THE UNIFORM SOYBEAN TESTS
SOUTHERN REGION
1986

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AGRICULTURAL RESEARCH SERVICE
COOPERATING WITH
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SOUTHERN REGION
STONEVILLE, MISSISSIPPI

THE UNIFORM SOYBEAN TESTS

SOUTHERN STATES

1986

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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, Leflore, 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; Leflore, 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 loam	M	VH	6.4	0-45-90	33.8 - Essex
Georgetown, DE		1				Norfolk loamy sand	H	MH	6.1	0-0-0	41.3 - Forrest
Warsaw, VA	1*	1*	1			Kempsville loam	M	M	6.0	0-0-0	51.0 - Stafford
Holland, VA		1	1*			Othello	VH	M	6.4	0-0-0	54.1 - Essex
Plymouth, NC		1*	1*			Bladen f. s. loam	-	-	-	0-40-80	52.3 - Forrest
Kinston, NC			1	1		Norfolk sandy loam	-	-	-	0-40-80	38.3 - Leflore
Clinton, NC				1*	1	Norfolk sandy loam	-	-	-	0-40-80	No stand
Florence, SC (A)			1	1	1	Norfolk f. s. l.	-	-	-	24-48-144	No stand
Florence, SC (B)				1	1	Norfolk f. s. l.	-	-	-	24-48-144	No stand
Hartsville, SC (A)			1	1	1	Norfolk sandy loam	-	-	-	0-40-120	49.9 - Leflore
Hartsville, SC (B)				1	1	Norfolk sandy loam	-	-	-	0-40-120	No stand
Southeast											
Blackville, SC (A)			1	1*	1*	Varina loamy sand	M	M	6.0	0-40-80	24.1 - Leflore
Blackville, SC (B)					1	Varina loamy sand	-	-	-	0-40-120	No stand
Tifton, GA			1	1	1	Tifton sandy loam	M	M	6.6	0-32-129	49.4 - Leflore
Tallassee, AL			1*	1*	1	Cahaba f. s. l.	M	H	6.4	0-40-90	33.4 - Leflore
Gainesville, FL				1	1*	Hernando fine sand	H	M	6.0	0-36-108	19.8 - Braxton
Quincy, FL			1	1	1*	Norfolk sandy loam	-	-	-	0-0-0	47.3 - Leflore
Marianna, FL				1	1	Chipola l. s.	H	H	6.5	15-30-45	56.1 - Braxton
Jay, FL			1*	1*	1*	Red Bay sandy loam	-	-	-	0-75-38	45.8 - Leflore
Fairhope, AL			1	1	1	Malbis f. s. l.	M	H	6.2	0-56-56	46.9 - Leflore
Poplarville, MS				1	1		-	-	-	0-0-0	16.5 - Braxton
Baton Rouge, LA			1	1	1	Olivier silt loam	-	-	-	0-72-72	26.2 - Leflore
Upper & Central South											
Orange, VA	1	1				Starr clay loam	H-	H	6.7	12-72-72	No stand
Clemson, SC		1	1	1		Cecil sandy loam	H	M	6.0	0-62-108	42.1 - Braxton
Calhoun, GA		1	1	1		Staser clay loam	VH	H	6.2	0-54-108	55.3 - Gordon
Athens, GA		1	1*	1*	1	Appling coarse s. l.	H	M	6.7	0-0-120	32.8 - Leflore
Knoxville, TN	1	1				Sequatchie silt loam	-	-	-	0-60-60	33.8 - Forrest
Belle Mina, AL		1	1			Decatur clay loam	M	H	7.4	0-60-60	45.2 - Leflore
Eldorado, IL	1						-	-	-	0-0-0	58.6 - Douglas
Carbondale, IL	1*					Stoy silt loam	-	-	-	0-0-0	51.3 - Stafford
Princeton, KY	1*	1				Crider silt loam	H	H	6.7	0-0-0	31.3 - Douglas
Martin, TN	1	1				Lexington silt loam	M	M	5.9	0-40-40	36.0 - Forrest
Tiptonville, TN	1*	1*				Morganfield silt loam	H	L	6.1	0-0-60	
Jackson, TN		1	1			Lexington silt loam	H	H	6.4	0-0-0	30.9 - Leflore

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.	H	H	6.7	0-0-0	42.7 - Forrest
Portageville, MO (B)	1	1	1			Sharkey clay	H	H	6.7	0-0-0	33.0 - Tracy-M
Keiser, AR	1*	1*	1*			Sharkey silty clay	H	H	6.7	0-0-0	47.5 - Forrest
Jonesboro, AR	1	1	1			Calloway silt loam	M	H	6.5	0-40-60	30.3 - Forrest
Pine Tree, AR	1	1	1			Calloway silt loam	M	H	6.7	0-0-0	42.2 - Leflore
Stoneville, MS (A)		1*	1*	1*		Bosket f. s. l.	H	H	6.8	0-0-0	52.5 - Forrest
Stoneville, MS (B)	1*	1*	1*	1*	1*	Sharkey clay	H+	H	6.6	0-0-0	51.8 - Tracy-M
Rohwer, AR			1	1*		Perry clay	H	M	6.4	0-0-0	41.4 - Leflore
St. Joseph, LA		1	1	1		Sharkey clay	H	H	6.7	0-0-0	35.4 - Leflore
West											
Manhattan, KS	1					Muir silt loam	M	H	7.0	0-0-0	65.0 - Douglas
Pittsburg, KS	1	1				Parsons silt loam	M	H	7.0	0-0-0	Not harvested
Ottawa, KS	1*	1				Woodson silt loam	M	M	6.5	0-0-0	54.5 - Forrest
Bixby, OK	1	1	1			Reinach silt loam	H	H	6.5	0-0-0	50.0 - Stafford
Stuttgart, AR		1	1	1		Crowley silt loam	M	M	5.7	0-40-60	47.0 - Forrest
Bossier City, LA		1	1	1		Moreland s. c.	-	-	-	0-0-0	50.5 - Leflore
Beaumont, TX		1	1	1*	1*	Midland silty c. l.	-	-	-	0-40-100	
Lubbock, TX	1	1				Acuff loam	L	VH	8.4	32-70-0	41.5 - Stafford
Clovis, NM	1					Pullman s. c. l.	-	-	-	0-100-0	55.5 - Douglas
Bushland, TX	1					Pullman c. l.	-	-	-	0-0-0	67.0 - 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, Leflore; 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 1986.

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.

Plantings were made in the greenhouse at the University of Georgia, Athens, to evaluate for Meloidogyne incognita. Plantings were replicated with a specific number of eggs added for each entry.

Plantings were made in the field cage at Stoneville to evaluate for feeding by soybean looper. Plantings were made in single hills spaced 18 inches in the row with rows spaced 30 inches. Two replications were grown. A heavy population of moths were released at the time plants were in about the fourth to fifth trifoliolate stage.

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: Lack of soil moisture at planting time resulted in poor stands at several locations. Early season drouth also prevented normal plant development. Continuous rainy weather beginning in mid-October and extending into December delayed harvest and resulted in reduced seed quality.

UNIFORM GROUP IV-S

1986

	Variety or strain	Parentage	Generation composited
1.	Douglas	Williams X Calland	F_5
2.	Stafford	V66-318 X V68-2331	F_5
3.	K1099	K1022 X Essex	F_5
4.	S82-1443	A5424 X Mack	F_5
5.	D83-2886	D65-2262 X Forrest	F_5
6.	D83-3349	Bedford X sel [Forrest X sel (Peking X Centennial)]	F_5
7.	D83-3388	Bedford X sel [Forrest X sel (Peking X Centennial)]	F_5
8.	LS82-W1206	Forrest X V71-480	F_5
9.	S81-2203	Crawford X J74-67-7	F_5
10.	S82-1111	L75-8064 X Forrest	F_5
11.	Tn83-7	Bedford X Crawford	F_7
12.	V81-141	Essex X V71-793	F_5

Background of lines used as parents:

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.

D65-2262 is a selection from D54-2437 X PI 261467 which was grown in Uniform Group IV-S 1968-1970.

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

J74-67-7 is a SCN race 4 resistant selection from D70-3045 X an F_4 selection from D68-18 X PI 88788.

L75-8064 is a Williams type with SCN race 3 resistance from Custer.

V71-793 is a selection from Dare X V66-318 which was grown in Uniform Group IV-S in 1974.

Uniform IV-S nurseries were planted at 21 locations. Results from 20 of these locations are summarized in Tables 1-7. Table 1 gives a general summary of performance in 1986 along with two- and three-year means for seed yield and oil and protein percentages by regions of production. Table 1 also reports agronomic characteristics and reaction to soybean cyst nematode races 3 and 4 and to the root-knot nematode M. incognita.

Ratings for reaction to soybean cyst nematode races 3 and 4 were made in the greenhouse at Jackson, Tennessee. Ratings for reaction to M. incognita were made in the greenhouse at Athens, Georgia. Ratings for shattering were made at Stoneville.

One strain, Kl099, has been evaluated three years, and one additional strain, S82-1443, has been evaluated two years. Eight strains were evaluated for the first year. Only two of these appear to merit further evaluation. Of the strains evaluated, eight were resistant to SCN race 3 and two were also resistant to SCN race 4.

Two strains, Ky79-0237 and S79-4259, which had been evaluated previously but were not included in the 1986 trials have been named and released for production. Ky79-0237 has been released as Pennyrile, and S79-4259 has been released as Avery.

Table 1 - General summary of performance for the strains grown in Uniform Group IV-S, 1986

	No. of locations	Douglas	Stafford	K1099	S82-1443	D83-2886
Seed Yield - 1986						
East Coast	2	52.8	48.6	58.2	57.2	42.4
Upper & Central South	6	33.3	37.5	35.8	38.6	35.5
Delta	6	32.1	34.5	32.1	33.3	36.0
West	6	53.5	50.6	54.9	48.9	43.1
1985-86						
East Coast		44.9	46.5	50.7	51.6	
Upper & Central South		35.0	39.8	39.5	42.3	
Delta		28.8	35.2	33.5	33.5	
West		44.8	44.4	46.0	42.0	
1984-86						
East Coast		45.3	44.7	50.6		
Upper & Central South		36.8	40.8	40.5		
Delta		29.0	35.9	33.1		
West		44.6	45.0	46.1		
Oil Content - 1986		21.0	20.8	20.3	21.1	20.1
1985-86		21.3	20.5	20.6	21.5	
1984-86		21.4	20.3	20.4		
Protein Content - 1986		41.2	39.9	41.6	40.0	38.8
1985-86		41.9	40.9	41.8	40.4	
1984-86		41.6	40.7	41.4		
Seed size		17.9	12.5	12.1	17.9	12.1
Maturity index		9-21	+9	+8	+10	+12
Height		35	29	23	31	32
Seed quality		3.1	1.8	1.7	2.1	1.8
Shattering		1.0	1.0	1.0	1.0	1.0
M. incognita		4.7	5.0	2.3	3.3	1.3
SCN race 3		S	S	S	R	R
SCN race 4		S	S	S	S	S
Soybean looper		5.0	5.0	5.0	5.0	5.0
Flower color		W	P	W	P	W
Pubescence color		T	G	G	T	G
Pod wall color		Br	T	T	T	T

Table 1 - (continued)

	D83-3349	D83-3388	LS82-W1206	S81-2203	S82-1111	Tn83-7	V81-141
Seed Yield - 1986							
East Coast	50.4	47.2	49.5	50.1	46.7	51.6	48.7
Upper & Central South	40.0	33.6	38.7	34.7	34.2	34.9	38.3
Delta	33.5	31.6	29.0	30.1	31.9	28.0	33.7
West	49.3	47.3	49.6	48.6	49.9	45.3	42.2
1985-86							
East Coast							
Upper & Central South							
Delta							
West							
1984-86							
East Coast							
Upper & Central South							
Delta							
West							
Oil Content - 1986	19.9	19.8	21.0	21.2	21.7	21.8	20.3
1985-86							
1984-86							
Protein Content - 1986	40.4	40.1	39.9	41.3	39.1	39.1	41.6
1985-86							
1984-86							
Seed size	13.1	12.9	13.4	17.0	16.1	13.1	13.9
Maturity index	+9	+10	+4	+1	+3	0	+5
Height	32	32	30	35	41	41	36
Seed quality	2.1	2.2	1.9	2.6	2.4	2.1	2.1
Shattering	1.0	1.0	1.0	1.0	1.0	2.0	1.0
M. incognita	2.0	1.5	2.6	2.6	2.3	3.3	5.0
SCN race 3	R	R	R	R	R	R	S
SCN race 4	S	S	S	R	S	R	S
Soybean looper	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Flower color	W	W	P	P	W	P	W
Pubescence color	T	T	T	T	T	T	G
Pod wall color	T	T	T	T	Br	T	T

Table 2 - Seed yield, in bushels per acre, for the strains in Uniform Group IV-S, 1986

Location	Douglas	Stafford	K1099	S82-1443	D83-2886	D83-3349	D83-3388
			EAST COAST				
Queenstown, MD	54.3	46.1	60.0	66.5+	41.4-	52.4	51.3
Warsaw, VA	51.3	51.0	56.3+	47.9	43.4-	48.4	43.0-
Mean	52.8	48.6	58.2	57.2	42.4	50.4	47.2
			UPPER AND CENTRAL SOUTH				
Knoxville, TN	20.3	33.0+	31.8+	42.0+	24.0	36.2+	29.4+
Eldorado, IL	58.6	52.9-	53.7	53.7	52.2-	55.7	45.9-
Carbondale, IL	43.9	51.3+	51.1+	40.1	47.8	51.9+	40.8
Princeton, KY	31.3	30.3	30.4	32.1	25.2-	31.2	27.3-
Martin, TN	27.6	33.6+	27.0	37.7+	32.2	37.1+	33.6+
Tiptonville, TN	18.2	24.1	21.0	26.2+	31.5+	27.8+	24.7
Mean	33.3	37.5	35.8	38.6	35.5	40.0	33.6
			DELTA				
Portageville, MO (A)	40.7	39.8	33.9	44.2	37.2	45.1	37.8
Portageville, MO (B)	27.8	19.4-	18.4-	17.0-	27.0	20.7-	18.5-
Keiser, AR	24.8	34.1+	29.5	21.9	32.4+	25.2	25.0
Jonesboro, AR	26.3	35.2+	28.0	27.1	29.8	22.8	30.0
Pine Tree, AR	24.9	33.7+	35.5+	35.9+	36.1+	33.0+	31.7+
Stoneville, MS (B)	48.0	44.5	47.1	53.5	53.3	53.9	46.3
Mean	32.1	34.5	32.1	33.3	36.0	33.5	31.6
			WEST				
Manhattan, KS	65.8	50.7-	62.0	56.8	52.9-	60.0	59.4
Ottawa, KS	46.5	50.7	52.3+	45.5	41.0-	50.0	40.0-
Bixby, OK	48.4	50.0	50.5	35.9-	47.4	43.0	48.4
Bushland, TX	67.0	60.3	61.3	57.9-	62.2	59.4	54.6-
Lubbock, TX	33.1	41.5+	47.6+	39.8+	23.7-	32.1	35.7
Clovis, NM	60.3	50.1	55.6	57.7	31.6-	51.4	45.4-
Mean	53.5	50.6	54.9	48.9	43.1	49.3	47.3

(+) - 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	LS82-W1206	S81-2203	S82-1111	Tn83-7	V81-141	L.S.D. (.05)	C.V. (%)
			EAST COAST				
Queenstown, MD	51.3	54.5	45.0	54.4	48.3	11.1	12
Warsaw, VA	47.7	45.6-	48.4	48.7	49.0	3.6	4
Mean	49.5	50.1	46.7	51.6	48.7		
			UPPER AND CENTRAL SOUTH				
Knoxville, TN	41.9+	30.9+	26.4	32.4+	40.9+	6.2	11
Eldorado, IL	56.9	52.6-	55.9	54.9	53.5	5.3	6
Carbondale, IL	50.9+	43.2	44.7	36.2-	46.0	4.6	6
Princeton, KY	29.3	29.7	29.5	29.5	31.3	2.6	7
Martin, TN	30.0	26.5	26.2	31.7	31.7+	5.5	10
Tiptonville, TN	23.2	25.4	22.2	24.5	20.8	7.3	18
Mean	38.7	34.7	34.2	34.9	38.3		
			DELTA				
Portageville, MO (A)	36.8	41.3	38.6	38.6	44.5	8.2	12
Portageville, MO (B)	18.5-	21.3	20.7-	21.9	24.9	7.0	19
Keiser, AR	24.9	20.3	26.5	17.8-	26.5	6.2	14
Jonesboro, AR	21.6	29.4	32.0	22.4	34.0	7.8	16
Pine Tree, AR	29.7	26.2	29.3	25.3	27.9	6.0	12
Stoneville, MS (B)	42.2	42.1	44.5	42.0	44.1	9.7	12
Mean	29.0	30.1	31.9	28.0	33.7		
			WEST				
Manhattan, KS	60.3	59.7	59.0	44.5-	56.5	9.3	10
Ottawa, KS	42.6	44.9	45.8	38.7-	41.3-	4.4	6
Bixby, OK	45.4	46.2	51.0	42.4	45.8	6.5	8
Bushland, TX	60.1	58.2-	56.6-	62.5	47.1-	7.8	8
Lubbock, TX	36.5	33.2	33.8	30.2	22.3-	5.9	10
Clovis, NM	52.7	49.1	53.2	53.6	40.0-	12.7	15
Mean	49.6	48.6	49.9	45.3	42.2		

Table 3 - Chemical composition and seed size for the strains in Uniform Group IV-S, 1986

Location	Douglas	Stafford	K1099	S82-1443	D83-2886	D83-3349
			OIL PERCENTAGE			
Queenstown, MD	20.4	18.3	18.5	19.1	16.9	18.1
Warsaw, VA	19.5	19.1	19.1	20.6	18.5	19.2
Eldorado, IL	20.9	21.3	20.5	20.9	20.2	20.8
Portageville, MO (A)	21.9	22.4	21.1	20.9	21.5	20.0
Keiser, AR	21.0	22.7	22.0	22.5	22.2	21.1
Lubbock, TX	21.7	21.6	20.6	21.6	20.5	19.4
Bixby, OK	21.5	20.5	20.3	22.3	20.8	20.9
Mean	21.0	20.8	20.3	21.1	20.1	19.9
			PROTEIN PERCENTAGE			
Queenstown, MD	41.7	40.9	43.3	42.0	39.5	42.4
Warsaw, VA	43.2	41.6	42.6	40.7	41.0	40.9
Eldorado, IL	41.3	39.7	42.2	41.3	40.1	40.1
Portageville, MO (A)	39.6	38.4	41.2	37.9	36.3	39.9
Keiser, AR	40.6	38.5	39.8	38.0	38.1	39.0
Lubbock, TX	42.0	38.9	40.0	39.8	37.5	40.8
Bixby, OK	40.3	41.0	42.2	40.6	39.1	39.8
Mean	41.2	39.9	41.6	40.0	38.8	40.4
			GRAMS PER 100 SEEDS			
Queenstown, MD	17.7	12.1	12.2	19.7	13.0	14.2
Warsaw, VA	22.6	15.2	15.2	22.7	13.9	15.8
Knoxville, TN	22.2	14.7	13.2	20.4	11.4	14.1
Eldorado, IL	16.5	10.0	11.2	15.4	11.0	11.5
Portageville, MO (A)	16.6	13.2	12.9	18.1	12.3	12.8
Keiser, AR	12.0	10.0	8.0	11.0	11.0	10.0
Mean	17.9	12.5	12.1	17.9	12.1	13.1

Table 3 - (continued)

Location	D83-3388	LS82-W1206	S81-2203	S82-1111	Tn83-7	V81-141
			OIL PERCENTAGE			
Queenstown, MD	18.0	19.2	19.8	20.3	20.1	18.8
Warsaw, VA	19.0	19.8	20.0	20.0	20.0	19.0
Eldorado, IL	19.9	20.8	21.6	21.8	21.8	20.5
Portageville, MO (A)	20.6	21.7	21.9	22.0	22.4	20.1
Keiser, AR	20.9	21.9	20.7	23.0	23.3	20.7
Lubbock, TX	19.7	21.5	21.9	21.7	22.5	21.5
Bixby, OK	20.3	22.1	22.3	22.9	22.5	21.7
Mean	19.8	21.0	21.2	21.7	21.8	20.3
			PROTEIN PERCENTAGE			
Queenstown, MD	41.6	41.1	41.9	39.4	41.6	42.2
Warsaw, VA	40.6	41.0	43.0	40.5	42.1	42.7
Eldorado, IL	39.8	40.9	41.9	40.4	41.1	43.7
Portageville, MO (A)	39.1	38.3	40.3	37.7	37.3	40.5
Keiser, AR	39.8	39.7	40.5	38.4	33.4	40.6
Lubbock, TX	39.8	39.5	41.4	37.9	38.8	40.4
Bixby, OK	40.0	38.5	40.1	39.4	39.7	41.0
Mean	40.1	39.9	41.3	39.1	39.1	41.6
			GRAMS PER 100 SEEDS			
Queenstown, MD	14.1	13.3	18.0	16.7	14.2	13.9
Warsaw, VA	16.1	16.6	21.5	20.9	16.0	17.5
Knoxville, TN	12.7	15.5	19.0	15.7	14.1	17.1
Eldorado, IL	11.4	11.0	16.0	15.3	12.2	13.1
Portageville, MO (A)	13.3	13.1	17.3	15.1	12.8	12.6
Keiser, AR	10.0	11.0	10.0	13.0	9.0	9.0
Mean	12.9	13.4	17.0	16.1	13.1	13.9

Table 4 - Relative maturity data, days earlier (-) or later (+) than Douglas, for the strains in Uniform Group IV-S, 1986

Location	Date planted	Douglas matured	Stafford	K1099	S82-1443	D83-2886
			EAST COAST			
Queenstown, MD	5-29	10-3	+10	+5	+8	+14
Warsaw, VA	5-29	10-2	+9	+6	+7	+8
Mean	5-29	10-3	+10	+6	+8	+11
			UPPER AND CENTRAL SOUTH			
Knoxville, TN	5-5	9-27	+1	-3	+6	+10
Eldorado, IL	5-2	9-17	+12	+9	+12	+14
Carbondale, IL	5-24	9-29	+13	+14	+20	+22
Princeton, KY	5-21	9-14	+10	+10	+12	+13
Mean	5-13	9-22	+9	+8	+13	+15
			DELTA			
Portageville, MO (A)	5-28	9-26	+1	+3	+5	+3
Portageville, MO (B)	6-3	9-27	+3	+12	+7	+11
Keiser, AR	6-17	9-30	+10	+11	+9	+11
Jonesboro, AR	5-31	9-14	+16	+6	+7	+17
Pine Tree, AR	6-17	9-30	+8	+8	+1	+3
Stoneville, MS (B)	6-2	9-26	+5	+6	+3	+3
Mean	6-6	9-26	+7	+8	+5	+8
			WEST			
Manhattan, KS	6-2	10-8	+10	+11	+12	+12
Bushland, TX	5-2	10-6	0	0	0	+5
Lubbock, TX	5-13	9-26	+3	+3	-1	+12
Clovis, NM	4-23	9-24	+8	+10	+9	+14
Mean	5-8	9-31	+5	+6	+5	+11

Table 4 - (continued)

Location	D83-3349	D83-3388	LS82-W1206	S81-2203	S82-1111	Tn83-7	V81-141
			EAST COAST				
Queenstown, MD	+14	+11	+1	+2	+4	+3	+4
Warsaw, VA	+4	+7	+3	0	+3	-1	+3
Mean	+9	+9	+2	+1	+4	+1	+4
			UPPER AND CENTRAL SOUTH				
Knoxville, TN	+8	+8	+2	+7	+9	+9	+6
Eldorado, IL	+11	+12	+6	+5	+2	+3	+7
Carbondale, IL	+9	+12	+3	-4	+2	+1	0
Princeton, KY	+9	+9	+3	+3	+4	+3	+7
Mean	+9	+10	+4	+3	+4	+4	+5
			DELTA				
Portageville, MO (A)	+4	+3	0	+1	+2	0	+1
Portageville, MO (B)	+6	+6	-1	-1	0	+2	+3
Keiser, AR	+7	+7	+1	0	+2	+6	+9
Jonesboro, AR	+6	+17	+5	+3	+5	+6	+6
Pine Tree, AR	+2	+1	+2	0	+2	+1	+7
Stoneville, MS (B)	+3	+4	0	-1	+1	+1	+3
Mean	+5	+6	+1	0	+2	+3	+5
			WEST				
Manhattan, KS	+12	+12	+8	+4	+3	0	+8
Bushland, TX	0	+5	0	-11	+5	-11	0
Lubbock, TX	-3	+3	-2	-8	-5	-9	-8
Clovis, NM	+6	+8	+9	+1	+6	-5	+6
Mean	+4	+7	+4	-4	+2	-6	+2

Table 5 - Plant height for the strains in Uniform Group IV-S, 1986

Location	Douglas	Stafford	K1099	S82-1443	D83-2886	D83-3349
			EAST COAST			
Queenstown, MD	43	38	24	26	40	33
Warsaw, VA	41	37	28	41	41	43
Mean	42	38	26	34	41	38
			UPPER AND CENTRAL SOUTH			
Knoxville, TN	17	23	21	21	21	21
Eldorado, IL	37	32	26	32	34	37
Carbondale, IL	36	36	28	33	35	36
Princeton, KY	31	30	23	35	37	36
Martin, TN	32	33	23	33	38	38
Mean	31	31	24	31	33	34
			DELTA			
Portageville, MO (A)	34	18	15	24	20	30
Portageville, MO (B)	25	9	9	17	16	13
Keiser, AR	25	19	20	22	23	20
Jonesboro, AR	34	21	17	28	23	27
Pine Tree, AR	28	20	14	30	32	22
Stoneville, MS (B)	35	17	17	27	25	25
Mean	30	17	15	25	23	23
			WEST			
Manhattan, KS	49	38	36	44	34	35
Ottawa, KS	42	38	28	36	41	39
Bixby, OK	35	24	22	39	32	31
Bushland, TX	28	29	24	32	29	26
Lubbock, TX	27	30	23	29	31	29
Clovis, NM	27	29	26	30	27	30
Mean	35	31	27	35	32	32

Table 5 - (continued)

Location	D83-3388	LS82-W1206	S81-2203	S82-1111	Tn83-7	V81-141
			EAST COAST			
Queenstown, MD	30	37	47	49	50	40
Warsaw, VA	40	38	37	52	46	42
Mean	35	38	42	51	48	41
			UPPER AND CENTRAL SOUTH			
Knoxville, TN	21	23	21	21	16	22
Eldorado, IL	36	29	42	45	47	43
Carbondale, IL	35	33	40	44	45	40
Princeton, KY	34	32	31	40	42	34
Martin, TN	35	33	34	44	39	37
Mean	32	30	34	39	38	35
			DELTA			
Portageville, MO (A)	22	22	35	34	34	35
Portageville, MO (B)	15	10	24	22	27	25
Keiser, AR	21	18	24	29	25	27
Jonesboro, AR	27	16	36	48	44	34
Pine Tree, AR	26	24	26	28	36	28
Stoneville, MS (B)	25	23	37	43	46	34
Mean	23	19	30	34	35	31
			WEST			
Manhattan, KS	40	37	48	52	58	48
Ottawa, KS	41	34	42	51	50	43
Bixby, OK	28	27	37	41	42	37
Bushland, TX	27	27	27	32	32	28
Lubbock, TX	29	27	27	30	32	30
Clovis, NM	26	25	29	36	34	28
Mean	33	30	35	40	41	36

Table 6 - Lodging scores for the strains in Uniform Group IV-S, 1986

Location	Douglas	Stafford	K1099	S82-1443	D83-2886	D83-3349
			EAST COAST			
Queenstown, MD	2.8	2.8	2.0	2.3	3.5	3.0
Warsaw, VA	1.5	1.5	1.0	2.0	2.3	2.3
			UPPER AND CENTRAL SOUTH			
Knoxville, TN	1.0	1.7	1.7	1.8	2.5	1.5
Eldorado, IL	1.5	1.2	1.3	1.3	4.0	2.0
Carbondale, IL	1.5	1.7	1.2	2.3	3.0	2.7
Princeton, KY	1.0	1.0	1.0	1.0	1.0	1.0
Martin, TN	1.0	1.0	1.0	1.0	1.0	1.0
			DELTA			
Portageville, MO (A)	1.0	1.0	1.0	1.0	1.0	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	1.3	1.0	1.0	1.7	2.0	1.3
Pine Tree, AR	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, MS (B)	2.7	2.0	2.0	2.0	2.3	2.0
			WEST			
Manhattan, KS	1.7	1.0	1.7	4.0	5.0	5.0
Ottawa, KS	2.0	2.0	1.8	2.7	3.3	2.7
Bixby, OK	2.0	2.0	1.0	5.0	4.0	4.0
Bushland, TX	1.5	2.7	2.5	2.0	3.5	3.2
Lubbock, TX	2.8	3.2	3.5	2.8	3.5	3.5
Clovis, NM	1.0	4.0	3.0	4.0	4.0	5.0

Table 6 - (continued)

Location	D83-3388	LS82-W1206	S81-2203	S82-1111	Tn83-7	V81-141
			EAST COAST			
Queenstown, MD	3.3	2.8	3.0	3.5	2.7	3.0
Warsaw, VA	2.7	2.0	1.8	1.8	1.3	1.5
			UPPER AND CENTRAL SOUTH			
Knoxville, TN	1.7	1.3	1.7	1.5	1.5	1.7
Eldorado, IL	2.0	1.2	2.0	2.5	1.5	1.4
Carbondale, IL	3.2	1.7	1.5	1.8	1.8	2.5
Princeton, KY	1.3	1.0	1.0	1.0	1.0	1.0
Martin, TN	1.0	1.0	1.0	1.0	1.0	1.0
			DELTA			
Portageville, MO (A)	1.0	1.0	1.5	1.5	1.0	1.0
Portageville, MO (B)	1.0	1.0	1.5	1.0	1.5	1.0
Keiser, AR	1.0	1.0	1.0	1.0	1.0	1.0
Jonesboro, AR	2.0	1.0	2.7	3.0	3.3	2.3
Pine Tree, AR	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, MS (B)	2.0	2.0	2.3	3.7	3.3	2.3
			WEST			
Manhattan, KS	4.7	1.3	3.0	3.3	2.0	2.3
Ottawa, KS	3.2	2.0	2.7	2.8	2.3	2.2
Bixby, OK	3.0	2.0	3.0	4.0	4.0	4.0
Bushland, TX	4.5	3.5	2.0	2.3	2.3	2.0
Lubbock, TX	3.8	3.0	4.2	3.2	3.8	4.0
Clovis, NM	4.0	3.0	2.0	3.0	3.0	2.0

Table 7 - Seed quality scores for the strains in Uniform Group IV-S, 1986

Location	Douglas	Stafford	K1099	S82-1443	D83-2886	D83-3349
			EAST COAST			
Queenstown, MD	3.0	1.5	1.5	1.9	2.6	2.0
Warsaw, VA	3.2	1.3	1.3	1.8	1.0	1.5
			UPPER AND CENTRAL SOUTH			
Knoxville, TN	4.5	2.0	2.0	2.0	1.5	2.5
Eldorado, IL	3.8	1.7	1.5	2.5	2.0	2.2
Princeton, KY	1.0	1.0	1.0	2.0	2.0	2.0
Martin, TN	3.0	2.0	2.0	2.5	1.5	2.0
			DELTA			
Portageville, MO (A)	3.5	2.0	1.5	2.0	1.5	1.5
Portageville, MO (B)	2.5	2.5	2.5	2.0	1.5	2.0
Keiser, AR	2.0	2.0	1.5	2.0	1.5	2.0
Jonesboro, AR	3.3	2.0	2.0	2.3	2.3	3.0
Pine Tree, AR	3.3	2.7	2.7	3.0	2.0	2.7
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
			WEST			
Manhattan, KS	3.0	2.0	2.0	3.0	2.0	2.0
Bushland, TX	2.7	1.5	1.2	2.2	1.5	2.2
Lubbock, TX	5.0	2.8	2.6	2.0	4.0	3.5

Table 7 - (continued)

Location	D83-3388	LS82-W1206	S81-2203	S82-1111	Tn83-7	V81-141
			EAST COAST			
Queenstown, MD	1.9	2.3	2.5	2.4	2.2	2.5
Warsaw, VA	1.5	1.3	2.8	2.3	1.3	2.0
			UPPER AND CENTRAL SOUTH			
Knoxville, TN	2.5	2.0	3.0	4.5	2.5	1.5
Eldorado, IL	2.0	1.0	3.3	2.7	2.2	2.7
Princeton, KY	2.0	2.0	2.0	2.0	2.0	2.0
Martin, TN	2.0	2.0	3.0	3.5	2.5	2.5
			DELTA			
Portageville, MO (A)	2.0	1.5	2.0	2.0	1.0	2.0
Portageville, MO (B)	2.5	2.0	3.0	3.0	2.0	2.5
Keiser, AR	2.0	1.5	2.0	1.5	2.5	2.0
Jonesboro, AR	3.0	2.7	3.0	2.3	3.0	2.0
Pine Tree, AR	3.3	2.7	2.3	3.3	2.7	2.0
Stoneville, MS (B)	2.0	2.0	2.0	2.3	2.0	2.0
			WEST			
Manhattan, KS	2.0	3.0	2.0	2.0	2.0	2.0
Bushland, TX	2.5	2.0	3.0	2.5	1.7	2.0
Lubbock, TX	3.7	3.0	5.0	4.2	4.0	4.2

PRELIMINARY GROUP IV-S

1986

Preliminary IV-S nurseries which included Douglas and Stafford along with 28 experimental strains were evaluated at eight locations. The parentage for each of these strains is reported in Table 8. A general summary of performance is reported in Table 9 along with reaction to races 3 and 4 of the soybean cyst nematode, reaction to the root-knot nematode M. incognita, and feeding by soybean looper. Data from the individual locations are reported in Tables 10-14.

Mean seed yield of Douglas for the eight locations was 38.3 bushels per acre and for Stafford was 42.5 bushels per acre. Stafford averaged nine days later in maturity than Douglas. There were two strains that had mean seed yields slightly above that for Stafford. Four strains were too late in maturity to be considered IV-S maturity.

Of the 28 strains being evaluated, 17 were rated resistant to SCN race 3, seven of these were also resistant to SCN race 4. Two of the strains resistant to SCN race 3 were rated susceptible to race 4 but resistant to SCN race 5.

Strains that appear to merit further evaluation in Uniform Group IV-S are Kl130, Kl133, Md83-5008, Md83-5198, S83-1014, Tn83-58, and V82-673.

Table 8 - Parentage of the strains grown in Preliminary Group IV-S, 1986

	Variety or strain	Parentage	Generation composited
1.	Douglas	Williams X Calland	F_5
2.	Stafford	V66-318 X V68-2331	F_5
3.	D80-6976	D74-8946 X D74-7445	F_5
4.	D82-2897	Forrest X D78-5089	F_5
5.	D82-2976	Forrest X D78-5089	F_5
6.	D84-11704	Epps X sel [D78-3036 X sel (Forrest X sel (Peking X Centennial))]	F_6
7.	D84-11706	Epps X sel [D78-3036 X sel (Forrest X sel (Peking X Centennial))]	F_6
8.	K1128	Sparks X Forrest	F_5
9.	K1129	Forrest X Hobbit	F_5
10.	K1130	Forrest X Hobbit	F_5
11.	K1131	Forrest X Hobbit	F_5
12.	K1132	Forrest X Hobbit	F_5
13.	K1133	V75-345 X S76-2120	F_5
14.	Ky82-0647	K1035 X Essex	
15.	LS80-B4025	Franklin X J74-5	F_5
16.	LS80-B4034	Franklin X J74-5	F_5
17.	LS82-A3511	L73-6356 X Pixie	F_5
18.	Md83-5008	L70L-3048 X D74-7824	F_5
19.	Md83-5041	L70L-3048 X D74-7824	F_5
20.	Md83-5198	Bedford X Miles	F_5
21.	S82-1044	Cumberland X Forrest	F_5
22.	S83-1014	Cumberland X Forrest	F_5
23.	S84-1639	Williams X S79-4259	F_5
24.	S84-1641	Williams X S79-4259	F_5
25.	Tn82-95	Essex X (Bay X N73-520)	F_5
26.	Tn83-12	Centennial X Franklin	F_6
27.	Tn83-58	Franklin X Forrest	F_6
28.	Tn84-239	Tn77-1 X Franklin	F_5
29.	V82-495	Bay X V71-775	F_5
30.	V82-673	V68-1171 X SRF400	F_5

Table 9 - General summary of performance for the strains grown in Preliminary IV-S, 1986

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	Shattering	M. incognita	SCN race 3	SCN race 4	Soybean looper
Douglas	38.3	9-27	35	21.2	40.5	1.0	4.0	S	S	5.0
Stafford	42.5	+9	33	21.0	39.9	1.0	4.7	S	S	5.0
D80-6976	30.9-	+15	35	16.2-	47.1+	1.0	1.5	S	S	5.0
D82-2897	40.6	+7	36	20.2	39.5	1.0	2.0	R	S	5.0
D82-2976	40.7	+17	39	20.7	40.7	1.0	2.0	R	S	5.0
D84-11704	37.6	0	32	19.9-	40.8	2.0	1.7	R	S[1]	5.0
D84-11706	37.7	0	32	19.7-	40.5	1.0	2.3	R	S[1]	5.0
K1128	40.4	+10	45	20.9	39.3	1.0	3.7	R	S	5.0
K1129	39.9	+11	30	20.9	38.6-	1.0	2.0	S	S	5.0
K1130	42.5	+11	30	21.5	38.6-	1.0	3.0	S	S	5.0
K1131	41.8	+11	36	21.9	37.8-	1.0	3.0	S	S	5.0
K1132	42.4	+13	32	21.3	38.8-	1.0	4.0	S	S	5.0
K1133	44.2+	+11	31	20.6	39.3	1.0	4.0	S	S	5.0
Ky82-0647	37.6	+8	37	20.5	40.9	1.0	3.0	S	S	5.0
LS80-B4025	38.5	+5	33	20.2	40.0	1.0	3.7	R	R	5.0
LS80-B4034	38.1	+7	36	19.3-	40.4	1.0	2.7	R	R	5.0
LS82-A3511	36.1	0	41	20.7	39.8	2.0	2.7	R	S	5.0
Md83-5008	44.4+	+12	34	20.9	39.0	1.0	2.3	R	S	5.0
Md83-5041	37.9	0	40	20.7	40.3	3.0	2.3	h	S	5.0
Md83-5198	41.3	+1	43	20.4	40.9	2.0	2.7	R	R	5.0
S82-1044	39.3	+1	40	19.9-	40.9	1.0	3.0	R	S	5.0
S83-1014	41.7	+11	32	19.9-	41.3	1.0	2.0	R	S	5.0
S84-1639	39.0	+8	50	21.1	40.3	2.0	3.0	R	R	5.0
S84-1641	37.9	+5	50	20.3	40.5	1.0	2.3	R	R	5.0
Tn82-95	42.3	+3	28	20.6	40.6	1.0	3.0	S	S	5.0
Tn83-12	33.9	+4	48	21.0	39.6	2.0	4.7	R	h	5.0
Tn83-58	41.0	+3	39	20.9	38.9-	1.0	3.7	R	h	5.0
Tn84-239	34.9	0	42	21.4	39.1	2.0	3.7	R	R	5.0
V82-495	40.5	+1	36	21.6	39.2	1.0	3.7	S	S	5.0
V82-673	41.9	+3	29	20.0-	39.5	1.0	3.3	S	S	5.0
L.S.D.(.05)	5.7			1.0	1.5					
C.V.	15%			4%	3%					

[1]Resistant to race 5

+ or - designations refer to differences from Douglas.

Table 10 - Seed yield, in bushels per acre, for the strains grown in Preliminary Group IV-S, 1986

Strain	Queens-town, MD	Warsaw, VA	Portage-ville, MO (A)	Keiser, AR	Carbon-dale- IL	Ottawa, KS	Prince-ton, KY	Tipton-ville, TN
Douglas	56.3	47.2	34.4	25.8	39.6	48.9	34.7	19.5
Stafford	58.8	47.3	38.5	38.6+	51.8+	54.7	31.5	18.9
D80-6976	50.7	30.9-	28.3	31.6	24.6-	40.7-	17.5-	23.2
D82-2897	61.3	43.3	48.3+	29.6	37.8	50.8	30.9-	22.8
D82-2976	49.4	38.4-	48.7+	47.6+	42.5	48.9	20.3-	29.9
D84-11704	49.7	40.6-	42.4	33.1	39.5	39.7-	30.3-	25.7
D84-11706	68.9	42.3	35.5	29.6	27.0-	39.7-	30.3-	28.5
K1128	42.9	48.2	50.4+	37.0+	43.7	47.4	27.9-	25.3
K1129	59.5	49.7	39.2	35.3+	45.6	54.2	28.8-	6.7
K1130	66.4	50.4	39.6	44.0+	48.1	53.7	23.9-	13.6
K1131	55.7	44.1	38.6	39.8+	46.3	55.7	26.9-	27.3
K1132	58.7	46.0	36.0	39.8+	49.9	57.1+	27.5-	24.1
K1133	70.5+	49.7	39.0	38.5+	49.4	52.8	24.6-	29.4
Ky82-0647	58.3	48.9	26.6	34.3+	44.7	49.4	26.7-	11.6
LS80-B4025	57.5	42.5	41.9	30.5	39.1	50.3	22.0-	23.8
LS80-B4034	47.2	39.8-	44.8	34.6+	44.1	51.3	17.3-	25.3
LS82-A3511	50.4	41.4	38.8	29.3	34.0	44.5	32.8	17.5
Md83-5008	54.8	45.9	51.7+	49.4+	44.1	53.7	26.2-	29.5
Md83-5041	59.9	44.4	34.7	34.1+	38.2	41.1-	31.3	19.7
Md83-5198	58.1	43.0	40.5	32.1	44.6	45.0	37.2	29.6
S82-1044	56.8	45.2	38.7	33.8	34.2	46.5	32.1	27.1
S83-1014	48.6	47.1	44.6	38.2+	49.4	51.3	24.6-	29.7
S84-1639	56.6	47.9	38.9	29.7	36.3	42.6	25.6-	34.1
S84-1641	47.0	45.4	41.1	34.5+	38.9	48.4	26.1-	21.5
Tn82-95	65.3	46.4	33.0	42.7+	51.0+	49.9	33.2	16.7
Tn83-12	50.8	39.6-	39.8	18.3	30.6	41.1-	21.6-	29.6
Tn83-58	67.2	44.4	48.8+	27.9	31.7	45.5	32.6	30.1
Tn84-239	61.6	42.4	34.7	24.7	21.8-	39.7-	29.7-	24.6
V82-495	68.0	49.1	36.1	26.2	45.0	45.0	33.7	20.5
V82-673	59.9	47.5	30.6	34.9+	49.9	57.1+	31.2-	24.4
L.S.D.(.05)	13.6	5.8	11.1	8.1	10.5	6.8	3.4	14.8
C.V.	12%	6%	14%	12%	13%	7%	15%	31%

Table 11 - Oil percentages for the strains in Preliminary Group IV-S, 1986

Strain	Queenstown, MD	Warsaw, VA	Portageville, MO (A)	Keiser, AR	Carbondale, IL
Douglas	20.6	20.2	22.4	21.1	21.8
Stafford	18.9	19.8	22.5	22.5	21.1
D80-6976	14.9	14.1	16.7	19.9	15.4
D82-2897	17.7	20.1	20.7	21.0	21.3
D82-2976	18.9	19.6	21.8	22.0	21.0
D84-11704	17.3	19.8	20.9	20.7	20.9
D84-11706	17.1	18.6	20.8	20.7	21.1
K1128	19.0	18.6	22.8	21.9	22.0
K1129	19.4	18.4	22.5	22.4	21.9
K1130	19.9	20.1	22.4	22.3	22.7
K1131	19.7	21.0	23.0	23.2	22.4
K1132	19.9	18.9	22.1	22.7	23.0
K1133	18.9	19.8	22.4	21.0	21.0
Ky82-0647	18.9	19.2	22.4	20.0	21.8
LS80-B4025	17.8	19.6	21.5	20.6	21.3
LS80-B4034	16.9	19.5	19.5	20.2	20.2
LS82-A3511	18.8	19.5	22.4	22.0	20.8
Md83-5008	17.9	19.8	22.5	21.9	22.6
Md83-5041	19.0	20.9	22.0	20.4	21.4
Md83-5198	18.6	20.2	21.0	20.9	21.3
S82-1044	18.2	18.3	21.0	20.4	21.8
S83-1014	17.7	19.6	21.1	20.7	20.3
S84-1639	19.0	19.5	23.2	22.5	21.2
S84-1641	19.4	16.8	22.6	21.4	21.3
Tn82-95	19.2	17.9	22.4	21.3	22.1
Tn83-12	19.5	19.1	22.3	22.3	21.9
Tn83-58	18.9	18.9	22.6	22.3	22.0
Tn84-239	20.0	18.9	23.2	22.6	22.4
V82-495	19.9	20.2	23.1	22.7	21.9
V82-673	18.2	20.6	20.5	20.6	20.3

Table 12 - Protein percentages for the strains in Preliminary Group IV-S, 1986

Strain	Queenstown, MD	Warsaw, VA	Portageville, MO (A)	Keiser, AR	Carbondale, IL
Douglas	40.6	40.6	40.0	40.6	40.7
Stafford	41.7	41.2	38.3	38.5	39.6
D80-6976	49.0	50.2	46.3	41.6	48.2
D82-2897	41.8	39.3	39.6	39.8	37.2
D82-2976	42.5	41.4	40.0	39.7	40.0
D84-11704	42.2	40.9	41.6	39.8	39.3
D84-11706	41.9	42.2	39.8	40.0	38.4
K1128	40.0	43.2	37.8	39.1	36.6
K1129	39.5	42.2	36.5	38.3	36.6
K1130	40.2	40.6	37.1	38.5	36.6
K1131	39.9	39.8	36.9	37.3	35.0
K1132	40.1	43.3	37.7	37.9	35.0
K1133	40.1	41.9	36.9	39.0	38.7
Ky82-0647	41.5	41.4	39.3	42.6	39.9
LS80-B4025	41.7	40.8	38.1	40.5	38.7
LS80-B4034	42.8	40.4	39.5	40.0	39.3
LS82-A3511	41.6	41.2	38.5	37.3	40.2
Md83-5008	41.4	40.7	37.5	38.6	36.6
Md83-5041	41.7	39.2	39.9	40.0	40.8
Md83-5198	41.6	42.2	41.2	40.7	39.0
S82-1044	42.1	43.1	40.2	40.4	38.6
S83-1014	42.7	42.1	40.4	40.8	40.5
S84-1639	41.6	43.1	38.5	39.0	39.3
S84-1641	40.9	43.2	38.8	40.2	39.3
Tn82-95	41.6	42.2	40.1	40.0	39.1
Tn83-12	40.8	42.3	37.9	39.3	37.8
Tn83-58	40.0	42.4	35.8	38.5	37.6
Tn84-239	39.8	43.1	36.9	37.5	38.3
V82-495	40.6	40.4	37.6	38.6	38.6
V82-673	40.3	39.3	40.0	40.0	37.7

Table 13 - Plant height for the strains in Preliminary Group IV-S, 1986

Strain	Queens-town, MD	Warsaw, VA	Portage-ville, MO (A)	Keiser, AR	Carbon-dale, IL	Ottawa, KS	Prince-ton, KY
Douglas	39	38	32	27	27	48	32
Stafford	37	36	28	26	32	42	32
D80-6976	36	44	33	29	33	39	30
D82-2897	34	40	30	23	29	35	32
D82-2976	42	46	36	27	34	51	40
D84-11704	33	37	27	26	25	44	31
D84-11706	36	40	24	24	27	40	30
K1128	49	47	44	30	47	58	39
K1129	36	34	22	23	27	39	26
K1130	32	34	21	24	32	42	26
K1131	36	44	31	27	34	47	33
K1132	35	36	28	23	28	43	28
K1133	33	33	24	28	33	39	28
Ky82-0647	40	40	31	30	37	47	34
LS80-B4025	35	38	31	24	35	36	32
LS80-B4034	40	40	29	28	36	44	34
LS82-A3511	43	38	42	34	45	50	33
Md83-5008	33	38	33	25	35	43	32
Md83-5041	46	44	41	31	37	47	36
Md83-5198	46	46	43	35	43	53	37
S82-1044	44	40	42	33	37	47	34
S83-1014	36	35	25	28	30	39	28
S84-1639	55	53	52	37	49	57	48
S84-1641	56	53	50	43	48	54	43
Tn82-95	28	35	19	23	29	36	28
Tn83-12	53	52	52	36	45	54	47
Tn83-58	41	45	40	29	36	46	38
Tn84-239	46	44	43	30	36	51	43
V82-495	36	38	34	27	36	48	30
V82-673	35	35	22	19	31	35	28

Table 14 - Seed quality scores for the strains in Preliminary Group IV-S, 1986

Strain	Queens-town, MD	Warsaw, VA	Portage-ville, MO (A)	Keiser, AR	Carbon-dale, IL	Prince-ton, KY
Douglas	3.3	2.8	3.5	3.5	2.0	1.0
Stafford	1.0	1.1	2.0	2.5	1.0	5.0
D80-6976	1.3	1.5	1.5	3.0	1.0	5.0
D82-2897	1.0	1.2	2.0	3.5	1.0	5.0
D82-2976	1.0	1.0	2.0	2.0	1.0	5.0
D84-11704	1.8	1.2	2.0	2.0	3.0	3.0
D84-11706	2.0	1.2	2.0	2.0	3.0	1.0
K1128	1.5	1.1	2.0	3.5	2.0	3.0
K1129	1.3	1.1	1.5	2.5	2.0	4.0
K1130	1.5	1.1	1.0	2.0	2.0	5.0
K1131	1.8	1.1	1.5	2.0	1.0	2.0
K1132	1.3	1.0	1.5	2.5	1.0	3.0
K1133	1.5	1.0	1.0	2.0	2.0	5.0
Ky82-0647	1.5	1.3	1.5	3.0	2.0	2.0
LS80-B4025	1.3	1.4	1.5	3.5	2.0	2.0
LS80-B4034	1.5	1.3	2.0	3.0	1.0	5.0
LS82-A3511	1.0	1.2	2.0	2.5	2.0	3.0
Md83-5008	1.0	1.0	2.0	1.5	2.0	5.0
Md83-5041	1.5	1.3	2.0	2.0	3.0	1.0
Md83-5198	1.3	1.2	2.0	3.5	2.0	2.0
S82-1044	1.8	1.5	2.0	1.0	2.0	1.0
S83-1014	1.3	1.0	2.0	2.5	2.0	2.0
S84-1639	1.3	1.3	2.5	2.5	2.0	2.0
S84-1641	1.0	1.3	2.0	2.5	2.0	3.0
Tn82-95	1.0	1.1	1.5	1.0	1.0	3.0
Tn83-12	2.0	1.8	2.5	3.0	1.0	2.0
Tn83-58	1.3	1.5	2.0	2.0	2.0	1.0
Tn84-239	1.5	1.8	2.0	2.0	3.0	2.0
V82-495	1.0	1.2	2.0	2.5	1.0	2.0
V82-673	1.0	1.8	2.0	1.0	1.0	1.0

UNIFORM GROUP V

1986

	Variety or strain	Parentage	Generation composited
1.	Essex	Lee X S5-7075	F_5
2.	Forrest	Dyer X Bragg	F_5
3.	D81-7857	Bedford X (J74-45 X D74-7445)	F_5
4.	S80-2959	J74-123 X N73-520	F_5
5.	V78-184	V68-1034 X Essex	F_5
6.	R82-269	Centennial X Narow	F_5
7.	D83-3318	Bedford X sel [Forrest X sel (Peking X Centennial)]	F_5
8.	N83-375	N76-098 X N76-683	F_6
9.	R83-310	R77-236 X Narow	F_5
10.	S81-2876	Bedford X S77-114	F_5
11.	S82-1318	Essex X D74-7741	F_5
12.	Tn83-26	J74-40 X K1017	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 resistance 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 York X PI 71506 grown in Preliminary Group VI in 1972.

R77-236 is a selection from Forrest X Lee 74.

D74-7741 is a selection from Forrest X D70-3001 which was grown in Uniform Group VI 1977-1979. D70-3001 is of the same parentage as Centennial.

J74-40 is of the same parentage as Bedford - Forrest(2) X (D68-18 X PI 88788).

K1017 was grown in Uniform Group IV-S in 1977, with parentage of L66L-140 X Columbus.

Plantings of the strains in Uniform Group V were made at 31 locations. Data from 29 locations are summarized in Tables 15-21. Table 15 gives a general summary of performance along with two- and three-year regional means for seed yield, and oil and protein percentages. Ratings are also presented for reaction to root-knot nematodes, soybean cyst nematode, stem canker, and feeding by soybean looper. Tables 16-21 report data from individual locations.

Satisfactory ratings for reaction to either species of root-knot nematodes were not obtained from field plantings in 1986. Ratings for reaction to M. incognita were obtained in the greenhouse at the University of Georgia at Athens. Data from field plantings in 1985 are reported for M. arenaria. Ratings for SCN races 3 and 4 were made in the greenhouse at Jackson, Tennessee. Ratings for feeding by the soybean looper were made in the large field cage at Stoneville where a large population of moths was released. Two ratings for stem canker are reported. Three-row plantings of each strain were grown at Verona, Mississippi, with one row of the very susceptible J77-339 included with each strain. Ratings were based upon natural infestation on a 1 to 5 basis. Ratings at Beaumont, Texas, were made on a 0 to 9 basis. Late-season drouth at Beaumont severely affected strains not damaged by stem canker.

Four strains had good resistance to M. incognita. Nine strains were rated resistant to SCN race 3 and three of these were also resistant to race 4. Two additional strains appeared to have resistance to race 4 but were not uniform.

Three strains, D81-7857, S80-2959, and V78-184, have been evaluated three years. All have yielded very well. R82-269 has been evaluated two years. Six strains have been evaluated one year. Of these, it would appear that D83-3318 and Tn83-26 might be dropped. It is anticipated that V78-184 will be named and released for production.

Table 15 - General summary of performance for the strains in Uniform Group V, 1986

	No. of locations	Essex	Forrest	D81-7857	S80-2959	V78-184
Seed Yield - 1986						
East Coast	5	49.2	48.3	45.1	48.6	55.4
Upper & Central South	9	30.3	31.7	35.1	33.7	37.4
Delta	9	33.2	36.3	38.8	39.0	38.0
West	5	41.1	41.6	42.3	40.8	42.7
1985-86						
East Coast		45.4	43.1	42.9	44.1	50.1
Upper & Central South		37.8	37.2	38.9	40.1	44.2
Delta		35.5	39.3	40.4	40.6	41.3
West		38.9	38.6	39.0	38.7	42.2
1984-86						
East Coast		45.5	43.8	43.0	44.1	51.0
Upper & Central South		37.1	36.6	39.1	38.8	42.7
Delta		37.0	40.5	42.1	40.7	41.8
West		41.0	39.7	40.1	39.9	43.9
Oil Content - 1986		20.3	21.2	21.3	20.6	20.9
1985-86		20.4	21.0	21.7	20.8	21.4
1984-86		20.3	20.9	21.6	20.6	21.2
Protein Content - 1986		41.6	40.0	40.6	40.9	40.8
1985-86		42.5	40.5	40.3	41.3	40.6
1984-86		42.3	40.1	39.9	41.1	40.6
Seed size		14.0	13.1	14.2	14.8	15.2
Maturity index		10-2	+2	+10	+6	+4
Height		25	31	34	31	28
Seed quality		2.1	2.1	2.0	1.8	1.8
M. incognita		2.7	2.0	2.7	3.3	3.1
M. arenaria		5.0	3.0	3.0[h]	3.0	5.0
SCN race 3		S	R	R	R	S
SCN race 4		S	S	R	R	S
Soybean looper		5.0	4.5	4.0	4.5	4.5
Flower color		P	W	W	W	W
Pubescence color		G	T	T	T	G
Pod wall color		T	T	T	T	T
Stem canker - Verona		1.0	2.0	2.0	2.0	1.0
Beaumont		3.0	8.0	4.5	2.3	0.7

Table 15 - (continued)

	R82-269	D83-3318	N83-375	R83-310	S81-2876	S82-1318	Tn83-26
Seed Yield - 1986							
East Coast	46.9	44.7	51.5	47.2	48.3	49.6	45.7
Upper & Central South	32.9	30.0	33.3	34.4	33.4	33.0	30.6
Delta	38.5	32.3	36.2	37.9	35.2	30.2	33.6
West	42.8	39.7	44.1	43.5	44.3	44.5	44.9
1985-86							
East Coast	43.2						
Upper & Central South	40.0						
Delta	39.1						
West	39.1						
1984-86							
East Coast							
Upper & Central South							
Delta							
West							
Oil Content - 1986	20.0	20.3	20.8	20.1	20.3	20.6	20.9
1985-86	19.8						
1984-86							
Protein Content - 1986	42.3	40.5	41.7	41.1	41.3	41.7	40.7
1985-86	43.2						
1984-86							
Seed size	15.8	12.8	16.6	14.0	14.6	13.4	15.5
Maturity index	+3	+1	+4	+4	+2	+3	-1
Height	29	31	30	30	29	30	36
Seed quality	1.9	1.9	2.1	1.9	2.1	1.9	2.3
M. incognita	4.0	2.0	2.6	4.7	2.7	4.9	2.0
M. arenaria	3.5	3.6	4.8	2.8	2.5	2.0	2.5
SCN race 3	R	R	S	R	R	R	R
SCN race 4	S	R	S	S	h	S	h
Soybean looper	5.0	4.0	3.0	4.5	4.0	4.0	4.0
Flower color	P	P	W	P	W	P	Seg.
Pubescence color	T	G	T	T	T	G	T
Pod wall color	T	T	T	T	T	T	Br
Stem canker - Verona	2.0	1.0	1.0	2.0	2.0	2.0	1.0
Beaumont	4.5	4.3	1.8	4.7	6.3	4.2	0.0

Table 16 - Seed yield, in bushels per acre, for the strains in Uniform V, 1986

Location	Essex	Forrest	D81-7857	S80-2959	V78-184	R82-269	D83-3318
			EAST COAST				
Queenstown, MD	53.8	49.4	46.2	56.9	64.8	51.0	44.9
Georgetown, DE	40.9	41.3	38.7	41.7	41.0	35.7	39.2
Warsaw, VA	49.5	46.0	38.5-	44.2-	46.5	43.9-	42.0-
Holland, VA	54.5	52.5	51.8	55.9	70.1+	60.0+	47.3-
Plymouth, NC	47.3	52.3	50.3	44.1	54.7+	43.8	50.2
Mean	49.2	48.3	45.1	48.6	55.4	46.9	44.7
			UPPER & CENTRAL SOUTH				
Knoxville, TN	32.3	33.8	34.7	32.2	26.4-	24.1-	30.7
Clemson, SC	18.3	29.8+	33.3+	29.3+	31.7+	28.3+	28.5+
Calhoun, GA	44.8	40.4	36.2-	42.8	49.8	45.3	43.4
Athens, GA	24.4	31.9+	34.1+	31.8+	30.2+	33.9+	26.1
Belle Mina, AL	32.7	40.4	47.3+	45.2+	60.1+	46.5+	39.7
Princeton, KY	28.7	25.1	28.3	26.9	32.7+	29.2	20.4-
Grand Junction, TN	24.3	21.5	31.7+	25.1	25.5	21.0	19.6
Martin, TN	34.9	36.3	43.9+	39.0	47.5+	40.7	33.6
Jackson, TN	32.0	27.2	26.4-	30.7	32.9	27.5	28.0
Mean	30.3	31.7	35.1	33.7	37.4	32.9	30.0
			DELTA				
Portageville, MO (A)	41.3	42.4	52.0+	51.9+	48.0	50.6+	44.8
Portageville, MO (B)	27.2	28.8	30.6	34.1+	35.0+	34.7+	24.3
Keiser, AR	43.3	47.4	41.6	44.3	51.5+	45.8	33.8-
Jonesboro, AR	25.4	30.3	36.4	26.0	33.0	29.6	26.4
Pine Tree, AR	36.6	38.4	41.1	45.3+	36.4	44.2+	40.5
Stoneville, MS (A)	44.9	52.5+	43.5	54.5+	50.9	49.6	41.8
Stoneville, MS (B)	31.5	35.7	32.7	31.1	28.4	34.5	29.9
St. Joseph, LA	23.2	22.1	37.6+	30.3+	27.6	30.6+	27.5
Baton Rouge, LA	25.8	29.5	33.5	33.1	31.0	27.1	22.1
Mean	33.2	36.3	38.8	39.0	38.0	38.5	32.3
			WEST				
Ottawa, KS	54.2	54.5	49.0-	50.7	55.8	50.7	45.2-
Stuttgart, AR	46.9	47.0	45.3	44.4	50.7+	45.2	43.9
Bossier City, LA	33.1	30.3	30.2	24.7	26.7	32.3	25.6
Bixby, OK	50.4	46.8	44.5	44.9	53.2	49.2	42.3
Lubbock, TX	21.0	29.5	42.5+	39.4+	26.9	36.4+	41.3+
*Beaumont, TX	0.8	0.1	0.7	0.5	5.0	1.0	0.6
Mean	41.1	41.6	42.3	40.8	42.7	42.8	39.7

*Not included in mean
(+) - 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	N83-375	R83-310	S81-2876	S82-1318	Tn83-26	L.S.D. (.05)	C.V. (%)
			EAST COAST				
Queenstown, MD	54.6	50.9	54.9	57.8	47.9	N.S.	14
Georgetown, DE	38.7	37.5	40.3	42.4	47.1+	5.6	8
Warsaw, VA	43.4-	39.6-	43.6-	47.6	46.6	3.5	5
Holland, VA	65.0+	56.8	52.5	55.8	48.6-	4.7	5
Plymouth, NC	55.9+	51.2	50.3	44.6	38.1-	5.4	7
Mean	51.5	47.2	48.3	49.6	45.7		
			UPPER AND CENTRAL SOUTH				
Knoxville, TN	29.7	30.0	38.7+	41.7+	34.5	5.0	9
Clemson, SC	26.4+	29.1+	33.9+	23.5	28.8+	7.3	15
Calhoun, GA	49.0	46.9	48.5	40.8	38.7	8.2	11
Athens, GA	30.3+	36.1+	25.4	26.9	24.2	5.4	11
Belle Mina, AL	51.1+	45.5+	47.6+	46.3+	43.2+	9.9	12
Princeton, KY	25.9	24.3-	22.6-	26.3	23.8-	3.6	10
Grand Junction, TN	25.4	26.7	22.8	21.3	23.8	6.1	15
Martin, TN	39.3	42.8	32.7	40.7	30.6	8.4	13
Jackson, TN	22.3-	27.8	28.3	29.3	27.6	5.1	11
Mean	33.3	34.4	33.4	33.0	30.6		
			DELTA				
Portageville, MO (A)	41.7	43.1	45.7	47.5	46.2	8.4	11
Portageville, MO (B)	30.6	29.7	29.0	24.3	27.1	4.6	9
Keiser, AR	47.4	48.1	45.3	44.0	37.1	6.6	9
Jonesboro, AR	26.1	26.2	26.8	34.1	29.2	N.S.	20
Pine Tree, AR	33.6	38.6	40.9	42.0	38.9	5.9	9
Stoneville, MS (A)	51.1	51.2	44.2	47.9	46.9	6.7	8
Stoneville, MS (B)	32.7	42.4+	30.0	25.9	18.4-	9.3	18
St. Joseph, LA	34.3+	26.7	25.8	23.4	24.7	6.9	15
Baton Rouge, LA	28.0	35.0	29.0	-	-	9.2	19
Mean	36.2	37.9	35.2	30.2	33.6		
			WEST				
Ottawa, KS	55.2	50.3	51.0	55.8	52.9	3.8	4
Stuttgart, AR	46.5	46.4	46.7	46.6	43.2-	3.3	4
Bossier City, LA	42.0	30.0	23.3	29.8	36.3	12.5	24
Bixby, OK	54.3	53.5	55.8	52.6	55.9	8.4	10
Lubbock, TX	22.6	37.3+	44.7+	37.6+	36.2+	13.5	23
Beaumont, TX	1.6	0.6	0.3	1.1	5.0	1.3	53
Mean	44.1	43.5	44.3	44.5	44.9		

Table 17 - Chemical composition and seed size for the strains in Uniform Group V, 1986

Location	Essex	Forrest	D81-7857	S80-2959	V78-184	R82-269
			OIL PERENTAGE			
Queenstown, MD	18.7	19.0	20.4	19.2	20.2	18.9
Warsaw, VA	20.2	19.5	19.1	19.3	19.6	19.4
Plymouth, NC	20.0	19.9	20.8	19.3	20.7	18.7
Calhoun, GA	21.3	22.6	23.0	22.3	22.1	21.4
Jackson, TN	19.8	20.5	21.3	20.4	21.0	20.9
Portageville, MO (A)	21.4	21.2	22.6	20.4	22.8	20.5
Keiser, AR	19.0	22.1	21.7	19.6	20.6	19.3
Stoneville, MS (A)	21.9	23.2	21.7	22.6	20.3	20.4
Stuttgart, AR	20.2	22.8	20.8	22.3	20.4	20.4
Mean	20.3	21.2	21.3	20.6	20.9	20.0
			PROTEIN PERCENTAGE			
Queenstown, MD	42.5	41.8	40.5	41.4	40.4	43.2
Warsaw, VA	41.4	41.1	43.3	42.7	41.6	40.5
Plymouth, NC	43.2	41.0	41.7	43.3	41.4	44.4
Calhoun, GA	40.1	38.0	38.1	38.5	37.8	40.7
Jackson, TN	42.8	41.3	41.3	42.3	41.1	42.1
Portageville, MO (A)	40.4	39.0	38.2	39.4	37.3	41.9
Keiser, AR	42.7	38.2	39.9	41.3	40.3	43.1
Stoneville, MS (A)	39.9	39.9	40.9	39.0	44.5	44.5
Stuttgart, AR	41.6	39.5	41.5	40.0	43.1	40.6
Mean	41.6	40.0	40.6	40.9	40.8	42.3
			GRAMS PER 100 SEEDS			
Queenstown, MD	14.3	14.6	15.1	15.0	16.3	17.6
Warsaw, VA	15.5	13.1	14.4	14.5	15.6	16.4
Plymouth, NC	15.9	14.8	15.2	17.1	17.3	19.1
Calhoun, GA	17.0	15.9	15.5	16.4	16.6	17.7
Jackson, TN	10.9	10.7	11.5	12.2	12.8	11.9
Portageville, MO (A)	13.3	12.0	12.8	13.3	14.0	15.3
Keiser, AR	13.0	11.0	14.0	14.0	15.0	13.0
Stoneville, MS (A)	13.0	13.6	14.9	15.4	14.2	15.8
Stuttgart, AR	12.7	12.2	14.3	14.9	14.7	15.0
Mean	14.0	13.1	14.2	14.8	15.2	15.8

Table 17 - (continued)

Location	D83-3318	N83-375	R83-310	S81-2876	S82-1318	Tn83-26
			OIL PERCENTAGE			
Queenstown, MD	18.6	19.7	18.4	18.8	19.3	19.5
Warsaw, VA	19.6	19.0	19.2	19.1	18.4	19.3
Plymouth, NC	19.6	20.4	19.0	19.2	19.6	19.3
Calhoun, GA	21.5	22.8	22.1	21.7	21.7	22.8
Jackson, TN	20.1	20.3	20.1	20.1	21.7	21.8
Portageville, MO (A)	20.8	21.4	20.6	21.1	21.3	21.7
Keiser, AR	20.3	20.5	20.3	21.2	20.2	21.0
Stoneville, MS (A)	20.9	21.4	20.8	21.1	21.4	21.6
Stuttgart, AR	21.6	21.6	20.8	20.0	21.7	21.5
Mean	20.3	20.8	20.1	20.3	20.6	20.9
			PROTEIN PERCENTAGE			
Queenstown, MD	40.9	42.0	42.2	41.4	42.0	40.0
Warsaw, VA	42.1	42.6	41.9	42.0	43.0	42.2
Plymouth, NC	40.1	42.9	42.7	42.6	43.8	42.8
Calhoun, GA	38.8	39.3	38.0	40.3	39.9	40.1
Jackson, TN	41.2	42.3	42.4	42.0	40.5	40.9
Portageville, MO (A)	39.1	40.5	39.5	39.4	40.2	39.3
Keiser, AR	40.3	41.8	40.3	41.0	41.7	40.2
Stoneville, MS (A)	40.1	41.9	41.4	41.1	42.0	40.3
Stuttgart, AR	42.3	41.9	41.6	42.3	41.9	40.6
Mean	40.5	41.7	41.1	41.3	41.7	40.7
			GRAMS PER 100 SEEDS			
Queenstown, MD	13.8	18.6	15.6	15.7	13.4	16.9
Warsaw, VA	14.1	17.1	15.6	15.3	13.7	17.9
Plymouth, NC	13.9	19.1	16.2	16.6	15.6	16.9
Calhoun, GA	15.3	21.2	15.3	16.7	14.9	17.0
Jackson, TN	10.4	11.9	11.8	11.1	11.3	12.9
Portageville, MO (A)	11.8	16.0	12.5	13.6	13.0	14.7
Keiser, AR	11.0	14.0	13.0	14.0	12.0	14.0
Stoneville, MS (A)	12.8	15.5	13.3	14.3	13.4	14.6
Stuttgart, AR	11.9	15.6	13.1	13.8	12.9	14.9
Mean	12.8	16.6	14.0	14.6	13.4	15.5

Table 18 - Relative maturity, days earlier (-) or later (+) than Essex, for the strains in Uniform Group V, 1986

Location	Date planted	Essex matured	Forrest	D81-7857	S80-2959	V78-184	R82-269
			EAST COAST				
Queenstown, MD	5-29	10-23	+6	+9	+3	+5	+4
Warsaw, VA	5-29	10-11	+2	+9	-1	+2	+1
Holland, VA	5-26	10-6	+8	+10	+8	+11	+9
Plymouth, NC	5-29	10-12	+2	+6	+2	0	-6
Mean	5-28	10-13	+5	+9	+4	+5	+2
			UPPER AND CENTRAL SOUTH				
Knoxville, TN	5-5	9-29	+9	+13	+6	+6	+4
CLemson, SC	5-22	10-4	+2	+14	+12	+6	+12
Calhoun, GA	5-22	10-13	-5	0	-5	-5	-6
Athens, GA	6-2	10-5	0	+3	+4	+5	+7
Belle Mina, AL	5-15	9-12	+5	+10	+5	+6	+6
Princeton, KY	5-21	10-2	+9	+32	+10	+17	+15
Martin, TN	5-23	10-5	0	+9	+5	+5	0
Jackson, TN	5-9	9-17	+3	+10	+12	+5	+10
Mean	5-16	9-26	+3	+11	+6	+6	+6
			DELTA				
Portageville, MO (A)	5-28	10-8	+4	+11	+7	+7	+4
Portageville, MO (B)	6-3	10-6	+13	+24	+15	+7	+12
Keiser, AR	6-17	10-28	-4	+3	+1	0	-1
Jonesboro, AR	5-31	9-29	+4	+8	+4	+5	+5
Pine Tree, AR	6-17	10-2	+6	+9	+6	+8	+8
Stoneville, MS (A)	6-3	10-4	0	+11	+8	+4	+2
Stoneville, MS (B)	5-23	10-2	+1	+13	+12	+9	+6
Baton Rouge, LA	6-4	10-1	-7	0	+2	+1	+1
Mean	6-4	10-3	+2	+10	+7	+5	+5
			WEST				
Stuttgart, AR	5-23	9-27	0	+6	+11	0	+2
Bossier City, LA	5-15	10-1	-1	+10	+2	+1	-1
Mean	5-19	9-30	-1	+8	+7	+1	+1

Table 18 - (continued)

Location	D83-3318	N83-375	R83-310	S81-2876	S82-1318	Tn83-26
			EAST COAST			
Queenstown, MD	+3	+4	+4	+4	+2	-5
Warsaw, VA	0	0	+2	+1	+2	-3
Holland, VA	+5	+9	+8	+7	+8	+2
Plymouth, NC	0	+2	+4	+2	+2	-2
Mean	+2	+4	+5	+4	+4	-2
			UPPER AND CENTRAL SOUTH			
Knoxville, TN	+8	+5	+6	+4	+7	+9
Clemson, SC	-1	+7	+6	+1	0	-1
Calhoun, GA	-6	0	-5	-4	-5	-7
Athens, GA	+1	+7	+3	+2	+2	0
Belle Mina, AL	+3	+6	+6	+6	+3	+2
Princeton, KY	+3	+14	+12	+3	+9	-2
Martin, TN	0	+5	+2	-2	-2	-8
Jackson, TN	+5	+4	+8	+5	+5	+5
Mean	+2	+6	+4	+2	+2	0
			DELTA			
Portageville, MO (A)	+3	+6	+10	+5	+4	0
Portageville, MO (B)	+5	+5	+14	+6	+13	-2
Keiser, AR	-1	+1	-2	-2	-1	-4
Jonesboro, AR	+6	+3	+6	+2	+4	+1
Pine Tree, AR	+8	+8	+8	+6	+7	+1
Stoneville, MS (A)	+1	+1	+2	+6	+2	-1
Stoneville, MS (B)	0	+9	+8	+1	+1	-1
Baton Rouge, LA	-5	-3	0	-1	-	-
Mean	+2	+4	+6	+3	+4	-1
			WEST			
Stuttgart, AR	0	0	0	+2	0	0
Bossier City, LA	-5	-2	-1	-3	+4	+1
Mean	-3	-1	-1	-1	+2	+1

Table 19 - Plant height for the strains in Uniform Group V, 1986

Location	Essex	Forrest	D81-7857	S80-2959	V78-184	R82-269
			EAST COAST			
Queenstown, MD	33	41	40	32	34	37
Georgetown, DE	26	34	34	31	28	31
Warsaw, VA	36	46	48	44	39	41
Holland, VA	29	33	35	38	34	35
Plymouth, NC	29	34	38	34	36	35
Mean	31	38	39	36	34	36
			UPPER AND CENTRAL SOUTH			
Knoxville, TN	24	28	33	26	29	29
Clemson, SC	12	17	20	16	15	15
Calhoun, GA	25	33	32	32	30	27
Athens, GA	19	25	29	24	19	22
Belle Mina, AL	21	27	34	27	25	28
Princeton, KY	26	38	39	36	34	34
Martin, TN	28	41	36	36	34	35
Jackson, TN	28	32	39	31	29	30
Mean	23	30	33	29	27	28
			DELTA			
Portageville, MO (A)	19	31	35	33	30	28
Portageville, MO (B)	17	17	22	22	19	23
Keiser, AR	25	27	32	30	26	27
Jonesboro, AR	25	28	36	33	28	28
Pine Tree, AR	26	28	34	36	28	34
Stoneville, MS (A)	27	36	37	36	32	32
Stoneville, MS (B)	16	21	24	20	17	19
St. Joseph, LA	13	16	20	16	14	15
Baton Rouge, LA	25	30	33	30	26	29
Mean	21	26	30	28	24	26
			WEST			
Ottawa, KS	39	47	52	44	44	42
Stuttgart, AR	20	29	34	22	26	24
Bossier City, LA	16	18	21	18	16	17
Bixby, OK	26	35	35	35	30	27
Lubbock, TX	25	32	34	29	26	29
Beaumont, TX	18	25	27	23	21	22
Mean	24	31	34	29	27	27

Table 19 - (continued)

Location	D83-3318	N83-375	R83-310	S81-2876	S82-1318	Tn83-26
			EAST COAST			
Queenstown, MD	37	36	36	36	34	46
Georgetown, DE	31	29	32	31	31	30
Warsaw, VA	45	40	42	42	42	47
Holland, VA	35	36	34	37	34	42
Plymouth, NC	34	34	36	33	33	40
Mean	36	35	36	36	35	41
			UPPER AND CENTRAL SOUTH			
Knoxville, TN	25	31	29	28	29	26
Clemson, SC	17	15	15	17	16	24
Calhoun, GA	33	31	33	30	30	33
Athens, GA	25	22	25	23	22	22
Belle Mina, AL	24	25	23	23	26	36
Princeton, KY	36	36	36	36	35	42
Martin, TN	35	38	35	34	33	38
Jackson, TN	34	32	31	29	32	40
Mean	29	29	28	28	28	33
			DELTA			
Portageville, MO (A)	32	31	25	30	30	41
Portageville, MO (B)	17	27	17	17	18	26
Keiser, AR	27	30	27	26	28	35
Jonesboro, AR	31	31	29	31	31	42
Pine Tree, AR	32	30	30	28	32	34
Stoneville, MS (A)	31	35	35	30	33	43
Stoneville, MS (B)	19	22	23	18	18	27
St. Joseph, LA	15	17	16	13	15	23
Baton Rouge, LA	26	28	29	25	-	-
Mean	26	28	26	24	26	34
			WEST			
Ottawa, KS	43	44	43	43	46	49
Stuttgart, AR	31	30	30	27	24	40
Bossier City, LA	17	17	15	16	17	31
Bixby, OK	35	31	30	31	31	41
Lubbock, TX	34	25	28	28	30	29
Beaumont, TX	24	21	22	21	24	26
Mean	31	28	28	28	29	36

Table 20 - Lodging scores for the strains in Uniform Group V, 1986

Location	Essex	Forrest	D81-7857	S80-2959	V78-184	R82-269
			EAST COAST			
Queenstown, MD	3.2	3.6	4.0	3.0	3.3	3.0
Georgetown, DE	1.8	2.5	2.5	2.0	2.0	2.0
Warsaw, VA	1.5	2.0	2.5	1.5	1.3	1.7
Holland, VA	2.3	5.0	4.7	3.3	2.3	3.3
Plymouth, NC	3.0	3.0	4.0	3.0	3.0	2.0
			UPPER AND CENTRAL SOUTH			
Knoxville, TN	1.3	2.7	2.5	1.7	2.2	1.8
Calhoun, GA	1.2	1.7	1.3	1.0	1.2	1.2
Athens, GA	1.0	1.7	1.7	1.3	1.0	1.0
Belle Mina, AL	1.3	2.0	2.0	2.0	1.7	2.0
Princeton, KY	1.0	1.0	1.0	1.0	1.0	1.0
Martin, TN	1.0	2.0	1.0	1.0	1.0	1.0
Jackson, TN	1.0	1.0	1.0	1.0	1.0	1.0
			DELTA			
Portageville, MO (A)	1.5	1.5	2.0	1.5	1.0	1.5
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	2.0	2.0	2.7	1.7	1.7	1.3
Pine Tree, AR	1.0	2.0	3.0	2.0	2.0	2.0
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	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, LA	1.1	1.4	1.6	1.2	1.0	1.6
			WEST			
Ottawa, KS	3.3	4.0	4.0	3.5	3.7	3.3
Stuttgart, AR	1.1	1.1	1.3	1.3	1.2	1.3
Bossier City, LA	1.0	1.0	1.0	1.0	1.0	1.0
Bixby, OK	3.0	5.0	5.0	4.0	2.0	2.0
Lubbock, TX	3.2	2.0	1.5	1.2	2.7	1.7
Beaumont, TX	1.0	1.0	1.0	1.0	1.0	1.0

Table 20 - (continued)

Location	D83-3318	N83-375	R83-310	S81-2876	S82-1318	Tn83-26
			EAST COAST			
Queenstown, MD	3.3	3.0	3.9	3.0	3.3	3.0
Georgetown, DE	2.2	2.0	2.0	1.8	2.2	1.8
Warsaw, VA	2.7	1.7	3.0	1.7	1.5	1.3
Holland, VA	3.7	3.3	4.0	2.7	3.7	3.0
Plymouth, NC	2.0	3.0	3.0	2.0	3.0	3.0
			UPPER AND CENTRAL SOUTH			
Knoxville, TN	2.2	1.7	2.2	1.3	2.0	1.5
Calhoun, GA	1.3	1.0	1.5	1.0	1.2	1.3
Athens, GA	1.3	1.2	1.7	1.2	1.3	1.0
Belle Mina, AL	1.7	1.3	2.0	2.0	2.0	3.0
Princeton, KY	1.0	1.0	1.0	1.0	1.0	1.0
Martin, TN	1.0	1.0	2.0	1.0	1.0	1.0
Jackson, TN	1.0	1.0	1.0	1.0	1.0	1.0
			DELTA			
Portageville, MO (A)	1.5	1.0	1.5	1.5	1.5	2.0
Portageville, MO (B)	1.0	1.0	1.0	1.0	1.0	1.5
Keiser, AR	1.0	1.0	1.0	1.0	1.0	1.0
Jonesboro, AR	1.7	2.0	2.0	2.0	2.0	2.7
Pine Tree, AR	3.0	2.0	2.0	2.0	2.0	2.0
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	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, LA	1.6	1.0	1.2	1.0	-	-
			WEST			
Ottawa, KS	3.5	4.0	4.0	3.5	3.8	3.0
Stuttgart, AR	1.2	1.1	1.3	1.0	1.1	1.7
Bossier City, LA	1.0	1.0	1.0	1.0	1.0	1.7
Bixby, OK	4.0	3.0	5.0	4.0	3.0	4.0
Lubbock, TX	2.0	2.5	2.0	1.5	3.2	3.0
Beaumont, TX	1.0	1.0	1.0	1.0	1.0	1.0

Table 21 - Seed quality scores for the strains in Uniform Group V, 1986

Location	Essex	Forrest	D81-7857	S80-2959	V78-184	R82-269
			EAST COAST			
Queenstown, MD	1.6	1.7	1.9	1.9	1.9	1.5
Georgetown, DE	1.2	1.8	1.0	1.3	1.5	1.3
Warsaw, VA	1.3	1.2	1.3	1.3	1.0	1.2
Holland, VA	2.0	1.0	1.0	1.7	2.0	2.0
Plymouth, NC	1.5	1.0	1.5	1.0	1.0	1.5
			UPPER AND CENTRAL SOUTH			
Calhoun, GA	2.0	1.8	1.9	1.7	1.4	1.6
Athens, GA	3.2	1.8	1.8	2.2	2.7	2.3
Princeton, KY	4.0	5.0	5.0	3.0	3.0	4.0
Jackson, TN	2.0	2.0	2.0	1.0	1.0	2.0
			DELTA			
Portageville, MO (A)	2.0	2.0	2.0	1.5	2.0	2.0
Portageville, MO (B)	1.5	2.0	2.0	2.0	2.0	2.0
Keiser, AR	2.0	1.5	3.0	1.5	1.0	2.0
Jonesboro, AR	2.7	3.7	3.7	3.0	2.3	2.7
Pine Tree, AR	2.0	2.3	2.3	3.0	2.7	1.7
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
Baton Rouge, LA	2.5	1.8	1.3	1.7	1.7	1.7
			WEST			
Stuttgart, AR	1.5	1.7	1.5	1.3	1.7	1.5
Lubbock, TX	2.6	2.7	1.7	2.0	1.7	2.0

Table 21 - (continued)

Location	D83-3318	N83-375	R83-310	S81-2876	S82-1318	Tn83-26
			EAST COAST			
Queenstown, MD	1.8	2.0	2.0	1.8	1.8	2.1
Georgetown, DE	1.7	1.3	1.3	1.8	1.5	2.2
Warsaw, VA	1.0	1.5	1.3	1.2	1.0	1.8
Holland, VA	1.0	2.0	2.0	1.0	1.7	2.3
Plymouth, NC	1.5	1.0	1.5	1.5	1.5	1.0
			UPPER AND CENTRAL SOUTH			
Calhoun, GA	1.9	1.9	1.8	1.8	2.0	2.1
Athens, GA	2.0	2.2	2.0	2.3	2.3	3.0
Princeton, KY	4.0	4.0	3.0	4.0	3.0	4.0
Jackson, TN	2.0	2.0	2.0	1.0	2.0	3.0
			DELTA			
Portageville, MO (A)	2.0	2.5	2.0	2.0	2.0	2.5
Portageville, MO (B)	2.5	2.0	2.0	2.0	2.0	2.5
Keiser, AR	2.5	2.5	1.5	2.0	2.0	3.0
Jonesboro, AR	3.3	2.3	3.0	2.7	2.3	3.7
Pine Tree, AR	3.0	3.0	2.7	3.0	2.0	3.7
Stoneville, MS (A)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, MS (B)	2.7	2.0	2.0	2.0	2.0	3.0
Baton Rouge, LA	2.0	1.6	1.3	1.7	-	-
			WEST			
Stuttgart, AR	2.0	2.0	1.2	1.5	1.3	2.2
Lubbock, TX	2.5	2.5	2.0	2.7	2.0	1.7

PRELIMINARY GROUP V

1986

Preliminary Group V nurseries which included Forrest and Pershing along with 34 experimental strains were planted at eight locations. The parentage for each of these strains is reported in Table 22. A summary table of performance for seven locations is reported in Table 23. Data from individual locations are reported in Tables 24-26. Table 23 also reports ratings for the root-knot nematode M. incognita, SCN races 3 and 4, feeding by soybean looper, and reaction to stem canker.

Forrest had a mean seed yield of 41.7 bushels per acre. There were six strains which had slightly larger seed yields but none was statistically significantly higher than the yield for Forrest. Two strains had mean seed yields significantly lower than that for Forrest. One strain was rated as being of IV maturity and one strain as VI maturity. Twenty of the strains were considered to have a high level of resistance to the root-knot nematode M. incognita. Nineteen strains were rated resistant to SCN race 3 and four of these were also resistant to SCN race 4. Nine strains were considered susceptible to stem canker.

Strains which appear to merit advance to Uniform Group V for further evaluation are D82-2896, Md83-5078, N84-507, R84-150, and S83-1188.

Table 22 - Parentage of the strains grown in Preliminary Group V, 1986

	Variety or strain	Parentage	Generation composited
1.	Forrest	Dyer X Bragg	F_5
2.	Pershing	D67-3297 X Essex	F_4
3.	D82-2896	Forrest X D78-5089	F_5
4.	D83-3642	D76-9665 X D80-8440	F_5
5.	D84-5120	Forrest X D79-5353	F_5
6.	D84-11707	Epps X sel [D78-3036 X sel (Forrest X sel (Peking X Centennial))]	F_6
7.	D84-1732	Forrest(2) X D79-5304	F_6
8.	K1134	S76-2392 X N76-098	F_5
9.	K1135	Forrest X Hobbit	F_5
10.	K1136	V75-345 X S76-2120	F_5
11.	K1137	V75-345 X S76-2120	F_5
12.	K1138	Forrest X Hobbit	F_5
13.	LS80-B3915	Franklin X J74-5	F_5
14.	LS83-W2800-3	Forrest X V71-480	F_7
15.	LS83-W3835	Franklin X J74-5	F_7
16.	Md83-5078	D74-7824 X Miles	F_5
17.	Md83-5914	A75-305022 X Essex	F_5
18.	N84-147	N77-114 X R77-238	F_6
19.	N84-275	RS5-Cycle 0	F_5
20.	N84-507	N77-114 X N77-907	F_6
21.	N84-578	Young X Gasoy 17	F_6
22.	N84-958	Young X Gasoy 17	F_6
23.	OK80-3015	Dyer X Bragg	
24.	R83-1342	Forrest X Narow	F_6
25.	R83-1404	Forrest X Narow	F_6
26.	R84-150	(R76-1017 X R68-208) X (Forrest X Narow)	F_5
27.	R84-381	Forrest X Narow	F_5
28.	R84-3259	R78-781 X Bedford	F_7
29.	S82-1002	D72-8879A X J74-88	F_5
30.	S82-3641	Forrest X Bedford	F_5
31.	S83-1188	Bedford X N77-347	F_5
32.	Tn83-192	Centennial X J74-45	F_6
33.	Tn84-51	V76-398 X Forrest	F_6
34.	Tn84-129	Tn77-1 X Franklin	F_5
35.	Tn84-146	Forrest X Tn76-50	F_6
36.	V83-2	Bay X Essex	F_5

Table 23 - General summary of performance for the strains grown in Preliminary Group V, 1986

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	M. incognita	SCN race 3	SCN race 4	Soybean looper	Stem canker
Forrest	41.7	10-16	34	21.1	39.9	1.3	R	S	4.0	2.0
Pershing	37.5	-5	25	19.6-	41.1+	2.3	S	S	4.0	2.0
D82-2896	42.2	0	29	19.6-	40.9	1.3	R	S	4.0	2.0
D83-3642	38.1	+2	43	20.0-	41.2+	1.0	R	R	4.0	2.0
D84-5120	40.4	-1	33	19.2-	41.0+	1.0	R	S	4.0	2.0
D84-11707	36.1-	-3	27	20.2-	41.6+	1.3	R	R	4.0	2.0
D84-1732	37.9	+1	33	21.5	39.4	3.5	R	S	4.0	3.0
K1134	38.8	0	26	19.7-	41.5+	2.7	S	S	4.0	1.0
K1135	37.3	-1	28	20.8	40.8	1.3	S	S	4.0	3.0
K1136	38.1	-2	28	19.5-	42.0+	1.7	S	S	5.0	1.0
K1137	40.3	0	29	20.4	40.4	2.7	S	S	4.0	2.0
K1138	37.4	-4	25	20.2-	41.1+	2.3	S	S	4.0	2.0
LS80-B3915	34.2-	-6	26	20.2-	39.3	2.7	R	S	4.0	3.0
LS83-W2800-3	37.0	-5	27	20.5	40.2	3.0	R	S	4.0	4.0
LS83-W3835	38.6	-5	28	19.7-	40.9	3.0	R	S	4.0	2.0
Md83-5078	42.9	-3	29	20.3	40.6	3.0	S	S	4.5	2.0
Md83-5914	38.5	-2	23	20.8	40.6	3.7	S	S	4.5	2.0
N84-147	39.0	0	32	20.3	40.6	1.0	S	S	4.0	3.0
N84-275	39.1	-3	25	20.9	39.9	2.3	S	S	4.0	2.0
N84-507	42.5	+1	25	21.4	39.9	2.0	S	S	4.0	1.0
N84-578	41.0	+1	29	20.1-	40.5	1.3	S	S	4.0	2.0
N84-958	39.3	-1	28	19.4-	40.7	1.7	S	S	4.0	1.0
OK80-3015	38.3	+7	34	20.7	39.0	1.7	S	S	4.0	1.0
R83-1342	41.5	+2	31	20.0-	40.8	1.0	R	S	4.0	2.0
R83-1404	42.9	+1	36	21.6	40.4	3.7	R	S	4.5	1.0
R84-150	44.2	0	32	20.2-	41.4+	3.3	R	S	4.5	2.0
R84-381	41.2	+1	36	20.7	40.5	2.7	R	S	4.5	2.0
R84-3259	42.6	0	31	20.3	40.2	1.7	R	S	5.0	3.0
S82-1002	38.8	+1	38	20.2-	40.1	1.3	R	S	4.0	3.0
S82-3641	41.9	+1	39	20.4	39.7	1.0	R	R	4.0	3.0
S83-1188	41.3	+4	36	21.0	39.6	1.7	R	R	4.5	2.0
Tn83-192	38.4	0	31	19.0-	43.1+	2.0	R	S	4.5	2.0
Tn84-51	37.0	-6	28	22.0	40.8	1.3	S	S	4.0	2.0
Tn84-129	36.2-	-3	24	20.1-	41.0+	3.0	R	S	4.5	1.0
Tn84-146	40.5	+2	35	20.5	40.2	1.0	R	S	4.0	2.0
V83-2	38.5	-4	29	20.7	41.7+	2.0	S	S	4.5	3.0
L.S.D.(.05)	5.4			0.8	1.0					
C.V.	13%			3%	2%					

+ or - designations refer to differences from Forrest.

Table 24 - Seed yield, in bushels per acre, for the strains grown in Preliminary Group V, 1986

Strain	Warsaw, VA	Plymouth, NC	Portage-ville, MO (A)	Tipton-ville, TN	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)
Forrest	43.3	49.2	47.4	21.4	44.6	49.2	37.0
Pershing	49.1+	46.7	38.0-	14.3	39.7	50.1	24.3-
D82-2896	42.4	46.7	48.5	32.1	42.1	50.3	33.2
D83-3642	39.1-	47.9	48.3	22.2	33.5-	45.7	29.9
D84-5120	42.1	44.7	52.4	30.5	39.5	49.4	24.0-
D84-11707	43.7	44.9	50.9	25.8	39.8	21.2	26.6-
D84-1732	44.7	45.0	43.8	26.2	41.6	38.5-	25.6-
K1134	46.7	41.9	40.1	22.5	45.9	48.4	26.2-
K1135	47.9+	49.4	40.4	15.3	41.3	43.4	23.3-
K1136	47.0	45.5	41.8	18.8	38.3	47.7	27.9-
K1137	47.0	46.6	45.3	23.8	45.8	49.7	23.8-
K1138	47.9+	48.1	39.8	19.5	33.8-	44.3	28.2-
LS80-B3915	45.9	41.0-	43.8	16.9	33.8-	41.9	16.4-
LS83-W2800-3	47.1	46.7	48.7	19.9	39.4	44.1	13.2-
LS83-W3835	47.0	45.4	47.7	26.3	38.7	45.8	19.2-
Md83-5078	45.2	53.1	45.6	24.6	46.0	52.2	33.8
Md83-5914	54.1+	48.4	43.6	20.3	38.7	44.5	19.9-
N84-147	47.2	46.9	47.2	12.7	42.4	52.6	24.2-
N84-275	47.8	48.7	47.0	9.9	47.7	46.7	25.6-
N84-507	50.3+	50.8	45.3	23.9	44.8	47.1	35.6
N84-578	46.5	52.8	44.7	21.0	47.9	41.9	32.4
N84-958	50.2+	46.1	46.7	20.2	44.4	43.1	24.4-
OK80-3015	38.9-	44.5	37.9-	17.1	54.0+	44.8	30.8
R83-1342	41.0	46.1	-	25.1	49.9	50.4	38.2
R83-1404	39.7	46.4	-	28.2	49.4	50.6	46.3+
R84-150	43.4	48.0	49.5	19.1	52.3+	58.5+	38.8
R84-381	42.1	47.3	-	24.5	42.6	51.4	40.2
R84-3259	41.0	47.5	47.6	25.2	45.2	54.5	37.3
S82-1002	39.2	45.9	44.9	23.1	35.6-	44.7	37.9
S82-3641	42.8	46.9	49.1	25.4	42.3	53.1	33.8
S83-1188	41.2	50.3	46.5	25.1	39.7	53.4	33.2
Tn83-192	38.2-	43.9	40.8	18.0	41.9	47.6	38.6
Tn84-51	48.0+	52.0	43.0	24.4	36.7-	37.1-	18.1-
Tn84-129	41.7	45.2	46.2	27.4	38.4	28.8-	25.4-
Tn84-146	39.7	46.5	43.7	31.5	41.1	48.1	32.7
V83-2	47.0	42.4	36.1-	27.8	45.8	47.4	22.7-
L.S.D.(.05)	4.5	7.8	7.7	11.7	7.5	7.5	8.2
C.V.	5%	8%	8%	26%	9%	8%	14%

Table 25 - Oil percentages for the strains in Preliminary Group V, 1986

Strain	Warsaw, VA	Plymouth, NC	Portageville, MO (A)	Keiser, AR	Stoneville, MS (A)
Forrest	20.4	20.4	22.4	20.9	21.4
Pershing	20.0	18.0	20.6	20.0	19.5
D82-2896	19.6	18.2	20.6	20.0	19.9
D83-3642	20.3	18.7	20.6	19.7	20.5
D84-5120	19.2	17.8	20.1	19.3	19.5
D84-11707	18.9	19.6	20.4	20.8	21.3
D84-1732	19.4	20.7	22.9	21.7	22.9
K1134	19.1	18.4	21.0	19.8	20.1
K1135	20.8	19.2	22.0	21.2	21.0
K1136	19.3	17.8	20.4	20.2	20.0
K1137	19.7	19.4	21.6	20.7	20.8
K1138	18.4	18.9	21.1	21.3	21.4
LS80-B3915	18.8	19.4	20.9	21.1	20.8
LS83-W2800-3	19.1	19.3	21.4	21.7	21.2
LS83-W3835	19.1	18.0	20.5	20.7	20.4
Md83-5078	20.0	19.4	21.2	20.1	20.7
Md83-5914	19.1	19.8	22.0	21.0	22.2
N84-147	20.4	19.2	21.0	20.1	20.6
N84-275	18.7	20.4	22.0	21.7	21.6
N84-507	20.0	20.4	22.5	21.2	22.9
N84-578	19.9	19.2	21.2	19.7	20.4
N84-958	18.3	18.7	20.6	19.7	19.9
OK80-3015	19.3	18.9	22.1	21.1	22.1
R83-1342	20.4	18.5	-	20.6	20.6
R83-1404	22.0	20.2	-	21.9	22.1
R84-150	19.8	19.1	20.7	20.4	21.1
R84-381	19.8	19.4	22.4	20.9	21.0
R84-3259	19.3	19.2	21.1	21.3	20.4
S82-1002	20.4	19.2	21.0	20.1	20.2
S82-3641	20.3	19.0	21.0	20.8	21.0
S83-1188	19.1	20.0	22.0	21.5	22.2
Tn83-192	20.7	17.4	19.0	18.6	19.3
Tn84-51	19.4	21.4	23.1	22.7	23.2
Tn84-129	20.2	18.0	21.8	19.9	20.8
Tn84-146	19.7	19.4	20.8	21.5	21.3
V83-2	20.4	19.0	21.8	20.9	21.6

Table 26 - Protein percentages for the strains in Preliminary Group V, 1986

Strain	Warsaw, VA	Plymouth, NC	Portageville, MO (A)	Keiser, AR	Stoneville, MS (A)
Forrest	40.1	40.8	38.2	39.5	40.9
Pershing	40.6	43.2	39.2	40.4	42.0
D82-2896	41.3	42.4	39.3	40.1	41.6
D83-3642	42.1	41.8	40.1	40.7	41.5
D84-5120	40.0	41.9	40.5	41.1	41.3
D84-11707	40.9	42.3	42.2	41.0	41.5
D84-1732	41.8	40.4	36.8	38.7	39.1
K1134	41.5	42.2	40.1	41.3	42.5
K1135	40.6	42.0	39.8	39.8	41.8
K1136	41.0	43.4	40.6	41.7	43.2
K1137	39.4	42.4	38.8	39.8	41.4
K1138	42.8	42.1	39.9	39.5	41.2
LS80-B3915	41.6	40.1	37.3	37.4	39.9
LS83-W2800-3	40.8	41.2	39.1	38.4	41.7
LS83-W3835	42.1	42.5	39.0	39.8	41.3
Md83-5078	40.8	42.0	38.2	40.2	41.8
Md83-5914	40.7	41.5	39.5	40.2	41.3
N84-147	40.6	41.4	39.5	40.5	41.1
N84-275	40.6	41.2	38.4	38.6	40.8
N84-507	40.4	41.4	38.2	39.8	39.5
N84-578	40.2	42.3	39.2	39.5	41.5
N84-958	41.1	42.1	39.4	39.4	41.6
OK80-3015	41.1	41.7	36.7	37.4	38.3
R83-1342	40.5	42.4	-	39.3	40.8
R83-1404	40.6	41.4	-	38.6	41.0
R84-150	40.4	43.3	41.1	40.1	42.3
R84-381	40.8	41.9	39.3	39.3	41.3
R84-3259	40.9	41.6	39.4	38.5	40.6
S82-1002	38.3	41.5	39.5	40.1	40.9
S82-3641	40.1	40.9	38.6	38.6	40.3
S83-1188	39.0	41.8	38.5	38.5	40.2
Tn83-192	40.2	44.4	44.0	43.4	43.6
Tn84-51	41.2	41.8	40.4	39.9	40.6
Tn84-129	40.2	43.0	39.6	41.5	40.8
Tn84-146	39.2	41.9	39.0	39.4	41.3
V83-2	40.8	43.8	39.7	41.1	42.9

Table 27 - Plant height for the strains in Preliminary Group V, 1986

Strain	Warsaw, VA	Plymouth, NC	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)
Forrest	46	32	35	29	35	24
Pershing	30	38	19	21	25	15
D82-2896	38	30	30	26	32	19
D83-3642	54	44	47	36	46	29
D84-5120	42	35	34	29	36	20
D84-11707	40	28	25	28	24	17
D84-1732	47	34	29	33	30	24
K1134	33	30	28	23	26	16
K1135	36	33	28	23	28	17
K1136	34	32	29	27	26	18
K1137	40	32	24	29	29	18
K1138	34	29	24	23	26	16
LS80-B3915	36	25	34	22	26	15
LS83-W2800-3	39	29	27	22	30	15
LS83-W3835	40	31	28	25	28	16
Md83-5078	36	33	32	27	30	17
Md83-5914	28	26	22	23	23	14
N84-147	40	34	33	30	37	20
N84-275	35	26	23	23	25	16
N84-507	35	30	19	22	27	19
N84-578	36	33	26	29	30	17
N84-958	36	29	27	28	28	17
OK80-3015	42	39	31	31	34	24
R83-1342	42	31	-	25	34	23
R83-1404	51	37	-	29	38	25
R84-150	44	33	35	27	32	21
R84-381	46	40	-	31	39	22
R84-3259	40	31	31	27	36	22
S82-1002	51	41	44	32	40	19
S82-3641	54	41	38	35	43	24
S83-1188	50	36	33	29	41	24
Tn83-192	42	36	29	27	32	22
Tn84-51	38	32	26	27	26	17
Tn84-129	32	29	19	24	24	17
Tn84-146	45	39	32	32	42	22
V83-2	37	34	24	29	30	17

Table 28 - Seed quality scores for the strains in Preliminary Group V, 1986

Strain	Warsaw, VA	Plymouth, NC	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)
Forrest	1.0	1.0	2.0	1.5	2.0	2.0
Pershing	1.2	1.5	1.5	2.0	2.0	2.0
D82-2896	1.0	1.0	2.5	1.5	2.0	2.0
D83-3642	1.8	1.0	2.0	2.5	2.0	2.0
D84-5120	1.5	1.0	2.5	2.5	2.0	2.0
D84-11707	1.2	1.0	2.0	1.5	2.0	2.0
D84-1732	1.0	1.5	3.0	2.0	2.0	2.0
K1134	1.3	1.0	2.0	2.0	2.0	2.0
K1135	1.0	1.5	2.0	2.0	2.0	2.0
K1136	1.0	1.5	2.0	1.5	2.0	2.0
K1137	1.5	1.5	2.5	2.5	2.0	2.0
K1138	1.2	1.5	2.0	2.0	2.0	2.0
LS80-B3915	1.8	1.5	2.5	2.5	2.5	3.0
LS83-W2800-3	1.3	1.0	2.0	1.5	2.0	2.5
LS83-W3835	1.5	1.5	2.5	2.0	2.5	2.0
Md83-5078	1.0	1.0	1.5	2.0	2.0	2.0
Md83-5914	1.0	1.5	2.0	2.0	2.0	2.0
N84-147	1.2	1.0	2.0	2.5	2.0	2.0
N84-275	1.3	1.0	2.0	1.5	2.5	3.0
N84-507	1.3	1.0	1.5	2.5	2.0	2.0
N84-578	1.0	1.0	2.5	1.0	2.0	2.0
N84-958	1.3	1.0	2.5	2.0	2.0	2.0
OK80-3015	1.2	1.5	2.5	1.5	2.0	2.0
R83-1342	1.2	1.0	-	1.5	2.0	2.0
R83-1404	1.3	1.0	-	1.5	2.0	2.0
R84-150	1.5	1.0	2.0	2.0	2.0	2.0
R84-381	1.0	1.0	-	1.5	2.0	2.0
R84-3259	1.3	1.5	2.5	2.5	2.0	2.0
S82-1002	1.2	1.0	2.0	2.0	2.0	2.0
S82-3641	1.2	1.0	2.0	1.5	2.0	2.0
S83-1188	1.3	1.5	2.0	1.5	2.0	2.0
Tn83-192	1.5	1.5	2.0	2.5	2.0	2.0
Tn84-51	1.2	1.0	2.5	1.5	2.0	2.5
Tn84-129	1.2	1.5	2.5	2.5	2.0	2.0
Tn84-146	1.0	1.5	2.0	2.0	2.0	2.0
V83-2	1.3	1.5	2.0	1.5	2.0	2.0

UNIFORM GROUP VI

1986

	Variety or strain	Parentage	Generation composited
1.	Leflore	Centennial X J74-47	F_5
2.	Tracy-M	Metribuzin tolerant sel. from Tracy (D61-618 X D60-9647)	F_{10}
3.	D79-6162	Tracy X Centennial	F_5
4.	N81-1121	N72-3058 X N73-1102	F_6
5.	D82-2228	Bedford X Tracy-M	F_5
6.	D82-3885	Tracy-M X sel (Centennial X D75-11061)	F_5
7.	N82-1198	Young X N73-1102	F_7
8.	D82-5249	Centennial(2) X D75-10169	F_5
9.	G81-152	D74-7741 X Co237	F_6
10.	G81-234	Centennial X Bedford	F_6
11.	R83-1552	Line 8 X (R68-208 X Bedford)	F_6
12.	S82-1338	Essex X D74-7741	F_5

Background of breeding lines used as parents:

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

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).

D74-7741 is a selection from Forrest X D70-3001 which was grown in Uniform Group VI 1977-1979. D77-3001 is of the same parentage as Centennial.

R68-208 is a selection from Davis X Lee 68 which was grown in Uniform Group VI in 1971.

Plantings of Uniform Group VI nurseries were made at 31 locations. A general summary of results from 29 locations is summarized in Table 29. Two- and three-year seed yield data are presented by regions, and two- and three-year oil and protein data also are summarized. Table 29 also reports ratings for reaction to root-knot nematodes, soybean cyst nematode, feeding by soybean looper, and reaction to stem canker. Data from individual locations are reported in Tables 30-36.

Satisfactory ratings were not obtained from the field plantings for root-knot nematode evaluation in 1986. Ratings for reaction to M. incognita were made in the greenhouse at the University of Georgia, Athens. Data from 1985 ratings are reported for M. arenaria. SCN race 3 and 4 evaluations were made in the greenhouse at Jackson, Tennessee, in nematode infested soil. Ratings for feeding by soybean looper were made in the field cage at Stoneville where a large population of soybean looper moths was released. Ratings for stem canker were made from a planting at Verona, Mississippi, where one row of the highly susceptible J77-339 was planted along with three rows of each of the strains. These ratings were made on a 1 to 5 basis. Ratings also were made at Beaumont, Texas. These ratings were made on a 0 to 9 basis. Severe drouth stress at Beaumont after stem canker ratings were made prevented normal yield development on resistant strains.

Two strains have been evaluated three years, D79-6162 and N81-1121. D79-6162 is being increased for release as a replacement for Tracy-M. D79-6162 has shown a good response to irrigation on the heavy clay soils of the Delta. It has shown good tolerance to flood irrigation, a system where levees are put across a field and water is allowed to stand for some time before the levee is cut to permit water to flow to the next levee.

Three strains have been evaluated two years, D82-2228, D82-3885, and N82-1198. There does not appear to be any need for further evaluation of D82-2228. D82-3885 has been selected for resistance to foliar-feeding insects. It has good resistance to M. incognita. Earlier indications were that the population included plants resistant to SCN race 3. It may have only a partial complement of genes necessary for full resistance to SCN race 3.

Five strains, D82-5249, G81-152, G81-234, R83-1552, and S82-1338 have been evaluated one year. There doesn't appear to be any need for further evaluation of D82-5249 or R83-1552.

Table 29 - General summary of performance for the strains in Uniform Group VI, 1986

	No. of locations	Leflore	Tracy-M	D79-6162	N81-1121	D82-2228
Seed Yield - 1986						
East Coast	4	43.2	42.6	44.8	43.9	41.8
Southeast	7	39.1	32.4	36.5	35.2	36.7
Upper & Central South	5	38.6	34.2	35.4	36.9	39.3
Delta	9	41.0	38.0	39.1	38.1	41.0
West	4	44.5	44.6	46.9	47.4	43.3
1985-86						
East Coast		37.2	36.9	37.5	39.9	36.7
Southeast		41.5	35.3	39.3	38.7	37.6
Upper & Central South		42.5	38.8	38.7	42.3	41.9
Delta		39.2	36.8	37.9	36.7	39.7
West		42.5	41.6	41.5	45.8	42.2
1984-86						
East Coast		39.8	39.7	40.5	41.3	
Southeast		41.7	35.9	40.1	39.5	
Upper & Central South		41.1	38.2	37.9	40.4	
Delta		39.6	37.5	39.2	37.9	
West		40.9	39.6	40.2	43.9	
Oil Content - 1986		19.5	19.5	19.6	21.2	19.3
1985-86		19.1	19.3	19.2	21.3	19.2
1984-86		19.2	19.1	19.2	21.1	
Protein Content - 1986		42.2	42.5	42.9	41.9	42.4
1985-86		42.5	43.0	43.2	42.4	42.4
1984-86		42.9	42.4	43.0	42.3	
Seed size		12.5	15.7	14.7	14.6	15.4
Maturity index		10-19	-2	+3	-3	0
Height		35	34	39	29	35
Seed quality		2.3	2.5	2.7	2.1	2.4
M. incognita		2.0	2.3	2.6	5.0	5.0
M. arenaria		4.3	4.3	5.0	4.8	4.0
SCN race 3		R	S	R	S	R
SCN race 4		R	S	S	S	R
Soybean looper		5.0	3.5	5.0	3.5	3.5
Flower color		P	W	W	P	W
Pubescence color		T	T	T	T	T
Pod wall color		T	T	T	Br	T
Stem canker - Verona		1.0	1.0	1.0	1.0	1.0
Beaumont		2.8	0.0	0.0	0.0	0.0

Table 29 - (continued)

	D82-3885	N82-1198	D82-5249	G81-152	G81-234	R83-1552	S82-1338
Seed Yield - 1986							
East Coast	41.0	48.6	40.2	47.6	45.1	40.2	44.7
Southeast	35.2	39.6	37.5	39.9	40.1	36.0	35.3
Upper & Central South	34.8	38.7	38.8	40.2	38.5	35.5	37.1
Delta	35.3	42.6	38.5	41.9	41.4	37.9	43.0
West	42.8	49.4	46.7	51.0	48.0	48.9	47.3
1985-86							
East Coast	36.2	41.3					
Southeast	38.6	41.8					
Upper & Central South	39.6	42.5					
Delta	34.6	38.7					
West	39.9	42.7					
1984-86							
East Coast							
Southeast							
Upper & Central South							
Delta							
West							
Oil Content - 1986	19.3	20.1	20.5	20.8	20.7	19.4	20.3
1985-86	19.5	20.2					
1984-86							
Protein Content - 1986	43.2	42.1	42.3	42.0	40.9	43.3	41.5
1985-86	43.2	42.4					
1984-86							
Seed size	13.5	12.9	12.0	13.9	13.3	14.2	13.3
Maturity index	0	-3	-1	-7	+1	+5	-3
Height	32	34	33	28	35	36	29
Seed quality	2.3	2.1	2.2	2.1	2.4	2.2	2.4
M. incognita	1.0	2.7	1.3	2.0	1.8	2.0	2.3
M. arenaria	5.0	5.0	2.5	2.0	1.8	3.0	2.3
SCN race 3	S	S	R	R	R	R	R
SCN race 4	S	S	S	S	R	R	h
Soybean looper	1.5	4.0	3.5	4.0	4.5	4.5	5.0
Flower color	W	W	P	W	P	P	P
Pubescence color	T	G	T	T	T	G	G
Pod wall color	T	Br	T	T	T	T	T
Stem canker - Verona	1.0	3.0	1.0	3.0	2.0	3.0	3.0
Beaumont	0.7	4.3	0.0	5.2	4.7	8.5	3.7

Table 30 - Seed yield, in bushels per acre, for the strains in Uniform Group VI, 1986

Location	Leflore	Tracy-M	D79-6162	N81-1121	D82-2228	D82-3885	N82-1198
			EAST COAST				
Warsaw, VA	38.7	40.6	37.2	40.0	40.7	35.8	45.2+
Holland, VA	40.3	43.0	44.1	47.7+	41.7	44.9	50.9+
Plymouth, NC	48.6	48.4	52.4	49.3	43.9	47.6	54.6
Kinston, NC	38.5	35.6	39.5	38.6	38.1	37.2	46.1+
Hartsville, SC	49.9	45.2	50.8	43.9	44.8	39.5-	46.0
Mean	43.2	42.6	44.8	43.9	41.8	41.0	48.6
			SOUTHEAST				
Blackville, SC	24.5	21.2	21.5	24.1	18.8	23.9	23.4
Tifton, GA	49.4	45.2	45.2	56.2	48.1	46.9	56.8
Quincy, FL	47.3	36.3-	49.5	32.9-	30.1-	36.4-	40.8
Jay, FL	45.8	39.6	34.5	40.5	44.0	44.0	46.2
Fairhope, AL	46.9	32.7-	43.9	33.6-	47.8	37.2-	40.2-
Baton Rouge, LA	26.2	19.8	22.1	25.3	32.4	24.8	32.0
Tallassee, AL	33.4	31.9	38.8	33.7	36.0	33.1	37.7
Mean	39.1	32.4	36.5	35.2	36.7	35.2	39.6
			UPPER AND CENTRAL SOUTH				
Athens, GA	32.8	28.8	28.7	23.6-	31.8	30.4	35.9
Calhoun, GA	49.5	41.9-	45.3	54.4	54.6	52.2	60.2+
Belle Mina, AL	45.2	36.0	43.1	40.6	45.4	30.0-	36.6
Clemson, SC	31.2	32.3	30.6	32.1	32.4	34.5	35.5
Jackson, TN	30.9	31.9	29.5	33.8	32.4	26.7	25.5
Mean	38.6	34.2	35.4	36.9	39.3	34.8	38.7
			DELTA				
Portageville, MO (A)	40.3	37.6	34.3	30.9-	43.4	29.4-	36.8
Portageville, MO (B)	31.8	33.0	30.1	31.9	34.4	31.6	33.9
Keiser, AR	45.0	44.7	50.3	48.3	37.6	47.1	53.2
*Jonesboro, AR	17.4	11.9	18.5	19.1	26.9	17.4	19.9
Pine Tree, AR	42.2	36.5	39.9	37.7	41.7	34.6	40.2
Stoneville, MS (A)	45.1	33.5-	30.0-	36.6-	43.6	30.1-	37.0-
Stoneville, MS (B)	46.7	51.8	49.5	52.6	53.4	43.6	54.6
St. Joseph, LA	35.4	29.5-	44.0+	24.1-	34.2	28.2-	36.5
Rohwer, AR	41.4	37.2	34.3	42.3	39.4	37.6	48.3
Mean	41.0	38.0	39.1	38.1	41.0	35.3	42.6
			WEST				
Stuttgart, AR	41.5	44.2	43.2	44.2	41.5	37.0-	44.6
Bossier City, LA	50.5	43.6	50.1	58.1+	48.5	54.1	60.7+
*Beaumont, TX	9.2	5.4	4.8	10.3	13.4	7.1	2.6
Bixby, OK	41.4	45.9	47.3	39.8	42.1	37.3	42.9
Mean	44.5	44.6	46.9	47.4	43.3	42.8	49.4

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

Table 30 - (continued)

Location	D82-5249	G81-152	G81-234	R83-1552	S82-1338	L.S.D. (.05)	C.V. (%)
			EAST COAST				
Warsaw, VA	35.2	41.8	40.8	30.7-	42.0	3.6	5
Holland, VA	41.7	55.0+	45.5	39.1	45.0	6.0	8
Plymouth, NC	47.3	51.3	45.3	46.3	46.3	6.0	7
Kinston, NC	34.1	48.5+	42.2	34.9	41.9	5.5	8
Hartsville, SC	42.9-	41.6-	51.7	50.2	48.1	6.8	9
Mean	40.2	47.6	45.1	40.2	44.7		
			SOUTHEAST				
Blackville, SC	21.9	20.3	22.2	20.2	20.0	N.S.	21
Tifton, GA	48.1	48.5	53.0	46.2	50.8	N.S.	12
Quincy, FL	35.6-	49.7	52.0	40.2-	36.4-	6.8	10
Jay, FL	49.5	44.7	43.3	40.0	35.9	11.6	16
Fairhope, AL	47.2	50.8	51.4	43.6	47.5	6.3	9
Baton Rouge, LA	28.2	26.7	24.8	27.3	26.4	7.2	16
Tallassee, AL	32.1	38.4	34.1	34.7	30.2	N.S.	15
Mean	37.5	39.9	40.1	36.0	35.3		
			UPPER AND CENTRAL SOUTH				
Athens, GA	36.5	38.8+	34.2	34.3	31.5	4.6	8
Calhoun, GA	46.5	54.4	50.1	42.3-	46.3	6.8	8
Belle Mina, AL	47.4	54.7	45.3	41.2	52.5	10.6	15
Clemson, SC	30.1	32.4	32.4	31.5	27.0	N.S.	13
Jackson, TN	33.7	20.8	30.5	28.1	28.0	N.S.	22
Mean	38.8	40.2	38.5	35.5	37.1		
			DELTA				
Portageville, MO (A)	41.6	44.4	38.5	37.1	51.8+	6.4	10
Portageville, MO (B)	31.6	36.7+	33.8	30.3	35.7	4.1	7
Keiser, AR	47.8	47.9	49.3	50.4	48.7	10.5	13
Jonesboro, AR	16.0	19.1	17.2	15.1	12.5	N.S.	31
Pine Tree, AR	42.8	43.9	43.2	38.0	42.2	N.S.	10
Stoneville, MS (A)	36.1-	34.0-	47.4	35.2-	42.5	5.3	8
Stoneville, MS (B)	47.1	58.0+	49.0	41.2	49.0	8.8	10
St. Joseph, LA	31.9	33.4	31.8	34.2	28.4-	5.5	10
Rohwer, AR	29.2-	36.7	37.9	36.6	45.4	9.6	15
Mean	38.5	41.9	41.4	37.9	43.0		
			WEST				
Stuttgart, AR	44.1	44.6	44.5	41.2	46.2+	3.6	5
Bossier City, LA	53.2	63.6+	52.9	53.2	51.8	6.9	8
Beaumont, TX	10.2	1.0	1.6	0.0	1.6	3.6	38
Bixby, OK	42.9	44.8	46.6	52.3+	44.0	9.7	13
Mean	46.7	51.0	48.0	48.9	47.3		

Table 31 - Chemical composition and seed size for the strains in Uniform Group VI, 1986

Location	Leflore	Tracy-M	D79-6162	N81-1121	D82-2228	D82-3885
			OIL PERCENTAGE			
Holland, VA	19.3	18.5	19.2	20.7	19.1	19.1
Plymouth, NC	18.6	17.6	17.8	19.7	18.2	18.2
Kinston, NC	18.0	17.5	17.9	20.0	17.8	18.0
Jay, FL	20.3	18.4	20.6	22.6	19.5	20.8
Jackson, TN	20.3	19.9	20.5	22.6	21.0	19.8
Portageville, MO (A)	19.9	20.8	20.3	22.0	20.0	19.9
Keiser, AR	18.5	20.9	18.6	18.2	18.2	18.8
Stoneville, MS (B)	20.2	21.3	20.3	23.1	19.1	20.0
Stuttgart, AR	20.1	20.3	20.9	22.2	20.6	19.4
Mean	19.5	19.5	19.6	21.2	19.3	19.3
			PROTEIN PERCENTAGE			
Holland, VA	43.3	44.7	44.2	43.9	43.0	44.8
Plymouth, NC	42.8	42.9	43.4	43.2	43.2	43.8
Kinston, NC	43.5	43.0	42.9	42.9	42.9	44.9
Jay, FL	42.3	42.6	42.3	41.7	42.6	43.0
Jackson, TN	41.8	42.5	41.8	40.6	41.1	43.1
Portageville, MO (A)	41.7	41.5	42.3	40.2	41.0	41.6
Keiser, AR	41.8	40.9	43.8	42.1	43.0	42.6
Stoneville, MS (B)	40.8	41.9	43.1	40.4	42.8	42.0
Stuttgart, AR	41.8	42.9	42.0	41.8	42.4	43.3
Mean	42.2	42.5	42.9	41.9	42.4	43.2
			GRAMS PER 100 SEEDS			
Holland, VA	13.7	16.9	16.5	16.2	16.5	15.4
Plymouth, NC	13.5	16.9	16.8	17.1	17.9	15.0
Kinston, NC	12.3	15.8	15.4	15.1	16.6	13.9
Jay, FL	12.0	16.0	15.0	14.0	14.0	13.0
Jackson, TN	14.7	16.2	16.0	16.8	16.4	15.4
Portageville, MO (A)	12.4	16.5	16.6	15.1	15.7	13.6
Keiser, AR	11.5	15.0	12.5	10.0	15.0	13.0
Stoneville, MS (B)	12.8	16.5	16.6	15.2	16.1	13.3
Stuttgart, AR	13.1	16.3	15.4	16.6	16.4	14.4
Beaumont, TX	8.6	11.0	6.0	9.7	9.2	8.0
Mean	12.5	15.7	14.7	14.6	15.4	13.5

Table 31 - (continued)

Location	N82-1198	D82-5249	G81-152	G81-234	R83-1552	S82-1338
			OIL PERCENTAGE			
Holland, VA	19.0	19.9	20.3	20.4	18.5	20.2
Plymouth, NC	19.3	19.4	20.0	20.4	17.7	19.4
Kinston, NC	19.2	18.4	19.7	19.7	17.4	19.5
Jay, FL	21.1	21.7	22.0	21.1	21.4	21.0
Jackson, TN	20.9	21.1	21.1	20.0	20.2	20.7
Portageville, MO (A)	21.1	20.2	21.0	20.7	19.0	20.5
Keiser, AR	18.6	20.5	19.5	20.3	19.1	18.8
Stoneville, MS (B)	20.9	21.5	22.1	22.5	20.1	21.5
Stuttgart, AR	21.1	21.9	21.5	20.9	21.4	20.8
Mean	20.1	20.5	20.8	20.7	19.4	20.3
			PROTEIN PERCENTAGE			
Holland, VA	45.3	43.3	43.4	40.8	45.6	42.1
Plymouth, NC	42.4	43.0	42.2	41.7	44.9	42.1
Kinston, NC	42.8	44.0	43.0	41.4	45.3	42.7
Jay, FL	42.6	42.5	43.8	40.9	43.4	40.8
Jackson, TN	40.8	40.9	41.1	41.3	42.7	41.4
Portageville, MO (A)	39.8	42.1	41.1	39.9	43.4	40.5
Keiser, AR	43.4	42.1	43.4	40.3	42.8	42.8
Stoneville, MS (B)	40.0	40.9	40.8	38.3	41.6	39.1
Stuttgart, AR	41.8	42.1	39.5	43.1	40.1	42.1
Mean	42.1	42.3	42.0	40.9	43.3	41.5
			GRAMS PER 100 SEEDS			
Holland, VA	14.4	13.1	14.5	15.0	15.1	14.1
Plymouth, NC	14.3	13.4	15.8	15.2	14.6	15.1
Kinston, NC	13.5	12.0	16.0	13.7	12.9	15.6
Jay, FL	13.0	10.0	12.0	12.0	14.0	12.0
Jackson, TN	14.3	14.9	13.6	14.8	16.8	11.2
Portageville, MO (A)	12.0	11.4	13.1	11.9	13.1	13.7
Keiser, AR	11.5	11.0	12.5	13.5	10.0	12.0
Stoneville, MS (B)	13.0	11.8	15.8	14.3	14.9	14.2
Stuttgart, AR	12.9	12.5	13.8	14.0	16.8	14.3
Beaumont, TX	9.8	10.3	11.4	8.7	-	10.3
Mean	12.9	12.0	13.9	13.3	14.2	13.3

Table 32 - Relative maturity data, days earlier (-) or later (+) than Leflore, for the strains in Uniform Group VI, 1986

Location	Date planted	Leflore matured	Tracy-M	D79-6162	N81-1121	D82-2228	D82-3885
			EAST COAST				
Plymouth, NC	5-29	10-20	+2	+4	+2	+4	+2
Kinston, NC	5-27	10-29	-14	0	-14	0	-14
Hartsville, SC	5-21	10-21	+2	+3	0	-2	0
Mean	5-26	10-23	-3	+2	-4	+1	-4
			SOUTHEAST				
Blackville, SC	5-15	10-16	0	+5	-3	-3	-3
Tifton, GA	5-20	10-16	-11	+2	-8	-9	-3
Quincy, FL	-	10-15	-8	+3	+1	-1	+2
Jay, FL	5-23'	10-17	+3	+3	-8	+2	-9
Fairhope, AL	6-6	10-4	0	+4	+2	0	+2
Baton Rouge, LA	6-4	10-24	0	+2	0	0	+3
Tallassee, AL	5-23	10-13	-5	-6	-7	-3	-2
Mean	5-27	10-15	-3	+2	-3	-2	-1
			UPPER AND CENTRAL SOUTH				
Athens, GA	5-12	10-18	0	0	-4	0	0
Calhoun, GA	5-22	10-19	+3	+5	+1	-1	+4
Belle Mina, AL	5-15	10-4	-2	-1	0	-1	+1
Clemson, SC	5-22	10-22	0	-1	0	-1	0
Jackson, TN	5-9	10-30	0	+1	0	+8	+8
Mean	5-16	10-19	0	+1	-1	+1	+3
			DELTA				
Portageville, MO (A)	5-28	10-26	-6	+2	-7	-1	-7
Portageville, MO (B)	6-3	10-28	+3	+2	+2	+3	+4
Keiser, AR	6-17	11-11	+2	+2	-5	+2	0
Stoneville, MS (A)	6-4	10-26	-7	+7	-2	+3	+1
Stoneville, MS (B)	6-23	10-21	-2	+2	0	+2	0
St. Joseph, LA	5-12	10-15	-11	+3	-2	0	+2
Rohwer, AR	6-19	10-16	-2	0	+4	-2	+4
Mean	6-7	10-20	-3	+3	-1	+1	+1
			WEST				
Stuttgart, AR	5-23	10-20	0	+7	-2	-2	+1
Mean	5-23	10-20	0	+7	-2	-2	+1

Table 32 - (continued)

Location	N82-1198	D82-5249	G81-152	G81-234	R83-1552	S82-1338
		EAST COAST				
Plymouth, NC	0	+2	0	+4	+6	+6
Kinston, NC	-9	-14	-14	-14	0	0
Hartsville, SC	-3	-2	-5	+2	+3	-1
Mean	-4	-5	-6	-3	+3	+2
		SOUTHEAST				
Blackville, SC	-9	0	-14	0	+20	-12
Tifton, GA	-11	-5	-14	0	-1	-18
Quincy, FL	-1	+1	-8	+2	+5	+1
Jay, FL	0	-9	+2	+6	+2	+5
Fairhope, AL	-1	0	-2	+7	+5	-1
Baton Rouge, LA	-1	-1	-8	+4	+3	-15
Tallassee, AL	-9	-7	-14	-3	-2	-13
Mean	-5	-3	-8	+2	+5	-8
		UPPER AND CENTRAL SOUTH				
Athens, GA	0	+1	-4	+1	+4	-6
Calhoun, GA	-3	+3	-3	+3	+4	+2
Belle Mina, AL	-1	+1	-6	+1	+1	-11
Clemson, SC	-1	-1	-4	-1	0	-5
Jackson, TN	+1	+4	0	+6	+11	0
Mean	-1	+2	-3	+2	+4	-4
		DELTA				
Portageville, MO (A)	-9	+2	-7	-7	0	+2
Portageville, MO (B)	-6	+2	+2	+3	+2	+1
Keiser, AR	-5	0	0	+2	+2	-3
Stoneville, MS (A)	-4	-2	-10	0	+8	0
Stoneville, MS (B)	+1	0	-1	+1	+4	0
St. Joseph, LA	-8	+2	-13	+2	+4	-13
Rohwer, AR	-5	+4	-3	+4	+6	+4
Mean	-5	+1	-4	+1	+4	-1
		WEST				
Stuttgart, AR	-2	-2	-12	+3	+7	-2
Mean	-2	-2	-12	+3	+7	-2

Table 33 - Plant height for the strains in Uniform Group VI, 1986

Location	Leflore	Tracy-M	D79-6162	N81-1121	D82-2228	D82-3885
			EAST COAST			
Warsaw, VA	60	51	60	45	54	49
Holland, VA	42	41	40	45	43	41
Plymouth, NC	44	38	46	38	38	37
Kinston, NC	42	36	42	36	38	36
Hartsville, SC	36	34	38	28	36	28
Mean	45	40	45	38	42	38
			SOUTHEAST			
Blackville, SC	27	27	35	21	26	27
Tifton, GA	30	29	37	27	30	29
Quincy, FL	18	17	28	15	20	21
Jay, FL	27	29	38	24	32	30
Fairhope, AL	37	31	36	25	36	30
Baton Rouge, LA	32	34	43	26	29	35
Tallassee, AL	24	23	29	20	28	22
Mean	28	27	35	23	29	28
			UPPER AND CENTRAL SOUTH			
Athens, GA	29	30	32	26	32	24
Calhoun, GA	38	38	43	32	38	35
Belle Mina, AL	34	31	39	26	36	32
Clemson, SC	23	26	31	21	30	27
Jackson, TN	40	34	39	32	41	35
Mean	33	32	37	27	35	31
			DELTA			
Portageville, MO (A)	41	43	42	36	41	37
Portageville, MO (B)	28	36	36	27	38	31
Keiser, AR	34	34	37	30	35	34
Jonesboro, AR	32	33	33	25	36	33
Pine Tree, AR	42	37	42	33	43	38
Stoneville, MS (A)	46	40	48	39	47	42
Stoneville, MS (B)	34	32	42	29	36	33
St. Joseph, LA	19	21	30	19	23	19
Rohwer, AR	30	29	37	25	30	30
Mean	34	34	39	29	37	33
			WEST			
Stuttgart, AR	36	35	40	29	38	24
Bossier City, LA	26	27	37	24	30	29
Beaumont, TX	29	25	37	25	28	26
Bixby, OK	43	43	43	33	39	39
Mean	34	35	39	28	34	30

Table 33 - (continued)

Location	N82-1198	D82-5249	G81-152	G81-234	R83-1552	S82-1338
		EAST COAST				
Warsaw, VA	55	54	48	55	61	48
Holland, VA	41	42	37	44	45	44
Plymouth, NC	41	38	34	39	43	38
Kinston, NC	40	39	34	42	38	36
Hartsville, SC	33	31	23	39	36	28
Mean	42	41	35	44	45	39
		SOUTHEAST				
Blackville, SC	26	26	18	27	28	18
Tifton, GA	28	27	29	34	30	29
Quincy, FL	19	20	19	23	24	19
Jay, FL	31	31	26	32	34	25
Fairhope, AL	33	33	31	34	39	31
Baton Rouge, LA	37	29	27	35	34	31
Tallassee, AL	21	24	20	25	25	20
Mean	28	27	24	30	31	25
		UPPER AND CENTRAL SOUTH				
Athens, GA	25	27	25	30	33	25
Calhoun, GA	36	35	33	39	42	32
Belle Mina, AL	38	34	28	36	37	29
Clemson, SC	24	23	18	25	27	18
Jackson, TN	37	36	31	44	40	33
Mean	32	31	27	35	36	27
		DELTA				
Portageville, MO (A)	48	34	35	40	45	38
Portageville, MO (B)	32	31	21	30	33	22
Keiser, AR	35	34	31	35	36	32
Jonesboro, AR	31	33	24	32	31	29
Pine Tree, AR	35	37	30	38	42	35
Stoneville, MS (A)	43	43	37	46	44	39
Stoneville, MS (B)	39	32	23	35	37	23
St. Joseph, LA	21	20	17	21	21	17
Rohwer, AR	30	29	22	27	29	26
Mean	35	33	27	34	35	29
		WEST				
Stuttgart, AR	38	37	24	38	39	26
Bossier City, LA	30	25	24	23	31	24
Beaumont, TX	29	27	23	29	27	27
Bixby, OK	41	33	33	35	39	31
Mean	35	31	26	31	34	27

Table 34 - Lodging scores for the strains in Uniform Group VI, 1986

Location	Leflore	Tracy-M	D79-6162	N81-1121	D82-2228	D82-3885
			EAST COAST			
Warsaw, VA	3.5	2.7	3.3	1.5	2.9	3.0
Holland, VA	4.3	4.3	5.0	2.7	4.3	4.3
Plymouth, NC	3.0	4.0	4.0	1.0	4.0	3.0
Kinston, NC	2.0	2.0	3.0	1.0	3.0	2.0
			SOUTHEAST			
Blackville, SC	1.0	1.0	1.0	1.0	1.0	1.0
Tifton, GA	1.1	1.1	2.3	1.0	1.2	1.1
Jay, FL	1.0	2.0	2.0	1.0	2.0	2.0
Fairhope, AL	1.0	1.0	1.3	1.0	1.0	1.0
Baton Rouge, LA	1.0	1.5	2.3	2.5	1.5	1.5
Tallassee, AL	1.0	1.0	1.0	1.0	1.0	1.0
			UPPER AND CENTRAL SOUTH			
Athens, GA	1.5	1.7	2.0	1.5	1.5	1.5
Calhoun, GA	1.5	1.7	2.5	1.0	1.3	1.2
Belle Mina, AL	3.3	2.7	3.3	2.0	3.0	3.3
Jackson, TN	1.0	1.0	2.0	1.0	1.0	1.0
			DELTA			
Portageville, MO (A)	1.5	2.0	2.5	1.0	1.5	1.5
Portageville, MO (B)	1.0	1.5	1.5	1.0	1.5	1.5
Keiser, AR	2.0	1.7	2.7	1.0	3.0	2.0
Jonesboro, AR	1.7	2.0	1.7	1.0	1.3	2.0
Pine Tree, AR	2.7	3.0	3.0	1.0	3.0	2.7
Stoneville, MS (A)	2.0	2.0	3.0	2.0	2.3	2.0
Stoneville, MS (B)	2.0	2.0	3.0	2.0	2.0	2.0
St. Joseph, LA	1.0	1.0	1.0	1.0	1.0	1.0
Rohwer, AR	1.0	1.3	3.3	1.0	1.0	1.0
			WEST			
Stuttgart, AR	1.7	2.3	3.1	1.3	1.6	2.8
Bossier City, LA	1.0	1.0	2.7	1.0	1.0	1.0
Beaumont, TX	1.0	1.5	2.3	1.0	1.3	1.0
Bixby, OK	4.0	4.0	4.0	2.0	5.0	3.0

Table 34 - (continued)

Location	N82-1198	D82-5249	G81-152	G81-234	R83-1552	S82-1338
		EAST COAST				
Warsaw, VA	2.8	3.0	3.3	2.5	3.5	3.8
Holland, VA	3.3	4.0	3.7	4.0	5.0	3.7
Plymouth, NC	3.0	4.0	3.0	3.0	3.0	3.0
Kinston, NC	2.0	2.0	1.0	2.0	2.0	2.0
		SOUTHEAST				
Blackville, SC	1.0	1.0	1.0	1.0	1.0	1.0
Tifton, GA	1.2	1.1	1.1	1.1	1.1	1.1
Jay, FL	1.0	2.0	2.0	1.0	2.0	1.0
Fairhope, AL	1.0	1.3	1.0	1.0	1.0	1.0
Baton Rouge, LA	1.6	1.2	1.0	2.0	1.8	1.0
Tallassee, AL	1.0	1.0	1.0	1.0	1.0	1.0
		UPPER AND CENTRAL SOUTH				
Athens, GA	1.5	1.5	1.5	1.5	1.8	1.5
Calhoun, GA	1.7	1.5	1.3	1.3	1.7	1.3
Belle Mina, AL	2.7	1.7	1.3	2.3	2.7	2.0
Jackson, TN	1.0	1.0	1.0	2.0	2.0	1.0
		DELTA				
Portageville, MO (A)	2.0	2.0	2.0	1.5	2.0	1.5
Portageville, MO (B)	1.0	1.0	1.0	1.5	1.5	1.0
Keiser, AR	1.7	2.3	1.3	1.0	1.7	1.0
Jonesboro, AR	2.0	1.7	1.0	1.7	1.7	1.7
Pine Tree, AR	1.3	2.3	2.0	2.0	2.0	2.0
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	1.0	1.0	1.0	1.0	1.0	1.0
Rohwer, AR	1.0	1.0	1.0	1.0	1.0	1.0
		WEST				
Stuttgart, AR	2.9	2.0	1.1	2.3	2.9	1.1
Bossier City, LA	1.0	1.0	1.0	1.0	1.7	1.0
Beaumont, TX	1.2	1.3	1.0	1.0	1.0	1.0
Bixby, OK	3.0	3.0	5.0	2.0	3.0	2.0

Table 35 - Seed quality scores for the strains in Uniform Group VI, 1986

Location	Leflore	Tracy-M	D79-6162	N81-1121	D82-2228	D82-3885
			EAST COAST			
Warsaw, VA	1.3	1.8	1.8	1.0	1.8	1.0
Holland, VA	1.7	2.0	2.0	1.3	1.0	1.3
Plymouth, NC	1.0	1.5	2.0	1.0	1.0	1.0
Kinston, NC	1.5	1.5	1.5	1.0	1.0	1.0
			SOUTHEAST			
Tifton, GA	1.8	2.3	2.5	1.7	2.0	1.8
Jay, FL	2.0	4.0	4.0	2.0	4.0	3.0
Baton Rouge, LA	2.1	2.3	3.0	2.0	2.2	2.6
			UPPER AND CENTRAL SOUTH			
Athens, GA	3.7	3.5	3.3	3.7	3.3	3.5
Calhoun, GA	1.7	1.7	1.6	1.5	1.6	1.5
Jackson, TN	2.0	2.0	3.0	2.0	3.0	2.0
			DELTA			
Portageville, MO (A)	2.0	2.5	3.0	2.0	2.0	2.0
Portageville, MO (B)	2.0	2.5	3.0	2.0	2.0	2.0
Keiser, AR	2.0	2.0	2.5	3.0	2.0	2.0
Jonesboro, AR	3.7	4.0	3.0	3.3	3.7	3.3
Pine Tree, AR	3.3	2.3	2.3	2.7	3.0	3.7
Stoneville, MS (A)	3.0	3.0	3.0	2.3	3.0	3.0
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
Rohwer, AR	2.5	2.7	3.0	2.7	2.5	2.5
			WEST			
Stuttgart, AR	2.3	2.5	4.0	1.7	2.2	2.5
Beaumont, TX	3.7	4.2	4.2	3.7	4.2	4.3

Table 35 - (continued)

Location	N82-1198	D82-5249	G81-152	G81-234	R83-1552	S82-1338
			EAST COAST			
Warsaw, VA	1.0	1.2	1.0	1.5	1.0	1.2
Holland, VA	2.0	1.7	1.7	2.0	1.7	2.0
Plymouth, NC	1.0	1.0	1.0	1.0	1.0	1.0
Kinston, NC	1.0	1.5	1.5	1.5	1.5	1.5
			SOUTHEAST			
Tifton, GA	1.3	1.7	1.3	2.2	1.5	2.0
Jay, FL	2.0	3.0	2.0	5.0	3.0	3.0
Baton Rouge, LA	2.2	1.6	2.0	2.3	2.2	3.0
			UPPER AND CENTRAL SOUTH			
Athens, GA	3.5	2.5	3.5	3.8	3.0	4.3
Calhoun, GA	1.2	1.6	1.2	1.5	1.6	1.6
Jackson, TN	3.0	2.0	3.0	2.0	2.0	3.0
			DELTA			
Portageville, MO (A)	2.0	2.0	2.0	2.0	2.0	2.0
Portageville, MO (B)	1.5	2.0	2.0	2.5	2.5	2.0
Keiser, AR	2.0	3.5	2.0	2.0	2.5	3.0
Jonesboro, AR	3.3	3.7	3.0	3.7	3.7	3.7
Pine Tree, AR	1.7	3.0	2.3	3.0	2.3	2.7
Stoneville, MS (A)	3.0	2.7	3.0	3.0	3.0	3.0
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
Rohwer, AR	2.3	2.2	2.3	2.7	2.2	2.0
			WEST			
Stuttgart, AR	2.3	1.5	1.5	2.2	2.8	1.7
Beaumont, TX	3.8	3.7	3.8	4.5	-	4.2

PRELIMINARY GROUP VI

1986

Preliminary Group VI nurseries which included Leflore and Bedford along with 34 experimental strains were grown at eight locations. The parentage for each of these strains is reported in Table 36. A general summary of performance is reported in Table 37 along with reaction to root-knot nematode, cyst nematode, stem canker, and feeding by soybean looper. Data from individual locations are reported in Tables 38-42.

Leflore had a mean seed yield of 42.5 bushels per acre. Seven strains ranked above Leflore in mean seed yield, but none of these yields was statistically significantly higher than that for Leflore. Ratings for root-knot nematode M. incognita were made in the greenhouse at the University of Georgia, Athens. Nineteen strains received ratings of 2 or less which would be considered as an adequate level of resistance. Ratings for reaction to SCN races 3 and 4 were made in the greenhouse at Jackson, Tennessee. Twenty-three strains were considered resistant to SCN race 3 and seven of these also were resistant to SCN race 4. Plantings were made in the field at Verona, Mississippi, to evaluate for reaction to stem canker. A single row of J77-339 was made along with three rows of each strain. Eleven strains received ratings of 3 or higher which would be considered as being susceptible.

Five strains would appear to merit advance to Uniform Group VI for further evaluation. These are Au82-589, G82-321, G82-481, R83-980, and S83-1144.

Table 36 - Parentage of the strains in Preliminary Group VI, 1986

	Variety or strain	Parentage	Generation composited
1.	Leflore	Centennial X J74-47	F_5
2.	Bedford	Forrest(2) X (D68-18 X PI 88788)	F_5
3.	Au82-589	N74-1572 X F76-8846	F_5
4.	D82-2740	D77-12244 X Bedford	F_6
5.	D82-2851	D77-12244 X Bedford	F_5
6.	D82-3018	Bedford X sel (J74-39 X D75-10169)	F_5
7.	D82-3978	Tracy-M X sel (Centennial X D75-10169)	F_5
8.	D83-515	D75-9665 X sel [Forrest X sel (Peking X Centennial)]	F_5
9.	D83-561	D75-9665 X sel [Forrest X sel (Peking X Centennial)]	F_5
10.	D84-3901	Bedford X Tracy	F_7
11.	D84-3916	Bedford X Tracy	F_7
12.	D84-7141	D77-12 X D77-6057	F_5
13.	D84-7279	D77-12 X D77-6057	F_5
14.	D84-8328	Tracy br	F_4
15.	G82-292	D74-7741 X F76-8757	F_6
16.	G82-321	D74-7741 X F76-8757	F_6
17.	G82-481	D74-7741 X F76-8846	F_6
18.	G82-518	F74-7741 X F76-8846	F_6
19.	G82-2640	D74-7741 X F76-8757	F_6
20.	G82-2853	D74-7741 X F76-8757	F_6
21.	N83-640	N75-2213 X N73-1102	F_6
22.	N83-2893	Forrest(2) X 4-74-6-3	F_5
23.	N84-360	RS5-Cycle 0	F_6
24.	N84-474	N77-114 X R77-238	F_6
25.	N84-525	N77-114 X N77-907	F_6
26.	N84-564	N77-114 X N77-907	F_6
27.	R83-980	Narow X R75-868	F_5
28.	R84-3046	(R76-717 X R75-579) X (R78-100-8 X Davis)	F_5
29.	R84-3104	(R76-717 X R75-579) X (R78-100-8 X Davis)	F_5
30.	R84-3236	R78-781 X Bedford	F_5
31.	R84-3434	R78-100-8 X Davis	F_6
32.	S82-1538	Forrest X Ransom	F_6
33.	S83-1144	Forrest X Ransom	F_6
34.	S83-1161	Forrest X Ransom	F_6
35.	SC83-124	F74-1349 X Centennial	F_8
36.	SC83-201	Essex X Centennial	F_5

Table 37 - General summary of performance for the strains in Preliminary Group VI, 1986

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	M. incognita	SCN race 3	SCN race 4	Soybean looper	Stem canker
Leflore	42.5	10-22	34	19.4	42.1	1.0	R	R	5.0	1.0
Bedford	36.3-	-9	33	20.8+	40.4-	1.3	R	R	4.5	2.0
Au82-589	43.7	0	32	19.9	41.9	1.7	S	S	4.5	2.0
D82-2740	39.2	+3	35	20.5+	40.0-	2.3	h	S	4.0	1.0
D82-2851	36.4-	-5	32	19.1	41.8	2.0	R	h	4.0	1.0
D82-3018	36.3-	-5	33	20.1	41.0-	1.7	S	S	3.0	3.0
D82-3978	40.8	-3	35	19.1	44.4+	5.0	S	S[1]	2.5	1.0
D83-515	35.6-	+4	36	21.4+	39.4-	3.0	R	S[1]	4.5	4.0
D83-561	32.6-	+1	35	20.6+	41.2	1.5	R	S[1]	4.5	2.0
D84-3901	34.9-	-5	32	19.9	41.7	3.0	R	R	4.5	1.0
D84-3916	40.9	+1	32	19.2	42.9	3.0	R	R	4.5	1.0
D84-7141	40.8	-1	31	19.9	42.5	1.0	R	R	4.5	1.0
D84-7279	40.2	+1	30	18.8	44.3+	1.3	R	R	4.5	2.0
D84-8328	36.5-	-4	23	19.6	43.1	4.0	S	S	3.0	1.0
G82-292	37.9	-4	29	21.1+	42.0	1.3	R	S	4.5	1.0
G82-321	43.7	-5	28	20.9+	41.2	1.0	R	S	4.5	1.0
G82-481	44.4	-1	34	20.5+	41.1	1.0	R	S	4.5	2.0
G82-518	40.2	-6	31	20.1	41.0-	1.0	R	S	4.5	1.0
G82-2640	41.2	-4	29	21.0+	42.0	1.0	R	S	4.5	1.0
G82-2853	40.8	-4	30	21.1+	40.7-	1.3	R	S	4.5	3.0
N83-640	40.0	-4	30	21.1+	41.1	3.0	S	S	4.5	2.0
N83-2893	35.7-	-2	28	20.2+	41.6	1.7	R	S	3.0	1.0
N84-360	41.3	-9	31	20.4+	41.5	1.7	S	S	4.0	3.0
N84-474	38.8	-5	26	19.8	41.7	1.0	S	S	4.5	4.0
N84-525	42.6	-2	26	21.5+	40.7-	4.0	S	S	4.5	2.0
N84-564	45.4	-2	29	21.6+	41.1	3.7	S	S	4.5	5.0
R83-980	44.2	+4	32	21.0+	41.6	4.3	R	-	4.5	1.0
R84-3046	41.0	-9	29	21.0+	40.9-	3.3	R	h	4.5	5.0
R84-3104	30.0-	-3	28	20.6+	41.9	3.0	R	R	4.5	5.0
R84-3236	37.7	-2	33	21.0+	42.0	2.3	R	R	4.5	3.0
R84-3434	39.8	+3	33	20.2+	41.4	1.3	R	R	4.5	2.0
S82-1538	41.7	-5	27	21.7+	41.6	2.3	R	S	4.5	3.0
S83-1144	43.8	-1	28	20.8+	40.1-	3.3	R	S	4.5	2.0
S83-1161	43.4	-6	27	21.7+	40.2-	4.0	R	S	4.5	3.0
SC83-124	39.1	+2	34	19.7	43.1	1.0	R	S	4.5	1.0
SC83-201	41.1	+1	32	19.8	43.0	1.0	h	S	4.5	1.0
L.S.D.(.05)	5.9			0.7	1.0					
C.V.	15%			3%	2%					

[1]Resistant to SCN race 5.

+ or - designations refer to differences from Leflore.

Table 38 - Seed yield, in bushels per acre, for the strains in Preliminary Group VI, 1986

Strain	Holland, VA	Plymouth, NC	Athens, GA	Tallassee, AL	Jay, FL	Keiser, AR	Stoneville, MS (A)	Stoneville, MS (B)
Leflore	46.4	46.9	32.6	32.6	41.8	43.9	49.4	46.4
Bedford	41.8	44.3	19.5-	43.4	36.3	32.9	40.0-	31.8
Au82-589	51.9	50.7	33.9	50.9+	48.8	43.7	38.7-	30.8
D82-2740	46.3	49.7	20.0-	52.2+	41.2	21.9-	35.0-	46.9
D82-2851	37.2-	41.2	19.5-	36.2	34.6	36.7	38.4-	47.6
D82-3018	38.1	40.4	24.5-	30.7	42.9	43.5	35.3-	35.2
D82-3978	43.9	43.9	24.5-	47.5+	48.9	36.7	37.2-	43.6
D83-515	40.2	38.2	29.1	39.7	39.0	38.7	31.4-	28.2
D83-561	31.7-	40.0	28.4	43.0	42.9	32.2-	35.8-	6.8-
D84-3901	37.2-	37.4	29.0	31.1	42.3	36.4	35.3-	30.1
D84-3916	44.7	43.9	24.6-	47.5+	39.0	36.7	42.6	48.5
D84-7141	40.2	38.3	30.2	38.8	44.0	47.4	41.8	45.9
D84-7279	44.3	43.4	25.8-	32.7	41.2	47.7	45.2	41.3
D84-8328	39.9	43.5	22.9-	34.6	38.5	40.0	27.8-	44.8
G82-292	40.2	43.2	26.4-	31.4	37.9	43.5	32.4-	47.9
G82-321	52.7	47.1	29.5	37.3	44.0	47.9	46.3	44.7
G82-481	51.1	42.2	35.2	42.7	54.4+	45.0	38.2-	46.6
G82-518	48.6	40.0	27.4	41.0	44.5	45.0	35.8-	38.9
G82-2640	48.4	49.6	37.1	36.9	40.7	46.4	33.1-	37.7
G82-2853	44.4	44.1	27.3	36.6	40.7	53.9	39.1-	40.1
N83-640	50.3	52.7	23.1-	47.2+	39.0	38.8	32.0-	37.2
N83-2893	44.4	41.9	28.8	39.1	42.9	38.8	17.8-	32.1
N84-360	50.5	50.0	25.5-	35.6	37.9	49.1	37.6-	44.2
N84-474	48.3	44.5	18.2-	20.0	42.9	47.5	37.8-	50.8
N84-525	48.9	50.4	33.6	32.1	45.1	44.4	42.5	44.1
N84-564	59.0+	51.1	21.5-	46.9+	47.3	50.6	40.4-	46.3
R83-980	50.0	40.5	35.7	41.3	42.9	48.2	44.6	50.6
R84-3046	52.9	38.4	24.8-	36.0	40.7	48.4	39.8-	46.9
R84-3104	44.3	38.3	24.5-	30.6	33.0	42.9	7.1-	19.2-
R84-3236	49.6	48.8	22.9-	34.5	39.6	40.7	33.7-	32.1
R84-3434	48.7	49.0	26.5-	39.0	52.2+	38.3	45.9	19.0-
S82-1538	43.7	53.8	24.4-	38.8	36.3	46.3	43.1	47.0
S83-1144	43.4	50.3	31.8	39.4	50.6	44.9	36.5-	53.1
S83-1161	47.3	46.7	28.8	45.3	45.6	46.5	40.3-	46.8
SC83-124	50.4	43.0	19.9-	38.4	47.3	45.8	32.2-	35.7
SC83-201	42.2	42.3	28.7	36.0	50.6	36.4	41.8	51.1
L.S.D.(.05)	8.5	10.1	5.9	13.6	9.1	11.4	8.6	18.6
C.V.	9%	11%	11%	17%	10%	13%	11%	23%

Table 39 - Oil percentages for the strains in Preliminary Group VI, 1986

Strain	Holland, VA	Plymouth, NC	Jay, FL	Keiser, AR	Stoneville, MS (B)
Leflore	18.9	18.6	19.8	18.9	20.7
Bedford	19.3	19.2	22.2	20.6	22.5
Au82-589	19.7	18.4	21.2	18.9	21.3
D82-2740	19.9	19.0	21.6	19.3	22.7
D82-2851	19.0	18.4	19.7	17.8	20.7
D82-3018	18.8	18.9	21.2	19.5	22.1
D82-3978	18.8	18.5	20.5	18.2	19.4
D83-515	21.1	20.5	23.1	18.9	23.3
D83-561	20.7	19.2	21.2	20.6	21.5
D84-3901	19.4	18.3	21.5	19.4	21.1
D84-3916	18.5	17.7	20.9	19.1	19.6
D84-7141	19.8	19.1	21.3	18.1	21.0
D84-7279	18.4	17.9	19.7	18.4	19.7
D84-8328	17.9	18.6	20.3	20.6	20.7
G82-292	20.8	20.5	21.9	20.9	21.6
G82-321	20.4	19.6	21.5	19.8	23.1
G82-481	20.6	18.9	21.6	19.5	21.8
G82-518	19.9	18.8	20.8	19.8	21.1
G82-2640	20.3	20.2	22.0	19.6	22.9
G82-2853	20.1	20.2	21.9	20.8	22.7
N83-640	20.4	20.1	22.3	20.3	22.3
N83-2893	19.9	18.6	20.8	19.7	22.2
N84-360	20.3	19.0	20.9	20.0	21.9
N84-474	19.6	18.7	20.5	19.6	20.7
N84-525	20.7	20.0	22.8	20.6	23.3
N84-564	21.0	20.3	22.4	20.9	23.4
R83-980	20.4	19.7	22.0	20.6	22.2
R84-3046	19.8	19.6	23.0	19.9	22.5
R84-3104	19.7	19.5	22.7	19.8	21.1
R84-3236	20.4	19.8	21.9	20.4	22.5
R84-3434	19.7	18.9	21.4	19.6	21.6
S82-1538	21.0	20.5	22.8	20.8	23.6
S83-1144	20.4	19.9	22.8	18.3	22.7
S83-1161	20.8	20.6	22.2	21.0	23.7
SC83-124	20.2	18.6	20.0	18.7	21.0
SC83-201	19.5	18.5	21.6	18.4	20.9

Table 40 - Protein percentages for the strains in Preliminary Group VI, 1986

Strain	Holland, VA	Plymouth, NC	Jay, FL	Keiser, AR	Stoneville, MS (B)
Leflore	42.7	42.6	43.2	41.3	40.6
Bedford	42.7	40.6	41.2	39.3	38.3
Au82-589	42.6	42.4	42.0	42.0	40.3
D82-2740	39.7	40.1	41.9	41.6	36.6
D82-2851	42.9	41.5	42.2	42.0	40.4
D82-3018	43.4	42.2	41.0	39.8	38.8
D82-3978	45.3	44.1	44.2	44.0	44.2
D83-515	39.1	39.6	39.1	42.7	36.4
D83-561	41.6	42.3	41.6	40.0	40.6
D84-3901	42.1	42.6	41.6	41.1	41.3
D84-3916	44.2	43.1	42.5	41.9	42.8
D84-7141	43.0	42.2	42.4	44.6	40.3
D84-7279	45.4	44.6	43.6	44.5	43.2
D84-8328	44.8	43.3	43.0	41.7	42.8
G82-292	43.0	42.4	41.9	41.3	41.6
G82-321	41.3	41.9	41.8	41.4	39.4
G82-481	41.2	41.8	41.6	41.5	39.6
G82-518	41.5	41.9	41.3	40.6	39.5
G82-2640	43.3	42.1	42.6	42.4	39.6
G82-2853	41.5	41.3	41.2	40.2	39.5
N83-640	42.2	41.5	41.4	41.1	39.3
N83-2893	42.0	43.1	41.6	41.0	40.3
N84-360	42.5	42.5	42.3	41.5	38.6
N84-474	43.0	41.9	42.3	41.0	40.1
N84-525	41.6	41.6	41.5	40.3	38.4
N84-564	42.1	42.1	41.8	40.6	38.7
R83-980	42.4	42.3	42.7	41.3	39.2
R84-3046	41.6	41.0	42.2	40.6	39.0
R84-3104	42.7	41.4	41.8	41.6	41.9
R84-3236	43.2	42.1	42.2	40.6	41.8
R84-3434	41.6	42.0	41.9	41.4	39.9
S82-1538	42.6	41.9	42.8	41.1	39.8
S83-1144	40.9	40.7	39.6	42.3	36.8
S83-1161	40.8	40.7	40.7	40.6	38.4
SC83-124	43.5	43.5	44.1	42.8	41.5
SC83-201	43.7	43.2	43.4	43.5	41.1

Table 41 - Plant height for the strains in Preliminary Group VI, 1986

Strain	Holland, VA	Plymouth, NC	Athens, GA	Tallassee, AL	Jay, FL	Keiser, AR	Stoneville, MS (A)	Stoneville, MS (B)
Leflore	43	40	22	26	37	37	42	28
Bedford	41	41	23	28	31	31	40	26
Au82-589	39	43	18	27	31	32	42	22
D82-2740	42	43	19	32	45	33	44	25
D82-2851	35	42	24	31	28	30	42	26
D82-3018	41	34	23	27	33	35	41	28
D82-3978	43	43	22	27	32	34	43	32
D83-515	46	46	25	29	35	35	44	28
D83-561	47	41	26	29	36	33	42	22
D84-3901	41	34	24	26	29	33	41	24
D84-3916	40	33	22	27	29	32	41	28
D84-7141	38	32	24	26	32	31	42	25
D84-7279	38	35	18	25	28	32	38	25
D84-8328	24	25	19	21	23	28	23	20
G82-292	36	35	18	21	28	32	35	25
G82-321	37	34	20	21	29	28	39	18
G82-481	39	40	22	25	37	34	42	31
G82-518	40	39	18	25	33	33	38	25
G82-2640	37	36	21	22	29	32	35	21
G82-2853	37	35	20	23	29	34	37	21
N83-640	39	38	21	24	30	31	34	26
N83-2893	39	35	20	23	23	32	29	21
N84-360	30	35	22	25	34	34	41	23
N84-474	34	31	17	19	27	24	33	22
N84-525	36	35	13	18	27	24	34	20
N84-564	37	37	16	24	28	31	35	23
R83-980	41	35	26	24	27	33	41	26
R84-3046	39	37	18	21	25	31	37	20
R84-3104	42	38	19	22	24	30	27	19
R84-3236	40	43	23	28	33	36	37	27
R84-3434	41	41	24	26	27	34	46	24
S82-1538	35	32	20	20	26	28	34	21
S83-1144	36	37	18	21	23	27	38	24
S83-1161	34	35	20	21	26	29	33	18
SC83-124	41	44	20	28	32	32	44	27
SC83-201	40	40	19	24	30	35	44	26

Table 42 - Seed quality scores for the strains in Preliminary Group VI, 1986

Strain	Holland, VA	Ply-mouth, NC	Athens, GA	Jay, FL	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)
Leflore	2.0	1.5	2.8	1.0	2.5	3.0	2.0
Bedford	2.0	1.5	4.8	5.0	2.0	3.5	2.0
Au82-589	1.5	1.0	3.5	3.0	2.5	3.0	2.0
D82-2740	1.5	1.0	3.0	3.0	4.0	2.0	2.0
D82-2851	1.5	1.5	3.8	4.0	3.0	3.0	2.0
D82-3018	1.0	1.0	4.0	2.0	2.0	3.5	2.0
D82-3978	1.0	1.0	2.5	2.0	2.5	2.5	2.0
D83-515	1.5	1.5	2.5	2.0	3.5	3.0	2.0
D83-561	1.0	1.0	2.5	2.0	3.0	3.0	2.5
D84-3901	2.0	1.5	3.0	3.0	2.5	3.0	2.0
D84-3916	1.0	1.0	3.0	3.0	2.5	3.0	2.0
D84-7141	1.5	1.0	2.5	2.0	2.0	3.0	2.0
D84-7279	1.0	1.0	2.5	2.0	2.0	3.0	2.0
D84-8328	2.0	1.0	3.0	2.0	3.0	3.0	2.0
G82-292	2.0	1.0	3.8	3.0	3.0	2.5	2.0
G82-321	1.0	1.0	3.8	3.0	2.5	3.0	2.0
G82-481	2.0	1.0	3.5	2.0	3.5	3.0	2.0
G82-518	1.0	1.0	3.8	3.0	2.5	3.0	2.0
G82-2640	1.0	1.0	4.0	4.0	4.0	3.0	2.0
G82-2853	2.0	1.5	3.8	3.0	2.5	3.0	2.0
N83-640	1.5	1.0	4.5	5.0	4.0	3.0	2.0
N83-2893	2.0	1.0	3.0	2.0	3.0	3.5	2.0
N84-360	1.0	1.0	4.2	2.0	2.5	3.0	2.0
N84-474	1.5	1.5	5.0	5.0	3.0	3.0	2.0
N84-525	3.0	1.0	4.5	1.0	2.5	3.0	2.0
N84-564	2.0	1.0	3.5	3.0	3.0	3.0	2.0
R83-980	1.5	1.0	2.0	2.0	2.5	3.0	2.0
R84-3046	2.0	1.0	4.5	5.0	2.5	4.5	2.0
R84-3104	2.0	1.5	4.5	2.0	3.0	4.5	3.0
R84-3236	2.0	1.0	5.0	4.0	3.5	4.0	2.5
R84-3434	1.5	1.0	3.0	3.0	3.0	3.0	2.0
S82-1538	1.5	1.0	4.5	3.0	2.5	3.0	2.0
S83-1144	1.0	1.0	3.2	1.0	3.0	3.0	2.0
S83-1161	1.5	1.0	4.5	2.0	2.5	3.5	2.0
SC83-124	1.5	1.0	2.5	2.0	3.0	3.0	2.0
SC83-201	2.0	1.0	2.5	2.0	3.0	3.0	2.0

UNIFORM GROUP VII

1986

	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.	F81-2815	Centennial X (Cobb X Hood)	F_7
4.	G80-1413	Centennial X F71-1138	F_6
5.	G80-1011	Wright X Braxton	F_6
6.	G80-1515	Pickett 71 X Bedford	F_6
7.	N82-1933	Wright X N72-3148	F_7
8.	R82-368	Centennial X Ransom	F_5
9.	Au82-204	N73-693 X F76-8757	F_6
10.	F83-1918	Bedford X Kirby	F_6
11.	G81-1949	D74-7741 X Braxton	F_6
12.	R83-11S	Jeff X Braxton	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.

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

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

N73-693 is a selection from D68-216 X Ransom which was grown in Uniform Group VI in 1977. D68-216 is a SCN race 3 resistant selection of same parentage as Forrest.

F76-8757 is a SCN race 3 resistant line from Centennial X [Forrest X (Cobb X D68-216)].

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

Uniform Group VII nurseries were planted at 26 locations. Results from 22 locations are summarized in Tables 43-49. Table 43 gives a general summary of performance along with two- and three-year seed yield means by region and two- and three-year oil and protein percentages. Reaction to root-knot nematodes, soybean cyst nematode, stem canker, and feeding by soybean looper are also reported. Tables 44-49 report results from individual locations.

M. incognita ratings were made in the greenhouse at the University of Georgia at Athens. All strains within the group would be considered resistant. M. arenaria ratings are results from the 1985 ratings near Blackville, South Carolina. Six of the strains had ratings low enough that they should not suffer any economic injury. Ratings for reaction to cyst nematode were made in the greenhouse at Jackson, Tennessee. Eight strains were considered resistant to race 3 and two of these were also resistant to race 4. None of the strains was considered resistant to feeding by soybean looper. Gordon and R83-11S would be considered moderately susceptible to stem canker.

Two strains, F81-2815 and G80-1413, have been evaluated three years. G80-1413 appears superior to Gordon in all aspects except that it is more susceptible to M. arenaria. Four strains, G80-1011, G80-1515, N82-1933, and R82-368 have been evaluated two years. It would appear that G80-1515 could be dropped. Four strains, Au82-284, F83-1918, G81-1949, and R83-11S have been evaluated one year. Of these, it would appear that R83-11S could be dropped.

Table 43 - General summary of performance for the strains in Uniform Group VII, 1986

	No. of locations	Braxton	Gordon	F81-2815	G80-1413	G80-1011
Seed Yield - 1986						
East Coast	3	35.3	38.6	35.9	41.8	39.7
Southeast	7	35.4	37.9	39.9	38.3	37.5
Upper & Central South	3	41.3	38.2	36.9	39.4	44.6
Delta & West	6	37.5	35.2	35.1	39.4	42.9
1985-86						
East Coast		34.0	33.3	33.6	36.6	34.9
Southeast		36.9	38.3	40.5	39.1	39.2
Upper & Central South		43.2	40.6	40.7	40.9	45.3
Delta & West		35.9	33.4	34.1	36.7	39.5
1984-86						
East Coast		35.8	35.8	36.3	39.1	
Southeast		36.8	38.1	40.1	39.0	
Upper & Central South		42.1	40.2	40.3	40.1	
Delta & West		37.1	34.6	35.0	37.8	
Oil Content - 1986		20.5	21.5	19.7	19.8	21.1
1985-86		20.5	21.3	20.1	19.8	21.0
1984-86		20.4	21.1	19.9	19.7	
Protein Content - 1986		41.4	39.8	42.2	41.9	40.7
1985-86		41.9	40.5	42.5	42.3	41.1
1984-86		41.7	40.3	42.2	41.9	
Seed size		15.0	11.8	13.0	14.8	14.0
Maturity index		10-27	-8	+3	-3	-3
Height		34	33	34	31	33
Seed quality		2.5	2.5	2.3	2.5	2.2
M. incognita		1.0	1.0	1.7	2.0	1.3
M. arenaria		3.0	2.5	4.0	4.3	2.5
SCN race 3		S	R	R	R	S
SCN race 4		S	S	S	S	S
Soybean looper		4.0	5.0	5.0	5.0	5.0
Flower color		P	W	W	P	P
Pubescence color		T	G	T	T	T
Pod wall color		T	T	T	T	T
Stem canker - Verona		1.0	3.0	2.0	1.0	1.0
Beaumont		1.0	5.8	3.5	0.0	0.8

Table 43 - (continued)

	G80-1515	N82-1933	R82-368	Au82-204	F83-1918	G81-1949	R83-11S
Seed Yield - 1986							
East Coast	40.9	35.1	40.4	41.9	42.7	39.9	40.4
Southeast	37.6	39.5	39.4	39.0	41.2	39.7	36.4
Upper & Central South	37.7	39.9	40.0	41.5	41.0	40.8	39.9
Delta & West	36.2	42.5	41.8	41.2	40.1	38.7	36.5
1985-86							
East Coast	33.7	34.4	35.5				
Southeast	38.3	40.4	41.6				
Upper & Central South	40.4	41.2	43.4				
Delta & West	35.5	38.7	39.6				
1984-86							
East Coast							
Southeast							
Upper & Central South							
Delta & West							
Oil Content - 1986	20.8	21.6	22.0	21.8	20.7	20.8	20.9
1985-86	20.7	21.7	21.8				
1984-86							
Protein Content - 1986	40.2	40.7	41.3	41.6	41.1	40.7	40.6
1985-86	40.7	41.1	41.5				
1984-86							
Seed size	11.3	13.9	15.3	15.2	12.1	11.8	13.8
Maturity index	-5	-2	0	-6	-3	-1	-4
Height	32	34	34	29	32	33	32
Seed quality	2.6	2.5	2.5	2.2	2.3	1.9	2.5
M. incognita	1.3	1.7	2.0	2.0	1.0	1.0	1.0
M. arenaria	2.3	5.0	4.8	4.0	2.2	2.5	2.3
SCN race 3	R	S	S	R	R	R	R
SCN race 4	R	S	S	S	R	S	S
Soybean looper	5.0	4.0	4.5	4.5	4.5	4.5	4.5
Flower color	W	P	P	W	P	W	P
Pubescence color	G	T	T	T	T	T	T
Pod wall color	T	T	T	T	T	T	T
Stem Canker - Verona	2.0	3.0	2.0	1.0	2.0	2.0	3.0
Beaumont	4.0	3.3	4.0	1.3	4.3	3.2	7.2

Table 44 - Seed yield, in bushels per acre, for the strains in Uniform Group VII, 1986

Location	Braxton	Gordon	F81-2815	G80-1413	G80-1011	G80-1515	N82-1933
			EAST COAST				
Kinston, NC	26.4	39.8+	28.4	34.5+	35.6+	30.8	29.9
Clinton, NC	42.8	35.0	39.8	44.7	37.9	42.5	37.1
Hartsville, SC (A)	36.6	41.1	39.6	46.3+	45.5+	49.1+	38.2
Mean	35.3	38.6	35.9	41.8	39.7	40.9	35.1
			SOUTHEAST				
Blackville, SC	19.7	18.7	17.5	19.9	20.2	20.2	19.0
Tallassee, AL	33.1	34.7	38.1	36.3	37.7	37.7	39.7
*Gainesville, FL	19.8	20.5	26.5	21.3	21.4	17.3	24.2
Marianna, FL	56.8	41.1-	44.0-	44.8-	46.9-	42.9-	54.0
Quincy, FL	37.7	46.4+	55.4+	43.4	44.3	44.1	46.9+
Jay, FL	42.5	42.9	44.0	41.4	44.7	38.1	48.0
Fairhope, AL	34.8	45.7+	43.3+	51.1+	39.3	48.1+	42.7+
*Poplarville, MS	16.5	15.6	16.1	14.8	22.1	18.2	17.4
Baton Rouge, LA	23.0	35.5+	36.7+	31.1+	29.3+	32.3+	26.2
Mean	35.4	37.9	39.9	38.3	37.5	37.6	39.5
			UPPER AND CENTRAL SOUTH				
Athens, GA	30.1	29.7	29.4	33.8	33.0	30.3	29.3
Calhoun, GA	51.6	48.7	44.6	49.8	58.0	49.4	48.5
Clemson, SC	42.1	36.1	36.6	34.5-	42.9	33.4-	41.9
Mean	41.3	38.2	36.9	39.4	44.6	37.7	39.9
			DELTA AND WEST				
Stoneville, MS (A)	35.4	32.8	35.1	32.9	36.6	37.3	40.8+
Stoneville, MS (B)	41.9	33.2	35.6	42.4	46.1	24.3-	44.2
Stuttgart, AR	42.4	41.6	38.4	43.3	49.6+	44.5	43.2
Rohwer, AR	34.6	39.1	28.8-	38.4	41.9+	36.9	43.3+
St. Joseph, LA	29.0	32.7	31.6	33.8	35.1	31.2	38.9+
Bossier City, LA	41.6	31.8	40.9	45.8	48.1	42.9	44.7
*Beaumont, TX	9.2	0.5-	10.1	18.0+	17.6+	3.4	4.2
Mean	37.5	35.2	35.1	39.4	42.9	36.2	42.5

* 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	R82-368	Au82-204	F83-1918	G81-1949	R83-11S	L.S.D. (.05)	C.V. (%)
			EAST COAST				
Kinston, NC	34.4+	38.9+	37.3+	32.2	36.4+	6.7	12
Clinton, NC	44.5	43.5	43.9	41.6	40.2	9.4	14
Hartsville, SC (A)	42.3	43.2+	46.9+	45.9+	44.5+	6.3	9
Mean	40.4	41.9	42.7	39.9	40.4		
			SOUTHEAST				
Blackville, SC	15.5	21.0	19.8	19.6	21.0	N.S.	16
Tallassee, AL	38.3	38.5	36.0	36.1	31.4	N.S.	10
Gainesville, FL	20.9	21.7	24.0	23.2	15.7	10.5	29
Marianna, FL	50.5-	46.3-	40.1-	46.7-	45.6-	4.0	6
Quincy, FL	48.1+	37.5	50.0+	49.6+	45.0+	6.9	9
Jay, FL	46.6	49.1+	43.3	40.0	40.3	6.3	9
Fairhope, AL	41.1+	44.8+	49.6+	51.1+	47.5+	5.3	7
Poplarville, MS	22.1	11.3	22.5	16.9	13.9	10.3	35
Baton Rouge, LA	35.9+	35.5+	30.0+	35.0+	24.0	4.6	9
Mean	39.4	39.0	41.2	39.7	36.4		
			UPPER AND CENTRAL SOUTH				
Athens, GA	30.9	33.7	32.0	33.8	31.9	6.3	12
Calhoun, GA	54.1	51.1	54.5	46.9	50.3	8.6	10
Clemson, SC	35.1-	39.6	36.4	41.8	37.4	6.0	9
Mean	40.0	41.5	41.0	40.8	39.9		
			DELTA AND WEST				
Stoneville, MS (A)	39.9+	42.1+	37.9	35.0	36.6	4.4	7
Stoneville, MS (B)	43.7	49.6	41.6	40.3	32.7	9.9	15
Stuttgart, AR	43.3	45.3	45.9	44.0	43.2	5.6	8
Rohwer, AR	41.0+	39.2	35.3	45.2+	41.6+	5.3	8
St. Joseph, LA	45.5+	35.9	35.3	35.0	28.2	9.1	16
Bossier City, LA	37.1	35.2	44.5	32.9	36.7	20.4	30
Beaumont, TX	3.0	14.8	2.0	10.3	0.6-	8.3	63
Mean	41.8	41.2	40.1	38.7	36.5		

Table 45 - Chemical composition and seed size for the strains in Uniform Group VII, 1986

Location	Braxton	Gordon	F81-2815	G80-1413	G80-1011	G80-1515
			OIL PERCENTAGE			
Clinton, NC	18.9	20.0	18.1	18.0	19.7	18.8
Athens, GA	20.4	21.8	19.2	20.2	21.9	21.1
Jay, FL	21.1	21.9	20.2	20.0	21.1	20.2
Stoneville, MS (B)	20.6	22.6	19.9	19.9	21.9	22.5
Stuttgart, AR	21.0	21.0	20.8	20.0	20.9	20.5
Rohwer, AR	21.0	21.8	20.0	20.5	21.1	21.5
Mean	20.5	21.5	19.7	19.8	21.1	20.8
			PROTEIN PERCENTAGE			
Clinton, NC	43.0	42.2	43.4	43.5	42.2	42.5
Athens, GA	41.4	40.0	42.4	41.8	39.8	40.0
Jay, FL	42.5	40.3	42.8	42.6	41.7	42.4
Stoneville, MS (B)	40.5	38.3	42.0	41.5	39.8	38.4
Stuttgart, AR	41.4	40.3	41.5	41.5	41.2	40.7
Rohwer, AR	39.8	37.9	41.1	40.4	39.5	37.3
Mean	41.4	39.8	42.2	41.9	40.7	40.2
			GRAMS PER 100 SEEDS			
Clinton, NC	18.6	12.9	14.0	17.5	16.5	13.3
Blackville, SC	15.0	10.0	13.0	13.5	12.0	11.0
Athens, GA	15.8	12.4	13.0	14.6	14.7	12.8
Jay, FL	15.0	12.0	12.0	16.0	14.0	11.0
Stoneville, MS (B)	15.5	12.5	14.6	16.3	14.5	12.5
Stuttgart, AR	15.8	12.1	13.4	16.4	15.0	11.8
Rohwer, AR	14.7	10.8	13.5	13.8	12.8	10.2
Mean	15.8	11.8	13.4	15.4	14.2	11.8

Table 45 - (continued)

Location	N82-1933	R82-368	Au82-204	F83-1918	G81-1949	R83-11S
			OIL PERCENTAGE			
Clinton, NC	20.0	20.9	20.0	19.2	19.1	18.7
Athens, GA	21.5	22.1	21.6	21.0	20.9	21.0
Jay, FL	22.1	22.6	22.6	20.5	21.6	21.3
Stoneville, MS (B)	23.0	21.9	22.6	21.6	21.3	21.8
Stuttgart, AR	20.9	22.0	21.2	20.4	21.0	21.0
Rohwer, AR	22.2	22.7	22.2	21.4	20.6	21.3
Mean	21.6	22.0	21.8	20.7	20.8	20.9
			PROTEIN PERCENTAGE			
Clinton, NC	42.6	42.8	43.4	43.0	42.5	42.4
Athens, GA	40.5	41.0	41.9	40.7	41.0	41.1
Jay, FL	41.4	41.2	42.1	42.7	40.8	41.4
Stoneville, MS (B)	38.6	41.5	41.3	39.7	40.2	40.0
Stuttgart, AR	42.1	41.9	42.0	41.4	40.6	39.5
Rohwer, AR	38.8	39.2	38.9	38.8	39.1	39.2
Mean	40.7	41.3	41.6	41.1	40.7	40.6
			GRAMS PER 100 SEEDS			
Clinton, NC	16.1	18.0	18.3	14.3	14.1	15.7
Blackville, SC	13.0	13.0	12.5	12.0	11.0	14.0
Athens, GA	14.3	15.4	15.8	11.9	12.5	15.0
Jay, FL	14.0	16.0	15.0	12.0	12.0	13.0
Stoneville, MS (B)	14.7	16.9	16.7	12.2	12.6	14.7
Stuttgart, AR	14.6	17.4	16.5	13.0	12.7	16.2
Rohwer, AR	15.0	17.4	14.3	10.7	10.8	13.0
Mean	14.5	16.3	15.6	12.3	12.2	14.5

Table 46 - Relative maturity data, days earlier (-) or later (+) than Braxton, for the strains in Uniform Group VII, 1986

Location	Date planted	Braxton matured	Gordon	F81-2815	G80-1413	G80-1011	G80-1515
			EAST COAST				
Kinston, NC	5-27	10-29	-12	0	0	0	0
Clinton, NC	6-5	11-01	-8	+3	-4	-4	-8
Hartsville, SC (A)	5-21	10-29	-10	0	-2	-5	-6
Mean	5-28	10-30	-10	+1	-2	-3	-5
			SOUTHEAST				
Blackville, SC	5-15	10-23	-9	+1	0	-3	-7
Tallassee, AL	5-23	10-17	+1	+3	+1	0	0
Gainesville, FL	6-11	10-17	-10	-1	-5	-5	-6
Marianna, FL	6-13	10-29	-17	-2	-12	-9	-13
Quincy, FL	-	10-22	-5	+3	-1	-2	-4
Jay, FL	5-23	10-22	-9	-1	-7	-3	-6
Fairhope, AL	6-6	10-20	-12	0	-6	0	-11
Baton Rouge, LA	6-4	11-3	+2	+7	+7	+7	+6
Mean	5-28	10-23	-8	+1	-3	-2	-5
			UPPER AND CENTRAL SOUTH				
Athens, GA	5-12	10-24	-5	+2	-1	-3	-4
Calhoun, GA	5-22	10-27	-5	0	-3	-5	-3
Clemson, SC	5-22	10-29	-7	+4	-2	-5	-6
Mean	5-19	10-27	-6	+2	-2	-4	-4
			DELTA AND WEST				
Stoneville, MS (A)	6-4	11-5	-8	+1	0	-2	-6
Stoneville, MS (B)	5-23	11-2	-4	+4	-3	-6	-4
Stuttgart, AR	5-23	10-25	-5	+5	-4	0	0
Rohwer, AR	6-19	10-23	-3	+5	0	-3	-3
St. Joseph, LA	5-12	10-30	-14	+1	-10	-6	-10
Mean	5-26	10-29	-7	+3	-3	-3	-5

Table 46 - (continued)

Location	N82-1933	R82-368	Au82-204	F83-1918	G81-1949	R83-11S
			EAST COAST			
Kinston, NC	-12	0	0	-14	0	0
Clinton, NC	-4	-4	-8	-4	-4	-4
Hartsville, SC (A)	-2	0	-8	-6	-2	-4
Mean	-6	-1	-6	-8	-2	-3
			SOUTHEAST			
Blackville, SC	0	0	-9	0	0	-2
Tallassee, AL	+1	+3	-1	0	+2	+1
Gainesville, FL	-3	+5	-7	-1	0	-6
Marianna, FL	-2	-9	-13	-11	-7	-8
Quincy, FL	+3	+1	-3	-2	-1	-4
Jay, FL	0	-3	-7	-7	-7	-6
Fairhope, AL	+1	0	-12	-3	-2	-9
Baton Rouge, LA	+6	+5	+5	+7	+6	+2
Mean	+1	0	-6	-2	-1	-4
			UPPER AND CENTRAL SOUTH			
Athens, GA	-1	0	-3	-1	0	-3
Calhoun, GA	-2	0	-6	-1	-1	-5
Clemson, SC	0	0	-3	-2	-1	-6
Mean	-1	0	-4	-1	-1	-5
			DELTA AND WEST			
Stoneville, MS (A)	-1	+1	-5	-2	+1	-7
Stoneville, MS (B)	-2	0	-6	-4	0	-5
Stuttgart, AR	+3	+3	-7	+2	+3	+2
Rohwer, AR	+4	+5	-1	+4	0	-3
St. Joseph, LA	-5	-2	-10	-8	-2	-8
Mean	0	+1	-6	-2	0	-4

Table 47 - Plant height for the strains in Uniform Group VII, 1986

Location	Braxton	Gordon	F81-2815	G80-1413	G80-1011	G80-1515
			EAST COAST			
Kinston, NC	35	42	40	39	40	34
Clinton, NC	46	40	44	46	43	42
Hartsville, SC (A)	34	37	35	30	35	34
Mean	38	40	40	38	39	37
			SOUTHEAST			
Blackville, SC	29	30	32	30	31	33
Tallassee, AL	25	24	27	23	24	25
Gainesville, FL	21	20	26	19	19	22
Marianna, FL	26	33	32	30	33	28
Quincy, FL	17	23	26	21	21	23
Jay, FL	35	33	35	34	33	33
Fairhope, AL	34	43	39	33	36	37
Poplarville, MS	19	19	19	18	20	20
Baton Rouge, LA	41	38	44	38	36	39
Mean	27	29	31	27	28	29
			UPPER AND CENTRAL SOUTH			
Athens, GA	32	31	31	27	28	28
Calhoun, GA	40	40	42	34	36	38
Clemson, SC	34	29	30	28	30	28
Mean	35	33	34	30	31	31
			DELTA AND WEST			
Stoneville, MS (A)	47	47	48	45	48	47
Stoneville, MS (B)	35	30	32	31	35	30
Stuttgart, AR	44	35	43	33	34	40
Rohwer, AR	30	29	30	27	26	28
St. Joseph, LA	26	23	30	23	24	22
Bossier City, LA	32	23	30	25	24	27
Beaumont, TX	33	32	32	29	30	27
Mean	35	31	31	30	32	32

Table 47 - (continued)

Location	N82-1933	R82-368	Au82-204	F83-1918	G81-1949	R83-11S
			EAST COAST			
Kinston, NC	36	42	39	40	40	44
Clinton, NC	40	44	38	44	44	46
Hartsville, SC (A)	32	36	28	35	35	35
Mean	36	41	35	40	40	42
			SOUTHEAST			
Blackville, SC	27	32	28	34	31	33
Tallassee, AL	24	26	22	27	24	23
Gainesville, FL	21	25	17	21	21	19
Marianna, FL	28	30	27	29	32	31
Quincy, FL	20	20	15	23	24	19
Jay, FL	34	37	30	35	36	33
Fairhope, AL	35	36	30	36	36	38
Poplarville, MS	19	21	16	21	21	20
Baton Rouge, LA	38	38	36	37	42	38
Mean	27	29	25	29	30	28
			UPPER AND CENTRAL SOUTH			
Athens, GA	28	29	24	31	30	30
Calhoun, GA	34	41	34	38	39	36
Clemson, SC	26	29	28	31	32	32
Mean	29	33	29	33	34	33
			DELTA AND WEST			
Stoneville, MS (A)	44	48	42	45	47	49
Stoneville, MS (B)	35	37	27	30	41	29
Stuttgart, AR	33	38	30	35	38	43
Rohwer, AR	30	32	24	33	28	30
St. Joseph, LA	23	27	19	24	26	23
Bossier City, LA	23	27	22	25	32	27
Beaumont, TX	29	31	26	28	32	31
Mean	31	34	27	31	31	33

Table 48 - Lodging scores for the strains in Uniform Group VII, 1986

Location	Braxton	Gordon	F81-2815	G80-1413	G80-1011	G80-1515
			EAST COAST			
Kinston, NC	2.0	3.0	3.0	2.0	2.0	3.0
Clinton, NC	3.0	3.0	3.0	3.0	3.0	3.0
			SOUTHEAST			
Blackville, SC	1.0	1.0	1.0	1.0	1.0	1.0
Tallassee, AL	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, FL	1.0	1.0	1.3	1.0	1.0	1.0
Marianna, FL	1.7	1.7	1.3	1.0	1.3	1.0
Jay, FL	2.0	2.0	3.0	2.0	2.0	2.0
Fairhope, AL	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, LA	1.8	1.8	2.0	1.5	1.3	1.5
			UPPER AND CENTRAL SOUTH			
Athens, GA	1.7	1.5	1.8	1.5	1.5	1.5
Calhoun, GA	1.2	1.7	2.5	1.2	1.3	1.3
			DELTA AND WEST			
Stoneville, MS (A)	2.3	2.0	3.0	2.3	2.0	2.0
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
Stuttgart, AR	1.9	2.4	2.3	1.7	1.2	1.9
Rohwer, AR	1.0	1.0	1.3	1.0	1.0	1.0
St. Joseph, LA	1.0	1.0	1.0	1.0	1.0	1.0
Bossier City, LA	1.0	1.0	1.3	1.0	1.0	1.0
Beaumont, TX	1.0	1.0	1.5	1.0	1.2	1.0

Table 48 - (continued)

Location	N82-1933	R82-368	Au82-204	F83-1918	G81-1949	R83-11S
			EAST COAST			
Kinston, NC	2.0	2.0	2.0	2.0	4.0	3.0
Clinton, NC	3.0	3.0	3.0	4.0	3.0	4.0
			SOUTHEAST			
Blackville, SC	1.0	1.0	1.0	1.0	1.0	1.0
Tallassee, AL	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, FL	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, FL	2.0	1.3	1.0	1.2	1.5	1.5
Jay, FL	2.0	2.0	1.0	2.0	1.0	2.0
Fairhope, AL	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, LA	2.0	1.8	1.3	1.3	2.0	1.5
			UPPER AND CENTRAL SOUTH			
Athens, GA	1.5	1.5	1.5	1.5	1.7	1.7
Calhoun, GA	1.7	1.5	1.0	1.5	2.2	1.7
			DELTA AND WEST			
Stoneville, MS (A)	2.3	3.0	2.0	2.0	3.0	2.7
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
Stuttgart, AR	1.5	1.5	1.5	1.5	2.9	1.5
Rohwer, AR	1.3	1.0	1.0	1.0	1.0	1.0
St. Joseph, LA	1.0	1.0	1.0	1.0	1.0	1.0
Bossier City, LA	1.0	1.0	1.0	1.0	2.3	1.0
Beaumont, TX	1.3	1.2	1.0	1.0	1.3	1.0

Table 49 - Seed quality scores for the strains in Uniform Group VII, 1986

Location	Braxton	Gordon	F81-2815	G80-1413	G80-1011	G80-1515
			EAST COAST			
Kinston, NC	1.5	1.5	1.5	1.5	1.5	1.5
Clinton, NC	2.0	2.0	2.0	2.0	2.0	2.0
			SOUTHEAST			
Blackville, SC	3.0	2.0	3.0	4.0	2.0	2.0
Jay, FL	3.0	3.0	3.0	3.0	3.0	4.0
Baton Rouge, LA	1.6	2.1	1.2	1.3	1.5	1.7
			UPPER AND CENTRAL SOUTH			
Athens, GA	2.3	3.0	2.3	2.5	2.5	2.8
Calhoun, GA	1.9	1.9	1.8	1.9	1.6	2.0
			DELTA AND WEST			
Stoneville, MS (A)	3.0	3.0	3.0	3.0	3.3	3.0
Stoneville, MS (B)	3.0	3.0	3.0	3.3	3.0	3.0
Stuttgart, AR	2.7	2.0	1.3	2.2	1.5	2.7
Rohwer, AR	2.0	2.2	2.8	2.8	2.0	2.5
Beaumont, TX	3.7	3.8	3.2	3.0	2.8	3.8

Table 49 - (continued)

Location	N82-1933	R82-368	Au82-204	F83-1918	G81-1949	R83-11S
			EAST COAST			
Kinston, NC	1.5	1.5	1.5	1.5	1.5	1.5
Clinton, NC	2.0	2.0	2.0	2.0	2.0	2.5
			SOUTHEAST			
Blackville, SC	4.0	4.0	1.0	3.0	1.0	2.0
Jay, FL	3.0	3.0	2.0	3.0	2.0	3.0
Baton Rouge, LA	1.7	1.3	1.3	1.0	1.1	2.0
			UPPER AND CENTRAL SOUTH			
Athens, GA	2.3	2.0	2.5	2.3	2.0	3.0
Calhoun, GA	1.7	1.5	1.8	2.0	1.7	1.8
			DELTA AND WEST			
Stoneville, MS (A)	2.7	3.0	3.0	3.0	3.0	3.3
Stoneville, MS (B)	2.7	2.3	3.0	2.3	2.7	3.3
Stuttgart, AR	2.0	2.3	2.5	1.5	1.3	1.8
Rohwer, AR	2.3	2.7	2.5	2.7	1.5	2.0
Beaumont, TX	3.7	4.0	2.8	3.2	3.5	4.0

PRELIMINARY GROUP VII

1986

Preliminary Group VII nurseries which included Braxton and Centennial along with 34 experimental strains were grown at nine locations. Parentage of the strains within this group is reported in Table 50. A general summary of performance is reported in Table 51 which also includes reaction to M. incognita, soybean cyst nematode, stem canker, and feeding by soybean looper. Data covering performance at the individual locations are reported in Tables 52-56.

Braxton had a mean seed yield of 36.4 bushels per acre. Five strains had mean seed yields slightly above that for Braxton. Eight strains had mean seed yields significantly lower than that for Braxton. One strain averaged earlier in maturity than Centennial. Twenty-six of the strains had low ratings for M. incognita. Thirteen strains were rated resistant to SCN race 3 and five of these were also rated resistant to SCN race 4. One strain received a low rating for feeding by soybean looper. Nine strains received moderately high ratings for development of stem canker.

Strains which appear to merit advance to Uniform Group VII for further evaluation are Au82-211, F83-1960, and G82-2793.

Table 50 - Parentage of strains grown in Preliminary Group VII, 1986

	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.	Au82-211	N73-693 X F76-8757	F_6
4.	Au82-2369	Braxton X N74-1572	F_6
5.	Au83-27	N76-1415 X F76-8757	F_6
6.	Au83-116	N76-1415 X F76-8757	F_6
7.	Au83-901	Braxton X Dowling	F_6
8.	D82-4515	Tracy-M X sel (D71-9241 X D75-10169)	F_5
9.	D84-6773	D79-9736 X sel (D65-8232 X D77-12480)	F_5
10.	D84-7403	D77-6103 X D77-7969	F_5
11.	D84-7458	D77-6103 X D77-7969	F_5
12.	D84-7466	D76-9665 X D77-6103	F_5
13.	D84-7513	D76-9665 X D77-6103	F_5
14.	F82-1926	Bedford X Kirby	F_6
15.	F83-1415	Forrest(3) X D77-12480	F_5
16.	F83-1960	Bedford X Kirby	F_6
17.	G81-2022	Centennial X Bedford	F_6
18.	G82-446	D74-7741 X F76-8846	F_6
19.	G82-876	Bedford X F76-8846	F_6
20.	G82-2714	D74-7741 X F76-8757	F_6
21.	G82-2793	D74-7741 X F76-8757	F_6
22.	G82-2912	D74-7741 X F76-8757	F_6
23.	G82-3916	N74-1572 X F76-8846	F_6
24.	N84-767	N77-506 X Gasoy 17	F_6
25.	N84-878	Young X Gasoy 17	F_6
26.	N84-903	Young X Gasoy 17	F_6
27.	N84-1256	RS4-Cycle 1	F_5
28.	N84-1277	RS4-Cycle 1	F_5
29.	N84-1299	RS4-Cycle 1	F_5
30.	R84-9S	(R78-100-8 X F71-1180) X (Bedford X R77-133)	F_5
31.	R84-124S	(Bedford X R77-133) X (Sohoma X DPL 345)	F_5
32.	R84-195S	(Sohoma X DPL 345) X (Jeff X Braxton)	F_5
33.	R84-230S	(Sohoma X DPL 345) X (Jeff X Braxton)	F_5
34.	SC83-328	Braxton X D75-7527	F_5
35.	SC83-413	Braxton X Centennial	F_5
36.	SC83-509	Braxton X Centennial	F_5

Table 51 - General summary of performance for the strains in Preliminary Group VII, 1986

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	M. incognita	SCN race 3	SCN race 4	Soybean looper	Stem canker A	Stem canker B
Braxton	36.4	10-25	32	20.1	42.0	1.0	S	S	4.0	1.0	0.5
Centennial	35.5	-7	30	20.2	43.1	1.7	R	S	5.0	2.0	4.5
Au82-211	38.3	-6	29	21.4+	42.4	3.7	R	S	5.0	1.0	0.5
Au82-2369	35.6	-3	29	19.9	41.5	1.3	S	S	5.0	1.0	1.0
Au83-27	32.3	-4	26	20.4	42.4	1.0	S	S	5.0	2.0	5.0
Au83-116	31.8-	-3	25	20.5	42.3	1.0	S	S	5.0	2.0	7.0
Au83-901	29.7-	-4	28	20.7	42.3	1.3	S	S	5.0	2.0	0.5
D82-4515	29.4-	-5	35	18.3-	44.7+	3.3	S	S	2.0	1.0	0.0
D84-6773	28.0-	-3	25	19.9	42.4	3.3	S	S	4.5	1.0	0.0
D84-7403	31.6-	-1	37	19.4	43.1	1.0	R	R	4.5	1.0	0.0
D84-7458	31.9-	-5	32	20.6	43.0	1.7	R	R	5.0	1.0	1.0
D84-7466	33.8	-9	31	20.6	41.8	1.0	R	h	5.0	2.0	4.0
D84-7513	36.6	-6	34	20.3	41.4	1.0	R	R	5.0	3.0	6.5
F82-1926	34.2	-3	30	20.3	41.2	1.0	R	R	5.0	2.0	5.8
F83-1415	30.3-	-1	41	20.9	40.6-	1.3	R	S	5.0	2.0	6.8
F83-1960	36.3	-4	30	21.3+	40.9	1.0	R	R	4.5	2.0	5.3
G81-2022	33.4	-6	32	20.9	42.9	1.7	R	S	4.5	2.0	4.5
G82-446	35.7	-4	30	20.2	41.7	1.0	R	S	4.5	1.0	3.0
G82-876	34.4	-1	32	19.2	42.6	1.7	R	S	4.5	2.0	5.3
G82-2714	35.6	-3	31	21.7+	41.5	1.0	R	S	4.5	2.0	4.3
G82-2793	35.8	-5	28	20.9	42.0	1.0	R	S	4.5	2.0	3.3
G82-2912	35.7	-4	33	20.5	41.2	1.0	R	S	4.5	2.0	3.0
G82-3916	35.9	-5	27	20.3	42.7	1.3	S	S	4.5	2.0	3.0
N84-767	37.9	-1	29	19.9	42.4	3.3	S	S	4.5	4.0	8.0
N84-878	37.4	-3	33	20.8	41.3	3.0	S	S	4.5	2.0	6.5
N84-903	35.3	-2	34	21.1+	41.7	1.7	S	S	4.5	3.0	3.0
N84-1256	30.0-	-6	32	20.1	43.5+	3.3	S	S	4.5	1.0	2.8
N84-1277	30.4-	-2	35	19.1-	44.7+	2.7	S	S	4.5	2.0	4.0
N84-1299	32.6	-3	36	20.5	43.5+	3.0	S	S	4.5	2.0	4.0
R84-9S	35.6	-2	30	22.2+	41.5	1.0	S	S	4.5	4.0	9.0
R84-124S	35.4	-4	30	21.5+	42.1	4.3	S	S	4.5	2.0	6.0
R84-195S	39.9	0	30	21.3+	42.5	2.0	S	S	4.5	3.0	9.0
R84-230S	35.0	-2	30	20.2	43.4+	2.7	S	S	4.5	3.0	9.0
SC83-328	33.4	-1	28	20.8	42.3	1.3	S	S	4.5	1.0	0.5
SC83-413	34.2	-4	33	21.4+	41.3	1.3	S	S	4.5	2.0	6.5
SC83-509	34.7	0	31	20.1	42.3	1.0	S	S	4.5	2.0	0.0
L.S.D.(.05)	4.4			0.9	1.2						
C.V.	12%			3%	2%						

Stem canker A - Verona, MS; B - Beaumont, TX.
+ or - designations refer to differences from Braxton.

Table 52 - Seed yield, in bushels per acre, for the strains in Preliminary Group VII, 1986

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	39.6	23.5	37.8	46.4	43.4	43.7	36.0	24.1	17.2
Centennial	36.0	19.8	30.9-	51.6	41.8	34.8	34.7	34.7+	5.7-
Au82-211	45.2	18.4	34.6	39.0	44.0	46.1	42.6	43.4+	23.4+
Au82-2369	44.8	25.2	33.0	49.6	49.5	26.9-	38.4	26.5	22.3
Au83-27	39.5	15.0	29.9-	39.5	45.6	39.5	28.1	28.4	3.9-
Au83-116	44.2	18.6	30.5-	45.2	42.3	26.2-	30.3	29.7	1.6-
Au83-901	39.3	16.6	30.2-	39.2	45.1	-	25.0-	21.8	14.2
D82-4515	33.7	15.8	23.6-	31.5	42.3	34.0	31.5	26.9	13.6
D84-6773	29.5	16.5	17.4-	37.3	34.1	32.7	33.6	24.1	22.4
D84-7403	25.2	19.0	25.8-	39.8	36.8	34.3	36.1	29.1	22.3
D84-7458	34.7	17.7	28.7-	40.2	35.7	31.7	39.5	29.5	18.2
D84-7466	31.4	21.0	26.5-	42.9	40.1	39.9	30.8	35.4+	5.5-
D84-7513	40.0	21.3	35.2	47.7	41.2	39.5	37.0	34.3+	1.8-
F82-1926	-	21.2	25.6-	41.9	42.9	38.3	36.9	32.4	2.6-
F83-1415	28.2	21.4	26.4-	46.8	40.7	25.9-	31.0	20.0	1.7-
F83-1960	38.1	23.1	31.8	47.4	42.9	38.7	35.7	34.3+	2.4-
G81-2022	35.9	21.0	29.5-	37.2	39.6	37.6	36.3	32.9	2.4-
G82-446	-	21.9	34.6	37.8	45.1	36.2	37.3	37.2+	9.0-
G82-876	-	21.0	32.1	47.7	37.9	33.8	31.9	36.7+	4.5-
G82-2714	-	16.9	27.3-	40.8	51.7	39.5	30.4	42.3+	4.1-
G82-2793	41.5	19.4	33.6	43.1	44.0	38.8	39.9	32.0	6.5-
G82-2912	39.8	21.6	28.5-	49.6	40.7	37.1	35.1	37.0+	13.0
G82-3916	30.4	22.3	32.9	46.3	41.2	38.5	35.9	34.5+	10.0-
N84-767	33.6	24.3	30.3-	50.6	52.8	42.2	35.7	29.7	.4-
N84-878	35.3	21.1	29.7-	51.0	47.3	36.1	37.2	39.1+	2.3-
N84-903	26.9	22.3	30.3-	49.2	47.3	31.0	35.9	30.8	11.6
N84-1256	36.6	20.3	27.6-	40.6	45.1	33.9	28.2	14.6-	10.5-
N84-1277	-	21.5	24.0-	40.7	39.0	33.2	24.5-	30.0	6.2-
N84-1299	33.0	19.0	29.7-	39.2	42.3	42.5	30.2	25.3	6.2-
R84-9S	40.3	17.9	30.9-	45.0	35.2	43.4	40.1	36.5+	0.3-
R84-124S	-	20.3	30.2-	42.9	43.4	36.6	45.2+	28.9	2.3-
R84-195S	36.9	21.8	30.0-	50.0	52.2	44.2	43.7	37.1+	0.5-
R84-230S	38.2	21.9	24.4-	37.5	53.3	39.0	33.8	35.3+	0.1-
SC83-328	40.4	23.3	33.3	44.0	35.7	36.6	37.2	24.0	24.6+
SC83-413	34.9	19.3	32.4	44.7	37.9	40.7	34.8	29.9	1.0-
SC83-509	44.6	25.8	26.6-	48.2	43.4	34.6	32.8	31.4	14.0
L.S.D.(.05)	15.3	N.S.	6.2	N.S.	13.2	13.0	8.6	8.8	5.7
C.V.	21%	16%	10%	16%	15%	17%	12%	14%	33%

* Not included in mean

Table 53 - Oil percentages for the strains in Preliminary Group VII, 1986

Strain	Clinton, NC	Jay, FL	Stoneville, MS (B)
Braxton	18.9	21.1	20.2
Centennial	19.3	21.0	20.3
Au82-211	19.8	22.8	21.7
Au82-2369	18.4	20.7	20.7
Au83-27	19.5	21.4	20.3
Au83-116	19.3	21.8	20.5
Au83-901	19.7	21.0	21.5
D82-4515	17.7	18.6	18.7
D84-6773	18.3	21.2	20.2
D84-7403	18.6	20.1	19.6
D84-7458	19.8	20.8	21.1
D84-7466	19.1	21.5	21.1
D84-7513	19.1	20.8	20.9
F82-1926	18.8	21.1	21.1
F83-1415	19.5	20.8	22.5
F83-1960	20.4	20.8	22.6
G81-2022	19.3	21.9	21.4
G82-446	18.8	21.2	20.5
G82-876	17.9	19.6	20.2
G82-2714	20.5	22.3	22.4
G82-2793	20.0	21.5	21.1
G82-2912	19.1	21.6	20.7
G82-3916	19.1	20.6	21.1
N84-767	18.6	20.5	20.7
N84-878	19.8	22.1	20.6
N84-903	19.0	22.7	21.5
N84-1256	18.2	20.3	21.7
N84-1277	18.0	20.2	19.1
N84-1299	19.2	21.3	21.1
R84-9S	20.2	23.3	23.2
R84-124S	20.4	22.4	21.8
R84-195S	19.6	22.2	22.2
R84-230S	18.9	20.8	21.0
SC83-328	19.0	21.4	22.1
SC83-413	20.5	22.7	21.1
SC83-509	18.6	20.6	21.1

Table 54 - Protein percentages for the strains in Preliminary Group VII, 1986

Strain	Clinton, NC	Jay, FL	Stoneville, MS (B)
Braxton	42.8	41.6	41.7
Centennial	43.2	43.4	42.8
Au82-211	43.5	41.5	42.1
Au82-2369	42.5	41.4	40.7
Au83-27	42.9	42.0	42.2
Au83-116	43.0	41.5	42.5
Au83-901	42.4	42.3	42.3
D82-4515	45.1	44.7	44.3
D84-6773	43.8	41.6	41.9
D84-7403	44.3	42.9	42.1
D84-7458	42.9	44.0	42.0
D84-7466	42.9	41.6	41.0
D84-7513	42.1	42.0	40.2
F82-1926	43.2	41.1	39.3
F83-1415	41.4	41.5	39.0
F83-1960	41.6	42.1	38.9
G81-2022	43.7	42.7	42.2
G82-446	42.7	41.5	41.0
G82-876	43.8	43.1	41.0
G82-2714	42.9	40.9	40.7
G82-2793	43.1	41.4	41.5
G82-2912	42.1	40.6	40.8
G82-3916	43.7	42.5	41.8
N84-767	43.4	42.8	41.0
N84-878	42.0	40.7	41.2
N84-903	43.1	40.9	41.0
N84-1256	45.1	43.9	41.4
N84-1277	45.9	44.0	44.2
N84-1299	44.5	43.8	42.3
R84-9S	44.2	40.7	39.6
R84-124S	42.9	41.4	41.9
R84-195S	44.3	41.8	41.5
R84-230S	44.9	43.0	42.4
SC83-328	42.8	43.7	40.3
SC83-413	41.9	40.5	41.5
SC83-509	42.9	42.2	41.7

Table 55 - Plant height for the strains in Preliminary Group VII, 1986

Strain	Black-ville, SC	Athens, GA	Tallas-see, AL	Jay, FL	Rohwer, AR	Stone-ville, MS (A)	Stone-ville, MS (B)	Beau-mont, TX
Braxton	27	31	29	34	25	43	31	33
Centennial	21	24	28	36	28	47	31	26
Au82-211	23	25	24	29	34	41	30	27
Au82-2369	27	26	27	35	23	33	26	32
Au83-27	21	22	23	30	25	33	26	24
Au83-116	21	21	24	27	22	30	23	28
Au83-901	24	24	27	33	26	33	27	28
D82-4515	30	23	26	35	31	41	34	28
D84-6773	18	22	25	30	25	33	21	25
D84-7403	31	32	33	42	35	48	42	36
D84-7458	25	24	30	36	28	48	33	33
D84-7466	27	24	29	35	25	47	33	29
D84-7513	27	29	31	36	31	52	36	32
F82-1926	30	22	29	36	28	38	29	31
F83-1415	37	32	40	51	37	51	38	43
F83-1960	29	25	28	35	23	42	29	26
G81-2022	28	28	29	36	29	44	31	31
G82-446	23	25	26	34	25	44	35	30
G82-876	28	23	26	35	27	48	34	31
G82-2714	26	24	30	35	27	41	34	29
G82-2793	21	22	24	34	28	38	28	30
G82-2912	27	27	31	32	30	47	35	34
G82-3916	24	22	26	29	21	40	29	27
N84-767	26	24	27	32	27	41	28	28
N84-878	29	26	31	35	30	41	35	33
N84-903	33	27	30	38	31	45	38	32
N84-1256	30	31	32	32	28	48	25	31
N84-1277	30	30	31	38	30	47	37	37
N84-1299	34	32	33	41	31	46	36	37
R84-9S	21	25	26	36	28	41	30	29
R84-124S	27	22	27	36	27	43	28	30
R84-195S	23	25	27	34	29	43	28	29
R84-230S	23	22	28	35	24	44	34	27
SC83-328	25	24	25	29	21	42	29	28
SC83-413	30	28	31	36	28	48	32	30
SC83-509	27	24	30	34	30	42	30	31

Table 56 - Seed quality scores for the strains in Preliminary Group VII, 1986

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	2.5	4.0	3.0	3.0	3.0	2.8
Centennial	2.0	2.0	2.2	3.0	2.8	3.0	3.0	3.3
Au82-211	2.0	1.0	2.5	3.0	2.5	3.0	3.0	2.8
Au82-2369	2.0	2.0	2.5	2.0	2.8	3.0	3.0	2.8
Au83-27	2.0	1.0	2.2	4.0	2.3	3.0	3.0	3.0
Au83-116	2.0	1.0	2.0	3.0	2.5	3.0	3.0	3.5
Au83-901	3.0	2.0	4.0	3.0	-	3.5	3.5	3.3
D82-4515	2.5	4.0	2.5	4.0	3.0	3.0	2.5	2.8
D84-6773	2.0	2.0	2.5	3.0	3.0	3.0	3.0	2.0
D84-7403	2.0	3.0	2.0	3.0	2.8	3.0	3.0	2.3
D84-7458	2.5	3.0	2.8	3.0	2.5	3.0	3.0	3.5
D84-7466	2.0	2.0	3.5	4.0	2.5	3.0	3.0	3.3
D84-7513	2.0	2.0	2.5	4.0	3.0	3.0	2.5	3.5
F82-1926	1.5	2.0	1.5	2.0	2.5	2.5	2.5	3.0
F83-1415	2.0	2.0	3.5	3.0	5.0	3.0	3.5	3.5
F83-1960	2.0	2.0	2.2	3.0	2.3	3.0	3.0	2.8
G81-2022	2.0	2.0	2.8	4.0	2.5	3.0	3.0	3.8
G82-446	1.5	1.0	2.0	2.0	2.5	3.0	3.0	2.8
G82-876	2.5	2.0	2.8	4.0	2.5	3.0	3.0	3.0
G82-2714	2.0	1.0	2.2	3.0	1.8	3.0	3.0	3.5
G82-2793	2.0	2.0	2.0	3.0	2.5	2.5	3.0	2.8
G82-2912	2.0	1.0	2.2	3.0	2.5	3.0	3.0	3.0
G82-3916	2.0	1.0	2.5	3.0	2.3	3.0	3.0	2.3
N84-767	2.0	2.0	2.0	2.0	2.3	3.0	3.0	3.8
N84-878	2.5	2.0	2.2	3.0	2.3	3.0	2.5	3.5
N84-903	2.5	2.0	2.5	3.0	2.5	3.0	3.0	3.5
N84-1256	2.0	1.0	3.0	2.0	2.3	3.0	3.0	2.0
N84-1277	2.0	2.0	2.0	4.0	2.8	3.0	3.0	2.5
N84-1299	2.0	3.0	2.5	4.0	3.0	3.0	2.5	2.3
R84-9S	2.0	2.0	3.0	3.0	2.0	3.0	3.0	3.0
R84-124S	1.5	1.0	3.0	4.0	2.5	3.0	3.0	3.3
R84-195S	2.0	1.0	2.2	4.0	2.8	3.0	2.5	3.3
R84-230S	2.0	1.0	2.2	3.0	2.3	3.0	3.0	3.3
SC83-328	2.0	1.0	2.0	3.0	2.8	3.0	2.5	2.0
SC83-413	2.0	3.0	2.2	3.0	2.5	3.0	3.0	3.3
SC83-509	2.0	4.0	2.2	3.0	3.0	3.0	3.0	3.8

UNIFORM GROUP VIII

1986

	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.	F82-1851	Bedford X Kirby	F_5
8.	SC82-1672	Coker 488 X Braxton	F_5
9.	Co82-622	Braxton X Co368	F_5
10.	F83-2048	Bedford X Kirby	F_6
11.	F83-2184	Bedford X Kirby	F_6
12.	F83-7848	F73-3376 X [Late Giant(2) X (Jupiter X F66-1534)]	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.

Coker 488 is a selection from Hampton 266 X Bragg.

D74-7741 is a selection from Forrest X D70-3001. D70-3001 is of same parentage as Centennial.

Co368 is a selection from Co71-211 X Centennial evaluated in Uniform Group VIII in 1982.

Uniform Group VIII nurseries were planted at 19 locations. Because of adverse weather conditions, results of only 12 nurseries are summarized. A general summary of performance is reported in Table 57. Also included are two- and three-year mean seed yield data and two- and three-year oil and protein percentages. Data are also presented on reaction to the root-knot nematode M. incognita, soybean soybean cyst nematode races 3 and 4, stem canker, and feeding by soybean looper. Data from individual locations are reported in Tables 58-63.

Ratings for the root-knot nematode M. incognita were obtained in the greenhouse at the University of Georgia, Athens. All strains are considered to be resistant to this nematode. Ratings for M. arenaria are based upon 1985 ratings made in the field near Blackville. Six of the strains had relatively low ratings. Nine of the strains were rated resistant to SCN race 3 and three of these were also resistant to SCN race 4. All strains were considered to be susceptible to feeding by the soybean looper. Ratings for development of stem canker were made in the field at Beaumont. Hutton, F82-1851, and F83-2048 would be considered moderately susceptible.

Co79-760 has been retained as a somewhat higher yielding check than Kirby. Co82-645 has a slightly superior three-year record than Co79-760 and will be retained as an additional check. It would appear that Co79-760, F80-3602, and Co82-537 could be dropped. The two strains F82-1851 and SC82-1672 have been evaluated two years. Neither appears to merit further evaluation. The four strains Co82-622, F83-2048, F83-2184, and F83-7848 have been evaluated one year. Only Co82-622 appears to merit further evaluation.

Table 57 - General summary of performance for the strains in Uniform Group VIII, 1986

	No. of locations	Kirby	Hutton	Co79-760	F80-3602	Co82-537	Co82-645
Seed Yield - 1986	11	39.7	33.3	41.1	38.6	41.3	41.8
1985-86		38.6	32.3	39.5	38.7	39.5	40.9
1984-86		38.6	31.7	40.2	38.7	40.4	41.4
Oil Content - 1986		20.6	20.1	22.2	20.1	22.3	21.6
1985-86		20.9	20.4	22.1	20.7	22.4	21.7
1984-86		20.8	20.3	22.0	20.6	22.2	21.6
Protein Content - 1986		42.3	43.3	42.1	42.4	39.5	40.9
1985-86		42.4	43.6	42.2	41.9	39.4	40.9
1984-86		42.2	43.4	42.0	41.8	39.3	40.7
Seed size		12.6	14.2	15.4	11.9	13.0	14.0
Maturity index		10-27	-1	-3	-2	-1	-2
Height		32	31	31	33	33	30
Seed quality		2.2	2.7	2.3	2.3	2.5	2.0
M. incognita		1.0	1.0	2.0	1.3	1.7	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	4.5	5.0	4.0	4.5	4.0
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
Stem canker - Beaumont		4.5	7.2	2.0	4.8	2.7	0.7

Table 57 - (continued)

	F82-1851	SC82-1672	Co82-622	F83-2048	F83-2184	F83-7848
Seed Yield - 1986	37.1	37.9	43.2	39.0	37.7	35.7
1985-86	36.2	36.7				
1984-86						
Oil Content - 1986	20.3	21.0	20.9	20.0	21.2	20.2
1985-86	20.4	21.1				
1984-86						
Protein Content - 1986	42.6	41.8	41.0	43.0	41.5	42.3
1985-86	42.7	41.9				
1984-86						
Seed size	12.3	16.5	13.8	11.9	12.1	17.5
Maturity index	-1	+1	0	0	0	+4
Height	37	33	29	36	47	32
Seed quality	2.3	2.7	2.4	2.0	2.5	2.0
M. incognita	1.0	1.0	1.1	1.0	1.0	1.3
M. arenaria	4.0	2.0	3.5	2.5	3.5	5.0
SCN race 3	R	S	R	R	R	S
SCN race 4	R	S	S	R	R	S
Soybean looper	4.0	5.0	5.0	4.0	4.5	5.0
Flower color	P	P	W	P	W	W
Pubescence color	T	T	G	T	T	G
Pod wall color	Br	T	T	T	Br	T
Stem canker - Beaumont	6.2	0.3	0.3	6.2	3.8	0.3

Table 58 - Seed yield, in bushels per acre, for the strains in Uniform Group VIII, 1986

Location	Kirby	Hutton	Co79-760	F80-3602	Co82-537	Co82-645	F82-1851
Clinton, NC	41.5	33.5-	36.0	33.4-	38.6	39.9	37.0
Hartsville, SC	45.1	35.2-	48.5	47.3	49.3	47.3	45.2
Blackville, SC	26.4	23.7	30.1	26.7	26.1	29.3	25.7
Athens, GA	35.6	27.9-	33.6	31.4	34.9	35.1	33.3
Tallassee, AL	37.2	42.6	38.5	34.7	41.8	40.9	39.1
*Gainesville, FL	17.1	23.2	17.8	14.3	17.3	19.5	18.1
Marianna, FL	55.5	43.1-	53.1-	50.7-	47.0-	61.7+	39.9-
Quincy, FL	47.0	49.8	46.7	48.0	49.4	42.9	37.6
Jay, FL	37.8	41.0	41.8	45.5+	50.6+	40.3	40.0
Fairhope, AL	50.2	33.3-	49.9	45.4	52.9	52.9	47.2
*Poplarville, MS	18.2	21.3	19.5	23.4	15.6	19.1	18.2
Baton Rouge, LA	29.4	10.1-	35.3	27.2	31.9	36.3+	29.3
Stoneville, MS (B)	31.5	25.7-	39.0+	33.8	31.9	33.3	33.6
*Beaumont, TX	1.8	1.9	11.8+	4.2	5.7	16.8+	1.5
Mean	39.7	33.3	41.1	38.6	41.3	41.8	37.1

*Not included in mean

Table 58 - (continued)

Location	SC82-1672	Co82-622	F83-2048	F83-2184	F83-7848	L.S.D. (.05)	C.V. (%)
Clinton, NC	44.7	42.5	36.6	32.6-	30.9-	5.5	9
Hartsville, SC	41.1	49.5	43.8	40.0-	34.1-	4.6	6
Blackville, SC	27.0	30.4	29.5	24.5	30.1	N.S.	13
Athens, GA	30.3-	34.8	35.4	36.0	29.9-	4.4	8
Tallassee, AL	38.3	39.2	41.1	36.9	39.1	N.S.	14
Gainesville, FL	20.7	17.2	20.5	16.6	17.6	7.7	25
Marianna, FL	54.1	63.3+	39.9-	51.4-	53.8	2.0	3
Quincy, FL	39.8	45.1	39.7	40.7	47.5	9.9	13
Jay, FL	46.8+	46.2+	43.6	45.1	45.1	7.6	10
Fairhope, AL	32.7-	45.1	49.0	49.3	30.9-	5.3	7
Poplarville, MS	16.5	14.6	19.1	16.9	20.5	8.8	28
Baton Rouge, LA	33.6	37.7+	36.5+	29.3	21.6-	6.6	13
Stoneville, MS (B)	28.1	41.6+	33.6	29.1	30.0	4.2	8
Beaumont, TX	16.5+	19.8+	0.7	3.0	25.9+	4.4	28
Mean	37.9	43.2	39.0	37.7	35.7		

Table 59 - Chemical composition and seed size for the strains in Uniform Group VIII, 1986

Location	Kirby	Hutton	Co79-760	F80-3602	Co82-537	Co82-645
			OIL PERCENTAGE			
Hartsville, SC	21.4	20.7	21.8	21.3	22.4	21.8
Blackville, SC	21.1	20.7	23.0	20.2	21.9	22.3
Tallassee, AL	20.3	19.3	22.3	19.2	22.5	21.3
Jay, FL	20.2	20.8	22.4	20.0	23.9	22.1
Stoneville, MS (B)	19.8	19.1	21.3	19.7	21.0	20.7
Mean	20.6	20.1	22.2	20.1	22.3	21.6
			PROTEIN PERCENTAGE			
Hartsville, SC	41.0	41.5	41.4	40.5	38.5	39.1
Blackville, SC	41.6	42.9	41.1	42.7	39.6	40.6
Tallassee, AL	43.4	45.1	43.3	44.1	40.0	42.5
Jay, FL	43.0	43.2	42.0	42.8	39.0	41.0
Stoneville, MS (B)	42.5	44.0	42.7	42.0	40.3	41.4
Mean	42.3	43.3	42.1	42.4	39.5	40.9
			GRAMS PER 100 SEEDS			
Hartsville, SC	14.6	15.6	17.0	13.6	14.1	14.4
Blackville, SC	13.2	15.9	14.7	11.8	11.5	15.3
Tallassee, AL	12.6	15.7	15.7	12.5	13.7	13.8
Jay, FL	13.0	12.0	16.0	11.0	16.0	14.0
Beaumont, TX	8.8	11.2	12.4	10.2	8.9	12.8
Stoneville, MS (B)	13.4	14.9	16.3	12.2	14.0	13.9
Mean	12.6	14.2	15.4	11.9	13.0	14.0

Table 59 - (continued)

Location	F82-1851	SC82-1672	Co82-622	F83-2048	F83-2184	F83-7848
			OIL PERCENTAGE			
Hartsville, SC	20.8	21.3	20.9	20.0	21.8	20.8
Blackville, SC	20.4	21.4	21.2	20.7	21.9	20.7
Tallassee, AL	20.3	20.7	20.9	19.8	20.4	19.7
Jay, FL	20.2	21.6	21.1	20.4	21.2	20.0
Stoneville, MS (B)	20.0	19.8	20.6	19.2	20.8	20.0
Mean	20.3	21.0	20.9	20.0	21.2	20.2
			PROTEIN PERCENTAGE			
Hartsville, SC	41.8	40.1	40.1	43.0	40.1	40.9
Blackville, SC	42.8	41.0	40.8	42.3	41.5	41.8
Tallassee, AL	42.7	43.3	42.4	43.0	42.9	44.5
Jay, FL	42.6	41.7	40.9	43.0	41.6	42.8
Stoneville, MS (B)	43.0	43.1	41.0	43.6	41.5	41.7
Mean	42.6	41.8	41.0	43.0	41.5	42.3
			GRAMS PER 100 SEEDS			
Hartsville, SC	13.2	18.8	17.0	13.7	13.6	18.1
Blackville, SC	12.7	18.0	13.2	12.4	12.1	18.4
Tallassee, AL	12.1	16.5	13.8	12.1	13.1	18.8
Jay, FL	13.0	16.0	13.0	12.0	12.0	14.0
Beaumont, TX	10.4	12.5	11.4	9.4	8.4	16.2
Stoneville, MS (B)	12.5	17.3	14.5	11.6	13.6	19.5
Mean	12.3	16.5	13.8	11.9	12.1	17.5

Table 60 - Relative maturity, days earlier (-) or later (+) than Kirby, for the strains in Uniform Group VIII, 1986

Location	Date planted	Kirby matured	Hutton	Co79-760	F80-3602	Co82-537	Co82-645
Clinton, NC	6-5	11-5	-4	-4	-4	0	-4
Hartsville, SC	5-21	10-28	-1	-1	+1	+2	+2
Blackville, SC	5-16	10-27	-1	-5	+1	-8	-1
Athens, GA	5-12	10-30	-2	-2	-1	-4	-1
Tallassee, AL	5-23	10-22	-4	-2	-2	-4	-3
Gainesville, FL	6-12	10-23	-5	-6	-12	-11	-5
Marianna, FL	6-13	10-23	+1	-8	-5	+2	+2
Quincy, FL	-	10-24	+1	-4	-3	-1	-4
Jay, FL	5-23	10-17	+2	-1	+3	+6	-5
Fairhope, AL	6-6	10-20	+3	-2	-1	+2	+2
Baton Rouge, LA	6-4	11-12	0	+2	+1	+3	0
Stoneville, MS (B)	6-2	11-3	0	0	+4	+3	-1
Mean	5-29	10-27	-1	-3	-2	-1	-2

Table 60 - (continued)

Location	F82-1851	SC82-1672	Co82-622	F83-2048	F83-2184	F83-7848
Clinton, NC	-8	-4	-4	-4	0	0
Hartsville, SC	-1	+3	+2	+1	+5	+4
Blackville, SC	-1	+1	0	0	+2	+3
Athens, GA	-2	-1	-3	-1	+3	+1
Tallassee, AL	0	-2	-2	+1	+1	+1
Gainesville, FL	-5	-6	-6	-2	-1	+3
Marianna, FL	-4	+4	+5	-4	0	+3
Quincy, FL	+1	+2	+1	-1	+1	+7
Jay, FL	+5	+5	+3	+3	+3	+9
Fairhope, AL	+2	+9	+2	+2	+8	+8
Baton Rouge, LA	+5	+2	+2	0	0	+2
Stoneville, MS (B)	+1	+4	0	+2	+5	+3
Mean	-1	+1	0	0	0	+4

Table 61 - Plant height for the strains in Uniform Group VIII, 1986

Location	Kirby	Hutton	Co79-760	F80-3602	Co82-537	Co82-645
Clinton, NC	38	42	46	46	44	46
Hartsville, SC	37	42	38	43	42	35
Blackville, SC	30	27	28	29	28	26
Athens, GA	23	26	22	29	27	23
Tallassee, AL	28	26	21	26	28	25
Gainesville, FL	21	21	18	19	19	19
Marianna, FL	31	32	35	33	33	24
Quincy, FL	26	25	25	30	27	24
Jay, FL	35	35	36	36	39	36
Fairhope, AL	37	33	33	36	35	33
Poplarville, MS	21	18	17	20	19	19
Baton Rouge, LA	43	38	42	42	43	39
Stoneville, MS (B)	47	47	47	51	47	47
Beaumont, TX	27	28	26	27	31	30
Mean	32	31	31	33	33	30

Table 61 - (continued)

Location	F82-1851	SC82-1672	Co82-622	F83-2048	F83-2184	F83-7848
Clinton, NC	50	44	40	45	50	43
Hartsville, SC	45	43	33	48	48	43
Blackville, SC	35	29	26	31	36	29
Athens, GA	26	26	25	26	29	25
Tallassee, AL	33	26	23	35	41	27
Gainesville, FL	25	21	17	24	24	21
Marianna, FL	38	33	28	35	37	29
Quincy, FL	35	28	25	37	48	29
Jay, FL	38	38	36	38	47	37
Fairhope, AL	41	32	30	41	43	32
Poplarville, MS	21	20	16	20	27	17
Baton Rouge, LA	50	45	39	39	53	42
Stoneville, MS (B)	50	50	45	49	59	47
Beaumont, TX	29	33	27	29	33	30
Mean	37	33	29	36	41	32

Table 62 - Lodging scores for the strains in Uniform Group VIII, 1986

Location	Kirby	Hutton	Co79-760	F80-3602	Co82-537	Co82-645
Clinton, NC	3.0	4.0	3.0	3.0	4.0	3.0
Blackville, SC	1.0	1.0	1.0	1.0	1.0	1.0
Athens, GA	1.5	1.5	1.5	1.5	1.5	1.5
Tallassee, AL	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, FL	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, FL	2.0	1.5	1.2	1.7	1.5	1.5
Jay, FL	2.0	3.0	2.0	2.0	2.0	1.0
Fairhope, AL	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, LA	3.3	2.0	2.3	3.3	2.5	1.5
Stoneville, MS (B)	2.7	3.0	2.7	3.0	3.0	2.0
Beaumont, TX	1.3	1.0	1.2	1.3	1.2	1.2

Table 62 - (continued)

Location	F82-1851	SC82-1672	Co82-622	F83-2048	F83-2184	F83-7848
Clinton, NC	3.0	3.0	4.0	3.0	3.0	3.0
Blackville, SC	1.0	1.0	1.0	1.0	1.0	1.0
Athens, GA	1.5	1.5	1.5	1.7	1.5	1.5
Tallassee, AL	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, FL	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, FL	1.7	1.7	2.0	1.8	1.8	1.5
Jay, FL	2.0	2.0	2.0	2.0	2.0	1.0
Fairhope, AL	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, LA	3.0	2.0	1.5	1.5	1.5	2.5
Stoneville, MS (B)	3.0	2.7	2.0	3.0	3.0	3.0
Beaumont, TX	1.3	1.3	1.5	1.2	1.0	1.5

Table 63 - Seed quality scores for the strains in Uniform Group VIII, 1986

Location	Kirby	Hutton	Co79-760	F80-3602	Co82-537	Co82-645
Clinton, NC	1.5	2.5	2.0	1.5	2.0	1.5
Blackville, SC	2.0	3.0	2.0	2.0	2.0	1.0
Athens, GA	2.0	2.5	2.5	2.3	2.0	2.0
Tallassee, AL	1.5	1.5	1.5	1.5	2.0	1.5
Jay, FL	4.0	4.0	4.0	4.0	3.0	4.0
Baton Rouge, LA	1.0	2.5	1.3	1.0	1.8	1.1
Stoneville, MS (B)	3.0	3.0	2.3	2.7	3.0	2.7
Beaumont, TX	2.8	3.8	2.8	3.0	3.8	2.2

Table 63 - (continued)

Location	F82-1851	SC82-1672	Co82-622	F83-2048	F83-2184	F83-7848
Clinton, NC	2.0	2.5	2.5	1.5	1.5	2.0
Blackville, SC	1.0	3.0	2.0	1.0	2.0	1.0
Athens, GA	2.2	2.3	2.5	2.3	2.0	2.7
Tallassee, AL	1.5	2.0	1.5	1.5	2.0	1.0
Jay, FL	4.0	4.0	4.0	3.0	4.0	3.0
Baton Rouge, LA	1.6	1.8	1.6	1.1	3.0	1.8
Stoneville, MS (B)	3.0	3.0	2.7	2.7	2.7	3.0
Beaumont, TX	2.8	3.0	2.0	3.0	2.8	1.8

PRELIMINARY GROUP VIII

1986

Preliminary Group VIII nurseries which included Kirby and Braxton along with 28 experimental strains were grown at six locations. Parentage of the strains within this group is reported in Table 64. A general summary of performance is reported in Table 65. Also included is information on the reaction to the root-knot nematode M. incognita, soybean cyst nematode races 3 and 4, stem canker, and feeding by soybean looper. Performance data for the individual locations are reported in Tables 66-70.

Kirby had a mean seed yield of 34.1 bushels per acre. Eleven strains had seed yields ranking them slightly above Kirby. Twenty-six of the strains had ratings of 2 or less for M. incognita which would rate them at least moderately resistant. Fifteen strains were rated resistant to SCN race 3 and 5 of these also were resistant to SCN race 4. There were no strains rated resistant to feeding by soybean looper. Seven strains received stem canker ratings of 6 or higher at Beaumont and would be considered at least moderately susceptible .

Strains that would appear to merit advance to Uniform Group VIII for further evaluation are F83-1648, F83-5568, G82-2820, G82-3458, and SC83-1810.

Table 64 - Parentage of strains in Preliminary Group VIII, 1986

	Variety or strain	Parentage	Generation composited
1.	Kirby	Centennial X [Forrest X (Cobb X D68-216)]	F_6
2.	Braxton	F59-1505 X [Bragg(3) X D60-7965]	F_5
3.	Santa Rosa-R	D49-772 X Improved Pelican	F_{15+}
4.	Au83-902	Braxton X Dowling	F_6
5.	Au83-904	Braxton X Dowling	F_6
6.	D84-7706	D80-7529 X D73-9356	F_5
7.	F81-4831	Centennial(2) X Santa Maria	F_5
8.	F83-1648	Bedford X Kirby	F_5
9.	F83-1816	Bedford X Kirby	F_5
10.	F83-1969	Bedford X Kirby	F_6
11.	F83-2049	Bedford X Kirby	F_6
12.	F83-2143	Bedford X Kirby	F_6
13.	F83-3533	Braxton X (Hardee X PI 227687)	F_5
14.	F83-3719	Braxton X IAC74-2832	F_4
15.	F83-5016	Kirby X [Forrest(3) X D77-12480)	F_4
16.	F83-5568	F77-1790 X [Forrest(3) X D77-12480]	F_4
17.	F84-4901	F77-1790 X F80-4650	F_5
18.	F84-4909	F77-1790 X F80-4650	F_5
19.	F84-4985	F77-1790 X F80-4650	F_5
20.	F84-5332	Kirby X [Forrest(3) X D77-12480]	F_5
21.	G82-1710	Wright X F76-8846	F_6
22.	G82-2752	D74-7741 X F76-8757	F_6
23.	G82-2754	D74-7741 X F76-8757	F_6
24.	G82-2820	D74-7741 X F76-8757	F_6
25.	G82-2933	D74-7741 X F76-8757	F_6
26.	G82-3458	Braxton X Dowling	F_6
27.	SC83-1205	Govan X Foster	F_5
28.	SC83-1492	Govan X Co488	F_5
29.	SC83-1646	Co488 X Braxton	F_5
30.	SC83-1810	Foster X Ransom	F_5

Table 65 - General summary of performance for the strains in Preliminary Group VIII, 1986

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	M. incognita	SCN race 3	SCN race 4	Soybean looper	Stem canker[1]
Kirby	34.1	10-25	32	21.1	42.3	1.7	R	S	4.5	6.8
Braxton	30.5	-1	31	20.6	43.0	1.0	S	S	4.0	1.0
Santa Rosa-R	29.3	+11	42	20.5	42.2	3.7	S	S	4.5	1.0
Au83-902	33.9	-2	29	21.3	41.9	2.0	S	S	4.5	1.3
Au83-904	33.1	-3	30	21.9	41.1-	1.3	S	S	4.5	0.5
D84-7706	32.2	+1	38	19.6-	43.1	2.3	S	S	4.5	3.0
F81-4831	34.3	+7	38	21.3	39.9-	2.0	S	S	4.5	5.0
F83-1648	36.8	-4	33	21.2	42.6	1.3	R	R	4.5	5.3
F83-1816	35.1	-3	36	21.1	41.5	1.0	R	R	4.5	6.8
F83-1969	30.7	-1	38	20.0-	42.8	1.7	R	R	4.5	7.8
F83-2049	35.3	0	35	20.9	42.2	1.3	R	R	4.5	8.5
F83-2143	32.0	-2	30	21.2	42.0	2.0	R	R	4.5	6.8
F83-3533	30.8	+6	35	18.3-	44.4+	1.3	S	S	4.5	4.5
F83-3719	30.9	+8	37	19.7-	41.7	2.0	S	S	4.5	0.0
F83-5016	30.3	0	38	21.2	41.6	3.0	R	S	4.5	8.0
F83-5568	35.5	+3	36	21.0	42.2	1.5	R	S	4.5	5.8
F84-4901	32.7	+5	34	19.7-	42.0	1.0	R	S	4.5	5.3
F84-4909	34.1	+3	35	20.3	43.3	1.0	R	S	4.5	2.0
F84-4985	30.5	+3	34	20.3	42.3	1.3	R	S	4.5	5.5
F84-5332	33.3	-1	35	21.5	40.8-	1.7	R	S	4.5	6.8
G82-1710	32.8	-1	32	20.4	42.3	2.0	R	S	4.5	4.5
G82-2752	35.0	-7	31	21.3	42.4	1.0	R	S	4.5	3.8
G82-2754	34.2	-5	30	22.0	41.3	1.3	R	S	4.5	4.5
G82-2820	34.7	-6	31	21.0	42.7	1.3	R	S	4.5	2.5
G82-2933	36.1	-7	27	21.5	42.1	1.7	R	S	4.5	4.5
G82-3458	36.1	+2	33	21.0	41.4	1.3	S	S	4.5	0.5
SC83-1205	30.9	-7	32	20.0-	43.1	1.0	S	S	4.5	4.5
SC83-1492	31.4	+1	33	21.5	41.6	2.0	S	S	4.5	6.5
SC83-1646	31.6	+1	32	22.2+	40.8-	1.3	S	S	4.5	1.5
SC83-1810	36.2	+2	35	21.6	41.9	3.3	S	S	4.5	4.0
L.S.D.(.05)	7.0			0.9	1.0					
C.V.	17%			3%	2%					

[1]Stem canker ratings made at Beaumont, TX on a 0-9 basis.
+ or - designations refer to differences from Kirby.

Table 66 - Seed yield, in bushels per acre, for the strains in Preliminary Group VIII, 1986

Strain	Blackville, SC	Gainesville, FL	Quincy, FL	Jay, FL	*Beaumont, TX	Stoneville, MS (B)
Kirby	26.6	28.1	38.1	40.7	0.9	36.8
Braxton	17.0	24.5	31.6	47.3	16.8+	32.2
Santa Rosa-R	15.5	22.6	48.8+	40.1	22.5+	19.6-
Au83-902	35.4	24.7	34.1	40.1	21.2+	35.0
Au83-904	30.2	16.9-	35.5	41.2	22.9+	41.7
D84-7706	26.8	31.1	41.1	36.8	7.0+	25.3-
F81-4831	31.0	30.9	28.9	49.5	3.3	31.1-
F83-1648	32.4	24.3	37.9	51.1	2.9	38.2
F83-1816	22.7	23.7	38.8	54.4+	1.4	35.9
F83-1969	27.2	21.7	38.1	36.8	0.3	29.8-
F83-2049	25.2	23.2	43.7	51.1	0.3	33.5
F83-2143	31.4	19.4	23.4-	48.9	0.5	37.1
F83-3533	24.2	31.4	38.3	36.3	1.8	23.6-
F83-3719	25.9	27.7	34.6	42.9	20.3+	23.2-
F83-5016	24.9	20.1	34.0	37.4	0.1	35.0
F83-5568	33.7	18.7	40.1	44.5	1.2	40.5
F84-4901	27.0	24.9	42.5	32.4	1.6	36.6
F84-4909	30.6	19.1	36.2	46.7	12.3+	37.9
F84-4985	32.8	26.8	17.6-	39.0	2.5	36.1
F84-5332	29.3	28.3	38.1	34.6	1.3	36.0
G82-1710	26.5	25.3	36.3	39.6	4.9+	36.3
G82-2752	33.6	22.0	37.7	42.3	5.2+	39.3
G82-2754	22.9	22.3	45.5	43.4	5.1+	36.9
G82-2820	31.5	18.1	43.5	44.5	9.5+	35.9
G82-2933	28.1	23.7	44.1	43.4	5.7+	41.0
G82-3458	24.5	24.0	50.9+	42.9	21.8+	38.2
SC83-1205	21.4	20.6	39.7	36.8	4.1	36.0
SC83-1492	25.4	24.8	30.7	47.3	0.6	28.8-
SC83-1646	18.3	24.3	41.9	42.3	15.4+	31.2-
SC83-1810	29.7	24.9	48.0	43.4	5.1+	34.8
L.S.D.(.05)	N.S.	10.8	10.3	10.5	3.8	5.3
C.V.	21%	22%	13%	12%	26%	8%

*Not included in mean

Table 67 - Oil percentages for the strains in Preliminary Group VIII, 1986

Strain	Blackville, SC	Gainesville, FL	Jay, Fl	Stoneville, MS (B)
Kirby	21.5	21.6	20.9	20.4
Braxton	21.5	22.0	21.0	18.0
Santa Rosa-R	20.7	21.7	21.1	18.4
Au83-902	19.5	23.0	21.9	20.6
Au83-904	20.7	23.3	22.6	20.9
D84-7706	20.2	21.0	18.6	18.5
F81-4831	21.6	21.7	20.9	20.9
F83-1648	21.8	22.2	21.2	19.7
F83-1816	20.7	22.2	21.1	20.2
F83-1969	20.1	20.8	19.9	19.3
F83-2049	21.6	21.3	20.4	20.2
F83-2143	21.2	21.4	21.8	20.3
F83-3533	18.9	19.4	17.8	16.9
F83-3719	20.9	19.5	19.1	19.1
F83-5016	20.7	21.0	21.7	21.3
F83-5568	21.8	21.3	20.7	20.2
F84-4901	20.7	20.7	18.5	18.9
F84-4909	20.9	21.8	20.2	18.2
F84-4985	20.9	20.5	20.4	19.5
F84-5332	21.5	22.1	21.2	21.3
G82-1710	20.4	22.0	20.0	19.3
G82-2752	20.9	22.2	21.4	20.7
G82-2754	22.1	23.3	21.5	21.0
G82-2820	19.9	22.9	21.0	20.0
G82-2933	21.6	22.7	21.5	20.0
G82-3458	20.8	22.4	20.6	20.0
SC83-1205	20.3	20.9	18.9	19.7
SC83-1492	22.1	22.0	21.2	20.6
SC83-1646	22.4	23.5	22.2	20.8
SC83-1810	22.6	22.8	20.4	20.4

Table 68 - Protein percentages for the strains in Preliminary Group VIII, 1986

Strain	Blackville, SC	Gainesville, FL	Jay, FL	Stoneville, MS (B)
Kirby	41.4	41.9	42.8	43.0
Braxton	42.5	42.6	42.5	44.2
Santa Rosa-R	42.7	41.7	41.5	42.8
Au83-902	43.4	40.9	41.4	41.8
Au83-904	42.3	40.4	40.6	41.0
D84-7706	43.1	42.7	43.6	43.1
F81-4831	39.9	39.1	41.3	39.3
F83-1648	41.9	42.5	42.9	43.2
F83-1816	41.7	41.6	42.0	40.8
F83-1969	43.5	42.5	42.6	42.4
F83-2049	41.2	42.4	43.2	42.0
F83-2143	41.6	42.6	42.3	41.3
F83-3533	44.4	43.2	44.8	45.0
F83-3719	41.1	41.7	41.8	42.0
F83-5016	42.6	42.0	41.4	40.2
F83-5568	42.0	41.9	42.5	42.5
F84-4901	41.2	41.1	43.1	42.5
F84-4909	42.2	42.5	43.2	45.2
F84-4985	42.0	42.6	42.0	42.5
F84-5332	41.0	40.5	41.4	40.4
G82-1710	42.1	42.7	42.3	42.2
G82-2752	43.2	41.9	42.3	42.1
G82-2754	40.3	42.1	41.0	41.8
G82-2820	42.5	43.0	42.3	43.1
G82-2933	41.5	42.2	41.5	43.2
G82-3458	41.3	40.3	41.6	42.3
SC83-1205	43.0	43.2	43.1	42.9
SC83-1492	40.4	42.8	41.8	41.5
SC83-1646	39.6	41.3	41.2	41.0
SC83-1810	41.0	40.8	43.2	42.7

Table 69 - Plant height for the strains in Preliminary Group VIII, 1986

Strain	Blackville, SC	Gainesville, FL	Quincy, FL	Jay, FL	Beaumont, TX	Stoneville, MS (B)
Kirby	27	22	28	35	35	46
Braxton	28	19	25	34	33	48
Santa Rosa-R	43	33	43	32	44	54
Au83-902	27	18	19	33	34	45
Au83-904	27	18	20	34	35	47
D84-7706	34	31	36	36	40	50
F81-4831	31	30	39	36	42	51
F83-1648	31	23	28	37	31	50
F83-1816	28	24	36	38	36	51
F83-1969	36	28	40	35	36	50
F83-2049	32	24	38	37	31	49
F83-2143	32	18	20	33	31	46
F83-3533	34	29	30	34	36	46
F83-3719	33	29	36	34	41	49
F83-5016	33	30	35	42	39	47
F83-5568	32	29	38	39	34	46
F84-4901	28	24	33	37	34	46
F84-4909	33	23	29	38	39	47
F84-4985	30	30	29	36	30	47
F84-5332	26	28	36	36	36	46
G82-1710	28	22	26	35	36	47
G82-2752	27	22	25	31	36	46
G82-2754	26	20	22	31	34	46
G82-2820	29	18	24	33	35	44
G82-2933	21	20	20	28	31	44
G82-3458	30	22	30	31	37	47
SC83-1205	27	20	32	32	35	45
SC83-1492	31	22	26	37	34	46
SC83-1646	24	21	34	34	34	46
SC83-1810	30	22	38	39	34	48

Table 70 - Seed quality scores for the strains in Preliminary Group VIII, 1986

Strain	Blackville, SC	Gainesville, FL	Jay, FL	Beaumont, TX	Stoneville, MS (B)
Kirby	2.0	1.0	3.0	3.5	2.5
Braxton	3.0	2.5	5.0	3.5	3.0
Santa Rosa-R	2.0	1.0	4.0	2.3	2.5
Au83-902	2.0	2.0	4.0	2.5	3.0
Au83-904	3.0	2.5	4.0	2.5	2.5
D84-7706	2.0	1.5	4.0	3.0	3.0
F81-4831	2.0	1.5	2.0	2.5	3.0
F83-1648	2.0	2.0	4.0	3.3	3.0
F83-1816	2.0	1.5	4.0	2.8	3.0
F83-1969	2.0	1.5	3.0	3.3	3.0
F83-2049	1.0	1.5	4.0	4.0	3.0
F83-2143	1.0	1.5	3.0	3.5	2.5
F83-3533	2.0	1.0	3.0	2.5	3.0
F83-3719	2.0	1.0	4.0	2.0	2.5
F83-5016	2.0	2.0	4.0	3.8	3.0
F83-5568	1.0	1.5	3.0	3.5	3.0
F84-4901	3.0	1.0	4.0	3.3	2.5
F84-4909	1.0	3.0	3.0	2.5	3.0
F84-4985	2.0	2.0	4.0	3.8	2.0
F84-5332	2.0	1.0	3.0	3.8	3.0
G82-1710	1.0	2.0	4.0	3.8	2.5
G82-2752	2.0	2.0	4.0	4.0	3.0
G82-2754	2.0	2.0	4.0	3.3	3.0
G82-2820	2.0	2.0	4.0	3.5	3.0
G82-2933	2.0	2.0	4.0	3.8	3.0
G82-3458	3.0	2.5	4.0	2.8	3.0
SC83-1205	1.0	2.0	2.0	2.8	2.5
SC83-1492	3.0	1.5	4.0	3.5	3.0
SC83-1646	3.0	2.0	5.0	2.8	3.0
SC83-1810	2.0	2.0	3.0	3.3	2.5