THE UNIFORM SOYBEAN TESTS
SOUTHERN REGION
1984

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
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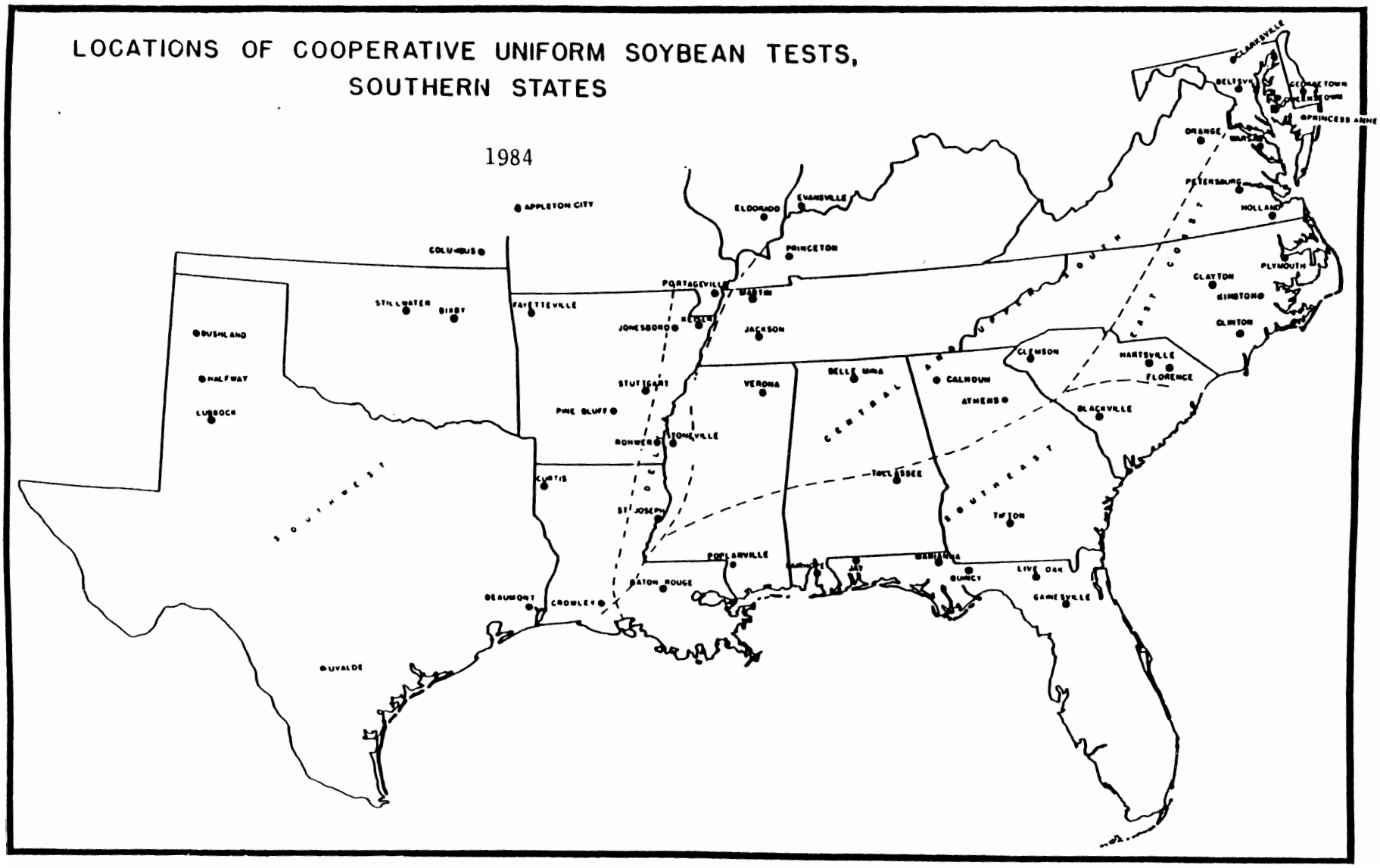
LOCATIONS OF COOPERATIVE UNIFORM SOYBEAN TESTS, SOUTHERN STATES

1984



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SOUTHERN STATES

1984

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INTRODUCTION

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

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

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

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

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

STRAIN IDENTIFICATION

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

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
Ga - 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
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 and USDA-ARS
Tn - Tennessee Agricultural Experiment Station
Ts - Texas Agricultural Experiment Station
UD - Delaware Agricultural Experiment Station
V - Virginia Agricultural Experiment Station

NOTE: A T in a Ga number indicates selection made at Tifton.

A second L in an L number indicates selection made in southern Illinois at Eldorado.

An S following L identifies lines selected at Southern Illinois University, Carbondale.

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	38.5 - Essex
Georgetown, DE		1				Lakeland loamy sand	H	M	6.2	0-60-0	18.4 - Forrest
Warsaw, VA	1*	1*	1			Kempsville loam	H	H	6.0	0-0-0	38.0 - Essex
Holland, VA		1	1*				-	-	-	0-0-0	55.0 - Leflore
Plymouth, NC		1*	1*	1		Bladen f. s. loam	-	-	-	0-40-80	42.0 - Centennial
Kinston, NC			1	1		Norfolk sandy loam	-	-	-	None	42.3 - Leflore
Clinton, NC			1	1*	1	Norfolk sandy loam	-	-	-	None	59.2 - Braxton
Florence, SC (A)			1	1	1	Norfolk f. s. l.	-	-	-	24-48-144	39.5 - Leflore
Florence, SC (B)				1	1	Norfolk f. s. l.	-	-	-	24-48-144	45.8 - Kirby
Hartsville, SC (A)			1	1	1	Norfolk sandy loam	-	-	-	0-60-100	44.4 - Tracy-M
Hartsville, SC (B)				1	1	Norfolk sandy loam	-	-	-	0-40-120	33.0 - Kirby
Southeast											
Blackville, SC (A)			1	1*	1*	Dothan loamy sand	-	-	-	0-45-90	29.7 - Centennial
Blackville, SC (B)				1	1	Varina loamy sand	-	-	-	0-48-90	22.4 - Kirby
Tifton, GA			1	1	1	Tifton sandy loam	H	L	6.2	0-50-100	59.8 - Leflore
Tallassee, AL			1*	1*	1	Cahaba f. s. l.	M	M	6.2	0-0-60	56.3 - Leflore
Gainesville, FL				1	1*	Millhopper fine sand	M	L	6.1	25-60-120	26.2 - Braxton
Quincy, FL			1	1	1*	Norfolk sandy loam	-	-	-	0-0-0	41.8 - Braxton
Marianna, FL				1	1	Orangeburg sandy loam	M	L+	5.9	9-27-54	25.4 - Kirby
Jay, FL			1*	1*	1*	Red Bay sandy loam	-	-	-	0-75-37	49.6 - Leflore
Fairhope, AL			1	1	1	Malbis f. s. l.	L	H	5.7	0-100-50	57.5 - Braxton
Poplarville, MS				1	1		-	-	-	None	46.7 - Braxton
Baton Rouge, LA			1	1	1	Olivier silt loam	-	-	-	0-60-60	32.2 - Centennial
Upper & Central South											
Orange, VA	1	1				Davidson clay loam	M-	M	6.2	12-72-72	43.0 - Forrest
Clemson, SC		1	1	1		Cecil sandy loam	VH	M+	7.5	0-50-100	43.0 - Forrest
Calhoun, GA		1	1	1		Staser clay loam	H	M	6.1	0-54-108	53.6 - Leflore
Athens, GA		1	1*	1*	1	Cecil sandy loam	VH	M	6.5	0-0-78	50.2 - Gordon
Knoxville, TN	1	1				Sequatchie silt loam	-	-	-	0-60-60	40.3 - Forrest
Belle Mina, AL		1	1			Decatur clay loam	M	H	5.8	0-92-0	50.3 - Essex
Carbondale, IL	1*					Stoy silt loam	-	-	-	None	61.7 - Pershing
Princeton, KY	1*	1				Crider silt loam	M	H	6.1	0-0-0	54.7 - Douglas
Martin, TN	1	1				Collins silt loam	M	H	6.3	0-40-40	43.9 - Forrest
Tiptonville, TN	1*	1*				Morganfield silt loam	H	L	6.1	0-0-60	38.5 - Epps
Jackson, TN		1	1			Grenada silt loam	M	H	5.8	0-30-60	37.2 - Epps

Location	IV	V	VI	VII	VIII	Soil type	P_2O_5	K_2O	pH	Fertilizer[1]	Yield - Highest yielding variety
Delta											
Portageville, MO (A)	1*	1*	1			Tiptonville s. l.	-	-	-	0-0-0	49.9 - Forrest
Portageville, MO (B)	1	1	1			Sharkey clay	-	-	-	0-0-0	41.5 - Leflore
Keiser, AR	1*	1*	1*			Sharkey clay	M	H	6.5	0-0-0	53.9 - Tracy-M
Jonesboro, AR	1	1	1			Calloway silt loam	M	M	6.2	0-0-0	30.9 - Tracy-M
Pine Tree, AR	1	1	1			Calloway silt loam	M	H	7.2	0-0-0	37.5 - Leflore
Stoneville, MS (A)	1*	1*	1*	1*		Bosket f. s. l.	H	M+	7.0	0-0-0	56.0 - Forrest
Stoneville, MS (B)		1*	1*	1*	1*	Sharkey clay	H+	H+	6.7	0-0-0	47.3 - Epps
Rohwer, AR			1	1*		Perry clay	H	H	6.9	0-0-0	35.6 - Braxton
St. Joseph, LA		1	1	1		Sharkey clay	-	-	-	0-0-0	36.0 - Braxton
West											
Manhattan, KS	1					Muir silt loam	M	H	6.9	0-0-0	32.7 - Douglas
Pittsburg, KS		1				Parsons silt loam	M	H	6.4	0-0-0	14.9 - Epps
Columbus, KS	1	1				Cherokee silt loam	M	M	7.2	0-0-0	10.2 - Epps
Ottawa, KS	1	1				Woodson silt loam	M	M	6.6	0-0-0	14.1 - Forrest
Bixby, OK	1	1	1			Reinach silt loam	H	H	6.5	0-0-0	35.0 - Epps
Stuttgart, AR		1	1	1		Crowley silt loam	L	M	6.4	0-36-72	52.9 - Centennial
Bossier City, LA		1	1	1		Norwood v. f. s. l.	-	-	-	0-0-0	40.7 - Forrest
Beaumont, TX		1	1	1*	1*	Midland silty c. l.	-	-	-	0-30-120	30.1 - Leflore
Lubbock, TX	1	1				Amarillo loam	M	VH	8.4	7-14-0	47.1 - Essex
Clovis, NM	1					Pullman s. c. l.	-	-	-	100-92-0	46.0 - Pershing

[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 4 to 8 locations.

Planting rate - all strains were packeted for planting at the rate of 9 seeds per foot.

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

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

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

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

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

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

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

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

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

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

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

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

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

All strains of V maturity and later are resistant to bacterial pustule. Very little injury was observed from phytophthora rot in 1984.

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

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

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

UNIFORM GROUP IV-S

1984

	Variety or strain	Parentage	Generation composited
1.	Douglas	Williams X Calland	F_5
2.	Pershing	D67-3297 X Essex	F_4
3.	V78-444	Essex mutant	
4.	V78-727	Essex X V68-1171	F_5
5.	Ky79-0237	Williams X Essex	F_5
6.	S79-4259	Bedford X Crawford	F_5
7.	V74-315	V66-318 X V68-2331	F_5
8.	K1099	K1022 X Essex	F_5
9.	K1103	Union X Essex	F_5
10.	LS79-220	Forrest X V71-480	F_5
11.	LS79-503	Forrest X V71-480	F_5
12.	V80-239	V68-2331 X V68-183	F_5

Background of breeding lines used as parents:

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

V68-1171 is a selection from PI 80837 X V63-76 which was grown in Uniform V in 1974.

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.

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

Uniform Group IV-S was planted at 21 locations. Results from 20 locations are summarized in Tables 1 through 7. Table 1 gives a general summary of performance along with characteristics of each of the strains, and a three-year summary of seed yield and oil and protein percentages. Ratings for reaction to cyst nematodes were based upon plantings made in infested soil in the greenhouse at Jackson, Tennessee. Ratings for Meloidogyne incognita were based upon field ratings near Jay, Florida, and for M. arenaria in field ratings near Blackville, South Carolina. Ratings for feeding by the soybean looper were made in the field cage at Stoneville.

Pershing was included as a check along with Douglas. Pershing averages 11 days later in maturity than Douglas. All strains within the group were of a maturity between the two check varieties, averaging 4-9 days later in maturity than Douglas. A distinct change in growth type has occurred within this group, as 10 of the 12 strains had a determinate growth type. Douglas had an average seed quality score of 3.2, and Pershing a seed quality score of 1.8. Mean seed quality scores for the strains being evaluated ranged from 2 to 2.4. Three strains were rated resistant to race 3 of the soybean cyst nematode and one strain was resistant to both races 3 and 4. Seed was rated for development of purple stain and seed coat mottling at Warsaw and Orange, Virginia. Ratings were very low at each location.

V78-444 and V78-727 have been evaluated three years. Each of these strains is in the late range of maturity for IV-S. The three-year mean seed yield in each of the four production regions averages slightly below the mean seed yield for Pershing. There does not appear to be any further need for additional regional testing of these strains.

Three strains, Ky79-0237, S79-4259, and V74-315, have been evaluated two years. S79-4259 carries resistance to races 3 and 4 of the soybean cyst nematode. Mean seed yield is lower than that for Pershing in each production region. Maturity is two days earlier than Pershing.

Five strains, K1099, K1103, LS79-220, LS79-503, and V80-239, were advanced from the 1983 Preliminary IV-S nursery. Only K1099 and K1103 appeared to merit further regional evaluation.

Table 1 - General summary of performance for the strains in Uniform Group IV-S, 1984

	No. of locations	Douglas	Pershing	V78-444	V78-727	Ky79-0237
Seed Yield - 1984						
East Coast	2	38.6	37.9	37.6	37.2	39.7
Upper & Central South	5	43.8	46.4	45.8	48.8	42.6
Delta	7	27.2	38.8	34.0	38.1	29.0
West	4	35.3	37.6	31.8	36.7	35.0
1983-84						
East Coast		35.6	40.1	35.4	38.8	41.3
Upper & Central South		34.1	36.7	35.6	38.9	34.5
Delta		29.9	37.2	33.4	38.1	29.0
West		32.5	34.1	38.9	32.2	30.8
1982-84						
East Coast		40.6	41.7	40.1	40.7	
Upper & Central South		41.2	45.9	42.7	42.3	
Delta		30.8	40.3	35.0	39.3	
West		35.3	36.3	31.9	34.5	
Oil Content - 1984		21.8	19.5	21.0	20.7	21.9
1983-84		21.8	20.6	21.2	21.0	22.1
1982-84		21.1	19.3	20.5	20.3	
Protein Content - 1984		41.1	41.2	41.1	41.6	40.0
1983-84		41.3	40.9	41.5	41.7	40.7
1982-84		41.3	40.9	41.4	41.7	
Seed size		16.0	12.0	11.5	12.6	16.5
Maturity index		9-30	+11	+8	+11	+4
Height		34	31	28	31	38
Seed quality		3.2	1.8	2.0	2.1	2.4
M. incognita		4.5	5.0	-	3.0	4.0
M. arenaria		3.5	4.0	4.0	4.0	4.0
SCN race 3		S	S	S	S	S
SCN race 4		S	S	S	S	S
Soybean Looper		3.2	3.2	3.2	3.0	3.5
Flower color		W	W	P	P	W
Pubescence color		T	G	G	G	T
Pod wall color		Br	T	T	T	T

Table 1 - (continued)

	S79-4259	V74-315	K1099	K1103	LS79-220	LS79-503	V80-239
Seed Yield - 1984							
East Coast	35.5	37.1	42.8	37.9	37.9	33.7	37.6
Upper & Central South	39.8	46.2	47.2	45.0	43.1	44.8	45.5
Delta	35.1	38.6	33.3	35.1	34.0	37.3	36.5
West	31.1	40.4	37.2	38.3	31.8	33.5	36.8
1983-84							
East Coast	33.9	40.6					
Upper & Central South	32.2	37.8					
Delta	35.1	37.8					
West	29.6	37.0					
1982-84							
East Coast							
Upper & Central South							
Delta							
West							
Oil Content - 1984	21.6	21.3	20.2	20.7	21.0	21.4	22.0
1983-84	22.3	22.0					
1982-84							
Protein Content - 1984	37.9	39.9	42.1	40.7	38.9	39.2	39.3
1983-84	37.8	39.7					
1982-84							
Seed size	14.8	12.9	13.4	11.8	11.8	12.4	15.1
Maturity index	+9	+10	+9	+8	+8	+9	+9
Height	48	32	26	27	32	34	34
Seed quality	2.3	2.1	2.1	2.0	2.1	2.3	2.2
M. incognita	2.0	5.0	5.0	5.0	5.0	1.0	-
M. arenaria	4.0	3.0	2.5	2.0	3.5	3.0	4.0
SCN race 3	R	S	Seg.	S	R	R	S
SCN race 4	R	S	S	S	S	S	S
Soybean Looper	3.0	3.2	3.2	3.0	3.8	3.2	3.2
Flower color	W	P	W	W	W	P	P
Pubescence color	T	G	G	G	G	T	G
Pod wall color	Br	T	T	T	T	T	T

Table 2 - Seed yield, in bushels per acre, for the strains in Uniform Group, IV-S, 1984

Location	Douglas	Pershing	V78-444	V78-727	Ky79-0237	S79-4259	V74-315
			EAST COAST				
Queenstown, MD	33.1	37.9+	38.2+	38.6+	37.6+	32.2	34.5
Warsaw, VA	44.0	37.8	36.9-	35.8-	41.8	38.7	39.7
Mean	38.6	37.9	37.6	37.2	39.7	35.5	37.1
			UPPER AND CENTRAL SOUTH				
Orange, VA	45.0	44.8	42.5	46.6	39.3	31.8-	46.1
Knoxville, TN	52.8	44.3	46.6	53.5	41.9-	42.5-	54.7
Carbondale, IL	37.1	61.7+	59.1+	57.8+	47.8+	38.3	52.1+
Princeton, KY	54.7	50.5	50.4	50.5	54.7	49.5	52.1
Tiptonville, TN	29.6	30.5	30.6	35.6	29.4	36.9+	26.2
Mean	43.8	46.4	45.8	48.8	42.6	39.8	46.2
			DELTA				
Portageville, MO (A)	38.3	37.4	42.7	43.4	35.8	40.6	44.0
Portageville, MO (B)	14.1	28.7+	20.6+	27.7+	14.1	22.0+	27.6+
Martin, TN	26.5	39.6+	40.1+	42.3+	27.6	44.3+	37.1+
Keiser, AR	30.5	52.6+	41.9+	46.1+	30.6	33.0	47.6+
Jonesboro, AR	13.8	27.0+	15.3	24.1+	22.1	28.4+	27.2+
Pine Tree, AR	21.3	32.4+	26.1	32.2+	24.0	20.2	32.5+
Stoneville, MS (A)	45.8	53.9	51.3	50.6	48.6	56.9+	54.1
Mean	27.2	38.8	34.0	38.1	29.0	35.1	38.6
			WEST				
Manhattan, KS	32.7	24.6-	28.5-	25.3-	30.9	23.4-	27.5-
*Ottawa, KS	6.3	10.4	5.8	9.1	9.4	9.4	9.9
*Columbus, KS	2.8	5.2	1.6	1.6	5.0	9.3	8.1
Bixby, OK	23.8	37.9+	35.8+	38.5+	32.9+	28.3	38.7+
Lubbock, TX	38.7	42.0	36.0	44.6+	31.4-	31.6-	47.7+
Clovis, NM	45.9	46.0	26.9-	38.5	44.7	41.0	47.8
Mean	35.3	37.6	31.8	36.7	35.0	31.1	40.4

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

Table 2 - (continued)

Location	K1099	K1103	LS79-220	LS79-503	V80-239	L.S.D. (.05)	C.V. (%)
			EAST COAST				
Queenstown, MD	41.0+	41.3+	37.6+	30.3	39.2+	3.5	6
Warsaw, VA	44.6	39.4	38.1	37.0	36.0-	5.1	8
Mean	42.8	37.9	37.9	33.7	37.6		
			UPPER AND CENTRAL SOUTH				
Orange, VA	49.6	38.7	41.4	40.6	41.8	7.6	11
Knoxville, TN	52.0	52.0	42.1-	46.7	43.6-	9.1	11
Carbondale, IL	55.1+	55.2+	56.5+	54.4+	58.5+	8.0	9
Princeton, KY	55.5	56.7	47.6	52.1	54.2	NS	8
Tiptonville, TN	23.8	29.2	27.7	30.2	29.2	6.2	13
Mean	47.2	45.0	43.1	44.8	45.5		
			DELTA				
Portageville, MO (A)	38.7	38.1	37.3	39.6	31.1-	7.1	11
Portageville, MO (B)	18.8+	28.1+	24.0+	26.2+	26.6+	4.0	10
Martin, TN	36.8+	32.2	40.7+	36.8+	39.6+	9.9	16
Keiser, AR	38.9+	50.0+	40.3+	44.9+	48.7+	6.8	10
Jonesboro, AR	22.8	15.2	19.7	22.5	25.3+	10.0	20
Pine Tree, AR	28.5+	31.2+	29.2+	32.2+	35.7+	6.7	10
Stoneville, MS (A)	48.5	50.6	46.7	58.9+	48.4	8.8	10
Mean	33.3	35.1	34.0	37.3	36.5		
			WEST				
Manhattan, KS	27.9-	23.7-	25.2-	25.9-	26.8-	3.8	8
Ottawa, KS	5.2	5.3	5.2	7.4	7.5	2.7	21
Columbus, KS	2.0	1.1	1.6	4.5	1.7	3.0	48
Bixby, OK	37.2+	34.5+	26.9	32.4+	32.0+	4.7	8
Lubbock, TX	44.2	45.1+	36.9	40.7	37.9	5.8	9
Clovis, NM	39.5	50.0	38.0	34.9	50.3	11.1	16
Mean	37.2	38.3	31.8	33.5	36.8		

Table 3 - Chemical composition and seed size for the strains in Uniform Group IV-S, 1984

Location	Douglas	Pershing	V78-444	V78-727	Ky79-0237	S79-4259
			OIL PERCENTAGE			
Queenstown, MD	20.1	18.2	19.6	19.8	20.4	19.8
Warsaw, VA	21.5	20.2	22.3	21.3	22.0	21.4
Orange, VA	20.0	18.5	18.7	18.9	20.4	19.8
Knoxville, TN	21.9	20.3	22.8	22.0	22.0	21.5
Portageville, MO (A)	22.4	19.9	19.9	20.5	21.8	22.3
Keiser, AR	26.9	20.1	24.3	21.8	25.4	23.8
Stoneville, MS (A)	21.8	20.3	21.5	21.6	22.4	23.0
Bixby, OK	19.7	18.6	19.2	20.0	20.7	21.2
Mean	21.8	19.5	21.0	20.7	21.9	21.6
			PROTEIN PERCENTAGE			
Queenstown, MD	41.8	43.4	42.3	42.5	42.0	39.0
Warsaw, VA	38.5	38.2	37.6	39.3	37.7	35.9
Orange, VA	41.6	41.6	42.2	43.1	41.2	37.2
Knoxville, TN	40.1	39.2	37.6	38.4	39.2	37.6
Portageville, MO (A)	41.3	41.3	42.4	42.4	41.0	37.0
Keiser, AR	41.4	40.5	39.7	40.9	41.1	36.9
Stoneville, MS (A)	41.3	42.4	42.5	42.5	41.1	38.4
Bixby, OK	42.8	43.1	44.3	43.3	42.6	41.4
Mean	41.1	41.2	41.1	41.6	40.0	37.9
			GRAMS PER 100 SEEDS			
Queenstown, MD	20.0	13.1	13.9	14.1	18.7	15.6
Warsaw, VA	18.2	10.9	12.0	11.9	17.2	14.6
Orange, VA	20.9	12.8	15.2	15.3	18.7	16.4
Knoxville, TN	19.5	14.7	14.9	15.5	19.4	17.4
Portageville, MO (A)	16.0	11.2	11.9	12.3	16.1	14.5
Keiser, AR	10.0	13.2	7.0	12.4	17.2	15.2
Stoneville, MS (A)	14.6	11.2	11.8	12.6	15.4	13.8
Columbus, KS	11.8	10.3	7.3	8.3	12.0	11.9
Bixby, OK	13.2	10.6	9.7	10.7	13.7	13.6
Mean	16.0	12.0	11.5	12.6	16.5	14.8

Table 3 - (continued)

Location	V74-315	K1099	K1103	LS79-220	LS79-503	V80-239
			OIL PERCENTAGE			
Queenstown, MD	19.4	19.0	18.9	19.9	20.9	20.2
Warsaw, VA	20.1	19.9	21.0	20.7	21.4	22.4
Orange, VA	20.1	19.0	18.9	19.3	20.0	20.7
Knoxville, TN	22.1	21.3	22.1	21.3	22.2	22.1
Portageville, MO (A)	22.0	20.8	21.1	21.4	22.0	22.4
Keiser, AR	23.9	21.9	21.9	23.7	22.8	23.3
Stoneville, MS (A)	22.1	21.5	21.8	21.9	21.7	23.0
Bixby, OK	21.0	18.5	19.9	19.8	20.3	21.6
Mean	21.3	20.2	20.7	21.0	21.4	22.0
			PROTEIN PERCENTAGE			
Queenstown, MD	41.4	43.7	41.5	39.3	39.4	40.5
Warsaw, VA	39.4	41.7	40.0	37.1	37.2	37.2
Orange, VA	39.6	42.0	41.5	38.4	38.9	39.3
Knoxville, TN	38.4	40.3	37.6	36.7	35.6	38.5
Portageville, MO (A)	38.9	41.8	40.6	38.4	38.8	38.7
Keiser, AR	38.5	40.5	40.0	37.3	39.5	37.9
Stoneville, MS (A)	41.0	42.6	41.5	41.0	41.5	40.0
Bixby, OK	42.0	44.1	43.1	42.8	43.0	42.4
Mean	39.9	42.1	40.7	38.9	39.2	39.3
			GRAMS PER 100 SEEDS			
Queenstown, MD	13.3	13.7	12.6	13.5	13.2	15.6
Warsaw, VA	12.7	13.1	11.5	12.9	12.5	14.3
Orange, VA	14.2	15.9	14.2	14.5	14.2	17.2
Knoxville, TN	13.6	15.8	13.6	15.0	14.7	18.0
Portageville, MO (A)	13.3	13.3	12.1	11.9	12.0	14.2
Keiser, AR	14.4	15.8	11.5	9.5	12.9	17.7
Stoneville, MS (A)	13.0	13.2	11.8	11.0	12.8	16.2
Columbus, KS	9.7	8.9	8.7	8.4	8.5	9.5
Bixby, OK	11.9	10.8	10.5	9.7	11.0	13.1
Mean	12.9	13.4	11.8	11.8	12.4	15.1

Table 4 - Relative maturity data, days earlier (-) or later (+) than Douglas, for the strains in Uniform Group IV-S, 1984

Location	Date planted	Douglas	Pershing	V78-444	V78-727	Ky79-0237
			EAST COAST			
Queenstown, MD	6-11	10-18	+1	-1	+1	-1
Warsaw, VA	6-4	9-26	+19	+18	+20	+13
Mean	6-8	10-7	+10	+9	+11	+6
			UPPER AND CENTRAL SOUTH			
Orange, VA	5-23	10-8	+9	+6	+9	-2
Knoxville, TN	5-8	9-14	+14	+11	+15	+7
Carbondale, IL	5-18	10-18	+2	0	+3	-1
Princeton, KY	5-24	9-29	+7	+3	+7	0
Mean	5-18	10-2	+8	+5	+9	+2
			DELTA			
Portageville, MO (A)	5-22	9-19	+8	+7	+11	+2
Portageville, MO (B)	5-23	9-19	+21	+17	+20	+18
Martin, TN	6-8	10-2	+2	+2	+2	+2
Keiser, AR	5-17	9-22	+12	+7	+12	+6
Jonesboro, AR	5-23	10-7	+2	0	+2	0
Pine Tree, AR	6-7	10-2	+2	0	+2	0
Stoneville, MS (A)	5-11	9-11	+11	+7	+11	+8
Mean	5-25	9-25	+8	+6	+9	+5
			WEST			
Columbus, KS	6-13	9-19	+22	+5	+15	+7
Lubbock, TX	5-15	9-22	+17	+12	+16	-1
Clovis, NM	5-15	9-26	+17	+13	+17	-1
Mean	5-25	9-22	+19	+10	+16	+2

Table 4 - (continued)

Location	S79-4259	V74-315	K1099	K1103	LS79-220	LS79-503	V80-239
			EAST COAST				
Queenstown, MD	+3	+1	-1	-2	0	+3	+1
Warsaw, VA	+18	+18	+15	+16	+17	+16	+17
Mean	+11	+10	+7	+7	+9	+10	+9
			UPPER AND CENTRAL SOUTH				
Orange, VA	+8	+7	+8	+8	+6	+7	+6
Knoxville, TN	+16	+17	+8	+10	+14	+10	+12
Carbondale, IL	-1	+1	+1	+2	+2	+1	+1
Princeton, KY	+2	+7	+6	+4	+4	+4	+6
Mean	+7	+8	+6	+6	+7	+6	+6
			DELTA				
Portageville, MO (A)	+13	+10	+10	+10	+8	+10	+9
Portageville, MO (B)	+19	+19	+21	+20	+17	+19	+19
Martin, TN	+8	+2	+5	0	+10	+4	0
Keiser, AR	+8	+6	+9	+9	+2	+8	+8
Jonesboro, AR	+6	+5	+3	+2	+3	+6	+3
Pine Tree, AR	+6	+5	+3	+2	+3	+6	+3
Stoneville, MS (A)	+11	+9	+10	+9	+7	+10	+10
Mean	+10	+8	+9	+7	+7	+9	+7
			WEST				
Columbus, KS	+19	+12	+16	+12	+4	+6	+12
Lubbock, TX	-1	+13	+13	+14	+13	+14	+12
Clovis, NM	+2	+13	+15	+13	+12	+11	+12
Mean	+7	+13	+15	+13	+10	+10	+12

Table 5 - Plant height for the strains in Uniform Group IV-S, 1984

Location	Douglas	Pershing	V78-444	V78-727	Ky79-0237	S79-4259
			EAST COAST			
Queenstown, MD	38	32	28	34	41	47
Warsaw, VA	41	35	33	35	43	51
Mean	40	34	31	35	42	49
			UPPER AND CENTRAL SOUTH			
Orange, VA	43	34	29	36	44	50
Knoxville, TN	31	28	26	29	37	50
Carbondale, IL	36	30	28	31	39	47
Princeton, KY	33	33	30	33	38	47
Mean	36	31	28	32	40	49
			DELTA			
Portageville, MO (A)	40	38	34	35	45	61
Portageville, MO (B)	29	28	27	29	30	42
Martin, TN	31	32	23	32	33	56
Keiser, AR	28	28	24	25	38	47
Jonesboro, AR	32	24	19	22	41	53
Pine Tree, AR	34	28	27	31	37	50
Stoneville, MS (A)	26	21	20	22	29	48
Mean	31	28	25	28	36	51
			WEST			
Manhattan, KS	38	35	34	33	48	56
Ottawa, KS	26	25	24	28	26	33
Columbus, KS	25	24	23	23	24	29
Bixby, OK	38	30	28	34	38	50
Lubbock, TX	28	27	24	26	32	40
Clovis, NM	26	33	26	32	33	41
Mean	30	29	27	29	34	42

Table 5 - (continued)

Location	V74-315	K1099	K1103	LS79-220	LS79-503	V80-239
			EAST COAST			
Queenstown, MD	34	28	32	31	35	36
Warsaw, VA	32	31	30	35	41	38
Mean	33	30	31	33	38	37
			UPPER AND CENTRAL SOUTH			
Orange, VA	36	30	33	36	36	39
Knoxville, TN	34	26	27	29	32	33
Carbondale, IL	29	24	24	31	30	36
Princeton, KY	35	27	29	35	38	37
Mean	34	27	28	33	34	36
			DELTA			
Portageville, MO (A)	39	29	28	34	33	41
Portageville, MO (B)	17	18	23	19	22	27
Martin, TN	38	26	33	36	36	36
Keiser, AR	25	18	22	20	29	29
Jonesboro, AR	22	18	16	18	24	25
Pine Tree, AR	33	26	23	35	35	34
Stoneville, MS (A)	21	19	21	23	24	24
Mean	28	22	24	26	29	31
			WEST			
Manhattan, KS	38	33	33	37	41	41
Ottawa, KS	31	23	23	32	32	29
Columbus, KS	26	21	19	31	29	25
Bixby, OK	35	28	30	37	38	34
Lubbock, TX	28	23	21	28	32	29
Clovis, NM	34	29	27	36	34	36
Mean	32	26	26	34	34	32

Table 6 - Lodging scores for the strains in Uniform Group IV-S, 1984

Location	Douglas	Pershing	V78-444	V78-727	Ky79-0237	S79-4259
		EAST COAST				
Queenstown, MD	3.8	2.5	3.1	3.3	2.7	3.3
Warsaw, VA	2.2	1.1	1.6	1.8	1.2	1.5
Mean	3.0	1.8	2.4	2.6	2.0	2.4
		UPPER AND CENTRAL SOUTH				
Orange, VA	4.3	3.0	4.7	4.7	2.3	4.7
Knoxville, TN	2.0	1.0	1.0	2.0	2.0	2.0
Carbondale, IL	1.0	1.5	1.5	2.0	1.0	2.0
Princeton, KY	1.0	1.0	1.0	1.3	1.3	3.0
Mean	2.1	1.6	2.1	2.5	1.7	2.9
		DELTA				
Portageville, MO (A)	2.0	1.0	1.5	1.5	1.5	4.0
Portageville, MO (B)	1.0	1.0	1.0	1.0	1.0	1.0
Martin, TN	1.0	1.0	1.0	1.0	1.0	4.0
Keiser, AR	1.0	1.0	1.0	1.0	1.0	1.0
Jonesboro, AR	1.3	1.0	1.0	1.0	1.7	3.0
Pine Tree, AR	2.0	1.0	2.0	2.0	1.0	2.0
Stoneville, MS (A)	2.0	2.0	2.0	2.0	2.0	3.0
Mean	1.6	1.1	1.4	1.4	1.3	2.6
		WEST				
Manhattan, KS	1.3	2.0	2.7	2.3	1.7	2.3
Ottawa, KS	1.0	1.0	1.3	1.7	1.0	1.0
Columbus, KS	1.0	1.0	1.0	1.0	1.0	1.0
Bixby, OK	1.0	1.0	1.0	2.0	2.0	2.0
Lubbock, TX	2.0	1.2	1.3	2.5	3.0	2.5
Clovis, NM	1.7	2.0	3.0	3.3	1.7	2.7
Mean	1.3	1.4	1.7	2.1	1.7	1.9

Table 6 - (continued)

Location	V74-315	K1099	K1103	LS79-220	LS79-503	V80-239
			EAST COAST			
Queenstown, MD	3.7	2.5	2.3	3.7	3.8	3.5
Warsaw, VA	2.3	1.2	1.1	2.1	2.4	1.7
Mean	3.0	1.9	1.7	2.9	3.1	2.6
			UPPER AND CENTRAL SOUTH			
Orange, VA	3.7	3.7	4.0	4.3	4.3	4.0
Knoxville, TN	1.0	2.0	1.0	1.0	2.0	1.0
Carbondale, IL	1.0	1.0	1.0	1.5	2.0	2.0
Princeton, KY	1.0	1.0	1.3	1.3	2.3	1.7
Mean	1.7	1.9	1.8	2.0	2.7	4.4
			DELTA			
Portageville, MO (A)	1.5	1.0	1.0	1.0	1.5	1.0
Portageville, MO (B)	1.0	1.0	1.0	1.0	1.0	1.0
Martin, TN	3.0	1.0	1.0	3.0	4.0	1.0
Keiser, AR	1.0	1.0	1.0	1.0	1.0	1.0
Jonesboro, AR	1.0	1.0	1.0	1.0	1.0	1.0
Pine Tree, AR	2.0	1.7	1.0	3.0	2.7	1.7
Stoneville, MS (A)	2.0	2.0	2.0	2.0	2.0	2.0
Mean	1.6	1.2	1.1	1.7	1.9	1.2
			WEST			
Manhattan, KS	2.0	1.7	4.3	2.0	2.3	2.0
Ottawa, KS	1.0	1.3	1.3	1.3	1.7	1.0
Columbus, KS	1.0	1.0	1.0	1.0	1.0	1.0
Bixby, OK	2.0	1.0	1.0	2.0	2.0	1.0
Lubbock, TX	1.2	2.0	1.2	1.2	1.3	1.3
Clovis, NM	2.3	2.7	2.0	2.0	2.3	2.3
Mean	1.6	1.6	1.8	1.6	1.8	1.4

Table 7 - Seed quality scores for the strains in Uniform Group IV-S, 1984

Location	Douglas	Pershing	V78-444	V78-727	Ky79-0237	S79-4259
		EAST COAST				
Queenstown, MD	3.8	1.8	1.7	1.8	2.5	1.7
Warsaw, VA	1.7	1.0	1.0	1.0	1.4	1.0
Mean	2.8	1.4	1.4	1.4	2.0	1.4
		UPPER AND CENTRAL SOUTH				
Orange, VA	3.5	2.0	2.2	2.2	2.7	2.3
Knoxville, TN	3.0	1.0	1.0	2.0	2.0	3.0
Carbondale, IL	3.0	2.0	2.0	3.0	2.0	2.0
Princeton, KY	5.0	1.0	1.0	1.0	2.0	2.0
Mean	3.6	1.5	1.6	2.1	2.2	2.3
		DELTA				
Portageville, MO (A)	4.0	3.0	3.0	3.0	3.0	3.0
Portageville, MO (B)	3.5	2.0	2.5	2.5	2.5	2.0
Keiser, AR	4.0	2.0	3.0	2.5	4.0	2.5
Jonesboro, AR	4.3	3.0	3.7	2.7	3.0	3.0
Pine Tree, AR	5.0	3.7	4.0	3.0	4.3	3.3
Stoneville, MS (A)	2.0	2.0	2.0	2.0	2.0	2.0
Mean	3.8	2.6	3.0	2.6	3.1	2.6
		WEST				
Manhattan, KS	2.5	1.5	1.5	2.0	3.0	2.0
Ottawa, KS	3.0	1.5	2.0	2.0	1.5	1.5
Columbus, KS	2.5	2.5	2.7	2.7	2.0	3.0
Mean	2.6	1.8	2.1	2.2	2.2	2.2

Table 7 - (continued)

Location	V74-315	K1099	K1103	LS79-220	LS79-503	V80-239
			EAST COAST			
Queenstown, MD	2.2	2.5	1.8	1.7	2.2	2.5
Warsaw, VA	1.0	1.0	1.0	1.0	1.0	1.2
Mean	1.6	1.8	1.4	1.4	1.6	1.9
			UPPER AND CENTRAL SOUTH			
Orange, VA	2.0	1.8	2.0	2.0	2.5	2.3
Knoxville, TN	2.0	2.0	2.0	2.0	2.0	2.0
Carbondale, IL	2.0	2.0	2.0	2.0	2.0	2.0
Princeton, KY	1.0	1.0	4.0	2.0	2.0	1.0
Mean	1.8	1.5	1.7	2.0	2.1	1.8
			DELTA			
Portageville, MO (A)	3.0	3.0	3.0	3.0	3.5	2.5
Portageville, MO (B)	2.0	2.0	2.5	2.0	2.5	2.0
Keiser, AR	3.0	2.0	2.0	3.0	3.0	2.5
Jonesboro, AR	2.0	3.0	3.3	3.3	2.7	3.0
Pine Tree, AR	3.7	4.0	4.0	4.0	5.0	3.0
Stoneville, MS (A)	2.0	2.0	2.0	2.0	2.0	2.0
Mean	2.6	2.7	2.8	2.9	3.1	2.5
			WEST			
Manhattan, KS	2.5	2.5	1.5	1.5	2.0	2.0
Ottawa, KS	2.0	2.0	1.5	2.5	2.5	2.5
Columbus, KS	2.0	2.7	2.8	2.2	2.5	3.0
Mean	2.2	2.4	1.9	2.1	2.3	2.5

PRELIMINARY GROUP IV-S

1984

The Preliminary Group IV-S nurseries which included Douglas, Pershing and Hill along with 15 experimental strains, were grown at 8 locations. The parentage of each of these strains is reported in Table 8. Table 9 gives a general summary of performance including reaction to two species of root-knot nematode, two races of soybean cyst nematode, and to feeding by soybean looper.

Pershing averaged 5.6 bushels per acre higher in seed yield than Douglas and averaged 11 days later in maturity. Pershing averaged 3 days later in maturity than Hill. Eleven strains had higher mean seed yields than Douglas, but only one had a mean seed yield slightly higher than that for Pershing. All strains were later in maturity than Douglas, but none averaged later in maturity than Pershing. Five strains were rated resistant to soybean cyst nematode race 3 and one strain was rated resistant to both races 3 and 4.

Strains which appear to merit advance to Uniform IV-S for 1985 are LS79-338, LS79-1914, S82-1443, V80-2476, V81-141, and V81-942.

Table 8 - Parentage of the strains grown in Preliminary Group IV-S, 1984

	Variety or strain	Parentage	Generation composited
1.	Douglas	Williams X Calland	F_5
2.	Pershing	D67-3297 X Essex	F_4^5
3.	Hill	D632-15 X D49-2525	F_5^4
4.	K1102	K1034 X Essex	F_5^5
5.	Ky80-2098	Williams X Essex	F_5^5
6.	Ky81-2051	Elf X Essex	F_5^5
7.	Ky81-2212	Elf X Essex	F_5
8.	LS79-238	Forrest X V71-480	F_5^5
9.	LS79-338	Forrest X V71-480	F_5^5
10.	LS79-1914	Franklin X J74-5	F_5^5
11.	S82-1034	Bedford X S78-5078	F_5^5
12.	S82-1146	L75-8064 X Forrest	F_5^5
13.	S82-1443	A5424 X Mack	F_5
14.	S82-1633	Douglas X HW74-3385	F_5^5
15.	V80-2476	Hodges X Essex	F_5^5
16.	V80-3190	Essex X S63-5328	F_5^5
17.	V81-141	Essex X V71-793	F_5^5
18.	V81-942	Essex X V67-1370	F_5^5

Table 9 - General summary of performance for the strains grown in Preliminary Group IV-S, 1984

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	M. incognita	M. arenaria	SCN race 3	SCN race 4	Soybean looper
Douglas	39.1	10-1	35	22.3	40.6	4.0	3.5	S	S	3.2
Pershing	44.7	+11	31	19.2	41.1	-	5.0	S	S	3.7
Hill	35.5	+8	34	20.5	40.6	4.0	5.0	S	S	3.5
K1102	41.8	+12	30	20.6	41.4	-	4.0	S	S	3.0
Ky80-2098	43.0	+14	33	20.7	41.5	5.0	5.0	S	S	3.2
Ky81-2051	44.7	+12	27	21.0	40.5	5.0	4.0	S	S	3.0
Ky81-2212	44.6	+13	31	19.4	42.7	5.0	2.5	S	S	3.5
LS79-238	40.6	+13	33	21.0	38.3	5.0	3.5	S	S	3.3
LS79-338	43.2	+11	34	20.7	40.0	3.0	-	R	S	3.2
LS79-1914	39.6	+10	36	21.0	39.9	4.5	5.0	R	R	4.0
S82-1034	36.7	+5	31	19.1	41.6	5.0	3.5	R	R	-
S82-1146	38.1	+4	43	23.0	39.1	3.5	-	R	S	-
S82-1443	46.0	+10	37	21.4	40.1	5.0	2.0	R	S	3.0
S82-1633	34.5	+2	41	22.1	40.9	5.0	1.5	S	S	3.2
V80-2476	43.5	+8	34	22.2	39.1	5.0	2.5	S	S	3.5
V80-3190	39.6	+8	43	21.6	40.1	5.0	5.0	S	S	3.5
V81-141	42.1	+7	40	20.6	41.5	5.0	5.0	S	S	3.2
V81-942	43.1	+5	29	20.3	41.7	5.0	-	S	S	3.0
L.S.D.(.05)	5.1									

Table 10 - Seed yield, in bushels per acre, for the strains grown in Preliminary Group IV-S, 1984

Strain	Queens-town, MD	Warsaw, VA	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (A)	Carbon-dale, IL	Prince-ton, KY	Tipton-ville, TN
Douglas	30.9	43.8	42.1	26.3	47.0	43.4	56.5	22.6
Pershing	32.5	36.1-	41.4	53.4+	54.1	62.3+	47.8	30.3+
Hill	22.3-	26.6-	32.4-	38.0+	47.6	49.3	41.0	27.0
K1102	32.1	35.6-	48.0	48.1+	44.3	49.8	51.9	24.8
Ky80-2098	33.2	28.1-	47.5	48.8+	49.9	59.2+	49.7	27.9
Ky81-2051	37.9+	34.7-	40.1	43.6+	52.9	65.8+	51.3	30.9+
Ky81-2212	34.8	31.1-	46.4	52.0+	58.1+	53.6+	51.5	30.2+
LS79-238	30.8	30.0-	46.8	41.0+	46.1	51.2	45.5	33.3+
LS79-338	30.4	36.0-	47.7	42.1+	60.6+	46.6	50.2	31.8+
LS79-1914	28.1	29.9-	40.7	35.3	56.9	45.5	47.1	33.4+
S82-1034	29.6	35.3-	39.3	27.3	44.8	42.5	41.9	33.2+
S82-1146	29.8	33.6-	35.5-	32.2	51.8	37.9	53.5	30.6+
S82-1443	36.1	38.2	49.9+	40.8+	58.8+	54.1+	53.4	36.5+
S82-1633	32.8	33.9-	29.2-	28.6	50.2	33.4-	44.0	24.0
V80-2476	31.5	32.2-	43.0	45.2+	52.0	63.6+	51.1	29.5+
V80-3190	29.4	37.2	38.2	29.0	58.9+	43.5	50.0	30.6+
V81-141	39.3+	41.3	38.3	34.1	52.1	43.8	50.3	37.9+
V81-942	37.9+	34.3-	47.6	42.8+	48.4	51.9	54.8	26.9
L.S.D.(.05)	5.7	6.9	6.2	10.2	10.0	9.1	N.S.	5.7
C.V.	8%	10%	7%	12%	9%	10%	8%	9%

Table 11 - Oil percentages for the strains in Preliminary Group IV-S, 1984

Strain	Queenstown, MD	Warsaw, VA	Portage-ville, MO (A)	Keiser, AR	Carbondale, IL
Douglas	20.3	21.8	22.0	25.7	21.7
Pershing	18.0	19.7	18.9	19.6	20.0
Hill	17.8	19.7	19.8	24.6	20.5
K1102	19.3	21.3	20.5	21.3	20.4
Ky80-2098	19.2	20.2	20.7	22.6	20.9
Ky81-2051	19.3	21.9	20.9	22.2	20.8
Ky81-2212	17.2	19.3	19.8	20.5	20.4
LS79-238	18.7	21.7	21.2	22.8	20.5
LS79-338	18.4	20.5	21.0	22.2	21.3
LS79-1914	18.7	20.4	20.7	24.1	20.9
S82-1034	17.6	19.2	18.7	20.1	19.8
S82-1146	19.6	22.4	23.4	27.2	22.3
S82-1443	18.0	20.1	22.0	25.3	21.8
S82-1633	20.5	22.3	22.0	24.2	21.4
V80-2476	19.3	22.7	22.1	24.8	22.1
V80-3190	19.3	21.8	21.6	23.2	22.1
V81-141	19.4	20.8	20.3	21.3	21.1
V81-942	18.7	20.7	19.8	22.1	20.3

Table 12 - Protein percentages for the strains in Preliminary Group IV-S, 1984

Strain	Queenstown, MD	Warsaw, VA	Portage, ville, MO (A)	Keiser, AR	Carbondale, IL
Douglas	41.1	38.1	41.0	41.4	41.3
Pershing	43.5	39.4	41.5	40.2	40.8
Hill	42.5	39.3	41.3	40.4	39.5
K1102	42.8	39.8	41.8	40.6	41.8
Ky80-2098	42.8	41.0	41.3	41.0	41.4
Ky81-2051	43.1	38.6	41.4	38.9	40.5
Ky81-2212	44.6	42.3	42.4	41.8	42.3
LS79-238	39.8	35.6	39.3	37.0	39.7
LS79-338	41.9	39.3	40.1	39.1	39.8
LS79-1914	42.0	38.8	39.8	38.5	40.6
S82-1034	43.6	39.7	41.5	41.8	41.6
S82-1146	41.7	37.7	37.7	39.3	39.3
S82-1443	43.1	39.0	40.5	38.1	39.6
S82-1633	43.5	38.5	41.8	40.2	40.5
V80-2476	41.4	37.0	40.3	37.2	39.6
V80-3190	41.9	36.0	41.5	39.9	41.0
V81-141	43.5	39.7	41.6	40.8	42.0
V81-942	43.6	39.5	42.5	41.7	41.2

Table 13 - Plant height for the strains in Preliminary Group IV-S, 1984

Strain	Queens-town, MD	Warsaw, VA	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (A)	Carbon-dale, IL	Prince-ton, KY
Douglas	38	40	42	25	27	34	37
Pershing	33	36	34	26	21	33	33
Hill	34	40	38	34	26	30	39
K1102	33	36	34	24	19	31	33
Ky80-2098	36	38	36	26	22	36	36
Ky81-2051	30	30	31	16	20	31	32
Ky81-2212	32	34	36	26	21	33	32
LS79-238	36	38	36	26	23	32	40
LS79-338	35	41	35	22	31	37	37
LS79-1914	38	42	40	26	30	36	41
S82-1034	31	38	36	21	21	32	39
S82-1146	45	46	52	32	39	48	42
S82-1443	40	44	38	31	24	41	42
S82-1633	43	42	49	36	38	42	36
V80-2476	35	38	37	26	25	41	38
V80-3190	40	46	49	34	41	45	45
V81-141	40	42	41	38	37	41	40
V81-942	34	38	28	23	20	30	31

Table 14 - Seed quality scores for the strains in Preliminary Group IV-S, 1984

Strain	Queens-town, MD	Warsaw, VA	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (A)	Carbon-dale, IL	Prince-ton, KY
Douglas	4.0	2.0	3.0	4.8	2.0	2.0	5.0
Pershing	1.8	1.0	2.5	2.2	2.0	2.0	1.0
Hill	2.3	1.2	2.5	4.5	2.0	3.0	1.0
K1102	1.5	1.0	2.5	2.9	2.0	3.0	2.0
Ky80-2098	1.8	1.0	2.5	3.8	2.0	3.0	1.0
Ky81-2051	1.8	1.2	2.5	2.4	2.0	2.0	1.0
Ky81-2212	1.8	1.0	2.5	2.3	2.0	3.0	1.0
LS79-238	1.8	1.3	2.5	3.0	2.0	1.0	1.0
LS79-338	1.8	1.2	2.5	2.8	2.0	2.0	2.0
LS79-1914	2.8	1.2	3.0	4.3	2.0	3.0	1.0
S82-1034	1.5	1.0	2.5	4.8	2.0	2.0	2.0
S82-1146	2.0	1.3	3.0	4.0	2.0	3.0	1.0
S82-1443	1.8	1.2	2.5	3.1	2.0	3.0	2.0
S82-1633	1.5	1.0	2.5	4.0	2.0	2.0	1.0
V80-2476	1.5	1.2	2.5	3.5	2.0	3.0	1.0
V80-3190	2.3	1.4	3.0	4.1	2.0	3.0	3.0
V81-141	2.0	1.2	2.5	3.8	2.0	3.0	1.0
V81-942	1.8	1.2	3.0	3.8	2.0	1.0	1.0

UNIFORM GROUP V

1984

	Variety or strain	Parentage	Generation composited
1.	Essex	Lee X S5-7075	F_5
2.	Forrest	Dyer X Bragg	F_5
3.	Epps	[Pickett 71(2) X (Dare(2) X PI 96983)] X J74-47	F_5
4.	D77-6056	Centennial X J74-47	F_5
5.	R76-479	Centennial X Forrest	F_5
6.	S79-4240	D70-3045 X Bedford	F_5
7.	Tn77-111	D68-127 (dwarf mutant) X Essex	F_5
8.	D81-7857	Bedford X (J74-45 X D74-7445)	F_5
9.	S80-2959	J74-123 X N73-520	F_5
10.	S80-5949	Bedford X R75-112	F_5
11.	V78-184	V68-1034 X Essex	F_5
12.	V79-882	Essex X Ransom	F_5

Background of breeding 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.

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

D70-3045 is an earlier maturing line of the same parentage as Centennial.

D68-127 is from the same F_4 line as Forrest.

J74-45 is a SCN race 4 selection of the same parentage as Bedford.

D74-7445 was selected as a high protein line.

J74-123 is a SCN race 4 selection of the same parentage as Bedford.

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

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

Plantings of Uniform Group V strains were made at 32 locations for evaluating for seed yield and other agronomic qualities. Additional plantings were made at Jay, Florida to evaluate for reaction to M. incognita, at Blackville, South Carolina to evaluate for M. arenaria, in the field cage at Stoneville to evaluate for feeding by soybean looper, and in the greenhouse at Jackson, Tennessee to evaluate for reaction to soybean cyst nematode races 3 and 4. Data from 31 locations are summarized in Tables 15 through 21. A general summary of performance is reported in Table 15, along with three-year readings for seed yield and oil and protein percentage. Plant characteristics and reaction to nematodes and soybean looper feeding are also reported. Tables 16 through 21 report data from individual locations.

Seed yield differences were statistically significant at the 5% level of confidence at 25 of the locations. Nine entries were resistant to soybean cyst nematode race 3, and five were resistant to both races 3 and 4. Four strains had good resistance to M. incognita. Incomplete stands were obtained in the plantings to evaluate for M. arenaria.

D77-6056 has been evaluated three years. This strain has given very good seed yield, and has good resistance to the two species of root-knot nematode and SCN races 3 and 4. It will be maintained for use as a parent. Three strains, R76-479, Tn77-111 and S79-4240, have been evaluated two years. S79-4240 is resistant to both races 3 and 4 of SCN. It averages three days later in maturity than Epps. The two-year mean seed yield for Tn77-111 is nearly similar to that for Forrest, but it differs from Forrest in that it is highly susceptible to the root-knot nematode M. incognita. Tn77-111 is being increased and released as Tn585.

Five strains, D81-7857, S80-2959, S80-5949, V78-184, and V79-882, were evaluated one year. S80-5949 had the lowest mean seed yield of the strains.

Table 15 - General summary of performance of the strains in Uniform Group V, 1984

	No. of locations	Essex	Forrest	Epps	D77-6056	R76-479
Seed Yield - 1984						
East Coast	4	42.1	40.7	35.9	42.6	40.1
Upper & Central South	10	42.5	40.0	39.5	42.5	43.2
Delta	7	43.5	46.9	42.3	47.9	47.1
West	3	45.0	39.9	40.8	42.1	41.8
1983-84						
East Coast		40.0	40.4	36.4	41.5	40.2
Upper & Central South		35.1	35.1	33.8	36.8	35.6
Delta		36.9	42.0	38.8	44.9	42.3
West		41.5	39.5	39.1	39.8	40.7
1982-84						
East Coast		40.7	40.6	37.4	41.9	
Upper & Central South		40.6	40.1	36.2	41.8	
Delta		38.2	42.7	39.1	44.5	
West		41.6	39.1	37.6	39.3	
Oil Content - 1984		20.1	20.2	19.7	20.0	20.4
1983-84		20.6	20.9	20.2	20.4	21.1
1982-84		20.0	20.2	19.5	19.9	
Protein Content - 1984		42.4	39.5	41.6	39.4	39.5
1983-84		42.3	39.6	41.6	39.8	39.4
1982-84		42.1	37.6	41.3	39.4	
Seed size		13.5	12.9	14.6	14.4	13.1
Maturity index		10-6	+5	+4	+7	+5
Height		31	37	36	39	37
Seed quality		2.2	2.2	2.5	2.4	2.1
M. incognita		5.0	1.5	3.0	2.0	1.0
M. arenaria		3.5	2.0	4.0	1.5	2.0
SCN race 3		S	R	R	R	R
SCN race 4		S	S	R	R	S
Soybean Looper		3.8	4.0	4.0	3.5	4.0
Percent mottled seed *		0	8	0	6	4
Flower color		P	W	P	P	W
Pubescence color		G	T	G	T	T
Pod wall color		T	T	T	T	T

*Rated at Orange, VA and Plymouth, NC.

Table 15 - (continued)

	S79-4240	Tn77-111	D81-7857	S80-2959	S80-5949	V78-184	V79-882
Seed yield - 1984							
East Coast	36.4	40.8	42.0	39.5	39.6	48.2	44.1
Upper & Central South	39.5	43.5	39.9	41.3	40.8	44.9	41.8
Delta	46.4	47.1	48.4	46.2	42.9	46.7	46.1
West	40.8	41.2	39.9	41.0	36.8	48.3	44.3
1983-84							
East Coast	36.5	39.8					
Upper & Central South	34.3	35.3					
Delta	40.6	41.2					
West	38.7	39.1					
1982-84							
East Coast							
Upper & Central South							
Delta							
West							
Oil Content - 1984	19.6	20.4	21.5	20.2	21.0	21.0	21.1
1983-84	20.1	20.9					
1982-84							
Protein Content - 1984	41.6	40.5	38.4	40.8	39.9	40.3	41.9
1983-84	41.2	40.6					
1982-84							
Seed size	13.3	12.4	13.9	14.0	14.5	15.4	14.1
Maturity index	+7	+5	+10	+6	+9	+5	+7
Height	40	35	42	38	43	34	33
Seed quality	2.1	2.1	2.2	2.1	2.6	2.1	2.3
M. incognita	2.0	5.0	5.0	5.0	1.0	5.0	5.0
M. arenaria	-	2.0	-	-	-	-	3.5
SCN race 3	R	R	R	R	R	S	S
SCN race 4	R	S	R	S	R	S	S
Soybean Looper	3.0	3.5	4.5	3.5	4.0	3.5	3.5
Percent mottled seed	14	0	9	5	28	0	0
Flower color	W	W	W	W	P	W	P
Pubescence color	T	G	T	T	T	G	G
Pod wall color	T	T	T	T	T	T	T

Table 16 - Seed yield, in bushels per acre, for the strains in Uniform Group V, 1984

Location	Essex	Forrest	Epps	D77-6056	R76-479	S79-4240	Tn77-111
			EAST COAST				
Queenstown, MD	38.4	38.0	31.6-	39.4	37.0	27.3-	35.5
*Georgetown, DE	15.7	18.4	16.1	12.6	16.7	14.3	16.7
Warsaw, VA	37.6	31.6-	27.8-	32.3-	32.2-	29.0-	29.7-
Holland, VA	53.4	49.5	45.4	55.4	52.8	45.5	53.7
Plymouth, NC	39.1	43.6	38.8	43.3	38.5	43.9	44.3
Mean	42.1	40.7	35.9	42.6	40.1	36.4	40.8
			UPPER AND CENTRAL SOUTH				
Orange, VA	37.2	43.1	39.1	36.0	43.5	38.3	40.0
Knoxville, TN	39.2	40.3	34.9	33.3	38.9	38.1	40.1
Clemson, SC	51.8	43.4-	39.8-	41.7-	41.8-	37.8-	45.0-
Calhoun, GA	55.2	44.8-	41.7-	47.9	53.6	40.4-	52.6
Athens, GA	49.1	44.4	49.0	49.1	47.5	45.7	47.0
Belle Mina, AL	50.3	44.7	44.9	43.3	45.6	41.3-	51.5
Princeton, KY	43.1	36.4	39.9	41.0	42.8	33.2	46.2
Tiptonville, TN	25.6	28.6+	37.8+	37.1+	30.2+	32.2+	27.5
Martin, TN	39.8	43.9	40.9	54.8+	45.6	49.6+	48.6+
Jackson, TN	33.5	30.9	37.2	41.0	42.2	38.2	36.2
Mean	42.5	40.0	39.5	42.5	43.2	39.5	43.5
			DELTA				
Portageville, MO (A)	44.8	49.9	45.9	49.4	49.9	49.9	47.2
Portageville, MO (B)	31.7	40.7+	35.4	42.5+	39.9+	40.7+	34.8
Keiser, AR	51.6	48.7	46.2	52.3	47.2	46.8	54.8
*Jonesboro, AR	19.6	20.8	21.4	25.0	19.4	28.5	21.5
Pine Tree, AR	28.6	30.9	28.8	32.6+	33.2+	33.2+	34.6+
Stoneville, MS (A)	51.0	56.0	53.1	59.9+	56.2	56.4	55.5
Stoneville, MS (B)	49.2	59.7	47.3	53.0	52.0	50.6	59.6+
St. Joseph, LA	47.6	42.2	39.1	45.6	51.3	47.1	42.5
Mean	43.5	46.9	42.3	47.9	47.1	46.4	47.0
			WEST				
*Ottawa, KS	12.5	14.1+	11.4-	13.0+	16.1+	12.1	14.4+
*Columbus, KS	2.8	6.5+	10.3+	8.6+	10.0+	6.7+	6.2+
*Pittsburg, KS	12.2	13.3	14.9+	12.2	12.2	12.2	10.7
Stuttgart, AR	50.4	45.1-	46.0	51.7	47.8	49.8	47.4
*Bossier City, LA	32.7	40.7	38.0	41.6	33.4	42.0	34.7
Bixby, OK	37.6	32.9-	35.0	28.7-	33.3	31.0	31.5
Lubbock, TX	47.1	41.6-	41.3-	45.9	44.2	41.5-	44.8
*Beaumont, TX	15.2	16.7	15.5	21.5+	17.4	16.0	9.8
Mean	45.0	39.9	40.8	42.1	41.8	40.8	41.2

*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	D81-7857	S80-2959	S80-5949	V78-184	V79-882	L.S.D. (.05)	C.V. (%)
		EAST COAST					
Queenstown, MD	34.1	35.0	36.9	42.1	38.0	6.0	10
Georgetown, DE	13.4	12.5	13.0	19.3	14.6	N.S.	
Warsaw, VA	33.0	27.9-	27.3-	37.6	32.0-	5.0	9
Holland, VA	54.9	51.3	47.6	64.9+	57.9	10.5	11
Plymouth, NC	45.9	43.7	46.6+	48.1+	48.5+	6.9	9
Mean	42.0	39.5	39.6	48.2	44.1		
		UPPER AND CENTRAL SOUTH					
Orange, VA	37.7	40.0	39.6	43.1	43.4	N.S.	12
Knoxville, TN	32.9	34.0	31.8-	44.5	42.2	6.9	11
Clemson, SC	34.4-	46.4-	36.4-	48.2	42.6-	5.2	7
Calhoun, GA	47.3	49.5	41.5-	50.5	51.2	9.1	11
Athens, GA	44.5	50.8	49.7	49.4	47.2	6.5	8
Belle Mina, AL	42.3	32.3-	46.7	53.4	47.9	8.2	11
Princeton, KY	40.3	42.4	36.4	44.6	41.2	N.S.	13
Tiptonville, TN	36.1+	31.4+	36.7+	32.8+	31.8+	2.7	5
Martin, TN	49.7+	44.8	46.9	43.4	36.8	7.5	10
Jackson, TN	33.9	41.5	42.4	38.6	34.1	N.S.	15
Mean	39.9	41.3	40.8	44.9	41.8		
		DELTA					
Portageville, MO (A)	45.2	42.2	41.4	44.3	40.9	6.8	9
Portageville, MO (B)	43.8+	36.8+	36.3+	39.0+	33.3	3.8	6
Keiser, AR	48.7	50.3	38.3-	49.5	52.1	5.9	7
Jonesboro, AR	19.9	28.2	19.2	23.3	18.2	N.S.	21
Pine Tree, AR	35.8+	34.6+	30.6	30.0	32.7+	3.9	7
Stoneville, MS (A)	60.6+	57.5+	54.0	61.5+	54.3	5.6	9
Stoneville, MS (B)	52.0	58.6+	51.2	54.3	51.8	5.8	6
St. Joseph, LA	52.4	43.1	48.5	48.2	46.1	6.8	9
Mean	48.4	46.2	42.9	46.7	44.5		
		WEST					
Ottawa, KS	10.2-	16.3+	12.7	17.9+	16.4+	5.0	21
Columbus, KS	7.0+	9.0+	2.4	10.3+	8.2	2.5	20
Pittsburg, KS	11.1-	12.0	8.2-	14.1	15.8+	2.1	10
Stuttgart, AR	52.6	51.0	43.8-	53.0	50.7	4.8	6
Bossier City, LA	34.2	35.6	41.6	40.5	40.7	8.6	20
Bixby, OK	27.4-	31.1-	24.1-	40.1	35.3	4.7	6
Lubbock, TX	39.6-	40.9-	42.4	51.7	46.9	4.9	9
Beaumont, TX	22.9+	15.9	17.1	16.0	22.1+	5.7	19
Mean	39.9	41.0	36.8	48.3	44.3		

Table 17 - Chemical composition and seed size for the strains in Uniform Group V, 1984

Location	Essex	Forrest	Epps	D77-6056	R76-479	S79-4240
			OIL PERCENTAGE			
Queenstown, MD	19.1	19.5	18.4	18.8	18.9	18.4
Warsaw, VA	20.2	20.5	19.7	20.0	20.3	20.3
Plymouth, NC	19.4	19.9	18.7	19.6	20.4	18.3
Orange, VA	18.8	18.7	18.0	18.7	19.0	17.6
Calhoun, GA	19.3	20.1	19.8	19.3	20.2	19.8
Jackson, TN	21.0	21.2	21.0	21.5	21.9	21.5
Portageville, MO (A)	20.4	20.3	19.9	19.8	20.4	19.8
Keiser, AR	21.0	21.0	20.7	21.4	21.7	20.9
Stoneville, MS (A)	21.0	20.4	20.3	20.9	20.3	19.7
Stuttgart, AR	20.4	20.7	20.0	20.4	20.8	19.5
Mean	20.1	20.2	19.7	20.0	20.4	19.6
			PROTEIN PERCENTAGE			
Queenstown, MD	42.7	38.3	40.0	38.9	38.0	41.1
Warsaw, VA	40.7	37.0	39.3	36.1	36.9	39.2
Plymouth, NC	43.5	40.3	44.0	40.0	41.2	41.3
Orange, VA	41.9	38.1	40.7	37.9	37.9	41.7
Calhoun, GA	44.1	39.5	41.4	40.5	40.4	43.4
Jackson, TN	40.3	39.6	40.4	37.9	37.7	40.6
Portageville, MO (A)	42.9	40.4	41.8	40.3	39.7	41.2
Keiser, AR	41.8	39.3	41.5	39.4	39.5	41.2
Stoneville, MS (A)	42.4	40.4	42.4	40.9	42.4	43.4
Stuttgart, AR	43.9	41.8	44.5	42.1	41.6	43.1
Mean	42.4	39.5	41.6	39.4	39.5	41.6
			GRAMS PER 100 SEEDS			
Queenstown, MD	12.5	11.9	13.4	14.7	13.0	13.6
Warsaw, VA	12.2	11.9	13.2	13.7	11.6	12.5
Plymouth, NC	14.6	12.6	13.6	14.0	12.1	12.7
Orange, VA	14.5	13.8	15.3	15.5	14.4	13.6
Calhoun, GA	14.6	14.2	15.0	15.3	14.4	14.0
Jackson, TN	13.5	13.0	14.5	13.9	13.0	12.7
Portageville, MO (A)	12.5	12.2	14.4	13.2	12.6	13.0
Keiser, AR	14.9	13.5	15.6	14.7	13.7	13.9
Stoneville, MS (A)	11.6	12.2	15.6	14.2	12.6	12.8
Stuttgart, AR	14.0	14.0	15.7	14.3	13.7	14.0
Mean	13.5	12.9	14.6	14.4	13.1	13.3

Table 17 - (continued)

Location	Tn77-111	D81-7857	S80-2959	S80-5949	V78-184	V79-882
			OIL PERCENTAGE			
Queenstown, MD	18.9	19.8	18.7	19.6	19.1	19.6
Warsaw, VA	20.2	21.6	19.3	20.5	20.7	20.7
Plymouth, NC	20.1	21.0	19.4	20.9	20.2	20.8
Orange, VA	18.6	20.0	18.7	18.9	19.7	20.6
Calhoun, GA	20.6	20.6	19.6	20.3	21.4	20.9
Jackson, TN	21.4	22.5	21.5	22.1	22.1	22.9
Portageville, MO (A)	21.1	22.2	20.6	21.0	21.3	20.7
Keiser, AR	21.7	22.6	21.8	23.1	22.9	22.0
Stoneville, MS (A)	20.9	22.3	20.5	21.7	21.1	21.6
Stuttgart, AR	20.5	22.1	21.5	21.9	21.8	21.3
Mean	20.4	21.5	20.2	21.0	21.0	21.1
			PROTEIN PERCENTAGE			
Queenstown, MD	40.9	38.2	40.6	39.7	41.5	42.3
Warsaw, VA	38.8	35.4	40.0	38.5	39.9	41.7
Plymouth, NC	41.1	40.0	42.2	40.7	41.5	42.1
Orange, VA	40.4	37.0	39.2	38.7	40.3	41.3
Calhoun, GA	41.0	38.2	40.5	39.8	40.5	41.7
Jackson, TN	39.1	37.9	39.5	39.2	38.4	39.7
Portageville, MO (A)	39.8	38.4	41.1	40.6	39.7	43.3
Keiser, AR	39.4	37.1	40.2	38.8	39.6	40.5
Stoneville, MS (A)	41.1	40.3	42.6	41.7	39.8	42.7
Stuttgart, AR	43.1	41.0	41.8	41.6	41.7	43.2
Mean	40.5	38.4	40.8	39.9	40.3	41.9
			GRAMS PER 100 SEEDS			
Queenstown, MD	11.6	13.7	13.2	14.9	14.5	13.7
Warsaw, VA	10.6	13.4	11.9	13.0	13.2	12.7
Plymouth, NC	13.3	13.8	15.1	14.5	16.2	15.2
Orange, VA	12.9	14.8	14.6	14.8	16.0	15.2
Calhoun, GA	13.5	14.5	14.5	14.8	16.3	15.0
Jackson, TN	12.6	13.8	13.6	14.1	14.9	13.7
Portageville, MO (A)	11.6	13.4	13.2	14.1	15.3	12.3
Keiser, AR	13.2	13.7	14.3	15.6	16.1	14.4
Stoneville, MS (A)	11.8	14.2	15.2	14.4	14.9	12.8
Stuttgart, AR	13.0	13.3	14.7	15.0	16.7	15.7
Mean	12.4	13.9	14.0	14.5	15.4	14.1

Table 18 - Relative maturity, days earlier (-) or later (+) than Essex, for the strains in Uniform Group V, 1984

Location	Date planted	Essex matured	Forrest	Epps	D77-6056	R76-479	S79-4240
			EAST COAST				
Queenstown, MD	6-11	10-25	+3	+3	+4	+2	+9
Georgetown, DE	6-11	10-18	+8	+8	+9	+7	+10
Warsaw, VA	6-4	10-17	+6	+6	+8	+5	+7
Holland, VA	5-17	10-19	+1	0	+1	+3	+2
Plymouth, NC	5-25	10-9	+4	0	+2	-2	+4
Mean	6-1	10-18	+4	+3	+5	+3	+6
			UPPER AND CENTRAL SOUTH				
Orange, VA	5-23	10-19	+7	+7	+7	+5	+9
Knoxville, TN	5-8	10-2	+4	+1	+5	+4	+5
Clemson, SC	5-11	9-27	+2	-1	+3	0	+5
Calhoun, GA	6-4	10-12	+2	+2	+4	0	+3
Athens, GA	5-21	9-23	+4	+4	+5	+4	+5
Belle Mina, AL	5-16	9-15	+6	+3	+8	+5	+6
Princeton, KY	5-24	10-7	+6	+6	+7	+9	+7
Martin, TN	6-8	10-15	+6	+8	+12	+9	+12
Jackson, TN	5-15	10-2	+5	+4	+6	+4	+6
Mean	5-21	10-3	+5	+4	+6	+4	+6
			DELTA				
Portageville, MO (A)	5-22	9-30	+16	+18	+16	+18	+19
Portageville, MO (B)	5-23	10-15	+1	+1	+2	+1	+3
Keiser, AR	5-17	10-14	-1	+2	0	0	+3
Jonesboro, AR	5-23	10-13	0	+1	+3	+3	+2
Pine Tree, AR	6-7	10-8	0	-1	+3	+3	+1
Stoneville, MS (A)	5-11	9-25	+4	+1	+6	+3	+6
Stoneville, MS (B)	5-15	9-27	+3	+2	+4	+2	+6
St. Joseph, LA	5-14	9-18	0	-2	+1	+1	+4
Mean	5-20	10-3	+3	+3	+4	+4	+6
			WEST				
Columbus, KS	6-13	10-8	+8	+10	+16	+10	+15
Stuttgart, AR	6-2	10-1	+7	+7	+7	+7	+7
*Bossier City, LA	5-18	9-20	+1	0	+6	+1	+6
Lubbock, TX	5-15	10-10	+10	+7	+12	+9	+7
Beaumont, TX	5-16	9-15	+7	+1	+10	+4	+6
Mean	5-27	9-29	+8	+6	+11	+8	+9

*Not included in mean

Table 18 - (continued)

Location	Tn77-111	D81-7857	S80-2959	S80-5949	V78-184	V79-882
		EAST COAST				
Queenstown, MD	+3	+10	-1	+10	+2	+5
Georgetown, DE	+8	+10	+9	+10	+7	+8
Warsaw, VA	+7	+10	+4	+10	+5	+7
Holland, VA	+7	+8	+2	+7	+5	+6
Plymouth, NC	+2	+8	+2	+4	+4	+8
Mean	+6	+9	+3	+8	+5	+7
		UPPER AND CENTRAL SOUTH				
Orange, VA	+7	+11	+4	+10	+4	+6
Knoxville, TN	+2	+6	+2	+5	+7	+8
Clemson, SC	0	+5	+1	+8	+2	+3
Calhoun, GA	-1	+6	+2	+5	+2	0
Athens, GA	+3	+12	+4	+5	+5	+5
Belle Mina, AL	+6	+9	+2	+6	+6	+6
Princeton, KY	+9	+11	+5	+10	+8	+10
Martin, TN	+10	+15	+9	+10	+4	+9
Jackson, TN	+3	+10	+5	+6	+6	+6
Mean	+4	+9	+4	+7	+5	+6
		DELTA				
Portageville, MO (A)	+17	+20	+16	+20	+17	+18
Portageville, MO (B)	0	+6	+1	+4	+1	0
Keiser, AR	+3	+4	-1	+4	+1	+5
Jonesboro, AR	-1	+2	+4	+3	+3	+3
Pine Tree, AR	-1	+2	+4	+3	+3	+3
Stoneville, MS (A)	+1	+9	+4	+8	+2	+7
Stoneville, MS (B)	+4	+7	+4	+8	+4	+7
St. Joseph, LA	0	+2	+2	+1	+2	+6
Mean	+3	+7	+5	+6	+4	+6
		WEST				
Columbus, KS	+9	+27	+20	+24	+12	+21
Stuttgart, AR	+7	+11	+7	+14	+7	+7
Bossier City, LA	-1	+8	+6	+6	-1	+5
Lubbock, TX	+7	+13	+7	+15	+2	+3
Beaumont, TX	+6	+8	+9	+11	+6	+9
Mean	+7	+15	+11	+16	+7	+10

Table 19 - Plant height for the strains in Uniform Group V, 1984

Location	Essex	Forrest	Epps	D77-6056	R76-479	S79-4240
			EAST COAST			
Queenstown, MD	38	39	38	40	38	43
Georgetown, DE	35	43	40	40	41	43
Warsaw, VA	37	43	42	46	44	49
Holland, VA	37	46	40	51	45	46
Plymouth, NC	32	36	32	39	38	37
Mean	36	41	38	43	41	44
			UPPER AND CENTRAL SOUTH			
Orange, VA	38	47	49	51	48	49
Knoxville, TN	32	37	34	36	37	38
Clemson, SC	25	30	29	33	33	33
Calhoun, GA	36	42	48	44	43	45
Athens, GA	29	35	34	39	32	38
Belle Mina, AL	28	39	39	42	37	44
Princeton, KY	34	45	45	46	48	44
Martin, TN	36	44	41	46	34	45
Jackson, TN	29	37	36	37	34	39
Mean	32	40	39	42	38	42
			DELTA			
Portageville, MO (A)	40	44	46	39	47	50
Portageville, MO (B)	33	40	36	41	38	44
Keiser, AR	30	35	33	36	32	37
Jonesboro, AR	25	28	30	33	32	33
Pine Tree, AR	34	44	39	43	43	47
Stoneville, MS (A)	23	31	33	37	32	35
Stoneville, MS (B)	27	35	35	39	31	40
St. Joseph, LA	20	26	24	26	24	29
Mean	29	35	35	37	35	39
			WEST			
Ottawa, KS	28	38	33	40	35	35
Columbus, KS	23	32	29	29	31	30
Pittsburg, KS	28	29	31	29	27	29
Stuttgart, AR	25	32	28	37	36	35
*Bossier City, LA	22	31	31	34	28	31
Bixby, OK	34	43	40	40	41	44
Lubbock, TX	27	38	34	37	37	35
Beaumont, TX	17	19	20	21	21	25
Mean	26	33	31	33	33	33

*Not included in mean

Table 19 - (continued)

Location	Tn77-111	D81-7857	S80-2959	S80-5949	V78-184	V79-882
			EAST COAST			
Queenstown, MD	38	42	43	46	39	36
Georgetown, DE	40	43	40	45	37	34
Warsaw, VA	45	49	48	50	40	40
Holland, VA	44	49	43	53	39	39
Plymouth, NC	35	38	37	37	28	33
Mean	40	44	42	46	37	36
			UPPER AND CENTRAL SOUTH			
Orange, VA	46	55	50	62	41	39
Knoxville, TN	34	40	37	44	35	33
Clemson, SC	29	38	32	43	29	27
Calhoun, GA	46	48	48	47	47	45
Athens, GA	31	41	35	50	33	33
Belle Mina, AL	42	44	43	47	37	37
Princeton, KY	44	49	44	52	41	41
Martin, TN	44	56	36	52	39	35
Jackson, TN	35	40	35	44	35	32
Mean	39	46	40	49	37	36
			DELTA			
Portageville, MO (A)	48	49	48	60	44	46
Portageville, MO (B)	40	38	45	44	38	37
Keiser, AR	34	42	37	43	30	27
Jonesboro, AR	27	37	32	36	27	29
Pine Tree, AR	42	49	45	51	36	38
Stoneville, MS (A)	30	39	36	41	29	28
Stoneville, MS (B)	36	42	37	45	33	32
St. Joseph, LA	26	33	26	33	22	21
Mean	35	41	38	44	32	32
			WEST			
Ottawa, KS	34	35	34	36	29	32
Columbus, KS	28	32	27	30	23	28
Pittsburg, KS	25	30	27	28	26	24
Stuttgart, AR	33	40	35	40	30	30
Bossier City, LA	26	37	31	35	24	27
Bixby, OK	48	47	47	45	37	35
Lubbock, TX	34	39	36	36	33	31
Beaumont, TX	17	25	23	23	15	18
Mean	31	35	33	34	28	28

Table 20 - Lodging scores for the strains in Uniform Group V, 1984

Location	Essex	Forrest	Epps	D77-6056	R76-479	S79-4240
			EAST COAST			
Queenstown, MD	3.6	3.6	3.7	3.5	3.7	4.3
Georgetown, DE	2.0	3.3	2.8	2.3	2.7	3.2
Warsaw, VA	1.5	2.4	2.7	2.4	2.3	2.5
Holland, VA	3.0	5.0	4.7	4.3	4.7	5.0
Plymouth, NC	3.0	3.0	4.0	3.0	3.0	3.0
Mean	2.6	3.5	3.6	3.1	3.3	3.6
			UPPER AND CENTRAL SOUTH			
Orange, VA	5.0	4.6	5.0	5.0	4.7	5.0
Knoxville, TN	2.0	2.0	4.0	2.0	2.0	3.0
Clemson, SC	1.0	1.5	2.2	2.0	1.8	1.8
Calhoun, GA	1.5	3.0	4.0	2.5	3.2	3.2
Athens, GA	1.5	1.7	2.8	2.7	1.8	2.7
Belle Mina, AL	1.3	2.7	4.0	3.0	2.3	3.0
Princeton, KY	2.7	4.3	5.0	4.7	5.0	5.0
Martin, TN	1.0	3.0	5.0	5.0	4.0	5.0
Jackson, TN	1.0	1.0	2.0	1.0	1.0	2.0
Mean	1.9	2.6	3.8	3.1	3.7	3.4
			DELTA			
Portageville, MO (A)	2.0	2.5	3.5	2.5	3.0	4.0
Portageville, MO (B)	1.0	2.0	3.0	1.5	2.0	3.0
Keiser, AR	1.0	2.0	4.0	2.0	2.0	2.0
Jonesboro, AR	1.3	1.7	2.3	2.7	1.3	2.7
Pine Tree, AR	2.7	3.7	5.0	3.7	3.7	4.3
Stoneville, MS (A)	2.0	2.0	2.7	2.0	2.0	2.3
Stoneville, MS (B)	2.0	2.0	2.3	2.7	2.0	3.0
St. Joseph, LA	1.5	1.5	1.5	1.7	1.5	1.5
Mean	1.7	2.2	3.0	2.4	2.2	2.9
			WEST			
Ottawa, KS	1.7	2.0	3.0	2.0	2.0	2.0
Columbus, KS	1.0	1.3	2.0	1.3	1.7	1.0
Pittsburg, KS	1.0	1.0	1.0	1.0	1.0	1.0
Stuttgart, AR	1.1	1.3	1.6	1.6	1.1	1.5
*Bossier City, LA	1.0	1.0	1.0	1.0	1.0	1.3
Bixby, OK	1.0	2.0	3.0	3.0	2.0	3.0
Lubbock, TX	2.3	1.2	1.5	1.2	1.2	1.2
Beaumont, TX	1.0	1.0	1.0	1.0	1.0	1.0
Mean	1.3	1.4	1.9	1.6	1.4	1.5

*Not included in mean

Table 20 - (continued)

Location	Tn77-111	D81-7857	S80-2959	S80-5949	V78-184	V79-882
		EAST COAST				
Queenstown, MD	3.7	3.6	3.5	3.8	3.6	3.3
Georgetown, DE	2.3	2.2	2.3	2.7	2.0	2.0
Warsaw, VA	2.0	2.2	1.8	2.3	1.5	1.2
Holland, VA	3.0	4.0	3.7	4.5	3.3	3.3
Plymouth, NC	4.0	3.0	2.0	3.0	3.0	3.0
Mean	3.0	3.0	2.7	3.3	2.7	2.6
		UPPER AND CENTRAL SOUTH				
Orange, VA	4.0	4.7	4.0	5.0	4.0	2.7
Knoxville, TN	2.0	2.0	2.0	4.0	2.0	2.0
Clemson, SC	1.2	2.0	1.0	4.2	1.0	1.0
Calhoun, GA	2.7	2.5	2.0	2.7	2.5	2.0
Athens, GA	1.5	2.0	1.7	3.5	1.5	1.5
Belle Mina, AL	2.7	2.3	1.7	3.7	2.3	2.0
Princeton, KY	4.7	4.3	4.0	5.0	4.0	3.0
Martin, TN	4.0	5.0	3.0	4.0	3.0	3.0
Jackson, TN	1.0	2.0	1.0	2.0	1.0	1.0
Mean	2.6	3.0	2.3	3.8	2.4	2.0
		DELTA				
Portageville, MO (A)	3.0	3.0	2.0	4.0	2.5	1.5
Portageville, MO (B)	1.5	2.0	1.5	3.0	1.0	1.0
Keiser, AR	2.0	3.0	1.0	3.0	1.0	1.0
Jonesboro, AR	1.3	3.7	1.0	4.0	1.0	1.0
Pine Tree, AR	3.0	3.7	2.3	4.3	3.0	2.7
Stoneville, MS (A)	2.0	2.3	2.0	3.0	2.0	2.0
Stoneville, MS (B)	2.0	2.3	2.0	3.0	2.0	2.0
St. Joseph, LA	1.5	2.0	1.5	1.8	1.5	1.5
Mean	2.0	2.7	1.7	3.3	1.8	1.6
		WEST				
Ottawa, KS	2.0	2.0	1.3	2.3	1.3	2.0
Columbus, KS	1.0	1.3	1.0	1.7	1.0	1.0
Pittsburg, KS	1.0	1.0	1.0	1.0	1.0	1.0
Stuttgart, AR	1.0	1.9	1.3	2.4	1.0	1.0
Bossier City, LA	1.0	1.0	1.0	1.0	1.0	1.0
Bixby, OK	3.0	3.0	2.0	3.0	2.0	2.0
Lubbock, TX	1.2	1.2	1.2	1.2	1.2	2.0
Beaumont, TX	1.0	1.0	1.0	1.0	1.0	1.0
Mean	1.5	1.6	1.3	1.8	1.2	1.4

Table 21 - Seed quality scores for the strains in Uniform Group V, 1984

Location	Essex	Forrest	Epps	D77-6056	R76-479	S79-4240
		EAST COAST				
Queenstown, MD	1.2	1.7	1.7	1.5	1.8	1.7
Georgetown, DE	1.7	2.0	2.2	2.0	1.8	1.8
Warsaw, VA	1.0	1.2	1.3	1.0	1.2	1.0
Holland, VA	2.3	2.0	2.0	2.0	2.0	2.0
Plymouth, NC	2.0	1.5	2.0	1.5	1.5	1.5
Mean	1.6	1.7	1.8	1.6	1.7	1.6
		UPPER AND CENTRAL SOUTH				
Orange, VA	2.0	2.2	3.0	4.0	2.3	2.2
Knoxville, TN	2.0	2.0	3.0	3.0	1.0	2.0
Calhoun, GA	2.0	1.5	2.2	2.0	1.5	1.8
Athens, GA	1.5	1.5	1.5	1.7	1.5	2.0
Princeton, KY	4.0	1.0	5.0	2.0	1.0	2.0
Jackson, TN	2.0	2.0	2.0	2.0	1.0	2.0
Mean	2.3	1.7	2.8	2.5	1.4	2.0
		DELTA				
Portageville, MO (A)	2.5	2.0	2.5	2.5	2.0	2.0
Portageville, MO (B)	2.5	2.0	2.5	2.0	2.5	2.0
Keiser, AR	1.5	2.0	3.5	3.0	2.5	2.0
Jonesboro, AR	3.3	4.0	2.0	2.7	3.3	3.0
Pine Tree, AR	4.3	5.0	4.7	4.3	4.3	3.3
Stoneville, MS (A)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, MS (B)	3.3	3.0	3.7	3.7	3.0	2.7
St. Joseph, LA	2.7	2.5	2.5	2.5	2.5	2.2
Mean	2.8	2.8	2.9	2.8	2.8	2.5
		WEST				
Ottawa, KS	1.5	2.0	2.0	2.0	1.5	2.5
Columbus, KS	2.3	2.5	2.2	2.3	2.5	2.5
Pittsburg, KS	2.5	3.0	3.0	3.5	3.0	3.0
Stuttgart, AR	2.5	3.0	2.5	3.0	3.0	2.2
*Bossier City, LA	1.7	1.7	1.7	1.5	1.2	1.3
Beaumont, TX	2.3	2.7	1.8	1.7	2.3	1.7
Mean	2.2	2.6	2.3	2.5	2.5	2.3

*Not included in mean

Table 21 - (continued)

Location	Tn77-111	D81-7857	S80-2959	S80-5949	V78-184	V79-882
		EAST COAST				
Queenstown, MD	1.5	2.0	1.7	2.0	2.0	2.5
Georgetown, DE	2.0	2.0	2.0	2.3	1.8	2.2
Warsaw, VA	1.2	1.2	1.0	1.2	1.0	1.0
Holland, VA	2.0	2.0	2.0	2.0	2.3	2.0
Plymouth, NC	1.5	1.5	1.5	1.5	1.5	2.0
Mean	1.6	1.7	1.6	1.8	1.7	1.9
		UPPER AND CENTRAL SOUTH				
Orange, VA	1.8	2.3	2.0	2.2	1.8	1.7
Knoxville, TN	2.0	2.0	3.0	4.0	1.0	2.0
Calhoun, GA	2.0	1.8	2.0	2.0	1.8	1.5
Athens, GA	1.5	1.5	1.5	2.0	1.5	1.5
Princeton, KY	2.0	3.0	2.0	3.0	2.0	2.0
Jackson, TN	1.0	2.0	2.0	2.0	2.0	2.0
Mean	1.7	2.1	2.1	2.5	1.7	1.8
		DELTA				
Portageville, MO (A)	2.5	2.0	2.0	3.0	2.5	3.0
Portageville, MO (B)	2.5	2.0	2.5	3.0	2.5	3.0
Keiser, AR	2.5	2.0	2.0	3.5	3.5	2.5
Jonesboro, AR	4.3	3.3	4.0	4.3	4.3	4.3
Pine Tree, AR	4.0	3.0	3.3	5.0	3.7	3.3
Stoneville, MS (A)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, MS (B)	3.0	3.0	3.0	3.7	3.0	3.0
St. Joseph, LA	2.8	2.5	2.0	2.5	2.8	2.2
Mean	3.0	2.6	2.6	3.4	3.0	2.9
		WEST				
Ottawa, KS	1.5	2.5	1.5	3.0	1.5	2.0
Columbus, KS	2.2	2.3	2.2	3.0	2.3	3.2
Pittsburg, KS	3.0	2.5	2.0	3.0	3.0	2.0
Stuttgart, AR	3.0	3.0	2.5	3.5	2.2	3.0
Bossier City, LA	1.8	1.8	1.3	1.7	1.5	1.2
Beaumont, TX	1.5	1.5	1.7	1.7	1.5	1.7
Mean	2.2	2.3	2.0	2.8	2.1	2.4

PRELIMINARY GROUP V

1984

Plantings of the Preliminary Group V nursery, which included Forrest and Hill along with 34 experimental strains, were made at 8 locations. Parentage for these strains are reported in Table 22. Table 23 gives a general summary of performance including reaction to two species of root-knot nematode, two races of soybean cyst nematode, and to feeding by soybean looper. Data from individual locations are reported in Tables 24 through 28.

Maturity for strains within the group ranged from later than Hill to 3 days later than Forrest. Progress is being made in incorporating resistance to root-knot nematode and soybean cyst nematode within strains being evaluated in this group. Sixteen strains were rated resistant to M. incognita, 25 resistant to M. arenaria, and 11 were rated resistant to both species of root-knot nematode. Twenty-one strains were resistant to SCN race 3 and nine were resistant or segregating for reaction to SCN race 4. Several were resistant to both species of root-knot nematode and both races of the soybean cyst nematode. Four strains received low ratings for feeding by the soybean looper. One of these was D82-3298 which ranked slightly above Forrest in seed yield, was resistant to M. incognita and SCN races 3 and 4, and had an intermediate rating for M. arenaria. D82-3333 averaged slightly lower in seed yield, but was rated resistant to both species of root-knot nematodes, cyst nematodes, and received a 1.0 rating for feeding by soybean looper. D82-3333 appeared to give a variable reaction to a soil condition in northeast Mississippi.

Forrest had a mean seed yield of 45.5 bushels per acre. Three strains had mean yields slightly above that for Forrest. Two strains had mean yields of 45.9 bushels per acre, and one a mean yield of 45.6 bushels per acre. Eight strains had mean seed yields 10% or greater below that for Forrest. Two strains had mean seed yields below that for Hill. Both were later in maturity than Hill.

Strains which appear to merit advance for evaluation in Uniform Group V in 1985 are D82-3298, R82-269, R82-1077, and S81-2524.

Table 22 - Parentage of the strains grown in Preliminary Group V, 1984

	Variety or strain	Parentage	Generation composited
1.	Forrest	Dyer X Bragg	F_5
2.	Hill	D632-15 X D49-2525	F_5
3.	D80-7869	Bedford X (Tracy X D72-8707)	F_5
4.	D80-7889	Bedford X (Tracy X D72-8707)	F_5
5.	D81-9776	Forrest X D67-5679	F_5
6.	D82-2470	Bedford X D72-8927	F_5
7.	D82-2550	Bedford X D72-8927	F_5
8.	D82-2559	Bedford X D72-8927	F_5
9.	D82-3341	Bedford X sel(J74-39 X D75-10169)	F_5
10.	D82-3298	Bedford X sel(Forrest X D75-10169)	F_5
11.	D82-3333	Bedford X sel(Forrest X D75-10169)	F_5
12.	D82-3465	Bedford X sel(Forrest X D75-10169)	F_5
13.	J82-34	Forrest X D72-8927	F_5
14.	J82-98	Forrest X D72-8927	F_5
15.	J82-177	Forrest X D72-8927	F_5
16.	K1111	K1034 X K74-108-79-169	F_5
17.	K1112	K74-115-75-405 X K1028	F_5
18.	K1113	K1022 X Essex	F_5
19.	K1114	K74-104-75-85 X Pella	F_5
20.	K1115	K74-115-75-405 X K1028	F_5
21.	LS82-1206	Forrest X V71-480	F_5
22.	N82-549	N75-2213 X D75-7521	F_5
23.	N82-552	N75-2213 X D75-7521	F_7
24.	N82-1069	N75-2213 X Bay	F_7
25.	R82-43	Forrest X Mitchell	F_5
26.	R82-128	(R75-2605 X R74-511) X (Centennial X R74-511)	F_5
27.	R82-269	Centennial X Narow	F_5
28.	R82-1077	R77-0236 X Narow	F_6
29.	R82-1145	R77-0236 X Narow	F_4
30.	S81-2524	Davis X J4-122	F_5
31.	S81-2572	S73-8613 X Centennial	F_5
32.	S81-2786	Franklin X S73-8613	F_5
33.	V79-2373	Essex X S63-5328	F_5
34.	V80-2165	Essex X V68-1171	F_5
35.	V81-675	Hodgson X Essex	F_5
36.	V81-867	Essex X V72-128	F_5

Table 23 - General summary of performance for the strains grown in Preliminary Group V, 1984

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	M. incognita	M. arenaria	SCN race 3	SCN race 4	Soybean looper
Forrest	45.5	10-10	36	20.6	39.9	1.5	1.5	R	S	4.0
Hill	34.0	-11	34	20.6	40.2	4.5	5.0	S	S	4.0
D80-7869	43.2	-2	42	19.5	40.5	1.0	2.0	R	S	4.0
D80-7889	42.7	+2	39	19.8	39.7	1.0	3.0	R	R	3.5
D81-9776	40.9	-1	38	19.2	41.1	4.5	1.5	R	S	3.8
D82-2470	39.5	+2	51	19.2	37.1	4.0	2.5	R	Seg	4.0
D82-2550	39.9	-1	42	19.1	39.1	2.0	2.0	R	R	3.5
D82-2559	42.3	+1	42	19.1	40.2	2.5	2.5	R	R	4.0
D82-3341	41.0	+1	39	19.8	40.3	1.0	2.0	R	R	2.5
D82-3298	45.9	-2	36	20.4	41.6	1.0	3.0	R	R	2.0
D82-3333	42.4	+1	40	20.4	40.0	1.0	2.0	R	R	1.0
D82-3465	42.4	-2	34	20.4	40.5	2.0	2.5	R	Seg	2.0
J82-34	41.1	-4	41	19.7	39.8	3.0	1.5	R	S	3.8
J82-98	42.0	+3	45	19.7	39.9	2.0	1.5	R	S	4.5
J82-177	40.3	0	39	20.1	40.7	2.5	2.0	R	S	3.0
K1111	42.7	-8	32	21.3	41.4	4.0	5.0	S	S	3.5
K1112	32.8	-1	20	22.6	39.4	5.0	-	S	S	3.5
K1113	39.3	-5	31	20.4	39.7	5.0	2.0	S	S	3.5
K1114	41.3	+1	47	20.9	41.3	3.0	1.5	S	S	3.8
K1115	30.9	-3	22	21.5	41.2	5.0	2.5	S	S	3.8
LS82-1206	39.1	-11	29	21.4	40.1	1.0	2.0	R	S	3.5
N82-549	43.6	-1	39	20.7	40.5	2.0	4.0	S	S	3.5
N82-552	42.2	-2	39	21.2	41.2	1.0	3.5	R	S	3.5
N82-1069	42.6	+3	42	20.8	40.3	1.0	-	S	S	5.0
R82-43	41.9	0	43	20.7	40.1	1.0	1.5	S	S	4.0
R82-128	41.6	-1	39	20.7	42.1	5.0	1.5	R	S	3.0
R82-269	45.9	+1	36	19.0	43.9	2.0	2.0	R	S	4.2
R82-1077	45.6	-5	34	21.4	40.4	5.0	2.5	R	S	4.2
R82-1145	45.9	-5	36	20.8	41.3	5.0	1.5	R	S	4.0
S81-2524	44.6	-2	33	19.2	42.5	4.0	2.0	R	Seg	3.0
S81-2572	35.5	-5	34	19.6	42.6	5.0	1.5	R	S	4.0
S81-2786	40.6	-1	47	20.7	41.6	3.0	3.5	Seg	S	3.0
V79-2373	39.9	-8	28	21.8	40.0	4.5	1.5	S	S	4.0
V80-2165	41.8	-7	30	20.6	42.8	3.0	5.0	S	S	3.0
V81-675	41.7	-7	29	21.1	40.7	5.0	2.0	S	S	3.8
V81-867	43.5	-4	30	19.1	43.6	5.0	1.5	S	S	3.5
L.S.D.(.05)	4.7									

Table 24 - Seed yield, in bushels per acre, for the strains grown in Preliminary Group V, 1984

Strain	Warsaw, VA	Plymouth, NC	Portage-ville, MO (A)	Tipton-ville, TN	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)
Forrest	24.1	47.9	50.6	35.2	50.4	54.3	55.8
Hill	22.9	29.1-	33.1-	33.5	36.0-	42.0-	41.7-
D80-7869	20.8	47.6	41.7-	38.9	45.1	57.2	51.2
D80-7889	23.9	43.9	40.9-	39.3	47.9	54.9	48.1-
D81-9776	28.6+	35.4-	38.2-	31.3	49.9	55.6	47.5-
D82-2470	16.9-	45.0	37.9-	31.6	42.4	55.0	47.4-
D82-2550	21.7	39.4	35.9-	35.4	40.3-	59.6	47.3-
D82-2559	23.6	40.8	40.2-	33.9	47.2	60.9	49.2-
D82-3341	21.5	41.0	40.7-	38.9	44.1	54.6	46.0-
D82-3298	27.6	50.3	44.6	40.6	51.3	60.6	46.4-
D82-3333	19.8-	48.2	47.7	37.6	48.6	53.3	41.8-
D82-3465	22.1	42.0	42.0-	38.2	46.7	58.3	47.8-
J82-34	21.8	43.0	41.4-	30.9	42.1	56.7	51.6
J82-98	22.9	47.2	45.3	33.1	48.0	50.5	46.8-
J82-177	22.7	40.4	43.3	35.4	44.6	45.6	50.0
K1111	29.0+	43.2	38.1-	30.8	49.1	55.7	52.8
K1112	27.8	44.4	41.4-	21.5-	30.8-	41.7-	22.1-
K1113	26.4	38.1-	38.4-	30.7	39.0-	51.4	50.9
K1114	22.2	49.0	40.8-	33.5	47.9	50.1	45.6-
K1115	24.6	41.6	36.2-	23.0-	28.9-	37.2-	24.5-
LS82-1206	26.7	42.4	45.2	26.4-	41.8	45.4	45.6-
N82-549	21.0	50.1	48.3	36.4	49.5	53.4	46.4-
N82-552	27.5	50.4	44.1	32.2	42.6	52.4	46.2-
N82-1069	23.0	47.0	41.0-	38.0	53.3	51.6	44.4-
R82-43	24.5	54.6	37.0-	29.1	46.4	52.1	49.4-
R82-128	19.1-	42.1	42.6-	36.1	41.3-	56.6	53.3
R82-269	24.1	45.9	50.5	32.6	55.7	59.9	52.9
R82-1077	26.1	49.7	41.0-	36.4	53.6	56.6	56.1
R82-1145	22.8	57.0+	44.1	33.8	46.1	63.7	53.7
S81-2524	24.3	47.4	38.2-	40.7	49.3	59.1	52.9
S81-2572	20.4	41.2	32.8-	28.4-	29.0-	52.2	44.6-
S81-2786	26.4	49.3	37.3-	35.0	37.1-	54.5	44.3-
V79-2373	28.4+	37.7-	42.9-	36.7	34.8-	52.6	46.5-
V80-2165	27.4	38.7-	45.1	31.3	44.9	55.3	50.0
V81-675	28.5+	40.7	46.6	26.3-	50.6	52.6	46.6-
V81-867	26.4	51.0	42.5-	33.2	50.2	48.9	52.3
L.S.D.(.05)	4.2	8.7	7.6	6.7	8.8	10.7	5.8
C.V.	9%	10%	9%	10%	10%	10%	6%

Table 25 - Oil percentages for the strains in Preliminary Group V, 1984

Strain	Warsaw, VA	Plymouth, NC	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (B)
Forrest	19.1	20.7	20.6	21.9	20.6
Hill	19.3	19.0	20.2	22.5	22.1
D80-7869	18.2	18.8	20.0	20.3	20.4
D80-7889	18.8	19.4	19.6	20.6	20.5
D81-9776	18.0	18.8	19.0	21.1	18.9
D82-2470	17.8	19.5	18.4	19.9	20.3
D82-2550	18.6	19.1	18.7	20.0	19.2
D82-2559	18.9	18.0	18.9	19.9	19.9
D82-3341	19.4	19.1	20.0	21.3	19.3
D82-3298	19.3	20.5	20.3	21.6	20.3
D82-3333	18.7	19.8	20.3	22.7	20.6
D82-3465	19.4	20.6	20.4	21.4	20.0
J82-34	18.8	19.2	19.7	20.9	20.1
J82-98	18.9	18.3	19.0	21.6	20.5
J82-177	19.1	19.5	19.6	21.5	20.9
K1111	19.6	20.9	21.7	21.3	23.0
K1112	20.3	21.5	22.7	25.2	23.2
K1113	18.9	19.9	20.2	22.2	20.7
K1114	19.7	19.9	21.5	21.5	22.1
K1115	19.7	20.4	22.0	22.8	22.6
LS82-1206	20.1	20.9	21.8	21.7	22.6
N82-549	18.8	20.4	20.7	22.0	21.6
N82-552	19.1	20.8	21.3	24.1	20.6
N82-1069	19.5	20.8	21.1	21.4	21.2
R82-43	18.6	20.4	21.2	21.9	21.3
R82-128	19.3	19.3	21.4	22.2	21.4
R82-269	16.7	18.4	19.5	20.3	20.1
R82-1077	20.0	20.6	21.2	22.4	23.0
R82-1145	19.1	20.3	20.8	22.3	21.3
S81-2524	18.2	19.2	19.4	19.1	19.9
S81-2572	18.4	19.4	20.4	20.0	19.8
S81-2786	18.8	20.2	21.0	21.4	21.9
V79-2373	20.5	21.2	21.7	23.0	22.7
V80-2165	20.1	19.9	20.6	21.4	21.1
V81-675	20.1	20.9	20.3	22.7	21.5
V81-867	18.7	18.2	19.1	19.6	19.8

Table 26 - Protein percentages for the strains in Preliminary Group V, 1984

Strain	Warsaw, VA	Plymouth, NC	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (B)
Forrest	40.0	40.0	39.8	39.3	40.4
Hill	39.0	38.8	40.9	41.4	41.1
D80-7869	41.5	40.5	39.9	39.7	41.0
D80-7889	37.6	40.8	38.6	39.5	42.0
D81-9776	40.3	42.8	41.1	40.1	41.2
D82-2470	38.2	37.8	38.0	35.7	35.6
D82-2550	38.1	39.1	39.8	39.3	39.0
D82-2559	39.1	41.1	41.0	39.6	40.4
D82-3341	38.4	40.9	39.6	39.5	42.9
D82-3298	41.5	40.6	41.3	40.7	44.0
D82-3333	40.9	40.4	38.7	38.7	41.2
D82-3465	41.0	39.8	40.1	39.8	41.7
J82-34	39.1	40.0	40.1	39.1	40.5
J82-98	39.0	41.4	38.9	38.6	41.6
J82-177	40.6	41.8	40.9	38.6	41.6
K1111	43.4	41.6	41.2	39.8	41.0
K1112	41.6	40.2	38.2	37.7	39.2
K1113	42.9	39.4	40.3	38.2	38.6
K1114	41.6	42.1	40.6	40.7	41.6
K1115	43.0	40.7	40.0	40.4	41.7
LS82-1206	40.5	40.1	40.0	39.3	40.5
N82-549	41.3	41.2	39.7	39.4	41.1
N82-552	41.6	42.2	41.1	39.8	41.5
N82-1069	39.0	41.2	40.3	39.5	41.6
R82-43	38.5	40.5	40.1	40.0	41.4
R82-128	42.6	43.6	41.8	40.3	42.4
R82-269	43.5	45.2	43.5	42.6	44.5
R82-1077	41.5	41.5	39.7	37.9	41.5
R82-1145	41.7	42.4	41.5	38.7	42.3
S81-2524	42.4	43.1	41.5	42.9	42.7
S81-2572	43.0	43.2	41.3	42.0	43.6
S81-2786	42.4	41.1	41.5	40.8	42.1
V79-2373	40.3	39.9	40.4	38.9	40.3
V80-2165	42.5	43.2	42.5	42.2	43.7
V81-675	39.9	42.2	41.0	39.8	40.6
V81-867	44.3	44.3	42.8	42.7	43.9

Table 27 - Plant height for the strains in Preliminary Group V, 1984

Strain	Warsaw, VA	Plymouth, NC	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)
Forrest	43	37	46	32	27	34
Hill	38	33	38	34	26	32
D80-7869	47	37	50	41	34	42
D80-7889	43	35	46	40	32	36
D81-9776	41	34	53	36	29	34
D82-2470	54	46	55	56	46	48
D82-2550	50	44	43	41	38	39
D82-2559	46	39	54	40	34	37
D82-3341	44	39	46	40	30	37
D82-3298	43	39	43	28	33	31
D82-3333	45	40	49	40	31	34
D82-3465	40	35	41	26	29	32
J82-34	45	40	48	34	37	39
J82-98	48	37	52	48	43	44
J82-177	48	37	48	33	32	38
K1111	36	34	38	26	26	29
K1112	24	27	23	13	19	12
K1113	38	31	35	26	26	27
K1114	40	43	49	50	48	50
K1115	26	26	24	17	18	20
LS82-1206	38	34	32	20	23	27
N82-549	44	38	45	38	31	36
N82-552	48	39	43	37	32	32
N82-1069	44	37	50	41	38	40
R82-43	48	41	53	41	35	41
R82-128	45	41	48	33	31	37
R82-269	38	36	41	31	32	35
R82-1077	40	38	41	25	26	32
R82-1145	41	39	36	37	29	33
S81-2524	35	32	35	34	28	33
S81-2572	40	35	37	30	28	32
S81-2786	42	42	52	44	51	48
V79-2373	34	33	32	28	20	23
V80-2165	34	31	33	28	25	26
V81-675	33	32	34	25	24	26
V81-867	37	35	33	24	23	30

Table 28 - Seed quality scores for the strains in Preliminary Group V, 1984

Strain	Warsaw, VA	Plymouth, NC	Portage-ville, MO (A)	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)
Forrest	1.0	1.5	2.5	3.0	2.0	3.0
Hill	1.3	1.5	2.5	3.0	2.0	4.0
D80-7869	1.3	1.5	3.5	2.0	2.0	3.5
D80-7889	1.2	1.0	2.0	2.0	2.0	3.0
D81-9776	1.0	1.5	2.5	3.5	2.0	2.5
D82-2470	1.2	1.5	2.0	2.5	2.0	3.0
D82-2550	1.0	2.0	2.5	3.5	2.0	3.5
D82-2559	1.3	1.5	2.5	2.5	2.0	3.0
D82-3341	1.2	1.5	2.5	2.5	2.0	4.0
D82-3298	1.3	1.5	2.5	3.0	2.0	4.0
D82-3333	1.4	1.5	2.5	3.5	2.0	3.5
D82-3465	1.2	1.5	3.0	2.6	2.0	4.0
J82-34	1.2	1.5	2.0	2.5	2.0	4.0
J82-98	1.0	1.5	2.0	3.0	2.0	3.0
J82-177	1.2	1.5	2.5	3.0	2.0	3.5
K1111	1.4	1.5	2.5	2.0	2.0	3.0
K1112	1.2	1.5	3.0	4.0	2.0	3.0
K1113	1.2	1.5	2.5	2.3	2.0	3.0
K1114	1.0	2.0	2.0	2.0	2.0	3.0
K1115	1.3	2.0	3.0	4.0	2.0	3.0
LS82-1206	1.3	1.5	2.0	4.0	2.0	3.5
N82-549	1.0	1.5	2.5	1.9	2.0	3.0
N82-552	1.3	1.5	2.5	3.7	2.0	3.5
N82-1069	1.4	1.0	2.0	2.3	2.0	3.0
R82-43	1.2	1.5	2.5	2.0	2.0	2.5
R82-128	1.2	1.5	2.5	1.8	2.0	3.0
R82-269	1.3	1.5	2.5	2.0	2.0	3.0
R82-1077	1.0	1.5	2.5	2.0	2.0	3.5
R82-1145	1.0	1.5	2.5	3.0	2.0	3.0
S81-2524	1.3	1.5	2.5	2.5	2.0	3.0
S81-2572	1.0	1.5	2.5	2.7	2.0	3.5
S81-2786	1.2	1.0	2.5	2.5	2.0	3.0
V79-2373	1.2	1.5	3.0	2.0	2.0	3.0
V80-2165	1.0	1.5	3.0	3.0	2.0	3.0
V81-675	1.2	1.5	2.5	1.5	2.0	3.0
V81-867	1.0	1.5	2.5	2.0	2.0	3.5

UNIFORM GROUP VI

1984

	Variety or strain	Parentage	Generation composited
1.	Centennial	D64-4636 X tawny pubescent Pickett 71 type	F_5
2.	Tracy-M	Metribuzin tolerant sel. from Tracy (D61-618 X D60-9647)	F_{10}
3.	Leflore (D77-6166)	Centennial X J74-47	F_5
4.	R79-167S	R72-26 X Forrest	F_5
5.	D79-6162	Tracy X Centennial	F_5
6.	D80-7987	Bedford X (Tracy X D72-8707)	F_5
7.	Ga79-402	Centennial X Forrest	F_5
8.	J80-293	J74-39 X Centennial	F_5
9.	J80-312	Bedford X sel.[Forrest(2) X Tracy]	F_5
10.	N81-320	N73-40 X N73-520-4	F_6
11.	N81-1121	N72-3058 X N73-1102	F_6
12.	R81-1239	Centennial X Narow	F_5

Background of breeding lines used as parents:

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

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

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

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

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

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

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

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

Plantings of Uniform Group VI nurseries were made at 32 locations for evaluating seed yield and other agronomic qualities. Two replications of single hill plantings were made near Blackville, South Carolina to evaluate for reaction to Meloidogyne arenaria and near Jay, Florida to evaluate for reaction to M. incognita. Two replications of hills were made in the field cage at Stoneville where they were exposed to feeding by soybean looper. Plantings were made in soybean cyst nematode infested soil in the greenhouse at Jackson, Tennessee to evaluate for reaction to SCN races 3 and 4. Table 29 gives a general summary of performance and characteristics of each of the strains, including three-year means for seed yield and oil and protein percentages. Data from individual locations are reported in Tables 30 through 35.

D77-6166 has been named Leflore and released for production. Productivity of D77-6166 is very similar to that for Centennial. It differs from Centennial in that it has resistance to SCN race 4. Foundation seed was produced in Mississippi, Arkansas, South Carolina, and Georgia.

R79-167S has been evaluated three years. Productivity is good in all areas, but it does not appear to have any specific advantage over Centennial. Four strains, D79-6162, D80-7987, Ga79-402, and J80-293, have been evaluated two years. In 1982 D79-6162 showed outstanding productivity in the Preliminary Group VI nurseries. Its performance in Uniform Group VI has been good, but it has not shown the outstanding productivity that it showed in the Preliminary Group VI nursery. In some local tests, it has shown excellent productivity on clay with a high level of irrigation. It has also demonstrated good productivity under conditions where stem canker has been severe. D80-7987 has also shown good resistance to stem canker and has resistance to races 3 and 4 of SCN. Ga79-402 is the earliest maturing strain in the group. Its yield level was low in 1983, but in general, early maturing strains of that maturity were lower yielding in 1983. In 1984 the earlier maturing strains within VI maturity seemed to produce the higher seed yields. However, seed yield of Ga79-402 was not outstanding. J80-293 has produced well and has good resistance to the two root-knot species, M. incognita and M. arenaria, along with resistance to races 3 and 4 of SCN.

Four strains, J80-312, N81-320, N81-1121, and R81-1239, were grown one year. J80-312 was not outstanding in seed yield in any production area. R81-1239 yielded well in the East Coast region, but was not superior to the check varieties in other production regions. N81-320 and N81-1121 produced well in all regions.

Table 29 - General summary of the performance for the strains grown in Uniform Group VI, 1984

	No. of locations	Centennial	Tracy-M	Leflore (D77-6166)	R79-167S	D79-6162
Seed yield - 1984						
East Coast	7	41.8	43.1	41.6	41.9	42.2
Southeast	6	44.0	40.7	44.7	43.1	45.2
Upper & Central South	5	38.2	40.8	40.6	40.6	37.7
Delta	9	38.0	38.2	38.8	40.1	41.8
West	3	35.1	30.3	34.2	34.4	33.7
1983-84						
East Coast		39.0	39.1	38.7	40.1	40.1
Southeast		41.5	35.7	38.5	38.9	41.0
Upper & Central South		39.0	38.4	39.4	40.3	37.5
Delta		40.7	39.3	39.4	37.8	42.3
West		41.3	39.6	38.5	42.8	40.0
1982-84						
East Coast		39.5	39.6	39.3	40.1	
Southeast		43.3	38.4	42.0	40.4	
Upper & Central South		39.9	40.4	40.9	41.1	
Delta		39.3	38.8	38.7	39.0	
West		38.6	37.0	37.6	39.4	
Oil Content - 1984		19.5	18.3	18.9	19.9	18.6
1983-84		19.3	18.3	19.1	19.8	18.4
1982-84		18.9	18.0	18.6	19.5	
Protein Content - 1984		42.7	43.5	41.9	40.9	42.6
1983-84		43.2	44.3	42.2	41.3	43.6
1982-84		41.7	43.7	41.9	42.0	
Seed size		14.0	17.0	13.9	12.6	16.7
Maturity index		10-19	-3	-1	0	+1
Height		40	38	41	40	44
Seed quality		2.2	2.2	2.0	2.0	2.3
M. incognita		1.0	2.5	1.0	2.0	1.0
M. arenaria		4.0	5.0	5.0	3.5	3.5
SCN race 3		R	S	R	R	R
SCN race 4		S	S	R	S	S
Soybean Looper		4.8	2.5	4.3	3.0	4.0
Flower color		P	W	P	P	W
Pubescence color		T	T	T	T	T
Pod wall color		T	T	T	T	T

Table 29.- (continued)

	D80-7987	Ga79-402	J80-293	J80-312	N81-320	N81-1121	R81-1239
Seed yield - 1984							
East Coast	42.1	42.1	45.3	41.2	44.5	41.3	43.6
Southeast	43.5	42.0	42.6	43.8	46.2	45.4	42.4
Upper & Central South	41.7	42.2	40.8	37.8	40.6	41.2	37.3
Delta	38.8	39.7	38.8	36.1	41.2	40.0	37.2
West	35.8	32.5	35.7	32.7	35.5	36.3	37.3
1983-84							
East Coast	40.4	38.8	41.4				
Southeast	36.6	34.6	39.0				
Upper & Central South	41.0	39.0	40.7				
Delta	40.1	38.9	41.1				
West	43.0	39.5	43.6				
1982-84							
East Coast							
Southeast							
Upper & Central South							
Delta							
West							
Oil Content - 1984	19.8	21.0	19.9	19.5	20.0	20.4	20.2
1983-84	20.0	20.9	19.9				
1982-84							
Protein Content - 1984	39.8	41.0	42.6	43.0	41.8	42.3	41.6
1983-84	39.9	41.2	43.0				
1982-84							
Seed size	12.5	12.7	12.4	14.4	16.9	15.8	13.0
Maturity index	-2	-8	-2	0	-1	-2	0
Height	41	38	37	40	44	36	41
Seed quality	2.3	2.4	2.1	1.9	2.1	1.9	2.1
M. incognita	1.5	1.0	1.0	1.0	5.0	5.0	2.0
M. arenaria	3.5	2.5	2.5	5.0	3.5	5.0	5.0
SCN race 3	R	R	R	R	S	S	R
SCN race 4	R	S	R	S	S	S	S
Soybean Looper	3.2	5.0	3.5	5.0	2.5	5.0	3.0
Flower color	W	P	W	P	P	P	P
Pubescence color	G	T	T	T	T	T	T
Pod wall color	T	T	T	T	T	Br	T

Table 30 - Seed yield, in bushels per acre, for the strains in Uniform Group VI, 1984

Location	Centennial	Tracy-M	D77-6166	R79-167S	D79-6162	D80-7987	Ga79-402
			EAST COAST				
Warsaw, VA	30.6	31.7	30.2	32.0	27.5	28.9	27.6
Holland, VA	53.2	50.4	54.8	58.5	51.9	51.4	50.1
Plymouth, NC	42.0	44.8	39.8	32.7	49.5	40.1	41.9
Clinton, NC	57.2	48.9	49.2	58.1	49.6	52.5	48.9
Kinston, NC	35.9	42.8+	42.3+	37.0	37.2	39.9	41.8+
Florence, SC	37.2	38.5	39.5	38.5	40.1	41.5	41.2
Hartsville, SC	36.2	44.4	35.1	36.7	39.4	40.5	43.2
Mean	41.8	43.1	41.6	41.9	42.2	42.1	42.1
			SOUTHEAST				
Tallassee, AL	50.7	48.7	56.3	57.5	60.5+	53.1	51.4
Blackville, SC	29.7	30.6	28.7	27.9	25.7	28.7	28.6
Tifton, GA	58.8	50.4	59.8	55.6	63.2	52.6	55.9
*Quincy, FL	37.9	46.5	43.9	42.1	36.9	42.2	42.2
Jay, FL	47.0	43.8	49.6	43.6	46.4	50.1	46.6
Fairhope, AL	45.4	51.4+	49.9+	52.2+	49.9+	50.7+	46.1
Baton Rouge, LA	32.4	19.1-	24.0	22.0-	25.3	25.9	23.3
Mean	44.0	40.7	44.7	43.1	45.2	43.5	42.0
			UPPER AND CENTRAL SOUTH				
Athens, GA	41.9	49.1+	47.3	51.3+	47.8+	52.5+	48.2+
Calhoun, GA	52.6	47.9	53.6	50.3	45.8	46.5	49.4
Belle Mina, AL	33.3	32.5	35.4	40.4	36.0	40.9	39.4
Clemson, SC	26.4	33.9+	27.7	25.3	27.0	29.2	38.5+
Jackson, TN	36.8	40.6	38.8	35.9	31.8	39.6	35.3
Mean	38.2	40.8	40.6	40.6	37.7	41.7	42.2
			DELTA				
Portageville, MO (A)	39.9	41.3	48.7	47.1	48.3+	45.0	51.5
Portageville, MO (B)	39.0	38.1	41.5	43.0	42.3	42.9	38.4
Keiser, AR	50.5	53.9	53.8	51.9	59.2	48.7	45.4
Jonesboro, AR	29.3	31.0	28.5	31.6	34.1	33.8	39.2
Pine Tree, AR	33.8	35.1	37.5	38.4	39.0+	34.0	35.8
Stoneville, MS (A)	41.5	45.0	41.3	50.1+	49.5+	44.6	55.5+
Stoneville, MS (B)	44.6	38.5	41.4	39.0	43.0	40.3	43.8
St. Joseph, LA	29.6	28.4	27.5	30.9	30.0	24.9	19.8-
Rohwer, AR	33.8	32.2	29.3	29.2	30.6	34.8	28.0
Mean	38.0	38.2	38.8	40.1	41.8	38.8	39.7
			WEST				
Stuttgart, AR	52.9	46.8	49.9	53.6	50.9	50.6	48.3
*Bossier City, LA	36.5	27.8	35.2	31.1	29.4	28.3	31.2
Beaumont, TX	28.1	19.0	30.3	25.6	28.7	28.9	15.5
Bixby, OK	24.3	25.1	22.5	23.9	21.5	27.9	33.6+
Mean	35.1	30.3	34.2	34.4	33.7	35.8	32.5

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

Table 30 - (continued)

Location	J80-293	J80-312	N81-320	N81-1121	R81-1239	L.S.D. (.05)	C.V. (%)
			EAST COAST				
Warsaw, VA	29.4	27.2	33.5	34.4+	29.6	3.6	6
Holland, VA	56.8	49.9	58.4	52.5	53.0	N.S.	11
Plymouth, NC	42.3	49.0	41.9	32.6	44.4	10.2	15
Clinton, NC	60.2	54.1	56.4	51.2	51.8	9.0	10
Kinston, NC	43.6+	41.1	44.7+	38.4	41.8+	5.8	8
Florence, SC	44.5	34.2	41.7	39.0	39.7	5.9	12
Hartsville, SC	40.4	33.1	34.7	41.1	44.8	11.3	17
Mean	45.3	41.2	44.5	41.3	43.6		
			SOUTHEAST				
Tallassee, AL	55.1	54.1	63.5+	52.2	58.1	8.4	9
Blackville, SC	26.3	28.7	29.2	31.5	30.3	N.S.	10
Tifton, GA	56.8	52.3	55.0	64.3	53.8	N.S.	11
Quincy, FL	36.7	41.3	48.2	46.2	39.6	6.9	16
Jay, FL	41.9	46.1	48.9	47.3	44.4	5.9	8
Fairhope, AL	51.4+	48.4	56.7+	53.7+	47.6	3.8	5
Baton Rouge, LA	24.3	33.1	24.0	23.2	20.3-	9.6	11
Mean	42.6	43.8	46.2	45.4	42.4		
			UPPER AND CENTRAL SOUTH				
Athens, GA	47.8+	47.5	51.3+	50.4+	44.1	5.9	5
Calhoun, GA	51.5	38.8	50.4	54.6	48.4	N.S.	10
Belle Mina, AL	36.5	38.6	36.1	35.0	32.8	N.S.	19
Clemson, SC	29.6	28.0	31.1	31.4	24.5	5.6	11
Jackson, TN	38.8	36.1	34.0	34.6	36.6	N.S.	10
Mean	40.8	37.8	40.6	41.2	37.3		
			DELTA				
Portageville, MO (A)	44.2	39.7	43.3	37.5	43.4	8.2	11
Portageville, MO (B)	43.2	37.6	43.7	35.9	39.5	4.9	7
Keiser, AR	37.7	38.7	55.8	48.3	48.8	8.7	10
Jonesboro, AR	39.4	29.2	33.0	38.2	30.6	N.S.	20
Pine Tree, AR	31.9	34.8	40.3+	40.7+	31.0	4.8	8
Stoneville, MS (A)	47.3	40.7	44.0	46.9	45.6	7.9	10
Stoneville, MS (B)	44.8	37.0	39.5	47.2	42.1	10.6	14
St. Joseph, LA	25.5	31.6	36.2+	36.9+	27.1	6.2	13
Rohwer, AR	35.2	35.6	35.4	28.5	26.4	5.7	11
Mean	38.8	36.1	41.2	40.0	37.2		
			WEST				
Stuttgart, AR	48.6	46.6	53.9	49.6	52.5	N.S.	6
Bossier City, LA	35.6	33.1	36.9	38.7	32.0	8.9	20
Beaumont, TX	27.2	30.1	28.6	28.0	29.1	N.S.	25
Bixby, OK	31.4+	21.4	24.0	31.4+	21.2	4.8	11
Mean	35.7	32.7	35.5	36.3	37.3		

Table 31 - Chemical composition and seed size for the strains in Uniform Group VI, 1984

Location	Centennial	Tracy-M	D77-6166	R79-167S	D79-6162	D80-7987
			OIL PERCENTAGE			
Holland, VA	18.2	16.5	17.4	18.2	16.1	18.2
Plymouth, NC	18.0	16.2	17.3	18.5	17.5	18.1
Clinton, NC	18.3	16.3	18.1	18.3	16.0	17.9
Jackson, TN	19.4	18.9	19.6	21.5	19.4	21.4
Portageville, MO (A)	20.8	20.6	20.7	21.2	20.4	21.2
Keiser, AR	19.7	17.7	19.0	19.9	19.3	19.8
Stoneville, MS (B)	19.7	19.0	18.9	20.1	18.7	20.1
Stuttgart, AR	19.9	18.4	19.3	19.9	19.2	19.4
Beaumont, TX	21.7	21.0	20.2	21.9	20.6	22.0
Mean	19.5	18.3	18.9	19.9	18.6	19.8
			PROTEIN PERCENTAGE			
Holland, VA	43.6	44.8	43.4	42.9	44.2	41.9
Plymouth, NC	44.8	44.8	42.7	41.4	44.7	40.5
Clinton, NC	43.4	43.1	41.1	42.2	44.5	41.3
Jackson, TN	39.8	41.1	39.3	37.6	37.9	36.1
Portageville, MO (A)	42.6	43.1	42.1	40.4	41.7	39.4
Keiser, AR	41.5	43.2	41.3	39.9	42.2	39.7
Stoneville, MS (B)	42.0	43.8	42.1	40.8	42.8	38.9
Stuttgart, AR	43.6	44.9	42.5	41.5	43.7	40.9
Beaumont, TX	43.2	42.7	42.5	41.4	42.1	39.2
Mean	42.7	43.5	41.9	40.9	42.6	39.8
			GRAMS PER 100 SEEDS			
Holland, VA	15.8	18.0	14.9	15.0	18.1	13.7
Plymouth, NC	13.1	16.8	13.4	10.9	16.8	11.9
Clinton, NC	17.6	18.1	16.5	15.9	17.9	15.0
Jay, FL	13.0	17.0	14.0	12.0	16.0	12.0
Jackson, TN	15.5	15.4	14.3	12.7	15.4	12.5
Portageville, MO (A)	13.2	16.5	12.9	11.9	17.2	11.4
Keiser, AR	13.0	18.7	13.0	12.4	17.8	12.2
Stoneville, MS (B)	11.8	15.6	12.6	10.0	15.4	10.4
Stuttgart, AR	13.7	17.3	13.7	13.3	17.7	13.0
Beaumont, TX	13.0	16.2	13.3	11.7	14.7	12.4
Mean	14.0	17.0	13.9	12.6	16.7	12.5

Table 31 - (continued)

Location	Ga79-402	J80-293	J80-312	N81-320	N81-1121	R81-1239
			OIL PERCENTAGE			
Holland, VA	19.0	18.5	18.4	18.4	18.6	18.5
Plymouth, NC	19.7	18.7	18.0	18.3	19.0	18.9
Clinton, NC	19.8	19.5	18.1	19.1	19.1	19.4
Jackson, TN	20.9	20.5	20.5	20.9	20.5	20.8
Portageville, MO (A)	21.9	21.2	21.0	21.5	22.4	21.5
Keiser, AR	20.6	19.2	19.1	19.1	20.9	20.4
Stoneville, MS (B)	21.1	19.7	19.7	20.8	20.6	20.9
Stuttgart, AR	20.7	19.6	19.6	19.8	20.5	19.9
Beaumont, TX	25.6	21.8	21.1	22.3	22.3	21.6
Mean	21.0	19.9	19.5	20.0	20.4	20.2
			PROTEIN PERCENTAGE			
Holland, VA	42.1	41.8	43.8	43.7	44.6	43.1
Plymouth, NC	42.2	43.4	44.8	43.5	42.3	42.9
Clinton, NC	41.6	41.6	43.5	41.0	44.1	41.8
Jackson, TN	38.3	39.7	39.3	37.8	38.8	38.6
Portageville, MO (A)	40.4	43.0	42.6	41.8	41.8	41.8
Keiser, AR	41.0	43.3	43.1	42.4	41.3	40.5
Stoneville, MS (B)	41.6	42.1	42.9	42.5	42.3	40.8
Stuttgart, AR	41.6	44.8	44.0	42.3	43.8	43.1
Beaumont, TX	40.4	43.8	42.6	41.5	41.9	42.1
Mean	41.0	42.6	43.0	41.8	42.3	41.6
			GRAMS PER 100 SEEDS			
Holland, VA	13.7	14.4	16.5	19.3	17.3	15.2
Plymouth, NC	12.0	12.5	13.2	15.9	13.4	12.5
Clinton, NC	13.6	14.7	19.0	20.1	18.6	16.0
Jay, FL	12.0	12.0	14.0	16.0	16.0	12.0
Jackson, TN	13.7	13.9	15.3	15.7	15.7	13.6
Portageville, MO (A)	11.9	11.8	13.5	16.2	15.5	12.6
Keiser, AR	13.4	9.4	13.1	17.1	16.3	11.6
Stoneville, MS (B)	12.4	10.8	12.4	15.2	13.0	11.4
Stuttgart, AR	13.0	13.0	14.0	18.7	17.0	13.0
Beaumont, TX	11.7	11.7	12.7	14.9	15.2	12.3
Mean	12.7	12.4	14.4	16.9	15.8	13.0

Table 32 - Relative maturity data, days earlier (-) or later (+) than Centennial, for the strains in Uniform Group VI, 1984

Location	Date planted	Centennial	Tracy-M	D77-6166	R79-167S	D79-6162	D80-7987
			EAST COAST				
Warsaw, VA	6-4	11-3	-7	-1	-3	+2	-3
Holland, VA	5-17	10-31	-2	+4	-3	+5	0
Plymouth, NC	5-25	10-24	0	0	0	0	0
Clinton, NC	5-29	10-25	+3	+6	+3	+10	+3
Kinston, NC	5-17	11-9	0	-7	0	0	-9
Florence, SC	5-15	10-8	-2	0	-7	0	0
Hartsville, SC	5-14	9-29	+8	+10	+13	+12	+12
Mean	5-22	10-25	0	+2	+1	+4	+1
			SOUTHEAST				
Tallassee, AL	5-23	10-10	-6	-1	0	-2	0
Blackville, SC	5-11	10-14	-4	-3	-3	0	-6
Tifton, GA	5-16	10-7	-8	0	+1	0	-1
*Quincy, FL	6-6	9-26	+6	+5	+4	+5	+1
Jay, FL	6-8	10-7	-3	+1	+1	0	0
Fairhope, AL	5-31	10-8	-10	-3	0	0	-3
Baton Rouge, LA	5-16	10-14	-6	+1	+1	+3	-6
Mean	5-23	10-10	-5	-1	0	0	-2
			UPPER AND CENTRAL SOUTH				
Athens, GA	5-21	10-12	-6	0	0	0	-1
Calhoun, GA	6-4	10-24	+3	0	+2	+5	+1
Belle Mina, AL	5-16	9-28	-3	-4	-3	-1	-4
Clemson, SC	5-11	10-15	-9	-3	-1	0	-8
Jackson, TN	5-15	10-26	-10	-2	-3	+2	-9
Mean	5-20	10-21	-5	-2	-1	+1	-4
			DELTA				
Portageville, MO (A)	5-22	10-25	-6	-3	+4	+5	-4
Portageville, MO (B)	5-23	10-28	-2	0	+1	+1	-2
Keiser, AR	5-17	10-26	+1	+1	+2	+3	+3
Jonesboro, AR	5-23	10-21	+1	+1	+2	+2	0
Pine Tree, AR	6-7	10-16	+1	+1	+2	+1	0
Stoneville, MS (A)	5-11	10-16	0	+1	+2	+3	0
Stoneville, MS (B)	5-15	10-17	-3	-1	0	+1	-3
St. Joseph, LA	5-14	10-7	-8	+2	+2	-3	-4
Rohwer, AR	5-31	10-16	-10	-3	-1	-6	-7
Mean	5-22	10-19	-3	0	+2	+1	-2
			WEST				
Stuttgart, AR	6-2	10-23	0	0	+2	+2	+2
Beaumont, TX	5-16	10-13	-8	-6	-3	-1	-6
Mean	5-25	10-18	-4	-3	0	+1	-2

*Not included in mean

Table 32 - (continued)

Location	Ga79-402	J80-293	J80-312	N81-320	N81-1121	R81-1239
		EAST COAST				
Warsaw, VA	-7	-4	+1	-4	-4	-1
Holland, VA	-3	-5	0	-3	+1	-3
Plymouth, NC	-7	0	0	0	0	0
Clinton, NC	-8	0	+6	+3	0	0
Kinston, NC	-9	0	0	0	-7	0
Florence, SC	+1	0	0	+3	0	+5
Hartsville, SC	0	+10	+11	+12	+10	+11
Mean	-5	0	+2	+2	0	+2
		SOUTHEAST				
Tallassee, AL	-14	-3	0	-3	-5	0
Blackville, SC	-7	-2	-1	-5	-4	-4
Tifton, GA	-11	-3	0	-5	-1	0
Quincy, FL	-1	+3	0	+3	0	+1
Jay, FL	-6	-2	0	0	-2	0
Fairhope, AL	-10	-3	0	-5	-5	-3
Baton Rouge, LA	-19	0	-1	-4	+4	+3
Mean	-10	-2	0	-3	-2	-1
		UPPER AND CENTRAL SOUTH				
Athens, GA	-6	-1	0	-1	-5	-2
Calhoun, GA	-1	+2	0	-1	0	+1
Belle Mina, AL	-4	-4	0	0	-4	-4
Clemson, SC	-12	-3	0	-5	-14	-1
Jackson, TN	-16	0	0	-2	-1	0
Mean	-8	-1	0	-2	-5	-1
		DELTA				
Portageville, MO (A)	-9	-4	0	-2	-6	0
Portageville, MO (B)	-9	-5	0	0	-6	+1
Keiser, AR	-11	+1	-1	+3	0	0
Jonesboro, AR	0	-3	-2	0	0	0
Pine Tree, AR	0	-3	-1	+1	+1	+1
Stoneville, MS (A)	-10	-1	0	+2	-1	-1
Stoneville, MS (B)	-12	-5	-3	-3	-2	-3
St. Joseph, LA	-14	0	0	0	0	+1
Rohwer, AR	-11	-3	-2	-1	-6	-4
Mean	-8	-3	-1	0	-2	-1
		WEST				
Stuttgart, AR	-3	-3	0	+2	0	0
Beaumont, TX	-16	-4	-2	-6	-2	-2
Mean	-10	-4	-1	-2	-1	-1

Table 33 - Plant height for the strains in Uniform Group VI, 1984

Location	Centennial	Tracy-M	D77-6166	R79-167S	D79-6162	D80-7987
			EAST COAST			
Warsaw, VA	51	44	52	44	45	44
Holland, VA	44	46	49	49	46	45
Plymouth, NC	40	36	37	34	39	40
Clinton, NC	44	38	38	42	44	44
Kinston, NC	42	46	41	42	46	50
Florence, SC	34	32	37	34	44	34
Hartsville, SC	35	40	41	39	47	41
Mean	41	40	42	41	44	43
			SOUTHEAST			
Tallassee, AL	41	41	45	43	46	47
Blackville, SC	41	37	34	39	43	40
Tifton, GA	36	33	37	34	41	35
*Quincy, FL	35	25	30	23	31	31
Jay, FL	37	32	33	32	36	31
Fairhope, AL	41	39	40	41	48	41
Baton Rouge, LA	36	33	37	34	43	36
Mean	39	36	38	37	43	38
			UPPER AND CENTRAL SOUTH			
Athens, GA	38	37	39	31	36	39
Calhoun, GA	48	44	49	44	48	44
Belle Mina, AL	44	47	50	44	50	49
Clemson, SC	39	37	41	38	43	38
Jackson, TN	45	44	47	45	46	43
Mean	43	42	45	40	45	43
			DELTA			
Portageville, MO (A)	48	47	52	49	51	51
Portageville, MO (B)	42	43	48	43	48	44
Keiser, AR	41	38	48	42	42	44
Jonesboro, AR	43	44	51	49	52	47
Pine Tree, AR	47	46	52	47	52	50
Stoneville, MS (A)	38	31	38	38	41	40
Stoneville, MS (B)	39	38	40	39	43	42
St. Joseph, LA	35	35	33	35	38	34
Rohwer, AR	36	36	37	36	39	39
Mean	41	40	44	42	45	43
			WEST			
Stuttgart, AR	35	36	36	43	41	36
Bossier City, LA	40	37	45	38	46	34
Beaumont, TX	25	19	23	23	28	27
Bixby, OK	45	45	48	47	49	51
Mean	36	34	38	38	41	37

*Not included in mean

Table 33 - (continued)

Location	Ga79-402	J80-293	J80-312	N81-320	N81-1121	R81-1239
			EAST COAST			
Warsaw, VA	49	44	43	40	44	51
Holland, VA	46	44	42	49	41	49
Plymouth, NC	37	42	39	40	29	38
Clinton, NC	36	36	42	38	36	46
Kinston, NC	42	44	48	44	40	40
Florence, SC	34	32	39	32	36	39
Hartsville, SC	39	33	41	43	41	43
Mean	40	39	42	41	38	44
			SOUTHEAST			
Tallassee, AL	42	39	40	54	36	43
Blackville, SC	35	39	38	40	35	38
Tifton, GA	35	31	35	40	31	36
Quincy, FL	33	30	31	35	25	32
Jay, FL	35	35	35	38	33	37
Fairhope, AL	37	39	39	46	36	39
Baton Rouge, LA	34	35	36	42	28	35
Mean	36	36	37	43	33	38
			UPPER AND CENTRAL SOUTH			
Athens, GA	37	37	35	34	37	36
Calhoun, GA	48	42	45	49	42	46
Bellė Mina, AL	49	46	47	47	44	50
Clemson, SC	34	38	38	39	35	40
Jackson, TN	40	43	45	49	41	43
Mean	42	41	42	44	40	43
			DELTA			
Portageville, MO (A)	47	47	44	62	45	49
Portageville, MO (B)	41	39	41	56	37	44
Keiser, AR	51	49	49	48	40	42
Jonesboro, AR	40	44	47	58	38	48
Pine Tree, AR	44	42	46	57	38	47
Stoneville, MS (A)	34	36	38	42	33	37
Stoneville, MS (B)	36	35	39	42	33	41
St. Joseph, LA	31	31	31	33	31	34
Rohwer, AR	33	34	35	43	30	33
Mean	40	40	41	49	36	42
			WEST			
Stuttgart, AR	34	36	36	48	36	48
Bossier City, LA	35	37	39	45	33	40
Beaumont, TX	22	23	25	28	17	27
Bixby, OK	43	43	45	55	41	46
Mean	34	35	36	44	32	40

Table 34 - Lodging scores for the strains in Uniform Group VI, 1984

Location	Centennial	Tracy-M	D77-6166	R79-167S	D79-6162	D80-7987
			EAST COAST			
Warsaw, VA	2.3	2.5	2.5	2.7	2.5	2.6
Holland, VA	3.3	4.3	4.3	4.3	4.7	4.0
Plymouth, NC	2.0	3.0	2.0	2.0	2.0	2.0
Clinton, NC	3.0	4.0	3.0	4.0	4.0	4.0
Kinston, NC	3.0	4.0	3.0	3.0	4.0	3.0
Florence, SC	3.0	2.0	2.0	4.0	3.0	3.0
Hartsville, SC	3.7	3.8	4.0	3.7	4.3	3.7
			SOUTHEAST			
Tallassee, AL	2.5	2.5	1.7	2.8	3.0	3.5
Blackville, SC	1.0	3.0	1.0	2.0	4.0	1.0
Tifton, GA	2.0	1.6	1.3	1.6	3.0	2.7
Jay, FL	2.0	2.0	2.0	3.0	3.0	2.0
Fairhope, AL	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, LA	1.3	2.6	1.0	1.3	2.6	1.5
			UPPER AND CENTRAL SOUTH			
Athens, GA	1.8	2.2	2.0	2.7	2.8	2.2
Calhoun, GA	2.0	2.7	2.2	2.7	2.5	2.5
Belle Mina, AL	4.7	3.0	4.7	5.0	5.0	4.0
Clemson, SC	2.3	2.5	3.5	3.7	3.3	2.7
Jackson, TN	2.0	2.0	2.0	2.0	2.0	2.0
			DELTA			
Portageville, MO (A)	2.5	2.5	3.0	3.0	4.0	2.5
Portageville, MO (B)	1.5	2.5	2.5	3.0	2.5	2.0
Keiser, AR	2.0	1.0	1.0	2.0	2.0	2.0
Jonesboro, AR	4.3	4.0	5.0	5.0	5.0	5.0
Pine Tree, AR	3.3	3.7	3.3	3.7	4.7	4.3
Stoneville, MS (A)	2.0	2.0	2.0	2.0	3.0	2.0
Stoneville, MS (B)	2.0	2.0	2.0	2.0	3.0	2.0
St. Joseph, LA	1.5	1.8	1.5	1.8	2.0	1.7
Rohwer, AR	1.0	1.0	1.3	1.3	3.7	1.3
			WEST			
Stuttgart, AR	4.1	4.3	4.5	3.7	4.7	4.1
Bossier City, LA	1.7	1.7	1.8	1.5	2.5	1.2
Beaumont, TX	1.1	1.0	1.0	1.1	1.2	1.1
Bixby, OK	2.0	2.0	1.0	3.0	2.0	1.0

Table 34 - (continued)

Location	Ga79-402	J80-293	J80-312	N81-320	N81-1121	R81-1239
			EAST COAST			
Warsaw, VA	2.1	2.2	2.5	2.2	1.3	2.1
Holland, VA	4.3	3.7	3.7	3.7	3.0	3.7
Plymouth, NC	2.0	3.0	2.0	2.0	2.0	2.0
Clinton, NC	4.0	3.0	3.0	3.0	4.0	3.0
Kinston, NC	3.0	3.0	3.0	3.0	3.0	3.0
Florence, SC	1.0	1.0	1.0	3.0	1.0	3.0
Hartsville, SC	2.3	3.2	3.7	3.2	1.5	4.0
			SOUTHEAST			
Tallassee, AL	1.8	1.7	2.2	2.0	1.0	2.0
Blackville, SC	1.0	1.0	1.0	2.0	1.0	2.0
Tifton, GA	1.3	2.0	2.0	2.7	1.0	1.3
Jay, FL	1.0	2.0	2.0	3.0	1.0	2.0
Fairhope, AL	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, LA	1.0	1.0	1.5	2.2	1.0	1.0
			UPPER AND CENTRAL SOUTH			
Athens, GA	1.5	2.0	2.0	2.2	1.5	2.0
Calhoun, GA	2.7	3.0	2.0	2.7	1.7	2.7
Belle Mina, AL	3.3	4.3	4.7	3.7	2.3	3.7
Clemson, SC	1.5	2.2	2.3	3.8	1.2	2.2
Jackson, TN	1.0	1.0	2.0	1.0	1.0	2.0
			DELTA			
Portageville, MO (A)	2.5	3.0	2.5	3.0	2.5	2.5
Portageville, MO (B)	2.0	2.0	1.5	2.5	1.0	2.0
Keiser, AR	3.0	2.0	2.0	2.0	2.0	1.0
Jonesboro, AR	3.0	3.7	3.7	3.7	1.7	3.3
Pine Tree, AR	3.7	3.3	3.0	3.0	1.7	3.0
Stoneville, MS (A)	2.0	2.0	2.0	2.3	2.0	2.0
Stoneville, MS (B)	2.0	2.0	2.0	2.7	2.0	2.0
St. Joseph, LA	1.5	1.3	1.5	1.8	1.2	1.3
Rohwer, AR	1.0	1.0	1.3	2.3	1.0	3.3
			WEST			
Stuttgart, AR	1.6	1.8	3.2	2.7	1.6	3.3
Bossier City, LA	1.3	1.5	1.3	1.8	1.0	1.3
Beaumont, TX	1.1	1.0	1.1	1.1	1.0	1.1
Bixby, OK	2.0	2.0	2.0	2.0	2.0	2.0

Table 35 - Seed quality scores for the strains in Uniform Group VI, 1984

Location	Centennial	Tracy-M	D77-6166	R79-167S	D79-6162	D80-7987
			EAST COAST			
Warsaw, VA	1.2	1.0	1.2	1.2	1.5	1.0
Holland, VA	2.3	2.0	2.3	2.0	2.3	2.0
Plymouth, NC	1.5	1.5	1.5	1.5	1.5	1.5
Clinton, NC	1.5	1.5	1.5	1.5	1.5	1.5
			SOUTHEAST			
Blackville, SC	2.0	2.0	2.0	2.0	3.0	1.0
Tifton, GA	2.0	2.5	2.0	2.0	2.0	2.5
*Quincy, FL	2.0	1.0	2.0	2.0	2.0	1.0
Jay, FL	2.0	2.0	2.0	2.0	3.0	2.0
Baton Rouge, LA	2.0	3.8	2.5	2.6	4.2	3.8
			UPPER AND CENTRAL SOUTH			
Athens, GA	1.5	1.5	1.5	1.5	1.5	1.5
Calhoun, GA	2.0	2.0	1.8	1.8	2.0	2.0
Jackson, TN	2.0	1.0	2.0	2.0	2.0	1.0
			DELTA			
Portageville, MO (A)	2.5	2.5	2.0	2.0	2.5	2.0
Portageville, MO (B)	2.0	2.0	1.5	2.0	2.0	2.0
Keiser, AR	1.6	1.1	1.5	1.8	1.1	1.8
Jonesboro, AR	2.0	2.7	2.0	2.3	3.0	2.3
Pine Tree, AR	3.0	3.0	2.7	3.0	3.0	3.3
Stoneville, MS (A)	2.3	2.0	3.0	2.7	2.3	3.0
Stoneville, MS (B)	2.0	2.3	3.0	3.0	2.3	3.0
St. Joseph, LA	3.3	3.8	3.5	3.7	3.3	4.5
Rohwer, AR	2.0	3.2	2.3	2.2	3.0	3.0
			WEST			
Stuttgart, AR	2.0	3.0	2.0	1.8	2.5	2.5
Bossier City, LA	2.5	2.7	2.8	2.5	3.0	3.2
Beaumont, TX	1.7	2.5	1.7	1.5	3.2	2.2

*Not included in mean

Table 35 - (continued)

Location	Ga79-402	J80-293	J80-312	N81-320	N81-1121	R81-1239
		EAST COAST				
Warsaw, VA	1.0	1.2	1.5	1.4	1.2	1.3
Holland, VA	2.0	2.0	2.3	2.3	2.0	2.3
Plymouth, NC	1.5	1.5	1.5	1.5	1.5	1.5
Clinton, NC	1.5	1.5	1.5	1.5	1.5	1.5
		SOUTHEAST				
Blackville, SC	2.0	2.0	2.0	2.0	2.0	3.0
Tifton, GA	2.5	2.5	2.0	2.5	2.0	2.5
Quincy, FL	2.0	1.0	2.0	1.0	2.0	2.0
Jay, FL	2.0	2.0	2.0	2.0	2.0	2.0
Baton Rouge, LA	5.0	3.5	2.0	2.8	1.8	2.5
		UPPER AND CENTRAL SOUTH				
Athens, GA	1.5	1.5	1.5	1.5	1.5	1.5
Calhoun, GA	1.5	1.8	1.8	1.5	1.5	1.8
Jackson, TN	2.0	2.0	1.0	2.0	2.0	2.0
		DELTA				
Portageville, MO (A)	2.0	2.0	2.0	2.5	2.0	2.0
Portageville, MO (B)	2.0	2.0	1.5	2.0	1.5	2.0
Keiser, AR	2.2	2.1	1.6	1.0	1.2	1.3
Jonesboro, AR	3.3	2.3	2.3	3.0	2.0	2.3
Pine Tree, AR	3.0	3.3	2.7	3.3	2.3	3.0
Stoneville, MS (A)	2.3	2.7	2.7	2.3	2.0	2.3
Stoneville, MS (B)	3.0	3.0	3.0	2.7	2.3	3.0
St. Joseph, LA	4.5	3.2	3.2	3.3	3.0	3.3
Rohwer, AR	2.5	2.0	2.0	2.2	2.3	2.7
		WEST				
Stuttgart, AR	2.5	2.5	2.0	2.5	2.0	2.0
Bossier City, LA	4.2	2.7	2.3	2.3	2.2	3.0
Beaumont, TX	3.2	2.3	1.5	1.8	1.5	1.7

PRELIMINARY GROUP VI

1984

Preliminary Group VI nurseries, which included Centennial and Bedford along with 34 experimental strains, were planted at 8 locations for evaluating seed yield and other agronomic qualities, and at additional locations to evaluate reaction to root-knot and soybean cyst nematodes and for feeding by soybean looper. Parentage of these strains is reported in Table 36. A general summary of performance is reported in Table 37, while Tables 38 through 42 report data from individual locations.

Seed yield was good at each of the 8 locations. Differences in seed yield among strains were statistically significant at the 5% level of confidence at 7 locations. Centennial had a mean seed yield of 43.8 bushels per acre as an average of the 8 locations. There were 23 strains which produced a seed yield of 44 bushels per acre or higher. Bedford produced a mean seed yield of 46.5 bushels per acre. There were 9 strains which had mean yields above that for Bedford. D82-2228 had the highest yield, 50.3 bushels per acre. This strain had Bedford as one parent.

D82-2733 averaged six days later in maturity than Centennial. This strain has the character for a long juvenile period under short-day conditions. At Jay, Florida where it was planted June 8, it averaged 18 days later in maturity than Centennial. At several locations it was similar in maturity to Centennial.

Ten strains received low feeding scores when exposed to a heavy population of soybean looper in the field cage at Stoneville. Several of these strains had been evaluated in greenhouse feeding trials where 4 additional insect species were studied. Several were equal to PI 229358, based upon growth rate and mortality of the larvae placed on the different strains. D82-3885 yielded well and showed variability for reaction to *M. incognita*, *M. arenaria*, and SCN race 3. Sublines are being developed to isolate strains resistant to both root-knot nematode and SCN race 3. Eight strains were resistant to SCN races 3 and 4. One strain, S81-4402, was susceptible to bacterial pustule. Three of the highest yielding strains were N82-1050, N82-1081, and N82-1198. These strains were among the earliest in maturity within the group.

Strains which appear to merit advance to Uniform Group VI in 1985 are D82-2228, D82-3885, N82-1050, and N82-1198.

Table 36 - Parentage of the strains in Preliminary Group VI, 1984

	Variety or strain	Parentage	Generation composited
1.	Centennial	D64-4636 X tawny pubescent Pickett 71 type	F_5
2.	Bedford	Forrest(2) X (D68-18 X PI 88788)	F_5
3.	D82-2228	Bedford X Tracy-M	F_5
4.	D82-2733	D77-12244 X Bedford	F_5
5.	D82-3178	Bedford X sel (J74-39 X D75-10169)	F_5
6.	D82-3553	Tracy-M X sel (Centennial X D75-10169)	F_5
7.	D82-3591	Tracy-M X sel (Centennial X D75-10169)	F_5
8.	D82-3667	Tracy-M X sel (Centennial X D75-10169)	F_5
9.	D82-3707	Tracy-M X sel (Centennial X D75-10169)	F_5
10.	D82-3751	Tracy-M X sel (Centennial X D75-10169)	F_5
11.	D82-3843	Tracy-M X sel (Centennial X D75-10169)	F_5
12.	D82-3885	Tracy-M X sel (Centennial X D75-10169)	F_5
13.	D82-4098	Tracy-M X sel (Centennial X D75-10169)	F_5
14.	D82-5214	Centennial(2) X D75-10169	F_5
15.	Ga80-437	Lee 74 X F71-1138	F_6
16.	Ga80-1284	Centennial X Wright	F_6
17.	Ga80-1335	Centennial X R75-12	F_6
18.	Ga80-2035	Centennial X Hutton	F_6
19.	Ga80-2137	Centennial X Govan	F_6
20.	N82-957	J74-39 X Hood	F_7
21.	N82-1050	N75-2213 X Bay	F_7
22.	N82-1081	N75-2213 X Bay	F_7
23.	N82-1198	N75-2213 X N73-1102	F_7
24.	N82-2034	N73-1102 X 330-26-29-4	F_7
25.	N82-2083	N73-1102 X 606-22-21-1	
26.	R80-1422	N73-1102 X D74-7741	F_5
27.	R82-60	(R75-206 X Narow) X (Centennial X Narow)	F_5
28.	R82-274	Centennial X Narow	F_6
29.	R82-414	R68-208 X Bedford	F_5
30.	R82-496	R68-208 X Bedford	F_5
31.	S81-2652	S73-8611 X Centennial	F_5
32.	S81-4402	D70-3115 X J74-39	F_5
33.	SC81-0204	N72-137 X Centennial	F_5
34.	SC82-400	Govan X Bedford	F_5
35.	V81-574	V72-27 X Co-136	F_5
36.	V81-1017	Forrest X V68-1171	F_5

Table 37 - General summary of performance for the strains in Preliminary Group VI, 1984

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	M. incognita	M. arenaria	SCN race 3	SCN race 4	Soybean looper
Centennial	43.8	10-18	41	19.0	42.9	1.0	4.0	R	S	4.8
Bedford	46.5	-9	38	20.0	40.0	1.5	1.5	R	R	4.2
D82-2228	50.3	0	41	18.0	42.2	Seg	5.0	R	R	3.2
D82-2733	43.2	+6	48	18.7	40.5	2.0	2.0	R	R	4.6
D82-3178	44.0	-1	46	18.8	41.3	1.0	2.5	R	R	4.6
D82-3553	43.7	+1	43	18.8	43.4	4.5	2.0	S	S	1.8
D82-3591	37.4	0	43	19.4	42.0	Seg	2.5	S	S	1.5
D82-3667	46.7	-2	39	18.2	43.6	Seg	5.0	S	S	1.5
D82-3707	44.4	-1	36	18.5	43.6	4.5	5.0	S	S	2.2
D82-3751	42.8	-2	38	18.3	43.7	Seg	5.0	S	S	3.2
D82-3843	42.0	+2	40	17.9	43.8	Seg	Seg	S	S	1.2
D82-3885	46.5	0	39	18.5	43.1	Seg	2.0	Seg	S	1.5
D82-4098	45.8	0	39	18.1	44.2	4.5	3.5	S	S	1.0
D82-5214	44.3	0	41	18.9	43.0	4.5	2.0	R	S	2.5
Ga80-437	44.5	-3	36	19.3	42.4	1.0	-	Seg	S	3.0
Ga80-1284	46.4	+2	42	19.3	41.7	Seg	5.0	R	S	2.5
Ga80-1335	44.3	-1	42	19.2	41.2	5.0	3.0	R	S	5.0
Ga80-2035	41.4	-4	38	18.4	43.9	Seg	3.5	Seg	S	4.5
Ga80-2137	43.4	-5	38	19.8	41.4	1.0	4.0	S	S	3.5
N82-957	43.3	-6	32	19.8	41.4	1.0	-	R	R	3.5
N82-1050	49.0	-7	39	21.3	41.1	4.0	5.0	S	S	4.0
N82-1081	47.0	-8	35	21.6	39.7	4.0	-	S	S	3.8
N82-1198	48.7	-4	41	19.4	42.2	4.0	5.0	Seg	S	3.0
N82-2034	46.6	-2	40	19.2	43.8	4.0	-	S	S	2.8
N82-2083	40.5	+3	49	18.8	43.6	4.0	3.5	S	S	2.5
R80-1422	45.9	+1	41	19.6	40.8	3.5	-	Seg	S	3.8
R82-60	46.1	-5	38	19.9	42.1	1.0	2.5	S	S	4.0
R82-274	44.3	0	35	19.5	41.8	1.0	2.0	S	S	4.5
R82-414	46.6	-3	33	19.5	42.3	1.0	2.5	Seg	Seg	3.5
R82-496	45.3	-6	34	19.5	42.9	3.5	3.0	R	R	4.5
S81-2652	45.3	-6	33	20.7	41.5	2.0	-	R	S	4.5
S81-4402	43.0	-2	36	19.6	41.4	2.0	-	R	R	2.5
SC81-0204	45.8	-3	37	19.7	43.6	3.0	-	S	S	3.0
SC82-400	41.2	+2	49	18.3	42.3	1.0	2.0	R	R	3.5
V81-574	46.2	-7	32	19.9	41.2	5.0	4.0	S	S	4.0
V81-1017	46.8	-7	33	20.5	40.0	1.0	4.0	S	S	4.0
L.S.D.(.05)	4.6									

Table 38 - Seed yield, in bushels per acre, for the strains in Preliminary Group VI, 1984

Strain	Holland, VA	Ply-mouth, NC	Tallassee, AL	Jay, FL	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)	Athens, GA
Centennial	59.5	43.6	47.3	46.9	41.6	43.3	38.1	29.7
Bedford	49.8	43.2	55.5	47.1	44.9	58.7+	38.6	34.3
D82-2228	58.7	54.1+	61.9+	49.4	57.2	44.3	46.9	29.8
D82-2733	48.2-	47.6	50.8	39.2	53.4	43.6	39.5	23.1-
D82-3178	49.2	40.4	55.2	43.2	46.9	49.4	34.3	33.3
D82-3553	53.0	46.0	51.7	41.7	49.2	35.5	42.9	29.5
D82-3591	37.5-	40.5	46.3	30.7-	47.0	36.7	29.8	30.8
D82-3667	48.1-	59.7+	53.4	44.9	51.2	44.4	38.7	33.4
D82-3707	53.8	49.8	56.8	36.7	45.8	39.6	40.7	32.1
D82-3751	52.6	43.8	46.8	41.4	49.5	35.9	38.4	33.9
D82-3843	46.8-	46.8	56.2	36.2	50.6	31.8-	37.5	30.2
D82-3885	60.0	51.1	57.6	35.7	53.1	42.1	41.8	30.2
D82-4098	56.7	51.6	51.5	31.8-	55.1	42.1	40.7	36.8+
D82-5214	47.6-	42.3	58.4	45.9	43.1	43.5	38.5	34.9
Ga80-437	52.5	42.0	57.1	45.5	44.6	42.0	41.6	30.8
Ga80-1284	55.7	44.1	54.8	46.1	50.0	42.0	44.8	33.8
Ga80-1335	53.9	50.8	48.5	43.9	47.1	39.2	40.4	27.5
Ga80-2035	53.3	33.1-	53.8	36.1	44.6	37.9	38.1	34.3
Ga80-2137	52.8	48.1	46.7	44.0	47.7	46.1	30.3	31.4
N82-957	44.8-	37.1	51.0	40.9	44.1	48.8	46.1	33.5
N82-1050	54.1	51.7	60.4+	44.4	53.3	45.2	46.0	37.2+
N82-1081	62.4	46.2	53.5	37.3	51.0	47.9	40.7	36.7+
N82-1198	54.5	54.9+	63.7+	40.2	59.4	44.2	36.2	36.3+
N82-2034	49.3	56.6+	50.1	38.0	61.6	41.6	42.1	33.5
N82-2083	44.5-	44.7	48.8	31.5-	50.3	36.9	35.8	31.6
R80-1422	52.5	42.7	51.7	37.9	54.6	45.5	48.7	33.9
R82-60	57.3	50.8	49.7	40.5	46.6	45.5	41.4	36.8+
R82-274	57.9	41.9	50.5	48.4	45.4	39.5	39.9	31.4
R82-414	60.9	49.9	52.1	37.9	48.6	52.9	37.1	33.2
R82-496	51.0	47.8	50.7	41.5	46.6	53.3	38.7	32.8
S81-2652	58.1	44.0	46.7	51.1	42.8	46.6	38.4	34.9
S81-4402	52.7	43.3	49.1	40.7	37.5	49.2	37.4	34.1
SC81-0204	64.4	53.5+	51.6	44.5	44.7	37.9	37.3	33.1
SC82-400	51.6	38.8	50.1	34.9-	49.2	35.7	38.2	30.7
V81-574	61.6	39.5	60.0+	37.2	44.4	52.5	34.0	40.6+
V81-1017	61.2	47.0	60.0+	38.2	49.8	49.6	31.4	37.1+
L.S.D.(.05)	10.4	8.4	11.8	10.9	N.S.	10.3	10.8	5.6
C.V.	10%	9%	11%	13%	11%	12%	12	8%

Table 39 - Oil percentages for the strains in Preliminary Group VI, 1984

Strain	Holland, VA	Plymouth, NC	Jay, FL	Keiser, AR	Stone-ville, MS (B)	Athens, GA
Centennial	18.1	18.3	20.0	18.6	20.2	18.6
Bedford	18.9	19.1	21.2	20.7	21.4	18.9
D82-2228	16.7	16.6	19.7	18.0	19.7	17.2
D82-2733	16.7	17.8	19.6	19.6	20.5	18.0
D82-3178	17.6	18.0	19.8	19.4	19.4	18.4
D82-3553	18.1	18.0	20.7	18.6	18.5	18.8
D82-3591	17.9	18.9	21.6	19.4	20.5	17.8
D82-3667	17.4	17.2	20.0	18.1	19.4	17.1
D82-3707	17.5	17.5	20.4	18.4	19.2	17.7
D82-3751	17.1	17.2	19.9	18.8	19.1	17.6
D82-3843	17.1	18.0	18.1	18.7	17.8	17.5
D82-3885	17.9	18.2	19.5	18.7	19.3	17.3
D82-4098	17.4	17.5	19.6	18.6	18.6	17.0
D82-5214	18.4	17.7	20.2	19.3	19.9	17.6
Ga80-437	17.6	18.0	20.7	19.8	20.4	19.0
Ga80-1284	18.3	18.6	20.7	19.9	20.5	17.7
Ga80-1335	18.0	18.0	20.0	20.4	20.5	18.4
Ga80-2035	17.8	17.3	19.5	19.1	18.2	18.2
Ga80-2137	18.6	18.9	20.7	20.3	20.6	19.5
N82-957	18.9	19.3	20.2	19.8	21.2	19.3
N82-1050	20.0	20.3	22.5	21.3	22.7	20.9
N82-1081	20.5	21.2	21.7	22.4	22.6	21.3
N82-1198	18.0	18.3	20.2	19.9	19.7	20.1
N82-2034	17.6	18.2	21.3	19.3	20.5	18.3
N82-2083	17.3	18.0	20.8	19.5	19.6	17.5
R80-1422	18.5	17.7	21.3	20.6	20.8	18.5
R82-60	18.6	18.6	22.1	20.2	21.4	18.7
R82-274	18.8	18.5	21.4	19.5	21.0	18.0
R82-414	18.4	19.0	20.3	20.3	20.4	18.4
R82-496	18.4	18.4	20.8	20.0	20.5	19.1
S81-2652	20.1	20.8	22.1	20.9	21.4	18.9
S81-4402	19.1	18.5	21.3	19.8	20.9	18.1
SC81-0204	18.8	18.1	20.8	19.9	21.1	19.3
SC82-400	17.2	16.6	20.3	18.8	19.1	17.7
V81-574	18.8	19.9	21.0	20.0	20.2	19.5
V81-1017	19.2	19.4	22.5	20.5	22.1	19.3

Table 40 - Protein percentages for the strains in Preliminary Group VI, 1984

Strain	Holland, VA	Plymouth, NC	Jay, FL	Keiser, AR	Stone-ville, MS (B)	Athens, GA
Centennial	43.9	44.7	43.3	41.3	41.6	42.4
Bedford	41.5	40.2	39.9	38.8	38.6	41.2
D82-2228	42.9	42.6	41.8	40.8	40.7	44.6
D82-2733	42.8	42.5	40.8	36.2	38.8	42.1
D82-3178	42.7	42.3	41.1	38.6	40.7	42.3
D82-3553	44.0	44.8	42.9	42.2	42.9	43.8
D82-3591	43.1	43.6	40.4	40.7	40.2	44.1
D82-3667	44.9	44.4	43.5	41.4	41.7	45.6
D82-3707	44.6	45.1	42.1	42.8	41.7	45.4
D82-3751	45.0	45.3	43.1	41.2	42.9	44.9
D82-3843	43.9	45.1	44.1	41.8	43.7	44.4
D82-3885	43.9	43.4	43.1	41.1	41.3	46.0
D82-4098	44.5	45.3	43.0	43.2	42.8	46.4
D82-5214	43.5	43.6	42.6	42.1	41.0	45.2
Ga80-437	43.4	42.8	42.8	41.3	42.0	42.1
Ga80-1284	42.1	43.2	40.2	40.0	40.7	44.2
Ga80-1335	42.2	43.0	41.1	38.4	38.4	43.9
Ga80-2035	43.7	44.9	43.9	41.9	44.0	45.0
Ga80-2137	42.0	43.0	41.3	39.5	41.3	41.3
N82-957	43.2	41.7	41.1	39.9	40.0	42.3
N82-1050	42.3	40.8	40.2	40.6	41.4	41.2
N82-1081	40.6	40.1	40.0	38.4	40.2	38.8
N82-1198	43.8	42.9	41.8	42.5	40.4	41.9
N82-2034	45.0	46.0	40.8	43.3	42.9	44.8
N82-2083	44.8	45.8	41.8	41.8	42.1	45.4
R80-1422	41.1	41.6	40.5	39.1	41.0	41.6
R82-60	42.7	44.1	41.2	40.8	40.3	43.6
R82-274	42.1	42.7	41.3	40.5	40.2	43.8
R82-414	42.6	43.0	41.8	40.8	41.6	44.2
R82-496	44.1	44.1	41.7	41.5	42.3	43.4
S81-2652	40.9	40.9	41.4	40.4	42.1	43.5
S81-4402	42.3	42.1	39.7	40.3	40.9	43.3
SC81-0204	45.2	44.1	42.6	43.0	41.6	44.9
SC82-400	43.6	43.6	40.4	40.5	42.1	43.4
V81-574	41.3	41.0	40.3	40.8	40.9	42.7
V81-1017	40.8	40.8	38.3	38.2	38.6	43.0

Table 41 - Plant height for the strains in Preliminary Group VI, 1984

Strain	Holland, VA	Ply-mouth, NC	Tal-lassee, AL	Jay, FL	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)	Athens, GA
Centennial	49	43	41	35	46	41	33	38
Bedford	53	41	44	35	51	41	35	42
D82-2228	50	45	44	31	37	42	38	42
D82-2733	54	47	51	41	49	51	44	48
D82-3178	53	45	44	37	53	46	42	48
D82-3553	46	42	44	36	51	44	40	42
D82-3591	48	43	47	34	44	45	41	43
D82-3667	44	39	41	29	45	39	35	36
D82-3707	42	38	38	28	39	29	34	36
D82-3751	40	38	37	29	41	41	36	38
D82-3843	46	39	43	33	43	40	40	36
D82-3885	44	40	39	32	47	35	35	36
D82-4098	47	41	39	30	48	36	36	38
D82-5214	51	41	42	33	46	38	34	41
Ga80-437	50	37	35	26	35	38	29	38
Ga80-1284	46	41	45	33	47	40	38	42
Ga80-1335	46	43	43	34	47	43	38	39
Ga80-2035	43	40	39	33	44	32	37	37
Ga80-2137	44	39	39	32	42	35	32	40
N82-957	40	32	32	25	32	33	28	36
N82-1050	50	37	41	30	43	37	36	40
N82-1081	44	38	38	31	34	27	29	38
N82-1198	44	38	41	32	47	44	39	39
N82-2034	47	40	46	33	42	37	33	38
N82-2083	58	51	46	41	53	46	45	55
R80-1422	51	43	42	33	47	34	40	40
R82-60	46	41	40	33	45	34	31	36
R82-274	45	39	35	26	38	34	29	33
R82-414	40	38	34	31	31	30	29	32
R82-496	43	38	36	34	32	26	26	34
S81-2652	42	37	31	26	34	30	28	36
S81-4402	43	40	39	33	37	26	29	38
SC81-0204	43	39	38	31	39	32	33	37
SC82-400	54	46	51	41	59	55	41	46
V81-574	39	33	35	30	31	23	27	36
V81-1017	41	37	36	33	29	23	26	36

Table 42 - Seed quality scores for the strains in Preliminary Group VI, 1984

Strain	Holland, VA	Ply-mouth, NC	Jay, FL	Keiser, AR	Stone-ville, MS (A)	Stone-ville, MS (B)	Athens, GA
Centennial	2.0	1.5	2.0	1.4	2.0	2.0	1.5
Bedford	2.0	1.5	3.0	4.0	3.0	3.0	1.5
D82-2228	2.0	1.5	2.0	1.1	2.0	2.5	1.5
D82-2733	2.5	1.5	2.0	1.0	2.0	2.0	2.0
D82-3178	2.0	1.5	2.0	1.8	3.0	3.0	1.5
D82-3553	2.0	1.5	2.0	1.2	2.0	2.0	1.5
D82-3591	2.0	1.0	2.0	1.2	2.0	2.5	1.5
D82-3667	3.0	1.5	2.0	1.7	2.5	2.5	1.5
D82-3707	2.0	1.5	2.0	1.1	2.5	3.0	1.5
D82-3751	3.0	1.5	2.0	1.3	2.0	3.0	1.5
D82-3843	2.0	1.5	2.0	1.3	2.0	2.0	1.5
D82-3885	2.0	1.5	2.0	1.2	3.0	2.5	1.5
D82-4098	2.0	1.0	2.0	1.3	2.0	2.0	1.5
D82-5214	2.0	1.5	2.0	1.6	3.0	3.0	1.5
Ga80-437	2.0	1.5	2.0	1.7	3.0	3.0	1.5
Ga80-1284	2.5	1.5	2.0	1.8	3.0	2.5	1.5
Ga80-1335	2.0	1.5	2.0	1.5	2.5	3.0	1.5
Ga80-2035	2.0	1.5	2.0	1.5	3.0	3.0	1.5
Ga80-2137	2.0	1.5	2.0	1.5	3.0	2.0	1.5
N82-957	2.0	1.5	2.0	2.5	3.0	3.0	1.5
N82-1050	2.0	1.0	2.0	2.4	3.0	2.5	1.5
N82-1081	2.0	1.5	2.0	3.0	3.0	2.0	1.5
N82-1198	2.0	1.5	2.0	1.4	2.5	3.0	1.5
N82-2034	2.0	1.5	2.0	1.6	2.0	2.0	1.5
N82-2083	2.0	1.5	2.0	1.0	2.0	2.5	1.5
R80-1422	2.0	1.5	2.0	1.2	2.0	2.5	1.5
R82-60	2.0	1.5	2.0	1.0	2.0	3.0	1.5
R82-274	2.0	1.5	2.0	1.5	3.0	3.0	1.5
R82-414	2.0	1.5	2.0	2.5	3.0	2.0	1.5
R82-496	2.0	1.5	2.0	2.3	3.0	2.5	1.5
S81-2652	2.0	1.5	2.0	1.3	3.0	2.0	1.5
S81-4402	2.0	1.5	2.0	2.4	2.5	3.0	1.5
SC81-0204	2.0	1.5	2.0	1.3	2.5	3.0	1.5
SC82-400	2.0	1.5	2.0	1.0	3.0	2.5	1.5
V81-574	2.0	1.5	2.0	1.4	2.5	3.0	1.5
V81-1017	2.0	1.5	2.0	1.7	3.0	3.0	1.5

UNIFORM GROUP VII

1984

	Variety or strain	Parentage	Generation composited
1.	Braxton	F59-1505 X [Bragg(3) X D60-7965]	F_5
2.	Wright	Bragg X Lee	F_5
3.	Gordon (Ga78-2708)	Forrest X Pickett 71	F_5
4.	F77-2122	Centennial X [Forrest X (Cobb X D68-216)]	F_5
5.	F79-4696	Centennial X [Forrest X (Cobb X D68-216)]	F_5
6.	N80-777	N70-1501 X (N72-40 X N73-538)	F_6
7.	D81-8912	Centennial X D75-10172	F_5
8.	F81-2815	Centennial X (Cobb X Hood)	F_7
9.	Ga79-945	Tracy X Ransom	F_7
10.	Ga80-1413	Centennial X F71-1138	F_6
11.	N81-1816	N73-520-2 X Ransom(2)	F_4
12.	R81-266	Bragg X Centennial	F_5

Background of breeding lines used as parents:

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

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

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

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

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

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

D75-10172 is an insect resistant selection from Govan X sel. (Bragg X PI 229358).

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

Uniform Group VII nurseries were planted at 27 locations for evaluating seed yield and other agronomic qualities. Additional plantings were made near Blackville, South Carolina and Jay, Florida for evaluating for the two root-knot species, Meloidogyne incognita and M. arenaria. Plantings were made in the greenhouse at Jackson, Tennessee in soil infested with either race 3 or race 4 of the soybean cyst nematodes. Plantings were also made in the field cage at Stoneville where plants were exposed to a heavy infestation of soybean looper. Table 43 gives a general summary of performance and plant characteristics. Three-year data is reported for seed yield and oil and protein percentages. Tables 44 through 49 report data from individual locations.

Ga78-2708 has been released for production and given the name Gordon. Gordon has produced well in all regions. It was selected for resistance to SCN race 3 and the two root-knot nematode species, M. incognita and M. arenaria.

F77-2122 has been evaluated three years. It has given good production in all production areas. It is resistant to SCN race 3 and M. incognita. We failed to obtain a reading on M. arenaria in 1984. The two strains, F79-4696 and N80-777, have been evaluated two years. Both yield well. F79-4696 is resistant to SCN race 3 and M. incognita. N80-777 is susceptible to both root-knot species and to SCN.

Six strains were evaluated on a regional basis for the first year. D81-8912 had been selected for resistance to foliar-feeding insects. It was fed on heavily in the 1984 trials, and was only moderate in seed yield. R81-266 was slightly lower in seed yield than Braxton. The four strains, Ga79-945, Ga80-1413, F81-2815, and N81-1816, yielded well in all areas.

Table 43 - General summary of performance for the strains grown in Uniform Group VII, 1984

	No. of locations	Braxton	Wright	Gordon (Ga78-2708)	F77-2122	F79-4696
Seed yield - 1984						
East Coast	7	39.9	37.8	39.4	41.3	40.2
Southeast	10	38.1	38.7	37.9	38.3	35.0
Upper & Central South	3	40.4	39.4	41.3	39.9	39.4
Delta and West	6	38.8	39.0	36.4	38.2	38.6
1983-84						
East Coast		35.9	34.1	37.5	37.4	37.1
Southeast		37.8	39.2	37.4	37.9	37.6
Upper & Central South		46.3	43.4	46.4	44.1	44.0
Delta and West		42.2	42.5	40.0	40.8	42.2
1982-84						
East Coast		35.8	33.8	37.2	37.1	
Southeast		38.8	39.1	37.8	39.0	
Upper & Central South		44.1	42.5	44.1	42.4	
Delta and West		41.6	41.9	40.1	40.7	
Oil Content - 1984		20.1	20.8	20.2	20.1	19.8
1983-84		19.8	20.5	20.4	19.8	
1982-84		19.6	20.3	19.9	19.6	
Protein Content - 1984		41.5	40.6	40.4	41.0	42.2
1983-84		42.0	41.3	40.3	41.5	
1982-84		41.9	41.0	40.3	41.4	
Seed size		15.4	14.1	11.5	12.5	13.9
Maturity index		10-22	-1	-4	-1	+3
Height		41	41	39	41	41
Seed quality		2.1	2.0	2.0	2.2	2.0
M. incognita		1.0	1.0	1.0	1.0	1.0
M. arenaria		2.5	2.0	1.5	-	3.0
SCN race 3		S	S	R	R	R
SCN race 4		S	S	S	S	S
Soybean Looper		4.0	2.8	3.8	3.0	4.0
Flower color		P	P	W	P	P
Pubescence color		T	T	G	T	T
Pod wall color		T	T	T	T	T

Table 43 - (continued)

	N80-777	D81-8912	F81-2815	Ga79-945	Ga80-1413	N81-1816	R81-266
Seed yield - 1984							
East Coast	42.4	38.6	41.9	40.3	41.3	38.5	38.4
Southeast	40.5	36.1	39.3	39.0	39.6	40.9	38.8
Upper & Central South	41.8	37.1	42.7	43.6	39.0	40.9	38.8
Delta and West	36.9	36.4	36.4	38.0	38.5	32.6	36.6
1983-84							
East Coast	36.5						
Southeast	38.6						
Upper & Central South	44.0						
Delta and West	40.4						
1982-84							
East Coast							
Southeast							
Upper & Central South							
Delta and West							
Oil Content - 1984	20.4	19.8	19.8	20.2	19.5	22.1	20.4
1983-84							
1982-84							
Protein Content - 1984	41.2	42.4	41.4	42.4	41.2	39.4	41.5
1983-84							
1982-84							
Seed size	13.0	11.1	12.9	15.1	15.7	14.0	14.6
Maturity index	-7	-2	+3	-4	-1	-8	-1
Height	37	35	41	33	38	34	39
Seed quality	2.1	2.0	2.1	2.0	2.0	2.2	2.0
M. incognita	5.0	1.0	1.0	4.5	1.0	5.0	1.0
M. arenaria	3.5	3.0	-	4.5	3.5	3.5	-
SCN race 3	S	R	R	S	R	S	R
SCN race 4	S	S	S	S	S	S	S
Soybean Looper	3.2	4.0	4.8	3.0	3.0	3.0	4.2
Flower color	P	P	W	P	P	P	W
Pubescence color	T	T	T	T	T	T	T
Pod wall color	T	T	T	T	T	T	T

Table 44 - Seed yield, in bushels per acre, for the strains in Uniform Group VII, 1984

Location	Braxton	Wright	(Gordon) Ga78-2708	F77-2122	F79-4696	N80-777	D81-8912
			EAST COAST				
Plymouth, NC	46.1	41.5	36.3-	39.1-	47.0	48.8	42.7
Kinston, NC	39.9	28.2-	42.6	38.9	37.7	42.5	41.8
Clinton, NC	58.5	57.8	54.1	56.3	52.7	63.5	54.7
Florence, SC (A)	35.7	39.5	40.5	45.3	39.0	37.2	35.9
Florence, SC (B)	35.9	36.4	37.4	40.2	41.5	32.6	40.5
Hartsville, SC (A)	32.3	34.0	34.8	36.4	29.1	37.5	19.4-
Hartsville, SC (B)	30.9	27.4	30.1	33.1	34.7	34.9	35.2
Mean	39.9	37.8	39.4	41.3	40.2	42.4	38.6
			SOUTHEAST				
Blackville, SC	26.6	27.6	29.4	28.9	29.7	37.7	33.8
Tallassee, AL	51.1	58.4	54.2	54.2	50.3	51.5	51.8
Tifton, GA	53.7	55.1	50.7	51.1	44.2	54.8	53.6
Gainesville, FL	26.2	21.0	20.1	26.8	24.7	18.7-	18.8-
Marianna, FL	23.4	21.4	22.0	18.9	20.2	16.4-	15.3-
Quincy, FL	41.8	37.5	37.1	42.8	30.1	41.5	24.1
Jay, FL	26.9	34.6	37.3+	36.1	33.7	42.9+	40.4+
Fairhope, AL	57.5	55.2	48.4-	49.2-	49.9-	59.0	45.4-
Poplarville, MS	46.7	48.6	46.3	39.9-	33.6-	52.2	50.0
Baton Rouge, LA	27.3	27.6	33.2	35.2	33.8	30.0	28.1
Mean	38.1	38.7	37.9	38.3	35.0	40.5	36.1
			UPPER AND CENTRAL SOUTH				
Athens, GA	49.6	45.3	50.6	45.4	45.6	53.8	42.0-
Calhoun, GA	44.2	48.3	47.9	46.9	47.2	45.5	50.0
Clemson, SC	27.4	24.6	25.4	27.4	25.3	26.2	19.4
Mean	40.4	39.4	41.3	39.9	39.4	41.8	37.1
			DELTA AND WEST				
Stoneville, MS (A)	47.1	46.5	45.6	41.9	42.9	41.6-	45.6
Stoneville, MS (B)	40.3	40.8	43.0	44.8	45.0	40.1	39.7
Stuttgart, AR	52.8	47.2	49.3	51.8	48.4	52.4	49.9
Rohwer, AR	35.6	35.1	25.0-	32.5	31.7	27.8-	28.0-
St. Joseph, LA	36.4	37.5	33.6	34.9	37.8	37.1	-
*Bossier City, LA	30.5	29.2	35.4	28.3	38.2	31.6	30.2
Beaumont, TX	20.7	26.6	21.8	23.5	25.5	22.5	19.0
Mean	38.8	39.0	36.4	38.2	38.6	36.9	36.4

*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	F81-2815	Ga79-945	Ga80-1413	N81-1816	R81-266	L.S.D. (.05)	C.V. (%)
			EAST COAST				
Plymouth, NC	43.7	49.9	42.9	51.1	35.4-	5.8	8
Kinston, NC	40.5	46.5	36.6	45.7	36.8	6.7	10
Clinton, NC	60.0	63.7	53.7	63.9	52.1	8.6	9
Florence, SC (A)	42.5	31.2	41.7	29.1	36.9	4.7	9
Florence, SC (B)	38.5	29.6	42.8	27.6	38.7	6.0	12
Hartsville, SC (A)	34.5	28.9	40.4	22.3-	33.2	9.2	17
Hartsville, SC (B)	33.8	32.5	30.8	29.9	35.6	6.4	12
Mean	41.9	40.3	41.3	38.5	38.4		
			SOUTHEAST				
Blackville, SC	30.6	33.8	31.8	35.7	27.9	N.S.	16
Tallassee, AL	52.0	58.5	48.1	56.1	51.0	7.8	9
Tifton, GA	47.0	55.8	49.8	54.2	49.8	N.S.	9
Gainesville, FL	25.2	14.7-	26.5	18.8-	19.7	7.1	19
Marianna, FL	19.0	21.4	24.6	18.3	16.6-	5.2	16
Quincy, FL	37.0	36.8	43.2	33.9	34.2	11.7	12
Jay, FL	42.5+	38.3+	41.5+	39.1+	38.2+	9.4	15
Fairhope, AL	50.7-	56.7	56.0	48.4-	49.9-	4.9	6
Poplarville, MS	45.9	51.3	40.8-	53.1+	44.5	5.8	7
Baton Rouge, LA	43.0	22.4	34.0	25.8	34.4	N.S.	16
Mean	39.3	39.0	39.6	38.3	36.6		
			UPPER AND CENTRAL SOUTH				
Athens, GA	47.1	48.6	47.0	46.2	48.5	4.5	6
Calhoun, GA	56.0	59.2+	43.5	53.9	44.4	10.7	13
Clemson, SC	24.9	22.9	26.6	22.6	23.4	N.S.	13
Mean	42.7	43.6	39.0	40.9	38.8		
			DELTA AND WEST				
Stoneville, MS (A)	35.5-	45.1	39.3-	37.3-	41.8	5.4	7
Stoneville, MS (B)	42.4	43.8	43.6	34.2-	39.3	5.5	8
Stuttgart, AR	49.1	48.5	52.7	51.4	52.1	N.S.	8
Rohwer, AR	30.3-	29.5-	34.2	21.8-	29.4-	5.0	10
St. Joseph, LA	40.2	-	36.9	31.6	32.9	5.2	9
Bossier City, LA	35.6	34.5	38.0	27.8	32.9	9.0	16
Beaumont, TX	21.1	23.2	24.4	19.2	24.3	N.S.	14
Mean	36.4	38.0	38.5	32.6	36.6		

Table 45 - Chemical composition and seed size for the strains in Uniform Group VII, 1984

Location	Braxton	Wright	(Gordon) Ga78-2708	F77-2122	F79-4696	N80-777
			OIL PERCENTAGE			
Blackville, SC	18.6	20.9	19.8	18.8	19.0	19.1
Athens, GA	18.3	18.9	19.2	19.0	18.8	19.7
Tifton, GA	21.5	22.7	20.5	20.8	19.4	20.2
Stoneville, MS (B)	19.9	20.7	19.9	20.6	20.4	20.9
Stuttgart, AR	19.9	20.4	19.4	19.6	19.0	19.7
Rohwer, AR	20.5	20.4	21.6	20.4	20.5	21.0
Beaumont, TX	22.2	21.9	21.2	21.5	21.2	22.3
Mean	20.1	20.8	20.2	20.1	19.8	20.4
			PROTEIN PERCENTAGE			
Blackville, SC	42.5	39.9	41.1	42.1	42.8	42.0
Athens, GA	42.8	42.6	41.0	42.4	42.5	43.2
Tifton, GA	42.6	40.8	43.9	41.6	43.4	40.2
Stoneville, MS (B)	40.9	39.4	37.5	39.2	39.6	39.2
Stuttgart, AR	41.0	41.1	41.8	41.9	43.6	43.1
Rohwer, AR	39.7	39.0	37.9	39.2	42.0	40.5
Beaumont, TX	40.7	41.1	39.6	40.6	41.8	40.5
Mean	41.5	40.6	40.4	41.0	42.2	41.2
			GRAMS PER 100 SEEDS			
Blackville, SC	16.9	14.2	11.8	13.3	13.6	14.4
Athens, GA	17.3	14.0	12.2	12.4	14.1	13.4
Tifton, GA	16.3	17.6	10.9	16.7	18.7	13.0
Stoneville, MS (B)	14.2	12.6	10.4	11.0	12.0	12.0
Stuttgart, AR	17.0	15.0	12.3	13.0	15.3	15.0
Rohwer, AR	13.0	13.0	10.7	10.0	12.0	11.7
Beaumont, TX	13.3	12.4	10.4	10.8	11.7	11.3
Mean	15.4	14.1	11.5	12.5	13.9	13.0

Table 45 - (continued)

Location	D81-8912	F81-2815	Ga79-945	Ga80-1413	N81-1816	R81-266
			OIL PERCENTAGE			
Blackville, SC	19.4	20.1	19.9	18.4	21.9	20.4
Athens, GA	19.3	18.0	18.6	18.1	20.4	19.6
Tifton, GA	20.7	20.1	21.1	20.7	20.1	19.9
Stoneville, MS (B)	19.7	19.9	20.1	19.5	22.2	20.2
Stuttgart, AR	19.7	19.4	20.0	18.9	22.4	20.0
Rohwer, AR	20.2	19.2	21.5	19.3	22.5	21.2
Beaumont, TX	19.5	22.1	19.9	21.4	24.9	21.8
Mean	19.8	19.8	20.2	19.5	22.1	20.4
			PROTEIN PERCENTAGE			
Blackville, SC	41.9	41.1	43.6	42.1	40.4	42.5
Athens, GA	43.5	42.2	42.3	42.8	41.1	42.2
Tifton, GA	41.5	43.2	43.2	41.5	42.0	41.9
Stoneville, MS (B)	42.4	40.6	40.4	38.3	37.5	41.0
Stuttgart, AR	42.9	42.3	42.2	42.1	39.5	41.9
Rohwer, AR	40.2	39.9	39.5	40.0	37.9	39.4
Beaumont, TX	44.4	40.5	45.7	41.2	37.6	41.9
Mean	42.4	41.4	42.4	41.2	39.4	41.5
			GRAMS PER 100 SEEDS			
Blackville, SC	10.4	14.0	13.7	16.8	14.7	15.1
Athens, GA	10.2	13.4	15.3	16.2	14.6	16.6
Tifton, GA	18.7	14.9	17.4	18.6	13.0	14.2
Stoneville, MS (B)	9.4	10.8	13.8	13.6	13.2	12.4
Stuttgart, AR	11.0	14.0	17.0	17.0	17.0	17.0
Rohwer, AR	8.3	11.0	13.0	14.0	12.3	13.0
Beaumont, TX	9.5	11.9	15.3	13.2	13.1	13.9
Mean	11.1	12.9	15.1	15.7	14.0	14.6

Table 46 - Relative maturity data, days earlier (-) or later (+) than Braxton, for the strains in Uniform Group VII, 1984

Location	Date planted	Braxton matured	Wright	(Gordon) Ga78-2708	F77-2122	F79-2696	N80-777
			EAST COAST				
Plymouth, NC	5-25	10-30	0	-6	0	0	-6
Kinston, NC	5-17	11-9	0	-7	0	0	-9
Clinton, NC	5-29	11-9	-9	-9	-9	0	-9
Florence, SC (A)	5-15	10-20	-5	-8	0	0	-8
Florence, SC (B)	6-15	11-6	+2	-11	-5	+4	-14
Hartsville, SC (A)	5-17	10-17	-2	-1	+2	+2	-4
Hartsville, SC (B)	6-21	10-21	-2	0	+2	+5	-8
Mean	5-29	10-29	-2	-6	-1	+2	-8
			SOUTHEAST				
Blackville, SC	5-11	10-22	-6	-10	-5	-4	-12
Tallassee, AL	5-23	10-15	-2	-5	-1	+2	-8
Tifton, GA	5-16	10-11	0	-3	+1	+1	-3
Gainesville, FL	6-19	10-21	-3	-4	-1	0	-7
Marianna, FL	6-24	10-11	-2	-5	0	+1	-8
Quincy, FL	6-6	10-11	-4	-6	0	-2	-14
Jay, FL	6-8	10-7	+5	0	+5	+6	-1
Fairhope, AL	5-31	10-15	0	-7	0	0	-12
Poplarville, MS	-	10-12	-1	-4	-2	-1	-5
Baton Rouge, LA	5-16	10-21	+1	+1	0	+3	+2
Mean	5-30	10-15	-1	-4	0	+1	-7
			UPPER AND CENTRAL SOUTH				
Athens, GA	5-21	10-16	0	-1	+1	+4	-4
Calhoun, GA	6-4	10-27	+1	-2	0	+3	-3
Clemson, SC	5-11	10-20	-2	-6	0	+2	-8
Mean	5-22	10-21	0	-3	0	+3	-5
			DELTA AND WEST				
Stoneville, MS (A)	5-11	10-21	+6	-1	+2	+7	-4
Stoneville, MS (B)	5-11	10-28	+2	-8	+2	+1	-14
Stuttgart, AR	6-2	10-29	+1	0	0	+2	-4
Rohwer, AR	5-31	10-19	-1	-2	0	+1	-8
St. Joseph, LA	5-14	10-21	-7	-7	-5	+1	-15
Beaumont, TX	5-16	10-15	-2	-2	-2	0	-4
Mean	5-19	10-22	0	-3	-1	+2	-10

Table 46 - (continued)

Location	D81-8912	F81-2815	Ga79-945	Ga80-1413	N81-1816	R81-266
			EAST COAST			
Plymouth, NC	0	+3	0	0	0	0
Kinston, NC	-9	0	0	0	-7	0
Clinton, NC	-9	0	-9	0	-9	0
Florence, SC (A)	-3	0	-5	-2	-6	-3
Florence, SC (B)	-5	0	-14	-1	-18	+2
Hartsville, SC (A)	-1	+4	-2	+3	-6	-1
Hartsville, SC (B)	-2	+9	-6	+1	-8	+2
Mean	-4	+2	-5	0	-8	0
			SOUTHEAST			
Blackville, SC	-8	0	-9	-6	-11	-6
Tallassee, AL	-2	+3	-4	-1	-6	-2
Tifton, GA	-2	+2	-3	-1	-3	-1
Gainesville, FL	-3	+1	-6	-3	-5	0
Marianna, FL	-3	+3	-4	-1	-7	0
Quincy, FL	0	+1	-1	-12	-14	-2
Jay, FL	+5	+5	0	+5	-1	+5
Fairhope, AL	-5	+2	-7	0	-12	0
Poplarville, MS	-3	+2	-5	-4	-5	-1
Baton Rouge, LA	0	-5	+1	+3	-1	-5
Mean	-2	+1	-4	-2	-7	-1
			UPPER AND CENTRAL SOUTH			
Athens, GA	0	+4	-4	+1	-5	+1
Calhoun, GA	+1	+3	+1	+1	-4	+1
Clemson, SC	-2	+5	-8	0	-13	-1
Mean	0	+4	-4	+1	-7	0
			DELTA AND WEST			
Stoneville, MS (A)	-2	+6	-1	-4	-6	+1
Stoneville, MS (B)	-10	+2	-9	-8	-12	-5
Stuttgart, AR	0	+2	0	0	-1	0
Rohwer, AR	0	+1	-6	0	-8	-1
St. Joseph, LA	-	+2	-	-6	-13	-7
Beaumont, TX	-1	0	-3	-2	-5	-2
Mean	-2	+3	-4	-4	-9	-3

Table 47 - Plant height for the strains in Uniform Group VII, 1984

Location	Braxton	Wright	(Gordon) Ga78-2708	F77-2122	F79-4696	N80-777
			EAST COAST			
Plymouth, NC	36	36	39	38	40	39
Kinston, NC	42	46	41	42	46	50
Clinton, NC	44	40	46	46	46	44
Florence, SC (A)	38	41	33	39	38	28
Florence, SC (B)	43	44	36	48	44	39
Hartsville, SC (A)	43	40	39	43	41	38
Hartsville, SC (B)	41	39	38	39	42	35
Mean	41	41	39	42	42	39
			SOUTHEAST			
Blackville, SC	45	41	37	41	48	37
Tallassee, AL	44	43	42	41	49	42
Tifton, GA	39	40	36	39	37	34
Gainesville, FL	23	22	20	22	21	19
Marianna, FL	27	28	26	25	25	25
Quincy, FL	33	36	36	30	34	30
Jay, FL	34	33	33	36	35	32
Fairhope, AL	42	46	43	44	44	41
Poplarville, MS	34	38	39	39	39	34
Baton Rouge, LA	44	42	42	42	42	29
Mean	37	37	35	36	37	32
			UPPER AND CENTRAL SOUTH			
Athens, GA	47	46	44	45	44	41
Calhoun, GA	50	45	44	50	47	45
Clemson, SC	42	43	40	49	46	42
Mean	46	45	43	48	46	43
			DELTA AND WEST			
Stoneville, MS (A)	45	44	43	44	43	40
Stoneville, MS (B)	41	42	37	40	38	37
Stuttgart, AR	40	40	37	38	40	36
Rohwer, AR	38	38	35	39	37	36
St. Joseph, LA	34	37	37	37	38	34
Bossier City, LA	44	44	43	42	44	41
Beaumont, TX	27	28	29	28	30	24
Mean	38	39	37	38	39	35

Table 47 - (continued)

Location	D81-8912	F81-2815	Ga79-945	Ga80-1413	N81-1816	R81-266
			EAST COAST			
Plymouth, NC	36	40	37	37	40	36
Kinston, NC	42	44	48	44	40	40
Clinton, NC	36	42	38	46	40	42
Florence, SC (A)	30	38	31	34	30	34
Florence, SC (B)	36	44	34	42	32	37
Hartsville, SC (A)	35	43	32	39	31	39
Hartsville, SC (B)	30	43	31	37	32	41
Mean	35	42	36	40	35	38
			SOUTHEAST			
Blackville, SC	36	42	34	37	35	37
Tallassee, AL	42	42	40	39	37	42
Tifton, GA	35	38	32	35	32	36
Gainesville, FL	18	22	17	22	19	21
Marianna, FL	23	31	22	28	23	26
Quincy, FL	17	33	24	33	27	29
Jay, FL	32	34	31	34	32	34
Fairhope, AL	35	45	34	39	37	42
Poplarville, MS	34	39	33	35	31	36
Baton Rouge, LA	34	42	25	34	30	36
Mean	31	37	29	34	31	34
			UPPER AND CENTRAL SOUTH			
Athens, GA	37	45	37	42	39	46
Calhoun, GA	42	50	40	47	42	46
Clemson, SC	38	46	33	45	37	43
Mean	39	47	37	45	39	45
			DELTA AND WEST			
Stoneville, MS (A)	37	45	35	38	35	41
Stoneville, MS (B)	35	40	31	37	30	39
Stuttgart, AR	35	38	33	34	34	40
Rohwer, AR	30	36	29	34	34	37
St. Joseph, LA	-	41	-	34	34	34
Bossier City, LA	36	43	32	39	34	39
Beaumont, TX	24	27	19	24	23	28
Mean	33	39	30	34	32	37

Table 48 - Lodging scores for the strains in Uniform Group VII, 1984

Location	Braxton	Wright	(Gordon) Ga78-2708	F77-2122	F79-4696	N80-777
			EAST COAST			
Plymouth, NC	2.0	3.0	3.0	3.0	3.0	3.0
Kinston, NC	3.0	4.0	3.0	3.0	4.0	3.0
Clinton, NC	3.0	4.0	3.0	3.0	3.0	3.0
Florence, SC (A)	3.0	3.0	3.0	4.0	3.0	4.0
Florence, SC (B)	1.0	2.0	2.0	2.0	2.0	1.0
Hartsville, SC (A)	1.8	2.8	1.8	3.2	2.8	2.7
Hartsville, SC (B)	1.5	1.0	2.5	2.5	2.0	1.5
			SOUTHEAST			
Blackville, SC	2.0	4.0	1.0	2.0	4.0	1.0
Tallassee, AL	2.2	4.0	3.5	2.7	3.7	3.2
Tifton, GA	2.3	3.0	1.7	2.0	2.3	1.3
Gainesville, FL	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, FL	1.0	2.0	2.0	2.0	1.0	2.0
Jay, FL	2.0	2.0	1.0	3.0	2.0	2.0
Fairhope, AL	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, LA	3.1	4.2	2.6	3.3	3.1	2.6
			UPPER AND CENTRAL SOUTH			
Athens, GA	2.5	4.0	3.3	3.3	3.0	3.5
Calhoun, GA	1.7	2.5	3.0	2.2	2.5	3.0
Clemson, SC	2.7	4.0	2.3	3.2	3.5	3.2
			DELTA AND WEST			
Stoneville, MS (A)	2.0	3.0	2.7	3.0	3.0	2.7
Stoneville, MS (B)	2.0	3.0	2.0	3.0	2.3	2.0
Stuttgart, AR	2.5	4.4	2.3	3.3	3.1	4.2
Rohwer, AR	1.0	2.3	1.0	2.3	1.0	2.3
St. Joseph, LA	1.3	2.0	1.7	2.0	1.5	1.7
Bossier City, LA	1.2	2.2	1.2	1.5	1.5	1.7
Beaumont, TX	1.2	1.1	1.0	1.1	1.1	1.1

Table 48 - (continued)

Location	D81-8912	F81-2815	Ga79-945	Ga80-1413	N81-1816	R81-266
			EAST COAST			
Plymouth, NC	3.0	3.0	2.0	2.0	2.0	3.0
Kinston, NC	3.0	3.0	3.0	3.0	3.0	3.0
Clinton, NC	4.0	3.0	3.0	3.0	3.0	3.0
Florence, SC (A)	2.0	4.0	1.0	2.0	1.0	3.0
Florence, SC (B)	1.0	2.0	1.0	1.0	1.0	2.0
Hartsville, SC (A)	1.3	3.5	1.3	1.5	1.2	2.3
Hartsville, SC (B)	1.0	2.0	1.0	1.0	1.0	1.5
			SOUTHEAST			
Blackville, SC	2.0	5.0	1.0	2.0	1.0	2.0
Tallassee, AL	3.3	3.8	3.0	2.5	2.2	2.5
Tifton, GA	1.3	3.0	1.3	1.3	1.0	1.7
Gainesville, FL	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, FL	1.0	2.0	1.0	2.0	1.0	1.0
Jay, FL	3.0	3.0	1.0	1.0	1.0	2.0
Fairhope, AL	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, LA	3.0	3.0	2.5	2.5	2.6	3.0
			UPPER AND CENTRAL SOUTH			
Athens, GA	3.2	3.0	3.0	2.3	3.0	3.2
Calhoun, GA	2.2	2.7	2.7	2.0	2.7	2.2
Clemson, SC	2.8	3.0	2.2	3.2	2.8	2.8
			DELTA AND WEST			
Stoneville, MS (A)	2.0	3.0	2.0	2.0	2.0	2.3
Stoneville, MS (B)	2.0	2.7	2.0	2.0	2.0	2.7
Stuttgart, AR	2.6	4.4	2.0	2.9	4.1	2.9
Rohwer, AR	2.0	2.0	3.0	1.0	2.7	1.0
St. Joseph, LA	-	1.5	-	1.5	1.7	1.5
Bossier City, LA	1.5	1.5	1.5	1.3	1.3	1.5
Beaumont, TX	1.1	1.1	1.1	1.0	1.0	1.2

Table 49 - Seed quality scores for the strains in Uniform Group VII, 1984

Location	Braxton	Wright	(Gordon) Ga78-2708	F77-2122	F79-4696	N80-777
			EAST COAST			
Plymouth, NC	1.5	1.5	1.5	1.5	1.5	1.5
Clinton, NC	1.5	1.5	1.5	1.5	1.5	1.5
			SOUTHEAST			
Blackville, SC	3.0	2.0	2.0	3.0	2.0	2.0
Tifton, GA	2.0	2.0	2.5	2.0	2.5	1.5
Gainesville, FL	3.0	2.0	1.7	1.0	2.0	2.0
Quincy, FL	2.0	2.0	2.0	2.0	2.0	1.0
Jay, FL	2.0	2.0	2.0	2.0	2.0	2.0
Baton Rouge, LA	3.3	2.5	3.0	3.0	2.8	2.7
			UPPER AND CENTRAL SOUTH			
Athens, GA	1.5	1.5	1.5	1.5	1.5	1.5
Calhoun, GA	2.0	2.0	1.8	1.8	1.8	1.8
			DELTA AND WEST			
Stoneville, MS (A)	2.7	2.0	2.7	2.7	2.0	2.3
Stoneville, MS (B)	2.3	2.3	3.0	3.0	2.3	2.7
Stuttgart, AR	2.0	2.0	2.2	2.0	1.7	1.8
Rohwer, AR	2.5	2.0	2.0	2.3	2.0	2.0
St. Joseph, LA	4.0	3.8	4.0	4.0	2.7	3.7
Bossier City, LA	2.7	2.3	2.8	2.3	2.5	3.3
Beaumont, TX	2.2	1.5	2.0	2.0	1.7	1.8

Table - 49 (continued)

Location	D81-8912	F81-2815	Ga79-945	Ga80-1413	N81-1816	R81-266
			EAST COAST			
Plymouth, NC	1.5	1.5	1.5	1.5	1.5	1.5
Clinton, NC	1.5	1.5	1.5	2.0	1.5	1.5
			SOUTHEAST			
Blackville, SC	2.0	3.0	2.0	3.0	3.0	2.0
Tifton, GA	2.0	2.0	2.5	2.5	2.0	2.5
Gainesville, FL	1.3	1.3	1.7	1.7	2.3	2.7
Quincy, FL	2.0	2.0	2.0	2.0	2.0	2.0
Jay, FL	3.0	2.0	3.0	3.0	3.0	3.0
Baton Rouge, LA	2.3	2.5	2.5	2.3	3.0	3.0
			UPPER AND CENTRAL SOUTH			
Athens, GA	1.5	1.5	1.5	1.5	1.5	1.5
Calhoun, GA	2.0	2.0	2.0	2.0	2.0	2.0
			DELTA AND WEST			
Stoneville, MS (A)	2.3	2.3	2.3	2.7	3.0	2.0
Stoneville, MS (B)	2.3	2.7	2.0	2.3	2.7	2.3
Stuttgart, AR	2.0	2.0	2.0	2.0	2.5	2.2
Rohwer, AR	1.8	2.5	2.5	2.5	3.0	2.0
St. Joseph, LA	-	3.0	-	3.7	4.2	3.7
Bossier City, LA	2.8	2.5	2.8	2.0	3.3	2.8
Beaumont, TX	2.3	1.5	1.7	1.8	2.3	1.7

PRELIMINARY GROUP VII

1984

Preliminary Group VII nurseries which included Braxton and Centennial along with 34 experimental strains, were evaluated for seed yield at 9 locations. Additional plantings were made to evaluate the strains for reaction to the two species of root-knot nematode, two races of soybean cyst nematode, and to feeding by the soybean looper. The parentage for each of these strains is reported in Table 50. Table 51 gives a general summary of performance including mean seed yields, mean oil and protein percentages, along with reaction to nematodes and feeding by the soybean looper. Data from individual locations is reported in Tables 52-56.

Differences among strains for seed yield were significant at the 5% level of confidence at 8 of the 9 locations. Braxton had a mean seed yield of 37.7 bushels per acre and Centennial a mean seed yield of 39.3 bushels per acre. Nine strains ranked above Braxton in seed yield, and 3 strains ranked above Centennial in seed yield. Four strains were of Centennial maturity or earlier.

Nine strains had been selected for resistance to foliar-feeding insects. Eight of these rated well against feeding by the soybean looper, but all were lower in seed yield than Braxton. Fifteen strains showed good resistance to M. incognita and 9 strains showed good resistance to M. arenaria, while six strains had good resistance to both species of root-knot nematode. There were 11 strains with resistance to SCN race 3 and 4 strains with resistance to SCN race 4. There were 3 strains which had good resistance to M. incognita, M. arenaria, and SCN race 3, while only 1 strain was resistant to the two species of root-knot nematode and SCN races 3 and 4.

Strains which appear to merit advance to Uniform Group VII are F82-1739, Ga80-1011, N82-1933 and R82-368.

Table 50 - Parentage of strains in Preliminary Group VII, 1984

	Variety or strain	Parentage	Generation composited
1.	Braxton	F59-1505 X [Bragg(3) X D60-7965]	F_5
2.	Centennial	D64-4636 X tawny pubescent Pickett 71 type	F_5
3.	D82-4439	Tracy-M X sel (D71-9241 X D75-10169)	F_5
4.	D82-4496	Tracy-M X sel (D71-9241 X D75-10169)	F_5
5.	D82-4545	Tracy-M X sel (D71-9241 X D75-10169)	F_5
6.	D82-4573	Tracy-M X sel (D71-9241 X D75-10169)	F_5
7.	D82-4802	Tracy-M X sel (D71-9241 X D75-10169)	F_5
8.	D82-4889	Tracy-M X sel (D71-9241 X D75-10169)	F_5
9.	D82-4901	Tracy-M X sel (D71-9241 X D75-10169)	F_5
10.	D82-4913	Tracy-M X sel (D71-9241 X D75-10169)	F_5
11.	D82-6212	D77-12480 X sel (Hardee X PI 227687)	F_5
12.	F80-2190	Centennial(2) X D71-9112	F_5
13.	F82-1681	J77-272 X F77-1671	F_5
14.	F82-1723	Bedford X Kirby	F_5
15.	F82-1724	Bedford X Kirby	F_5
16.	F82-1739	Bedford X Kirby	F_5
17.	F82-1926	Bedford X Kirby	F_5
18.	Ga80-1011	Wright X Braxton	F_6
19.	Ga80-1121	Wright X F71-1138	F_6
20.	Ga80-1334	Centennial X R75-12	F_6
21.	Ga80-1515	Pickett 71 X Bedford	F_6
22.	Ga80-2022	Centennial X Hutton	F_6
23.	Ga80-2134	Centennial X Govan	F_6
24.	GaT78-3	Braxton X Centennial	F_5
25.	GaT78-63	Braxton X Centennial	F_5
26.	GaT80-977	Coker 237 X D74-7741	F_5
27.	GaT80-1447	Govan X D68-180	F_5
28.	N82-1173	N75-2213 X N73-1102	F_7
29.	N82-1933	Wright X N72-3148	F_7
30.	N82-2019	N73-1102 X 330-26-29-4	F_7
31.	N82-2037	N73-1102 X 330-26-29-4	F_7
32.	N82-2043	N73-1102 X 330-26-29-4	F_7
33.	N82-2260	Wright X N72-3148	F_7
34.	R82-368	Centennial X Ransom	F_5
35.	R82-339	Centennial X Ransom	F_5
36.	SC82-1003	Govan X Centennial	F_5

Table 51 - General summary of performance for the strains in Preliminary Group VII, 1984

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	M. incognita	M. arenaria	SCN race 3	SCN race 4	Soybean looper
Braxton	37.7	10-19	40	20.2	41.1	2.0	2.5	S	S	3.5
Centennial	39.3	-4	37	20.2	42.8	1.5	4.0	R	S	5.0
D82-4439	32.1	0	37	18.5	44.5	5.0	2.0	S	S	1.5
D82-4496	32.5	+5	42	18.4	44.2	5.0	3.5	S	S	2.0
D82-4545	32.5	+3	34	17.8	45.5	4.5	3.5	S	S	1.5
D82-4573	33.4	+1	38	19.1	43.4	5.0	-	S	S	1.5
D82-4802	34.6	-5	34	19.2	43.1	5.0	3.5	S	S	1.5
D82-4889	33.6	-7	33	19.6	42.7	5.0	5.0	S	S	1.8
D82-4901	35.2	-2	35	18.8	43.8	5.0	5.0	S	S	1.5
D82-4913	36.6	-3	34	19.5	43.5	5.0	5.0	S	S	3.2
D82-6212	35.8	-1	40	18.0	43.2	5.0	5.0	S	S	2.5
F80-2190	37.0	+1	41	19.8	40.4	1.5	3.5	R	S	5.0
F82-1681	36.7	+4	45	19.3	39.6	2.5	-	R	S	4.0
F82-1723	38.5	+1	39	19.8	40.4	2.5	2.5	R	S	4.0
F82-1724	36.5	-2	40	20.1	40.4	1.0	3.5	R	R	3.5
F82-1739	37.0	0	36	21.0	39.5	1.0	2.0	R	R	4.0
F82-1926	36.4	+2	37	19.9	41.3	1.0	3.0	R	S	4.0
Ga80-1011	40.6	-2	37	20.6	40.5	1.0	1.0	S	S	3.5
Ga80-1121	38.1	-2	35	20.1	41.3	1.0	2.0	S	S	3.5
Ga80-1334	37.6	-5	35	21.0	41.4	1.0	2.0	R	Seg	3.0
Ga80-1515	39.3	-3	39	20.6	40.0	1.0	2.0	R	R	3.8
Ga80-2022	36.9	+1	42	20.5	42.4	1.0	3.5	R	S	4.0
Ga80-2134	38.1	-2	34	20.2	42.0	1.0	4.0	S	S	5.0
GaT78-3	37.9	0	40	-	-	2.0	3.0	S	S	3.5
GaT78-63	35.1	0	38	20.7	40.5	2.5	2.0	S	S	3.0
GaT80-977	35.7	+1	39	20.0	40.5	1.5	3.0	R	S	3.0
GaT80-1447	36.9	-1	37	21.6	40.4	1.0	3.0	S	S	3.5
N82-1173	41.7	-4	39	19.4	40.7	4.5	4.0	S	S	3.0
N82-1933	39.2	+1	36	20.9	41.9	3.5	4.0	R	S	3.5
N82-2019	35.4	0	40	20.7	40.5	3.0	4.0	S	S	3.8
N82-2037	35.8	-2	41	20.4	43.0	5.0	-	S	S	3.8
N82-2043	36.4	-2	45	20.4	42.6	5.0	3.5	S	S	2.5
N82-2260	37.2	-1	34	21.8	41.8	5.0	4.0	S	S	3.0
R82-368	41.8	+2	34	21.0	40.5	2.0	4.0	S	S	3.5
R82-339	37.0	+2	41	20.9	41.4	1.0	3.0	S	S	3.5
SC82-1003	36.9	-1	39	20.3	40.1	1.0	1.5	R	S	3.0
L.S.D.(.05)	3.7									

Table 52 - Seed yield, in bushels per acre, for the strains in Preliminary Group VII, 1984

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	54.3	24.0	37.1	52.7	32.8	36.4	35.6	43.0	23.5
Centennial	51.2	31.4	36.7	51.0	37.9	34.6	45.2+	41.0	24.3
D82-4439	50.6	20.8	32.4	41.3	24.5	30.3	37.8	33.5-	17.9
D82-4496	45.7	25.2	26.7-	36.5-	29.9	30.5	38.4	39.1	20.4
D82-4545	35.4-	23.6	26.5-	45.7	41.8+	29.3	40.1	35.2-	15.0
D82-4573	40.5-	19.9	36.2	46.6	30.7	31.6	38.9	37.7-	18.4
D82-4802	57.3	29.7	33.5	44.9	30.9	25.4-	36.7	37.3-	15.8
D82-4889	51.2	23.2	31.5	39.6-	29.4	27.6-	41.0	37.2-	21.8
D82-4901	59.2	24.1	37.7	44.4	32.1	27.4-	37.2	33.3-	21.5
D82-4913	46.0	24.1	34.2	52.3	37.1	28.2-	45.2+	40.7	21.7
D82-6212	54.9	25.5	34.5	52.7	28.2	32.0	41.1	34.5-	18.9
F80-2190	56.3	18.7	34.8	54.5	31.5	37.0	36.1	44.5	19.6
F82-1681	54.8	20.0	37.3	50.6	35.2	32.1	40.1	38.6	21.9
F82-1723	59.5	24.5	36.5	50.6	35.3	28.8	46.2+	41.8	23.7
F82-1724	47.4	20.9	37.1	48.9	41.2	29.2	40.6	37.1-	26.4
F82-1739	50.8	25.2	33.8	56.1	34.3	28.2-	39.7	41.7	22.8
F82-1926	51.8	26.5	29.2-	47.1	38.6	32.0	37.8	38.7	25.9
Ga80-1011	54.3	26.9	33.6	61.2	36.8	39.0	44.6+	43.7	25.0
Ga80-1121	52.4	25.2	36.7	57.4	29.2	34.2	44.7+	38.3	25.2
Ga80-1334	48.0	28.2	34.1	51.1	39.0	29.7	44.1+	40.1	23.8
Ga80-1515	50.7	27.5	37.6	54.8	40.5	32.1	43.5+	39.9	26.9
Ga80-2022	50.5	23.6	36.2	49.3	37.6	29.6	40.7	41.6	22.8
Ga80-2134	53.6	26.3	36.6	57.0	38.3	28.7-	45.3+	39.8	17.4
GaT78-3	56.1	23.3	38.0	59.9	26.4	28.3-	40.0	42.9	25.9
GaT78-63	48.9	15.8-	33.9	58.9	27.5	28.0-	41.9	41.5	19.1
GaT80-977	45.4	25.6	32.2	55.2	28.7	37.3	34.4	43.4	19.3
GaT80-1447	37.9-	27.7	33.0	57.7	31.2	31.7	48.4+	44.3	20.5
N82-1173	51.9	33.0+	42.1	59.8	40.2	34.1	42.3+	49.4+	22.3
N82-1933	50.9	30.5	32.6	61.6	36.7	33.2	39.9	43.0	24.2
N82-2019	44.1	27.7	31.8	47.8	30.7	29.6	41.4	43.6	22.3
N82-2037	42.5-	19.6	35.9	52.3	34.5	31.6	43.8+	41.2	20.8
N82-2043	48.3	27.7	38.2	51.1	24.2	35.8	40.2	37.2-	24.6
N82-2260	61.7	34.6+	31.6	48.0	29.5	32.2	36.9	32.1-	28.1
R82-368	53.1	26.6	36.9	56.2	39.7	45.6+	45.6+	46.6	26.1
R82-339	50.0	32.9+	32.4	52.1	27.2	34.1	36.3	42.7	24.9
SC82-1003	52.4	21.8	32.0	50.0	40.9	29.6	42.6+	42.0	21.1
L.S.D.(.05)	10.7	7.4	6.7	11.8	8.6	7.6	6.5	5.2	N.S.
C.V.	10%	19%	10%	11%	12%	12	8%	6%	18%

Table 53 - Oil percentages for the strains in Preliminary Group VII, 1984

Strain	Clinton, NC	Blackville, SC	Jay, FL	Stoneville, MS (B)	Beaumont, TX
Braxton	18.2	19.5	21.6	19.6	22.2
Centennial	18.2	19.3	21.2	20.9	21.2
D82-4439	16.5	17.9	20.4	17.8	19.5
D82-4496	16.2	18.1	20.3	17.4	19.8
D82-4545	15.7	17.8	19.4	17.8	18.1
D82-4573	17.0	19.5	20.8	19.1	19.4
D82-4802	17.4	18.9	20.8	19.2	19.9
D82-4889	16.2	19.2	21.4	19.5	21.7
D82-4901	16.6	18.2	19.9	18.9	20.4
D82-4913	16.5	18.9	20.8	19.7	21.4
D82-6212	16.5	17.6	20.2	17.4	18.4
F80-2190	18.3	18.4	20.2	19.9	22.0
F82-1681	18.0	18.7	19.4	19.6	20.7
F82-1723	18.9	19.3	20.7	19.6	20.6
F82-1724	18.9	19.0	21.3	20.5	20.8
F82-1739	20.2	21.0	20.7	21.3	21.8
F82-1926	18.6	18.6	20.9	20.6	20.9
Ga80-1011	18.9	19.7	22.0	20.9	21.4
Ga80-1121	18.6	20.1	20.1	19.9	21.9
Ga80-1334	18.9	20.1	22.5	22.1	21.3
Ga80-1515	19.0	18.5	21.4	20.6	23.5
Ga80-2022	18.9	20.4	20.3	20.0	23.1
Ga80-2134	18.4	20.3	20.5	20.2	21.4
GaT78-3	19.1	20.9	20.9	19.9	21.5
GaT78-63	18.7	21.3	21.3	20.1	21.9
GaT80-977	19.4	-	20.1	18.9	21.4
GaT80-1447	20.5	20.6	23.3	20.5	23.0
N82-1173	17.1	18.1	21.2	19.3	21.1
N82-1933	19.2	20.1	21.8	21.3	22.3
N82-2019	18.7	20.7	22.4	20.5	21.3
N82-2037	18.6	19.2	22.2	20.6	21.5
N82-2043	18.2	20.1	21.9	20.2	21.6
N82-2260	18.9	20.5	23.7	21.8	24.0
R82-368	19.3	19.8	22.1	20.9	23.1
R82-339	19.4	20.6	21.5	20.2	22.6
SC82-1003	19.8	19.9	21.9	19.1	20.9

Table 54 - Protein percentages for the strains in Preliminary Group VII, 1984

Strain	Clinton, NC	Blackville, SC	Jay, FL	Stoneville, MS (B)	Beaumont, TX
Braxton	42.8	41.6	40.2	40.3	40.7
Centennial	43.4	43.7	43.0	41.2	42.7
D82-4439	44.9	44.5	43.9	44.0	45.3
D82-4496	43.4	42.7	43.8	45.4	45.7
D82-4545	45.7	45.3	43.2	45.7	47.6
D82-4573	44.4	41.8	42.6	43.1	45.0
D82-4802	44.4	42.8	42.8	42.4	42.9
D82-4889	43.0	41.9	42.6	42.8	43.3
D82-4901	44.1	44.5	44.5	42.5	43.2
D82-4913	44.1	43.8	42.9	43.3	43.5
D82-6212	44.5	44.3	42.0	41.9	43.2
F80-2190	40.1	43.1	38.7	39.7	40.5
F82-1681	39.6	41.6	38.8	37.8	40.3
F82-1723	40.3	41.8	40.1	38.5	41.2
F82-1724	40.3	41.5	40.4	38.6	41.0
F82-1739	40.5	38.8	39.4	38.1	40.8
F82-1926	41.8	43.3	40.5	39.2	41.6
Ga80-1011	42.3	39.6	39.7	39.7	41.3
Ga80-1121	42.5	40.7	40.6	41.6	40.9
Ga80-1334	42.3	43.9	40.7	39.9	40.0
Ga80-1515	39.6	41.6	39.4	37.7	41.5
Ga80-2022	44.2	41.0	43.5	42.3	41.1
Ga80-2134	41.6	42.1	41.9	41.3	43.1
GaT78-3	41.9	38.1	41.0	40.4	41.1
GaT78-63	43.0	38.0	40.8	40.4	40.5
GaT80-977	39.5	-	41.5	39.5	40.9
GaT80-1447	40.4	41.9	39.5	40.7	41.1
N82-1173	42.6	42.8	41.4	41.1	41.7
N82-1933	42.4	41.8	39.3	39.1	39.7
N82-2019	43.3	43.4	42.0	42.7	43.7
N82-2037	43.5	43.9	41.2	42.2	42.2
N82-2043	42.8	41.8	40.9	41.7	41.9
N82-2260	41.0	41.8	40.1	39.4	40.0
R82-368	42.0	41.3	40.9	41.1	41.6
R82-339	41.3	39.9	39.9	39.7	39.7
SC82-1003	40.9	42.4	40.9	41.5	42.2

Table 55 - Plant height for the strains in Preliminary Group VII, 1984

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	43	36	46	44	36	43	44	40	31
Centennial	41	39	43	38	33	38	38	36	26
D82-4439	40	39	44	36	21	36	42	39	34
D82-4496	48	41	43	42	37	37	50	44	39
D82-4545	41	30	34	34	30	30	39	35	28
D82-4573	41	35	39	40	35	35	43	40	32
D82-4802	43	31	35	37	30	33	36	32	25
D82-4889	40	31	36	35	28	33	31	34	26
D82-4901	39	33	38	40	31	38	33	34	25
D82-4913	35	30	37	37	39	31	34	32	27
D82-6212	45	41	42	41	36	38	50	39	32
F80-2190	45	36	47	45	36	40	48	41	30
F82-1681	47	45	53	48	36	49	48	41	36
F82-1723	39	35	40	46	34	41	43	39	37
F82-1724	48	45	50	48	32	42	46	43	34
F82-1739	42	33	42	40	35	35	39	34	24
F82-1926	42	36	38	40	35	35	43	38	25
Ga80-1011	42	32	41	42	32	39	42	37	27
Ga80-1121	40	33	40	39	33	36	36	36	26
Ga80-1334	40	35	38	37	29	35	40	32	25
Ga80-1515	43	37	44	43	35	39	44	35	30
Ga80-2022	46	37	43	43	33	40	45	39	30
Ga80-2134	43	32	42	35	33	33	36	33	21
GaT78-3	47	36	44	40	39	39	44	40	34
GaT78-63	46	30	42	39	33	38	45	37	32
GaT80-977	41	38	43	41	35	36	48	40	31
GaT80-1447	40	32	42	40	33	39	40	39	31
N82-1173	40	34	42	41	31	40	46	42	32
N82-1933	46	35	40	37	32	36	39	35	25
N82-2019	42	37	43	43	37	39	42	41	34
N82-2037	43	36	45	44	35	41	49	40	38
N82-2043	47	48	50	47	33	45	54	43	37
N82-2260	38	33	38	39	27	34	38	31	27
R82-368	44	39	42	42	35	36	40	39	30
R82-339	47	41	46	43	37	40	47	40	30
SC82-1003	45	37	46	40	34	38	44	40	28

Table 56 - Seed quality scores for the strains in Preliminary Group VII, 1984

Strain	Clinton, NC	Black-ville, SC	Athens, GA	Jay, FL	Rohwer, AR	Stone-ville, MS (A)	Stone-ville, MS (B)	Beau-mont, TX
Braxton	1.0	2.0	1.5	2.0	2.5	2.5	3.0	2.0
Centennial	1.5	2.0	1.5	4.0	1.5	2.5	2.5	1.5
D82-4439	1.0	2.0	2.0	3.0	2.0	2.0	2.0	1.8
D82-4496	1.5	2.0	2.2	4.0	2.0	2.0	3.0	2.5
D82-4545	1.5	2.0	1.8	2.0	1.8	2.0	2.0	2.0
D82-4573	1.0	2.0	1.5	2.0	2.0	2.0	2.0	1.5
D82-4802	1.0	2.0	1.5	3.0	1.5	2.0	2.0	1.8
D82-4889	1.0	2.0	1.5	4.0	2.3	2.0	2.0	1.8
D82-4901	1.0	3.0	1.5	2.0	2.3	2.0	2.0	1.5
D82-4913	1.5	2.0	1.8	3.0	2.3	2.0	2.0	1.5
D82-6212	1.0	2.0	1.5	3.0	2.0	2.0	2.5	1.5
F80-2190	1.5	2.0	2.0	3.0	2.3	2.0	2.5	1.5
F82-1681	1.5	2.0	1.5	2.0	2.0	2.5	2.5	1.8
F82-1723	1.5	2.0	1.5	3.0	1.8	2.5	2.5	1.5
F82-1724	1.0	2.0	1.5	3.0	2.0	3.0	2.5	1.5
F82-1739	1.5	2.0	1.5	2.0	2.0	3.0	3.0	1.5
F82-1926	1.0	2.0	1.5	2.0	1.5	2.0	2.0	1.5
Ga80-1011	1.5	2.0	1.5	3.0	2.0	2.5	2.5	1.5
Ga80-1121	1.0	2.0	1.5	3.0	2.5	2.5	3.0	1.5
Ga80-1334	1.5	2.0	1.5	4.0	2.0	3.0	3.0	1.5
Ga80-1515	1.5	1.0	1.5	2.0	1.8	2.5	2.5	1.5
Ga80-2022	1.0	2.0	1.5	2.0	2.5	2.0	2.5	1.8
Ga80-2134	1.5	1.0	1.5	2.0	2.3	3.0	3.0	2.0
GaT78-3	1.5	2.0	1.5	3.0	2.8	2.5	3.0	1.8
GaT78-63	1.5	2.0	1.5	3.0	2.3	3.0	3.0	2.0
GaT80-977	1.5	3.0	1.5	3.0	2.0	3.0	3.0	1.5
GaT80-1447	1.5	2.0	1.5	3.0	2.5	2.0	2.0	1.5
N82-1173	1.5	1.0	1.5	3.0	2.3	2.0	2.0	1.5
N82-1933	1.5	2.0	1.5	2.0	2.0	2.0	2.5	1.8
N82-2019	1.0	2.0	1.5	3.0	2.5	2.5	2.5	1.5
N82-2037	1.5	2.0	1.5	3.0	2.3	2.0	2.0	2.3
N82-2043	1.5	1.0	1.5	3.0	2.0	2.0	2.5	1.5
N82-2260	1.5	2.0	1.5	3.0	2.5	2.5	2.5	1.5
R82-368	1.5	2.0	1.5	2.0	2.0	2.0	2.0	1.5
R82-339	1.5	2.0	1.5	3.0	2.0	2.0	2.0	1.5
SC82-1003	1.5	2.0	1.5	2.0	2.0	2.5	2.0	1.8

UNIFORM GROUP VIII

1984

	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.	Coker 368	Co71-211 X Centennial	F_5
4.	Co79-760	Co73-473 X Centennial	F_5
5.	Co80-917	Centennial X Co76-863	F_5
6.	F79-4299	Centennial X [Forrest X (Cobb X D68-216)]	F_8
7.	F80-3602	Forrest(2) X (Cobb X D68-216)	F_8
8.	Co82-537	Coker 488 X D74-7741	F_5
9.	Co82-645	Braxton X Co368	F_5
10.	D79-10494	J74-39 X D75-10169	F_5
11.	D81-8875	Centennial X D75-10172	F_5
12.	F81-5428	Forrest(3) X D77-12480	F_3

Background of breeding lines used as parents:

D68-216 is a selection from Dyer X Bragg.

F55-822 is the parent line of Bragg.

Co71-211 is a selection from Hamptom 266 X Bragg.

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

Co76-863 is a selection from Coker Hampton 266A X Pickett 71.

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

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

D75-10169 and D75-10172 are selections from Govan X sel.(Bragg X PI 229358).

D77-12480 is a selection having genes for late flowering under short-day conditions. It is a selection from Tracy X (Hill X PI 159025).

Plantings of the Uniform Group VIII nurseries were made at 19 locations for evaluation for seed yield and other agronomic qualities. Additional plantings were made to evaluate the strains for reaction to the two species of root-knot nematode, the two races of soybean cyst nematode, and for feeding by soybean looper. A general summary of performance which includes three-year data for seed yield and oil and protein content, and reaction to specific pests is reported in Table 57. Data from individual locations is reported in Tables 58-63.

All 10 of the strains being evaluated were resistant to M. incognita and race 3 of SCN. Three strains were resistant to M. arenaria. One strain, D79-10494, had a moderate level of resistance to both root-knot species, to both races of SCN, and had a low rating for feeding by soybean looper. Mean seed yield of this strain was slightly lower than that for Kirby. D81-8875 also had a low score for feeding by the soybean looper.

Table 57 - General summary of performance for the strains in Uniform Group VIII, 1984

	No. of locations	Kirby	Hutton	Coker 368	Co79-760	Co80-917	F79-4299
Seed yield - 1984	19	37.4	28.7	39.4	40.7	36.6	35.6
1983-84		38.2	29.7	41.0	40.0	37.8	37.2
1982-84		36.8	30.5	40.4	40.7		
Oil Content - 1984		20.8	20.3	21.2	21.5	21.0	19.9
1983-84		20.2	20.0	20.7	21.1	20.6	19.9
1982-84		20.0	19.6	20.6	20.0		
Protein Content - 1984		41.4	43.1	40.7	41.4	41.1	41.7
1983-84		42.1	43.6	41.2	41.6	41.4	41.8
1982-84		41.5	43.3	40.6	41.2		
Seed size		12.9	15.0	13.5	14.4	12.5	13.1
Maturity index		10-22	-1	0	-1	-1	+2
Height		36	35	37	36	35	39
Seed quality		1.7	2.1	2.0	1.8	2.0	2.4
M. incognita		1.0	1.0	1.0	1.0	1.0	1.0
M. arenaria		1.5	4.0	3.0	3.0	5.0	2.5
SCN race 3		R	S	R	R	R	R
SCN race 4		S	S	S	S	S	S
Soybean looper		3.0	3.0	3.5	3.0	4.0	4.8
Flower color		P	P	W	W	P	W
Pubescence color		T	T	G	G	T	T

Table 57 - (continued)

	F80-3602	Co82-537	Co82-645	D79-10494	D81-8874	F81-5428
Seed yield - 1984	38.8	41.3	42.0	35.0	35.0	30.1
1983-84						
1982-84						
Oil Content - 1984	20.8	21.5	21.4	20.1	18.9	20.9
1983-84						
1982-84						
Protein Content - 1984	40.9	38.9	40.0	42.4	44.1	41.0
1983-84						
1982-84						
Seed size	12.4	13.1	13.3	12.6	11.4	12.5
Maturity index	0	0	0	+3	+4	+8
Height	37	37	36	37	35	41
Seed quality	1.9	1.8	1.6	2.2	2.3	3.3
M. incognita	1.0	1.0	1.0	2.0	1.0	1.0
M. arenaria	2.0	2.5	2.0	2.5	1.5	5.0
SCN race 3	R	R	R	R	R	R
SCN race 4	S	S	S	R	S	S
Soybean looper	3.5	4.2	3.5	2.0	2.0	4.0
Flower color	W	P	P	W	P	P
Pubescence color	T	T	T	P	T	G

Table 58 - Seed yield, in bushels per acre, for the strains in Uniform Group VIII, 1984

Location	Kirby	Hutton	Coker 368	Co79-760	Co80-917	F79-4299	F80-3602
Clinton, NC	57.0	51.2	47.9	50.6	50.8	55.2	57.7
Florence, SC (A)	46.8	26.1	40.7	51.4	47.1	44.5	46.3
Florence, SC (B)	45.8	22.5	42.8	44.0	40.7	37.8	46.8
Hartsville, SC (A)	26.5	22.6	36.6	32.2	27.3	34.1	38.4+
Hartsville, SC (B)	33.0	26.1	32.3	35.1	31.4	30.8	31.3
Blackville, SC (A)	21.3	27.3	31.5	31.3	24.3	20.6	26.6
*Blackville, SC (B)	22.4	16.9	20.1	18.9	21.0	17.1	22.0
Athens, GA	54.4	51.8	51.6	51.2	49.1	47.7	45.8
Tallassee, AL	49.2	46.5	47.7	41.5-	45.4	45.6	46.7
Tifton, GA	53.7	48.4	51.4	54.0	53.4	49.6	52.5
Gainesville, FL	26.4	26.2	24.3	25.5	23.6	26.8	28.2
Marianna, FL	25.4	15.1-	26.3	25.1	21.9	19.4-	20.0
Quincy, FL	37.9	41.3	40.9	47.4	38.0	32.3	47.9
Jay, FL	29.2	21.7	40.0+	42.6+	30.2	26.9	31.7
Fairhope, AL	42.4	46.1	48.4	49.9+	41.6	37.1-	47.6+
Poplarville, MS	31.8	43.6	44.5	49.0	46.3	34.5	45.4
Baton Rouge, LA	25.5	4.3-	35.7+	38.3+	25.1	31.3	14.6-
Stoneville, MS (B)	47.3	36.3-	43.7	40.7-	37.9-	40.2-	44.5
Beaumont, TX	20.0	24.4	24.4	22.8	24.7	26.3	26.0
Mean	37.4	28.7	39.4	40.7	36.6	35.6	38.8

*Not included in mean.

Table 58 - (continued)

Location	Co82-537	Co82-645	D79-10494	D81-8875	F81-5428	L.S.D. (.05)	C.V. %
Clinton, NC	55.8	57.1	49.4	39.9-	48.4	9.2	10
Florence, SC (A)	53.6	50.3	44.5	39.0	46.3	5.7	9
Florence, SC (B)	42.3	42.8	39.2	35.4	40.5	6.4	12
Hartsville, SC (A)	44.9+	50.0+	27.1	25.0	21.0	11.2	21
Hartsville, SC (B)	35.2	33.2	30.1	20.4-	25.8	5.3	10
Blackville, SC (A)	29.0	37.7	26.2	24.5	28.4	N.S.	27
Blackville, SC (B)	21.2	21.1	15.6	14.9	17.1	N.S.	23
Athens, GA	45.0-	42.1-	41.5-	39.7-	33.2-	8.9	8
Tallassee, AL	49.7	54.0	43.2	42.1-	39.4-	6.1	8
Tifton, GA	58.4	56.7	44.5-	45.0-	34.8-	6.7	8
Gainesville, FL	23.4	28.9	25.3	22.9	32.1	N.S.	16
Marianna, FL	19.7-	24.0	19.6-	17.8-	17.2-	5.6	17
Quincy, FL	45.9	46.3	40.9	33.5	26.6	7.3	14
Jay, FL	37.4+	36.1	34.4	29.4	16.3-	7.7	15
Fairhope, AL	52.2+	47.6+	35.5-	42.4	31.8-	4.5	6
Poplarville, MS	43.1	38.6	33.6	34.5	24.1	7.0	11
Baton Rouge, LA	31.7	39.7+	28.8	26.3	20.4	7.7	17
Stoneville, MS (B)	50.4	44.3	43.0-	42.7-	35.3-	4.0	6
Beaumont, TX	25.7	26.1	23.5	19.2	22.2	N.S.	18
Mean	41.3	42.0	35.0	35.0	30.1		

Table 59 - Chemical composition and seed size for the strains in Uniform Group VIII, 1984

Location	Kirby	Hutton	Coker 368	Co79-760	Co80-917	F79-4299
			OIL PERCENTAGE			
Hartsville, SC (A)	21.2	19.9	20.6	21.7	20.6	19.2
Blackville, SC (A)	20.4	19.3	20.7	20.9	20.8	17.9
Tifton, GA	22.1	20.0	22.0	19.9	21.8	20.2
Tallassee, AL	19.9	19.6	19.6	20.4	19.8	18.7
Gainesville, FL	21.9	21.6	21.4	23.5	22.4	22.3
Jay, FL	19.2	20.4	21.1	21.7	19.6	19.7
Beaumont, TX	21.3	22.1	23.2	23.2	22.5	21.3
Stoneville, MS (B)	20.3	19.8	20.7	20.7	20.4	20.0
Mean	20.8	20.3	21.2	21.5	21.0	19.9
			PROTEIN PERCENTAGE			
Hartsville, SC (A)	40.5	41.9	39.0	39.7	40.3	40.6
Blackville, SC (A)	41.0	42.1	39.8	40.5	39.3	42.1
Tifton, GA	39.8	43.2	40.6	43.2	41.5	41.5
Tallassee, AL	42.3	45.2	43.6	43.2	43.9	44.1
Gainesville, FL	41.2	42.6	40.8	39.5	40.4	40.3
Jay, FL	42.5	43.6	41.3	41.7	41.7	42.5
Beaumont, TX	42.9	43.4	41.5	42.8	41.8	42.4
Stoneville, MS (B)	41.1	42.9	39.2	40.5	40.0	39.7
Mean	41.4	43.1	40.7	41.4	41.1	41.7
			GRAMS PER 100 SEEDS			
Hartsville, SC (A)	10.4	10.4	10.6	10.3	10.2	10.4
Blackville, SC (A)	13.8	18.1	14.7	15.0	12.2	15.4
Tifton, GA	15.1	14.3	15.6	13.9	16.7	14.6
Tallassee, AL	14.5	16.7	13.5	16.3	13.1	14.1
Gainesville, FL	14.3	18.3	14.2	16.2	14.1	14.8
Jay, FL	11.0	12.0	13.0	16.0	10.0	12.0
Beaumont, TX	12.2	15.5	13.4	14.6	12.7	11.4
Stoneville, MS (B)	11.6	15.0	12.8	13.2	11.2	12.2
Mean	12.9	15.0	13.5	14.4	12.5	13.1

Table 59 - (continued)

Location	F80-3602	Co82-537	Co82-645	D79-10494	D81-8875	F81-5428
			OIL PERCENTAGE			
Hartsville, SC (A)	21.2	21.9	20.9	20.1	19.0	21.7
Blackville, SC (A)	19.6	19.7	20.3	18.7	18.5	20.9
Tifton, GA	22.0	20.2	20.2	20.6	20.5	19.9
Tallassee, AL	19.5	19.1	20.2	19.7	18.0	20.3
Gainesville, FL	22.7	23.5	22.7	21.8	20.2	22.0
Jay, FL	18.8	21.7	21.6	19.0	18.3	18.4
Beaumont, TX	22.1	23.8	23.3	20.7	18.9	22.2
Stoneville, MS (B)	20.1	22.1	21.9	20.2	18.0	21.6
Mean	20.8	21.5	21.4	20.1	18.9	20.9
			PROTEIN PERCENTAGE			
Hartsville, SC (A)	38.3	36.5	38.0	42.6	43.9	37.3
Blackville, SC (A)	41.0	39.0	40.3	42.1	43.0	40.6
Tifton, GA	41.8	40.9	41.9	41.6	43.2	43.7
Tallassee, AL	44.3	41.5	42.5	40.2	45.0	43.3
Gainesville, FL	39.3	36.3	38.8	42.8	43.4	40.8
Jay, FL	42.3	40.4	40.3	44.2	45.1	43.4
Beaumont, TX	41.5	39.0	40.7	44.9	44.7	41.2
Stoneville, MS (B)	38.6	37.8	37.8	41.1	44.3	37.7
Mean	40.9	38.9	40.0	42.4	44.1	41.0
			GRAMS PER 100 SEEDS			
Hartsville, SC (A)	10.3	10.4	10.6	10.2	10.2	10.2
Blackville, SC (A)	12.5	13.5	14.4	13.3	12.0	12.9
Tifton, GA	18.4	13.7	11.1	14.2	13.8	18.8
Tallassee, AL	12.8	14.1	14.6	13.4	11.5	12.5
Gainesville, FL	13.3	13.5	16.0	14.1	11.7	15.3
Jay, FL	9.0	14.0	14.0	11.0	10.0	8.0
Beaumont, TX	11.1	13.1	13.0	12.5	10.6	11.9
Stoneville, MS (B)	11.4	12.2	12.4	11.8	11.2	10.2
Mean	12.4	13.1	13.3	12.6	11.4	12.5

Table 60 - Relative maturity, days earlier (-) or later (+) than Kirby, for the strains in Uniform Group VIII, 1984

Location	Date planted	Kirby matured	Hutton	Coker 368	Co79-760	Co80-917	F79-4299
Clinton, NC	5-29	11-9	0	0	0	0	0
Florence, SC (A)	5-15	10-25	-1	+4	-1	-1	-1
Hartsville, SC (A)	5-17	10-24	-5	+3	-1	-3	+2
Blackville, SC (A)	5-11	10-22	-2	0	-2	-2	+3
Blackville, SC (B)	5-11	10-27	+4	-1	0	0	+6
Athens, GA	5-22	10-18	+1	-1	+2	+3	+2
Tallassee, AL	5-23	10-18	-3	0	-2	-4	+2
Tifton, GA	5-16	10-13	+1	0	-1	-1	+4
Gainesville, FL	6-19	10-25	-2	-3	-3	-3	0
Marianna, FL	6-26	10-16	-3	-2	-3	-1	+2
Quincy, FL	6-6	10-15	-3	0	-2	-2	+1
Jay, FL	6-8	10-15	-2	-1	+2	+1	+2
Fairhope, AL	5-31	10-19	-2	-2	-2	-2	+3
Poplarville, MS		10-17	+4	-1	-1	-1	+5
Baton Rouge, LA	5-16	10-25	-4	-1	0	0	0
Stoneville, MS (B)	5-15	10-31	-2	-2	-3	-1	+2
Beaumont, TX		10-26	-4	-2	-1	-5	-2
Mean	5-21	10-22	-1	0	-1	-1	+2

Table 60 - (continued)

Location	F80-3602	Co82-537	Co82-645	D79-10494	D81-8875	F81-5428
Clinton, NC	0	0	0	0	+4	+6
Florence, SC (A)	0	0	0	+7	+7	+6
Hartsville, SC (A)	+1	-2	+1	+4	+2	+3
Blackville, SC (A)	-1	+1	-2	+1	+2	+7
Blackville, SC (B)	+1	-1	+1	+4	+10	+18
Athens, GA	-1	+2	+2	-1	+3	+13
Tallassee, AL	0	-1	+2	+2	+3	+9
Tifton, GA	+2	0	0	+4	+4	+10
Gainesville, FL	-2	-3	-3	+2	0	+22
Marianna, FL	0	+1	-2	+2	+3	+18
Quincy, FL	-1	-1	-1	+2	+4	-3
Jay, FL	+1	+2	+1	+4	+5	+5
Fairhope, AL	0	-2	0	+3	+5	+7
Poplarville, MS	0	+1	0	+1	+4	+3
Baton Rouge, LA	+1	+8	-3	+7	+2	0
Stoneville, MS (B)	+1	0	-2	+3	+2	+5
Beaumont, TX	-4	-4	-1	+1	0	+1
Mean	0	0	0	+3	+4	+8

Table 61 - Plant height for the strains in Uniform Group VIII, 1984

Location	Kirby	Hutton	Coker 368	Co79-760	Co80-917	F79-4299
Clinton, NC	44	42	44	42	44	48
Florence, SC (A)	38	36	40	36	31	43
Florence, SC (B)	40	41	42	42	41	43
Hartsville, SC (A)	37	39	42	39	43	45
Hartsville, SC (B)	39	37	41	40	39	46
Blackville, SC (A)	39	38	41	38	31	38
Blackville, SC (B)	25	23	26	23	25	22
Athens, GA	43	43	40	46	43	45
Tallassee, AL	43	43	44	42	39	45
Tifton, GA	40	39	41	43	39	41
Gainesville, FL	22	23	20	22	19	25
Marianna, FL	29	28	28	26	26	29
Quincy, FL	32	30	32	25	34	37
Jay, FL	34	34	37	37	35	39
Fairhope, AL	40	38	42	40	38	43
Poplarville, MS	32	32	35	35	34	37
Baton Rouge, LA	43	45	48	42	45	45
Stoneville, MS (B)	43	41	41	42	43	45
Beaumont, TX	28	26	26	24	22	27
Mean	36	35	37	36	35	39

Table 61 - (continued)

Location	F80-3602	Co82-537	Co82-645	D79-10494	D81-8875	F81-5428
Clinton, NC	46	44	44	48	40	44
Florence, SC (A)	40	38	45	37	38	38
Florence, SC (B)	43	41	41	41	42	42
Hartsville, SC (A)	39	42	41	41	37	41
Hartsville, SC (B)	37	40	39	43	35	48
Blackville, SC (A)	38	43	38	37	37	42
Blackville, SC (B)	27	26	23	23	23	37
Athens, GA	45	42	37	42	44	42
Tallassee, AL	46	43	43	42	39	45
Tifton, GA	39	43	42	45	40	47
Gainesville, FL	26	23	21	27	24	33
Marianna, FL	26	26	26	28	28	36
Quincy, FL	27	35	29	30	30	44
Jay, FL	37	38	37	36	34	37
Fairhope, AL	41	39	35	39	34	50
Poplarville, MS	38	34	31	33	32	33
Baton Rouge, LA	42	41	44	39	36	44
Stoneville, MS (B)	37	42	41	41	41	44
Beaumont, TX	27	24	27	28	28	29
Mean	37	37	36	37	35	41

Table 62 - Lodging scores for the strains in Uniform Group VIII, 1984

Location	Kirby	Hutton	Coker 368	Co79-760	Co80-917	F79-4299
Clinton, NC	3.0	4.0	3.0	3.0	3.0	4.0
Florence, SC (A)	1.0	2.0	2.0	2.0	2.0	3.0
Florence, SC (B)	1.0	2.0	1.0	2.0	1.0	2.0
Hartsville, SC (A)	1.5	1.8	1.8	1.8	2.5	2.8
Hartsville, SC (B)	1.3	1.5	1.2	1.0	1.8	1.7
Blackville, SC (A)	1.0	2.0	3.0	1.0	1.0	3.0
Blackville, SC (B)	1.0	1.0	1.0	1.0	1.0	1.0
Athens, GA	2.5	2.7	2.8	2.8	2.7	2.8
Tallassee, AL	2.5	3.7	2.8	2.2	3.7	3.5
Tifton, GA	2.0	2.7	2.0	2.0	2.0	2.3
Gainesville, FL	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, FL	2.0	2.0	2.0	1.0	2.0	2.0
Quincy, FL	2.0	2.0	2.0	2.0	2.0	2.0
Jay, FL	1.0	1.0	2.0	1.0	2.0	2.0
Fairhope, AL	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, LA	3.3	4.5	4.1	4.0	4.5	4.7
Stoneville, MS (B)	2.0	2.7	2.0	2.0	2.3	3.0
Beaumont, TX	1.0	1.1	1.1	1.0	1.0	1.1

Table 62 - (continued)

Location	F80-3602	Co82-537	Co82-645	D79-10494	D81-8875	F81-5428
Clinton, NC	3.0	4.0	3.0	3.0	4.0	4.0
Florence, SC (A)	2.0	1.0	1.0	3.0	2.0	5.0
Florence, SC (B)	2.0	1.0	1.0	1.0	1.0	2.0
Hartsville, SC (A)	2.3	2.2	1.3	2.2	2.3	4.3
Hartsville, SC (B)	1.7	1.2	1.0	1.7	1.3	2.3
Blackville, SC (A)	1.0	1.0	1.0	2.0	4.0	5.0
Blackville, SC (B)	1.0	1.0	1.0	1.0	1.0	3.0
Athens, GA	3.3	2.0	3.3	3.5	3.7	4.0
Tallassee, AL	2.3	2.0	1.7	2.5	2.5	2.8
Tifton, GA	2.7	2.3	1.7	3.0	3.3	5.0
Gainesville, FL	1.0	1.0	1.0	1.0	1.0	1.3
Marianna, FL	1.0	1.0	1.0	2.0	2.0	-
Quincy, FL	2.0	2.0	2.0	2.0	2.0	2.0
Jay, FL	1.0	2.0	2.0	2.0	2.0	3.0
Fairhope, AL	1.0	1.0	1.0	1.0	1.0	3.0
Baton Rouge, LA	3.7	3.8	2.7	3.8	4.3	5.0
Stoneville, MS (B)	3.0	2.0	2.0	2.7	2.7	3.0
Beaumont, TX	1.0	1.1	1.0	1.6	1.3	1.7

Table 63 - Seed quality scores for the strains in Uniform Group VIII, 1984

Location	Kirby	Hutton	Coker 368	Co79-760	Co80-917	F79-4299
Clinton, NC	1.5	1.5	1.0	1.5	1.5	1.5
Blackville, SC (A)	2.0	2.0	2.0	2.0	2.0	3.0
Blackville, SC (B)	1.0	2.0	1.0	1.0	1.0	1.0
Athens, GA	1.5	1.5	1.8	1.5	1.5	1.7
Tallassee, AL	1.2	1.2	1.0	1.3	1.2	1.5
Tifton, GA	2.0	2.5	2.0	1.5	2.0	2.0
Gainesville, FL	1.7	2.0	2.7	1.7	1.3	1.7
Jay, FL	2.0	3.0	2.0	2.0	2.0	2.0
Baton Rouge, LA	2.7	3.7	3.0	2.5	3.3	3.0
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.3
Beaumont, TX	2.3	2.2	2.2	2.3	1.8	2.3

Table 63 - (continued)

Location	F80-3602	Co82-537	Co82-645	D79-10494	D81-8875	F81-5428
Clinton, NC	1.5	1.5	1.0	1.5	1.5	1.5
Blackville, SC (A)	3.0	3.0	2.0	3.0	3.0	2.0
Blackville, SC (B)	1.0	2.0	2.0	2.0	2.0	4.0
Athens, GA	1.8	1.5	1.8	1.5	2.0	1.8
Tallassee, AL	1.2	1.2	1.0	1.2	1.8	1.8
Tifton, GA	2.5	2.0	2.5	2.0	2.0	2.0
Gainesville, FL	1.7	2.7	1.3	1.0	1.3	1.7
Jay, FL	2.0	2.0	2.0	2.0	2.0	2.0
Baton Rouge, LA	4.0	2.4	2.7	3.4	3.0	3.0
Stoneville, MS (B)	2.0	2.0	2.0	2.0	2.0	2.0
Beaumont, TX	2.5	2.3	1.8	1.7	1.8	2.2

PRELIMINARY GROUP VIII

1984

Preliminary Group VIII nurseries, which included Kirby and Braxton along with 34 experimental strains, were grown at 6 locations for evaluating seed yield and other agronomic qualities. Additional plantings were made to evaluate reaction to M. incognita and M. arenaria, the two races of soybean cyst nematode, and for feeding by soybean looper. Parentage for each of the strains is reported in Table 64. Table 65 gives a general summary of performance including reaction to nematodes and feeding by the soybean looper. Data from individual locations is reported in Tables 66-70.

The mean seed yield for Kirby was 30.1 bushels per acre and for Braxton 30.4 bushels. Seven strains ranked above Kirby in seed yield. Nineteen strains were rated resistant or segregating for reaction to M. incognita and 9 strains were rated resistant to M. arenaria. Incomplete data was obtained for reaction to M. arenaria. Seven strains were resistant to SCN race 3 and 3 strains were segregating for reaction to SCN race 4. Three strains had low ratings for feeding by the soybean looper. D82-6206, which received a low score for feeding by soybean looper, had received a low score for injury by Southern green stinkbugs in another planting.

Strains which appear to merit advance to Uniform Group VIII are F77-7449, F82-1820, F82-1851, N82-1893, and SC82-1672.

Table 64 - Parentage of strains in Preliminary Group VIII, 1984

	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.	D80-7408	D65-8232 X D77-12480	F_5
4.	D82-5614	D77-12480 X D78-5791	F_5
5.	D82-5690	Braxton X sel (Hardee X PI 227687)	F_5
6.	D82-5715	Braxton X sel (Hardee X PI 227687)	F_5
7.	D82-5722	Braxton X sel (Hardee X PI 227687)	F_5
8.	D82-5738	Braxton X sel (Hardee X PI 227687)	F_5
9.	D82-5756	Braxton X sel (Hardee X PI 227687)	F_5
10.	D82-5758	Braxton X sel (Hardee X PI 227687)	F_5
11.	D82-6206	D77-12480 X sel (Hardee X PI 227687)	F_5
12.	F77-7446	Forrest X (Cobb X D68-216)	F_5
13.	F77-7449	Forrest X (Cobb X D68-216)	F_5
14.	F81-7443	Santa Rosa X (D71-9112 X Centennial)	F_5
15.	F82-1756	Bedford X Kirby	F_6
16.	F82-1820	Bedford X Kirby	F_5
17.	F82-1851	Bedford X Kirby	F_5
18.	F82-1929	Bedford X Kirby	F_5
19.	F82-4780	Cobb(2) X Will	F_6
20.	F82-4851	Cobb(2) X Will	F_6
21.	F82-4922	Cobb(2) X Will	F_6
22.	F82-4988	Centennial X [Forrest X (Cobb X D68-216)]	F_{11}
23.	F82-5041	Centennial X [Forrest X (Cobb X D68-216)]	F_{11}
24.	Ga80-512	F70-2060 X F71-1138	F_6
25.	Ga80-918	Hutton X F71-1138	F_6
26.	Ga80-1026	Wright X Braxton	F_6
27.	Ga80-1215	Centennial X Wright	F_6
28.	GaT80-807	Davis X Braxton	F_6
29.	GaT80-861	Gasoy 17 X D74-7741	F_6
30.	GaT80-952	Coker 237 X D74-7741	F_6
31.	N82-1834	Wright X N72-3148	F_7
32.	N82-1845	Wright X N72-3148	F_7
33.	N82-1893	Wright X N72-3148	F_7
34.	N82-2102	N73-2102 X 606-22-21-1	F_7
35.	SC82-1654	Coker 488 X Braxton	F_5
36.	SC82-1672	Coker 488 X Braxton	F_5

Table 65 - General summary of performance for the strains in Preliminary Group VIII, 1984

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	M. incognita	M. arenaria	SCN race 3	SCN race 4	Soybean looper
Kirby	30.1	10-22	33	20.3	41.8	1.0	1.5	R	S	4.0
Braxton	30.4	-4	34	20.8	41.3	1.0	2.5	S	S	3.5
D80-7408	23.6	-3	37	19.7	42.1	2.0	4.0	S	S	2.0
D82-5614	27.9	+2	37	19.6	43.0	2.5	3.0	S	S	2.5
D82-5690	27.2	-3	35	19.7	43.2	5.0	4.0	S	S	3.0
D82-5715	29.3	-4	34	19.9	43.0	3.0	5.0	S	S	3.0
D82-5722	29.7	-4	36	20.7	42.2	4.5	5.0	S	S	5.0
D82-5738	28.7	-6	37	17.9	46.6	3.5	-	S	S	4.0
D82-5756	27.2	-3	34	20.4	42.9	Seg	3.5	S	S	3.8
D82-5758	27.2	-6	34	20.8	42.0	Seg	5.0	S	S	3.8
D82-6206	25.9	+5	40	17.8	43.4	Seg	-	S	S	2.0
F77-7446	31.8	0	34	21.2	41.5	1.0	3.0	S	S	4.5
F77-7449	33.6	-1	36	21.4	40.6	1.0	2.5	S	S	3.5
F81-7443	26.5	-2	33	19.8	42.9	1.0	-	S	S	2.8
F82-1756	30.1	-6	36	20.5	40.8	1.0	2.5	R	S	4.0
F82-1820	30.6	-1	37	20.2	41.4	1.0	2.0	R	Seg	3.2
F82-1851	31.8	-2	37	20.4	41.3	1.0	2.0	R	Seg	3.0
F82-1929	28.7	+1	41	21.9	39.5	1.0	2.0	R	Seg	3.8
F82-4780	27.1	-1	35	21.8	38.7	1.0	5.0	S	S	5.0
F82-4851	27.4	+1	35	21.8	39.4	1.5	1.5	S	S	4.0
F82-4922	27.3	+3	37	22.6	38.3	1.5	-	S	S	4.0
F82-4988	29.4	0	37	20.7	42.9	1.0	-	R	S	3.8
F82-5041	28.9	+1	35	20.8	42.4	1.0	1.5	R	S	3.5
Ga80-512	28.8	-4	32	21.5	40.5	4.0	2.5	S	S	3.0
Ga80-918	29.5	-3	32	20.3	42.8	3.0	4.0	S	S	4.0
Ga80-1026	27.3	-5	34	20.6	41.9	5.0	3.0	S	S	4.0
Ga80-1215	31.1	-6	32	20.0	42.4	3.0	-	S	S	4.2
GaT80-807	30.1	-3	37	21.4	39.8	4.0	-	S	S	3.0
GaT80-861	28.5	-4	39	21.0	40.0	4.0	3.5	Seg	S	3.0
GaT80-952	29.8	-7	30	21.6	40.7	2.0	-	S	S	4.0
N82-1834	26.4	-3	33	21.8	40.5	4.5	3.5	S	S	2.8
N82-1845	30.7	-5	31	21.7	40.8	3.5	4.0	S	S	3.0
N82-1893	32.2	-3	32	22.3	39.9	4.0	4.0	S	S	4.0
N82-2102	22.4	-10	38	19.7	42.4	5.0	5.0	S	S	2.0
SC82-1654	25.3	+1	38	21.4	41.1	1.0	3.0	S	S	4.0
SC82-1672	30.2	-1	31	20.9	41.4	1.0	2.0	S	S	4.0
L.S.D.(.05)	4.7									

Table 66 - Seed yield, in bushels per acre, for the strains in Preliminary Group VIII, 1984

Strain	Blackville, SC	Gainesville, FL	Quincy, FL	Jay, FL	Beaumont, TX	Stoneville, MS (B)
Kirby	22.9	22.2	40.4	30.1	20.6	44.2
Braxton	21.0	24.2	46.6	30.5	21.7	38.4
D80-7408	22.9	18.6	32.1-	17.6-	24.2	26.1-
D82-5614	30.3	27.1	29.9-	21.9	24.2	33.9-
D82-5690	20.5	16.9	40.6	29.4	25.4	30.1-
D82-5715	25.1	21.4	41.0	29.2	28.5+	30.3-
D82-5722	27.0	20.7	41.3	28.2	25.0	35.7-
D82-5738	26.8	21.0	39.7	30.0	24.9	29.8-
D82-5756	25.6	18.9	36.7	23.7	26.4+	32.1-
D82-5758	25.6	14.4	41.2	29.8	24.5	27.9-
D82-6206	22.5	27.7	29.7-	25.1	22.4	28.1-
F77-7446	27.8	16.9	42.1	35.9	30.4	37.8
F77-7449	26.1	26.3	53.2+	30.5	26.9+	38.6
F81-7443	22.0	21.4	38.7	25.7	24.4	26.5-
F82-1756	23.7	24.7	38.8	35.7	21.7	35.9-
F82-1820	24.4	21.0	41.8	35.8	25.9+	34.5-
F82-1851	22.6	24.8	47.8+	34.6	21.0	40.0
F82-1929	17.2	25.5	42.1	27.4	24.3	35.6-
F82-4780	25.5	16.6	41.1	25.6	23.1	30.6-
F82-4851	19.2	20.2	42.0	30.7	22.8	29.7-
F82-4922	22.1	28.7	41.1	23.2	24.8	24.1-
F82-4988	22.9	26.0	34.7	30.2	21.3	41.5
F82-5041	22.1	22.5	40.9	29.5	20.3	37.9
Ga80-512	21.0	24.5	43.8	34.2	25.6	23.7-
Ga80-918	23.6	28.5	43.4	29.4	24.0	28.1-
Ga80-1026	17.4	20.8	48.1+	23.7	26.6+	27.4-
Ga80-1215	29.3	15.4	42.7	37.0	25.9+	36.3
GaT80-807	28.6	23.9	44.4	25.0	26.9+	32.0-
GaT80-861	21.4	25.4	35.9	27.6	28.4+	32.4-
GaT80-952	24.9	20.8	47.5+	27.1	28.2+	30.5-
N82-1834	20.4	18.1	43.0	26.6	27.0+	23.4-
N82-1845	27.5	21.0	46.2+	30.2	29.6+	29.4-
N82-1893	29.1	20.4	50.8+	35.0	27.9+	30.2-
N82-2102	22.0	12.2	30.3-	19.8-	24.5	25.6-
SC82-1654	23.4	30.5	34.4	21.1-	19.3	22.8-
SC82-1672	23.8	25.9	44.2	30.5	26.7+	30.1-
L.S.D.(.05)	7.9	N.S.	6.4	8.3	5.2	7.9
C.V.	18%	26%	12%	14%	10%	12%

Table 67 - Oil percentages for the strains in Preliminary Group VIII, 1984

Strain	Blackville, SC	Gainesville, FL	Jay, FL	Beaumont, TX	Stoneville, MS (B)
Kirby	20.0	22.0	19.2	21.3	19.9
Braxton	21.1	20.3	20.4	22.6	19.8
D80-7408	20.2	19.5	18.2	22.1	18.5
D82-5614	19.8	20.5	18.3	20.2	19.0
D82-5690	19.1	20.3	20.3	19.9	18.9
D82-5715	19.4	20.8	19.2	20.8	19.3
D82-5722	20.4	21.0	21.5	20.8	20.0
D82-5738	17.5	17.8	18.9	17.8	17.7
D82-5756	20.0	20.5	20.2	21.8	19.5
D82-5758	19.9	21.1	21.6	21.2	20.3
D82-6206	18.1	18.4	17.3	18.0	17.1
F77-7446	20.3	22.9	20.3	21.8	20.7
F77-7449	20.5	22.8	19.8	22.9	20.9
F81-7443	19.5	20.4	19.6	20.3	19.2
F82-1756	20.1	20.8	20.8	21.2	19.5
F82-1820	19.7	22.1	19.6	20.2	19.2
F82-1851	20.0	22.0	19.8	20.6	19.5
F82-1929	22.3	24.1	20.2	21.9	21.1
F82-4780	20.9	22.7	21.8	21.9	21.6
F82-4851	22.1	23.2	21.7	22.3	19.9
F82-4922	22.4	22.9	21.6	24.0	22.1
F82-4988	20.0	22.2	20.4	20.8	20.3
F82-5041	21.1	21.9	20.0	21.2	20.0
Ga80-512	20.6	22.7	21.8	21.9	20.6
Ga80-918	19.7	21.1	20.7	20.6	19.6
Ga80-1026	20.8	21.0	21.2	21.1	19.0
Ga80-1215	19.5	21.8	19.6	20.1	18.9
GaT80-807	19.5	23.0	21.0	22.6	21.1
GaT80-861	20.4	21.2	21.2	21.4	20.8
GaT80-952	21.2	22.5	21.3	22.9	20.1
N82-1834	20.1	22.5	22.3	22.9	21.0
N82-1845	20.6	22.8	22.4	22.0	20.8
N82-1893	21.8	23.0	22.1	23.2	21.4
N82-2102	18.7	21.0	19.9	20.1	18.7
SC82-1654	21.9	22.2	20.5	21.5	21.0
SC82-1672	20.0	22.1	20.4	20.9	20.9

Table 68 - Protein percentages for the strains in Preliminary Group VIII, 1984

Strain	Blackville, SC	Gainesville, FL	Jay, FL	Beaumont, TX	Stoneville, MS (B)
Kirby	41.0	41.7	42.2	42.7	41.3
Braxton	39.3	42.1	42.0	41.6	41.3
D80-7408	41.1	42.5	45.2	38.4	43.5
D82-5614	41.4	42.7	43.7	44.2	43.1
D82-5690	44.2	44.8	41.6	43.8	41.5
D82-5715	43.3	43.6	43.0	42.4	42.9
D82-5722	41.1	42.8	41.4	42.4	43.2
D82-5738	46.5	48.1	44.5	47.7	46.1
D82-5756	43.1	42.9	41.3	42.7	44.4
D82-5758	41.7	43.3	41.4	41.1	42.7
D82-6206	42.9	42.9	43.7	44.5	43.2
F77-7446	42.3	41.0	41.8	42.0	40.6
F77-7449	40.5	40.2	41.4	40.6	40.1
F81-7443	41.4	43.8	44.1	42.9	42.2
F82-1756	40.6	39.9	40.7	42.1	40.9
F82-1820	40.4	41.3	41.3	42.8	41.3
F82-1851	40.8	41.6	41.2	42.6	40.2
F82-1929	38.0	39.3	41.0	41.1	38.3
F82-4780	37.9	39.2	38.3	40.6	37.4
F82-4851	37.7	39.0	40.5	40.7	39.2
F82-4922	36.5	38.1	39.9	40.1	36.8
F82-4988	42.5	42.8	42.9	43.5	42.9
F82-5041	40.7	42.9	42.2	43.7	42.7
Ga80-512	40.3	40.5	40.4	40.9	40.3
Ga80-918	41.9	42.6	42.8	43.4	43.2
Ga80-1026	39.8	43.4	41.0	43.5	41.9
Ga80-1215	42.4	40.3	42.6	44.1	42.4
GaT80-807	39.9	38.3	39.0	41.2	40.6
GaT80-861	40.8	42.6	39.0	38.5	39.3
GaT80-952	40.5	40.3	41.2	40.9	40.6
N82-1834	40.3	40.9	40.4	40.6	40.3
N82-1845	40.9	40.9	41.0	41.2	39.9
N82-1893	40.1	39.5	39.8	40.8	39.3
N82-2102	42.3	41.8	43.0	42.7	42.0
SC82-1654	38.5	42.2	42.4	42.4	40.2
SC82-1672	40.5	40.4	41.8	43.4	40.7

Table 66 - Plant height for the strains in Preliminary Group VIII, 1984

Strain	Blackville, SC	Gainesville, FL	Quincy, FL	Jay, FL	Beaumont, TX	Stoneville, MS (B)
Kirby	35	21	34	35	31	43
Braxton	38	25	31	35	33	42
D80-7408	43	26	36	36	37	41
D82-5614	35	30	37	38	37	42
D82-5690	40	22	35	33	34	43
D82-5715	41	20	32	36	32	41
D82-5722	40	23	35	36	33	47
D82-5738	47	25	35	37	35	40
D82-5756	36	24	32	35	32	46
D82-5758	41	18	34	38	31	41
D82-6206	46	35	41	41	35	42
F77-7446	41	21	31	37	32	39
F77-7449	42	26	36	35	31	43
F81-7443	37	17	36	36	34	38
F82-1756	40	24	35	37	38	44
F82-1820	47	21	36	37	37	45
F82-1851	42	22	39	37	34	47
F82-1929	48	27	41	41	39	49
F82-4780	41	22	36	34	36	42
F82-4851	43	21	33	35	33	43
F82-4922	43	27	36	32	40	44
F82-4988	44	25	36	38	32	44
F82-5041	39	23	35	37	31	42
Ga80-512	35	21	29	34	35	39
Ga80-918	32	23	30	35	30	41
Ga80-1026	38	23	30	37	33	43
Ga80-1215	37	19	32	35	31	40
GaT80-807	44	24	35	34	34	48
GaT80-861	46	25	33	36	36	55
GaT80-952	33	19	31	28	26	40
N82-1834	32	21	31	37	35	39
N82-1845	33	19	29	34	28	40
N82-1893	37	18	33	35	24	42
N82-2102	47	21	34	38	39	49
SC82-1654	41	27	37	40	39	42
SC82-1672	44	25	38	36	36	40

Table 70 - Seed quality scores for the strains in Preliminary Group VIII, 1984

Strain	Blackville, SC	Gainesville, FL	Quincy, FL	Jay, FL	Beaumont, TX	Stoneville, MS (B)
Kirby	2.0	1.0	2.0	2.0	2.3	2.0
Braxton	2.0	3.0	2.0	3.0	2.3	2.5
D80-7408	2.0	1.0	2.0	2.0	1.5	2.0
D82-5614	2.0	1.0	2.0	2.0	1.5	2.0
D82-5690	4.0	2.5	2.0	2.0	1.5	2.0
D82-5715	3.0	2.0	2.0	2.0	1.5	2.5
D82-5722	2.0	2.0	2.0	2.0	1.5	2.5
D82-5738	3.0	1.5	2.0	3.0	1.5	2.5
D82-5756	2.0	2.0	2.0	3.0	1.5	2.5
D82-5758	3.0	1.8	2.0	3.0	1.8	3.0
D82-6206	2.0	1.0	2.0	2.0	1.5	2.0
F77-7446	3.0	1.8	2.0	2.0	2.0	2.5
F77-7449	2.0	1.0	2.0	2.0	2.3	2.5
F81-7443	2.0	1.0	2.0	2.0	1.5	2.0
F82-1756	2.0	1.3	2.0	3.0	1.8	2.0
F82-1820	3.0	1.0	2.0	2.0	1.8	2.5
F82-1851	3.0	1.3	2.0	3.0	1.8	2.0
F82-1929	3.0	1.5	2.0	2.0	1.8	2.0
F82-4780	2.0	1.8	2.0	2.0	1.5	2.0
F82-4851	3.0	1.3	2.0	3.0	1.8	2.5
F82-4922	2.0	1.3	1.0	3.0	1.8	2.0
F82-4988	3.0	1.5	2.0	2.0	1.5	2.0
F82-5041	2.0	1.3	2.0	2.0	2.0	2.0
Ga80-512	2.0	1.8	2.0	3.0	1.8	3.0
Ga80-918	3.0	2.0	2.0	4.0	2.3	2.5
Ga80-1026	2.0	2.0	2.0	2.0	1.5	2.0
Ga80-1215	2.0	2.0	2.0	2.0	1.5	2.5
GaT80-807	4.0	1.8	2.0	3.0	2.0	2.5
GaT80-861	2.0	1.8	2.0	3.0	1.8	2.5
GaT80-952	2.0	1.3	2.0	2.0	2.0	2.5
N82-1834	2.0	2.3	2.0	3.0	2.0	2.0
N82-1845	2.0	2.3	2.0	3.0	2.0	2.0
N82-1893	3.0	2.3	2.0	2.0	1.5	2.5
N82-2102	2.0	2.0	2.0	4.0	1.5	2.0
SC82-1654	2.0	1.5	2.0	2.0	2.3	2.0
SC82-1672	2.0	1.3	2.0	2.0	2.5	2.0