	Smith Seed Farms, Route 2, Box 59B, Goodlettsville, Tenn. 37072
Wilstar 430	Wilstar Seeds, Hopkinsville, Ky. 42240
VS 405	Voris Seeds, Inc., Box 457, Windfall, Ind. 46076
Clemens 327	Pfizer Genetics, Inc., Olivia, Minn. 56277
Calland, Williams, York, Woodworth, Dare, Kent, Pomona, Custer, Essex, Cutler 71, Bonus, James, Mack, Forrest, A72-512[1], L71L436[1], L73-6536[1], K1017[1], K1019[1]	Kentucky Foundation Seed Project, P.O. Box 11950, Lexington, Ky. 40511

[1]Experimental Strains, seed presently not available.

Table 5.—Kentucky Soybean Variety Tests—Henderson.

Variety	Yield (Bu/A) 1974-76	Yield (Bu/A) 1975-76	Yield (Bu/A) 1976	Lodging[1] 1974-76	Lodging[1] 1975-76	Lodging[1] 1976	Ht.[2] (In.)
Early (Group III)							
Calland	52.8	57.0	65.1	4.1	3.6	4.0	45
Clemens 327	--	--	55.5	-	-	4.5	36
Funk's G3333	--	--	52.1	-	-	4.2	39
RA 31*	--	--	56.5	-	-	3.5	41
SRF 307P	50.9	51.7	52.9	4.6	4.4	4.7	41
SRF 72-3299[3]	--	--	59.5	-	-	4.5	41
Williams	55.9	54.1	57.5	2.9	1.9	2.0	35
Woodworth	--	55.9	63.8	-	2.8	3.0	35
Mid-Season (Group IV)							
A72-512[3]	--	--	58.9	-	-	4.3	43
Bonus	55.5	56.3	53.6	3.0	2.3	2.2	41
Custer[4]	--	--	57.8	-	-	4.0	50
Cutler 71	51.6	49.7	51.5	3.9	3.5	3.0	43
FFR 444	51.1	49.7	49.9	3.7	3.3	3.0	36
Kent	51.0	53.3	56.7	3.7	3.2	3.7	45
L71L-436[3/4]	--	--	50.9	-	-	4.3	48
L73-6536[3/4]	--	--	52.2	-	-	4.0	49
Mitchell	--	62.9	62.0	-	4.3	4.2	41
NAPB 418	--	--	55.4	-	-	3.2	40
Pomona	51.9	52.6	55.1	3.4	2.9	3.3	44
RA EXPT 1[3]*	--	--	55.7	-	-	3.2	39
SRF 425	51.0	52.5	55.0	4.5	4.3	4.2	42
SRF 450	45.1	48.1	48.6	4.1	3.8	4.5	41
SRF 72-89[3]	--	--	49.8	-	-	3.2	44
SSF 402	--	--	48.9	-	-	3.2	38
VS 405	--	--	62.2	-	-	4.2	51
Wilstar 430	--	--	58.6	-	-	3.2	38
Late (Group V and VI)							
Dare	--	41.3	49.1	4.0	-	5.0	37
Essex	47.3	44.8	46.1	3.7	3.3	5.0	31
Forrest[4]	41.8	42.5	43.9	4.3	4.0	5.0	39
James	--	44.0	49.2	-	3.3	4.0	48
McNair 500	--	--	28.2	-	-	5.0	46
NKB 100[3]*	--	--	43.6	-	-	5.0	33
York	43.9	44.0	46.7	4.4	4.1	4.8	45
FFR 556	--	38.8	25.2	-	4.1	4.8	49
Green-Soy 74-45[3]	--	--	34.2	-	-	3.5	38
Average	50.0	50.0	51.8	3.9	3.5	3.9	41
LSD(.05)	7.1	14.4	11.4	1.2	1.5	1.5	8

1/ See explanation in text.
2/ 1975 data only.
3/ Experimental, seed not available.
4/ Resistant to the soybean cyst nematode (Race 3).
* Blend, see table 3.

Table 6.—Kentucky Soybean Variety Tests—Hartford.

Variety	Yield(Bu/A) 1974--76	1975 -76	1976	Lodging[1] 1974--76	1975 -76	1976	Ht[2] (In.)
Early (Group III)							
Calland	41.0	45.5	47.2	2.1	2.2	2.5	35
Clemens 327	--	--	44.7	-	-	2.0	31
Funk's G3333	--	--	45.3	-	-	2.7	34
RA 31*	--	--	50.9	-	-	2.0	36
SRF 307P	43.6	43.3	47.6	2.4	2.6	3.8	36
SRF 72-3299[3]	--	--	47.0	-	-	1.8	30
Williams	41.0	45.0	46.2	1.6	1.6	1.3	32
Woodworth	--	40.7	40.7	-	1.8	2.2	31
Mid-Season(Group IV)							
A72-512[3]	--	--	48.4	-	-	4.0	37
Bonus	39.7	44.6	49.9	1.4	1.7	1.7	37
Custer[4]	--	--	41.7	-	-	3.3	41
Cutler 71	41.8	47.6	51.1	1.8	2.1	2.5	39
FFR 444	42.2	46.4	46.4	2.1	2.0	2.2	34
Kent	40.9	43.6	42.9	1.8	1.6	1.8	34
L71L-436[3/4]	--	--	48.1	-	-	2.2	42
L73-6536[3/4]	--	--	45.5	-	-	1.8	41
Mitchell	--	47.2	51.3	-	2.2	2.8	37
NAPB 418	--	--	55.4	-	-	3.2	38
Pomona	38.1	40.3	43.6	1.8	1.8	2.2	33
RA EXPT 1 [3]*	--	--	48.7	-	-	2.5	36
SRF 425	40.1	44.2	44.4	1.8	2.1	2.7	36
SRF 450	38.7	41.2	41.3	1.7	1.7	1.5	32
SRF 72-89[3]	--	--	46.5	-	-	2.5	39
SSF 402	--	--	49.3	-	-	1.7	39
VS 405	--	--	40.1	-	-	2.3	35
Wilstar 430	--	--	48.0	-	-	2.3	35
Late(Group V and VI)							
Dare	--	41.2	44.8	-	2.2	3.0	43
Essex	41.2	47.3	47.0	1.7	1.5	2.0	34
Forrest[4]	35.8	42.8	36.7	2.8	2.5	3.2	41
James	--	48.0	48.7	-	2.1	1.8	44
McNair 500	--	--	29.2	-	-	3.0	41
NKB 100[3]*	--	--	43.1	-	-	3.3	39
York	37.7	42.5	43.1	2.3	2.0	2.2	39
FFR 556	--	42.9	32.8	-	2.9	3.7	46
Green-Soy 74-45[3]	--	--	42.1	-	-	2.7	40
Average	40.1	44.1	45.1	1.9	2.0	2.5	37
LSD(.05)	7.4	11.1	7.6	0.9	1.2	0.8	5

1/ See explanation in text.
2/ 1975 data only.
3/ Experimental, seed not available.
4/ Resistant to the soybean cyst nematode (Race 3).
* Blend, See table 3.

Table 7.—Kentucky Soybean Variety Tests—Princeton.

Variety	Yield(Bu/A) 1974 -76	1975 -76	1976	Lodging 1974 -76	1975 -76	1976	Maturity[2]	Ht[2] (In.)	SS[3/2]
Early (Group III)									
Calland	48.0	51.0	46.8	1.3	1.5	2.0	9/13	37	2.3
Clemens 327	--	--	43.7	-	-	3.0	9/08	34	4.3
Funk's G3333	--	--	47.2	-	-	4.3	9/13	37	1.0
RA 31*	--	--	48.5	-	-	1.7	9/16	41	1.0
SRF 307P	50.6	49.1	48.8	3.0	3.3	4.3	9/11	38	3.0
SRF 72-3299[4]	--	--	48.6	-	-	4.0	9/09	36	1.3
Williams	49.6	48.1	41.3	1.0	1.0	1.0	9/15	36	1.0
Woodworth	--	49.7	48.9	-	1.5	2.0	9/10	34	1.0
Mid-Season(Group IV)									
A72-512[4]	--	--	48.7	-	-	3.3	9/17	39	1.0
Bonus	49.4	50.1	47.0	1.8	1.5	1.7	9/15	44	1.3
Custer[5]	--	--	43.3	-	-	2.3	9/23	47	1.3
Cutler 71	46.2	49.0	42.3	1.9	2.2	2.7	9/16	41	1.0
FFR 444	46.5	46.9	46.0	1.8	1.8	1.3	9/16	38	1.0
Kent	46.7	48.6	42.5	1.1	1.2	1.3	9/23	38	1.0
L71L-436[4/5]	--	--	43.7	-	-	1.0	9/22	42	1.0
L73-6536[4/5]	--	--	40.6	-	-	1.3	9/20	43	1.0
Mitchell	--	58.8	54.1	-	2.2	1.3	9/21	41	1.3
NAPB 418	--	--	48.2	-	-	2.0	9/20	43	1.3
Pomona	45.9	48.3	42.5	1.2	1.2	1.3	9/21	37	1.0
RA Expt 1[4]*	--	--	45.8	-	-	3.7	9/21	38	1.3
SRF 425	50.4	49.0	42.2	2.6	2.8	4.0	9/19	43	1.0
SRF 450	49.6	50.8	49.2	1.6	1.8	2.0	9/24	39	1.0
SRF 72-89[4]	--	--	43.9	-	-	2.0	9/23	41	1.0
SSF 402	--	--	42.4	-	-	1.7	9/13	41	1.0
VS 405	--	--	49.7	-	-	2.7	9/17	43	1.3
Wilstar 430	--	--	46.0	-	-	2.3	9/20	40	1.3
Late (Group V and VI)									
Dare	--	38.1	37.3	-	2.7	3.0	10/10	37	1.0
Essex	44.8	46.8	48.0	1.4	1.7	2.3	10/09	32	1.0
Forrest[5]	41.0	35.8	30.1	1.4	1.7	2.3	10/14	41	1.0
James	--	37.2	32.9	-	1.2	1.3	9/30	44	1.0
McNair 500	--	--	32.7	-	-	2.7	10/14	38	1.0
NKB 100[4]*	--	--	37.2	-	-	3.3	10/13	49	1.0
York	47.2	44.5	46.1	1.8	2.2	2.3	10/11[6]	39	1.0
Coker 136	40.5	35.5	29.0	1.8	2.2	4.3	[6]	43	1.0
FFR 556	--	34.3	27.7	-	3.0	4.0	[6]	51	1.0
Green-Soy 74-45[4]	--	--	31.4	-	-	2.0	10/13	38	1.0
Hood 75	--	--	30.6	-	-	3.3	10/14	34	1.3
McNair 600	--	32.2	26.5	-	3.3	4.3	10/13	38	1.6
Average	47.0	45.2	42.1	1.8	2.0	2.5		40	
LSD(.05)	9.7	8.5	9.7	1.0	1.6	1.2		6	

1/ See explanation in text.
2/ 1975 data only.
3/ Shattering score, see explanation in text.
4/ Experimental, seed not available.
5/ Resistant to the soybean cyst nematode (Race 3).
6/ Not mature when killing frost occurred on 10/18.
* Blend, see Table 3.

Table 8.—Kentucky Soybean Variety Tests—Mayfield.

Variety	Yield(Bu/A) 1974-76	Yield(Bu/A) 1975-76	Yield(Bu/A) 1976	Lodging[1] 1974-76	Lodging[1] 1975-76	Lodging[1] 1976	Ht[2] (In.)
Early (Group III)							
Calland	--	--	48.3	-	-	2.3	36
Williams	45.0	48.5	54.1	3.0	2.3	1.7	36
Woodworth	--	--	44.8	-	-	3.3	33
Mid-Season(Group IV)							
Bonus	45.8	49.0	52.8	2.6	2.2	1.3	41
Cutler 71	42.9	45.2	47.6	3.2	3.5	2.7	38
FFR 444	40.9	41.3	43.1	3.9	3.7	2.7	33
Kent	44.9	45.7	49.1	1.6	1.3	1.3	37
Mitchell	--	48.2	46.9	-	3.0	1.7	33
NAPB 418	--	--	45.0	-	-	2.7	33
Pomona	--	46.5	49.0	-	2.8	1.7	37
RA Expt 1[3]*	--	--	53.7	-	-	1.3	34
SRF 425	--	--	41.7	-	-	2.7	36
SRF 450	37.8	38.9	37.6	3.0	3.0	2.7	37
SRF 72-89[3]	--	--	47.4	-	-	1.7	37
SSF 402	--	--	40.0	-	-	4.0	36
VS 405	--	--	54.2	-	-	2.3	38
Wilstar 430	--	--	47.9	-	-	3.3	35
Late (Group V and VI)							
Dare	--	43.8	55.2	-	3.3	3.0	34
Essex	48.9	51.2	63.5	2.2	1.8	1.0	31
Forrest[4]	42.8	48.8	53.5	2.6	2.2	1.3	30
James	--	--	47.6	-	-	2.7	41
Mack[4]	39.3	40.6	45.8	3.9	3.5	4.0	33
McNair 500	--	--	51.2	-	-	2.3	31
NKB 100[3]*	--	--	53.7	-	-	2.0	33
York	38.8	43.2	47.9	2.7	2.0	1.3	31
Coker 136	38.6	40.2	45.3	1.9	1.8	1.7	37
FFR 556	--	--	44.5	-	-	4.7	48
Green-Soy 74-45[3]	--	--	45.9	-	-	2.3	32
Hood 75	--	--	39.6	-	-	4.7	35
McNair 600	--	--	42.1	-	-	5.0	34
Average	42.3	45.1	48.0	2.8	2.6	2.5	35
LSD(.05)	7.6	11.8	11.1	1.1	1.5	1.7	5

1/ See explanation in text.
2/ 1975 data only.
3/ Experimental, seed not available.
4/ Resistant to the soybean cyst nematode (Race 3).
* Blend, See Table 3.

Table 9.—Kentucky Soybean Variety Tests—Lexington.

Variety	Yield (Bu/A)			Lodging[1]			Maturity[2]	Ht[2]	SS[3/2]
	1974-76	1975-76	1976	1974-76	1975-76	1976		(In.)	
Early (Group III)									
Calland	42.8	40.6	41.4	2.2	2.0	2.5	9/18	40	1.0
Clemens 327	--	--	41.9	-	-	1.5	9/13	37	1.0
Funk's G3333	--	--	39.1	-	-	3.0	9/20	39	1.0
RA 31*	--	--	39.1	-	-	2.2	9/22	39	1.0
SRF 307P	44.9	39.3	41.8	2.6	2.3	2.5	9/14	41	1.0
SRF 72-3299[4]	--	--	46.1	-	-	2.2	9/18	39	1.0
Williams	46.7	44.1	44.5	1.4	1.3	1.7	9/24	39	1.0
Woodworth	--	44.0	44.2	-	1.3	1.3	9/13	38	1.0
Mid-Season (Group IV)									
A72-512[4]	--	--	42.8	-	-	2.3	9/22	37	1.0
Bonus	49.4	43.9	38.6	1.6	1.4	1.5	9/24	45	1.0
Cutler 71	38.6	36.9	39.1	1.9	2.1	2.3	9/21	44	1.0
FFR 444	40.5	35.8	36.5	2.4	2.5	3.5	9/24	38	1.0
Kent	39.6	37.8	40.9	1.6	1.7	1.5	9/29	42	1.0
Mitchell	--	43.6	46.7	-	2.7	2.3	9/31	43	1.0
NAPB 418	--	--	46.9	-	-	2.5	10/04	43	1.0
Pomona	39.2	36.4	38.5	1.3	1.3	1.2	9/29	41	1.0
RA Expt 1[4] *	--	--	47.9	-	-	2.7	10/02	39	1.0
SRF 425	38.1	34.1	34.5	2.6	2.7	2.5	9/26	44	1.0
SRF 450	39.9	38.1	41.3	2.1	1.8	1.3	9/29	40	1.0
SRF 72-89[4]	--	--	43.7	-	-	2.3	10/04	42	1.0
SSF 402	--	--	34.2	-	-	2.8	9/21	38	1.0
VS 405	--	--	45.5	-	-	2.7	9/27	47	1.0
Wilstar 430	--	--	48.0	-	-	2.3	9/29	44	1.0
Late (Group V and VI)									
Dare	--	34.6	30.8	-	3.5	4.0	[6]	37	1.0
Essex	43.7	44.0	44.3	2.1	1.8	2.0	[6]	37	1.0
Forrest[5]	35.9	36.7	25.9	3.4	3.7	4.8	[6]	41	1.0
James	--	32.1	36.0	-	1.6	1.8	10/12	45	1.0
McNair 500	--	--	14.8	-	-	3.3	[6]	40	1.0
NKB 100[4]*	--	--	31.2	-	-	3.7	[6]	38	1.0
York	39.0	41.3	37.3	3.1	3.1	3.5	[6]	42	1.0
FFR 556	--	30.5	27.2	-	2.3	2.7	[6]	53	1.0
Green-Soy 74-45[4]	--	--	27.1	-	-	3.2	[6]	46	1.0
Average	41.4	38.5	38.7	2.2	2.2	2.5		41	
LSD(.05)	9.8	11.4	7.7	0.9	1.2	1.1		6	

1/ See explanation in text.
2/ 1975 data only.
3/ Shattering score, see explanation in text.
4/ Experimental, seed not available.
5/ Resistant to the soybean cyst nematode (Race 3).
6/ Not mature when killing frost occurred on 10/18.
* Blend, see Table 3.

Table 10.—Kentucky Soybean Variety Tests—Franklin, No-till, Double-cropped[1].

Variety	Yield(Bu/A)	Lodging[2]	Ht. (In.)
Early(Group III)			
Calland	42.1	3.0	41
Williams	44.0	1.0	36
Woodworth	44.0	2.3	33
Mid-Season (Group IV)			
Bonus	38.2	1.3	42
Cutler 71	37.0	3.0	38
FFR 444	37.3	4.0	39
K 1017[3]	39.9	4.3	39
K 1019[3]	35.8	4.3	41
Kent	33.5	1.7	37
Mitchell	48.0	4.3	40
NAPB 418	43.9	4.3	40
Pomona	35.6	3.7	38
RA Expt 1[3]*	42.9	4.3	40
SRF 425	44.1	4.3	39
SRF 450	33.9	3.7	38
SRF 72-89[3]	33.6	5.0	39
SSF 402	39.9	3.3	41
VS 405	44.9	4.0	43
Wilstar 430	41.8	3.7	41
Late (Group V and VI)			
Dare	37.1	4.7	39
Essex	38.4	4.0	40
Forrest[4]	30.3	5.0	43
James	37.2	3.7	40
McNair 500	23.5	5.0	43
NKB 100[3]*	33.7	5.0	40
York	39.0	5.0	42
Coker 136	16.6	4.3	45
FFR 556	30.7	4.7	45
Green-Soy 74-45[3]	23.9	5.0	44
Hood 75	32.6	5.0	39
McNair 600	37.0	5.0	41
Average	36.8	3.9	40
LSD (.05)	3.5	1.0	3

1/ 1975 data only.
2/ See explanation in text.
3/ Experimental, seed not available.
4/ Resistant to the soybean cyst nematode (Race 3).
* Blend, see Table 3.

Table 11.—Kentucky Soybean Variety Tests—Princeton, No-till, Double-cropped.

Variety	Yield (Bu/A) 1975-76	Yield (Bu/A) 1976	Lodging[1] 1975-76	Lodging[1] 1976	Maturity[2]	Ht.[2] (In.)
Early (Group III)						
Calland	--	15.7	-	1.0	10/03	23
Williams	24.5	14.2	1.0	1.0	10/03	18
Woodworth	--	14.8	-	1.0	10/05	20
Mid-Season (Group IV)						
Bonus	21.6	16.0	1.0	1.0	10/04	17
Cutler 71	--	23.3	-	1.0	10/05	24
FFR 444	--	9.8	-	1.0	10/04	20
K 1017[3]	--	22.2	-	1.0	10/11	23
K 1019[3]	--	25.2	-	1.0	10/14	27
Kent	30.3	27.0	1.0	1.0	10/12	23
Mitchell	--	10.2	-	1.0	10/11	19
NAPB 418	--	28.8	-	1.0	10/07	26
Pomona	--	16.3	-	1.0	10/13	20
RA Expt 1[3]*	--	18.4	-	1.0	10/10	21
SRF 425	--	21.6	-	1.0	10/08	25
SRF 72-89[3]	--	16.9	-	1.0	10/12	18
SSF 402	--	25.5	-	1.0	10/07	24
VS 405	--	26.4	-	1.0	10/04	26
Wilstar 430	--	24.0	-	1.0	10/10	24
Late (Group V and VI)						
Dare	--	23.1	-	1.0	[5]	26
Essex	27.2	19.4	1.0	1.0	[5]	25
Forrest[4]	24.1	12.9	1.2	1.0	[5]	28
James	--	22.0	-	1.0	10/15	27
McNair 500	--	15.4	-	1.0	[5]	32
NKB 100[3]*	--	18.3	-	1.0	[5]	25
York	29.2	23.7	1.2	1.0	[5]	30
Coker 136	--	8.9	-	1.0	[5]	37
FFR 556	--	13.3	-	1.0	[5]	34
Green-Soy 74-45[3]	--	21.6	-	1.0	[5]	29
Hood 75	--	10.7	-	1.0	[5]	25
McNair 600	--	22.4	-	1.0	[5]	31
Average	26.0	19.0	1.1	1.0		25
LSD(.05)	10.9	9.1	0.3	0.0		5

1/ See explanation in text.
2/ 1975 data only.
3/ Experimental, seed not available.
4/ Resistant to the soybean cyst nematode (Race 3).
5/ Not mature when killing frost occurred on 10/18.

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