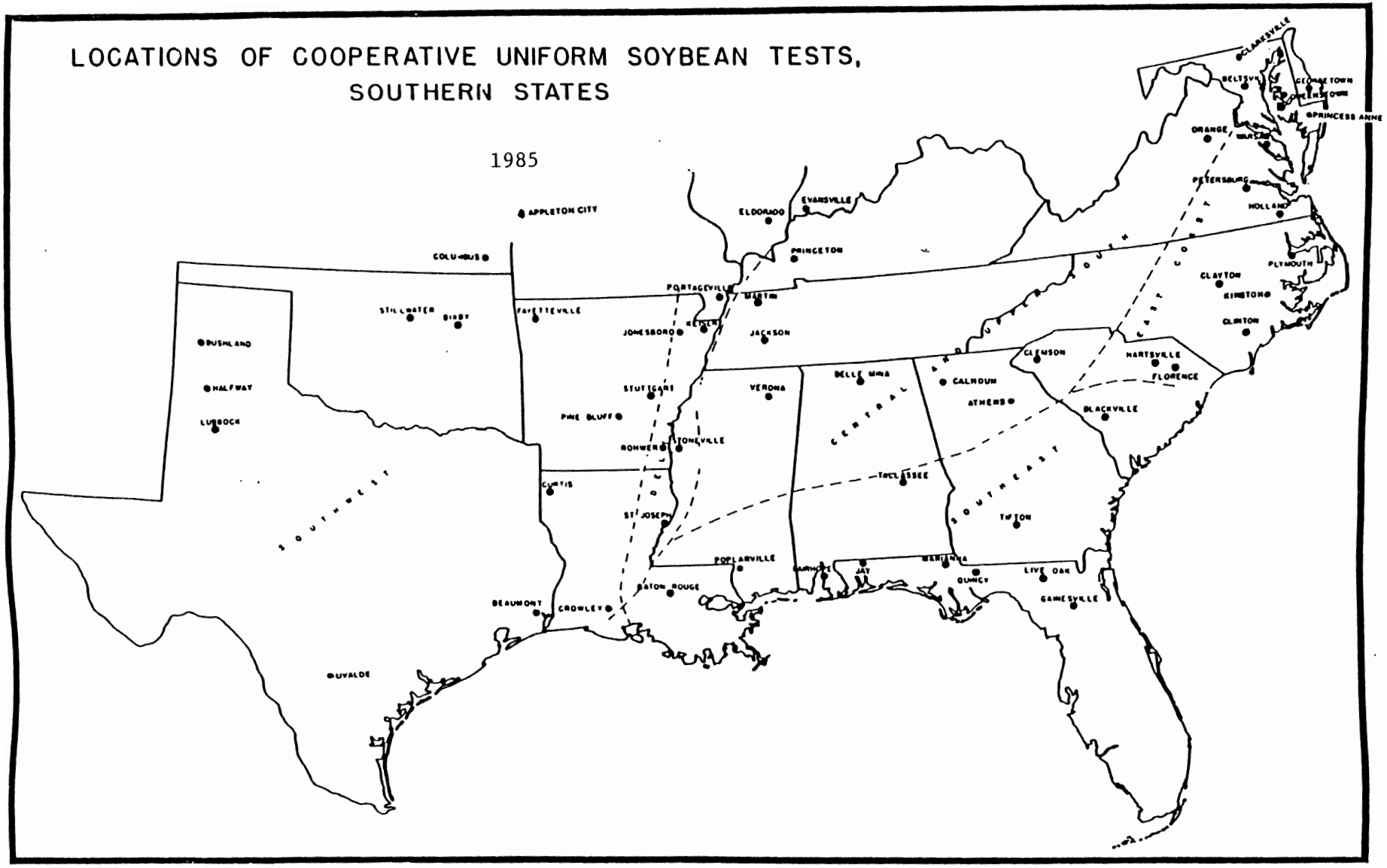
THE UNIFORM SOYBEAN TESTS
SOUTHERN REGION
1985

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
COOPERATING WITH
STATE AGRICULTURAL EXPERIMENT STATIONS
SOUTHERN REGION
STONEVILLE, MISSISSIPPI

LOCATIONS OF COOPERATIVE UNIFORM SOYBEAN TESTS, SOUTHERN STATES

1985



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SOUTHERN STATES

1985

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INTRODUCTION

The Soybean Production Research Program has been directed toward the development of improved strains of soybeans and the obtaining of fundamental information necessary to the efficient breeding of strains to meet specific needs. Breeding lines are developed and evaluated in the several federal and state research programs. As breeding lines demonstrate specific qualities in the individual programs, they are advanced to the preliminary and uniform regional tests, conducted in cooperation with research workers in the southeastern states. This testing program enables breeders to evaluate new strains under a wide variety of conditions, and permits new strains to be put into production in a minimum amount of time.

Eleven uniform test groups have been established to evaluate the better strains developed in the breeding programs. The groups 00 through IV are adapted in the northern part of the United States, and the groups IV-S through VIII are grown in the southern part. Within their area of adaptation, there is a maturity range of 12 to 18 days within each maturity class. The best standard varieties available of each maturity class are used as check varieties with which to compare new strains as to seed yield, chemical composition, maturity, height, lodging, seed quality, and reaction to diseases and nematodes. For the groups grown in the southern area, the major check varieties are: Douglas, Essex, Forrest, Tracy-M, Centennial, Braxton, Gordon, Hutton, and Kirby. At Stoneville, Mississippi, where all maturity classes will mature, the approximate maturity dates of these varieties when planted during the first half of May, are: Douglas, September 7; Essex, September 25; Forrest, October 1; Tracy-M, October 13; Centennial, October 16; Braxton, October 25; Hutton, November 1; and Kirby, November 4.

A wide range of soil and climatic conditions exists in the regions. As an aid in recognizing regional adaptation, the region has been subdivided into five rather broad areas which still represent a wide range of soil types. These are: (1) the East Coast, consisting of the Coastal Plain and Tidewater areas of the eastern shore of Maryland, Virginia, North Carolina, and the upper half of South Carolina; (2) the Southeast, consisting primarily of the Coastal Plain soils of the Gulf Coast area, but also including similar soil from South Carolina, southward; (3) the Upper and Central South, including the Piedmont and loessal hill soils east of the Mississippi River; (4) the Delta area, composed of the alluvial soils along the Mississippi River from southern Missouri, southward; and (5) the Southwest, comprising Arkansas and Louisiana (outside the Delta), and Oklahoma and Texas. In the Southwest area, the potential soybean-growing areas would include the alluvial soils, the Gulf Coast of Louisiana and Texas, and the high plains of Texas. In this area, several of the tests receive supplemental irrigation. A map is included to illustrate the five production areas.

On nearly all of the soils, other than the alluvial soils along the Mississippi River, fertilization is essential for satisfactory soybean production. In the Western area, irrigation is necessary for successful production. A table showing soil types, soil test information, and rate of fertilization is included.

The soil test information is based upon analyses run by laboratories with the states. Different methods are used for extraction and reporting by the various laboratories. An attempt is being made to report phosphorus and potash on a high, medium, and low basis, since pounds per acre may have different meanings in accordance with the methods used. In most cases, soil samples were taken after the soybeans were mature.

STRAIN IDENTIFICATION

The strains designated by number carry a letter prefix. This letter identifies where each strain was selected:

Au - Alabama Agricultural Experiment Station, Auburn
Co - Coker's Pedigreed Seed Company, Hartsville, South Carolina
D - Delta Branch Experiment Station and USDA-ARS
F - Florida Agricultural Experiment Station and USDA-ARS
G - Georgia Agricultural Experiment Station
J - Delta Branch Experiment Station, West Tennessee Experiment Station and USDA-ARS
K - Kansas Agricultural Experiment Station
Ky - Kentucky Agricultural Experiment Station
L - Illinois Agricultural Experiment Station and USDA-ARS
LS - Southern Illinois University, Carbondale
La - Louisiana Agricultural Experiment Station
Md - Maryland Agricultural Experiment Station and USDA-ARS
N - North Carolina Agricultural Experiment Station and USDA-ARS
R - Arkansas Agricultural Experiment Station
S - Missouri Agricultural Experiment Station
SC - Clemson Agricultural Experiment Station
Tn - Tennessee Agricultural Experiment Station
Ts - Texas Agricultural Experiment Station
V - Virginia Agricultural Experiment Station

Location of soybean nurseries along with soil type, soil analysis, and fertilization

Location	IV	V	VI	VII	VIII	Soil type	P_2O_5	K_2O	pH	Fertilizer[1]	Yield - Highest yielding variety
East Coast											
Queenstown, MD	1*	1				Matapeake silt lowm	M	VH	6.4	0-45-90	46.3 - Essex
Georgetown, DE		1				Elkton sandy loam	H	M	6.1	0-0-60	53.2 - Essex
Warsaw, VA	1*	1*	1			Kempsville loam	H	H	6.0	0-0-0	35.0 - Essex
Holland, VA		1	1			Othelo	VH	M	6.2	0-0-0	44.5 - Centennial
Plymouth, NC		1*	1*			Bladen f. s. loam	-	-	-	0-40-80	40.4 - Leflore
Kinston, NC			1	1		Norfolk sandy loam	-	-	-	0-40-80	39.4 - Braxton
Clinton, NC				1*	1	Norfolk sandy loam	-	-	-	0-40-80	32.4 - Braxton
Florence, SC (A)			1	1	1	Norfolk f. s. l.	-	-	-	24-48-144	37.1 - Braxton
Florence, SC (B)				1	1	Norfolk f. s. l.	-	-	-	24-48-144	28.7 - Braxton
Hartsville, SC (A)			1	1	1	Norfolk sandy loam	-	-	-	0-40-120	28.2 - Braxton
Hartsville, SC (B)				1	1	Norfolk sandy loam	-	-	-	0-40-120	30.1 - Kirby
Southeast											
Blackville, SC (A)			1	1*	1*	Dothan loamy sand	VH	M+	6.2	0-40-120	38.2 - Leflore
Blackville, SC (B)					1	Varina loamy sand	-	-	-	0-40-120	31.5 - Kirby
Tifton, GA			1	1	1	Tifton sandy loam	M	M	6.6	0-32-129	52.2 - Braxton
Tallassee, AL			1*	1*	1	Cahaba f. s. l.	H	H	6.7	0-40-90	56.5 - Leflore
Gainesville, FL				1	1*	Hernando fine sand	H	M	6.0	0-36-108	32.1 - Braxton
Quincy, FL			1	1	1*	Norfolk sandy loam	-	-	-	0-0-0	39.8 - Centennial
Marianna, FL				1	1	Chipola l. s.	H	H	5.8	15-30-45	41.9 - Braxton
Jay, FL			1*	1*	1*	Red Bay sandy loam	-	-	-	0-75-38	40.4 - Leflore
Fairhope, AL			1	1	1	Malbis f. s. l.	M	H	6.2	0-56-56	45.6 - Braxton
Poplarville, MS				1	1		-	-	-	0-0-0	19.5 - Braxton
Baton Rouge, LA			1	1	1	Olivier silt loam	-	-	-	0-72-72	34.4 - Centennial
Upper & Central South											
Orange, VA	1	1				Starr clay loam	H-	H	6.7	12-72-72	49.0 - Douglas
Clemson, SC		1	1	1		Cecil sandy loam	H	H	6.2	0-45-90	40.6 - Forrest
Calhoun, GA		1	1	1		Waynesboro loam	VH	H	6.2	0-54-108	55.3 - Gordon
Athens, GA		1	1*	1*	1	Cecil sandy loam	VH	M	6.7	0-0-120	56.8 - Leflore
Knoxville, TN	1	1				Sequatchie silt loam	-	-	-	0-60-60	38.0 - Pershing
Belle Mina, AL		1	1			Decatur clay loam	M	H	6.6	0-96-96	62.2 - Forrest
Eldorado, IL	1*						-	-	-	0-0-0	33.6 - Pershing
Carbondale, IL	1					Stoy silt loam	-	-	-	0-0-0	45.0 - Pershing
Princeton, KY	1*	1				Pembroke silt loam	H	H	6.1	0-0-0	49.2 - Forrest
Martin, TN	1	1				Falaya silt loam	M	M	6.0	0-40-40	52.9 - Forrest
Tiptonville, TN	1*	1*				Morganfield silt loam	H	L	6.1	0-0-60	38.2 - Epps
Jackson, TN		1	1			Lexington silt loam	H	H	7.5	0-0-0	43.5 - Epps

Location	IV	V	VI	VII	VIII	Soil type	P_2O_5	K_2O	pH	Fertilizer[1]	Yield - Highest yielding variety
Delta											
Portageville, MO (A)	1*	1*	1			Tiptonville s. l.	-	-	-	0-0-0	43.9 - Forrest
Portageville, MO (B)	1	1	1			Sharkey clay	-	-	-	0-0-0	38.2 - Tracy-M
Keiser, AR	1*	1*	1*			Sharkey silty clay	H	H	6.0	0-0-0	66.4 - Leflore
Jonesboro, AR	1	1	1			Calloway silt loam	M	H	6.0	0-0-0	26.5 - Forrest
Pine Tree, AR	1	1	1			Calloway silt loam	M	H	7.2	0-0-0	39.6 - Leflore
Stoneville, MS (A)	1	1*	1*	1*		Bosket f. s. l.	H	H	6.8	0-0-0	55.0 - Forrest
Stoneville, MS (B)	1*	1*	1*	1*	1*	Sharkey clay	H+	H	6.6	0-0-0	42.1 - Epps
Rohwer, AR			1	1*		Perry clay	H	H	6.6	0-0-0	33.6 - Leflore
St. Joseph, LA		1	1	1		Sharkey clay	H	H	6.7	0-0-0	46.6 - Epps
West											
Manhattan, KS	1					Muir silt loam	M	H	7.0	0-0-0	36.9 - Douglas
Pittsburg, KS	1	1				Parsons silt loam	M	H	7.0	0-0-0	32.7 - Douglas
Ottawa, KS	1*	1				Woodson silt loam	H	M	7.7	0-0-0	38.9 - Douglas
Bixby, OK	1	1	1			Reinach silt loam	H	H	6.5	0-0-0	42.7 - Forrest
Stuttgart, AR		1	1	1		Crowley silt loam	M	H	6.6	0-40-60	51.2 - Tracy-M
Bossier City, LA		1	1	1		Moreland s. c.	-	-	-	0-0-0	49.7 - Leflore
Beaumont, TX		1	1	1*	1*	Midland silty c. l.	-	-	-	0-40-100	23.7 - Centennial
Lubbock, TX	1	1				Acuff loam	L	VH	8.4	10-74-0	36.9 - Forrest
Clovis, NM	1					Pullman s. c. l.	-	-	-	0-100-0	43.5 - Pershing
Bushland, TX	1					Pullman c. l.	-	-	-	0-0-0	61.3 - Douglas

[1]Fertilizer applied converted to pounds N, P_2O_5, K_2O. For example: 400# of 2-12-12 equals 8-48-48.

*Preliminary nursery also grown.

METHODS

The uniform nurseries were planted in 4-row plots with 3 replications. All seed was packeted at Stoneville, Mississippi for planting 19-foot rows. In most cases a 16-foot section was harvested from each of the two center rows. Randomized block designs are used for groups. Row widths at the different locations vary from 30 to 40 inches. An attempt was made to follow the best cultural and management practices in conducting these strain comparisons.

The preliminary nurseries were planted in 4-row plots with 2 replications at each of 6 to 8 locations.

Planting rate - all strains were packeted for planting at the rate of 9 seeds per foot, in 36-inch rows.

Yields are taken by harvesting a 16-foot length from the mid-section of each plot. Actual seed weights are recorded after the seed of strains have a uniform moisture content. A bushel weight of 60 pounds is used in determining bushels per acre.

Shattering notes, where taken, are on the border rows, 14 days after maturity. The estimates are recorded on a scale of 1 to 5 as follows:

1 - no shattering
2 - 1 to 3% shattered
3 - 4 to 8% shattered
4 - 9 to 19% shattered
5 - over 20% shattered

Chemical composition - oil percent and protein percent were determined from representative locations. Percentage composition of the seed is expressed on a moisture-free basis. All chemical analyses are made at Peoria, Illinois.

Seed size for each strain was determined from a composite sample from all replications at a location. Seed size is reported for the locations where seed was analyzed for chemical composition and is reported as weight in grams per 100 seeds.

Lodging notes are recorded on a scale of 1 to 5 according to the following criteria:

1 - almost all plants erect
2 - either all plants leaning slightly, or a few plants down
3 - either all plants leaning moderately, or 25 to 50% of the plants down
4 - either all plants leaning considerably, or 50 to 80% of the plants down
5 - all plants down badly

Height is determined as the average length of plants in a plot from the ground to the top extremity at time of maturity.

Maturity is taken as the date when the pods are dry and most of the leaves have dropped. Under most conditions, the stems are also dry. Maturity in all summaries is expressed as days earlier (-) or later (+) than a standard or reference variety. Reference varieties used from the different uniform tests are as follows: Group IV, Douglas; Group V, Essex; Group VI, Centennial; Group VII, Braxton; and Group VIII, Kirby.

Seed quality is rated from 1 to 5 according to the following scale:

1 - very good; 2 - good; 3 - fair; 4 - poor; and 5 - very poor

The factors considered in estimating seed quality are development of seed, wrinkling damage, and brightness. While the seed quality score indicates relative appearance of seed for the several varieties at one location, considerable difference can exist among factors responsible for the poorer grades in different locations.

Disease and nematode ratings: Ratings are made on a 1 to 5 basis with 1 being resistant and 5 very susceptible or in other cases rated R - resistant, M - moderate, and S - susceptible.

All strains of V maturity and later are resistant to bacterial pustule. Very little injury was observed from phytophthora rot in 1985.

Plantings were made at Jay, Florida, for Meloidogyne incognita ratings and at Blackville, South Carolina for M. arenaria ratings.

Plantings were made in the greenhouse at Jackson, Tennessee in soil infested with the soybean cyst nematode. Separate plantings were made to evaluate strains for reaction to SCN race 3 and 4.

Statistical analyses - yield data are analyzed by analysis of variance. Differences necessary to indicate difference among strains (odds 19:1) are reported for each location. Yield data from tests with extremely low yields or an extremely high coefficient of variability are not included in calculating averages.

Note: Prolonged rainy weather from mid-October to mid-November delayed harvest and reduced seed quality in much of the area in 1985. Seed yield was also reduced.

UNIFORM GROUP IV-S

1985

	Variety or strain	Parentage	Generation composited
1.	Douglas	Williams X Calland	F_5
2.	Pershing	D67-3297 X Essex	F_4
3.	Ky79-0237	Williams X Essex	F_5
4.	S79-4259	Bedford X Crawford	F_5
5.	V74-315	V66-318 X V68-2331	F_5
6.	K1099	K1022 X Essex	F_5
7.	K1103	Union X Essex	F_5
8.	LS79-338	Forrest X V71-480	F_5
9.	LS79-1914	Franklin X J74-5	F_5
10.	S82-1443	A5424 X Mack	F_5
11.	V80-2476	Hodgson X Essex	F_5
12.	V81-942	Essex X V67-1370	F_5

Background of lines used as parents:

D67-3297 is a selection from Hill(2) X PI 171450 which was tested in Uniform IV-S.

V66-318 is a selection from D53-184 X J22 which was grown in Preliminary Group IV-S in 1968.

V68-2331 is a selection from York X Clark which was grown in Uniform Group V in 1971.

K1022 is a selection from Williams X Columbus.

V71-480 is a selection from V63-76 X V66-318 which was grown in Uniform Group IV in 1974.

J74-5 is a SCN race 4 resistant line of the same parentage as Bedford.

A5424 is a selection from Williams X Essex.

Uniform IV-S nurseries were planted at 21 locations. Results from these plantings are summarized in Tables 1 through 7. Table 1 gives a summary of 1985 performance and two- and three-year summaries for those strains that were included for this period. Agronomic characteristics are also reported along with reaction to nematodes and soybean looper. Ratings for reaction to root-knot nematodes were based upon ratings in field plantings. Ratings for reaction to SCN races 3 and 4 were based upon plantings made in the greenhouse at Jackson, Tennessee in infested soil. Ratings for feeding by soybean looper were based upon field cage plantings at Stoneville, where a heavy population of soybean looper moths were released.

Pershing averaged 10 days later in maturity than Douglas. Six of the strains being evaluated averaged 7-9 days later in maturity than Douglas. Douglas and Ky79-0237 each had 10% purple stained seed at Warsaw, Virginia. All others were below 2%. S82-1443 had 45% mottled seed at Orange, Virginia. Ky79-0237, K1099, V80-2476, and V81-942 received a 0 rating for mottled seed. S79-4259 was resistant to both SCN races 3 and 4. Three strains, Ky79-0237, S79-4259, and V74-315, have been evaluated three years. V74-315 has been released for production as Stafford. Ky79-0237 and S79-4259 are being considered for release.

Table 1 - General summary of performance for the strains grown in Uniform Group IV-S, 1985

	No. of locations	Douglas	Pershing	Ky79-0237	S79-4259	V74-315
Seed Yield - 1985						
East Coast	2	36.9	40.1	42.6	41.8	44.4
Upper & Central South	7	36.7	44.2	37.9	40.7	42.0
Delta	5	25.4	36.5	28.4	38.7	35.8
West	7	36.0	39.1	35.0	33.1	38.1
1984-85						
East Coast		37.8	39.0	41.2	38.7	40.8
Upper & Central South		40.3	45.3	40.3	40.3	44.1
Delta		25.9	37.7	28.7	36.9	37.2
West		35.7	38.4	35.0	32.1	39.3
1983-85						
East Coast		36.3	40.1	42.0	37.9	42.5
Upper & Central South		35.4	40.5	36.2	36.5	39.9
Delta		27.2	36.9	28.7	36.9	36.8
West		34.3	36.6	32.9	31.4	37.6
Oil Content - 1985		21.5	20.1	21.7	21.8	21.4
1984-85		21.7	19.8	21.8	21.7	21.4
1983-85		21.7	20.4	21.9	22.1	21.7
Protein Content - 1985		42.6	41.8	42.8	38.5	40.6
1984-85		41.9	41.5	41.4	38.2	40.3
1983-85		42.0	41.4	41.8	38.2	40.2
Seed size		18.2	11.7	17.0	14.7	13.5
Maturity index		10-28	+10	+4	+5	+7
Height		29	27	33	42	29
Seed quality		3.2	1.8	2.6	2.2	1.9
Shattering		1	3	3	1	1
M. incognita		4.5	5.0	4.0	2.0	5.0
M. arenaria		4.0	4.5	5.0	4.2	2.5
SCN race 3		S	S	S	R	S
SCN race 4		S	S	S	R	S
Soybean looper		4.0	4.0	4.0	4.0	3.0
Flower color		W	W	W	P	P
Pubescence color		T	G	T	G	G
Pod wall color		Br	T	T	T	T

Table 1 - (continued)

	K1099	K1103	LS79-338	LS79-1914	S82-1443	V80-2476	V81-942
Seed Yield - 1985							
East Coast	43.1	43.7	40.5	38.3	45.9	41.2	41.8
Upper & Central South	43.1	41.3	42.1	41.6	45.9	41.9	38.8
Delta	34.8	35.9	32.5	33.5	33.6	33.0	27.6
West	37.1	37.7	35.4	33.3	35.0	36.1	34.2
1984-85							
East Coast	43.0	40.8					
Upper & Central South	45.2	43.2					
Delta	34.1	35.5					
West	37.2	38.0					
1983-85							
East Coast							
Upper & Central South							
Delta							
West							
Oil Content - 1985	20.8	20.9	21.2	20.8	21.9	22.4	20.7
1984-85	20.5	20.8					
1983-85							
Protein Content - 1985	42.0	41.0	40.8	40.4	40.7	39.7	41.8
1984-85	42.1	40.9					
1983-85							
Seed size	13.1	12.1	12.2	12.6	17.9	12.7	14.2
Maturity index	+8	+8	+8	+8	+9	+6	+4
Height	24	24	34	34	34	31	26
Seed quality	1.9	1.8	2.1	2.2	2.2	1.9	2.1
Shattering	1	2	1	2	2	2	1
M. incognita	5.0	5.0	3.0	4.5	5.0	5.0	5.0
M. arenaria	3.8	2.8	2.8	2.8	3.2	3.3	4.2
SCN race 3	S	S	H	R	R	S	S
SCN race 4	S	S	S	S	S	S	S
Soybean looper	4.5	3.5	4.0	4.0	3.5	3.0	3.5
Flower color	W	W	P	P	P	P	P
Pubescence color	G	G	T	T	T	G	G
Pod wall color	T	T	T	T	T	Br	T

Table 2 - Seed yield, in bushels per acre, for the strains in Uniform Group IV-S, 1985

Location	Douglas	Pershing	Ky79-0237	S79-4259	V74-315	K1099	K1103
			EAST COAST				
Queenstown, MD	40.8	42.5	48.6	39.8	43.7	47.8	46.9
Warsaw, VA	33.0	37.6+	36.5+	43.8+	45.1+	38.4+	40.4+
Mean	36.9	40.1	42.6	41.8	44.4	43.1	43.7
			UPPER AND CENTRAL SOUTH				
Orange, VA	49.0	46.1	48.3	42.0-	44.1	47.7	44.0
Knoxville, TN	32.0	38.0	27.0	36.0	32.0	37.0	39.0
Eldorado, IL	20.1	33.6+	32.7+	39.4+	30.6+	30.2+	28.7
Carbondale, IL	44.0	45.0	43.7	32.0-	45.7	46.0	44.7
Princeton, KY	49.9	53.7	49.9	46.3	53.6	54.5	50.8
Martin, TN	35.5	62.8+	31.9	55.1+	61.7+	61.1+	61.1+
Tiptonville, TN	26.6	30.3+	31.7+	33.9+	26.1	25.2	23.0-
Mean	36.7	44.2	37.9	40.7	42.0	43.1	41.3
			DELTA				
Portageville, MO (A)	33.5	35.2	33.8	41.3+	35.1	39.4+	37.0
Portageville, MO (B)	14.3	32.2+	18.9+	33.6+	34.1+	24.3+	36.0+
Keiser, AR	44.0	54.7+	52.0	53.3	54.5+	54.4+	52.2
Jonesboro, AR	19.2	27.1+	20.1	25.8+	29.0+	27.3+	25.2
*Pine Tree, AR	10.7	14.1	17.0+	24.0+	14.0	12.1	8.8
Stoneville, MS (B)	15.9	33.1+	17.4	39.4+	26.4+	18.5	29.3+
Mean	25.4	36.5	28.4	38.7	35.8	34.8	35.9
			WEST				
Manhattan, KS	36.9	33.8	38.5	28.1-	35.1	34.4	34.7
Ottawa, KS	38.9	33.7-	34.2	27.7-	39.0	36.8	35.5
Pittsburg, KS	32.7	33.5	31.0	30.7	27.1-	22.0-	26.7-
Bixby, OK	19.3	39.6+	32.9+	37.3+	37.1+	37.5+	37.1+
Bushland, TX	61.3	53.8	60.6	52.5	61.3	57.9	60.0
Lubbock, TX	26.7	36.0	20.8	25.4	30.4	31.1	30.3
Clovis, NM	36.3	43.5+	26.8-	30.2-	36.8	40.3	39.6
Mean	36.0	39.1	35.0	33.1	38.1	37.1	37.7

*Not included in mean
(+) - Strains yielding significantly more (odds 19:1 or greater) than Douglas.
(-) - Strains yielding significantly less (odds 19:1 or greater) than Douglas.

Table 2 - (continued)

Location	LS79-338	LS79-1914	S82-1443	V80-2476	V81-942	L.S.D. (.05)	C.V. (%)
			EAST COAST				
Queenstown, MD	43.3	39.6	46.9	42.9	44.0	N.S.	9
Warsaw, VA	37.7+	37.0+	44.8+	39.4+	39.5+	2.9	4
Mean	40.5	38.3	45.9	41.2	41.8		
			UPPER AND CENTRAL SOUTH				
Orange, VA	49.0	48.2	49.6	48.6	46.2	5.4	7
Knoxville, TN	29.0	37.0	45.0	40.0	28.0	17.0	29
Eldorado, IL	36.9+	37.4+	42.4+	29.2+	34.1+	8.9	16
Carbondale, IL	38.3	35.7-	40.3	41.7	43.7	6.5	18
Princeton, KY	53.3	50.3	55.3	51.8	53.8	6.6	7
Martin, TN	54.8+	50.8+	57.0+	56.5+	42.0	10.4	12
Tiptonville, TN	33.4+	32.1+	31.9+	25.7	24.0	3.5	7
Mean	42.1	41.6	45.9	41.9	38.8		
			DELTA				
Portageville, MO (A)	31.8	34.3	40.3+	38.2	29.9	5.1	9
Portageville, MO (B)	34.5+	34.8+	22.5+	26.8+	25.7+	4.0	9
Keiser, AR	48.1	51.1	52.8	56.0+	44.3	9.5	11
Jonesboro, AR	23.7	22.5	29.6+	21.2	17.0	6.5	16
*Pine Tree, AR	19.7+	18.9+	25.1+	14.9	11.1	5.9	22
Stoneville, MS (B)	24.6	24.9	22.8	23.0	20.9	10.0	24
Mean	32.5	33.5	33.6	33.0	27.6		
			WEST				
Manhattan, KS	29.0-	28.7-	31.6-	35.3	34.9	3.3	6
Ottawa, KS	29.1-	31.7-	28.5-	34.8	34.1	5.1	9
Pittsburg, KS	25.8-	22.9-	34.7	26.9-	23.8-	5.0	10
Bixby, OK	41.1+	32.1+	35.9+	32.8+	29.7+	5.3	9
Bushland, TX	55.6	53.5	52.3	56.3	56.5	-	-
Lubbock, TX	31.2	30.4	23.7	28.7	30.8	-	-
Clovis, NM	36.0	34.0	38.1	37.6	29.5-	5.1	9
Mean	35.4	33.3	35.0	36.1	34.2		

Table 3 - Chemical composition and seed size for the strains in Uniform Group IV-S, 1985

Location	Douglas	Pershing	Ky79-0237	S79-4259	V74-315	K1099
			OIL PERCENTAGE			
Queenstown, MD	19.3	21.6	21.8	22.0	19.8	21.2
Warsaw, VA	21.8	19.8	20.3	21.4	21.8	20.8
Orange, VA	19.9	19.0	20.7	19.9	20.5	20.1
Knoxville, TN	23.1	21.0	23.8	22.9	21.0	21.5
Eldorado, IL	22.8	18.6	21.0	21.0	19.7	19.2
Portageville, MO (A)	20.7	18.9	21.2	20.3	20.2	19.6
Keiser, AR	23.0	20.0	22.6	23.6	23.3	21.8
Stoneville, MS (B)	21.9	21.0	22.3	23.3	22.9	21.4
Bixby, OK	20.9	21.2	21.8	21.4	23.7	21.3
Mean	21.5	20.1	21.7	21.8	21.4	20.8
			PROTEIN PERCENTAGE			
Queenstown, MD	41.8	42.0	43.1	38.7	42.2	41.4
Warsaw, VA	44.1	42.0	44.2	38.9	40.4	42.6
Orange, VA	43.3	41.6	42.3	39.2	40.8	42.3
Knoxville, TN	42.9	40.9	43.7	39.0	40.6	41.6
Eldorado, IL	42.9	43.7	43.8	39.7	42.0	43.6
Portageville, MO (A)	42.0	43.5	42.3	38.9	41.8	42.5
Keiser, AR	41.8	40.6	41.4	36.3	38.1	40.1
Stoneville, MS (B)	42.9	41.3	42.5	37.9	41.4	42.9
Bixby, OK	41.6	40.3	42.0	38.2	38.3	41.3
Mean	42.6	41.8	42.8	38.5	40.6	42.0
			GRAMS PER 100 SEEDS			
Queenstown, MD	21.1	11.7	18.7	14.8	15.0	14.0
Warsaw, VA	23.2	11.6	21.4	16.1	15.2	14.2
Orange, VA	22.4	12.1	19.2	17.1	14.3	14.4
Knoxville, TN	18.5	13.2	16.6	16.2	13.8	14.8
Eldorado, IL	12.0	9.8	13.1	12.3	9.8	10.1
Portageville, MO (A)	17.6	13.0	17.4	14.2	14.4	12.7
Keiser, AR	19.9	13.2	16.9	14.0	13.5	14.0
Stoneville, MS (B)	17.2	10.7	15.2	13.5	14.8	13.1
Pittsburg, KS	17.7	10.5	17.7	14.7	11.5	12.0
Bixby, OK	12.0	11.6	13.6	14.2	12.2	12.1
Mean	18.2	11.7	17.0	14.7	13.5	13.1

Table 3 - (continued)

Location	K1103	LS79-338	LS79-1914	S82-1443	V80-2476	V81-942
			OIL PERCENTAGE			
Queenstown, MD	20.3	19.8	19.8	20.7	21.4	20.9
Warsaw, VA	20.9	20.9	20.4	21.5	22.1	20.6
Orange, VA	20.3	20.2	19.6	20.4	22.1	20.6
Knoxville, TN	21.9	22.8	21.8	22.7	23.5	21.0
Eldorado, IL	19.9	20.0	19.7	20.7	20.9	19.4
Portageville, MO (A)	19.8	20.3	20.2	21.0	21.1	19.5
Keiser, AR	22.1	22.2	21.7	24.8	23.7	21.6
Stoneville, MS (B)	21.0	23.0	22.4	23.1	23.8	21.2
Bixby, OK	22.0	22.0	21.7	22.1	22.9	21.1
Mean	20.9	21.2	20.8	21.9	22.4	20.7
			PROTEIN PERCENTAGE			
Queenstown, MD	42.5	41.1	42.0	41.8	41.6	41.2
Warsaw, VA	40.7	41.3	40.1	40.9	39.0	41.5
Orange, VA	41.5	39.9	39.1	40.9	39.1	41.5
Knoxville, TN	40.1	40.4	40.3	40.6	38.2	41.5
Eldorado, IL	42.5	42.0	41.9	42.4	41.5	43.4
Portageville, MO (A)	41.2	42.1	40.5	41.0	40.9	41.6
Keiser, AR	39.7	39.3	39.4	37.3	37.3	40.4
Stoneville, MS (B)	42.0	42.0	40.6	40.3	40.1	42.8
Bixby, OK	38.9	39.4	39.9	41.1	39.5	42.0
Mean	41.0	40.8	40.4	40.7	39.7	41.8
			GRAMS PER 100 SEEDS			
Queenstown, MD	12.7	12.0	12.6	17.0	13.4	14.8
Warsaw, VA	12.3	12.4	12.2	18.6	12.7	15.8
Orange, VA	13.4	13.2	13.3	21.2	14.5	15.1
Knoxville, TN	13.2	13.4	13.9	19.4	14.9	15.1
Eldorado, IL	9.7	10.7	10.0	15.2	9.0	11.6
Portageville, MO (A)	12.1	12.8	12.4	19.8	13.3	14.6
Keiser, AR	12.5	12.7	13.4	16.8	13.1	16.2
Stoneville, MS (B)	12.1	11.0	12.3	15.7	12.7	13.6
Pittsburg, KS	11.1	11.9	12.6	18.0	11.9	11.8
Bixby, OK	12.3	11.7	13.0	17.2	11.2	12.9
Mean	12.1	12.2	12.6	17.9	12.7	14.2

Table 4 - Relative maturity data, days earlier (-) or later (+) than Douglas, for the strains in Uniform Group IV-S, 1985

Location	Date planted	Douglas	Pershing	Ky79-0237	S79-4259	V74-315
			EAST COAST			
Queenstown, MD	6-3	10-9	+1	0	-2	+1
Warsaw, VA	5-30	10-6	+7	+8	+4	+7
Mean	6-2	10-8	+4	+4	+1	+4
			UPPER AND CENTRAL SOUTH			
Orange, VA	6-5	10-10	+5	-1	+5	+8
Knoxville, TN	4-29	9-17	+5	+2	+3	+6
Eldorado, IL	5-8	9-19	+17	+6	+17	+14
Carbondale, IL	5-31	10-8	+4	-1	+5	+4
Princeton, KY	5-17	10-9	+1	+1	+2	+3
Martin, TN	5-29	10-5	-3	+3	-3	-1
Mean	5-20	10-1	+5	+2	+5	+6
			DELTA			
Portageville, MO (A)	5-20	9-24	+12	+4	+8	+9
Portageville, MO (B)	5-21	9-28	+9	+6	+7	+5
Keiser, AR	5-16	9-18	+11	+2	+6	+9
Jonesboro, AR	5-17	9-21	+2	+3	+5	+2
Pine Tree, AR	6-7	9-25	+3	0	+4	+1
Stoneville, MS (B)	5-7	9-14	+7	-1	+5	0
Mean	5-20	9-22	+7	+2	+6	+4
			WEST			
Lubbock, TX	6-1	10-3	+20	-1	+1	+7
Clovis, NM	5-8	9-19	+25	+6	+8	+13
Mean	5-20	9-27	+23	+3	+5	+10

Table 4 - (continued)

Location	K1099	K1103	LS79-338	LS79-1914	S82-1443	V80-2476	V81-942
			EAST COAST				
Queenstown, MD	+2	+3	+1	-1	+3	-1	0
Warsaw, VA	+6	+6	+5	+4	+6	+4	+4
Mean	+4	+5	+3	+2	+5	+2	+2
			UPPER AND CENTRAL SOUTH				
Orange, VA	+5	+5	+7	+6	+8	+8	+4
Knoxville, TN	+2	+4	+4	+4	+4	+6	-2
Eldorado, IL	+14	+15	+20	+15	+17	+12	+11
Carbondale, IL	+1	+1	+5	+1	+5	+3	+1
Princeton, KY	0	+2	+1	-2	+2	0	-3
Martin, TN	-2	-3	-2	-2	-2	-3	+3
Mean	+3	+4	+6	+4	+6	+4	+2
			DELTA				
Portageville, MO (A)	+9	+12	+8	+7	+9	+6	+1
Portageville, MO (B)	+7	+8	+8	+7	+8	+6	-2
Keiser, AR	+11	+12	+7	+8	+6	+5	0
Jonesboro, AR	+4	0	+2	+3	+4	-4	-3
Pine Tree, AR	+5	0	+2	+2	+3	-3	-6
Stoneville, MS (B)	+4	+5	+4	+5	+5	-2	-4
Mean	+7	+6	+5	+5	+6	+1	-2
			WEST				
Lubbock, TX	+7	+8	+9	+6	+10	+3	+1
Clovis, NM	+19	+18	+19	+19	+19	+18	+13
Mean	+13	+13	+14	+13	+15	+11	+7

Table 5 - Plant height for the strains in Uniform Group IV-S, 1985

Location	Douglas	Pershing	Ky79-0237	S79-4259	V74-315	K1099
			EAST COAST			
Queenstown, MD	32	27	36	38	35	25
Warsaw, VA	23	25	29	39	27	21
Mean	28	26	33	38	31	23
			UPPER AND CENTRAL SOUTH			
Orange, VA	36	36	41	54	42	35
Knoxville, TN	23	22	27	39	20	21
Eldorado, IL	20	21	30	48	18	19
Carbondale, IL	37	36	39	48	39	30
Princeton, KY	34	29	40	47	28	25
Martin, TN	31	28	32	45	34	25
Mean	29	29	35	47	30	26
			DELTA			
Portageville, MO (A)	30	29	34	41	32	27
Portageville, MO (B)	20	25	26	37	18	18
Keiser, AR	24	23	29	41	19	19
Jonesboro, AR	34	27	40	48	31	31
Pine Tree, AR	23	21	27	37	19	16
Stoneville, MS (B)	17	12	19	33	11	11
Mean	25	23	29	40	22	20
			WEST			
Manhattan, KS	42	38	42	50	42	34
Ottawa, KS	34	30	38	40	33	27
Pittsburg, KS	38	33	41	47	39	29
Bixby, OK	36	28	39	47	32	26
Bushland, TX	28	26	31	41	28	25
Lubbock, TX	26	25	27	36	30	22
Clovis, NM	27	25	29	35	29	23
Mean	33	29	35	42	33	27

Table 5 - (continued)

Location	K1103	LS79-338	LS79-1914	S82-1443	V80-2476	V81-942
			EAST COAST			
Queenstown, MD	28	38	38	38	37	29
Warsaw, VA	21	33	34	30	29	23
Mean	25	36	36	34	33	25
			UPPER AND CENTRAL SOUTH			
Orange, VA	34	51	44	41	42	37
Knoxville, TN	18	26	28	30	24	23
Eldorado, IL	17	24	28	30	23	21
Carbondale, IL	30	44	41	38	38	33
Princeton, KY	26	32	33	34	29	26
Martin, TN	26	36	38	38	35	30
Mean	25	36	35	35	32	28
			DELTA			
Portageville, MO (A)	23	35	40	33	34	27
Portageville, MO (B)	20	24	31	29	24	23
Keiser, AR	17	23	23	29	23	20
Jonesboro, AR	22	37	36	40	35	24
Pine Tree, AR	16	25	24	29	23	17
Stoneville, MS (B)	9	15	14	17	13	11
Mean	18	27	28	30	25	20
			WEST			
Manhattan, KS	35	43	42	46	39	36
Ottawa, KS	27	35	34	35	33	29
Pittsburg, KS	30	38	39	44	39	33
Bixby, OK	26	39	37	41	35	27
Bushland, TX	23	29	32	33	27	24
Lubbock, TX	23	32	29	30	27	24
Clovis, NM	22	28	29	30	27	23
Mean	27	35	35	37	32	28

Table 6 - Lodging scores for the strains in Uniform Group IV-S, 1985

Location	Douglas	Pershing	Ky79-0237	S79-4259	V74-315	K1099
			EAST COAST			
Queenstown, MD	1.3	2.0	1.5	2.2	2.7	2.2
Warsaw, VA	1.0	1.2	1.0	1.5	1.1	1.0
			UPPER AND CENTRAL SOUTH			
Orange, VA	1.0	2.3	1.0	3.0	3.0	4.0
Knoxville, TN	1.7	1.5	1.5	2.8	1.5	1.8
Eldorado, IL	1.0	1.0	1.0	1.5	1.0	1.0
Carbondale, IL	1.0	1.0	1.0	2.7	1.3	1.3
Princeton, KY	1.3	1.0	1.3	4.0	1.7	1.0
Martin, TN	1.0	1.0	1.0	2.0	1.0	1.0
			DELTA			
Portageville, MO (A)	1.0	1.0	1.0	1.5	1.0	1.0
Portageville, MO (B)	1.0	1.0	1.0	1.5	1.0	1.0
Keiser, AR	1.0	1.0	1.0	3.0	1.0	1.0
Jonesboro, AR	2.3	1.0	1.7	2.0	1.3	1.0
Pine Tree, AR	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, MS (B)	1.3	2.0	1.0	2.3	1.7	1.7
			WEST			
Manhattan, KS	2.0	1.3	1.3	2.0	2.0	2.3
Ottawa, KS	1.0	1.0	1.0	2.0	1.3	1.0
Pittsburg, KS	3.0	3.7	2.3	4.3	3.3	2.0
Bixby, OK	1.0	1.0	1.0	2.0	1.0	1.0
Bushland, TX	1.5	1.2	1.2	2.5	1.2	1.2
Lubbock, TX	1.8	2.5	3.3	2.5	2.0	3.0
Clovis, NM	1.0	1.0	1.3	2.0	1.0	1.0

Table 6 - (continued)

Location	K1103	LS79-338	LS79-1914	S82-1443	V80-2476	V81-942
			EAST COAST			
Queenstown, MD	1.7	2.5	2.3	2.7	2.7	2.0
Warsaw, VA	1.0	1.3	1.4	1.6	1.2	1.0
			UPPER AND CENTRAL SOUTH			
Orange, VA	2.0	3.3	3.3	4.3	3.3	1.3
Knoxville, TN	1.5	2.2	2.8	2.2	1.8	1.5
Eldorado, IL	1.0	1.1	1.1	1.2	1.0	1.0
Carbondale, IL	1.0	3.0	1.7	2.0	3.3	1.0
Princeton, KY	1.0	1.0	1.0	2.3	3.0	1.0
Martin, TN	1.0	1.0	1.0	1.0	1.0	1.0
			DELTA			
Portageville, MO (A)	1.0	1.5	1.5	1.5	2.0	1.0
Portageville, MO (B)	1.0	1.0	1.0	1.0	1.0	1.0
Keiser, AR	1.0	1.0	1.0	1.0	1.0	1.0
Jonesboro, AR	1.0	1.0	1.3	3.0	2.3	1.0
Pine Tree, AR	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, MS (B)	1.7	1.7	1.7	1.7	2.0	1.3
			WEST			
Manhattan, KS	1.3	3.7	3.0	3.0	3.7	2.0
Ottawa, KS	1.0	1.7	1.7	2.0	1.7	1.3
Pittsburg, KS	1.3	4.7	4.0	4.0	4.7	2.3
Bixby, OK	1.0	1.0	1.0	2.0	2.0	1.0
Bushland, TX	1.0	1.5	1.5	1.5	1.5	1.0
Lubbock, TX	2.7	2.0	1.7	2.0	3.5	2.8
Clovis, NM	1.0	1.6	1.0	1.6	1.0	1.3

Table 7 - Seed quality scores for the strains in Uniform Group IV-S, 1985

Location	Douglas	Pershing	Ky79-0237	S79-4259	V74-315	K1099
			EAST COAST			
Queenstown, MD	4.0	2.0	3.0	2.7	2.7	1.8
Warsaw, VA	3.5	1.5	3.2	1.7	1.5	1.5
			UPPER AND CENTRAL SOUTH			
Orange, VA	2.3	1.5	2.0	2.0	1.7	1.5
Knoxville, TN	4.0	1.0	4.0	1.0	1.0	1.0
Eldorado, IL	4.3	2.5	4.8	3.0	2.3	3.0
Carbondale, IL	3.0	2.0	3.0	3.0	1.0	1.0
Princeton, KY	4.0	2.0	3.0	3.0	2.0	2.0
Martin, TN	3.7	1.7	3.3	2.7	2.0	2.0
			DELTA			
Portageville, MO (A)	3.0	2.0	3.0	2.0	2.0	2.0
Portageville, MO (B)	4.0	2.0	3.0	2.0	2.0	2.0
Keiser, AR	2.5	1.5	2.0	1.5	2.0	2.0
Jonesboro, AR	3.7	1.3	2.0	1.3	1.3	1.7
Pine Tree, AR	2.0	1.3	1.3	1.7	1.3	1.7
Stoneville, MS (B)	3.7	2.0	2.0	2.0	2.0	2.0
			WEST			
Manhattan, KS	2.0	1.5	2.0	2.5	1.5	1.5
Ottawa, KS	2.0	1.5	2.0	1.5	2.0	2.0
Pittsburg, KS	5.0	4.0	4.5	3.5	3.5	4.5
Bushland, TX	2.7	1.5	2.0	2.5	1.5	1.0
Lubbock, TX	3.8	1.7	3.0	2.7	2.1	1.3

Table 7 - (continued)

Location	K1103	LS79-338	LS79-1914	S82-1443	V80-2476	V81-942
			EAST COAST			
Queenstown, MD	2.0	2.7	2.5	2.3	2.2	2.2
Warsaw, VA	1.2	1.8	1.8	1.8	1.5	1.2
			UPPER AND CENTRAL SOUTH			
Orange, VA	1.5	2.0	2.0	2.3	1.5	1.5
Knoxville, TN	1.0	1.0	1.0	1.0	1.0	1.0
Eldorado, IL	2.0	2.3	3.7	2.3	2.7	3.8
Carbondale, IL	2.0	1.0	2.0	3.0	3.0	1.0
Princeton, KY	2.0	2.0	3.0	2.0	4.0	2.0
Martin, TN	1.7	2.0	2.0	2.3	2.3	3.0
			DELTA			
Portageville, MO (A)	2.0	2.0	2.0	2.0	2.0	2.0
Portageville, MO (B)	2.0	2.0	2.0	3.0	2.0	2.0
Keiser, AR	1.5	1.5	1.5	1.5	1.5	1.0
Jonesboro, AR	1.0	2.0	1.0	1.0	1.7	1.7
Pine Tree, AR	1.0	1.7	1.7	1.0	1.0	1.0
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
			WEST			
Manhattan, KS	2.0	2.5	3.0	2.0	2.0	2.0
Ottawa, KS	2.0	2.0	2.0	2.0	1.5	2.0
Pittsburg, KS	4.0	4.0	4.0	3.0	3.5	4.5
Bushland, TX	1.1	1.2	2.5	1.5	1.5	2.2
Lubbock, TX	1.3	2.0	2.7	1.5	2.0	2.5

PRELIMINARY GROUP IV-S

1985

The Preliminary IV-S nurseries which included Douglas and Pershing along with 34 experimental strains, were grown at 8 locations. The parentage of each of these strains is reported in Table 8. A general summary of performance is given in Table 9 including reaction to races 3 and 4 of the soybean cyst nematode. Data from the individual locations are reported in Tables 10 through 14.

Pershing averaged 7 days later in maturity than Douglas, and had a mean seed yield 5.8 bushels per acre greater. Two strains, K1120 and K1121, were too late in maturity to be classified as Maturity Group IV.

All except one strain ranked above Douglas in seed yield. There were 9 strains having a mean seed yield above that for Pershing. There were 21 strains having resistance to one or more races of the soybean cyst nematode. Strains, D83-3338 through D83-3388, were rated susceptible to SCN race 4. These strains were selected for resistance to SCN race 5. The strains having this genetic background will be rated susceptible to SCN race 4 by the standard greenhouse techniques, but have a slower rate of reproduction for SCN race 4 in the field, and may give adequate protection.

Several of the strains included in this group appear to have greater potential than strains being evaluated in Uniform Group IV-S. Strains which appear to merit advance to Uniform IV-S are D83-2886, D83-3349, D83-3388, LS82-W1206, S81-2203, S82-1111, Tn83-7, and V81-141.

Table 8 - Parentage of the strains grown in Preliminary Group IV-S, 1985

	Variety or strain	Parentage	Generation composited
1.	Douglas	Williams X Calland	F_5
2.	Pershing	D67-3297 X Essex	F_4
3.	D83-11	Epps X sel [D78-3036 X sel (Forrest X sel (Peking X Centennial))]	F_4
4.	D83-27	Epps X sel [D78-3036 X sel (Forrest X sel (Peking X Centennial))]	F_4
5.	D83-2846	D65-2262 X Forrest	F_5
6.	D83-2862	D65-2262 X Forrest	F_5
7.	D83-2886	D65-2262 X Forrest	F_5
8.	D83-3338	Bedford X sel [Forrest X sel (Peking X Centennial)]	F_5
9.	D83-3349	Bedford X sel [Forrest X sel (Peking X Centennial)]	F_5
10.	D83-3362	Bedford X sel [Forrest X sel (Peking X Centennial)]	F_5
11.	D83-3384	Bedford X sel [Forrest X sel (Peking X Centennial)]	F_5
12.	D83-3388	Bedford X sel [Forrest X sel (Peking X Centennial)]	F_5
13.	K1120	K74-115-76-754 X Essex	F_5
14.	K1121	Crawford X Ransom	F_5
15.	Ky82-0132	Agropro 25 X A73-25050	F_5
16.	Ky82-0772	Desoto X Essex	F_7
17.	LS80-B3434	Forrest X V71-480	F_5
18.	LS80-B3912	Forrest X J74-5	F_5
19.	LS82-W1206	Forrest X V71-480	F_5
20.	S81-2203	Crawford X J74-67-7	F_5
21.	S82-1044	Cumberland X Forrest	F_5
22.	S82-1104	L75-8064 X Essex	F_5
23.	S82-1111	L75-8064 X Forrest	F_5
24.	S83-1004	Crawford X Forrest	F_5
25.	Tn81-144	Bedford X Crawford	F_5
26.	Tn83-6	Bedford X Crawford	F_7
27.	Tn83-7	Bedford X Crawford	F_7
28.	Tn83-10	Centennial X Franklin	F_6
29.	Tn83-65	Forrest X Douglas	F_5
30.	Tn83-67	J74-45 X Mitchell	F_5
31.	V80-3220	Essex X SRF400	F_5
32.	V81-141	Essex X V71-793	F_5
33.	V81-146	Essex X V71-793	F_5
34.	V81-173	Essex X V71-793	F_5
35.	V81-2788	V67-1370 X Bay	F_5
36.	V82-1272	Hodgson X Essex	F_7

Table 9 - General summary of performance for the strains grown in Preliminary Group IV-S, 1985

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	Shattering	M. arenaria	SCN race 3	SCN race 4	Soybean looper
Douglas	34.9	9-29	27	21.3	41.8	1.0	4.0	S	S	4.5
Pershing	40.7	+7	26	19.5	42.5	2.0	5.0	S	S	4.0
D83-11	34.2	+1	19	19.2	44.4	2.0	*h	R	S	4.5
D83-27	35.5	+2	26	20.0	43.0	1.0	-	R	S	4.5
D83-2846	38.2	+6	29	19.9	41.9	1.0	1.5	R	S	4.0
D83-2862	39.6	+8	34	18.7	43.6	1.0	3.5	R	S	3.5
D83-2886	42.1+	+8	31	19.9	40.5	1.0	3.0	R	S	4.0
D83-3338	33.8	+1	22	19.8	41.7	2.5	5.0	R	S	3.5
D83-3349	43.6+	+4	31	19.9	43.1	2.0	-	R	S	3.5
D83-3362	36.2	+3	26	20.2	42.4	2.0	-	R	S	4.0
D83-3384	38.3	+3	30	19.2	43.1	2.0	2.0	R	S	4.0
D83-3388	40.9	+7	30	19.8	42.6	1.0	2.0	R	S	5.0
K1120	41.9+	+12	33	20.2	43.7	1.0	3.0	S	S	3.5
K1121	38.2	+11	40	21.5	41.8	1.0	5.0	S	S	4.0
Ky82-0132	36.7	0	30	22.5	41.3	3.0	3.5	S	S	4.0
Ky82-0772	37.4	0	29	21.4	41.4	1.0	5.0	S	S	4.0
LS80-B3434	40.1	+5	29	20.6	40.7	2.0	2.3	S	S	4.0
LS80-B3912	35.4	+2	26	20.7	39.9	1.0	3.2	R	S	4.0
LS82-W1206	41.4	+4	28	21.0	41.7	1.0	3.0	R	S	4.0
S81-2203	41.2	0	32	21.6	43.2	2.0	*h	R	R	4.5
S82-1044	40.6	+5	33	20.8	42.8	2.0	3.0	R	S	4.5
S82-1104	38.9	+2	35	20.8	41.5	1.0	2.7	R	S	4.5
S82-1111	43.0+	+3	35	21.4	41.4	2.0	1.5	R	S	5.0
S83-1004	38.7	0	31	21.1	42.5	2.0	1.5	R	S	4.5
Tn81-144	39.6	+1	40	19.5	43.5	1.0	1.5	S	S	4.0
Tn83-6	43.6+	+1	39	22.1	41.3	1.0	2.5	R	R	5.0
Tn83-7	44.3+	+1	38	22.0	41.9	1.0	2.5	R	R	4.0
Tn83-10	39.6	+3	37	20.5	42.9	1.0	2.8	R	S	5.0
Tn83-65	40.7	+2	35	20.9	42.3	2.0	2.8	S	S	4.5
Tn83-67	38.6	-1	35	20.8	41.3	3.0	2.5	R	R	4.0
V80-3220	37.9	-1	31	21.3	41.5	1.0	4.0	S	S	5.0
V81-141	42.0+	+4	34	20.7	43.3	2.0	4.0	S	S	3.5
V81-146	38.6	+2	33	20.5	43.6	2.0	4.5	S	S	3.5
V81-173	38.4	+6	37	20.5	43.6	2.0	4.5	S	S	3.0
V81-2788	39.5	+12	41	21.3	40.5	1.0	5.0	S	S	4.0
V82-1272	36.2	0	21	22.7	39.1	1.0	4.5	S	S	4.0
L.S.D.(.05)	6.6			.7	1.2					

+ or - designations refer to differences from Douglas.
* Variable

Table 10 - Seed yield, in bushels per acre, for the strains grown in Preliminary Group IV-S, 1985

Strain	Queens-town, MD	Warsaw, VA	Portage-ville, MO (A)	Keiser AR	Stone-ville, MS (B)	Ottawa, KS	Prince-ton, KY	Tipton-ville, TN
Douglas	39.0	36.6	32.1	43.3	13.0	41.0	53.4	20.7
Pershing	45.2+	41.3+	30.7	58.7+	24.2+	35.9	56.6	32.8+
D83-11	44.9+	37.1	30.5	35.4	7.8	40.9	56.2	20.7
D83-27	42.5	34.1	34.9	43.5	14.0	35.1-	51.1	28.6+
D83-2846	43.3	38.3	33.7	51.0	29.5+	32.0-	53.2	24.8+
D83-2862	41.7	38.5	36.5	63.4+	29.6+	30.8-	46.9	29.3+
D83-2886	49.8+	43.4+	32.7	60.5+	32.7+	35.0-	53.2	29.8+
D83-3338	41.9	38.8	27.3	38.1	13.4	35.8	49.0	26.3+
D83-3349	42.5	42.7+	43.2+	62.9+	24.2+	41.5	56.4	35.4+
D83-3362	43.1	38.9	30.4	39.7	18.3	38.1	50.6	30.2+
D83-3384	43.9	41.7+	38.2	47.7	12.1	34.6-	53.5	34.5+
D83-3388	42.6	42.8+	33.1	53.1+	42.8+	33.8-	47.3	31.5+
K1120	42.1	38.6	40.6	59.1+	30.8+	34.1-	58.4	31.6+
K1121	40.6	43.1+	33.9	52.0	28.6+	29.8-	48.1	29.2+
Ky82-0132	50.2+	44.0+	17.4-	44.6	10.5	46.3	51.2	29.0+
Ky82-0772	50.1+	42.0+	21.1-	49.0	11.2	43.9	55.4	26.1+
LS80-B3434	42.1	38.7	32.8	49.2	24.3+	33.3-	64.3+	36.0+
LS80-B3912	44.9+	40.0	28.3	42.6	10.7	36.7	51.6	28.4+
LS82-W1206	43.6	47.2+	37.2	53.9+	18.9	41.7	56.5	32.4+
S81-2203	45.3+	37.1	39.2	54.0+	21.2	42.3	54.0	36.8+
S82-1044	45.8+	34.6	32.6	60.2+	23.2+	40.4	59.7	28.4+
S82-1104	46.0+	42.1+	30.3	55.7+	23.3+	34.1-	49.4	30.0+
S82-1111	43.6	45.6+	43.5+	56.3+	31.4+	40.3	54.9	28.0+
S83-1004	44.1	35.6	39.7	48.5	16.9	40.5	56.5	28.1+
Tn81-144	46.8+	41.8+	32.7	53.7+	25.3+	33.1-	53.0	30.1+
Tn83-6	48.0+	42.4+	34.4	56.3+	34.6+	40.3	52.2	40.5+
Tn83-7	51.6+	43.4+	37.9	61.1+	26.4+	40.8	54.0	39.0+
Tn83-10	45.7+	36.8	41.1+	51.6	32.7+	31.0-	46.4	31.4+
Tn83-65	45.3+	41.7+	29.5	62.4+	19.6	40.3	56.1	30.7+
Tn83-67	45.9+	37.7	34.3	50.8	25.3+	35.1-	48.9	30.7+
V80-3220	49.4+	41.0	24.0	49.0	14.7	48.1+	53.9	22.9
V81-141	48.4+	49.9+	38.1	57.4+	22.1+	38.2	47.8	34.2+
V81-146	43.6	45.7+	25.0	56.6+	23.8+	35.8	47.8	30.3+
V81-173	46.9+	43.7+	30.7	61.9+	18.8	29.8-	42.2-	33.0+
V81-2788	46.7+	43.0+	32.9	58.7+	25.5+	35.3-	44.2-	29.6+
V82-1272	49.4+	38.9	22.4-	38.3	14.4	48.1+	58.3	20.0
L.S.D.(.05)	5.6	4.6	8.5	9.0	8.6	5.4	7.2	3.9
C.V.	6%	6%	13%	8%	19%	7%	7%	6%

Table 11 - Oil percentages for the strains in Preliminary Group IV-S, 1985

Strain	Queenstown, MD	Warsaw, VA	Portageville, MO (A)	Princeton, KY
Douglas	21.4	20.6	22.1	21.1
Pershing	19.6	19.1	20.3	19.1
D83-11	18.7	18.9	20.6	18.7
D83-27	20.6	19.4	20.2	19.6
D83-2846	20.1	19.5	21.0	19.0
D83-2862	18.7	18.8	19.3	17.9
D83-2886	19.9	19.8	20.5	19.5
D83-3338	19.6	20.3	20.6	18.8
D83-3349	19.2	19.9	20.6	19.9
D83-3362	19.3	20.5	20.9	20.1
D83-3384	18.3	20.2	19.7	18.6
D83-3388	19.1	20.7	20.2	19.2
K1120	19.9	20.1	21.0	19.7
K1121	21.4	22.0	22.5	20.1
Ky82-0132	21.8	22.6	24.1	21.3
Ky82-0772	21.8	21.1	22.0	20.5
LS80-B3434	19.8	21.0	21.6	19.9
LS80-B3912	20.4	21.0	21.7	19.6
LS82-W1206	21.1	20.9	21.9	19.9
S81-2203	21.3	21.1	23.5	20.6
S82-1044	20.7	20.9	21.4	20.0
S82-1104	21.6	20.7	21.2	19.6
S82-1111	21.6	21.8	22.3	20.0
S83-1004	21.3	21.5	21.6	19.9
Tn81-144	19.6	19.5	19.9	18.8
Tn83-6	22.4	21.7	23.7	20.7
Tn83-7	22.2	21.3	23.2	21.3
Tn83-10	20.1	20.0	21.8	19.9
Tn83-65	20.8	21.5	21.6	19.6
Tn83-67	21.5	20.9	21.1	19.7
V80-3220	21.7	20.6	22.5	20.4
V81-141	20.4	21.0	20.9	20.5
V81-146	20.7	20.4	20.9	19.8
V81-173	20.8	20.4	21.1	19.8
V81-2788	21.6	21.3	22.1	20.1
V82-1272	22.9	22.9	22.9	22.2

Table 12 - Protein percentages for the strains in Preliminary Group IV-S, 1985

Strain	Queenstown, MD	Warsaw, VA	Portageville, MO (A)	Princeton, KY
Douglas	41.8	42.9	39.9	42.6
Pershing	41.5	42.7	42.4	43.3
D83-11	44.5	44.4	42.2	46.3
D83-27	41.8	43.9	41.7	44.4
D83-2846	41.2	42.1	41.0	43.4
D83-2862	43.9	43.5	42.6	44.2
D83-2886	40.9	40.6	39.3	41.3
D83-3338	41.4	41.6	40.6	43.1
D83-3349	43.6	42.8	43.0	43.1
D83-3362	43.3	42.0	41.6	42.6
D83-3384	43.5	42.3	42.3	44.1
D83-3388	42.9	42.0	42.4	43.0
K1120	44.5	43.8	43.1	43.3
K1121	41.8	40.9	41.4	43.0
Ky82-0132	40.6	41.6	38.7	44.3
Ky82-0772	41.9	41.8	39.3	42.7
LS80-B3434	41.4	40.6	39.5	41.3
LS80-B3912	41.4	40.2	37.0	40.9
LS82-W1206	41.5	41.4	40.4	43.5
S81-2203	43.8	44.5	39.8	44.7
S82-1044	42.0	43.4	41.5	44.2
S82-1104	40.8	41.5	40.0	43.6
S82-1111	40.0	41.7	40.7	43.3
S83-1004	42.7	43.3	40.0	43.9
Tn81-144	43.1	43.3	41.9	45.6
Tn83-6	40.0	42.2	39.7	43.1
Tn83-7	41.6	42.1	39.9	43.8
Tn83-10	43.0	43.2	40.8	44.6
Tn83-65	41.5	41.9	41.4	44.3
Tn83-67	39.4	41.5	40.2	44.0
V80-3220	41.0	42.3	39.2	43.5
V81-141	43.3	43.2	42.6	44.2
V81-146	43.6	43.3	41.7	45.9
V81-173	43.4	43.5	42.4	45.1
V81-2788	38.7	40.4	40.6	42.2
V82-1272	38.1	39.8	38.4	40.1

Table 13 - Plant height for the strains in Preliminary Group IV-S, 1985

Strain	Queens-town, MD	Warsaw, VA	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (B)	Ottawa, KS	Prince-ton, KY
Douglas	28	22	30	24	16	37	33
Pershing	26	25	30	25	11	33	30
D83-11	29	18	16	13	8	29	19
D83-27	31	22	32	25	13	35	25
D83-2846	35	30	30	25	14	37	34
D83-2862	41	32	36	31	17	42	37
D83-2886	39	30	32	28	15	40	34
D83-3338	29	22	17	19	10	33	27
D83-3349	35	32	34	22	16	39	38
D83-3362	34	28	23	19	13	32	34
D83-3384	37	29	33	25	13	39	36
D83-3388	38	29	31	27	16	34	35
K1120	39	32	37	30	18	40	38
K1121	35	34	45	42	34	46	46
Ky82-0132	32	26	33	31	16	36	36
Ky82-0772	29	26	30	28	17	35	37
LS80-B3434	33	30	34	21	16	35	37
LS80-B3912	34	26	30	23	10	33	29
LS82-W1206	35	29	30	20	14	33	32
S81-2203	30	26	34	32	22	37	42
S82-1044	41	24	40	28	20	35	41
S82-1104	29	30	44	34	20	46	43
S82-1111	33	29	46	32	26	38	44
S83-1004	30	26	38	28	21	37	40
Tn81-144	42	36	45	34	26	46	50
Tn83-6	35	33	48	38	28	42	46
Tn83-7	39	32	45	38	27	42	46
Tn83-10	38	33	40	31	26	44	44
Tn83-65	37	29	39	30	21	41	46
Tn83-67	36	30	43	32	23	42	42
V80-3220	34	27	35	28	19	36	35
V81-141	37	29	43	33	24	34	36
V81-146	35	27	36	33	22	39	40
V81-173	39	30	40	37	26	42	42
V81-2788	40	34	46	41	31	46	47
V82-1272	29	21	15	14	16	28	22

Table 14 - Seed quality scores for the strains in Preliminary Group IV-S, 1985

Strain	Queens-town, MD	Warsaw, VA	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (B)	Ottawa, KS	Prince-ton, KY
Douglas	4.0	2.3	2.0	1.5	3.5	2.0	5.0
Pershing	1.5	1.2	2.0	2.0	2.0	2.0	2.0
D83-11	2.0	2.2	2.0	2.0	3.0	2.0	4.0
D83-27	2.7	2.5	2.0	2.0	2.0	2.0	5.0
D83-2846	1.7	1.0	2.0	1.0	2.0	2.0	2.0
D83-2862	2.0	1.3	2.0	2.5	2.0	2.5	2.0
D83-2886	1.7	1.5	2.0	1.5	2.0	2.0	3.0
D83-3338	2.2	1.0	2.0	1.5	2.0	2.0	3.0
D83-3349	2.5	1.8	2.0	2.0	3.0	2.0	3.0
D83-3362	2.7	1.5	2.0	1.5	2.5	2.5	2.0
D83-3384	2.5	1.2	1.0	2.5	2.5	3.5	2.0
D83-3388	3.0	3.0	2.0	2.5	2.0	2.0	3.0
K1120	1.5	2.0	2.0	2.0	2.0	2.5	2.0
K1121	2.5	1.8	2.0	2.5	2.0	2.5	3.0
Ky82-0132	2.7	1.5	3.0	2.0	2.5	2.0	4.0
Ky82-0772	3.5	2.5	3.0	2.0	3.0	2.0	4.0
LS80-B3434	3.0	1.3	2.0	1.5	2.0	2.0	2.0
LS80-B3912	2.2	1.0	2.0	1.5	2.5	2.5	2.0
LS82-W1206	2.5	2.8	2.0	3.0	2.0	3.0	2.0
S81-2203	3.0	2.5	2.0	2.5	3.0	2.5	5.0
S82-1044	3.2	1.3	2.0	2.0	2.5	2.0	2.0
S82-1104	1.7	2.2	2.0	2.0	3.0	3.0	3.0
S82-1111	2.5	1.8	2.0	2.0	4.5	3.0	4.0
S83-1004	2.0	1.4	3.0	3.5	2.0	2.0	5.0
Tn81-144	2.7	1.8	2.0	2.5	2.0	2.0	4.0
Tn83-6	2.5	1.8	2.0	2.0	2.0	1.5	3.0
Tn83-7	1.7	2.2	2.0	2.5	2.0	2.0	3.0
Tn83-10	2.2	1.3	2.0	2.0	3.0	2.0	3.0
Tn83-65	2.0	1.3	2.0	2.5	2.5	2.5	3.0
Tn83-67	2.5	1.4	2.0	2.0	3.0	2.0	3.0
V80-3220	1.7	1.0	2.0	1.5	3.0	2.0	4.0
V81-141	1.7	2.0	2.0	2.5	3.0	2.0	2.0
V81-146	1.7	2.0	2.0	2.0	2.0	2.0	3.0
V81-173	1.5	1.8	2.0	2.0	2.5	2.0	3.0
V81-2788	2.0	2.3	2.0	3.0	2.0	2.5	4.0
V82-1272	2.2	2.0	2.0	3.5	2.0	2.0	4.0

UNIFORM GROUP V

1985

	Variety or strain	Parentage	Generation composited
1.	Essex	Lee X S5-7075	F_5
2.	Forrest	Dyer X Bragg	F_5
3.	Epps	[Pickett 71(2) X (Dare(2) X PI 96983)] X J74-47	F_5
4.	R76-479	Centennial X Forrest	F_5
5.	D81-7857	Bedford X (J74-45 X D74-7445)	F_5
6.	S80-2959	J74-123 X N73-520	F_5
7.	V78-184	V68-1034 X Essex	F_5
8.	V79-882	Essex X Ransom	F_5
9.	D82-3298	Bedford X sel (Forrest X D75-10169)	F_5
10.	R82-269	Centennial X Narow	F_5
11.	R82-1077	R77-0226 X Narow	F_5
12.	S81-2524	Davis X J74-122	F_5

Background of lines used as parents:

S5-7075 is a selection from N48-1248 X Perry which was grown in Uniform Group VI. N48-1248 has the same parentage as Hood.

J74-45 is a SCN race 4 resistant strain having the same parentage as Bedford.

D74-7445 is a selection from D65-3426 X D67-8423 selected for high protein and resistant to soybean mosaic virus and phytophthora rot.

J74-123 is a SCN race 4 resistant line having same parentage as Bedford.

N73-520 is a selection from Tracy X Ransom grown in Uniform Group V in 1976 and 1977.

V68-1034 is a selection from Dare X PI 71506 grown in Preliminary Group VI in 1972.

D75-10169 is a selection from Govan X sel (Bragg X PI 229358).

Plantings of strains in Uniform Group V were made at 33 locations for evaluation of seed yield and other agronomic qualities. Plantings were made near Blackville, South Carolina for evaluating strains for reaction to M. arenaria and at Jay, Florida for evaluating for reaction to M. incognita. Plantings were made in the greenhouse at Jackson, Tennessee for evaluating strains for their reaction to SCN races 3 and 4. Plantings were made in the field cage at Stoneville for evaluating reaction to feeding by soybean looper. A general summary of performance is given in Table 15. Tables 16 through 21 report data from individual locations.

Differences among strains for seed yield were significant at the 5% level of confidence at 26 of the locations. Three strains were resistant to races 3 and 4 of the soybean cyst nematode, while 5 strains were resistant to race 3. At Orange, Virginia D81-7857 had 20% mottled seed and R82-269 had 25%. Other strains had less than 1%.

D82-3298, which was selected for multiple pest resistance and is resistant to races 3 and 4 of the soybean cyst nematode, has low ratings for M. incognita and M. arenaria, and resistance to soybean looper, ranked slightly above Forrest in seed yield in Preliminary Group V nurseries in 1984. At several locations in 1985 as well as in some additional locations in Mississippi, this strain gave indications of having a nutritional problem believed to be related to zinc. Several other breeding lines having similar parentage have shown similar sensitivities.

Table 15 - General summary of performance of the strains in Uniform Group V, 1985

	No. of locations	Essex	Forrest	Epps	R76-479	D81-7857
Seed Yield - 1985						
East Coast	5	41.5	37.8	36.2	39.1	40.7
Upper & Central South	10	45.2	42.7	42.3	42.7	46.0
Delta	8	37.8	42.3	42.6	41.1	44.5
West	7	36.7	35.6	34.3	36.4	35.6
1984-85						
East Coast		41.8	39.3	36.1	39.6	40.8
Upper & Central South		43.9	41.4	40.9	43.0	43.0
Delta		40.7	44.6	42.5	44.1	45.4
West		40.9	37.8	37.6	39.1	37.8
1983-85						
East Coast		40.8	39.1	36.3	39.7	
Upper & Central South		40.2	38.9	38.1	39.2	
Delta		37.4	42.2	40.7	41.7	
West		39.1	37.6	36.7	38.6	
Oil Content - 1985		20.5	20.7	20.7	20.7	22.1
1984-85		20.3	20.5	20.2	20.6	21.8
1983-85		20.6	20.8	20.5	20.9	
Protein Content - 1985		43.4	40.9	42.2	40.5	39.9
1984-85		42.9	40.2	41.9	40.0	39.2
1983-85		42.9	40.3	41.9	40.0	
Seed size		13.8	12.2	14.0	12.3	13.7
Maturity index		10-2	+3	+3	+3	+6
Height		28	35	35	36	40
Seed quality		2.2	2.2	2.2	2.2	2.1
M. incognita		5.0	5.0	1.5	3.0	5.0
M. arenaria		5.0	3.0	5.0	3.0	3.0[h]
SCN race 3		S	R	R	R	R
SCN race 4		S	S	R	S	R
Soybean looper		3.5	3.5	3.5	3.0	3.0
Flower color		P	W	P	W	W
Pubescence color		G	T	G	T	T
Pod wall color		T	T	T	T	T

Table 15 - (continued)

	S80-2959	V78-184	V79-882	D82-3298	R82-269	R82-1077	S81-2524
Seed Yield - 1985							
East Coast	39.6	44.8	41.7	35.9	39.5	39.5	37.9
Upper & Central South	46.5	50.9	45.9	37.0	47.0	47.3	44.1
Delta	42.2	44.5	39.5	41.6	39.7	39.8	41.0
West	36.5	41.6	38.1	34.0	35.3	35.7	37.3
1984-85							
East Coast	39.6	46.5	44.4				
Upper & Central South	43.9	47.9	43.9				
Delta	42.3	45.6	42.8				
West	38.9	45.0	41.2				
1983-85							
East Coast							
Upper & Central South							
Delta							
West							
Oil Content - 1985	20.9	21.9	22.0	20.0	19.5	21.4	20.0
1984-85	20.6	21.5	21.6				
1983-85							
Protein Content - 1985	41.7	40.3	42.2	42.2	44.0	40.8	42.6
1984-85	41.3	40.3	42.1				
1983-85							
Seed size	13.8	14.8	13.6	12.8	15.3	13.7	13.1
Maturity index	+4	+4	+6	+3	+4	+2	+2
Height	36	31	32	34	33	31	32
Seed quality	1.9	1.9	2.0	2.4	2.2	2.2	2.2
M. incognita	5.0	5.0	5.0	1.0	2.0	5.0	4.0
M. arenaria	3.0	5.0	4.8	3.5	3.5	3.8	3.5[h]
SCN race 3	R	S	S	R	R	R	H
SCN race 4	S	S	S	R	S	S	S
Soybean looper	3.0	4.5	4.5	1.5	5.0	4.0	3.5
Flower color	W	W	P	W	P	P	W
Pubescence color	T	G	G	T	T	G	T
Pod wall color	T	T	T	T	T	T	T

Table 16 - Seed yield, in bushels per acre, for the strains in Uniform Group V, 1985

Location	Essex	Forrest	Epps	R76-479	D81-7857	S80-2959	V78-184
			EAST COAST				
Queenstown, MD	46.3	43.4	38.0-	43.8	42.6	45.3	48.0
Georgetown, DE	53.2	46.9-	48.5	49.9	50.1	44.1-	49.8
Warsaw, VA	35.0	32.2	32.7	33.2	35.7	35.9	39.5+
Holland, VA	36.6	31.7	33.0	34.3	40.4	38.7	45.5+
Plymouth, NC	36.5	34.8	28.6-	34.4	34.7	34.2	41.2
Mean	41.5	37.8	36.2	39.1	40.7	39.6	44.8
			UPPER AND CENTRAL SOUTH				
Orange, VA	40.5	43.4	34.5	39.3	41.8	41.3	41.2
Knoxville, TN	34.0	31.0	33.0	38.0	31.0	36.0	46.0+
Clemson, SC	36.7	40.6+	39.5	39.7	38.5	42.7+	44.8+
Calhoun, GA	52.1	28.5	32.0	33.3	55.6	47.2	55.6
Athens, GA	54.3	49.3	49.7	47.9	54.5	52.6	57.6
Belle Mina, AL	56.1	62.2+	53.4	54.4	57.1	60.8	61.5
Princeton, KY	51.1	49.2	47.5	47.8	48.6	51.6	57.2+
Tiptonville, TN	31.6	33.5	38.2	33.8	38.1	33.8	35.1
Martin, TN	53.5	52.9	51.6	54.6	57.0	55.7	60.6
Jackson, TN	41.7	36.2	43.8	38.5	39.5	43.1	49.2+
Mean	45.2	42.7	42.3	42.7	46.0	46.5	50.9
			DELTA				
Portageville, MO (A)	44.0	43.9	42.4	45.5	39.2	41.3	41.5
Portageville, MO (B)	30.6	35.8	33.1	32.4	42.3+	37.1+	37.7+
Keiser, AR	65.1	67.1	61.4	68.3	67.0	61.9	70.3
Jonesboro, AR	29.9	26.5	24.4	28.3	27.4	27.0	30.1
Pine Tree, AR	20.7	25.4	29.9+	24.5	28.2+	25.9	24.9
Stoneville, MS (A)	49.7	55.0	56.3	50.1	55.4	56.9+	55.2
Stoneville, MS (B)	30.7	40.4+	42.1+	37.7+	47.6+	42.3+	42.3+
St. Joseph, LA	31.5	44.4+	46.6+	42.1+	48.5+	45.4+	53.8+
Mean	37.8	42.3	42.6	41.1	44.5	42.2	44.5
			WEST				
Ottawa, KS	34.6	29.4-	25.5-	27.6-	24.0-	26.9-	33.4
Pittsburg, KS	23.4	20.4	15.6-	24.2	24.9	28.1	26.7
Stuttgart, AR	51.2	49.1	45.0-	46.7-	50.5	47.6	52.1
Bossier City, LA	46.7	48.7	52.6	49.0	49.4	53.5	56.8
Bixby, OK	42.7	42.0	40.0	46.6	38.2	37.5	51.3+
Lubbock, TX	35.1	36.7	33.2	35.8	36.7	35.4	37.3
Beaumont, TX	23.4	22.8	28.1	24.6	25.8	26.4	33.7+
Mean	36.7	35.6	34.3	36.4	35.6	36.5	41.6

(+) - Strains yielding significantly more (odds 19:1 or greater) than Essex.
(-) - Strains yielding significantly less (odds 19:1 or greater) than Essex.

Table 16 - (continued)

Location	V79-882	D82-3298	R82-269	R82-1077	S81-2524	L.S.D. (.05)	C.V. (%)
			EAST COAST				
Queenstown, MD	45.4	40.1-	42.3-	42.0-	40.5-	3.7	5
Georgetown, DE	53.4	50.0	48.0	42.4-	46.2-	5.8	5
Warsaw, VA	37.0	27.8-	38.9+	36.2	35.3	3.6	6
Holland, VA	38.1	27.3-	36.8	40.1	35.3	6.1	10
Plymouth, NC	34.7	34.2	31.7	36.8	32.3	5.9	10
Mean	41.7	35.9	39.5	39.5	37.9		
			UPPER AND CENTRAL SOUTH				
Orange, VA	39.0	27.2	44.1	36.2	35.2	9.5	15
Knoxville, TN	44.0+	31.0	39.0	37.0	34.0	6.4	10
Clemson, SC	36.8	38.7	38.8	41.0+	40.3+	3.2	5
Calhoun, GA	58.2	3.9	50.5	54.0	45.3	-	-
Athens, GA	50.8	42.8-	53.4	52.4	44.9-	8.4	10
Belle Mina, AL	52.1	46.4-	60.8	62.5+	55.5	6.0	6
Princeton, KY	46.1	42.3-	50.2	48.4	47.8	5.3	6
Tiptonville, TN	31.3	36.2	36.4	37.4	37.9	6.8	11
Martin, TN	59.8	56.5	53.5	56.2	54.3	8.8	9
Jackson, TN	40.7	44.8	43.5	48.2+	46.0	6.1	8
Mean	45.9	37.0	47.0	47.3	44.1		
			DELTA				
Portageville, MO (A)	31.4-	42.2	41.0	42.5	39.4	7.6	11
Portageville, MO (B)	37.1+	35.3	35.3	32.4	38.8+	5.5	9
Keiser, AR	65.4	65.1	67.7	65.0	63.8	7.9	7
Jonesboro, AR	26.8	24.7	21.6	26.2	24.3	8.8	20
Pine Tree, AR	21.3	25.6	18.9	26.0	31.7+	5.4	13
Stoneville, MS (A)	48.9	56.2	55.8	51.1	53.8	6.9	8
Stoneville, MS (B)	38.4+	38.6+	37.0+	34.5	33.5	6.2	10
St. Joseph, LA	46.7+	45.3+	40.0+	40.8+	42.4+	7.7	10
Mean	39.5	41.6	39.7	39.8	41.0		
			WEST				
Ottawa, KS	29.6-	28.3-	30.0-	29.4-	-	3.4	7
Pittsburg, KS	28.2	19.7	25.9	27.0	28.6	6.0	14
Stuttgart, AR	52.0	49.8	51.9	45.4-	46.6-	3.9	5
Bossier City, LA	50.5	42.9	40.1	49.1	48.5	N.S.	14
Bixby, OK	46.0	46.3	43.4	37.5	41.9	6.2	9
Lubbock, TX	35.4	21.7	31.5	32.7	40.5		
Beaumont, TX	25.5	29.5	24.8	29.1	25.2	8.1	18
Mean	38.1	34.0	35.3	35.7	37.3		

Table 17 - Chemical composition and seed size for the strains in Uniform Group V, 1985

Location	Essex	Forrest	Epps	R76-479	D81-7857	S80-2959
			OIL PERCENTAGE			
*Queenstown, MD	19.9	19.9	19.6	20.4	20.7	21.2
Warsaw, VA	19.7	19.4	19.4	18.9	20.7	20.5
Plymouth, NC	21.7	21.9	21.8	22.0	22.9	20.9
Orange, VA	20.1	19.9	19.7	20.5	21.9	21.0
Calhoun, GA	20.3	20.5	20.5	20.7	22.6	20.9
Jackson, TN	20.4	20.0	20.3	20.1	20.6	20.9
Portageville, MO (A)	19.8	20.1	20.8	20.0	21.7	20.3
Keiser, AR	21.3	20.7	21.4	21.8	22.9	21.2
Stoneville, MS (A)	21.2	22.5	21.6	21.9	22.7	21.8
Stuttgart, AR	20.4	21.2	20.4	20.8	22.5	20.8
Mean	20.5	20.7	20.7	20.7	22.1	20.9
			PROTEIN PERCENTAGE			
*Queenstown, MD	43.6	40.5	42.3	39.6	39.2	40.1
Warsaw, VA	43.0	40.6	42.7	40.0	39.6	40.8
Plymouth, NC	42.4	38.8	39.9	38.0	39.2	40.7
Orange, VA	43.2	38.8	39.6	38.0	37.4	40.2
Calhoun, GA	43.9	41.6	43.9	41.7	40.2	43.1
Jackson, TN	44.6	42.2	42.7	42.5	41.5	42.4
Portageville, MO (A)	43.7	42.0	42.9	41.6	40.2	41.6
Keiser, AR	41.9	40.0	41.4	39.5	38.4	40.2
Stoneville, MS (A)	43.0	41.2	43.0	41.0	41.6	42.1
Stuttgart, AR	44.5	42.8	44.0	42.2	41.1	43.8
Mean	43.4	40.9	42.2	40.5	39.9	41.7
			GRAMS PER 100 SEEDS			
Queenstown, MD	12.0	11.9	12.3	11.2	13.5	12.0
Warsaw, VA	13.0	11.4	13.6	11.8	12.7	13.3
Plymouth, NC	13.6	11.9	14.1	12.3	14.2	13.8
Orange, VA	13.8	12.4	13.7	11.8	14.1	13.8
Calhoun, GA	15.9	12.9	14.1	12.2	14.1	14.2
Jackson, TN	13.6	11.1	13.3	11.7	12.4	13.6
Portageville, MO (A)	14.0	12.1	13.7	12.6	12.1	13.7
Keiser, AR	13.3	12.2	13.6	13.0	13.0	13.8
Stoneville, MS (A)	13.0	11.6	15.1	12.6	14.6	14.6
Stuttgart, AR	15.7	14.3	16.0	13.7	16.0	15.3
Mean	13.8	12.2	14.0	12.3	13.7	13.8

*Not included in mean

Table 17 - (continued)

Location	V78-184	V79-882	D82-3298	R82-269	R82-1077	S81-2524
			OIL PERCENTAGE			
Queenstown, MD	21.8	21.4	19.9	19.8	20.5	20.4
Warsaw, VA	20.2	21.2	18.6	18.2	20.0	19.5
Plymouth, NC	23.4	23.5	20.4	20.6	22.4	20.1
Orange, VA	21.0	21.3	19.0	18.5	20.6	19.6
Calhoun, GA	21.8	22.0	20.4	19.4	22.1	20.5
Jackson, TN	21.3	21.1	19.9	20.0	20.8	20.3
Portageville, MO (A)	21.4	21.6	20.1	18.4	20.7	19.7
Keiser, AR	23.1	21.6	20.5	20.0	21.9	20.3
Stoneville, MS (A)	22.8	23.1	21.5	20.6	22.6	20.3
Stuttgart, AR	21.9	22.4	20.0	20.2	21.5	20.1
Mean	21.9	22.0	20.0	19.5	21.4	20.0
			PROTEIN PERCENTAGE			
Queenstown, MD	40.5	41.2	41.9	41.8	41.2	41.9
Warsaw, VA	40.5	42.2	42.1	43.4	40.9	42.4
Plymouth, NC	39.5	41.2	41.6	43.8	39.9	41.6
Orange, VA	39.6	41.6	39.4	43.0	40.3	40.3
Calhoun, GA	41.2	42.0	43.8	43.9	42.5	43.1
Jackson, TN	41.7	42.5	42.4	43.5	41.4	42.6
Portageville, MO (A)	40.8	42.2	43.3	43.8	41.0	43.8
Keiser, AR	38.8	41.5	41.8	43.8	39.5	41.6
Stoneville, MS (A)	39.7	42.7	42.2	45.2	39.8	44.0
Stuttgart, AR	41.0	43.8	43.1	45.2	42.3	44.1
Mean	40.3	42.2	42.2	44.0	40.8	42.6
			GRAMS PER 100 SEEDS			
Queenstown, MD	13.8	12.5	11.7	14.1	12.0	11.5
Warsaw, VA	14.6	13.4	12.8	16.4	13.1	12.9
Plymouth, NC	15.2	13.0	13.6	15.9	15.1	12.9
Orange, VA	14.4	13.4	12.9	15.8	13.7	13.5
Calhoun, GA	16.5	15.0	13.3	16.7	16.3	13.8
Jackson, TN	15.1	12.2	11.6	14.7	13.4	13.1
Portageville, MO (A)	13.2	12.6	12.6	13.3	12.3	12.8
Keiser, AR	14.7	14.1	12.4	14.2	13.2	12.6
Stoneville, MS (A)	14.0	13.0	12.9	14.7	12.9	12.5
Stuttgart, AR	16.7	16.7	13.7	17.3	15.0	15.0
Mean	14.8	13.6	12.8	15.3	13.7	13.1

Table 18 - Relative maturity, days earlier (-) or later (+) than Essex, for the strains in Uniform Group V, 1985

Location	Date planted	Essex matured	Forrest	Epps	R76-479	D81-7857	S80-2959
			EAST COAST				
Queenstown, MD	6-3	10-11	+7	+11	+4	+11	+6
Georgetown, DE	-	10-19	+6	+3	+4	+10	+4
Warsaw, VA	6-3	10-13	+3	+3	+4	+9	+3
Holland, VA	5-29	10-11	0	0	0	+6	+2
Plymouth, NC	6-13	10-10	+5	+5	+5	+5	0
Mean	6-4	10-13	+4	+4	+3	+8	+3
			UPPER AND CENTRAL SOUTH				
Orange, VA	6-5	10-19	+7	+1	+3	+14	+1
Knoxville, TN	4-29	9-23	+8	+4	+7	+13	+5
Clemson, SC	5-14	9-30	+1	0	0	+5	+1
Calhoun, GA	5-21	10-9	-2	-2	-2	+3	-2
Athens, GA	5-20	9-22	+2	+4	+2	+9	+2
Belle Mina, AL	5-6	9-17	0	+1	+1	+3	0
Princeton, KY	5-17	10-13	+3	+3	+2	+5	+3
Martin, TN	5-29	10-5	+5	+4	+2	+12	+5
Jackson, TN	5-14	9-28	+4	+5	+4	+9	+5
Mean	5-16	10-1	+3	+2	+2	+8	+2
			DELTA				
Portageville, MO (A)	5-20	10-4	+5	+4	+6	+8	+7
Portageville, MO (B)	5-21	10-10	+2	+1	+3	+7	+1
Keiser, AR	5-16	10-5	0	+1	+1	+6	+2
Jonesboro, AR	5-17	9-24	+1	+2	+8	+10	+8
Pine Tree, AR	6-7	10-5	+1	+4	+4	+5	+4
Stoneville, MS (A)	5-9	9-26	+1	+2	+2	+5	+6
Stoneville, MS (B)	5-10	9-24	0	0	+1	+8	+5
St. Joseph, LA	5-11	9-19	+3	+1	+1	+7	+5
Mean	5-18	9-30	+2	+2	+3	+7	+5
			WEST				
Stuttgart, AR	5-24	9-30	+1	+1	+1	+7	+1
Bossier City, LA	5-16	9-19	-1	-1	+1	+6	+5
Beaumont, TX	5-29	9-24	+8	+6	+5	+8	+14
Mean	5-23	9-24	+3	+2	+2	+7	+7

Table 18 - (continued)

Location	V78-184	V79-882	D82-3298	R82-269	R82-1077	S81-2524
			EAST COAST			
Queenstown, MD	+5	+8	+3	+7	0	+1
Georgetown, DE	+3	+9	+4	+7	-4	+3
Warsaw, VA	+5	+6	+6	+11	+1	+3
Holland, VA	0	+4	-2	0	-4	-2
Plymouth, NC	0	+5	+5	+5	0	0
Mean	+3	+6	+3	+6	-1	+1
			UPPER AND CENTRAL SOUTH			
Orange, VA	0	+8	+6	+7	0	+1
Knoxville, TN	+12	+16	+3	+14	+5	+2
Clemson, SC	+1	+3	-2	+2	-1	0
Calhoun, GA	-2	+2	-2	0	-2	-2
Athens, GA	+3	+7	+1	+9	-1	0
Belle Mina, AL	+1	+3	0	0	0	0
Princeton, KY	+2	+6	+1	+3	0	+3
Martin, TN	+4	+10	+3	+6	0	0
Jackson, TN	+4	+9	+3	+8	+2	+4
Mean	+3	+7	+1	+5	0	+1
			DELTA			
Portageville, MO (A)	+6	+6	+3	+7	+1	+5
Portageville, MO (B)	+1	+4	0	+3	+1	-1
Keiser, AR	0	+5	-1	+2	0	+1
Jonesboro, AR	+5	+6	+2	+6	+1	+2
Pine Tree, AR	+4	+6	+4	+4	+1	+3
Stoneville, MS (A)	+3	+7	+1	+2	0	0
Stoneville, MS (B)	+3	+10	0	+3	+1	0
St. Joseph, LA	+4	+6	-1	+4	+2	-1
Mean	+3	+6	+1	+4	+1	+1
			WEST			
Stuttgart, AR	+1	+7	+1	+2	0	+2
Bossier City, LA	0	+1	-1	+3	-1	+1
Beaumont, TX	+9	+10	+2	+7	+1	+6
Mean	+3	+6	+1	+4	0	+3

Table 19 - Plant height for the strains in Uniform Group V, 1985

Location	Essex	Forrest	Epps	R76-479	D81-7857	S80-2959
			EAST COAST			
Queenstown, MD	30	43	39	37	45	41
Georgetown, DE	30	37	35	38	41	40
Warsaw, VA	26	37	34	36	38	37
Holland, VA	33	36	35	36	44	36
Plymouth, NC	32	38	36	42	36	34
Mean	30	38	36	38	41	38
			UPPER AND CENTRAL SOUTH			
Orange, VA	36	52	45	52	52	48
Knoxville, TN	24	33	30	32	35	34
Clemson, SC	22	31	29	30	37	34
Calhoun, GA	33	49	46	39	53	42
Athens, GA	30	41	40	38	44	38
Belle Mina, AL	26	35	36	34	40	33
Princeton, KY	29	39	33	39	42	39
Martin, TN	31	38	40	41	44	41
Jackson, TN	33	41	44	44	49	41
Mean	29	40	38	39	44	39
			DELTA			
Portageville, MO (A)	30	38	34	44	40	41
Portageville, MO (B)	25	28	28	26	28	30
Keiser, AR	23	31	30	31	38	31
Jonesboro, AR	32	40	36	38	44	37
Pine Tree, AR	25	34	33	34	37	33
Stoneville, MS (A)	23	31	27	26	37	31
Stoneville, MS (B)	13	19	19	15	27	17
St. Joseph, LA	19	28	29	30	37	29
Mean	24	31	30	31	36	31
			WEST			
Ottawa, KS	33	44	36	38	46	41
Pittsburg, KS	33	43	41	39	39	40
Stuttgart, AR	26	37	36	36	40	36
Bossier City, LA	26	26	31	28	30	28
Bixby, OK	30	36	37	36	43	43
Lubbock, TX	26	34	34	34	38	32
Beaumont, TX	17	25	28	25	28	23
Mean	28	35	35	34	38	35

Table 19 - (continued)

Location	V78-184	V79-882	D82-3298	R82-269	R82-1077	S81-2524
			EAST COAST			
Queenstown, MD	33	37	40	34	32	33
Georgetown, DE	33	34	38	32	35	35
Warsaw, VA	27	30	33	33	29	31
Holland, VA	33	36	36	36	38	33
Plymouth, NC	36	36	34	35	32	35
Mean	32	35	36	34	33	33
			UPPER AND CENTRAL SOUTH			
Orange, VA	43	42	48	47	47	43
Knoxville, TN	29	28	31	27	25	31
Clemson, SC	27	25	32	29	25	31
Calhoun, GA	36	39	40	39	39	47
Athens, GA	33	34	33	37	30	33
Belle Mina, AL	29	29	33	31	29	32
Princeton, KY	35	33	38	37	32	35
Martin, TN	35	33	39	36	40	38
Jackson, TN	37	35	43	38	34	38
Mean	34	33	37	36	33	36
			DELTA			
Portageville, MO (A)	33	32	36	36	32	31
Portageville, MO (B)	25	27	23	27	24	27
Keiser, AR	29	29	32	32	25	26
Jonesboro, AR	33	33	36	37	32	32
Pine Tree, AR	27	27	33	24	25	27
Stoneville, MS (A)	25	29	24	28	27	28
Stoneville, MS (B)	17	15	15	15	12	15
St. Joseph, LA	28	25	28	24	22	23
Mean	27	27	28	28	25	26
			WEST			
Ottawa, KS	37	36	40	40	38	-
Pittsburg, KS	39	34	37	36	37	39
Stuttgart, AR	37	35	38	35	36	36
Bossier City, LA	25	27	27	26	23	27
Bixby, OK	34	32	34	37	37	33
Lubbock, TX	28	31	33	31	30	33
Beaumont, TX	20	21	25	23	19	23
Mean	32	31	34	33	32	32

Table 20 - Lodging scores for the strains in Uniform Group V, 1985

Location	Essex	Forrest	Epps	R76-479	D81-7857	S80-2959
		EAST COAST				
Queenstown, MD	2.5	2.5	3.8	3.2	3.0	2.2
Georgetown, DE	2.8	2.8	3.2	2.5	3.0	2.5
Warsaw, VA	1.1	1.7	1.8	1.6	1.6	1.6
Holland, VA	3.0	3.3	4.0	3.3	3.3	3.0
Plymouth, NC	4.0	3.5	3.5	3.5	3.0	3.0
		UPPER AND CENTRAL SOUTH				
Orange, VA	3.3	5.0	5.0	5.0	5.0	3.3
Knoxville, TN	1.5	1.8	3.2	1.7	1.7	2.0
Clemson, SC	1.0	1.3	2.3	1.0	1.7	1.3
Calhoun, GA	2.3	3.0	4.0	3.0	2.7	2.0
Athens, GA	1.7	2.0	3.2	1.8	2.3	1.5
Belle Mina, AL	2.3	3.0	4.3	3.0	2.7	2.0
Princeton, KY	2.3	3.7	5.0	3.0	4.0	1.3
Martin, TN	1.0	2.0	4.0	2.0	4.0	1.0
Jackson, TN	2.0	2.0	3.0	3.0	3.0	2.0
		DELTA				
Portageville, MO (A)	1.0	1.5	2.0	1.0	1.0	1.0
Portageville, MO (B)	1.0	1.0	1.5	1.0	1.5	1.0
Keiser, AR	2.0	2.0	3.0	2.0	3.0	1.0
Jonesboro, AR	1.3	2.0	3.3	2.0	2.7	1.7
Pine Tree, AR	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, MS (A)	2.0	2.0	2.7	2.0	2.0	2.0
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, LA	1.7	2.2	3.2	2.3	3.1	2.0
		WEST				
Ottawa, KS	1.0	3.0	3.3	2.3	3.0	2.3
Pittsburg, KS	3.7	5.0	5.0	4.7	4.7	3.7
Stuttgart, AR	1.3	2.3	4.0	2.0	2.3	2.1
Bossier City, LA	1.2	1.0	1.5	1.0	1.3	1.2
Bixby, OK	1.0	2.0	3.0	2.0	3.0	2.0
Lubbock, TX	3.5	2.5	3.0	2.7	2.5	1.5
Beaumont, TX	1.0	1.1	1.1	1.0	1.0	1.0

Table 20 - (continued)

Location	V78-184	V79-882	D82-3298	R82-269	R82-1077	S81-2524
		EAST COAST				
Queenstown, MD	2.3	2.5	2.7	2.5	3.3	3.3
Georgetown, DE	2.3	2.8	3.0	2.8	2.3	2.8
Warsaw, VA	1.5	2.1	1.8	2.5	1.4	1.6
Holland, VA	2.7	3.0	3.0	3.0	3.3	3.7
Plymouth, NC	4.0	4.0	3.5	3.0	3.0	3.5
		UPPER AND CENTRAL SOUTH				
Orange, VA	3.3	4.3	3.7	3.7	5.0	5.0
Knoxville, TN	1.2	1.5	2.0	1.7	1.5	2.7
Clemson, SC	1.0	1.0	1.8	1.3	1.0	2.3
Calhoun, GA	2.3	2.5	1.3	2.0	3.3	3.3
Athens, GA	1.7	1.8	2.3	2.0	2.0	2.3
Belle Mina, AL	1.7	3.0	4.3	3.0	3.0	4.3
Princeton, KY	2.7	3.7	3.7	3.3	3.3	3.7
Martin, TN	1.0	3.0	3.0	1.0	1.0	3.0
Jackson, TN	2.0	2.0	3.0	2.0	2.0	3.0
		DELTA				
Portageville, MO (A)	1.0	1.0	2.0	1.0	1.0	1.5
Portageville, MO (B)	1.0	1.0	1.0	1.5	1.0	1.5
Keiser, AR	1.0	2.0	1.0	1.0	2.0	1.0
Jonesboro, AR	2.0	1.7	2.7	2.0	1.7	1.7
Pine Tree, AR	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, MS (A)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, LA	2.0	1.6	2.4	2.0	1.7	2.1
		WEST				
Ottawa, KS	2.0	2.0	3.0	2.7	2.0	-
Pittsburg, KS	3.7	4.0	5.0	4.0	5.0	5.0
Stuttgart, AR	1.7	2.2	2.6	2.4	2.2	3.4
Bossier City, LA	1.0	1.0	1.2	1.0	1.0	1.2
Bixby, OK	2.0	2.0	2.0	2.0	2.0	2.0
Lubbock, TX	2.5	2.0	2.3	2.0	2.0	2.5
Beaumont, TX	1.0	1.0	1.0	1.1	1.0	1.0

Table 21 - Seed quality scores for the strains in Uniform Group V, 1985

Location	Essex	Forrest	Epps	R76-479	D81-7857	S80-2959
		EAST COAST				
Queenstown, MD	1.7	2.3	2.5	2.5	2.7	2.2
Georgetown, DE	1.5	1.5	1.8	1.5	1.3	1.5
Warsaw, VA	2.2	2.0	2.5	2.0	2.0	1.8
Holland, VA	3.0	2.7	3.0	2.7	2.0	2.3
Plymouth, NC	4.0	3.5	3.5	3.5	3.0	3.0
		UPPER AND CENTRAL SOUTH				
Orange, VA	3.8	3.8	3.0	4.0	3.7	3.0
Knoxville, TN	1.0	1.0	1.0	1.0	1.0	1.0
Calhoun, GA	3.0	3.7	3.6	3.5	2.5	2.8
Athens, GA	1.5	1.5	1.5	1.5	1.5	1.5
Martin, TN	3.0	2.3	3.0	2.0	2.3	2.0
Jackson, TN	2.0	1.0	1.0	2.0	2.0	1.0
		DELTA				
Portageville, MO (A)	2.0	2.0	2.0	2.0	2.0	2.0
Portageville, MO (B)	2.5	2.5	2.5	2.0	2.0	2.0
Keiser, AR	2.0	1.5	1.5	1.0	1.5	1.5
Jonesboro, AR	2.0	2.0	2.0	2.0	1.3	1.3
Pine Tree, AR	1.0	2.0	1.0	1.7	1.7	1.3
Stoneville, MS (A)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
		WEST				
Ottawa, KS	2.0	3.0	3.0	3.0	4.0	3.0
Pittsburg, KS	4.5	3.0	3.0	3.5	3.5	3.5
Stuttgart, AR	2.0	1.5	2.0	1.5	2.0	1.3
Bossier City, LA	1.0	1.3	1.3	1.3	1.0	1.6
Lubbock, TX	1.5	1.5	1.5	1.1	1.0	1.2
Beaumont, TX	2.0	3.0	2.3	2.8	2.0	2.0

Table 21 - (continued)

Location	V78-184	V79-882	D82-3298	R82-269	R82-1077	S81-2524
			EAST COAST			
Queenstown, MD	2.0	2.3	2.5	2.2	2.0	2.3
Georgetown, DE	1.5	1.5	1.7	1.5	1.3	1.7
Warsaw, VA	2.0	2.2	3.2	1.8	2.2	2.5
Holland, VA	3.0	3.0	3.3	2.0	3.3	3.3
Plymouth, NC	4.0	4.0	3.5	3.0	3.0	3.5
			UPPER AND CENTRAL SOUTH			
Orange, VA	3.0	3.5	4.0	3.8	3.5	3.2
Knoxville, TN	1.0	1.0	1.0	1.0	1.0	1.0
Calhoun, GA	2.8	2.5	5.0	3.0	3.1	3.2
Athens, GA	1.5	1.5	1.5	1.5	1.5	1.5
Martin, TN	2.0	2.3	2.0	2.3	2.3	2.0
Jackson, TN	1.0	2.0	1.0	2.0	2.0	1.0
			DELTA			
Portageville, MO (A)	2.0	2.0	2.0	2.0	2.0	2.0
Portageville, MO (B)	2.0	2.0	2.5	2.5	2.0	2.5
Keiser, AR	1.5	1.5	1.5	1.5	1.0	1.5
Jonesboro, AR	1.3	2.0	1.7	2.0	1.7	2.0
Pine Tree, AR	1.0	1.7	1.3	1.3	1.0	1.0
Stoneville, MS (A)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
			WEST			
Ottawa, KS	2.0	3.0	4.0	3.0	2.0	-
Pittsburg, KS	3.5	4.0	3.5	3.5	4.0	4.0
Stuttgart, AR	2.0	2.0	2.0	2.0	2.0	1.8
Bossier City, LA	1.3	1.3	1.6	1.6	2.0	1.5
Lubbock, TX	1.5	1.5	1.8	1.2	1.3	1.0
Beaumont, TX	1.8	2.0	2.3	2.2	2.5	2.7

PRELIMINARY GROUP V

1985

Preliminary Group V nurseries, which included Forrest and Pershing along with 34 experimental strains, were grown at 8 locations. Parentage for each of these strains is reported in Table 22. A general summary of performance is reported in Table 23. Data from individual locations are reported in Tables 24 through 28.

There were no strains having a mean seed yield significantly higher than that for Forrest, although 5 strains had mean seed yields ranking slightly above that for Forrest. There were 2 strains which had a mean seed yield significantly lower than that for Forrest. Incomplete data was obtained from the field planting for rating strains for reaction to Meloidogyne incognita. Eleven strains equaled Forrest in level of resistance to M. arenaria. There were 8 strains having resistance to races 3 and 4 of the soybean cyst nematode. Five additional strains were resistant to SCN race 3. D83-1115 classified as susceptible to race 4 is resistant to race 5. This type resistance gives a slower rate of reproduction for SCN race 4 in the field. Two strains were rated resistant to feeding by soybean looper. Two strains, D82-3257 and D82-3271, would have good multiple pest resistance. D82-3271 has given indications of having the same sensitivity to nutritional problems as D82-3298.

Strains which appear to merit advance to Uniform Group V are D83-1115, D83-3318, N83-375, R83-310, S81-2876, and S82-1318.

Table 22 - Parentage of the strains grown in Preliminary Group V, 1985

	Variety or strain	Parentage	Generation composited
1.	Forrest	Dyer X Bragg	F_5
2.	Pershing	D67-3297 X Essex	F_5
3.	D82-1915	Bedford X D82-3012	F_5
4.	D82-3257	Bedford X sel (Forrest X D75-10169)	F_5
5.	D82-3271	Bedford X sel (Forrest X D75-10169)	F_5
6.	D83-1115	Forrest(2) X sel (Peking X Centennial)	F_5
7.	D83-3122	Forrest X D78-3036	F_5
8.	D83-3145	Forrest X D78-3036	F_5
9.	D83-3318	Bedford X sel [Forrest X sel (Peking X Centennial)]	F_5
10.	K1122	K74-115-76-754 X Essex	F_5
11.	K1123	Crawford X Ransom	F_5
12.	K1124	K74-115-76-754 X Essex	F_5
13.	Ky81-2051	Elf X Essex	F_5
14.	Ky81-2211	Elf X Essex	F_5
15.	Ky81-2212	Elf X Essex	F_5
16.	N83-120	N76-683 X S76-2120	F_5
17.	N83-151	S76-2120 X N73-40	F_6
18.	N83-311	N76-683 X N73-40	F_6
19.	N83-375	N76-098 X N76-683	F_6
20.	R83-86	R76-1071 X R68-208	F_5
21.	R83-102	R76-1071 X R68-208	F_5
22.	R83-272	Forrest X Narow	F_5
23.	R83-310	R77-236 X Narow	F_5
24.	R83-839	Narow X R75-868	F_5
25.	S81-2696	S73-86113 X Centennial	F_5
26.	S81-2876	Bedford X S77-114	F_5
27.	S82-1318	Essex X D74-7741	F_5
28.	Tn82-94	Essex X (Bay X N73-520)	F_5
29.	Tn82-162	Essex X (Bay X N73-520)	F_5
30.	Tn83-22	J74-40 X K1017	F_5
31.	Tn83-26	J74-40 X K1017	F_5
32.	V81-882	Essex X V72-128	F_5
33.	V81-1097	Essex X PI 360835	F_5
34.	V81-2141	Essex X Md69-410	F_5
35.	V81-2679	York X Bay	F_5
36.	V82-201	V72-128 X L72-1663	F_5

Table 23 - General summary of performance for the strains grown in Preliminary Group V, 1985

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	M. arenaria	SCN race 3	SCN race 4	Soybean looper
Forrest	43.4	10-7	32	20.8	40.3	3.0	R	S	4.0
Pershing	40.5	-6	24	20.3	41.6+	4.5	S	S	4.0
D82-1915	41.6	+2	35	19.3-	42.4+	5.0	R	R	3.5
D82-3257	42.5	-3	31	20.5	41.3	3.0	R	R	2.5
D82-3271	37.6-	+2	32	19.6-	41.2	3.5	R	R	2.0
D83-1115	42.8	+5	35	21.5	41.0	3.0	R	*S	4.5
D83-3122	38.8	-4	33	19.7-	41.0	4.2	R	R	4.0
D83-3145	40.8	-3	30	20.6	41.4+	5.0	R	R	3.5
D83-3318	43.0	-2	30	20.1	40.4	3.5	R	R	3.5
K1122	42.1	0	25	19.9-	41.9+	4.8	S	S	4.0
K1123	41.7	0	41	22.1+	41.0	3.5	S	S	3.0
K1124	39.6	+10	35	19.6-	43.4+	4.2	S	S	4.5
Ky81-2051	39.6	-5	21	21.5	41.2	5.0	S	S	3.0
Ky81-2211	37.3-	-4	21	22.2+	40.7	3.8	S	S	3.5
Ky81-2212	40.0	-4	24	20.4	43.1+	3.6	S	S	3.0
N83-120	45.0	+2	34	20.5	41.6+	5.0	S	S	4.0
N83-151	42.0	-3	27	22.5+	39.4	4.5	S	S	3.5
N83-311	43.9	0	36	20.7	41.4+	4.0	S	S	4.0
N83-375	47.4	+3	33	21.7+	41.7+	4.8	S	S	4.0
R83-86	38.5	+7	33	21.1	42.2+	3.2	S	S	3.5
R83-102	36.1-	+6	32	21.9+	41.3	2.5	S	S	4.0
R83-272	42.2	+4	29	21.4	40.9	2.8	S	S	4.0
R83-310	44.6	-1	30	20.6	41.0	2.8	R	S	4.0
R83-839	44.4	-2	25	21.5	40.9	2.8	R	S	4.0
S81-2696	44.4	+1	31	20.0	43.7+	3.8	R	S	5.0
S81-2876	43.5	+1	31	20.7	41.3	2.5	R	h	3.5
S82-1318	44.7	-1	30	21.0	42.5+	2.0	R	S	3.5
Tn82-94	41.2	-5	24	22.2+	41.2	4.0	S	S	3.5
Tn82-162	40.6	-2	31	21.5	41.5+	4.5	S	S	4.5
Tn83-22	39.8	-5	37	21.0	41.3	3.0	R	R	4.5
Tn83-26	40.7	-5	39	21.1	41.2	2.5	R	R	3.5
V81-882	43.9	+4	29	22.3+	41.8+	3.5	S	S	3.5
V81-1097	37.0-	-4	25	20.5	42.7+	5.0	S	S	4.0
V81-2141	39.6	-3	42	21.3	42.1+	3.2	S	S	5.0
V81-2679	41.5	-3	28	22.2+	39.2-	3.5	S	S	4.5
V82-201	41.3	-4	26	21.0	41.6+	5.0	S	S	4.0
L.S.D.(.05)	5.5			.8	1.0				

+ or - designations refer to differences from Forrest.
* Resistant to SCN race 5.

Table 24 - Seed yield, in bushels per acre, for the strains grown in Preliminary Group V, 1985

Strain	Warsaw, VA	Plymouth, NC	Portage-ville, MO (A)	Tipton-ville, TN	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)
Forrest	32.2	35.4	43.2	37.5	63.6	53.9	38.1
Pershing	35.2	30.6	41.3	40.3	62.6	50.8	22.9-
D82-1915	29.1	28.4	44.1	38.1	59.8	42.8-	48.9+
D82-3257	33.5	29.8	42.3	45.8+	58.8	47.0	40.5
D82-3271	8.5-	24.5-	44.8	34.3	62.0	47.0	42.1
D83-1115	32.4	35.4	47.8	36.2	60.4	48.0	39.5
D83-3122	32.7	23.0-	39.1	35.4	51.5-	48.2	41.8
D83-3145	32.7	34.4	41.9	37.2	57.0	45.0-	37.6
D83-3318	32.5	33.5	40.5	43.4+	62.9	46.5	41.8
K1122	31.4	31.4	45.8	37.5	70.3	43.6-	34.4
K1123	33.7	36.6	42.2	32.3-	64.8	41.4-	40.6
K1124	32.2	34.1	37.8	28.2-	71.7	36.9-	36.6
Ky81-2051	37.5+	33.4	44.8	37.8	55.9	43.5-	24.2-
Ky81-2211	36.1	34.3	34.5	37.6	50.2-	49.2	19.0-
Ky81-2212	35.8	34.0	50.7	35.2	58.7	46.2	19.6-
N83-120	32.7	38.4	42.4	34.2	74.4+	47.8	45.0
N83-151	30.8	34.9	42.8	33.4	67.3	44.5-	40.5
N83-311	39.5+	39.6	37.7	37.7	64.2	45.2-	43.5
N83-375	38.1+	45.0+	43.8	35.6	68.9	52.5	48.0+
R83-86	25.6-	36.2	39.1	26.4-	66.7	41.7-	33.5
R83-102	31.7	30.3	34.5	26.4-	65.7	41.7-	22.2-
R83-272	34.0	33.9	44.8	40.8	55.8	51.8	34.2
R83-310	33.5	37.1	50.0	38.4	67.4	50.1	35.5
R83-839	35.6	34.2	47.6	42.3	71.1	51.7	28.5
S81-2696	37.7+	32.5	47.9	41.0	68.1	42.7-	41.0
S81-2876	34.5	34.6	40.6	41.6	64.9	49.2	39.4
S82-1318	33.0	32.1	48.5	43.1+	65.3	53.0	37.8
Tn82-94	38.8+	28.6	46.2	36.4	57.1	50.1	31.4
Tn82-162	35.5	33.0	40.0	36.2	60.0	45.2-	34.1
Tn83-22	35.1	28.8	36.2	44.3+	59.4	48.5	26.6-
Tn83-26	32.4	31.7	46.1	40.2	62.0	46.9	25.6-
V81-882	38.5+	34.0	46.1	35.5	66.4	44.6-	42.0
V81-1097	38.5+	21.8-	33.8	33.9	49.8-	53.0	28.3
V81-2141	39.4+	29.5	44.5	31.1-	61.1	33.3-	38.2
V81-2679	36.7+	38.9	47.7	39.0	53.2	46.8	28.2-
V82-201	33.7	33.8	45.1	37.5	63.4	47.5	28.0-
L.S.D.(.05)	3.9	8.5	9.6	5.1	10.4	8.4	9.8
C.V.	6%	13%	11%	7%	8%	9%	14%

Table 25 - Oil percentages for the strains in Preliminary Group V, 1985

Strain	Warsaw, VA	Plymouth, NC	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (A)
Forrest	18.7	21.3	20.8	21.4	21.9
Pershing	19.1	21.1	20.9	19.8	20.8
D82-1915	18.5	20.4	19.0	18.8	19.8
D82-3257	19.3	21.7	21.1	19.6	20.7
D82-3271	16.8	21.1	19.9	19.7	20.4
D83-1115	20.9	22.3	21.6	21.1	21.5
D83-3122	18.4	21.6	19.5	19.9	19.2
D83-3145	19.1	21.7	20.4	20.5	21.1
D83-3318	18.6	21.1	19.8	20.4	20.8
K1122	18.2	20.7	19.9	19.9	20.7
K1123	21.2	20.8	22.1	22.5	23.8
K1124	18.8	20.1	19.2	19.6	20.3
Ky81-2051	19.8	21.6	21.4	22.3	22.2
Ky81-2211	20.8	22.2	22.6	22.5	22.9
Ky81-2212	19.8	20.4	20.4	20.5	21.1
N83-120	19.2	21.0	19.7	21.5	21.2
N83-151	20.7	22.4	22.3	23.8	23.2
N83-311	19.1	20.8	20.3	21.6	21.8
N83-375	20.1	22.0	21.7	22.4	22.2
R83-86	19.0	21.7	21.3	21.2	22.2
R83-102	20.0	22.3	21.3	22.6	23.1
R83-272	18.9	22.0	21.3	22.3	22.6
R83-310	18.8	21.0	20.4	21.2	21.8
R83-839	20.0	21.5	21.5	22.0	22.4
S81-2696	19.2	20.7	18.6	21.0	20.3
S81-2876	19.4	21.7	20.2	20.7	21.3
S82-1318	19.6	21.0	20.4	21.9	21.9
Tn82-94	21.4	22.7	20.9	22.8	23.2
Tn82-162	20.1	22.7	20.1	22.0	22.7
Tn83-22	20.1	21.9	19.3	21.9	21.8
Tn83-26	20.3	21.9	19.8	22.3	21.4
V81-882	21.4	23.6	21.4	22.4	22.8
V81-1097	20.2	20.3	19.7	20.8	21.3
V81-2141	19.5	22.6	19.7	22.3	22.4
V81-2679	21.4	22.2	21.1	22.6	23.6
V82-201	20.9	21.0	20.2	21.4	21.7

Table 26 - Protein percentages for the strains in Preliminary Group V, 1985

Strain	Warsaw, VA	Plymouth, NC	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (A)
Forrest	40.8	39.8	40.9	39.7	40.1
Pershing	42.5	40.9	41.3	40.8	42.6
D82-1915	41.6	40.6	42.8	43.2	44.0
D82-3257	42.2	39.2	41.3	40.7	43.2
D82-3271	40.8	39.7	41.3	40.9	43.2
D83-1115	41.3	39.2	40.3	40.7	43.7
D83-3122	40.7	40.0	40.9	40.2	43.2
D83-3145	41.7	39.4	41.8	41.0	43.3
D83-3318	40.6	38.1	40.5	39.4	43.3
K1122	42.8	41.8	41.8	41.0	42.0
K1123	42.3	41.8	40.6	39.6	40.6
K1124	44.4	42.3	44.4	41.7	44.3
Ky81-2051	42.4	40.8	41.2	39.5	42.2
Ky81-2211	41.8	41.1	40.5	38.7	41.5
Ky81-2212	43.3	42.5	43.2	42.3	44.3
N83-120	42.3	40.3	42.7	40.5	42.4
N83-151	41.2	39.8	39.1	36.6	40.2
N83-311	43.0	40.9	41.1	40.5	41.7
N83-375	42.4	41.5	41.3	41.8	41.5
R83-86	43.0	41.7	42.1	41.3	42.9
R83-102	42.2	40.2	42.2	39.5	42.4
R83-272	42.5	40.4	40.5	39.5	41.6
R83-310	43.0	40.4	40.9	39.7	41.2
R83-839	41.9	41.1	40.1	39.9	41.6
S81-2696	43.8	43.7	43.7	43.1	44.2
S81-2876	41.9	40.8	40.7	39.4	43.8
S82-1318	43.3	41.8	42.0	41.7	43.6
Tn82-94	41.5	41.5	41.6	40.3	41.1
Tn82-162	43.1	41.3	41.2	39.8	42.2
Tn83-22	43.1	41.3	41.6	39.3	41.3
Tn83-26	41.7	41.1	41.2	40.5	41.6
V81-882	42.2	41.5	42.0	40.7	42.4
V81-1097	41.8	42.8	42.6	42.2	44.0
V81-2141	43.0	41.3	41.8	41.0	43.4
V81-2679	39.9	40.1	38.0	38.0	39.8
V82-201	41.5	42.5	41.1	40.2	42.7

Table 27 - Plant height for the strains in Preliminary Group V, 1985

Strain	Warsaw, VA	Plymouth, NC	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)
Forrest	34	36	36	33	36	18
Pershing	23	30	28	24	23	13
D82-1915	38	37	46	30	35	22
D82-3257	33	39	38	27	31	18
D82-3271	32	37	40	31	31	20
D83-1115	40	36	44	32	39	20
D83-3122	36	36	39	35	32	21
D83-3145	33	31	39	27	30	18
D83-3318	34	34	33	30	32	19
K1122	26	29	31	25	25	16
K1123	36	39	42	40	54	35
K1124	34	34	42	34	42	26
Ky81-2051	22	24	28	21	20	9
Ky81-2211	22	29	26	21	21	9
Ky81-2212	25	26	29	25	26	11
N83-120	36	42	38	33	33	22
N83-151	28	33	33	24	29	14
N83-311	38	44	38	37	35	25
N83-375	33	40	39	35	30	22
R83-86	35	38	37	35	34	18
R83-102	34	39	38	32	35	14
R83-272	32	32	38	26	29	14
R83-310	34	36	34	30	30	17
R83-839	30	25	28	27	28	13
S81-2696	31	40	36	30	32	18
S81-2876	32	39	32	32	34	17
S82-1318	36	36	32	27	32	17
Tn82-94	25	28	29	23	27	13
Tn82-162	30	36	41	26	32	18
Tn83-22	32	36	43	39	49	23
Tn83-26	34	43	43	38	49	25
V81-882	30	37	30	30	33	16
V81-1097	26	30	27	26	26	14
V81-2141	37	39	43	40	54	39
V81-2679	35	34	33	21	32	15
V82-201	26	34	33	26	26	12

Table 28 - Seed quality scores for the strains in Preliminary Group V, 1985

Strain	Warsaw, VA	Plymouth, NC	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)
Forrest	2.0	3.5	2.0	1.5	2.0	2.0
Pershing	2.0	2.5	2.0	2.0	2.0	2.0
D82-1915	1.8	3.5	2.0	2.0	2.0	2.0
D82-3257	3.2	4.0	1.0	1.0	2.0	2.0
D82-3271	3.5	4.0	1.0	2.0	2.0	2.0
D83-1115	1.8	3.0	2.0	2.0	2.0	2.0
D83-3122	3.5	4.5	3.0	2.0	2.0	2.5
D83-3145	2.5	4.5	2.0	2.5	2.0	2.0
D83-3318	1.8	3.0	1.0	1.5	2.0	2.0
K1122	2.2	3.0	2.0	2.0	2.0	2.0
K1123	2.8	4.0	1.0	1.0	2.0	2.0
K1124	1.8	2.5	2.0	2.0	2.0	1.5
Ky81-2051	2.2	3.0	1.0	1.5	2.0	2.0
Ky81-2211	2.2	4.0	2.0	2.0	2.0	2.0
Ky81-2212	2.2	3.0	2.0	1.5	2.0	2.0
N83-120	2.0	4.0	2.0	2.5	2.0	2.0
N83-151	2.5	4.0	2.0	1.5	2.0	2.0
N83-311	1.5	3.5	2.0	1.5	2.0	2.0
N83-375	2.2	3.0	2.0	2.0	2.0	2.0
R83-86	2.5	4.0	2.0	2.0	2.0	2.0
R83-102	2.0	3.0	2.0	2.0	2.0	2.0
R83-272	1.5	2.5	2.0	1.5	2.0	2.0
R83-310	1.8	4.0	2.0	2.0	2.0	2.0
R83-839	1.8	3.0	2.0	1.5	2.0	2.0
S81-2696	1.8	3.0	2.0	1.5	2.0	2.0
S81-2876	2.2	4.0	1.0	1.5	2.0	2.0
S82-1318	2.0	2.0	2.0	2.0	2.0	2.0
Tn82-94	2.2	4.0	2.0	2.0	2.0	2.0
Tn82-162	2.5	3.5	2.0	1.5	2.0	2.0
Tn83-22	2.8	4.0	2.0	1.0	2.0	2.0
Tn83-26	2.5	3.0	2.0	2.5	2.0	2.0
V81-882	2.2	3.5	2.0	2.5	2.0	2.0
V81-1097	1.5	4.0	2.0	1.5	2.0	2.0
V81-2141	1.8	3.0	2.0	2.0	2.0	2.0
V81-2679	1.4	3.5	2.0	2.0	2.0	2.0
V82-201	2.0	3.0	2.0	1.5	2.0	2.0

UNIFORM GROUP VI

1985

	Variety or strain	Parentage	Generation composited
1.	Centennial	D64-4636 X tawny pubescent Pickett 71 type	F_5
2.	Tracy-M	Metribuzin tolerant sel. from Tracy (D61-618 X D60-9647)	F_{10}
3.	Leflore	Centennial X J74-47	F_5
4.	D79-6162	Tracy X Centennial	F_5
5.	D80-7987	Bedford X (Tracy X D72-8707)	F_5
6.	J80-293	J74-39 X Centennial	F_5
7.	N81-320	N73-40 X N73-520-4	F_6
8.	N81-1121	N72-3058 X N73-1102	F_6
9.	D82-2228	Bedford X Tracy-M	F_5
10.	D82-3885	Tracy-M X sel (Centennial X D75-10169)	F_5
11.	N82-1050	Young X Bay	F_7
12.	N82-1198	Young X N73-1102	F_7

Background of breeding lines used as parents:

D64-4636 is a selection from Hill X D58-3311. D58-3311 is a bacterial pustule resistant strain selected from Jackson(4) X D49-2491.

J74-47 is a SCN race 4 selection of the same parentage as Bedford.

D72-8707 is a selection from Forrest X D65-3168. D65-3168 is a selection from Hill X PI 96983, resistant to phytophthora rot and soybean mosaic virus.

J74-39 is a SCN race 4 resistant line of the same parentage as Bedford.

N73-40 is a selection from N66-1783 X Lee 68 which was evaluated in Preliminary Group V in 1975.

N73-520-4 is a selection from Tracy X Ransom.

N72-3058 is a selection from F65-1376 X Ransom which was evaluated in Preliminary Group VI, 1975.

N73-1102 is a selection from Tracy X Ransom which was grown in Uniform Group VI, 1977-1979.

D75-10169 is a foliar-feeding insect resistant strain from Govan X sel (Bragg X PI 229358).

Plantings of Uniform Group VI were made at 31 locations for evaluation of seed yield and other agronomic qualities. Additional plantings were made in the field in South Carolina and Florida for evaluation of reaction to root-knot nematodes, in the greenhouse at Jackson, Tennessee to evaluate for reaction to SCN races 3 and 4, and in the field cage at Stoneville to evaluate for feeding by soybean looper. Table 29 gives a general summary of performance for seed yield, agronomic characteristics, oil and protein content, and reaction to several pests. Data from individual locations are reported in Tables 30 through 35.

The five-year comparison between Centennial and Leflore (D77-6166) shows the overall mean seed yield to be 39.5 bushels per acre for each. Leflore has resistance to SCN race 4 which Centennial does not have. I am suggesting that we drop Centennial as a check variety and replace it with Leflore.

The three strains, D79-6162, D80-7987, and J80-293, have been evaluated three years. Each of these strains has performed very well. I will propose that D79-6162 be released for production as a replacement for Tracy-M. D79-6162 has produced very well in the Southeast and in the Delta regions. D79-6162 has the same two major genes for resistance to phytophthora rot and to stem canker as Tracy-M. In addition it is resistant to SCN race 3 and to the root-knot nematode M. incognita. In irrigation studies at Stoneville on heavy clay, as a mean for three years, D79-6162 has an 11% advantage in seed yield over Tracy-M.

The two strains, N81-320 and N81-1121, have been evaluated two years. Each has yielded well, but neither has resistance to cyst nematodes or root-knot nematodes. It is suggested that N81-1121 be continued for evaluation in 1986.

The four strains, D82-2228, D82-3885, N82-1050, and N82-1198, have been included one year. It is suggested that N82-1050 be dropped. D82-2228 has good resistance to M. incognita and SCN races 3 and 4. In local studies it has shown good resistance to stem canker. D82-3885 has been selected for resistance to foliar-feeding insects. It also has resistance to M. incognita and in some studies has shown variability in reaction to SCN race 3. Sublines are being screened to attempt to identify SCN race 3 resistant lines. N82-1198 has a high mean seed yield in each of the production regions.

Table 29 - General summary of the performance for the strains grown in Uniform Group VI, 1985

	No. of locations	Centennial	Tracy-M	Leflore	D79-6162	D80-7987
Seed yield - 1985						
East Coast	6	33.5	31.1	31.2	30.2	30.8
Southeast	6	39.9	38.1	43.8	42.0	36.8
Upper & Central South	5	43.4	43.4	46.3	42.0	41.3
Delta	9	34.7	35.6	37.4	36.7	34.2
West	4	36.3	38.6	40.4	36.0	37.0
1984-85						
East Coast		37.7	37.1	36.4	36.2	36.4
Southeast		42.0	39.4	44.3	43.6	40.2
Upper & Central South		40.8	42.1	43.5	40.4	41.5
Delta		36.4	36.9	38.1	39.3	36.5
West		35.7	34.5	37.3	34.9	36.4
1983-85						
East Coast		36.3	35.1	35.0	35.2	35.6
Southeast		40.7	36.9	41.2	41.5	36.7
Upper & Central South		41.2	40.9	42.9	39.8	41.2
Delta		37.7	37.5	38.4	39.5	38.3
West		38.8	39.1	39.4	38.0	40.0
Oil Content - 1985		19.6	19.1	18.6	18.7	20.4
1984-85		19.6	18.7	18.8	18.7	20.1
1983-85		19.5	18.7	18.9	18.6	20.2
Protein Content - 1985		43.5	43.5	42.7	43.4	40.2
1984-85		43.1	43.5	42.3	43.0	39.9
1983-85		43.4	43.9	42.5	43.5	40.1
Seed size		14.1	16.7	13.4	16.2	12.3
Maturity index		10-18	-3	-1	0	-2
Height		38	37	39	42	38
Seed quality		2.0	2.3	2.5	2.7	2.4
M. incognita		1.0	2.5	1.0	1.0	1.5
M. arenaria		4.3	4.3	4.3	5.0	2.5
SCN race 3		R	S	R	R	R
SCN race 4		S	S	R	S	R
Cylindrocladium		4.0	1.0	1.5	2.0	2.5
Soybean looper		5.0	3.0	4.0	4.0	4.0
Flower color		P	W	P	W	W
Pubescence color		T	T	T	T	G
Pod wall color		T	T	T	T	T

Table 29 - (continued)

	J80-293	N81-320	N81-1121	D82-2228	D82-3885	N82-1050	N82-1198
Seed yield - 1985							
East Coast	33.8	32.4	35.8	31.6	31.4	30.5	34.0
Southeast	41.3	40.5	42.1	38.4	42.0	37.5	44.0
Upper & Central South	44.4	48.1	46.4	44.5	44.3	45.0	46.2
Delta	36.0	35.4	35.2	38.4	33.9	34.7	39.3
West	42.6	40.8	44.2	41.1	37.0	36.0	44.1
1984-85							
East Coast	39.6	38.3	38.6				
Southeast	42.0	43.4	43.8				
Upper & Central South	43.1	44.4	43.8				
Delta	37.4	38.3	37.6				
West	39.2	38.2	40.3				
1983-85							
East Coast	37.6						
Southeast	37.9						
Upper & Central South	42.6						
Delta	38.6						
West	43.1						
Oil Content - 1985	19.9	20.2	21.3	19.0	19.6	21.8	20.3
1984-85	19.9	20.1	20.9				
1983-85	19.9						
Protein Content - 1985	43.5	42.2	42.9	42.3	43.1	41.3	42.7
1984-85	43.1	42.0	42.6				
1983-85	43.2						
Seed size	12.7	16.3	15.4	16.2	15.2	16.0	13.0
Maturity index	-1	-1	-2	0	-1	-6	-3
Height	37	44	33	39	36	36	38
Seed quality	2.2	2.3	1.9	2.5	2.4	2.6	2.2
M. incognita	1.0	5.0	5.0	2.0	1.0	4.0	4.0
M. arenaria	3.5	3.8	4.8	4.0	5.0	4.0	5.0
SCN race 3	R	S	S	R	S	S	S
SCN race 4	R	S	S	R	S	S	S
Cylindrocladium	2.0	4.0	1.5	1.5	1.5	2.0	1.0
Soybean looper	3.5	3.0	3.5	3.0	1.5	4.0	3.0
Flower color	W	P	P	W	W	W	W
Pubescence color	T	T	T	T	T	G	G
Pod wall color	T	T	Br	T	T	T	T

Table 30 - Seed yield, in bushels per acre, for the strains in Uniform Group VI, 1985

Location	Centennial	Tracy-M	Leflore	D79-6162	D80-7987	J80-293	N81-320
			EAST COAST				
Warsaw, VA	35.6	39.4+	36.7	38.1	32.9	36.2	41.2+
Holland, VA	44.5	38.8	41.4	36.4	41.3	44.5	46.6
Plymouth, NC	38.2	39.1	40.4	37.0	34.2	39.8	37.8
Kinston, NC	27.6	27.2	27.2	27.7	27.1	32.4	25.5
Florence, SC	30.5	23.0	25.8	24.8	29.6	33.1	25.5
Hartsville, SC	24.4	18.8-	15.4-	17.4-	19.8-	16.7-	17.7-
Mean	33.5	31.1	31.2	30.2	30.8	33.8	32.4
			SOUTHEAST				
Blackville, SC	30.3	36.2	38.3	34.5	30.6	36.4	29.4
Tifton, GA	48.7	42.6	49.8	51.5	41.3	52.1	53.4
*Quincy, FL	39.8	30.6-	33.7-	36.5	20.3-	30.9-	31.6-
Jay, FL	32.2	30.1	40.4+	34.8	37.8	30.8	29.8
Fairhope, AL	38.7	40.7	43.2	48.0+	32.3-	45.6+	46.0+
Baton Rouge, LA	34.4	23.3-	34.3	28.1	23.5-	28.9	29.7
Tallassee, AL	55.1	55.9	56.5	54.8	55.4	54.0	54.8
Mean	39.9	38.1	43.8	42.0	36.8	41.3	40.5
			UPPER AND CENTRAL SOUTH				
Athens, GA	48.9	50.1	56.8	56.4	51.4	48.6	58.2+
Calhoun, GA	54.1	47.3	54.7	37.1-	34.2-	50.6	58.2
Belle Mina, AL	44.0	45.4	47.4	51.1+	48.7	45.0	49.7
Clemson, SC	30.5	34.0	33.5	33.9	30.3	32.8	35.8+
Jackson, TN	39.6	40.3	39.0	31.4	41.7	44.9	38.8
Mean	43.4	43.4	46.3	42.0	41.3	44.4	48.1
			DELTA				
Portageville, MO (A)	37.1	34.5	32.4	37.3	35.1	31.0	35.0
Portageville, MO (B)	33.3	38.2	37.6	42.2+	36.2	35.2	33.9
Keiser, AR	60.0	63.4	66.4	59.5	52.6	63.1	62.2
Jonesboro, AR	19.8	20.6	19.3	17.6	21.5	20.0	20.7
Pine Tree, AR	28.8	25.9	39.6+	30.6	41.2+	41.5+	28.5
Stoneville, MS (A)	40.3	45.3	45.2	40.8	37.7	41.7	43.0
Stoneville, MS (B)	35.5	34.5	35.9	38.2	40.6+	37.5	37.4
St. Joseph, LA	26.6	25.3	26.6	35.6+	10.0-	20.4	22.3
Rohwer, AR	31.3	32.4	33.6	28.9	33.0	33.3	35.6
Mean	34.7	35.6	37.4	36.7	34.2	36.0	35.4
			WEST				
Stuttgart, AR	45.6	51.1+	49.3	45.2	45.5	47.9	49.9
Bossier City, LA	47.0	45.2	49.7	48.4	40.3-	50.1	47.5
Beaumont, TX	23.5	22.6	23.4	20.7	20.8	26.1	25.6
Bixby, OK	29.1	35.6	39.1+	29.5	41.5+	46.1+	40.3+
Mean	36.3	38.6	40.4	36.0	37.0	42.6	40.8

*Not included in mean
(+) - Strains yielding significantly more (odds 19:1 or greater) than Centennial.
(-) - Strains yielding significantly less (odds 19:1 or greater) than Centennial.

Table 30 - (continued)

Location	N81-1121	D82-2228	D82-3885	N82-1050	N82-1198	L.S.D. (.05)	C.V. (%)
			EAST COAST				
Warsaw, VA	37.2	41.7+	37.3	33.3	36.4	3.6	6
Holland, VA	50.2	36.2	35.2	38.7	38.4	10.4	15
Plymouth, NC	35.6	39.3	38.3	38.2	36.7	5.8	9
Kinston, NC	32.2	27.9	31.4	27.7	30.6	8.2	17
Florence, SC	33.4	26.3	31.1	31.8	35.6	6.0	12
Hartsville, SC	25.9	18.4-	14.8-	13.4-	26.4	3.9	12
Mean	35.8	31.6	31.4	30.5	34.0		
			SOUTHEAST				
Blackville, SC	37.4	31.6	37.8	40.3	39.4	N.S.	12
Tifton, GA	50.1	43.8	50.1	47.6	51.2	3.7	10
Quincy, FL	30.2-	32.4-	33.4-	32.6-	31.9-	5.5	10
Jay, FL	32.5	31.6	34.7	29.3	34.3	7.6	14
Fairhope, AL	42.4	37.1	40.7	25.8-	48.4+	5.6	8
Baton Rouge, LA	28.7	28.3	31.0	22.5-	30.8	7.2	15
Tallassee, AL	61.4+	58.1	57.8	59.6	60.1	5.4	6
Mean	42.1	38.4	42.0	37.5	44.0		
			UPPER AND CENTRAL SOUTH				
Athens, GA	53.1	47.6	54.0	51.0	56.6	8.7	10
Calhoun, GA	53.5	49.3	56.6	48.6	52.2	10.1	12
Belle Mina, AL	45.7	49.1	39.7	46.0	41.3	6.6	9
Clemson, SC	40.9+	33.6	34.8	39.1+	41.2+	4.4	7
Jackson, TN	39.0	42.9	36.2	40.3	39.5	N.S.	14
Mean	46.4	44.5	44.3	45.0	46.2		
			DELTA				
Portageville, MO (A)	28.6-	37.7	32.7	36.3	30.8	6.9	12
Portageville, MO (B)	37.3	38.7	33.4	35.2	35.2	5.4	9
Keiser, AR	57.8	68.8	62.0	60.0	71.3+	9.9	9
Jonesboro, AR	22.6	21.6	23.5	16.6	22.1	N.S.	14
Pine Tree, AR	26.1	38.0	30.7	30.8	29.0	10.1	18
Stoneville, MS (A)	46.3+	47.5+	41.4	37.6	52.5+	5.5	8
Stoneville, MS (B)	41.5+	38.4	36.7	43.7+	40.7+	5.0	8
St. Joseph, LA	27.6	19.9	14.4-	15.3-	35.7+	7.5	19
Rohwer, AR	29.1	35.0	30.7	36.4+	36.5+	4.4	8
Mean	35.2	38.4	33.9	34.7	39.3		
			WEST				
Stuttgart, AR	45.8	48.6	39.9-	44.3	52.1+	5.3	7
Bossier City, LA	54.6+	49.2	46.4	43.0	53.5+	4.5	6
Beaumont, TX	33.0+	29.1+	20.6	16.8-	24.4	5.1	13
Bixby, OK	43.4+	37.6	41.2+	39.8+	47.5+	9.1	14
Mean	44.2	41.1	37.0	36.0	44.1		

Table 31 - Chemical composition and seed size for the strains in Uniform Group VI, 1985

Location	Centennial	Tracy-M	Leflore	D79-6162	D80-7987	J80-293
			OIL PERCENTAGE			
Holland, VA	19.8	19.5	19.5	19.0	20.5	21.4
Plymouth, NC	21.2	20.3	19.8	18.9	21.8	21.3
Kinston, NC	19.2	18.5	18.1	18.8	19.7	20.0
Jay, FL	20.9	20.8	18.9	21.0	21.7	20.1
Jackson, TN	19.2	18.7	17.9	18.0	19.5	20.4
Portageville, MO (A)	18.6	18.1	18.0	17.1	19.3	18.8
Keiser, AR	18.9	18.0	18.3	17.5	20.0	18.4
Stoneville, MS (B)	19.2	19.3	18.7	19.0	20.7	19.7
Stuttgart, AR	19.3	18.4	18.2	18.7	20.5	18.9
Mean	19.6	19.1	18.6	18.7	20.4	19.9
			PROTEIN PERCENTAGE			
Holland, VA	44.1	43.7	42.6	43.4	41.1	43.2
Plymouth, NC	41.7	42.1	41.2	43.3	39.1	40.4
Kinston, NC	45.4	45.8	45.2	45.3	43.5	44.6
Jay, FL	42.5	42.3	42.6	41.5	39.6	43.6
Jackson, TN	42.1	41.4	42.2	42.4	40.1	43.0
Portageville, MO (A)	43.1	43.4	43.0	42.8	40.5	43.7
Keiser, AR	43.3	43.0	40.8	43.2	36.8	43.2
Stoneville, MS (B)	44.3	45.3	43.7	45.3	41.5	44.9
Stuttgart, AR	44.7	44.5	42.9	43.3	40.0	45.0
Mean	43.5	43.5	42.7	43.4	40.2	43.5
			GRAMS PER 100 SEEDS			
Holland, VA	18.0	19.3	16.4	19.5	13.9	15.6
Plymouth, NC	13.6	17.2	13.5	17.7	11.4	13.1
Kinston, NC	16.4	16.0	16.2	17.3	13.7	14.9
Jay, FL	13.0	16.0	12.0	15.0	12.0	10.0
Jackson, TN	14.5	15.9	13.5	15.3	12.2	13.3
Portageville, MO (A)	12.7	16.2	10.9	15.6	10.8	11.5
Keiser, AR	13.0	16.3	12.1	15.7	12.0	12.2
Stoneville, MS (B)	11.0	14.5	11.2	12.0	10.9	10.2
Stuttgart, AR	14.3	19.0	15.0	18.0	13.7	13.7
Mean	14.1	16.7	13.4	16.2	12.3	12.7

Table 31 - (continued)

Location	N81-320	N81-1121	D82-2228	D82-3885	N82-1050	N82-1198
			OIL PERCENTAGE			
Holland, VA	20.3	22.0	19.7	20.0	21.2	20.6
Plymouth, NC	20.9	22.4	19.4	20.1	22.5	20.6
Kinston, NC	19.7	20.8	19.3	19.5	21.7	19.2
Jay, FL	22.1	22.7	20.4	21.4	21.4	21.8
Jackson, TN	19.5	21.0	17.6	18.7	21.6	20.1
Portageville, MO (A)	19.1	19.6	17.9	18.4	20.6	19.9
Keiser, AR	19.5	20.1	18.4	18.8	21.4	20.0
Stoneville, MS (B)	21.2	21.9	19.6	19.8	24.1	20.6
Stuttgart, AR	19.9	21.0	18.8	19.8	22.1	20.2
Mean	20.2	21.3	19.0	19.6	21.8	20.3
			PROTEIN PERCENTAGE			
Holland, VA	42.8	43.0	43.0	43.7	42.3	43.7
Plymouth, NC	40.9	41.6	41.2	42.1	38.4	40.5
Kinston, NC	44.5	44.8	44.3	44.6	43.6	43.6
Jay, FL	40.0	41.6	41.3	41.2	42.1	41.7
Jackson, TN	41.6	42.0	41.8	41.9	39.6	41.1
Portageville, MO (A)	42.4	43.7	42.3	43.6	41.2	43.5
Keiser, AR	41.5	42.5	41.2	42.9	40.5	42.1
Stoneville, MS (B)	42.8	43.2	43.1	44.0	41.6	44.1
Stuttgart, AR	43.6	43.6	42.7	43.5	42.4	44.3
Mean	42.2	42.9	42.3	43.1	41.3	42.7
			GRAMS PER 100 SEEDS			
Holland, VA	19.1	17.4	19.3	18.3	18.0	14.3
Plymouth, NC	16.1	15.0	17.3	16.2	15.6	12.7
Kinston, NC	19.2	18.0	17.9	18.4	16.7	14.5
Jay, FL	14.0	14.0	14.0	13.0	14.0	13.0
Jackson, TN	16.3	15.5	16.4	15.2	15.2	12.6
Portageville, MO (A)	15.9	13.2	14.7	14.2	15.8	11.6
Keiser, AR	14.2	14.1	15.2	13.5	14.8	12.7
Stoneville, MS (B)	14.0	13.7	13.4	12.4	17.2	11.0
Stuttgart, AR	18.3	17.7	18.0	16.0	17.0	15.0
Mean	16.3	15.4	16.2	15.2	16.0	13.0

Table 32 - Relative maturity data, days earlier (-) or later (+) than Centennial, for the strains in Uniform Group VI, 1985

Location	Date planted	Centennial	Tracy-M	Leflore	D79-6162	D80-7987	J80-293
			EAST COAST				
Warsaw, VA	6-3	10-27	-1	-2	+3	0	-1
Holland, VA	5-29	10-28	-10	0	0	-2	-2
Plymouth, NC	6-13	10-24	0	0	+4	0	0
Kinston, NC	5-17	10-24	0	0	0	0	0
Florence, SC	5-20	10-20	-1	-1	-1	0	-2
Hartsville, SC	5-24	10-12	-3	+1	+1	-1	-1
Mean	5-28	10-23	-1	0	+1	-1	-1
			SOUTHEAST				
Blackville, SC	5-14	10-10	-4	-2	+3	-3	-2
Tifton, GA	5-23	10-9	-6	-3	-5	-2	-2
Jay, FL	6-25	10-30	-18	-15	-13	-11	-18
Fairhope, AL	6-14	10-13	-6	-1	0	0	-1
Tallassee, AL	5-24	10-12	-7	-1	-1	-1	-1
Mean	5-26	10-15	-8	-4	-3	-3	-5
			UPPER AND CENTRAL SOUTH				
Athens, GA	5-20	10-13	-7	-2	-2	-3	-3
Calhoun, GA	5-21	10-22	F	0	F	+6	+1
Belle Mina, AL	5-6	10-3	-9	0	0	0	0
Clemson, SC	5-14	10-13	-4	-2	+2	-3	-1
Jackson, TN	5-14	10-25	0	0	0	0	0
Mean	5-15	10-15	-5	-1	0	0	-1
			DELTA				
Portageville, MO (A)	5-20	10-21	-1	+1	+1	-1	-2
Portageville, MO (B)	5-21	10-23	-2	-1	0	-5	-3
Keiser, AR	5-16	10-26	0	+2	+4	+1	-1
Jonesboro, AR	5-17	10-23	-2	-1	0	-2	+1
Pine Tree, AR	6-7	10-29	-2	-1	0	-2	+1
Stoneville, MS (A)	5-9	10-16	-1	-1	+3	+1	0
Stoneville, MS (B)	5-10	10-14	-4	0	0	0	0
St. Joseph, LA	5-11	10-8	0	+1	+3	-1	0
Rohwer, AR	6-3	10-11	-7	0	0	-3	0
Mean	5-20	10-19	-2	0	+1	-1	0
			WEST				
Stuttgart, AR	5-24	10-18	-1	-1	0	-3	-3
Beaumont, TX	5-29	10-14	+3	+4	+5	0	0
Mean	5-27	10-16	+1	+2	+3	-2	-2

Table 32 - (continued)

Location	N81-320	N81-1121	D82-2228	D82-3885	N82-1050	N82-1198
			EAST COAST			
Warsaw, VA	+1	-3	+1	0	+1	-3
Holland, VA	-2	-8	0	-3	-5	-10
Plymouth, NC	0	0	+7	0	0	0
Kinston, NC	0	0	0	0	0	0
Florence, SC	0	-2	-2	-2	-2	-3
Hartsville, SC	+2	0	+1	-3	-6	-1
Mean	0	-2	+1	0	-2	-3
			SOUTHEAST			
Blackville, SC	-4	-4	-1	-2	-6	-4
Tifton, GA	-4	-3	-4	-3	-8	-4
Jay, FL	-16	-16	-15	-15	-22	-19
Fairhope, AL	-1	-2	0	0	-2	-5
Tallassee, AL	-3	-4	-1	-1	-6	-4
Mean	-6	-6	-4	-4	-9	-7
			UPPER AND CENTRAL SOUTH			
Athens, GA	-3	-4	-3	-4	-6	-7
Calhoun, GA	+3	+6	F	+1	+3	+1
Belle Mina, AL	0	0	-3	0	-11	-3
Clemson, SC	-2	-4	-3	-2	-3	-3
Jackson, TN	0	0	0	0	-17	-14
Mean	0	0	-2	-1	-6	-5
			DELTA			
Portageville, MO (A)	+1	0	-1	-1	-4	-2
Portageville, MO (B)	-2	-4	-3	-2	-6	-4
Keiser, AR	0	0	-1	+1	0	0
Jonesboro, AR	-1	-4	-1	-2	-21	-4
Pine Tree, AR	-1	-4	-1	-2	-21	-4
Stoneville, MS (A)	-1	+3	+1	-1	-3	+3
Stoneville, MS (B)	0	0	-1	0	-4	-2
St. Joseph, LA	-1	-1	+4	-1	-6	-1
Rohwer, AR	0	0	0	0	-7	-6
Mean	-1	-1	0	-1	-8	-2
			WEST			
Stuttgart, AR	-2	-1	+1	-2	-10	-2
Beaumont, TX	+2	+1	+4	+4	+1	+2
Mean	0	0	+3	+1	-5	0

Table 33 - Plant height for the strains in Uniform Group VI, 1985

Location	Centennial	Tracy-M	Leflore	D79-6162	D80-7987	J80-293
			EAST COAST			
Warsaw, VA	37	37	41	43	39	37
Holland, VA	41	41	46	49	42	46
Plymouth, NC	38	36	38	42	38	40
Florence, SC	39	31	37	40	37	35
Hartsville, SC	41	39	45	45	38	36
Mean	39	37	41	44	39	39
			SOUTHEAST			
Blackville, SC	31	32	32	39	31	32
Tifton, GA	39	36	39	43	36	36
Jay, FL	30	27	26	29	24	26
Fairhope, AL	33	32	34	36	24	32
Baton Rouge, LA	40	35	39	44	34	34
Tallassee, AL	40	39	43	44	41	40
Mean	36	34	36	39	32	33
			UPPER AND CENTRAL SOUTH			
Athens, GA	40	38	43	44	39	39
Calhoun, GA	42	47	44	57	52	49
Belle Mina, AL	41	40	42	47	40	37
Clemson, SC	40	36	38	41	37	39
Jackson, TN	48	45	54	48	48	48
Mean	42	41	44	47	43	42
			DELTA			
Portageville, MO (A)	40	35	38	42	43	35
Portageville, MO (B)	36	38	34	37	27	34
Keiser, AR	36	39	37	40	35	34
Jonesboro, AR	38	37	42	42	39	37
Pine Tree, AR	34	35	37	44	38	39
Stoneville, MS (A)	35	37	38	39	35	35
Stoneville, MS (B)	26	25	28	34	27	23
St. Joseph, LA	36	33	39	40	34	32
Rohwer, AR	37	35	38	43	37	34
Mean	35	35	37	40	35	34
			WEST			
Stuttgart, AR	44	43	45	48	48	43
Bossier, City, LA	40	40	39	47	39	39
Beaumont, TX	26	23	28	32	24	22
Bixby, OK	34	37	43	41	45	41
Mean	36	36	39	42	39	36

Table 33 - (continued)

Location	N81-320	N81-1121	D82-2228	D82-3885	N82-1050	N82-1198
		EAST COAST				
Warsaw, VA	47	35	42	36	38	38
Holland, VA	51	39	44	41	41	42
Plymouth, NC	36	38	36	44	38	42
Florence, SC	42	32	38	35	36	40
Hartsville, SC	49	36	42	37	39	40
Mean	45	36	40	39	38	40
		SOUTHEAST				
Blackville, SC	37	30	32	33	33	33
Tifton, GA	42	31	35	33	37	37
Jay, FL	30	26	24	26	22	24
Fairhope, AL	38	26	34	31	27	34
Baton Rouge, LA	43	31	36	38	37	37
Tallassee, AL	47	37	37	35	40	40
Mean	40	30	33	33	33	34
		UPPER AND CENTRAL SOUTH				
Athens, GA	51	32	42	36	42	39
Calhoun, GA	49	41	54	40	42	52
Belle Mina, AL	44	35	41	39	36	42
Clemson, SC	46	35	39	36	39	37
Jackson, TN	53	41	45	47	46	46
Mean	49	37	44	40	41	43
		DELTA				
Portageville, MO (A)	46	34	44	37	36	31
Portageville, MO (B)	46	32	38	33	37	42
Keiser, AR	39	33	38	38	33	36
Jonesboro, AR	47	30	40	37	37	35
Pine Tree, AR	44	31	37	33	39	35
Stoneville, MS (A)	39	35	35	33	37	40
Stoneville, MS (B)	28	23	29	27	24	29
St. Joseph, LA	33	30	35	39	30	36
Rohwer, AR	41	30	36	32	35	39
Mean	40	31	37	34	34	36
		WEST				
Stuttgart, AR	51	39	45	41	42	45
Bossier, City, LA	47	36	44	38	39	43
Beaumont, TX	37	22	32	25	24	26
Bixby, OK	55	35	40	39	27	41
Mean	48	33	40	36	33	39

Table 34 - Lodging scores for the strains in Uniform Group VI, 1985

Location	Centennial	Tracy-M	Leflore	D79-6162	D80-7987	J80-293
			EAST COAST			
Warsaw, VA	2.5	2.8	2.8	3.5	2.5	2.5
Holland, VA	3.0	3.7	3.3	4.3	3.0	3.3
Plymouth, NC	4.0	4.0	3.0	3.0	4.0	3.0
Kinston, NC	3.0	3.0	3.0	3.0	3.0	3.0
Florence, SC	2.7	3.7	2.7	3.0	3.0	3.0
Hartsville, SC	2.5	2.8	2.8	3.5	2.2	2.3
			SOUTHEAST			
Blackville, SC	1.0	1.0	1.0	2.0	1.0	1.0
Tifton, GA	1.1	1.0	1.3	1.3	1.1	1.2
Jay, FL	2.0	1.0	2.0	2.0	2.0	1.0
Fairhope, AL	1.0	1.3	1.0	1.3	1.8	1.3
Baton Rouge, LA	3.0	4.0	3.2	4.3	3.7	2.3
Tallassee, AL	1.3	2.0	1.7	3.3	1.3	1.8
			UPPER AND CENTRAL SOUTH			
Athens, GA	1.8	2.0	2.3	3.3	1.5	1.7
Calhoun, GA	2.5	2.3	3.3	3.0	2.8	2.8
Belle Mina, AL	3.0	3.0	3.0	3.7	3.0	2.3
Clemson, SC	2.2	2.7	2.8	3.5	3.8	2.3
Jackson, TN	3.0	3.0	3.0	2.0	4.0	2.0
			DELTA			
Portageville, MO (A)	1.5	2.0	1.5	2.0	2.0	1.5
Portageville, MO (B)	1.5	2.0	1.5	3.0	1.5	1.5
Keiser, AR	1.0	2.0	1.0	2.0	2.0	1.0
Jonesboro, AR	2.0	2.3	2.3	2.3	2.7	2.0
Pine Tree, AR	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, MS (A)	2.0	2.0	2.0	3.0	2.0	2.0
Stoneville, MS (B)	2.0	2.0	2.0	2.7	2.0	2.0
St. Joseph, LA	2.2	2.2	2.3	3.0	2.6	2.2
Rohwer, AR	1.0	1.0	1.0	3.0	1.3	1.0
			WEST			
Stuttgart, AR	2.4	2.8	2.7	3.4	2.9	2.4
Bossier, City, LA	1.1	1.3	1.3	2.3	1.0	1.5
Beaumont, TX	1.1	1.0	1.2	1.6	1.0	1.1
Bixby, OK	2.0	2.0	2.0	2.0	1.0	2.0

Table 34 - (continued)

Location	N81-320	N81-1121	D82-2228	D82-3885	N82-1050	N82-1198
		EAST COAST				
Warsaw, VA	2.5	2.2	3.2	2.8	2.3	2.7
Holland, VA	3.3	2.7	3.7	3.0	4.0	3.7
Plymouth, NC	4.0	3.0	4.0	4.0	4.0	3.0
Kinston, NC	3.0	3.0	3.0	3.0	3.0	3.0
Florence, SC	3.0	2.0	3.0	3.0	4.0	3.0
Hartsville, SC	3.2	1.0	3.0	2.7	3.0	2.7
		SOUTHEAST				
Blackville, SC	1.0	1.0	1.0	1.0	1.0	1.0
Tifton, GA	1.2	1.0	1.1	1.3	1.1	1.0
Jay, FL	2.0	1.0	2.0	2.0	2.0	1.0
Fairhope, AL	1.8	1.0	2.0	1.0	1.8	1.3
Baton Rouge, LA	3.7	2.5	3.3	3.2	3.7	2.2
Tallassee, AL	1.8	1.0	2.8	1.8	1.8	1.8
		UPPER AND CENTRAL SOUTH				
Athens, GA	2.0	1.5	2.0	1.7	2.2	1.5
Calhoun, GA	2.8	2.0	2.7	2.8	2.8	3.0
Belle Mina, AL	2.3	1.7	3.3	3.3	3.0	2.3
Clemson, SC	2.3	1.0	3.8	2.3	3.7	3.2
Jackson, TN	2.0	1.0	3.0	2.0	2.0	2.0
		DELTA				
Portageville, MO (A)	1.5	1.0	2.0	1.5	1.5	1.0
Portageville, MO (B)	2.0	1.0	1.5	2.0	2.0	1.5
Keiser, AR	1.0	1.0	3.0	2.0	2.0	2.0
Jonesboro, AR	2.3	1.0	2.0	2.3	2.3	2.3
Pine Tree, AR	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, MS (A)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, MS (B)	3.0	2.0	2.0	2.7	2.0	2.0
St. Joseph, LA	2.8	2.1	3.0	2.8	3.3	2.2
Rohwer, AR	1.3	1.0	1.7	1.0	1.0	1.7
		WEST				
Stuttgart, AR	2.2	1.5	2.7	2.7	3.1	2.2
Bossier, City, LA	1.8	1.0	1.3	1.5	1.6	1.5
Beaumont, TX	1.3	1.0	1.6	1.3	1.1	1.1
Bixby, OK	2.0	2.0	2.0	2.0	1.0	2.0

Table 35 - Seed quality scores for the strains in Uniform Group VI, 1985

Location	Centennial	Tracy-M	Leflore	D79-6162	D80-7987	J80-293
			EAST COAST			
Warsaw, VA	1.5	1.2	2.0	1.3	1.8	1.8
Holland, VA	3.0	2.3	2.7	2.7	3.0	2.7
Plymouth, NC	3.5	3.0	3.0	3.0	3.0	2.5
Kinston, NC	2.0	2.5	3.0	3.0	4.5	2.0
			SOUTHEAST			
Blackville, SC	1.0	2.0	1.0	2.0	1.0	1.5
Tifton, GA	1.5	3.0	2.5	3.0	2.0	1.5
Quincy, FL	2.0	2.7	2.3	2.0	2.3	2.7
Jay, FL	2.0	2.0	2.0	2.0	2.0	2.0
Baton Rouge, LA	3.2	3.4	3.8	3.3	4.2	2.7
			UPPER AND CENTRAL SOUTH			
Athens, GA	1.5	1.8	1.5	2.0	1.5	1.5
Calhoun, GA	1.5	2.5	1.7	2.3	1.9	1.7
Jackson, TN	2.0	3.0	3.0	2.0	1.0	2.0
			DELTA			
Portageville, MO (A)	2.5	2.5	3.0	2.5	2.5	2.5
Portageville, MO (B)	2.5	2.5	2.5	2.5	2.5	2.0
Keiser, AR	2.5	1.5	1.5	2.0	1.5	1.5
Jonesboro, AR	3.0	1.3	3.0	2.7	1.0	2.0
Pine Tree, AR	2.0	1.3	1.3	2.0	1.3	1.7
Stoneville, MS (A)	2.7	2.7	3.0	2.7	3.0	3.0
Stoneville, MS (B)	3.0	2.3	3.0	3.0	3.0	3.0
St. Joseph, LA	5.0	5.0	5.0	5.0	5.0	5.0
Rohwer, AR	1.5	2.5	2.0	2.5	1.5	1.7
			WEST			
Stuttgart, AR	1.5	2.0	2.0	2.0	1.5	1.0
Beaumont, TX	3.2	3.8	4.0	4.8	3.8	2.8

Table 35 - (continued)

Location	N81-320	N81-1121	D82-2228	D82-3885	N82-1050	N82-1198
			EAST COAST			
Warsaw, VA	1.5	1.8	1.5	1.8	1.4	1.5
Holland, VA	2.7	2.7	2.3	2.7	3.0	2.7
Plymouth, NC	3.5	3.0	3.0	2.5	4.0	3.0
Kinston, NC	2.5	2.5	3.0	3.0	3.0	3.0
			SOUTHEAST			
Blackville, SC	2.0	1.0	2.0	1.5	1.5	1.0
Tifton, GA	2.0	2.0	2.0	2.0	2.5	1.5
Quincy, FL	2.0	2.3	2.7	3.0	2.3	2.0
Jay, FL	2.0	2.0	2.0	2.0	2.0	2.0
Baton Rouge, LA	3.2	3.0	3.8	3.8	4.7	3.2
			UPPER AND CENTRAL SOUTH			
Athens, GA	1.8	1.5	1.5	1.5	1.5	1.5
Calhoun, GA	1.5	1.6	2.5	2.0	1.8	2.2
Jackson, TN	2.0	1.0	2.0	2.0	2.0	2.0
			DELTA			
Portageville, MO (A)	2.0	2.0	2.5	2.5	2.5	2.0
Portageville, MO (B)	2.0	2.0	2.5	2.5	2.0	2.0
Keiser, AR	1.5	1.0	2.0	1.0	1.5	1.5
Jonesboro, AR	1.7	1.7	2.3	2.0	2.0	1.0
Pine Tree, AR	1.3	1.0	1.0	1.7	1.0	1.0
Stoneville, MS (A)	2.3	2.3	2.7	3.0	3.0	2.3
Stoneville, MS (B)	2.3	2.3	3.0	3.0	3.0	2.7
St. Joseph, LA	5.0	4.0	5.0	5.0	5.0	5.0
Rohwer, AR	1.5	2.0	2.2	2.0	2.0	2.0
			WEST			
Stuttgart, AR	2.0	1.0	2.0	2.0	2.5	1.5
Beaumont, TX	3.3	2.3	4.5	4.3	5.0	3.8

PRELIMINARY GROUP VI

1985

Preliminary Group VI nurseries, which included Centennial and Bedford along with 34 experimental strains, were planted at 8 locations for evaluation of seed yield and other agronomic qualities. Additional plantings were made for evaluating reaction to root-knot nematodes, cyst nematodes, and feeding by soybean looper. The planting at Holland, Virginia was not harvested because of prolonged rainy weather. Data were incomplete from the plantings for M. incognita evaluation at Jay, Florida. The parentage for each of the strains is reported in Table 36. A general summary of performance is given in Table 37. Data from individual locations are reported in Tables 38 through 42.

Seed yields were reasonably good and satisfactory for good strain evaluation at each of the locations. Differences among strains for seed yield were significant at the 5% level of confidence at each of the locations, and as a mean of all locations.

Bedford averaged 1.8 bushels per acre higher than Centennial. This suggests that there may have been some advantage for earlier maturing strains. There were four strains having mean seed yields significantly greater than for Centennial at the 5% level of confidence, and one strain which had a mean seed yield significantly below that for Centennial. There were 8 strains having resistance to SCN race 3, 5 strains with resistance to SCN races 3 and 4, and 18 strains having a moderate level of resistance to M. arenaria. D82-3213 appeared to have good multiple pest resistance.

J77-339, which is highly susceptible to stem canker, was included to be an indicator whether stem canker was present at any of the locations. Stem canker was reported showing in J77-339 late in the season at Tallassee, Alabama. At this location seed yield was significantly below that for Centennial.

Strains which appear to merit advance to Uniform Group VI are D82-5249, G81-140, G81-333, N83-640, and R83-1552.

Table 36 - Parentage of the strains in Preliminary Group VI, 1985

	Variety or strain	Parentage	Generation composited
1.	Centennial	D64-4636 X tawny pub. Pickett 71 type	F_5
2.	Bedford	Forrest(2) X (D68-18 X PI 88788)	F_5
3.	J77-339	Centennial X J74-57	F_5
4.	Au82-387	N73-693 X F76-8757	F_5
5.	D81-7602	Centennial X D70-6545	F_6
6.	D81-8127	D74-7741 X (Forrest X PI 341247)	F_5
7.	D82-3073	Bedford X sel (J74-39 X D75-10169)	F_5
8.	D82-3213	Bedford X sel (J74-39 X D75-10169)	F_5
9.	D82-3728	Tracy-M X sel (Centennial X D75-10169)	F_5
10.	D82-3829	Tracy-M X sel (Centennial X D75-10169)	F_5
11.	D82-5249	Centennial(2) X D75-11061	F_5
12.	D83-579	D76-9665 X sel [Forrest X sel (Peking X Centennial)]	F_5
13.	G81-140	D74-7741 X Co237	F_6
14.	G81-152	D74-7741 X Co237	F_6
15.	G81-234	Centennial X Bedford	F_6
16.	G81-281	D74-7741 X Wright	F_6
17.	G81-333	D74-7741 X Braxton	F_6
18.	N81-344	N73-40 X N73-520-4	F_7
19.	N83-618	N75-2213 X N73-1102	F_6
20.	N83-630	N75-2213 X N73-1102	F_6
21.	N83-640	N75-2213 X N73-1102	F_6
22.	N83-783	N74-1572 X F73-7082	F_6
23.	N83-2496	N73-520-2 X Ransom(3)	F_6
24.	R83-118	R76-1017 X R68-208	F_5
25.	R83-159	R76-1017 X R68-208	F_5
26.	R83-260	(R74-334 X Centennial) X R74-1438 X F71-1180)	F_5
27.	R83-1446	Line 8 X (R68-208 X Bedford)	F_6
28.	R83-1552	Line 8 X (R68-208 X Bedford)	F_6
29.	S81-2632	S73-86113 X Centennial	F_5
30.	S82-1338	Essex X D74-7741	F_5
31.	S82-1343	Essex X D74-7741	F_5
32.	SC80-108	Centennial X N72-3189	F_3
33.	SC82-450	Govan X Bedford	F_5
34.	SC82-1112	Govan X Centennial	F_5
35.	SC82-1122	Govan X Centennial	F_5
36.	SC82-1132	Govan X Centennial	F_5

Table 37 - General summary of performance for the strains in Preliminary Group VI, 1985

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	M. arenaria[1]	SCN race 3	SCN race 4	Soybean looper
Centennial	41.3	10-17	35	19.9	42.7	4.3	R	S	4.5
Bedford	43.1	-10	37	22.2+	39.7-	3.0	R	R	4.0
J77-339	38.6	-3	39	20.9	41.3	3.0[h]	R	R	4.0
Au82-387	42.8	+3	33	20.5	42.4	5.0	R	S	4.0
D81-7602	44.5	0	36	20.3	42.2	4.8	R	S	5.0
D81-8127	39.3	+1	40	20.3	39.8-	2.2	S	S	4.0
D82-3073	43.2	+1	35	20.7	41.3	2.8	R	R	4.0
D82-3213	42.0	-5	36	20.8	40.6-	3.0	R	R	2.0
D82-3728	37.2	0	37	19.7	42.3	4.5	S	S	2.5
D82-3829	43.4	-3	35	19.8	42.5	5.0	S	S	3.0
D82-5249	43.0	-1	35	20.1	42.3	2.5	R	S	4.0
D83-579	32.4-	-7	23	21.0	41.2	4.0	R	S	4.0
G81-140	45.4	-6	34	22.3+	39.9-	3.0	R	S	3.0
G81-152	46.2	-6	29	21.9+	41.5	2.0	h	S	3.5
G81-234	46.2	-1	37	21.0	39.7-	1.8	h	S	4.5
G81-281	44.6	-9	29	23.4+	38.4-	2.0	R	S	3.5
G81-333	46.4+	-6	31	21.8+	41.0	2.0	R	S	3.5
N81-344	43.2	-4	35	20.3	41.1	4.2	S	S	4.0
N83-618	43.4	-6	36	21.3+	41.7	4.3	S	S	4.0
N83-630	47.5+	-8	38	22.4+	39.5-	4.0	S	S	4.0
N83-640	46.5+	-3	37	22.8+	39.2-	5.0	S	S	2.8
N83-783	41.1	-1	37	20.1	41.3	4.0	S	S	3.5
N83-2496	42.0	-3	30	23.1+	39.9-	4.3	S	S	4.0
R83-118	42.3	-3	32	20.8	41.9	3.0	S	S	4.0
R83-159	40.4	-3	34	22.5+	39.4-	3.2	S	S	4.0
R83-260	40.7	+3	36	21.8+	40.4-	3.5	S	S	3.5
R83-1446	43.6	0	36	20.6	40.6-	3.0	R	R	3.5
R83-1552	46.0	+1	38	20.3	42.8	3.5	R	R	3.0
S81-2632	43.1	-1	24	22.5+	39.6-	3.3	R	S	4.0
S82-1338	47.0+	-5	33	21.2+	40.9	2.3	R	S	3.5
S82-1343	43.9	-6	32	22.2+	41.1	2.5	R	S	4.0
SC80-108	43.0	0	35	20.5	42.0	5.0	R	S	5.0
SC82-450	39.6	+1	36	19.6	40.5-	-	S	S	3.5
SC82-1112	38.8	0	32	19.6	42.2	2.0	S	S	-
SC82-1122	38.9	0	37	19.9	41.7	2.3	S	S	4.0
SC82-1132	38.5	0	35	20.3	40.5-	2.3	S	S	4.0
L.S.D.(.05)	5.0			1.1	1.8				

+ or - designations refer to differences from Centennial.

[1] h = heterozygous

Table 38 - Seed yield, in bushels per acre, for the strains in Preliminary Group VI, 1985

Strain	Plymouth, NC	Athens, GA	Tallassee, AL	Jay, FL	Keiser, AR	Stoneville, MS (A)	Stoneville, MS (B)
Centennial	39.0	37.3	46.5	30.7	64.1	36.2	35.5
Bedford	40.6	49.5+	44.5	31.2	58.5	36.4	41.1
J77-339	34.9	33.5	37.0-	27.1	60.6	37.2	39.8
Au82-387	32.9	47.8+	58.1+	27.1	55.8	37.6	40.2
D81-7602	39.6	39.2	50.9	36.9	67.9	36.3	40.8
D81-8127	25.0-	32.7	50.6	23.1	67.0	37.0	39.5
D82-3073	36.7	36.2	53.3	28.7	61.5	43.9+	42.3+
D82-3213	35.7	33.8	52.7	28.1	62.9	33.9	46.7+
D82-3728	30.4	32.3	46.8	21.6	59.4	35.4	34.6
D82-3829	34.9	46.7+	46.6	28.1	66.9	40.3	40.4
D82-5249	37.5	39.4	43.8	36.9	64.5	36.5	42.3+
D83-579	31.8	30.0	34.9-	7.9-	62.2	44.6+	15.2-
G81-140	29.5	42.7	54.7+	31.1	77.1+	37.4	45.2+
G81-152	33.5	43.0	55.3+	35.5	72.2	35.7	48.3+
G81-234	43.6	44.6	53.4	38.1	66.4	46.2+	31.0
G81-281	36.1	48.0+	52.3	30.6	70.1	29.7	45.2+
G81-333	35.9	45.7+	52.5	27.3	74.7	45.9+	42.9+
N81-344	42.0	35.6	51.4	21.4-	65.5	47.3+	39.5
N83-618	32.7	39.2	52.1	30.3	73.3	39.8	36.7
N83-630	36.7	46.0+	56.4+	31.5	69.3	43.3+	49.4+
N83-640	32.9	43.1	55.9+	29.7	78.9+	45.2+	39.8
N83-783	32.9	34.8	43.7	32.1	66.1	38.6	39.4
N83-2496	35.1	35.1	54.3+	28.9	60.7	39.2	40.9
R83-118	32.2	43.5	48.4	25.2	70.3	33.7	43.0+
R83-159	27.8-	38.7	46.3	27.3	72.3	32.6	37.7
R83-260	32.7	39.6	47.1	29.0	66.7	34.7	34.8
R83-1446	40.6	47.5+	49.2	31.4	57.1	40.1	39.0
R83-1552	37.6	40.9	47.0	39.2	72.9	40.2	44.5+
S81-2632	40.1	36.9	50.9	40.3+	64.4	47.2+	22.0-
S82-1338	39.7	43.6	53.3	31.5	69.3	43.1+	48.8+
S82-1343	35.6	42.3	50.6	33.3	65.4	41.0	38.9
SC80-108	38.2	42.1	52.2	31.2	63.4	35.0	39.0
SC82-450	28.0-	33.7	50.8	28.5	61.5	34.8	40.1
SC82-1112	32.2	40.7	48.5	25.7	55.5	33.5	35.3
SC82-1122	34.2	38.0	52.2	26.2	52.8-	33.8	34.9
SC82-1132	28.4-	36.9	52.9	22.9	60.5	29.9	37.8
L.S.D.(.05)	9.9	7.6	7.2	9.1	10.7	6.6	6.0
C.V.	14%	9%	7%	15%	8%	8%	8%

Table 39 - Oil percentages for the strains in Preliminary Group VI, 1985

Strain	Plymouth, NC	Jay, FL	Keiser, AR	Stoneville, MS (B)
Centennial	20.5	20.3	19.1	19.5
Bedford	22.1	21.0	20.5	25.1
J77-339	20.9	20.6	20.2	21.8
Au82-387	20.6	21.7	19.5	20.2
D81-7602	20.9	20.9	19.1	20.3
D81-8127	21.4	21.3	19.5	19.0
D82-3073	20.5	21.5	19.7	21.0
D82-3213	21.3	20.2	19.5	22.3
D82-3728	19.3	20.0	17.7	21.9
D82-3829	20.7	21.1	18.2	19.3
D82-5249	20.4	20.3	19.1	20.4
D83-579	20.5	21.0	20.8	21.5
G81-140	23.1	21.4	21.8	22.9
G81-152	22.7	21.7	20.3	22.8
G81-234	20.9	21.9	19.7	21.5
G81-281	23.8	23.0	22.3	24.6
G81-333	21.3	22.0	20.3	23.6
N81-344	20.9	20.4	19.3	20.4
N83-618	21.6	21.0	21.0	21.5
N83-630	22.9	21.9	21.2	23.7
N83-640	23.2	21.5	21.8	24.6
N83-783	20.4	20.3	19.9	19.6
N83-2496	24.0	22.6	21.9	23.7
R83-118	21.3	20.0	20.0	22.0
R83-159	23.8	21.7	22.1	22.5
R83-260	23.0	22.8	19.6	21.6
R83-1446	20.4	20.6	19.8	21.4
R83-1552	19.9	20.8	19.2	21.2
S81-2632	21.4	21.8	21.6	25.0
S82-1338	21.1	21.1	20.0	22.7
S82-1343	22.1	21.8	21.5	23.2
SC80-108	21.5	20.8	19.0	20.7
SC82-450	20.5	20.3	18.2	19.5
SC82-1112	20.5	21.1	17.6	19.2
SC82-1122	21.0	20.2	18.3	19.9
SC82-1132	21.1	21.0	19.2	19.9

Table 40 - Protein percentages for the strains in Preliminary Group VI, 1985

Strain	Plymouth, NC	Jay, FL	Keiser, AR	Stoneville, MS (B)
Centennial	41.6	42.1	43.4	43.7
Bedford	37.6	40.4	39.9	40.7
J77-339	39.7	41.2	41.1	43.1
Au82-387	42.2	41.8	42.1	43.6
D81-7602	41.5	42.1	42.0	43.3
D81-8127	36.6	39.3	38.7	44.6
D82-3073	42.1	40.0	40.3	42.6
D82-3213	38.8	41.2	40.1	42.1
D82-3728	41.7	42.0	44.6	40.9
D82-3829	41.0	41.5	43.0	44.4
D82-5249	41.8	42.2	42.6	42.4
D83-579	40.8	43.4	39.2	41.5
G81-140	36.6	41.3	40.1	41.7
G81-152	39.3	42.2	41.3	43.3
G81-234	39.6	39.3	39.4	40.5
G81-281	35.9	39.5	38.2	40.1
G81-333	39.9	40.9	40.2	43.1
N81-344	40.1	41.3	40.4	42.7
N83-618	39.6	42.2	41.9	42.9
N83-630	36.7	40.5	38.9	42.0
N83-640	34.8	41.4	39.1	41.6
N83-783	40.4	41.6	40.2	42.9
N83-2496	37.5	41.2	39.9	41.1
R83-118	38.4	43.8	41.5	43.9
R83-159	34.1	41.1	39.9	42.5
R83-260	38.7	40.4	40.6	41.8
R83-1446	39.3	41.4	40.0	41.5
R83-1552	43.5	42.9	41.4	43.3
S81-2632	40.7	40.1	39.0	38.4
S82-1338	39.1	41.6	41.1	41.8
S82-1343	40.6	41.3	40.4	41.9
SC80-108	40.7	42.0	42.3	43.0
SC82-450	37.3	40.6	41.8	42.3
SC82-1112	40.0	41.5	43.6	43.6
SC82-1122	38.2	42.2	42.9	43.4
SC82-1132	36.6	40.9	42.1	42.2

Table 41 - Plant height for the strains in Preliminary Group VI, 1985

Strain	Plymouth, NC	Athens, GA	Tallassee, AL	Jay, FL	Keiser, AR	Stoneville, MS (A)	Stoneville, MS (B)
Centennial	40	37	39	30	36	37	25
Bedford	36	49	44	26	38	42	23
J77-339	42	48	45	25	38	45	28
Au82-387	40	35	34	25	31	37	26
D81-7602	40	38	40	29	36	45	27
D81-8127	41	43	44	30	40	45	34
D82-3073	40	42	40	21	38	42	25
D82-3213	38	39	39	24	36	46	28
D82-3728	36	38	40	26	39	43	34
D82-3829	39	35	37	24	39	43	27
D82-5249	38	38	38	25	37	41	28
D83-579	31	24	23	20	24	25	13
G81-140	40	38	38	27	34	35	23
G81-152	34	31	33	23	31	36	17
G81-234	39	43	39	27	38	43	27
G81-281	36	35	33	21	30	31	18
G81-333	36	38	39	20	33	34	20
N81-344	40	36	37	27	39	36	28
N83-618	36	39	39	28	41	44	24
N83-630	40	41	40	25	41	46	35
N83-640	40	39	40	30	39	46	25
N83-783	38	39	41	27	37	43	33
N83-2496	36	33	36	18	32	33	23
R83-118	38	33	38	24	35	40	18
R83-159	44	36	38	32	36	37	18
R83-260	42	39	38	25	37	40	28
R83-1446	40	41	40	29	37	39	25
R83-1552	44	45	41	26	41	43	27
S81-2632	28	26	28	19	25	27	13
S82-1338	40	39	37	24	32	38	19
S82-1343	39	34	36	29	32	34	19
SC80-108	42	37	38	26	37	36	27
SC82-450	42	39	40	24	38	42	29
SC82-1112	38	33	37	20	36	40	22
SC82-1122	38	41	42	25	38	41	31
SC82-1132	42	37	41	22	37	40	23

Table 42 - Seed quality scores for the strains in Preliminary Group VI, 1985

Strain	Plymouth, NC	Athens, GA	Jay, FL	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)
Centennial	2.5	1.5	2.0	1.5	3.0	2.5
Bedford	3.0	2.0	2.0	2.0	4.5	4.5
J77-339	2.5	1.5	3.0	2.0	3.0	3.0
Au82-387	3.0	2.0	3.0	2.0	3.0	3.0
D81-7602	2.5	1.5	2.0	2.0	3.0	3.0
D81-8127	2.0	1.5	2.0	1.5	2.5	3.0
D82-3073	3.5	1.8	3.0	2.0	3.5	3.0
D82-3213	3.5	1.5	3.0	1.5	4.0	3.5
D82-3728	2.5	1.5	2.0	2.5	3.0	3.0
D82-3829	3.0	2.0	3.0	1.5	3.0	3.0
D82-5249	2.5	1.5	3.0	2.5	3.0	2.5
D83-579	2.5	1.8	4.0	1.5	3.5	3.0
G81-140	2.5	1.5	3.0	1.5	3.5	3.0
G81-152	3.0	1.5	2.0	1.5	3.5	3.0
G81-234	2.5	1.5	2.0	1.5	3.0	4.0
G81-281	3.0	1.5	2.0	2.0	5.0	3.0
G81-333	3.5	1.5	3.0	1.5	4.0	3.5
N81-344	3.0	1.8	3.0	1.5	3.0	3.0
N83-618	2.5	1.5	2.0	1.5	3.0	3.0
N83-630	2.0	2.2	3.0	2.0	3.5	3.0
N83-640	2.5	1.5	3.0	1.5	4.0	3.5
N83-783	3.0	1.5	2.0	2.0	3.0	3.0
N83-2496	2.5	2.0	3.0	1.5	3.5	2.5
R83-118	3.0	1.5	2.0	1.5	4.0	3.0
R83-159	2.5	1.5	2.0	1.5	4.0	3.0
R83-260	2.5	1.5	2.0	2.0	3.0	3.0
R83-1446	3.0	1.5	3.0	2.0	3.0	3.0
R83-1552	3.0	1.5	2.0	2.0	3.0	3.0
S81-2632	4.0	2.8	3.0	1.5	3.5	3.0
S82-1338	2.5	1.5	2.0	1.5	3.0	3.0
S82-1343	3.0	1.5	2.0	1.5	4.0	3.0
SC80-108	3.0	1.5	2.0	2.0	3.0	3.0
SC82-450	2.5	2.0	3.0	2.5	2.5	2.5
SC82-1112	2.5	1.5	3.0	2.0	3.0	3.0
SC82-1122	2.0	1.5	2.0	2.0	3.0	3.0
SC82-1132	2.0	1.8	2.0	2.0	3.0	2.5

UNIFORM GROUP VII

1985

	Variety or strain	Parentage	Generation composited
1.	Braxton	F59-1505 X [Bragg(3) X D60-7965]	F_5
2.	Gordon	Forrest X Pickett 71	F_5
3.	F79-4696	Centennial X [Forrest X (Cobb X D68-216)]	F_5
4.	N80-777	N70-1501 X (N72-40 X N73-538)	F_6
5.	F81-2815	Centennial X (Cobb X Hood)	F_7
6.	G79-945	Tracy X Ransom	F_7
7.	G80-1413	Centennial X F71-1138	F_6
8.	F82-1739	Bedford X Kirby	F_5
9.	G80-1011	Wright X Braxton	F_6
10.	G80-1515	Pickett 71 X Bedford	F_6
11.	N82-1933	Wright X N72-3148	F_7
12.	R82-368	Centennial X Ransom	F_5

Background of breeding lines used as parents:

F59-1505 is a selection from Jackson X D49-2491.

D60-7965 is a high protein selection from a cross of an F_5 line from Ogden X CNS with an F_5 line from Ogden X Biloxi.

D68-216 is a later maturing selection resistant to CN race 3 from the same cross from which Forrest was selected, Dyer X Bragg.

N70-1501 is a selection from Dare X D65-6765 which was evaluated in Uniform Group VI in 1974.

N72-40 is a selection from D64-3253 X D65-3168 evaluated in Preliminary Group V in 1974.

N73-538 is a selection from Tracy X Ransom evaluated in Preliminary Group V in 1975.

F71-1138 is a selection from the same cross as Braxton and was grown in Uniform Group VI 1975-1977.

N72-3148 is a selection from D67-B5 X N64-2451 which was evaluated in Uniform Group VI 1976-1978.

Uniform Group VII nurseries were planted at 26 locations for evaluating seed yield and other agronomic qualities. Plantings were made near Blackville, South Carolina to evaluate reaction to Meloidogyne arenaria, near Jay, Florida to evaluate for reaction to M. incognita, in the greenhouse at Jackson, Tennessee to evaluate for reaction to SCN races 3 and 4, and in a field cage at Stoneville to evaluate for feeding by soybean looper. A general summary of performance in plant characteristics is reported in Table 43. Data from individual locations are reported in Tables 44 through 49.

The two strains, F79-4696 and N80-777, have been evaluated three years. Neither appears to be superior to Braxton. F81-2815, G79-945, and G80-1413 have been evaluated two years. F81-2815 and G80-1413 are resistant to M. incognita and to SCN race 3. Each of these strains has yielded well.

Of the strains evaluated one year, F82-1739 and G80-1515, each has resistance to SCN races 3 and 4 and to both species of root-knot nematode. Each yielded relatively well in the Southeast, but below Braxton in other regions. G80-1011 yielded moderately well and is resistant to both root-knot species, but susceptible to SCN. N82-1933 and R82-368 yielded well, but have no nematode resistance.

Table 43 - General summary of performance for the strains grown in Uniform Group VII, 1985

	No. of locations	Braxton	Gordon	F79-4696	N80-777	F81-2815
Seed yield - 1985						
East Coast	6	32.6	28.0	30.3	32.4	31.3
Southeast	8	38.3	38.7	39.2	38.6	41.0
Upper & Central South	3	45.1	42.9	39.2	42.9	44.5
Delta and West	7	34.3	31.6	32.7	36.8	33.1
1984-85						
East Coast		36.3	32.9	35.3	37.4	36.6
Southeast		38.2	38.3	37.1	39.6	40.2
Upper & Central South		42.8	42.1	39.3	42.4	43.6
Delta and West		36.6	34.0	35.7	36.9	34.8
1983-85						
East Coast		34.3	32.8	33.7	34.5	
Southeast		38.1	39.0	38.4	38.6	
Upper & Central South		45.7	44.6	41.6	43.5	
Delta and West		38.3	35.8	37.5	38.6	
Oil Content - 1985		20.4	21.1	19.9	21.2	20.4
1984-85		20.3	20.7	19.9	20.8	20.1
1983-85		20.1	20.8			
Protein Content - 1985		42.3	41.1	43.4	42.8	42.7
1984-85		41.9	40.8	42.8	42.0	42.1
1983-85		42.2	40.7			
Seed size		16.5	12.5	14.5	14.0	13.8
Maturity index		10-22	-1	+3	-2	+6
Height		39	37	42	36	40
Seed quality		2.9	2.5	2.1	2.2	2.2
M. incognita		1.0	1.0	1.0	5.0	1.0
M. arenaria		3.0	2.5	4.5	4.2	4.0
SCN race 3		S	R	R	S	R
SCN race 4		S	S	S	S	S
Soybean looper		4.0	4.0	3.0	3.0	5.0
Flower color		P	W	P	P	W
Pubescence color		T	G	T	T	T
Pod wall color		T	T	T	T	T

Table 43 - (continued)

	G79-945	G80-1413	F82-1739	G80-1011	G80-1515	N82-1933	R82-368
Seed yield - 1985							
East Coast	26.2	31.3	26.0	30.1	26.5	33.7	30.6
Southeast	39.2	39.8	40.8	40.0	37.5	41.4	43.7
Upper & Central South	45.5	42.4	38.9	45.9	43.0	42.5	46.8
Delta and West	33.5	33.9	30.6	36.0	34.8	34.8	37.3
1984-85							
East Coast	33.3	36.3					
Southeast	39.1	39.7					
Upper & Central South	44.6	40.7					
Delta and West	35.8	36.2					
1983-85							
East Coast							
Southeast							
Upper & Central South							
Delta and West							
Oil Content - 1985	20.8	19.7	21.5	20.8	20.6	21.7	21.6
1984-85	20.5	19.6					
1983-85							
Protein Content - 1985	41.7	42.6	40.1	41.4	41.1	41.4	41.7
1984-85	42.1	41.9					
1983-85							
Seed size	15.8	17.3	11.7	15.7	12.4	14.8	17.4
Maturity index	-2	+1	-1	-1	-2	+3	+3
Height	33	37	35	36	38	35	39
Seed quality	2.0	2.6	2.1	2.4	2.4	2.1	2.5
M. incognita	4.5	1.0	1.0	1.0	1.0	3.0	2.0
M. arenaria	-	4.3	2.3	2.5	2.3	5.0	4.8
SCN race 3	S	R	R	S	R	S	S
SCN race 4	S	S	R	S	R	S	S
Soybean looper	2.5	3.5	4.0	4.0	3.5	3.5	3.8
Flower color	P	P	W	P	W	P	P
Pubescence color	T	T	T	T	G	T	T
Pod wall color	T	T	T	T	T	T	T

Table 44 - Seed yield, in bushels per acre, for the strains in Uniform Group VII, 1985

Location	Braxton	Gordon	F79-4696	N80-777	F81-2815	G79-945	G80-1413
			EAST COAST				
Kinston, NC	32.4	35.2	32.6	27.0	31.6	33.2	34.3
Clinton, NC	39.4	34.1	34.8	37.0	36.7	36.1	35.8
Florence, SC (A)	35.6	28.6-	27.5-	31.6	33.3	24.0-	32.1
Florence, SC (B)	37.1	29.6	34.9	40.4	37.1	27.5-	35.1
Hartsville, SC (A)	28.7	17.2-	22.8-	28.8	23.6-	22.3-	26.8
Hartsville, SC (B)	22.4	23.5	29.3+	29.5+	25.5	14.3-	23.8
Mean	32.6	28.0	30.3	32.4	31.3	26.2	31.3
			SOUTHEAST				
Blackville, SC	29.3	30.7	35.0	34.6	37.5	32.1	34.8
Tallassee, AL	53.2	53.2	49.3	45.6	46.4	58.0	53.8
Tifton, GA	52.2	52.5	55.7	55.2	54.0	55.1	55.9
Gainesville, FL	32.1	24.6	33.1	29.3	33.0	29.9	26.2
Marianna, FL	41.9	36.9-	32.6-	42.9	39.3	37.4-	37.7-
*Quincy, FL	36.5	34.7	40.1	35.7	41.1	30.6	31.6
Jay, FL	21.2	30.3+	30.1+	24.0	32.2+	20.9	31.6+
Fairhope, AL	45.6	40.3-	37.5-	44.4	42.4	45.2	46.4
*Poplarville, MS	19.5	18.1	19.5	27.7	16.8	17.8	17.8
Baton Rouge, LA	31.3	41.1+	40.4+	33.0	43.1+	35.3	30.2
Mean	38.3	38.7	39.2	38.6	41.0	39.2	39.8
			UPPER AND CENTRAL SOUTH				
Athens, GA	48.8	45.1	42.5-	47.2	44.8	48.1	46.1
Calhoun, GA	53.7	55.3	48.3	53.7	57.5	57.2	51.2
Clemson, SC	32.8	28.3	28.7	27.8	31.2	25.9	30.0
Mean	45.1	42.9	39.2	42.9	44.5	45.5	42.4
			DELTA AND WEST				
Stoneville, MS (A)	35.9	31.9	34.6	36.8	33.2	33.8	33.4
Stoneville, MS (B)	41.8	32.7-	35.9-	40.3	38.1	33.6-	40.6
Stuttgart, AR	45.0	47.7	44.5	49.2	47.7	48.3	35.6
Rohwer, AR	28.9	30.8	27.6	38.0+	23.1	31.2	30.3
St. Joseph, LA	28.7	17.2-	22.3	24.2	31.9	28.0	28.5
Bossier City, LA	39.4	37.6	38.3	41.4	37.9	36.6	38.3
Beaumont, TX	22.5	23.4	25.9	27.8+	19.7	22.9	30.7+
Mean	34.3	31.6	32.7	36.8	33.1	33.5	33.9

* Not included in mean
(+) - Strains yielding significantly more (odds 19:1 or greater) than Braxton.
(-) - Strains yielding significantly less (odds 19:1 or greater) than Braxton.

Table 44 - (continued)

Location	F82-1739	G80-1011	G80-1515	N82-1933	R82-368	L.S.D. (.05)	C.V. (%)
			EAST COAST				
Kinston, NC	32.6	27.8	33.9	35.8	33.1	6.1	11
Clinton, NC	36.5	37.5	29.8-	38.2	37.5	6.7	11
Florence, SC (A)	24.8-	32.3	26.5-	35.1	28.3-	6.0	12
Florence, SC (B)	33.6	33.1	33.8	38.1	32.3	7.7	13
Hartsville, SC (A)	15.2-	27.5	17.6-	23.0-	25.4	3.4	9
Hartsville, SC (B)	13.0-	22.3	17.4	31.8+	27.1	5.5	14
Mean	26.0	30.1	26.5	33.7	30.6		
			SOUTHEAST				
Blackville, SC	32.7	37.0	34.7	31.4	37.1	N.S.	12
Tallassee, AL	55.4	53.6	51.3	58.5	58.8	7.8	9
Tifton, GA	54.6	51.7	52.1	61.1+	60.1+	4.0	11
Gainesville, FL	33.7	26.0	20.4	31.1	34.9	N.S.	19
Marianna, FL	37.9-	40.6	35.1-	39.5	38.1	3.9	6
Quincy, FL	36.7	32.9	37.3	40.0	39.7	8.4	14
Jay, FL	33.8+	28.3+	28.1+	28.7+	32.8+	6.5	13
Fairhope, AL	41.1-	44.8	41.5	48.4	43.6	4.2	6
Poplarville, MS	12.9	10.9	19.9	25.0	19.1	9.3	29
Baton Rouge, LA	37.3	37.9	36.7	34.6	44.2+	7.9	13
Mean	40.8	40.0	37.5	41.4	43.7		
			UPPER AND CENTRAL SOUTH				
Athens, GA	48.6	47.8	51.3	44.4	49.0	6.1	8
Calhoun, GA	43.2-	57.5	51.8	55.9	59.4	8.8	10
Clemson, SC	25.0	32.5	25.9	27.1	32.0	N.S.	14
Mean	38.9	45.9	43.0	42.5	46.8		
			DELTA AND WEST				
Stoneville, MS (A)	26.7-	37.2	37.0	33.7	39.1	5.6	10
Stoneville, MS (B)	35.0-	39.8	41.9	39.2	42.5	5.2	8
Stuttgart, AR	47.5	45.0	47.9	44.3	45.1	N.S.	12
Rohwer, AR	26.2	35.1	33.3	28.9	33.3	6.9	13
St. Joseph, LA	20.6-	28.0	21.2-	32.5	36.0	7.4	17
Bossier City, LA	37.7	37.6	43.5	40.5	40.3	N.S.	10
Beaumont, TX	20.5	29.2+	18.5	24.2	24.7	4.7	12
Mean	30.6	36.0	34.8	34.8	37.3		

Table 45 - Chemical composition and seed size for the strains in Uniform Group VII, 1985

Location	Braxton	Gordon	F79-4696	N80-777	F81-2815	G79-945
			OIL PERCENTAGE			
Clinton, NC	19.7	20.9	19.4	20.4	19.4	20.5
Blackville, SC	20.9	21.8	20.9	22.0	21.2	20.8
Athens, GA	19.2	20.4	19.6	19.8	20.2	20.1
Tifton, GA	21.3	21.6	20.6	21.8	20.8	21.7
Gainesville, FL	22.2	23.9	21.3	23.3	22.0	23.0
Jay, FL	22.0	21.8	20.5	22.3	21.1	21.8
Stoneville, MS (B)	19.5	19.8	18.8	19.6	19.2	20.6
Stuttgart, AR	18.9	19.9	18.7	20.8	19.1	19.5
Rohwer, AR	19.7	19.9	19.2	20.7	20.2	19.3
Mean	20.4	21.1	19.9	21.2	20.4	20.8
			PROTEIN PERCENTAGE			
Clinton, NC	44.5	41.0	43.5	43.8	43.9	41.8
Blackville, SC	42.4	39.8	41.7	42.0	41.9	41.7
Athens, GA	43.0	40.7	43.1	42.6	42.3	41.7
Tifton, GA	42.6	41.3	43.3	43.0	43.9	41.4
Gainesville, FL	42.6	41.6	43.4	44.2	43.4	41.5
Jay, FL	39.9	39.3	42.1	40.8	40.7	40.4
Stoneville, MS (B)	42.7	41.5	45.1	44.0	43.3	42.0
Stuttgart, AR	42.3	42.5	44.1	42.4	42.0	42.0
Rohwer, AR	41.1	41.8	44.2	42.1	42.7	42.8
Mean	42.3	41.1	43.4	42.8	42.7	41.7
			GRAMS PER 100 SEEDS			
Clinton, NC	20.6	12.6	17.4	14.0	15.8	16.6
Blackville, SC	17.1	12.0	15.1	13.8	13.6	15.3
Athens, GA	17.7	12.6	15.1	13.9	13.7	16.4
Tifton, GA	14.2	14.6	17.7	19.3	17.6	21.0
Gainesville, FL	19.6	14.0	15.2	15.7	15.7	17.1
Jay, FL	15.0	12.0	12.0	11.0	12.0	13.0
Stoneville, MS (B)	13.3	10.7	11.7	11.9	11.0	12.5
Stuttgart, AR	18.0	13.3	15.3	15.3	15.0	17.3
Rohwer, AR	16.0	12.0	14.0	14.0	13.0	15.0
Beaumont, TX	13.5	11.3	11.0	11.5	10.8	13.8
Mean	16.5	12.5	14.5	14.0	13.8	15.8

Table 45 - (continued)

Location	G80-1413	F82-1739	G80-1011	G80-1515	N82-1933	R82-368
			OIL PERCENTAGE			
Clinton, NC	19.1	21.7	19.5	20.5	21.5	20.4
Blackville, SC	20.8	22.2	22.1	21.6	22.9	21.9
Athens, GA	18.8	20.3	20.5	19.4	21.4	21.6
Tifton, GA	20.4	22.6	21.6	21.1	22.5	22.6
Gainesville, FL	21.4	23.2	22.7	22.5	23.2	23.6
Jay, FL	21.2	22.7	21.6	21.3	23.1	23.1
Stoneville, MS (B)	19.0	20.1	20.1	19.9	20.5	21.4
Stuttgart, AR	18.2	19.8	19.4	19.4	20.7	20.0
Rohwer, AR	18.5	20.5	19.9	19.9	19.9	20.4
Mean	19.7	21.5	20.8	20.6	21.7	21.6
			PROTEIN PERCENTAGE			
Clinton, NC	43.4	40.8	43.2	41.8	41.3	43.1
Blackville, SC	41.3	39.2	41.2	40.5	39.9	41.2
Athens, GA	42.8	39.9	41.0	40.0	41.6	41.5
Tifton, GA	43.8	40.0	42.9	42.7	41.6	41.3
Gainesville, FL	42.8	40.2	41.5	43.2	41.8	42.3
Jay, FL	40.7	38.5	39.1	39.4	39.1	39.5
Stoneville, MS (B)	42.6	41.0	41.3	41.5	42.6	41.8
Stuttgart, AR	43.0	40.8	41.7	41.3	42.6	42.5
Rohwer, AR	42.6	40.5	40.8	39.9	42.0	41.9
Mean	42.6	40.1	41.4	41.1	41.4	41.7
			GRAMS PER 100 SEEDS			
Clinton, NC	19.8	13.1	17.6	13.1	16.2	19.7
Blackville, SC	17.4	11.6	16.2	12.2	14.0	16.9
Athens, GA	18.6	11.5	15.7	12.3	15.1	17.2
Tifton, GA	21.9	13.2	20.6	15.0	18.9	22.0
Gainesville, FL	17.6	13.6	17.1	13.6	16.7	18.0
Jay, FL	16.0	11.0	14.0	11.0	14.0	16.0
Stoneville, MS (B)	13.8	9.9	12.3	10.3	11.9	14.4
Stuttgart, AR	19.0	12.0	16.0	13.0	15.7	19.0
Rohwer, AR	15.0	11.0	13.0	12.0	12.0	15.7
Beaumont, TX	14.1	10.3	14.1	11.4	13.7	15.3
Mean	17.3	11.7	15.7	12.4	14.8	17.4

Table 46 - Relative maturity data, days earlier (-) or later (+) than Braxton, for the strains in Uniform Group VII, 1985

Location	Date planted	Braxton matured	Gordon	F79-4696	N80-777	F81-2815	G79-945
			EAST COAST				
Kinston, NC	5-17	11-6	-13	+3	-13	+5	0
Clinton, NC	5-28	10-31	0	+19	-7	+19	0
Florence, SC (A)	5-20	10-22	-2	+5	-3	+11	+5
Florence, SC (B)	6-20	10-19	+3	+9	+1	+13	+3
Hartsville, SC (A)	5-24	10-19	-4	-6	-4	+4	-2
Hartsville, SC (B)	6-20	10-29	-4	+6	-6	+9	-2
Mean	6-1	10-29	+3	+6	-5	+10	+1
			SOUTHEAST				
Blackville, SC	5-14	10-16	-2	-1	-6	+4	-2
Tallassee, AL	5-24	10-15	-2	+6	-2	+7	-1
Tifton, GA	5-23	10-11	+4	+5	0	+5	+3
Gainesville, FL	6-5	10-21	-7	-4	-11	+3	-8
Marianna, FL	7-1	10-20	-2	-1	-3	+1	-2
Jay, FL	6-25	10-21	-3	0	-7	+1	-7
Fairhope, AL	6-14	10-21	-5	+3	-9	+4	-6
Mean	6-6	10-18	-2	+1	+5	+4	-3
			UPPER AND CENTRAL SOUTH				
Athens, GA	5-20	10-15	-3	+2	-5	+5	-2
Calhoun, GA	5-21	10-28	-1	F	-1	F	0
Clemson, SC	5-14	10-15	-2	+6	-4	+8	-1
Mean	5-18	10-19	-2	+4	-3	+7	-1
			DELTA AND WEST				
Stoneville, MS (A)	5-9	10-20	-3	+1	-5	+2	-6
Stoneville, MS (B)	5-10	10-20	-1	+3	-2	+3	-3
Stuttgart, AR	5-24	10-17	+2	+9	0	+12	0
Rohwer, AR	6-3	10-13	0	+2	-2	+1	-2
St. Joseph, LA	5-11	10-26	-11	-4	-12	0	-11
Beaumont, TX	5-29	10-25	-5	-2	-9	-2	-7
Mean	5-20	10-20	-3	+2	-5	+3	-5

Table 46 - (continued)

Location	G80-1413	F82-1739	G80-1011	G80-1515	N82-1933	R82-368
			EAST COAST			
Kinston, NC	0	0	0	-13	0	+3
Clinton, NC	+7	+7	+7	+7	+7	+7
Florence, SC (A)	-1	-3	0	-2	+4	+4
Florence, SC (B)	+2	+1	0	+5	+9	+7
Hartsville, SC (A)	+1	-4	-4	-2	+2	+3
Hartsville, SC (B)	+1	0	0	-1	+6	+9
Mean	+2	0	+1	-1	+5	+6
			SOUTHEAST			
Blackville, SC	+3	+1	-2	0	0	+3
Tallassee, AL	+1	0	-1	-1	+3	+6
Tifton, GA	+4	+4	+4	+1	+6	+4
Gainesville, FL	-6	+2	-6	-6	0	+2
Marianna, FL	-1	+1	0	-3	+1	0
Jay, FL	-1	-2	-2	-6	0	+1
Fairhope, AL	-1	-1	-4	-5	+1	+2
Mean	0	+1	-2	-3	+2	+3
			UPPER AND CENTRAL SOUTH			
Athens, GA	+1	0	-2	-1	+1	+1
Calhoun, GA	F	0	0	-1	+7	F
Clemson, SC	0	-1	-1	-2	0	+3
Mean	+1	0	-1	-1	+3	+2
			DELTA AND WEST			
Stoneville, MS (A)	-4	-8	-1	-3	0	+1
Stoneville, MS (B)	0	-1	-1	-1	+2	+3
Stuttgart, AR	+10	+6	+2	+12	+9	-2
Rohwer, AR	0	0	-1	0	+1	+1
St. Joseph, LA	-8	-6	-9	-11	-5	0
Beaumont, TX	-3	-1	0	-4	+1	+2
Mean	+1	-2	-2	-1	+1	+1

Table 47 - Plant height for the strains in Uniform Group VII, 1985

Location	Braxton	Gordon	F79-4696	N80-777	F81-2815	G79-945
			EAST COAST			
Clinton, NC	38	30	34	36	30	24
Florence, SC (A)	39	30	39	35	39	27
Florence, SC (B)	37	33	39	37	43	32
Hartsville, SC (A)	39	40	43	37	41	35
Hartsville, SC (B)	35	31	36	32	26	25
Mean	38	33	38	35	36	29
			SOUTHEAST			
Blackville, SC	34	34	33	31	36	30
Tallassee, AL	43	43	41	40	43	38
Tifton, GA	38	38	40	35	40	41
Gainesville, FL	27	25	29	23	27	22
Marianna, FL	28	27	30	27	27	23
Jay, FL	27	26	32	25	31	27
Fairhope, AL	31	31	34	28	34	26
Baton Rouge, LA	37	39	40	34	42	37
Mean	33	33	35	31	35	31
			UPPER AND CENTRAL SOUTH			
Athens, GA	45	44	46	42	46	35
Calhoun, GA	48	48	58	50	45	46
Clemson, SC	42	40	42	37	41	35
Mean	45	44	49	43	44	39
			DELTA AND WEST			
Stoneville, MS (A)	45	48	47	41	49	35
Stoneville, MS (B)	35	29	33	31	34	25
Stuttgart, AR	42	43	45	46	44	41
Rohwer, AR	40	39	45	36	43	33
St. Joseph, LA	36	33	38	31	36	32
Bossier City, LA	44	44	42	37	43	37
Beaumont, TX	28	31	29	26	26	23
Mean	39	38	40	35	39	32

Table 47 - (continued)

Location	G80-1413	F82-1739	G80-1011	G80-1515	N82-1933	R82-368
			EAST COAST			
Clinton, NC	32	32	30	30	28	32
Florence, SC (A)	33	32	33	35	32	36
Florence, SC (B)	35	34	37	36	37	34
Hartsville, SC (A)	41	40	40	40	37	42
Hartsville, SC (B)	32	29	32	34	33	38
Mean	35	33	34	35	33	36
			SOUTHEAST			
Blackville, SC	31	32	34	34	32	35
Tallassee, AL	40	40	37	41	37	41
Tifton, GA	36	38	37	38	37	40
Gainesville, FL	23	24	23	29	24	28
Marianna, FL	26	26	27	28	28	27
Jay, FL	26	28	23	27	27	28
Fairhope, AL	29	24	29	36	32	32
Baton Rouge, LA	33	34	33	35	34	34
Mean	31	31	30	34	32	33
			UPPER AND CENTRAL SOUTH			
Athens, GA	42	41	40	47	39	43
Calhoun, GA	58	40	43	44	42	59
Clemson, SC	40	39	38	40	36	41
Mean	47	40	40	44	39	48
			DELTA AND WEST			
Stoneville, MS (A)	45	44	37	48	45	43
Stoneville, MS (B)	31	28	33	35	32	32
Stuttgart, AR	42	43	45	46	41	44
Rohwer, AR	36	38	38	41	36	38
St. Joseph, LA	31	32	34	34	33	36
Bossier City, LA	40	39	42	44	41	42
Beaumont, TX	24	26	26	31	25	27
Mean	36	36	36	40	36	37

Table 48 - Lodging scores for the strains in Uniform Group VII, 1985

Location	Braxton	Gordon	F79-4696	N80-777	F81-2815	G79-945
			EAST COAST			
Kinston, NC	3.0	3.0	3.0	3.0	3.0	3.0
Clinton, NC	3.0	3.0	4.0	3.0	4.0	3.0
Florence, SC (A)	2.0	2.3	2.7	2.7	2.7	2.7
Florence, SC (B)	2.7	3.7	3.3	3.3	4.0	3.7
Hartsville, SC (A)	2.2	2.5	3.0	2.7	2.8	2.0
Hartsville, SC (B)	1.5	2.2	3.2	2.2	2.3	1.8
			SOUTHEAST			
Blackville, SC	1.0	1.5	1.0	1.0	1.0	1.0
Tallassee, AL	1.3	1.5	2.3	1.8	2.0	1.5
Tifton, GA	1.7	1.0	1.8	1.1	1.9	1.6
Gainesville, FL	1.3	1.0	1.3	1.0	1.0	1.0
Marianna, FL	1.0	1.0	2.0	2.0	2.0	2.0
Jay, FL	1.0	2.0	2.0	1.0	1.0	2.0
Fairhope, AL	1.8	2.0	2.0	2.0	2.0	2.0
Baton Rouge, LA	3.7	3.8	4.0	4.3	4.0	3.2
			UPPER AND CENTRAL SOUTH			
Athens, GA	1.7	2.2	2.5	3.3	2.7	2.3
Calhoun, GA	2.0	2.6	2.3	3.2	2.5	2.6
Clemson, SC	2.2	2.5	2.8	2.7	3.5	2.7
			DELTA AND WEST			
Stoneville, MS (A)	3.0	3.0	2.7	2.0	2.7	2.0
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
Stuttgart, AR	2.3	2.8	2.7	3.2	2.4	2.3
Rohwer, AR	1.0	1.3	1.0	2.0	2.0	1.3
St. Joseph, LA	2.6	2.7	2.6	2.7	2.4	2.1
Bossier City, LA	1.8	1.3	1.6	1.3	2.2	1.5
Beaumont, TX	1.1	1.3	1.2	1.1	1.1	1.1

Table 48 - (continued)

Location	G80-1413	F82-1739	G80-1011	G80-1515	N82-1933	R82-368
			EAST COAST			
Kinston, NC	3.0	3.0	3.0	3.0	3.0	3.0
Clinton, NC	3.0	3.0	3.0	4.0	3.0	3.0
Florence, SC (A)	2.0	2.3	2.0	2.0	2.7	2.0
Florence, SC (B)	3.0	2.7	2.6	3.0	4.0	3.0
Hartsville, SC (A)	2.3	2.2	1.7	2.7	2.5	1.7
Hartsville, SC (B)	1.7	1.2	1.3	2.2	2.2	2.2
			SOUTHEAST			
Blackville, SC	1.0	1.0	1.0	1.0	1.0	1.0
Tallassee, AL	1.2	1.2	1.5	2.5	1.5	1.3
Tifton, GA	1.4	1.2	1.2	2.0	1.4	1.7
Gainesville, FL	1.0	1.0	1.0	1.7	1.0	1.3
Marianna, FL	1.0	1.0	1.0	2.0	1.0	1.0
Jay, FL	2.0	1.0	2.0	2.0	2.0	2.0
Fairhope, AL	2.0	1.3	2.0	2.0	2.0	1.3
Baton Rouge, LA	3.3	3.8	3.3	4.0	4.0	4.0
			UPPER AND CENTRAL SOUTH			
Athens, GA	2.5	2.5	2.2	2.5	2.5	2.2
Calhoun, GA	2.3	2.7	2.2	2.5	3.0	2.6
Clemson, SC	2.2	2.2	1.8	2.3	2.8	2.0
			DELTA AND WEST			
Stoneville, MS (A)	2.0	2.0	2.0	2.0	2.7	2.3
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
Stuttgart, AR	2.9	2.4	3.3	2.5	2.8	2.9
Rohwer, AR	1.0	1.0	1.0	1.0	1.3	1.0
St. Joseph, LA	2.4	2.0	2.9	2.7	2.5	2.8
Bossier City, LA	1.3	1.6	2.0	1.6	1.8	1.5
Beaumont, TX	1.1	1.1	1.4	1.2	1.2	1.2

Table 49 - Seed quality scores for the strains in Uniform Group VII, 1985

Location	Braxton	Gordon	F79-4696	N80-777	F81-2815	G79-945
			EAST COAST			
Kinston, NC	4.0	3.5	3.5	3.0	3.0	3.0
Clinton, NC	2.0	2.0	2.5	2.0	2.5	2.0
			SOUTHEAST			
Blackville, SC	2.5	1.5	1.5	1.0	1.5	1.0
Tifton, GA	3.0	2.0	1.5	1.5	2.0	1.5
Gainesville, FL	2.7	3.0	1.3	3.0	2.3	2.0
Quincy, FL	2.3	2.0	2.3	2.0	2.7	2.7
Jay, FL	3.0	2.0	2.0	2.0	2.0	2.0
Baton Rouge, LA	4.7	4.0	3.1	3.0	3.2	3.2
			UPPER AND CENTRAL SOUTH			
Athens, GA	2.0	2.2	1.5	1.8	1.5	1.5
Calhoun, GA	2.2	2.2	2.2	2.3	2.2	2.2
			DELTA AND WEST			
Stoneville, MS (A)	3.0	3.0	3.0	2.7	3.0	2.7
Stoneville, MS (B)	3.0	3.0	3.0	3.0	3.0	3.0
Stuttgart, AR	2.5	2.0	1.5	1.5	2.0	2.0
Rohwer, AR	2.0	2.0	2.0	2.0	2.0	2.5
St. Joseph, LA	5.0	5.0	5.0	5.0	4.0	5.0
Beaumont, TX	3.8	4.0	3.5	3.0	3.0	3.3

Table 49 - (continued)

Location	G80-1413	F82-1739	G80-1011	G80-1515	N82-1933	R82-368
			EAST COAST			
Kinston, NC	4.5	2.5	3.5	3.5	4.0	4.0
Clinton, NC	2.5	2.0	2.5	2.5	2.5	2.0
			SOUTHEAST			
Blackville, SC	3.0	1.0	2.0	1.5	2.0	2.0
Tifton, GA	2.0	2.5	2.0	2.5	1.5	2.0
Gainesville, FL	2.7	2.0	2.3	2.7	2.0	2.3
Quincy, FL	2.7	2.3	2.0	2.3	2.3	2.3
Jay, FL	2.0	2.0	2.0	2.0	2.0	3.0
Baton Rouge, LA	2.6	3.2	3.3	3.2	3.2	3.1
			UPPER AND CENTRAL SOUTH			
Athens, GA	1.8	1.7	1.5	1.8	1.8	1.7
Calhoun, GA	2.4	2.2	2.1	1.6	2.2	2.4
			DELTA AND WEST			
Stoneville, MS (A)	3.3	3.0	2.3	2.7	2.7	2.3
Stoneville, MS (B)	3.3	3.0	3.0	3.0	3.0	3.0
Stuttgart, AR	2.5	2.5	2.0	1.8	2.0	2.0
Rohwer, AR	2.0	2.0	2.0	1.5	2.0	2.0
St. Joseph, LA	5.0	5.0	5.0	5.0	5.0	4.0
Beaumont, TX	3.5	3.3	3.3	3.7	3.0	3.5

PRELIMINARY GROUP VII

1985

Preliminary Group VII nurseries which included Braxton and Centennial along with 34 experimental strains, were evaluated for seed yield and other agronomic qualities at 9 locations. Additional plantings were made near Blackville, South Carolina for evaluating reaction to M. arenaria, at Jay, Florida for evaluating for reaction to M. incognita, in the greenhouse at Jackson, Tennessee to evaluate for reaction to SCN races 3 and 4, and in the field cage at Stoneville to evaluate for reaction to feeding by soybean looper. The parentage for each of these strains is reported in Table 50. A general summary of seed yield and other characteristics is reported in Table 51. Data from individual locations are reported in Tables 52 to 56.

Differences among strains for seed yield were significant at the 5% level of confidence at each of the 9 locations, and as a mean for all locations. Braxton had an overall mean seed yield of 35.4 bushels per acre. There were no strains having a mean seed yield significantly greater than that for Braxton. Seven strains had mean seed yields that ranked above the mean for Braxton. Four strains had mean seed yields significantly lower than the mean yield for Braxton.

Ratings for reaction to M. incognita were incomplete. Seven strains had M. arenaria ratings lower than the rating for Braxton. There were 8 strains rated resistant to SCN race 3, and 5 strains rated resistant to both SCN 3 and 4. All 5 of these strains also received relatively low ratings for reaction to M. arenaria. Four strains received low ratings for feeding by soybean looper, but each of these had a mean seed yield below that for Braxton.

Strains which appear to merit advance for evaluation in Uniform Group VII are Au82-204, F83-1918, G81-1949, and R83-11S.

Table 50 - Parentage of strains grown in Preliminary Group VII, 1985

	Variety or strain	Parentage	Generation composited
1.	Braxton	F59-1505 X (Bragg(3) X D60-7965)	F_5
2.	Centennial	D64-4636 X tawny pub. Pickett 71 type	F_5
3.	Au82-204	N73-693 X F76-8757	F_5
4.	Au82-2386	Braxton X N76-1572	F_6
5.	Au82-2585	Braxton X N76-1572	F_6
6.	D82-4552	Tracy-M X sel (D71-9241 X D75-10169)	F_5
7.	D82-5015	Tracy-M X sel (D71-9241 X D75-10169)	F_5
8.	D82-10143	D74-10232 X D79-7923	F_5
9.	F83-1415	Forrest(3) X D77-12480	F_5
10.	F83-1520	Forrest(3) X D77-12480	F_5
11.	F83-1646	Bedford X Kirby	F_5
12.	F83-1917	Bedford X Kirby	F_6
13.	F83-1918	Bedford X Kirby	F_6
14.	F83-1957	Bedford X Kirby	F_6
15.	F83-1960	Bedford X Kirby	F_6
16.	G81-254	D74-7741 X Wright	F_6
17.	G81-352	D74-7741 X Pickett 71	F_6
18.	G81-1426	D74-7741 X Pickett 71	F_6
19.	G81-1908	D74-7741 X Braxton	F_6
20.	G81-1928	D74-7741 X Braxton	F_6
21.	G81-1949	D74-7741 X Braxton	F_6
22.	N82-2044	N73-1102 X 330-26-29-4	F_7
23.	N82-2080	N73-1102 X 606-22-21-1	F_7
24.	N83-706	N74-1572 X F73-7082	F_6
25.	N83-880	N75-2213 X N73-1102	F_6
26.	N83-1014	GaSoy 17 X N77-940	F_6
27.	N83-2492	N73-520-2 X Ransom(3)	F_4
28.	R83-11S	R78-100-8 X F71-1180	F_5
29.	R83-44S	R78-100-8 X F71-1180	F_5
30.	R83-63S	(R75-375S X R68-208) X (Centennial X Ransom)	F_5
31.	R83-66S	(R75-375S X R68-208) X (Centennial X Ransom)	F_5
32.	SC82-761	Govan X Bedford	F_5
33.	SC82-926	Govan X Centennial	F_5
34.	SC82-1375	Ransom X Centennial	F_5
35.	SC82-1389	Ransom X Centennial	F_5
36.	SC82-1511	Co488 X Centennial	F_5

Table 51 - General summary of performance for the strains in Preliminary Group VII, 1985

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	M. arenaria[1]	SCN race 3	SCN race 4	Soybean looper
Braxton	35.4	10-21	38	20.3	42.6	2.5	S	S	3.5
Centennial	35.1	-5	35	20.5	43.2	4.0	R	S	5.0
Au82-204	38.8	-3	33	21.4	41.9	4.0h	R	S	4.5
Au82-2386	30.1-	-1	36	20.4	42.4	2.5h	S	S	4.5
Au82-2585	32.5	-3	36	20.5	42.6	2.5h	S	S	3.5
D82-4552	28.6-	-3	37	18.7	44.7	3.2	S	S	2.0
D82-5015	34.0	+1	35	19.5	43.7	2.8h	S	S	2.0
D82-10143	30.4-	-5	31	18.1	45.5	2.0	S	S	2.0
F83-1415	32.8	+5	47	21.2	40.7	2.5	R	S	2.0
F83-1520	30.4-	+3	49	21.3	40.9	2.8	R	S	4.5
F83-1646	32.2	0	44	21.1	41.1	2.3	R	R	5.0
F83-1917	33.0	+3	36	21.1	39.8	2.0	R	S	4.5
F83-1918	35.4	-1	36	20.6	42.2	2.2	R	R	4.5
F83-1957	34.2	-1	36	21.3	40.4	2.0	R	R	5.0
F83-1960	34.0	-2	34	20.9	40.6	2.8	R	R	4.5
G81-254	36.5	-1	38	21.6	40.5	4.0	R	S	3.5
G81-352	34.4	-3	38	21.9	40.7	2.8	R	S	4.0
G81-1426	33.6	-3	39	22.2	40.1	2.8h	R	S	3.5
G81-1908	35.8	0	38	21.5	41.3	2.8	R	S	3.5
G81-1928	35.6	-1	33	21.6	41.8	2.0	S	S	4.5
G81-1949	36.5	+1	37	21.5	41.5	2.5	R	S	4.0
N82-2044	35.2	-2	43	21.4	42.6	4.5	S	S	3.5
N82-2080	34.3	-4	41	20.8	43.4	5.0	S	S	3.0
N83-706	32.4	-4	35	21.0	41.9	4.0	S	S	4.0
N83-880	34.2	-2	43	21.9	42.8	4.8	S	S	4.0
N83-1014	36.6	-2	36	22.0	40.2	4.8	S	S	2.8
N83-2492	34.3	-2	34	23.1	40.8	5.0	S	S	4.5
R83-11S	35.1	-2	38	20.8	40.9	2.3	R	R	3.0
R83-44S	33.3	+3	38	19.2	44.0	2.3	S	S	3.0
R83-63S	35.7	0	34	21.3	43.7	2.8	S	S	4.0
R83-66S	32.7	+1	40	20.7	43.2	4.8	S	S	5.0
SC82-761	31.0-	-3	42	20.9	41.3	3.8	S	S	3.5
SC82-926	33.3	-2	36	20.4	42.7	2.0	S	S	5.0
SC82-1375	35.1	-1	34	22.2	41.7	5.0	S	S	4.0
SC82-1389	33.7	-3	36	22.3	40.2	5.0	S	S	4.5
SC82-1511	33.0	-1	42	21.8	40.7	5.0	S	S	3.5
L.S.D. (.05)	3.9			.8	1.0				

[1] h = heterozygous

Table 52 - Seed yield, in bushels per acre, for the strains in Preliminary Group VII, 1985

Strain	Clinton, NC	Black-ville, SC	Athens, GA	Tallas-see, AL	Jay, FL	Rohwer, AR	Stone-ville, MS (A)	Stone-ville, MS (B)	Beau-mont, TX
Braxton	45.1	39.0	37.9	47.4	23.1	22.5	32.5	45.7	25.3
Centennial	39.9	41.6	38.0	46.2	31.6	27.4	29.9	40.9	20.2
Au82-204	38.9	40.7	45.6	60.3+	26.2	32.4	38.3	40.3	26.3
Au82-2386	39.8	30.5-	30.4	43.7	18.4	29.5	31.1	26.7-	20.4
Au82-2585	42.5	41.8	37.0	40.9	17.7	28.0	31.7	25.1-	27.8
D82-4552	36.0-	35.5	26.7-	31.5-	13.3-	28.2	32.1	35.7	18.4
D82-5015	36.5	38.4	40.8	45.2	22.8	27.1	33.2	35.0	26.9
D82-10143	34.4-	33.9	38.4	41.3	11.0-	24.2	24.9-	38.1	27.6
F83-1415	40.0	27.5-	38.2	50.8	31.2	20.6	33.5	33.1-	20.0
F83-1520	42.1	27.4-	35.5	40.1	31.3	24.4	25.4-	32.4-	14.8-
F83-1646	30.8-	32.8	34.5	52.4	27.8	27.3	28.0	38.9	17.1-
F83-1917	33.7-	37.8	41.4	50.4	27.6	25.4	27.2	34.7	18.4
F83-1918	42.7	40.2	39.4	52.9	26.8	27.2	27.1	41.4	21.3
F83-1957	44.6	41.5	41.5	49.8	26.0	22.9	25.5-	38.7	17.0-
F83-1960	41.6	45.4+	39.5	52.5	30.3	22.0	22.8-	36.6	15.6-
G81-254	42.4	36.5	47.1	49.1	29.1	28.6	31.4	42.1	22.3
G81-352	35.6-	39.8	38.8	50.2	24.8	26.4	29.7	39.2	24.7
G81-1426	36.0-	37.0	40.5	42.3	29.7	26.7	35.0	35.5	19.8
G81-1908	36.8	44.4	43.0	45.4	29.7	30.5	36.1	34.6	22.1
G81-1928	37.7	39.5	48.7+	45.5	23.3	30.2	28.7	37.7	29.2
G81-1949	41.4	38.5	39.3	48.4	29.3	28.2	36.6	41.4	25.5
N82-2044	40.0	33.4	42.1	46.4	19.7	31.5	37.1	40.1	26.2
N82-2080	38.7	34.0	44.2	41.5	26.1	26.4	24.1-	46.6	27.1
N83-706	41.9	41.4	38.5	44.9	16.5	23.9	35.3	43.0	6.4-
N83-880	41.8	37.8	39.3	38.7	24.2	24.9	33.4	41.8	25.8
N83-1014	45.8	46.4+	38.7	52.8	24.6	28.5	28.4	42.8	21.1
N83-2492	38.1	40.1	44.3	51.4	22.9	27.2	26.5	35.3	22.9
R83-11S	39.6	42.1	43.6	46.2	24.8	27.3	35.4	43.2	13.6-
R83-44S	41.4	35.7	32.5	44.0	20.2	28.2	34.2	41.4	22.3
R83-63S	41.4	42.3	39.4	55.4	23.7	25.4	36.5	37.4	19.5
R83-66S	43.0	35.0	41.4	51.6	24.5	26.3	24.7-	33.0-	15.2-
SC82-761	33.1-	37.5	28.4-	45.8	19.3	28.2	31.1	36.1	19.5
SC82-926	38.0	42.4	38.8	43.0	26.3	30.6	30.3	26.3-	23.6
SC82-1375	46.5	40.7	41.7	46.5	24.4	25.7	32.1	37.7	20.4
SC82-1389	42.4	39.5	39.6	41.3	22.8	29.7	30.6	35.4	21.8
SC82-1511	39.1	41.8	35.2	44.5	27.9	23.3	29.5	35.1	20.3
L.S.D. (.05)	8.6	6.3	9.2	11.2	8.7	N.S.	6.7	11.7	7.3
C.V.	11%	8%	12%	12%	18%	11%	11%	15%	17%

Table 53 - Oil percentages for the strains in Preliminary Group VII, 1985

Strain	Clinton, NC	Blackville, SC	Jay, FL	Stoneville, MS (B)
Braxton	19.1	20.3	21.5	20.4
Centennial	19.5	21.7	20.7	19.9
Au82-204	20.5	22.7	21.4	21.1
Au82-2386	19.7	21.4	20.0	20.5
Au82-2585	19.3	21.4	20.4	21.0
D82-4552	16.8	19.3	18.9	19.7
D82-5015	18.4	20.2	20.5	19.0
D82-10143	16.4	19.2	18.8	17.9
F83-1415	20.2	22.0	21.5	21.0
F83-1520	20.4	22.4	21.2	21.0
F83-1646	20.0	22.2	21.8	20.5
F83-1917	19.6	22.3	21.9	20.7
F83-1918	19.6	20.6	21.4	20.6
F83-1957	20.9	21.7	21.6	21.1
F83-1960	20.0	21.9	20.6	21.0
G81-254	20.5	22.7	22.6	20.5
G81-352	21.0	23.6	22.2	20.8
G81-1426	21.4	23.3	21.7	22.3
G81-1908	20.2	21.9	22.0	21.9
G81-1928	20.4	22.1	22.4	21.5
G81-1949	20.3	22.7	22.2	20.8
N82-2044	19.9	22.1	21.9	21.6
N82-2080	19.7	21.4	21.5	20.7
N83-706	20.4	22.0	20.3	21.3
N83-880	21.0	22.2	22.1	22.1
N83-1014	21.2	22.6	22.5	21.6
N83-2492	21.7	23.6	23.4	23.7
R83-11S	20.5	21.7	20.8	20.0
R83-44S	18.2	19.4	20.7	18.4
R83-63S	20.2	21.9	21.8	21.3
R83-66S	20.3	21.0	21.5	19.9
SC82-761	21.0	21.2	21.6	19.9
SC82-926	19.0	21.6	20.4	20.6
SC82-1375	21.4	23.5	22.9	20.9
SC82-1389	21.1	24.0	22.1	21.8
SC82-1511	21.8	22.6	21.8	21.0

Table 54 - Protein percentages for the strains in Preliminary Group VII, 1985

Strain	Clinton, NC	Blackville, SC	Jay, FL	Stoneville, MS (B)
Braxton	43.7	43.7	40.3	42.6
Centennial	43.6	42.9	42.5	43.6
Au82-204	43.2	42.6	40.7	41.2
Au82-2386	43.8	42.3	41.2	42.2
Au82-2585	44.6	42.6	40.6	42.6
D82-4552	45.8	44.0	43.6	45.4
D82-5015	44.9	43.6	42.8	43.5
D82-10143	47.1	45.1	44.3	45.5
F83-1415	42.0	41.4	39.8	39.7
F83-1520	42.5	41.5	40.1	39.6
F83-1646	42.5	40.6	39.5	41.8
F83-1917	41.7	38.2	38.3	40.9
F83-1918	43.6	42.2	40.5	42.5
F83-1957	41.6	40.1	38.9	40.9
F83-1960	42.2	40.5	39.1	40.7
G81-254	42.3	40.2	38.6	40.9
G81-352	42.4	39.1	39.6	41.7
G81-1426	41.8	39.6	38.9	40.2
G81-1908	43.1	41.2	40.6	40.4
G81-1928	43.0	41.6	40.7	41.9
G81-1949	43.1	41.2	39.6	41.9
N82-2044	44.2	43.3	41.1	41.7
N82-2080	45.0	44.6	40.1	44.0
N83-706	41.7	42.7	41.2	42.0
N83-880	43.3	42.3	42.4	43.2
N83-1014	41.4	40.1	39.1	40.3
N83-2492	41.5	41.0	39.8	40.7
R83-11S	41.5	41.2	39.5	41.3
R83-44S	45.0	44.3	42.3	44.3
R83-63S	45.4	43.5	42.3	43.5
R83-66S	44.0	44.0	40.9	43.9
SC82-761	43.0	42.2	39.3	40.8
SC82-926	44.4	43.1	40.8	42.3
SC82-1375	42.9	42.6	39.3	42.0
SC82-1389	41.1	40.1	39.7	39.9
SC82-1511	40.0	40.6	40.3	42.0

Table 55 - Plant height for the strains in Preliminary Group VII, 1985

Strain	Clinton, NC	Black-ville, SC	Athens, GA	Tallas-see, AL	Jay, FL	Rohwer, AR	Stone-ville, MS (A)	Stone-ville, MS (B)	Beau-mont, TX
Braxton	32	37	42	43	30	45	48	36	31
Centennial	36	35	38	41	30	39	41	31	23
Au82-204	38	32	35	37	27	38	37	27	28
Au82-2386	40	33	37	38	26	37	46	28	37
Au82-2585	34	38	41	38	24	42	46	31	26
D82-4552	40	40	37	40	23	45	47	39	24
D82-5015	32	36	35	35	24	42	45	32	31
D82-10143	36	36	39	39	19	42	46	34	23
F83-1415	40	51	56	56	22	55	61	46	36
F83-1520	38	54	59	60	22	57	67	45	39
F83-1646	38	46	45	47	33	50	61	42	33
F83-1917	28	35	39	43	29	40	48	31	29
F83-1918	36	36	37	39	26	41	44	36	32
F83-1957	40	40	38	43	30	39	43	27	26
F83-1960	34	34	38	40	23	37	42	30	30
G81-254	40	40	40	39	28	41	48	37	27
G81-352	36	37	39	42	27	43	45	38	31
G81-1426	40	40	40	41	30	43	49	35	34
G81-1908	36	42	40	41	26	45	50	31	32
G81-1928	26	34	31	38	26	41	47	28	27
G81-1949	34	35	40	39	27	42	50	38	31
N82-2044	44	42	45	46	33	50	53	41	37
N82-2080	40	42	41	45	31	48	53	39	30
N83-706	42	38	45	46	29	48	48	35	30
N83-880	42	41	44	47	28	52	54	40	37
N83-1014	36	35	37	36	29	37	43	37	30
N83-2492	36	34	35	39	27	40	37	29	25
R83-11S	42	35	41	41	28	45	51	30	30
R83-44S	40	38	41	42	28	42	51	33	27
R83-63S	34	35	35	41	30	37	44	27	27
R83-66S	40	43	42	44	32	41	48	36	30
SC82-761	46	41	47	46	25	50	54	43	29
SC82-926	36	37	39	42	29	40	44	29	31
SC82-1375	38	31	33	37	28	40	37	29	29
SC82-1389	34	38	40	40	29	43	39	31	31
SC82-1511	42	43	44	43	34	47	54	37	35

Table 56 - Seed quality scores for the strains in Preliminary Group VII, 1985

Strain	Clinton, NC	Black-ville, SC	Athens, GA	Jay, FL	Rohwer, AR	Stone-ville, MS (A)	Stone-ville, MS (B)	Beau-mont, TX
Braxton	2.0	2.0	1.8	2.0	2.0	3.0	3.0	4.3
Centennial	2.5	2.0	1.5	2.0	2.0	3.0	3.0	3.0
Au82-204	2.0	2.0	2.2	2.0	2.0	3.5	3.0	3.8
Au82-2386	3.0	3.0	2.0	2.0	2.0	3.0	3.0	4.5
Au82-2585	2.0	2.0	1.8	2.0	2.0	3.0	2.5	3.8
D82-4552	3.5	3.0	3.5	4.0	2.0	3.0	3.0	3.8
D82-5015	3.0	3.0	1.5	2.0	1.8	2.5	2.5	3.5
D82-10143	2.5	1.0	1.5	2.0	1.5	3.0	3.0	3.3
F83-1415	2.0	1.5	1.8	5.0	2.0	3.0	3.0	4.3
F83-1520	2.0	2.0	1.8	5.0	2.5	3.0	3.0	4.5
F83-1646	2.5	1.5	2.0	3.0	2.0	3.0	3.0	3.8
F83-1917	2.5	1.0	1.5	2.0	2.5	3.0	3.0	3.8
F83-1918	2.0	1.0	1.5	2.0	1.5	3.0	2.5	3.8
F83-1957	2.0	1.0	1.5	3.0	2.0	3.0	3.0	4.3
F83-1960	2.5	1.5	1.5	3.0	2.0	3.0	3.0	3.8
G81-254	2.5	2.0	1.8	2.0	1.8	3.0	3.0	4.0
G81-352	2.5	1.0	2.0	2.0	2.0	3.0	3.0	3.5
G81-1426	2.0	1.0	1.8	2.0	2.0	2.0	2.0	3.3
G81-1908	3.0	2.0	1.8	2.0	1.8	2.5	3.0	4.0
G81-1928	2.0	3.0	1.5	2.0	2.0	2.5	2.0	3.8
G81-1949	2.0	2.0	1.8	2.0	1.5	2.0	2.5	3.5
N82-2044	2.5	2.0	1.5	2.0	1.5	2.0	2.5	3.5
N82-2080	2.0	2.5	1.5	2.0	2.0	3.0	2.0	3.5
N83-706	2.5	1.0	1.8	2.0	2.0	3.0	2.5	5.0
N83-880	3.0	2.0	2.8	3.0	2.5	2.0	2.5	4.0
N83-1014	2.5	2.0	1.5	3.0	2.0	3.0	3.0	4.3
N83-2492	2.5	4.0	2.0	2.0	2.5	3.0	3.0	4.3
R83-11S	3.0	2.0	2.5	2.0	1.5	3.0	3.0	4.5
R83-44S	3.0	3.0	3.0	3.0	2.5	3.0	4.0	4.3
R83-63S	3.0	1.5	1.5	2.0	2.0	2.0	2.5	4.0
R83-66S	2.5	2.0	1.5	3.0	2.0	3.0	3.0	4.3
SC82-761	2.5	3.0	1.5	3.0	2.0	2.0	2.5	4.5
SC82-926	2.5	2.0	1.8	2.0	2.0	3.0	3.0	4.3
SC82-1375	2.0	1.5	2.0	2.0	1.8	3.0	2.5	3.5
SC82-1389	2.0	2.0	2.0	2.0	2.0	3.0	2.5	4.0
SC82-1511	2.5	2.0	2.0	2.0	2.0	3.0	3.5	4.0

UNIFORM GROUP VIII

1985

	Variety or strain	Parentage	Generation composited
1.	Kirby	Centennial X [Forrest X (Cobb X D68-216)]	F_6
2.	Hutton	F55-822 X (Roanoke X CNS-4)	F_6
3.	Co79-760	Co73-473 X Centennial	F_5
4.	F80-3602	Forrest(2) X (Cobb X D68-216)	F_8
5.	Co82-537	Coker 488 X D74-7741	F_5
6.	Co82-645	Braxton X Co368	F_5
7.	D79-10494	J74-39 X D75-10169	F_5
8.	F77-7449	Forrest X (Cobb X D68-216)	F_5
9.	F82-1820	Bedford X Kirby	F_5
10.	F82-1851	Bedford X Kirby	F_5
11.	N82-1893	Wright X N72-3148	F_7
12.	SC82-1672	Coker 488 X Braxton	F_5

Background of breeding lines used as parents:

D68-216 is a selection from Dyer X Bragg.

F55-822 is the parent line of Bragg.

Co73-473 is a selection from Hampton 266 X Bragg.

D74-7741 is a selection from Forrest X D70-3001 which was evaluated in Uniform Group VI 1977-1979.

J74-39 is a SCN race 4 resistant line of the same parentage as Bedford.

D75-10169 is a selection from Govan X sel (Bragg X PI 229358).

N72-3148 is a selection from D67-B5 X N64-2451 which was evaluated in Uniform Group VI 1976-1978.

Plantings of the Uniform Group VIII nurseries were made at 19 locations for evaluating for seed yield and other agronomic qualities. Plantings for root-knot evaluation were made near Blackville, South Carolina and Jay, Florida, for SCN race 3 and 4 evaluation in the greenhouse at Jackson, Tennessee, and for feeding by soybean looper in the field cage at Stoneville. Table 57 gives a general summary of performance. Data from individual locations are reported in Tables 58 through 63.

Co79-760 was retained so as to have a higher yielding check than Kirby. Its three-year mean seed yield is greater than that for Kirby, but in 1985 there was no difference in yield between the two varieties. F80-3602, Co82-537, Co82-645 and D79-10494 have been evaluated two years. Three strains, F80-3602, Co82-537, and Co82-645, have yielded very well, are resistant to both species of root-knot nematode, and have resistance to SCN race 3. D74-10494 has good nematode resistance, both root-knot and SCN races 3 and 4, and has resistance to foliar-feeding insects, but its seed yield is lower than that for the other three strains. Five strains have been evaluated one year. Each has a lower mean seed yield than Kirby. The two lines, F82-1820 and F82-1851, both of which are selections from Bedford X Kirby, have excellent root-knot resistance and resistance to SCN races 3 and 4. SC82-1672 has very good resistance to both root-knot species, but is susceptible to both races of SCN. Stem canker was present in the nursery at Beaumont, Texas. Hutton received the highest disease score, and SC82-1672 the lowest score. The strains were rated for development of mottled seed coats at Blackville, South Carolina.

Table 57 - General summary of performance for the strains in Uniform Group VIII, 1985

	No. of locations	Kirby	Hutton	Co79-760	F80-3602	Co82-537	Co82-645
Seed yield - 1985	19	37.5	31.3	37.9	38.7	37.6	40.0
1984-85		37.5	30.0	39.3	38.8	39.5	41.0
1983-85		37.9	30.1	39.0			
Oil Content - 1985		21.2	20.7	22.0	21.2	22.5	21.8
1984-85		21.0	20.5	21.8	21.0	22.0	21.6
1983-85		20.7	20.4	21.6			
Protein Content - 1985		42.5	43.9	42.3	41.3	39.3	40.9
1984-85		42.0	43.5	41.9	41.1	39.1	40.5
1983-85		42.3	43.8	42.0			
Seed size		14.3	15.9	16.5	12.5	14.6	14.7
Maturity index		10-28	-3	-3	-1	-2	-1
Height		34	31	34	37	35	33
Seed quality		2.1	2.8	3.0	2.4	2.8	2.4
M. incognita		1.0	1.0	1.0	1.0	1.0	1.0
M. arenaria		2.5	4.5	4.5	2.5	2.8	2.3
SCN race 3		R	S	R	R	R	R
SCN race 4		S	S	S	S	S	S
Soybean looper		4.0	3.0	4.0	3.0	4.0	3.0
Percent mottled seed		2.0	2.0	2.0	2.5	2.5	2.0
*Stem canker		2.5	5.7	1.9	3.4	2.2	1.7
Flower color		P	P	W	W	P	P
Pubescence color		T	T	G	T	T	T
Pod wall color		T	T	T	T	T	T

* Ratings made at Beaumont, Texas on a 0 - 9 basis.

Table 57 - (continued)

	D79-10494	F77-7449	F82-1820	F82-1851	N82-1893	SC82-1672
Seed yield - 1985	35.5	35.3	32.7	35.2	35.6	35.5
1984-85	35.3					
1983-85						
Oil Content - 1985	20.5	21.9	20.3	20.4	22.5	21.2
1984-85	20.3					
1983-85						
Protein Content - 1985	43.7	41.6	41.9	42.7	40.6	42.0
1984-85	43.1					
1983-85						
Seed size	13.4	13.1	12.2	12.6	14.2	17.5
Maturity index	+2	0	-2	-2	-3	-1
Height	35	35	39	35	32	34
Seed quality	2.5	2.5	2.4	2.7	2.4	2.8
M. incognita	2.0	1.0	1.0	1.0	4.0	1.0
M. arenaria	3.0	3.2	2.0	1.5	4.0	2.0
SCN race 3	R	S	R	R	S	S
SCN race 4	R	S	R	R	S	S
Soybean looper	2.0	3.5	3.0	3.0	3.5	3.5
Percent mottled seed	2.5	3.5	3.0	3.5	1.5	2.5
Stem canker	1.7	2.9	3.0	3.2	1.3	0.0
Flower color	W	W	W	P	P	P
Pubescence color	T	T	T	T	T	T
Pod wall color	T	T	T	T	T	T

Table 58 - Seed yield, in bushels per acre, for the strains in Uniform Group VIII, 1985

Location	Kirby	Hutton	Co79-760	F80-3602	Co82-537	Co82-645	D79-10494
Clinton, NC	42.6	39.9	40.6	46.0	41.0	45.3	41.8
Florence, SC (A)	30.1	22.7	32.8	34.6	35.4	41.2	30.3
Florence, SC (B)	36.4	31.6	34.9	33.3	30.3-	36.4	31.6
Hartsville, SC (A)	25.8	10.2-	30.0	29.6	29.0	39.0+	26.7
Hartsville, SC (B)	30.5	19.7-	31.6	30.4	25.2	34.7	22.5-
Blackville, SC (A)	32.7	26.4	30.5	32.4	30.2	34.1	27.6
Blackville, SC (B)	31.0	22.8	28.2	29.8	27.9	32.1	28.7
Athens, GA	47.0	43.0	50.1	52.3	48.2	42.0	44.6
Tallassee, AL	52.4	48.8	52.4	53.9	53.1	50.6	50.1
Tifton, GA	53.7	46.5	51.6	51.4	47.2	60.5	46.8
Gainesville, FL	31.3	29.4	28.6	32.7	31.9	22.9	22.1
Marianna, FL	31.0	33.4	38.3+	34.6	35.7	38.2+	27.4
*Quincy, FL	35.1	34.7	37.9	39.3	37.5	36.7	34.6
Jay, FL	32.4	24.2	35.6	28.1	35.3	35.9	31.0
Fairhope, AL	44.8	48.0	48.4	49.6	44.0	48.8	56.9+
*Poplarville, MS	16.4	16.0	20.0	17.3	19.5	15.9	15.9
Baton Rouge, LA	38.2	22.4-	36.8	41.0	43.9	40.6	46.0
Stoneville, MS (B)	39.6	31.8-	35.4	38.8	42.6	38.4	33.2
*Beaumont, TX	16.4	13.1	21.8	22.7	24.1	25.8+	26.4+
Mean	37.5	31.3	37.9	38.7	37.6	40.0	35.5

* Not included in mean

Table 58 - (continued)

Location	F77-7449	F82-1820	F82-1851	N82-1893	SC82-1672	L.S.D. (.05)	C.V. (%)
Clinton, NC	42.8	40.8	37.9	41.7	44.4	7.6	11
Florence, SC (A)	30.5	21.7	22.2	32.8	33.4	9.0	17
Florence, SC (B)	34.9	25.8-	30.8-	40.7	37.4	5.1	9
Hartsville, SC (A)	16.0-	17.1-	21.3	22.0	23.8	5.2	13
Hartsville, SC (B)	26.0	21.4-	20.0-	33.8	26.1	6.1	14
Blackville, SC (A)	30.9	29.0	30.6	33.1	30.3	N.S.	10
Blackville, SC (B)	28.0	27.5	23.2	29.0	35.9	N.S.	17
Athens, GA	46.1	42.3	46.7	51.2	41.8	9.2	12
Tallassee, AL	53.3	46.0	54.3	52.9	53.4	8.1	9
Tifton, GA	47.6	43.6	50.5	48.8	44.3	3.3	8
Gainesville, FL	23.4	26.2	28.0	27.8	31.2	N.S.	12
Marianna, FL	31.5	27.5	29.6	40.2+	37.9+	5.8	10
Quincy, FL	40.4+	31.8	34.5	39.6	37.6	5.0	8
Jay, FL	29.9	25.5	36.1	18.1-	20.4-	8.9	18
Fairhope, AL	50.8+	46.0	51.2+	48.8	47.6	5.8	7
Poplarville, MS	18.5	14.9	15.0	10.4	18.6	9.2	33
Baton Rouge, LA	35.4	44.1	43.2	31.8	28.1-	8.9	11
Stoneville, MS (B)	38.3	38.2	37.8	34.5	31.5-	6.6	11
Beaumont, TX	18.0	19.5	23.1	32.3+	16.7	8.3	23
Mean	35.3	32.7	35.2	35.6	35.5		

Table 59 - Chemical composition and seed size for the strains in Uniform Group VIII, 1985

Location	Kirby	Hutton	Co79-760	F80-3602	Co82-537	Co82-645
			OIL PERCENTAGE			
Blackville, SC (A)	20.7	19.9	21.9	20.6	22.0	20.8
Tifton, GA	21.2	21.2	22.6	21.6	23.2	22.1
Tallassee, AL	20.9	20.3	21.6	21.2	21.5	21.8
Gainesville, FL	22.5	22.6	22.9	22.8	24.9	23.7
Jay, FL	22.4	21.4	23.2	21.4	23.2	22.4
Stoneville, MS (B)	19.6	18.8	20.0	19.4	20.3	19.7
Mean	21.2	20.7	22.0	21.2	22.5	21.8
			PROTEIN PERCENTAGE			
Blackville, SC (A)	42.4	44.4	41.9	42.4	39.9	42.0
Tifton, GA	43.1	44.9	42.6	40.9	39.3	40.6
Tallassee, AL	43.0	43.3	42.9	40.6	38.7	42.0
Gainesville, FL	42.7	43.2	43.2	41.3	38.1	39.4
Jay, FL	40.3	43.8	40.6	40.5	38.7	39.0
Stoneville, MS (B)	43.6	43.8	42.8	42.3	41.0	42.5
Mean	42.5	43.9	42.3	41.3	39.3	40.9
			GRAMS PER 100 SEEDS			
Blackville, SC (A)	14.4	16.4	14.9	12.1	13.8	13.8
Tifton, GA	18.1	20.4	21.6	15.5	17.2	18.1
Tallassee, AL	14.8	20.3	18.0	13.7	16.0	15.9
Gainesville, FL	15.0	17.6	17.0	13.8	14.8	15.9
Jay, FL	13.0	12.0	16.0	11.0	16.0	14.0
Beaumont, TX	12.9	11.4	15.0	10.4	12.8	13.4
Stoneville, MS (B)	11.7	13.4	12.8	11.0	11.3	11.9
Mean	14.3	15.9	16.5	12.5	14.6	14.7

Table 59 - (continued)

Location	D79-10494	F77-7449	F82-1820	F82-1851	N82-1893	SC82-1672
			OIL PERCENTAGE			
Blackville, SC (A)	20.6	21.7	20.6	19.9	21.6	20.4
Tifton, GA	21.1	22.9	20.1	20.7	24.0	21.3
Tallassee, AL	20.3	21.5	20.0	20.4	22.2	21.3
Gainesville, FL	21.5	23.9	21.9	21.1	24.6	22.7
Jay, FL	21.0	22.0	21.2	21.6	22.9	22.0
Stoneville, MS (B)	18.6	19.5	18.2	18.5	19.9	19.5
Mean	20.5	21.9	20.3	20.4	22.5	21.2
			PROTEIN PERCENTAGE			
Blackville, SC (A)	44.3	42.5	41.1	43.3	41.2	43.7
Tifton, GA	43.3	41.3	41.5	42.9	38.7	41.7
Tallassee, AL	42.9	41.2	42.0	42.7	41.0	42.3
Gainesville, FL	43.3	41.4	41.4	43.0	39.6	41.3
Jay, FL	43.0	40.5	42.6	41.0	40.9	40.7
Stoneville, MS (B)	45.6	42.4	42.6	43.5	41.9	42.3
Mean	43.7	41.6	41.9	42.7	40.6	42.0
			GRAMS PER 100 SEEDS			
Blackville, SC (A)	14.0	13.5	11.6	11.8	12.8	17.3
Tifton, GA	14.9	14.8	13.6	14.1	17.3	21.6
Tallassee, AL	14.8	15.0	13.5	14.0	16.2	20.2
Gainesville, FL	13.7	14.6	12.3	13.5	15.2	18.7
Jay, FL	14.0	13.0	14.0	13.0	14.0	16.0
Beaumont, TX	11.6	10.2	11.0	10.5	12.0	13.7
Stoneville, MS (B)	11.0	10.7	9.7	11.0	11.6	14.8
Mean	13.4	13.1	12.2	12.6	14.2	17.5

Table 60 - Relative maturity, days earlier (-) or later (+) than Kirby, for the strains in Uniform Group VIII, 1985

Location	Date planted	Kirby matured	Hutton	Co79-760	F80-3602	Co82-537	Co82-645
Clinton, NC	5-28	11-7	-5	-5	+5	0	0
Florence, SC (A)	6-20	10-30	-1	-1	0	+1	+5
Florence, SC (B)	5-20	10-27	-4	-3	-2	-4	-3
Hartsville, SC (A)	5-27	10-26	-4	-1	+1	-1	+3
Hartsville, SC (B)	6-20	11-8	-1	-3	-1	-3	-3
Blackville, SC (A)	5-14	10-31	-4	-6	-2	-4	-3
Blackville, SC (B)	6-26	10-30	-5	-5	-1	-3	-2
Athens, GA	5-20	10-22	-4	-4	+3	-2	-1
Tallassee, AL	5-24	10-22	0	-3	0	-1	-2
Tifton, GA	5-23	10-19	-4	-2	-3	-2	-1
Gainesville, FL	6-6	10-26	-3	-6	-2	-3	-2
Marianna, FL	7-1	10-23	-1	-3	-2	-2	0
Jay, FL	6-25	10-23	-2	-1	0	+5	0
Fairhope, AL	6-14	10-31	-7	-7	-5	-6	-6
Stoneville, MS (B)	5-10	10-30	-2	-4	-2	-9	-2
Beaumont, TX	5-29	10-31	-6	-1	-3	-4	0
Mean	6-3	10-28	-3	-3	-1	-2	-1

Table 60 - (continued)

Location	D79-10494	F77-7449	F82-1820	F82-1851	N82-1893	SC82-1672
Clinton, NC	+5	+5	-5	0	0	-5
Florence, SC (A)	+3	+1	+1	-1	-1	+6
Florence, SC (B)	0	0	-3	-3	-2	-2
Hartsville, SC (A)	+7	-1	-1	-3	-5	+3
Hartsville, SC (B)	-2	-1	-6	-7	-3	0
Blackville, SC (A)	+4	-1	-5	-4	-6	-1
Blackville, SC (B)	+4	0	-3	-3	-3	-5
Athens, GA	+5	0	-1	-1	-4	0
Tallassee, AL	+2	+3	0	-1	-2	0
Tifton, GA	-1	-2	-4	-3	-1	-2
Gainesville, FL	-1	+1	-1	-1	-3	+1
Marianna, FL	0	+1	-1	-2	-2	+1
Jay, FL	+5	+3	+3	0	-2	+3
Fairhope, AL	+5	+2	+1	-6	-6	-3
Stoneville, MS (B)	-1	-1	-1	-1	-7	-1
Beaumont, TX	-3	-6	0	-2	-3	-2
Mean	+2	0	-2	-2	-3	-1

Table 61 - Plant height for the strains in Uniform Group VIII, 1985

Location	Kirby	Hutton	Co79-760	F80-3602	Co82-537	Co82-645
Clinton, NC	34	32	40	44	42	36
Florence, SC (A)	38	37	37	44	40	38
Florence, SC (B)	33	33	34	41	37	34
Hartsville, SC (A)	44	44	46	50	49	48
Hartsville, SC (B)	32	30	33	38	37	33
Blackville, SC (A)	37	36	33	38	37	34
Blackville, SC (B)	30	25	24	31	27	26
Athens, GA	41	43	42	45	43	41
Tallassee, AL	42	38	41	43	43	41
Tifton, GA	38	38	39	41	40	38
Gainesville, FL	25	25	25	26	26	24
Marianna, FL	29	27	28	30	29	26
Jay, FL	25	24	30	27	26	27
Fairhope, AL	31	34	34	33	36	32
Baton Rouge, LA	38	37	40	44	42	39
Stoneville, MS (B)	32	29	27	34	33	32
Beaumont, TX	29	25	28	28	31	27
Mean	34	31	34	37	35	33

Table 61 - (continued)

Location	D79-10494	F77-7449	F82-1820	F82-1851	N82-1893	SC82-1672
Clinton, NC	38	42	40	36	32	34
Florence, SC (A)	39	40	44	38	38	38
Florence, SC (B)	37	42	39	34	37	35
Hartsville, SC (A)	48	50	52	46	41	49
Hartsville, SC (B)	33	39	36	31	34	36
Blackville, SC (A)	35	39	39	39	31	37
Blackville, SC (B)	29	34	33	29	29	31
Athens, GA	43	46	51	45	40	43
Tallassee, AL	42	42	49	43	37	42
Tifton, GA	34	42	42	40	36	37
Gainesville, FL	26	29	27	28	21	25
Marianna, FL	29	30	31	25	28	30
Jay, FL	26	23	26	26	27	28
Fairhope, AL	35	30	31	31	27	36
Baton Rouge, LA	42	42	45	41	34	35
Stoneville, MS (B)	32	31	39	35	29	23
Beaumont, TX	27	31	30	32	24	24
Mean	35	35	39	35	32	34

Table 62 - Lodging scores for the strains in Uniform Group VIII, 1985

Location	Kirby	Hutton	Co79-760	F80-3602	Co82-537	Co82-645
Clinton, NC	3.0	3.0	3.0	3.0	3.0	3.0
Florence, SC (A)	2.7	3.0	2.7	3.0	3.0	2.7
Florence, SC (B)	3.0	3.7	3.3	3.3	3.3	2.7
Hartsville, SC (A)	2.2	2.7	2.2	2.8	2.3	1.2
Hartsville, SC (B)	1.5	1.8	2.0	2.5	2.0	1.2
Blackville, SC (A)	1.0	1.0	1.0	1.0	1.0	1.0
Blackville, SC (B)	1.0	1.0	1.0	1.0	1.0	1.0
Athens, GA	2.5	3.5	2.0	2.8	2.5	1.5
Tallassee, AL	1.3	2.7	1.5	1.5	1.3	1.0
Tifton, GA	1.2	1.5	1.2	1.5	1.6	1.3
Gainesville, FL	1.0	1.0	1.0	1.3	1.0	1.0
Marianna, FL	1.0	1.0	1.0	1.0	1.0	1.0
Jay, FL	2.0	2.0	2.0	2.0	2.0	2.0
Fairhope, AL	2.0	2.0	2.0	2.0	1.8	2.0
Baton Rouge, LA	5.0	4.7	5.0	5.0	4.7	4.7
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
Beaumont, TX	1.6	1.7	1.2	1.5	1.7	1.4

Table 62 - (continued)

Location	D79-10494	F77-7449	F82-1820	F82-1851	N82-1893	SC82-1672
Clinton, NC	4.0	3.0	3.0	3.0	3.0	3.0
Florence, SC (A)	3.0	3.7	3.0	3.0	3.0	2.3
Florence, SC (B)	3.3	4.0	3.3	3.0	3.7	3.0
Hartsville, SC (A)	2.5	3.5	2.3	2.5	2.7	1.7
Hartsville, SC (B)	3.0	2.7	2.2	2.2	2.3	1.7
Blackville, SC (A)	2.0	1.0	1.0	1.0	2.0	1.0
Blackville, SC (B)	1.0	1.0	1.0	1.0	1.0	1.0
Athens, GA	2.3	2.5	2.7	2.8	3.2	1.3
Tallassee, AL	2.2	1.5	1.7	1.3	1.3	1.0
Tifton, GA	1.2	1.6	1.3	1.6	1.4	1.4
Gainesville, FL	1.7	1.3	1.3	1.3	1.0	1.3
Marianna, FL	2.0	2.0	1.0	1.0	1.0	1.0
Jay, FL	2.0	2.0	2.0	2.0	3.0	2.0
Fairhope, AL	2.0	2.0	2.0	1.8	2.0	2.0
Baton Rouge, LA	5.0	5.0	5.0	5.0	4.7	3.8
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
Beaumont, TX	1.9	1.7	1.6	1.6	1.7	1.1

Table 63 - Seed quality scores for the strains in Uniform Group VIII, 1985

Location	Kirby	Hutton	Co79-760	F80-3602	Co82-537	Co82-645
Clinton, NC	1.5	1.5	2.0	1.5	1.5	1.5
Blackville, SC (A)	2.0	3.0	3.0	2.0	3.0	3.0
Blackville, SC (B)	2.0	4.0	3.0	2.0	3.0	2.0
Athens, GA	1.5	2.0	2.2	2.2	1.7	1.5
Tallassee, AL	1.3	1.7	3.0	1.3	2.0	1.3
Tifton, GA	1.5	2.5	2.5	2.0	2.5	1.5
Gainesville, FL	1.3	2.0	2.3	1.7	2.3	1.7
Quincy, FL	2.0	2.0	2.0	2.0	2.7	2.0
Jay, FL	3.0	3.0	4.0	3.0	5.0	3.0
Baton Rouge, LA	3.0	3.8	3.6	3.7	3.1	4.0
Stoneville, MS (B)	2.7	3.0	2.7	3.0	2.3	3.0
Beaumont, TX	3.2	4.3	4.2	4.2	4.0	3.5

Table 63 - (continued)

Location	D79-10494	F77-7449	F82-1820	F82-1851	N82-1893	SC82-1672
Clinton, NC	1.5	1.5	1.5	1.5	1.5	1.5
Blackville, SC (A)	2.0	2.0	2.0	3.0	2.0	4.0
Blackville, SC (B)	3.0	2.0	3.0	4.0	3.0	3.0
Athens, GA	1.5	1.8	2.2	2.0	1.7	2.5
Tallassee, AL	1.7	1.7	2.0	2.0	1.3	2.0
Tifton, GA	2.5	2.5	2.0	3.0	2.0	1.5
Gainesville, FL	1.0	1.3	1.3	1.3	2.0	1.7
Quincy, FL	2.0	2.0	2.7	3.0	2.0	2.3
Jay, FL	4.0	3.0	4.0	3.0	4.0	4.0
Baton Rouge, LA	3.3	3.8	3.3	3.0	3.3	3.3
Stoneville, MS (B)	3.0	3.0	3.0	3.0	2.3	3.0
Beaumont, TX	3.5	4.3	3.5	3.7	3.8	3.8

PRELIMINARY GROUP VIII

1985

Preliminary Group VIII nurseries, which included Kirby and Braxton along with 34 experimental strains, were grown at 6 locations for evaluating seed yield and other agronomic qualities. Additional plantings were made at Blackville, South Carolina and Jay, Florida for root-knot evaluation, in the greenhouse at Jackson, Tennessee for evaluating for reaction to SCN races 3 and 4, and in the field cage at Stoneville for evaluating feeding by soybean looper. Parentage for each of these strains is reported in Table 64. Table 65 gives a general summary of performance including reaction to nematodes, stem canker, and to feeding by soybean looper. Data from individual locations are reported in Tables 66 to 70.

Differences among strains at the individual locations were significant at the 5% level of confidence. Kirby had a mean seed yield of 30.8 bushels per acre. Five strains had mean seed yields ranking above that for Kirby. Six strains were rated equal or earlier in maturity than Braxton. Fourteen strains were rated resistant to SCN race 3, and two additional strains were rated resistant to races 3 and 4. Six strains had ratings for M. arenaria equal to or lower than that for Kirby. Ratings are not reported for M. incognita since data were incomplete. Strains were rated for reaction to stem canker on the basis of a natural infection in the field at Beaumont, Texas.

The more promising appearing strains are Co82-622, F83-2048, and F83-2184. F83-7848 has yielded reasonably well, and has a distinctly different parentage. The variety Late Giant has given evidence of having very good resistance to fusarium in studies at Gainesville, Florida.

Table 64 - Parentage of strains in Preliminary Group VIII, 1985

	Variety or strain	Parentage	Generation composited
1.	Kirby	Centennial X [Forrest X (Cobb X D68-216)]	F_5
2.	Braxton	F59-1505 X (Bragg(3) X D60-7965)	F_5
3.	Co79-760	Co73-473 X Centennial	F_5
4.	Co82-622	Braxton X Coker 368	F_5
5.	Co83-1077	Coker 368 X D74-7741	F_5
6.	Co83-1142	Coker 368 X D74-7741	F_5
7.	Co83-1170	Coker 368 X D74-7741	F_5
8.	Co83-1397	Co76-888 X J74-39	F_5
9.	D77-12480	Tracy-M X (Hill X PI 159925)	F_5
10.	D82-6206	D77-12480 X (Hardee X PI 227687)	F_5
11.	D82-10399	D74-10232 X D79-7923	F_5
12.	F80-6692	F73-3376 X [Late Giant (2) X (Jupiter X F66-1534)]	F_4
13.	F82-7193	Foster(2) X (Forrest X D77-12480)	F_4
14.	F82-7622	Forrest(3) X D77-12480	F_4
15.	F83-1509	Forrest(3) X D77-12480	F_5
16.	F83-1513	Forrest(3) X D77-12480	F_5
17.	F83-1524	Forrest(3) X D77-12480	F_5
18.	F83-1579	Forrest(3) X D77-12480	F_5
19.	F83-1596	Forrest(3) X D77-12480	F_5
20.	F83-1635	Bedford X Kirby	F_5
21.	F83-2048	Bedford X Kirby	F_6
22.	F83-2184	Bedford X Kirby	F_6
23.	F83-2186	Bedford X Kirby	F_6
24.	F83-4799	Foster(3) X D77-12480	F_5
25.	F83-5181	F77-1790 X (Foster(3) X D77-12480)	F_4
26.	F83-7848	F73-3376 X [Late Giant (2) X Jupiter X F66-1534)]	F_5
27.	F83-7951	F73-3376 X [Late Giant (2) X Jupiter X F66-1534)]	F_5
28.	F84-1244	Forrest(3) X D77-12480	F_6
29.	F84-1257	Forrest(3) X D77-12480	F_6
30.	G81-330	D74-7741 X Braxton	F_6
31.	G81-1948	D74-7741 X Braxton	F_6
32.	N83-940	Braxton X N73-889	F_6
33.	SC82-1582	Co488 X Centennial	F_5
34.	SC82-1648	Co488 X Braxton	F_5
35.	SC82-1670	Co488 X Braxton	F_5
36.	SC82-1704	Co488 X Braxton	F_5

Table 65 - General summary of performance for the strains in Preliminary Group VIII, 1985

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	M. arenaria[1]	SCN race 3	SCN race 4	Soybean looper	Stem canker[2]
Kirby	32.0	10-27	31	21.0	42.0	2.2	R	S	3.5	1.8
Braxton	30.9	-4	31	21.1	42.2	2.8	S	S	3.5	1.8
Co79-760	30.6	-3	29	21.9	42.5	4.8h	R	S	4.0	2.0
Co82-622	33.9	-1	29	21.4	41.3	3.5h	R	S	4.0	0.5
Co83-1077	32.8	-5	34	21.6	41.3	2.3	R	S	3.5	1.0
Co83-1142	32.5	-5	32	21.6	41.3	4.8h	R	S	4.0	3.5
Co83-1170	32.8	-1	24	21.4	40.6	3.0h	R	S	3.5	1.0
Co83-1397	27.2	-4	26	23.1	42.1	4.5	S	S	5.0	2.5
D77-12480	24.3-	+8	41	20.1	42.0	5.0	S	S	3.5	0.0
D82-6206	22.3-	+4	33	18.3	44.4	5.0	S	S	4.0	1.3
D82-10399	28.0	-3	32	20.9	42.9	2.5	S	S	3.8	0.5
F80-6692	30.9	+1	38	21.0	41.7	3.0	S	S	4.5	0.0
F82-7193	24.4-	+6	36	21.2	41.5	3.0	S	S	4.0	3.3
F82-7622	27.8	+9	45	21.5	40.4	2.8	R	S	4.5	1.8
F83-1509	25.9	+2	42	21.1	39.8	2.5	R	S	4.0	4.3
F83-1513	27.4	-1	37	22.0	39.7	2.5	R	S	4.5	2.5
F83-1524	26.0	+1	37	21.4	40.4	2.5	R	S	4.5	3.0
F83-1579	25.2	+1	40	20.6	41.3	2.8	R	S	4.0	4.3
F83-1596	28.6	+1	40	21.2	41.2	3.0	R	h	4.5	3.0
F83-1635	28.9	-2	38	21.6	41.0	3.5	R	h	4.0	3.8
F83-2048	30.3	0	36	20.3	42.2	2.5	R	R	4.0	2.5
F83-2184	32.3	+2	43	22.2	40.8	3.5	R	R	4.0	3.0
F83-2186	31.5	+2	42	21.6	40.9	3.2	R	S	4.0	2.8
F83-4799	26.3	+4	38	21.3	40.7	4.5	S	S	4.5	3.3
F83-5181	30.0	+7	37	20.9	42.0	3.0	R	S	3.5	2.5
F83-7848	31.8	+5	29	21.3	41.5	5.0	S	S	4.5	0.0
F83-7951	29.1	+2	28	20.9	42.2	5.0	S	S	5.0	0.0
F84-1244	27.6	+5	32	20.3	40.7	3.5	S	S	3.0	3.5
F84-1257	24.3-	+4	33	19.9	40.7	3.5	S	S	3.0	3.5
G81-330	30.6	-2	32	21.8	41.0	3.8	S	S	3.5	0.5
G81-1948	30.9	-5	32	22.2	40.2	3.0h	h	S	4.5	2.0
N83-940	29.2	-4	34	21.8	42.3	3.0h	S	S	4.0	0.0
SC82-1582	26.9	-2	32	22.7	40.1	4.8	S	S	3.5	2.0
SC82-1648	30.0	-1	29	20.5	42.4	3.8	S	S	4.0	0.5
SC82-1670	28.2	-4	31	20.9	42.2	3.2	S	S	4.0	0.0
SC82-1704	31.4	+1	32	20.6	42.8	5.0	S	S	3.5	2.3
L.S.D.(.05)	6.8			.8	1.2					

[1] h = heterozygous

[2] Stem canker ratings made at Beaumont, TX on a 0 - 9 basis.

Table 66 - Seed yield, in bushels per acre, for the strains in Preliminary Group VIII, 1985

Strain	Blackville, SC	Gainesville, FL	Quincy, FL	Jay, FL	Beaumont, TX	Stoneville, MS (B)
Kirby	29.3	36.0	38.2	28.4	21.8	38.3
Braxton	32.2	35.1	36.3	20.8	21.4	39.6
Co79-760	38.5	26.9	36.5	20.4	20.0	41.3
Co82-622	33.4	29.8	40.9	30.1	25.3	43.6
Co83-1077	36.7	31.5	36.2	28.3	29.0	35.2
Co83-1142	35.7	34.6	39.9	24.0	21.9	38.9
Co83-1170	30.2	31.1	45.0+	27.4	23.1	39.8
Co83-1397	30.7	29.9	28.0-	18.8-	16.2	39.8
D77-12480	25.8	32.4	22.1-	18.0-	21.7	25.8-
D82-6206	26.4	24.2	22.1-	15.9-	17.8	27.6-
D82-10399	23.5	34.8	35.7	23.2	18.2	32.3-
F80-6692	29.9	40.8	40.2	21.6	22.8	29.8-
F82-7193	30.3	24.4	28.4-	18.9-	10.9-	33.3
F82-7622	25.6	27.5	28.4-	28.1	22.6	34.8
F83-1509	26.4	23.8	28.6-	27.8	13.0-	35.7
F83-1513	29.9	32.3	19.6-	30.7	15.9	36.2
F83-1524	27.8	22.8	26.5-	30.0	15.7	33.1
F83-1579	26.3	25.2	32.8-	22.9	9.9-	34.2
F83-1596	28.0	29.4	35.4	34.3	12.5-	31.9-
F83-1635	31.8	30.1	36.9	24.7	12.8-	36.9
F83-2048	30.9	29.7	34.0	30.2	19.2	37.8
F83-2184	30.5	33.4	36.8	32.3	20.7	39.9
F83-2186	27.5	33.0	30.9-	35.3	25.0	37.1
F83-4799	27.0	28.1	31.0-	21.9	16.4	33.3
F83-5181	31.7	38.0	31.2-	26.8	17.3	34.7
F83-7848	31.2	30.8	42.2	25.2	29.4	31.7-
F83-7951	32.0	29.6	31.9-	25.0	26.2	29.9-
F84-1244	27.9	25.9	34.8	22.2	21.8	32.7
F84-1257	28.6	27.7	30.0-	17.4-	9.5-	32.7
G81-330	33.0	29.0	34.8	21.1	25.3	40.2
G81-1948	31.3	32.0	37.5	26.1	19.8	38.5
N83-940	30.5	28.2	35.9	23.7	19.1	38.0
SC82-1582	31.8	30.1	34.6	21.1	17.1	26.4-
SC82-1648	32.0	27.9	38.8	21.6	25.6	33.8
SC82-1670	32.2	26.1	34.2	21.3	16.0	39.5
SC82-1704	33.4	32.9	37.9	25.9	19.1	39.0
L.S.D.(.05)	N.S.	N.S.	4.8	8.8	7.9	5.7
C.V.	17%	13%	7%	18%	20%	8%

Table 67 - Oil percentages for the strains in Preliminary Group VIII, 1985

Strain	Blackville, SC	Gainesville, FL	Jay, FL	Stoneville, MS (B)
Kirby	20.8	22.2	22.0	19.0
Braxton	20.9	22.7	21.8	18.9
Co79-760	21.4	23.0	23.2	20.1
Co82-622	21.3	22.5	22.5	19.4
Co83-1077	22.1	23.5	22.1	18.8
Co83-1142	21.2	23.3	22.6	19.3
Co83-1170	21.4	22.7	22.5	19.0
Co83-1397	22.3	24.6	24.7	20.7
D77-12480	19.9	21.1	20.7	18.7
D82-6206	17.9	19.3	19.4	16.4
D82-10399	20.7	22.9	21.5	18.6
F80-6692	20.1	22.3	22.5	19.1
F82-7193	21.3	21.5	22.5	19.3
F82-7622	21.3	23.1	22.5	19.1
F83-1509	21.2	21.8	20.7	20.7
F83-1513	21.7	22.9	22.6	20.9
F83-1524	21.6	22.2	21.4	20.5
F83-1579	20.4	21.1	21.4	19.4
F83-1596	20.8	22.3	21.7	20.0
F83-1635	21.4	22.7	23.2	19.1
F83-2048	19.9	21.2	21.4	18.5
F83-2184	22.3	23.7	23.7	19.0
F83-2186	21.9	23.0	23.0	18.5
F83-4799	21.3	22.3	22.0	19.5
F83-5181	20.6	21.8	22.2	18.9
F83-7848	20.7	23.8	21.4	19.2
F83-7951	20.3	22.5	21.3	19.5
F84-1244	19.9	21.4	21.5	18.2
F84-1257	19.7	21.3	20.5	18.2
G81-330	21.4	23.2	21.9	20.7
G81-1948	21.5	24.2	23.5	19.5
N83-940	21.0	22.9	23.6	19.7
SC82-1582	21.4	24.7	23.4	21.3
SC82-1648	19.4	21.9	21.2	19.5
SC82-1670	21.1	21.6	21.6	19.3
SC82-1704	20.4	22.3	21.3	18.5

Table 68 - Protein percentages for the strains in Preliminary Group VIII, 1985

Strain	Blackville, SC	Gainesville, FL	Jay, FL	Stoneville, MS (B)
Kirby	43.0	41.4	39.9	43.7
Braxton	42.9	42.6	40.9	42.5
Co79-760	42.1	44.1	40.3	43.3
Co82-622	41.3	41.6	39.4	42.8
Co83-1077	41.3	41.6	39.2	43.2
Co83-1142	41.5	41.1	39.4	43.1
Co83-1170	40.5	40.7	38.3	42.7
Co83-1397	42.8	41.8	41.2	42.6
D77-12480	42.2	42.6	39.9	43.4
D82-6206	45.6	44.2	42.2	45.6
D82-10399	44.6	41.7	40.9	44.4
F80-6692	42.5	40.8	40.0	43.4
F82-7193	41.7	42.2	39.7	42.3
F82-7622	40.7	40.7	38.1	42.2
F83-1509	40.3	40.3	39.7	38.8
F83-1513	41.1	40.0	38.5	39.3
F83-1524	41.3	41.8	38.5	39.9
F83-1579	42.6	42.2	39.7	40.8
F83-1596	42.8	42.0	39.8	40.3
F83-1635	41.0	41.4	38.6	43.0
F83-2048	42.0	42.5	40.0	44.2
F83-2184	39.6	41.5	38.1	44.0
F83-2186	40.2	41.1	38.9	43.3
F83-4799	40.7	41.5	38.2	42.4
F83-5181	42.4	42.5	39.6	43.6
F83-7848	42.0	40.2	40.3	43.4
F83-7951	43.8	41.5	39.8	43.8
F84-1244	41.1	40.5	38.7	42.3
F84-1257	41.5	40.4	39.1	41.8
G81-330	40.7	41.4	39.7	42.0
G81-1948	42.1	39.8	37.0	41.7
N83-940	43.4	43.0	39.4	43.2
SC82-1582	41.9	39.5	38.1	41.0
SC82-1648	43.9	43.4	39.9	42.4
SC82-1670	42.5	42.9	41.2	42.3
SC82-1704	43.5	42.5	40.8	44.2

Table 69 - Plant height for the strains in Preliminary Group VIII, 1985

Strain	Blackville, SC	Gainesville, FL	Jay, FL	Beaumont, TX	Stoneville, MS (B)
Kirby	35	30	26	35	29
Braxton	37	25	27	33	34
Co79-760	35	28	27	29	28
Co82-622	33	28	28	29	29
Co83-1077	37	32	26	36	37
Co83-1142	35	29	29	29	38
Co83-1170	32	26	25	32	27
Co83-1397	34	23	20	28	26
D77-12480	45	49	30	43	39
D82-6206	37	33	26	33	37
D82-10399	36	30	24	37	35
F80-6692	41	41	29	39	38
F82-7193	38	41	26	39	35
F82-7622	48	49	28	49	49
F83-1509	45	49	26	49	43
F83-1513	42	41	27	41	36
F83-1524	48	44	26	39	30
F83-1579	45	45	29	43	36
F83-1596	43	46	32	42	35
F83-1635	43	35	31	40	42
F83-2048	41	34	32	36	38
F83-2184	47	41	32	50	44
F83-2186	49	40	32	45	42
F83-4799	42	42	27	44	36
F83-5181	41	41	28	42	33
F83-7848	32	30	23	31	27
F83-7951	34	27	24	26	29
F84-1244	35	33	29	31	34
F84-1257	38	32	29	33	34
G81-330	35	28	27	34	36
G81-1948	33	30	26	33	37
N83-940	42	34	29	32	31
SC82-1582	37	34	34	30	25
SC82-1648	37	28	28	27	24
SC82-1670	38	27	25	33	30
SC82-1704	34	33	28	33	32

Table 70 - Seed quality scores for the strains in Preliminary Group VIII, 1985

Strain	Blackville, SC	Gainesville, FL	Quincy, FL	Jay, FL	Beaumont, TX	Stoneville, MS (B)
Kirby	2.0	1.0	2.0	3.0	3.0	3.0
Braxton	4.0	2.5	2.0	3.0	4.5	3.0
Co79-760	3.0	2.5	2.0	4.0	4.3	3.0
Co82-622	3.0	2.0	2.0	4.0	4.0	3.5
Co83-1077	2.0	2.0	2.5	4.0	4.0	3.0
Co83-1142	3.0	2.0	2.0	4.0	4.3	3.0
Co83-1170	1.0	1.5	2.5	2.0	3.5	3.0
Co83-1397	2.0	2.5	2.0	5.0	4.3	3.0
D77-12480	2.0	1.0	4.0	5.0	2.8	3.0
D82-6206	3.0	1.5	3.0	3.0	3.3	3.0
D82-10399	2.0	1.5	2.0	4.0	4.0	3.0
F80-6692	2.0	1.5	3.0	4.0	3.8	3.0
F82-7193	3.0	2.0	2.0	5.0	4.0	3.0
F82-7622	2.0	1.5	4.0	5.0	4.0	3.0
F83-1509	2.0	1.5	3.5	5.0	4.5	3.0
F83-1513	3.0	1.0	4.0	4.0	4.5	3.0
F83-1524	3.0	2.5	3.0	4.0	4.5	3.0
F83-1579	4.0	1.5	3.5	5.0	4.5	3.0
F83-1596	3.0	2.0	3.0	5.0	4.5	3.0
F83-1635	3.0	1.0	2.0	3.0	4.3	3.0
F83-2048	4.0	1.5	3.0	3.0	3.8	3.0
F83-2184	1.0	1.5	2.0	3.0	3.0	2.5
F83-2186	2.0	1.5	2.0	3.0	2.8	3.0
F83-4799	2.0	1.5	2.0	4.0	3.8	3.0
F83-5181	1.0	1.5	5.0	3.0	3.0	3.0
F83-7848	2.0	1.5	2.0	4.0	3.5	3.0
F83-7951	2.0	2.0	2.0	4.0	3.0	3.0
F84-1244	1.0	1.5	2.0	4.0	3.3	3.0
F84-1257	1.0	1.5	2.0	3.0	3.8	4.5
G81-330	2.0	2.0	2.0	4.0	4.3	3.0
G81-1948	2.0	1.5	2.5	3.0	4.3	2.5
N83-940	3.0	3.0	2.0	3.0	4.3	3.0
SC82-1582	2.0	1.5	2.0	3.0	4.5	3.0
SC82-1648	3.0	2.0	2.0	3.0	3.8	3.0
SC82-1670	4.0	3.0	2.0	4.0	4.0	3.0
SC82-1704	3.0	2.0	2.0	4.0	4.0	3.0