U. S. REGIONAL SOYBEAN LABORATORY
URBANA, ILLINOIS

RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS, 1963 PART II. SOUTHERN STATES

UNITED STATES DEPARTMENT OF AGRICULTURE
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CROPS RESEARCH DIVISION
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RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS

PART II. SOUTHERN STATES

1963

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INTRODUCTION

The program of the U. S. Regional Soybean Laboratory 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. In the Southern Region, fundamental studies and breeding programs are conducted at three locations, Stoneville, Mississippi; Raleigh, North Carolina; and Gainesville, Florida. After promising new strains are developed at these breeding centers, or by any other cooperating agency, they are advanced to the preliminary and uniform regional tests, conducted in cooperation with the Southeastern States. This testing program enables the breeder 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.

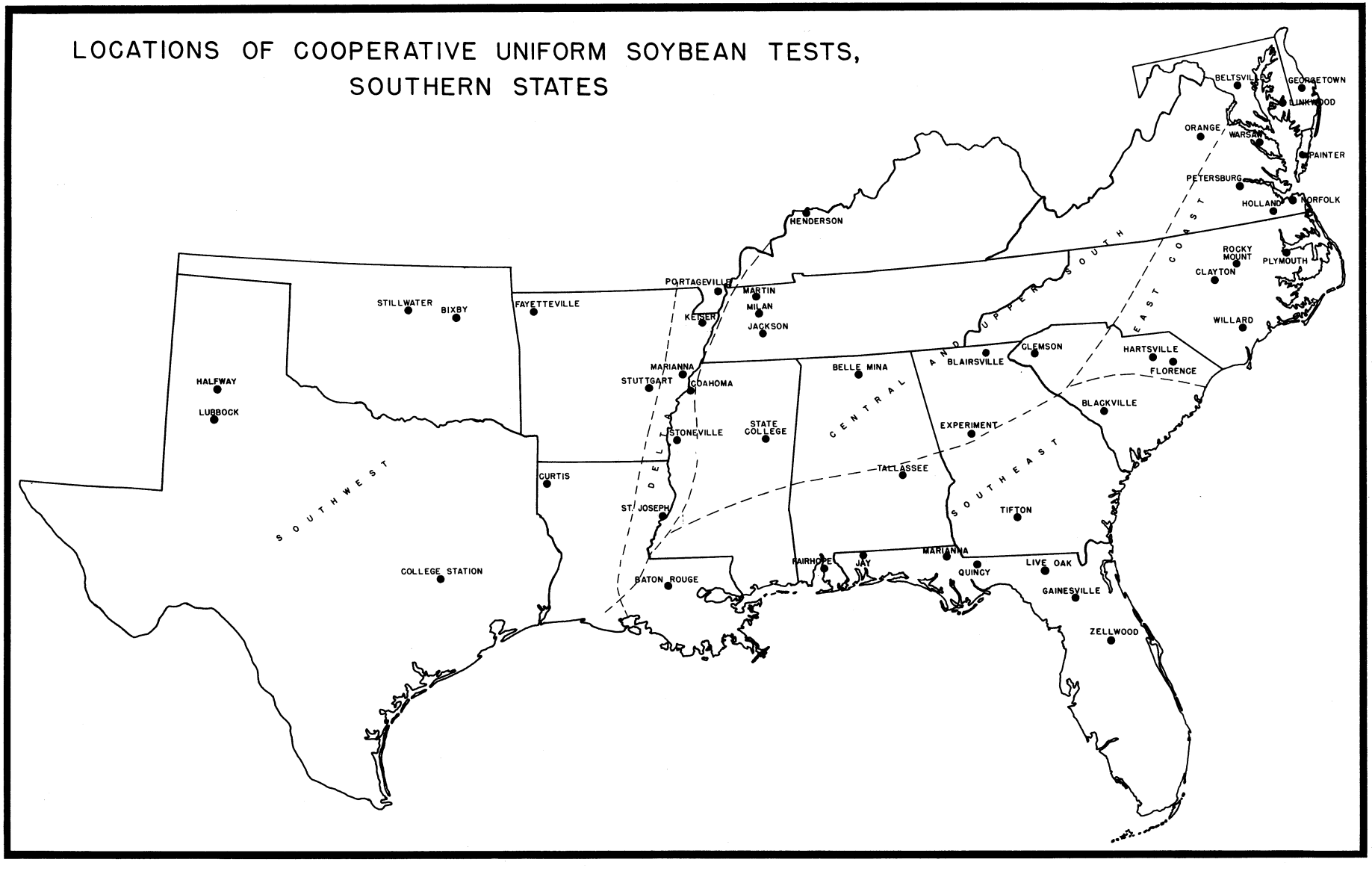
Ten uniform test groups have been established to evaluate the better strains developed in the breeding programs. The Groups 00 through IV are adapted in the northern part of the United States, and the Group IV through VIII are grown in the southern part. Within their area of adaptation, there is a maturity range of 12 to 18 days within each maturity class. The best standard variety available of each maturity class is used as a check variety with which to compare new strains as to seed yield, chemical composition, maturity, height, lodging, seed quality, and reaction to diseases. For the groups grown in the southern area, the check varieties are Kent, Hill, Hood, Jackson, and Bienville. 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: Kent, September 8; Hill, September 20; Hood, October 8; Jackson, October 25; and Bienville, November 1.

A wide range of soil and climatic conditions exist in the regional. 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 river valley soils and the high plains of Texas. In this area many of the tests received supplemental irrigation. A map is included to illustrate the five production areas.

On nearly all of the Coastal Plain, Piedmont, and loessal soils, 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 within the states. Different methods are used for extraction and reporting by the various laboratories. An attempt is being made to report phosphorous 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.

LOCATIONS OF COOPERATIVE UNIFORM SOYBEAN TESTS, SOUTHERN STATES



As an indication of the temperature and rainfall pattern in areas where the tests are conducted, daily minimum and maximum temperatures and rainfall are reported for Plymouth, North Carolina; Blackville, South Carolina; Gainesville, Florida; Keiser, Arkansas; Stoneville, Mississippi; and Lubbock, Texas.

STRAIN IDENTIFICATION

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

Co - Coker's Pedigreed Seed Co., Hartsville, South Carolina
D - Delta Branch Exp. Sta. and U.S. Regional Soybean Laboratory
F - Florida Agr. Exp. Sta. and U.S. Regional Soybean Laboratory
Ga - Georgia Agricultural Experiment Station
L - Illinois Agr. Exp. Sta. and U.S. Regional Soybean Laboratory
La - Louisiana Agricultural Experiment Station
Md - Maryland Agr. Exp. Sta. and U.S. Regional Soybean Laboratory
N - North Carolina Agr. Exp. Sta. and U.S. Regional Soybean Laboratory
R - Arkansas Agricultural Experiment Station
S - Missouri Agr. Exp. Sta. and U.S. Regional Soybean Laboratory
UD - Delaware Agricultural Experiment Station
V - Virginia Agricultural Experiment Station

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

Location	Groups Grown IV	V	VI	VII	VIII	Soil Type	Soil Analyses P_2O_5	K_2O	pH	Fertilizer[1]	Yield-adapted variety[2]
East Coast											
Georgetown, Del.	1	1*	1			Norfolk sandy loam	H	M	6.2	0-45-90	25.3 - A
Linkwood, Md.	1	1	1			Sassafras sandy loam	H	M	5.9	0-90-90	30.5 - A
Warsaw, Va.	1	1*	1*			Sassafras sandy loam	M	M	5.9	0-50-50	14.8 - B
Painter, Va.[3]	1	1	1			Sassafras sandy loam	VH	M+	5.4	0-0-0	32.0 - B
Petersburg, Va.		1	1			Norfolk fine sandy loam	H	M	6.4	0-0-0	37.1 - B
Norfolk, Va.		1	1			Woodstown sandy loam	VH	H	5.7	0-0-0	34.0 - B
Holland, Va.		1	1			Dragston loam fine sand	VH	VH	6.0	[4]	41.8 - C
Plymouth, N.C.		1*	1*			Portsmouth fine sandy loam	H	H	6.0	0-40-80	44.8 - C
Rocky Mt., N.C.				1		Norfolk sandy loam	H	H	6.2	0-40-80	38.4 - C
Willard, N.C.			1	1*		Norfolk sandy loam	VH	M	5.6	0-40-80	42.3 - C
Clayton, N.C.[3]			1	1		Norfolk sandy loam	VH	M	6.0	0-40-80	44.3 - C
Florence, S.C.				1	1*	Dunbar fine sandy loam					47.8 - D
Hartsville, S.C.			1	1	1	Norfolk sandy loam				0-36-36	39.4 - D
Southeast											
Blackville, S.C.(A)				1*		Norfolk sandy loam	VH	M	6.0	0-56-56	23.4 - D
Blackville, S.C.(B)					1*	Norfolk sandy loam	VH	M	5.5	0-56-56	31.7 - F
Tallassee, Ala.			1	1*	1	Cahaba loamy fine sand	H	M	6.6	0-42-42	28.6 - D
Tifton, Ga.				1	1	Tirton pebbly loam					15.6 - F
Live Oak, Fla.				1	1*	Klej fine sand	28	123	6.1	0-50-100	26.7 - H
Gainesville, Fla.				1*	1*	Arredonda fine sand	65	167	6.3	0-45-90	27.5 - H
Zellwood, Fla.			1	1*		Muck	20	179	5.7	0-0-0	30.5 - C
Quincy, Fla.			1	1	1*	Norfolk loamy fine sand	6	84	6.2	0-0-0	26.9 - D
Marianna, Fla.				1	1	Ruston sandy loam				24-72-72	
Jay, Fla.			1	1*	1*	Tifton fine sandy loam				24-72-72	33.5 - D
Fairhope, Ala.			1	1	1	Marlboro fine sandy loam				0-42-42	31.4 - F
Baton Rouge, La.			1	1	1*	Olivier silt loam				15-60-60	40.5 - E
Upper and Central South											
Orange, Va.	1	1				Davidson clay loam	M-	H-	6.6	0-140-140	21.6 - A
Charlotte Courthourse, Va.	1	1				Cecil sandy loam	H	M	6.0	0-56-56	11.1 - A
Milan, Tenn.		1	1			Memphis sandy loam	VL	M	6.4	0-60-60	32.2 - C
Jackson, Tenn.		1	1			Calloway silt loam	H	H	6.2	0-100-180	22.1 - C
Belle Mina, Ala.		1	1			Decatur sandy loam	M	M	5.3	0-80-80	16.8 - A
Blairsville, Ga.		1				Hawassee loam				20-60-60	32.9 - A
Clemson, S.C.				1		Cecil sandy loam	H	M	6.4	28-84-84	48.3 - C
Experiment, Ga.		1	1	1*	1*	Lloyd sandy clay loam	H	L	6.2	25-50-75	55.6 - C
State College, Miss.		1	1	1		Verona fine sandy loam				0-60-60	28.3 - C

Location	Groups Grown IV	V	VI	VII	VIII	Soil Type	P_2O_5	K_2O	pH	Fertilizer[1]	Yield-adapted variety[2]
Delta											
Henderson, Ky.	1	1				Falaya silt laom	H	L	6.1	0-40-40	43.8 - G
Portageville, Mo.(A)	1	1*	1*			Salix silt loam	H	H	5.6	0-75-75	44.2 - B
Portageville, Mo.(B)	1	1	1			Sharkey clay					
Keiser, Ark.(A)	1	1	1			Sharkey clay(overwash)	M	H	6.6	0-0-0	30.5 - A
Keiser, Ark.(B)	1	1*	1*			Sharkey clay	M	H	6.6	0-0-0	31.2 - C
Marianna, Ark.	1	1	1			Richland silt loam	L	L	6.6	0-0-42	34.6 - A
Stoneville, Miss.(A)		1	1*	1*	1	Bosket fine sandy loam	H	M+	6.0	0-0-0	42.4 - C
Stoneville, Miss.(B)	1	1*	1*	1		Sharkey clay	H	M+	6.2	0-0-0	40.1 - C
St. Joseph, La.		1	1	1	1	Commerce sandy loam				0-0-0	53.1 - D
West											
Stuttgart, Ark.[3]		1	1	1		Crowley silt loam	VL	L	6.5	0-48-48	41.4 - C
Curtis, La.		1	1	1	1	Yahola fine sandy loam				0-0-0	42.7 - C
Bixby, Okla.	1	1	1			Lonoke very fine sandy loam	65	316	7.4	0-0-0	33.8 - A
Halfway, Texas[3]		1	1			Pullman clay loam				0-0-0	32.8 - A
Lubbock, Texas[3]		1	1			Amarillo fine sandy loam				0-0-0	19.9 - A

1/ Fertilizer applied converted to pounds of N, P_2O_5, K_2O; for example, 400# of 2-12-12 equals 8-48-48.
2/ A = Hill; B = Hood; C = Lee; D = Bragg; E = Bienville; F = Hampton; G = Kent; H = Hardee
3/ Irrigated as needed.
4/ Previous corn crop received 30-90-190.

* Preliminary nursery grown in addition to uniform nursery.

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 all groups. Row widths at the different locations vary from 36 to 40 inches. An attempt was made to follow the best cultural and management practices in conducting these strain comparisons.

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

Planting Rate: All strains were packeted at the rate of 190 seed for planting a 19-foot row. This gives a planting rate of 10 seed per foot.

Yields are taken by harvesting a 16-foot length from the midsection of each plot. Actual seed weights are recorded after the seed of strains have a uniform moisture content.

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

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 for the different uniform tests are as follows: Group IV, Kent; Group V, Hill; Group VI, Hood; Group VII, Jackson; and Group VIII, Bienville.

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 differences can exist between factors responsible for the poorer grades in different locations.

Ground cover scores were given to strains of IV maturity approximately 6 weeks after emergence. The estimates are recorded on a scale of 1 to 5 as follows:

1 - row middles filled
2 - 3 to 6" gap between rows
3 - 6 to 10" gap between rows
4 - 10 to 18" gap between rows
5 - 18 to 24" gap between rows

Disease ratings are given on a scale of 1 to 5 as follows:

A. Foliar
1 - immune to highly resistant
2 - lesions small and few in number
3 - lesions moderate in number and size
4 - lesions numerous and necrosis surrounding lesion
5 - leaves covered with lesions and much necrosis

B. Root and Stem
1 - no plants killed
2 - 1 to 3% of plants killed
3 - 4 to 8% of plants killed
4 - 9 to 19% of plants killed
5 - over 20% of plants killed

Purple stain ratings are given to seed samples on a scale of 1 to 5 as follows:

1 - no purple staining
2 - 1 to 3% purple staining
3 - 4 to 8% purple staining
4 - 9 to 19% purple staining
5 - over 20% purple staining

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

UNIFORM GROUP IV

	Variety or strain	Parentage	Generation Composited
1.	Kent	Lincoln x Ogden	F_7
2.	Scott	D49-2525 x L6-5679	F_4
3.	Clark 63	[Clark(5) x L49-4091] x [Clark(6) x Blackhawk]	
4.	Delmar	C799 x FC 33243	F_6
5.	D60-5702	Hill x D53-354	F_5
6.	D60-5818	Hill x D53-354	F_5
7.	D60-5847	Hill x D53-354	F_5
8.	D61-214	D54-3270 x D54-2437	F_5
9.	D61-238	D54-3270 x D54-2437	F_5
10.	L57-0034	L46-2132 x Adams	F_6
11.	Md59-285	Lincoln x C985	F_5
12.	Md59-1552	Adams x C985	F_6

Background of strains used as parents:

D49-2525 is a sister strain of Lee from the cross S-100 x CNS.

L6-5679 is a selection from Lincoln x Richland which was tested in Uniform Group IV for the years 1949-1953.

L49-4091 is a pustule-resustant selection from [Lincoln(2) x Richland] x [Lincoln x CNS].

C799 is a selection from C143 x Lincoln. C143 is a selection from Dunfield x Midwest.

FC33243 is a type which has proved to be highly resistant to root-knot nematodes in Delaware.

D53-354 is a selection from D49-2525 x L6-5679 which was tested in Uniform Group IV for the years 1956-1958.

D54-3270 is a selection from D49-2525 x L6-5679 highly susceptible to phytophthora rot.

D54-2437 is a selection from N48-1394 x L6-5679 having a resistant reaction to phytophthora rot. It was tested in Uniform Group IV for the years 1957-1961.

L46-2132 is a selection from Lincoln(2) x Richland.

C985 is an F_4 line selected from Lincoln x Ogden and is progenitor of Kent.

Fifteen Group IV nurseries were planted. Results of 12 of these are summarized in tables 1 through 7, with table 1 giving a general summary of agronomic qualities, chemical composition of the seed, and reaction to several diseases. Two- and three-year data are reported for seed yield by production regions. Two- and three-year oil and protein percentages are also reported.

Seed yield differences among strains were significant at six locations and nonsignificant at the other six locations. The combined analysis of variance for mean seed yields by regions showed yield differences to be nonsignificant within the East Coast region but significant within the Delta region.

At Stoneville, there was a range in yield from 44 bushels per acre to 20.6 bushels and at Bixby there was a range from 41.6 to 14.4 bushels. Causes of the extreme differences at Bixby were not recognized, but at Stoneville yield differences were associated with reaction to the two diseases bacterial pustule and phytophthora rot. With regard to reaction to phytophthora rot, Clark 63 would have the near-immune reaction, D61-214 and D61-238 a resistant reaction, and D60-5702, D60-5818, and D60-5847 would have a field-tolerant reaction.

The low yields in the East Coast area made strain evaluation for yield difficult. Kent has the highest 3-year mean yield but also received the highest scores for purple seed development and shattering. The strain tested previously as UD672 has been released and named Delmar.

Table 1. - General summary of performance for the strains in Uniform Group IV, 1963

	Kent	Scott	Clark 63[1/]	Delmar	D60-5702	D60-5818
Seed Yield - 1963						
East Coast	23.6	23.3	23.1	23.6	23.0	25.3
Delta	36.0	31.8	36.6	32.0	37.8	37.6
1962-63						
East Coast	29.3	26.5	26.6	26.9	25.0	27.9
Delta	36.6	34.4	36.5	29.5	39.0	38.6
1961-63						
East Coast	31.3	28.8	29.6	29.6		
Delta	36.5	34.3	35.6	31.3		
Oil Content - 1963	21.5	21.9	22.0	22.3	21.6	21.4
- 1962-63	21.7	21.9	22.0	21.9	21.6	21.3
- 1961-63	21.9	21.9	22.1	21.8		
Protein Content - 1963	40.7	37.8-	40.3	39.8-	40.0	39.1-
- 1962-63	41.0	38.9	40.7	40.9	40.5	40.2
- 1961-63	40.9	38.9	40.5	40.9		
Seed Size	16.8	13.9-	15.0-	15.6-	13.0-	13.7-
Maturity Index	9-26	+5	+1	+3	0	+7
Height	32	33	33	35	34	37
Bacterial Pustule	4.0	1.0	1.0	4.0	1.0	1.0
Phytophthora Rot	2.0	3.0	1.0	1.0	1.0	1.0
Purple Stain	4.0	3.0	3.0	3.0	2.0	2.0
Mildew	1.2	4.0	3.4	3.0	3.0	3.0
Shattering	3.4	2.5	1.9	1.3	1.2	1.3
Damaged Seed (%)	35	15	22	4	5	7

1/ SL1 used in calculating 2- and 3-year averages

Bacterial pustule - Stoneville data
Phytophthora rot - Stoneville data
Purple stain - Henderson, Portageville, and Bixby data
Mildew - Georgetown and Portageville data
Shattering - Georgetown, Warsaw, Orange, Henderson, Stoneville data
Damaged seed - Henderson data

Table 1. - (continued)

	D60-5847	D61-214	D61-238	L57-0034	Md59-285	Md59-1552
Seed Yield - 1963						
East Coast	24.4	23.1	24.1	26.0	23.5	24.2
Delta	35.8	34.9	33.7	32.4	32.2	28.9-
- 1962-63						
East Coast	26.0					
Delta	36.2					
- 1961-63						
East Coast						
Delta						
Oil Content - 1963	21.4	22.0	21.2	22.6+	22.3+	21.7
- 1962-63	21.4					
- 1961-63						
Protein Content - 1963	38.9-	39.2-	39.7-	39.3-	40.1	40.4
- 1962-63	39.9					
- 1961-63						
Seed Size	13.6-	12.3-	12.4-	14.9-	14.7-	14.8-
Maturity Index	+2	+3	+4	-3	0	+5
Height	37	35	34	30	31	36
Bacterial Pustule	1.0	1.0	1.0	5.0	5.0	4.0
Phytophthora Rot	1.0	1.0	1.0	3.0	1.0	2.0
Purple Stain	3.0	2.0	1.0	3.0	2.0	2.0
Mildew	3.2	4.0	3.2	3.0	2.7	3.2
Shattering	1.0	1.4	1.9	1.7	2.7	2.1
Damaged Seed (%)	9	5	5	20	12	15

Table 2. - Seed yield, in bushels per acre, for the strains in Uniform Group IV, 1963

Location	Kent	Scott	Clark 63	Delmar	D60-5702	D60-5818	D60-5847
			East Coast				
Georgetown, Del.	19.1	19.5	19.6	21.0	20.9	27.9+	23.9
Linkwood, Md.	32.6	31.7	34.4	27.8-	32.4	32.5	32.8
Orange, Va.	22.6	20.2	15.9	22.3	19.9	21.6	21.1
Warsaw, Va.	13.4	16.7+	15.9+	14.4	13.6	14.3	13.8
Painter, Va.	30.3	28.4	29.6	32.3	28.1	30.5	30.4
Mean	23.6	23.3	23.1	23.6	23.0	25.3	24.4
			Delta				
Henderson, Ky.	43.8	39.4	42.2	37.8	41.0	41.2	39.0
Portageville, Mo.(A)	53.2	51.3	52.9	48.9	50.0	49.2	47.3
Keiser, Ark.(A)	33.6	21.7	27.1	26.2	33.7	31.8	27.8
Keiser, Ark.(B)	17.4	18.4	17.8	22.6	27.6+	23.8+	28.9+
Marianna, Ark.	33.4	37.1	30.7	31.8	34.4	34.0	29.7
Stoneville, Miss.(B)	30.0	25.3	44.1+	29.8	44.0+	42.4+	43.2+
Bixby, Okla.	40.3	29.7-	41.6	26.9-	33.8	40.9	34.6
Mean	36.0	31.8	36.6	32.0	37.8	37.6	35.8

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

(-) - Strains yielding significantly less (odds 19:1 or greater) than Kent.

Table 2. - (continued)

Location	D61-214	D61-238	L57-0034	Md59-285	Md59-1552	L.S.D. (.05)	C.V.
			East Coast				
Georgetown, Del.	24.2	20.5	16.6	17.9	19.6	5.2	15%
Linkwood, Md.	28.9	29.5	38.2	32.9	29.2	4.5	8%
Orange, Va.	21.8	22.9	27.9	23.2	24.3	N.S.	15%
Warsaw, Va.	14.1	13.9	14.4	14.5	14.6	1.5	6%
Painter, Va.	26.2	33.7	32.9	29.2	34.0	N.S.	11%
Mean	23.1	24.1	26.0	23.5	24.2	N.S.	
			Delta				
Henderson, Ky.	38.0	34.5	37.9	36.2	37.8	N.S.	7%
Portageville, Mo.(A)	47.6	50.4	52.4	49.3	47.9	N.S.	7%
Keiser, Ark.(A)	29.0	25.9	30.2	28.7	24.4	N.S.	18%
Keiser, Ark.(B)	23.8+	22.9	16.2	17.9	22.7	5.7	15%
Marianna, Ark.	28.7	32.9	29.0	24.0	30.2	N.S.	23%
Stoneville, Miss.(B)	41.9+	41.4+	20.6-	26.9	24.7-	5.3	9%
Bixby, Okla.	35.0	27.8-	40.7	38.7	14.4-	7.3	13%
Mean	34.9	33.7	32.4	32.2	28.9-	5.2	

Table 3. - Chemical composition and seed size for the strains in Uniform Group IV, 1963

Location	Kent	Scott	Clark 63	Delmar	D60-5702	D60-5818
			Oil Percentage			
Linkwood, Md.	23.0	21.6	22.9	22.0	22.3	21.8
Georgetown, Del.	20.8	21.1	21.2	20.6	19.9	19.3
Warsaw, Va.	21.5	22.0	21.5	21.6	20.5	20.6
Henderson, Ky.	21.1	20.1	20.5	21.7	20.7	20.2
Portageville, Mo.	21.9	21.5	22.3	22.9	21.3	20.2
Keiser, Ark.(B)	21.7	22.7	23.4	24.0	23.3	23.7
Marianna, Ark.	22.3	23.0	22.8	24.1	22.8	22.1
Stoneville, Miss.(B)	21.3	22.5	22.1	23.4	22.9	22.7
Bixby, Okla.	19.7	22.2	20.9	20.3	20.8	21.9
Mean	21.5	21.9	22.0	22.3+	21.6	21.4
			Protein Percentage			
Linkwood, Md.	36.9	35.2	37.4	38.8	38.4	38.2
Georgetown, Del.	43.5	38.3	43.6	43.6	42.7	39.8
Warsaw, Va.	44.0	38.5	44.2	44.1	43.4	42.0
Henderson, Ky.	41.9	39.9	42.1	41.4	41.5	40.0
Portageville, Mo.	39.5	38.5	39.4	38.9	40.2	40.1
Keiser, Ark.(B)	38.6	35.9	35.9	35.9	35.6	36.3
Marianna, Ark.	39.6	36.0	39.1	37.5	38.5	37.7
Stoneville, Miss.(B)	39.9	37.1	40.2	37.1	38.2	37.6
Bixby, Okla.	42.7	40.6	41.1	41.2	41.3	40.3
Mean	40.7	37.8-	40.3	39.8-	40.0	39.1-
			Grams Per 100 Seeds			
Linkwood, Md.	16.8	14.5	16.0	15.1	13.4	14.2
Georgetown, Del.	16.9	13.7	15.3	14.4	12.5	13.3
Warsaw, Va.	19.0	15.7	16.0	17.7	15.3	16.3
Henderson, Ky.	17.3	14.5	15.2	18.1	13.6	14.4
Keiser, Ark.(B)	15.7	13.0	13.0	15.7	12.0	12.7
Marianna, Ark.	18.7	15.0	15.3	18.3	13.3	14.7
Stoneville, Miss.(B)	14.4	12.1	14.4	11.0	11.7	11.8
Bixby, Okla.	15.5	12.9	15.1	14.2	11.5	12.4
Mean	16.8	13.9-	15.0-	15.6-	13.0-	13.7-

Table 3. - (continued)

Location	D60-5847	D61-214	D61-238	L57-0034	Md59-285	Md59-1552	L.S.D. (.05)
			Oil Percentage				
Linkwood, Md.	20.7	21.8	22.3	23.1	23.5	22.2	
Georgetown, Del.	19.9	20.2	20.1	20.5	20.7	20.1	
Warsaw, Va.	20.6	21.7	21.6	22.4	21.7	20.3	
Henderson, Ky.	19.8	21.5	19.7	21.3	21.4	21.4	
Portageville. Mo.	21.2	23.1	20.0	22.7	23.0	22.2	
Keiser, Ark.(B)	23.5	23.5	22.0	24.0	22.7	23.5	
Marianna, Ark.	22.3	23.0	21.8	23.7	23.2	22.7	
Stoneville, Miss.(B)	22.5	22.3	22.6	23.2	22.2	22.0	
Bixby, Okla.	21.7	20.7	20.6	22.4	22.0	20.7	
Mean	21.4	22.0	21.2	22.6+	22.3+	21.7	0.6
			Protein Percentage				
Linkwood, Md.	37.5	38.3	37.5	37.5	37.4	38.0	
Georgetown, Del.	39.8	40.8	41.4	42.9	43.4	42.1	
Warsaw, Va.	43.3	41.6	42.3	41.9	44.3	42.9	
Henderson, Ky.	40.5	40.8	42.3	41.9	41.5	42.1	
Portageville, Mo.	39.1	39.5	39.2	38.3	40.0	40.1	
Keiser, Ark.(B)	35.1	35.2	37.3	35.1	35.8	36.9	
Marianna, Ark.	38.3	38.3	39.6	38.6	38.9	39.6	
Stoneville, Miss.(B)	37.2	37.6	37.2	37.6	37.9	39.1	
Bixby, Okla.	39.6	40.4	40.9	39.7	42.1	42.7	
Mean	38.9-	39.2-	39.7-	39.3-	40.1	40.4	0.8
			Grams Per 100 Seeds				
Linkwood, Md.	13.0	12.0	12.0	14.8	15.5	14.7	
Georgetown, Del.	11.8	11.5	12.6	14.8	14.1	14.1	
Warsaw, Va.	14.3	13.0	13.0	15.3	16.7	16.0	
Henderson, Ky.	15.4	14.3	14.0	16.5	15.9	15.8	
Keiser, Ark.(B)	13.7	11.3	11.3	13.0	14.0	14.0	
Marianna, Ark.	15.7	14.0	14.7	17.0	14.7	16.7	
Stoneville, Miss.(B)	11.9	10.9	10.2	14.2	11.7	12.0	
Bixby, Okla.	12.7	11.7	11.5	13.6	15.2	15.2	
Mean	13.6-	12.3-	12.4-	14.9-	14.7-	14.8-	0.8

Table 4. - Relative maturity data, days earlier (-) or later (+) than Kent, for the strains in Uniform Group IV, 1963

Location	Date Planted	Kent Matured	Scott	Clark 63	Delmar	D60-5702
		East Coast				
Georgetown, Del.	5-31	10-4	+4	-7	-1	-2
Linkwood, Md.	5-22	9-27	+8	-7	+4	+3
Orange, Va.	5-17	10-4	-3	-3	+1	+1
Warsaw, Va.	5-28	10-6	-1	-14	0	-7
Painter, Va.	--	10-22	0	-11	-4	-2
Mean		10-7	+2	-8	0	-1
		Delta				
Henderson, Ky.	5-7	10-10	+10	-12	0	+8
Portageville, Mo.(A)	5-17	9-23	+3	-9	+4	0
Keiser, Ark.(A)	5-7	9-9	+3	-3	+6	+4
Keiser, Ark.(B)	5-6	9-24	+7	+2	+8	+5
Marianna, Ark.	5-15	9-22	+12	-6	+8	-6
Stoneville, Miss.(B)	5-14	9-11	+5	-2	+1	0
Bixby, Okla.	5-10	9-16	+17	+2	+8	0
Mean		9-19	+8	-4	+5	+2

Table 4. - (continued)

Location	D60-5818	D60-5847	D61-214	D61-238	L57-0034	Md59-285	Md59-1552
			East Coast				
Georgetown, Del.	+3	0	+1	+3	-3	-3	+5
Linkwood, Md.	+8	+3	0	+4	-6	-1	+8
Orange, Va.	0	-1	-2	-1	-5	-1	0
Warsaw, Va.	+1	-10	-9	-4	-8	-1	+1
Painter, Va.	+6	0	+1	+3	-10	-5	-1
Mean	+4	-2	-2	+1	-6	-2	+3
			Delta				
Henderson, Ky.	+8	+6	+11	+8	+7	-3	-2
Portageville, Mo.(A)	+5	+3	+3	+4	-3	-2	+4
Keiser, Ark.(A)	+10	+5	+5	+6	+2	+3	+9
Keiser, Ark.(B)	+11	+6	+7	+11	+4	+8	+5
Marianna, Ark.	+13	+8	+10	+8	-5	0	+3
Stoneville, Miss.(B)	+6	+4	+6	+5	-2	-4	+5
Bixby, Okla.	+8	+4	+3	+4	-1	-2	+23
Mean	+9	+5	+6	+7	0	0	+7

Table 5. - Plant height for the strains in Uniform Group IV, 1963

Location	Kent	Scott	Clark 63	Delmar	D60-5702	D60-5818
			East Coast			
Georgetown, Del.	20	23	22	28	23	27
Linkwood, Md.	31	32	35	35	35	37
Orange, Va.	33	36	30	36	32	37
Warsaw, Va.	21	22	22	23	24	24
Painter, Va.	24	23	23	26	25	28
Mean	26	27	26	30	28	31
			Delta			
Henderson, Ky.	47	47	47	47	47	48
Portageville, Mo.(A)	46	47	46	48	49	52
Keiser, Ark.(A)	37	36	39	42	36	45
Keiser, Ark.(B)	28	25	27	29	29	32
Marianna, Ark.	33	37	32	37	36	39
Stoneville, Miss.(B)	35	33	37	41	40	42
Bixby, Okla.	33	36	35	33	35	30
Mean	37	37	38	40	39	41

Table 5. - (continued)

Location	D60-5847	D61-214	D61-238	L57-0034	Md59-285	Md59-1552
			East Coast			
Georgetown, Del.	28	27	23	17	21	22
Linkwood, Md.	37	35	34	31	29	35
Orange, Va.	36	38	37	34	32	33
Warsaw, Va.	25	21	21	19	19	22
Painter, Va.	28	23	28	21	22	27
Mean	31	29	29	24	25	28
			Delta			
Henderson, Ky.	48	47	43	43	43	47
Portageville, Mo.(A)	52	49	47	44	43	51
Keiser, Ark.(A)	38	39	41	31	34	41
Keiser, Ark.(B)	32	27	27	25	27	32
Marianna, Ark.	37	37	38	32	32	42
Stoneville, Miss.(B)	43	39	35	29	35	35
Bixby, Oka.	41	35	38	33	34	46
Mean	42	39	38	34	35	42

Table 6. - Lodging scores for the strains in Uniform Group IV, 1963

Location	Kent	Scott	Clark 63	Delmar	D60-5702	D60-5818
			East Coast			
Georgetown, Del.	1.0	1.3	1.0	1.0	1.0	1.0
Linkwood, Md.	1.3	2.3	1.3	2.0	1.7	2.3
Orange, Va.	1.0	1.0	1.0	2.7	1.0	1.0
Warsaw, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Painter, Va.	1.0	1.8	1.5	1.7	1.7	1.8
			Delta			
Henderson, Ky.	3.0	3.0	2.0	3.0	3.0	3.0
Portageville, Mo.(A)	1.1	1.5	1.7	1.1	1.7	1.4
Keiser, Ark.(A)	2.0	2.5	2.0	2.0	2.3	2.3
Keiser, Ark.(B)	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, Ark.	3.3	3.0	2.3	2.0	3.0	2.7
Stoneville, Miss.(B)	1.7	2.0	2.3	2.0	1.7	2.0
Bixby, Okla.	2.0	2.6	2.8	2.3	1.3	2.0

Table 6. - (continued)

Location	D60-5847	D61-214	D61-238	L57-0034	Md59-285	Md59-1552
			East Coast			
Georgetown, Del.	1.3	1.3	1.3	1.0	1.0	1.0
Linkwood, Md.	2.3	2.3	2.7	1.0	1.7	1.0
Orange, Va.	1.7	2.0	2.0	1.0	1.0	1.0
Warsaw, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Painter, Va.	1.7	1.7	1.8	1.5	1.3	1.3
			Delta			
Henderson, Ky.	3.0	3.0	2.0	2.0	2.0	3.0
Portageville, Mo.(A)	1.4	1.6	1.3	1.8	1.1	1.0
Keiser, Ark.(A)	2.3	2.3	2.7	1.3	2.0	2.0
Keiser, Ark.(B)	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, Ark.	3.0	3.3	3.7	2.7	2.3	3.7
Stoneville, Miss.(B)	2.7	3.3	2.7	1.3	2.0	2.0
Bixby, Okla.	3.0	4.1	3.7	1.3	2.0	2.0

Table 7. - Seed quality scores for the strains in Uniform Group IV, 1963

Location	Kent	Scott	Clark 63	Delmar	D60-5702	D60-5818
			East Coast			
Georgetown, Del.	2.3	2.7	2.5	1.7	1.8	2.0
Linkwood, Md.	3.0	2.0	2.0	3.0	2.0	2.0
Orange, Va.	2.0	1.0	1.3	2.7	2.5	1.8
Warsaw, Va.	3.0	1.4	2.2	2.3	1.9	1.8
Painter, Va.	1.0	1.8	1.5	1.7	1.7	1.8
			Delta			
Henderson, Ky.	4.5	3.0	3.5	2.5	2.5	2.5
Portageville, Mo.(A)	2.2	2.3	1.9	2.0	1.8	1.9
Keiser, Ark.(A)	3.7	3.0	2.7	3.0	2.0	2.0
Keiser, Ark.(B)	4.3	3.3	4.7	3.7	2.7	2.7
Marianna, Ark.	4.0	3.3	4.0	4.0	2.3	2.7
Stoneville, Miss.(B)	2.7	3.0	2.3	3.3	1.7	2.0
Bixby, Okla.	3.3	1.3	3.6	5.0	2.7	3.3

Table 7. - (continued)

Location	D60-5847	D61-214	D61-238	L57-0034	Md59-285	Md59-1552
			East Coast			
Georgetown, Del.	2.3	2.2	1.8	2.5	2.0	2.2
Linkwood, Md.	2.0	2.0	2.0	2.0	3.0	2.0
Orange, Va.	2.2	1.8	1.2	1.8	1.0	1.0
Warsaw, Va.	1.7	1.0	1.0	1.5	2.0	1.3
Painter, Va.	1.7	1.7	1.8	1.5	1.3	1.3
			Delta			
Henderson, Ky.	2.5	2.5	2.5	3.5	2.5	2.0
Portageville, Mo.(A)	2.0	1.9	1.9	2.0	1.8	2.0
Keiser, Ark.(A)	2.3	2.0	2.3	3.7	3.3	3.0
Keiser, Ark.(B)	3.0	2.0	2.7	4.0	4.7	3.0
Marianna, Ark.	3.0	2.7	3.0	4.7	3.7	2.7
Stoneville, Miss.(B)	1.7	2.0	2.0	2.7	2.7	2.3
Bixby, Okla.	3.0	3.3	3.1	2.8	3.0	4.5

UNIFORM GROUP V

1963

	Variety or Strain	Parentage	Generation Composited
1.	Hill	D632-15 x D49-2525	F_5
2.	Dorman	Dunfield x Arksoy	F_6
3.	D59-415	Hill x D52-810	F_5
4.	D59-693	Hill x D52-810	F_5
5.	N59-6821	Hill x D52-810	F_5
6.	N59-6921	Hill x D52-810	F_5
7.	N59-6926	Hill x D52-810	F_5
8.	N59-6955	Hill x D52-810	F_5
9.	D59-428	Hill x D52-810	F_5
10.	N59-6948	Hill x D52-810	F_5
11.	N60-6053	Hill x D49-2491	F_5
12.	R60-66	Dortchsoy 67 x Lee	

Background of strains used as parents:

D632-15 is a selection from Dunfield x Haberlandt, which was included in the Group V nursery for the years 1950 through 1953.

D49-2525 and D49-2491 are sister strains to Lee.

D52-810 is a selection from Roanoke x Ogden of Ogden type and maturity with yellow seed. It is a selection from N48-1101 which was included in the Uniform Group VI nurseries for the years 1951 through 1953.

Thirty-two Group V nurseries were planted. Results of 28 of these nurseries are summarized in tables 8 through 14, with table 8 giving a general summary of agronomic qualities, chemical composition of the seed, and reaction to several diseases. Two- and three-year data are reported for seed yield by production regions. Two- and three-year oil and protein percentages are also reported.

Seed yield differences were significant in 14 of the 28 comparisons. The combined analysis of variance for mean seed yields by production areas shows strains to differ in performance for the East Coast, Upper and Central South, and Western areas. Differences for the Delta area were nonsignificant.

Two strains, D59-415 and D59-693, have been tested three years. Both strains have shown a consistent yield advantage over Hill in all production areas. D59-415 has averaged 7 days later and D53-693 five days later than Hill for the 3-year period. D53-693 has maintained a slight yield advantage over D59-415 in each of the production areas except in the West, but there the difference is small. D59-693 is somewhat more resistant to shattering than D59-415. Because of the advantage in seed yield and seed holding of D59-693 over D59-415, there does not appear to be any further advantage for continuing D59-415.

Four strains, N59-6821, N59-6921, N59-6926, and N59-6955, have been grown two years. None have shown a yield advantage over D59-693 in the East Coast, Upper and Central South, or Delta areas. N59-6926 and N59-6955 rank slightly higher in the West. It appears that N59-6821 and N59-6921 can be discontinued.

Four strains, D59-428, N59-6948, N60-6053, and R60-66, have been included one year. R60-66 appeared to be the best yielding line of these four but is susceptible to shattering. D59-428 was also susceptible to shattering. Neither N59-6948 or N60-6053 was outstanding in seed yield. Although mean seed yields for these two strains are very similar, there may be more justification for continuing N60-6053, since it represents parentage different from that of N59-6948 and many of the lines that have been included in Group V. It appears that D59-428 and N59-6948 can be discontinued.

Table 8. - General summary of performance for the strains in Uniform Group V, 1963

	Hill	Dorman	D59-415	D59-693	N59-6821	N59-6921
Seed Yield - 1963						
East Coast	31.1	30.7	33.1+	34.6+	31.4	33.0
Upper & Central South	27.4	26.8	31.5+	33.3+	29.9	31.3+
Delta	35.5	35.4	38.9	38.4	38.2	38.1
West	28.8	25.1	32.1	31.4	30.9	32.6
- 1962-63						
East Coast	31.5	31.3	33.4	35.9	32.7	34.3
Upper & Central South	25.9	24.5	31.0	32.6	29.1	30.1
Delta	35.0	33.3	39.3	39.8	39.0	39.4
West	28.2	24.5	33.7	34.7	34.2	34.8
- 1961-63						
East Coast	31.3	30.9	33.0	34.5		
Upper & Central South	28.2	26.1	32.1	33.0		
Delta	36.2	34.0	39.0	39.2		
West	31.1	28.0	35.7	34.7		
Oil Content - 1963	20.8	21.0	20.5	20.6	20.7	20.6
- 1962-63	20.8	20.8	20.7	20.8	21.0	20.9
- 1961-63	20.9	21.0	20.7	20.7		
Protein Content - 1963	38.5	38.7	38.5	39.4+	40.2+	40.1+
- 1962-63	39.0	39.1	38.6	39.5	40.5	40.1
- 1961-63	39.3	39.2	38.9	39.9		
Seed Size	12.1	13.9+	12.7+	12.6	14.8+	14.0+
Maturity Index	10-3	0	+6	+4	+7	+5
Height	32	35	32	30	34	34
Bacterial Pustule	1.0	4.0	1.0	1.0	1.0	1.0
Phytophthora Rot	1.0	2.0	1.0	1.0	1.0	1.7
Mildew	3.5	4.2	1.6	2.5	1.2	2.6
Shattering	1.1	1.9	1.7	1.1	1.5	1.8
Damaged Seed (%)	6	15	9	8	25	11
Mottled Seed (%)	2.0	0	5.0	2.5	4.5	15

Bacterial Pustule - Stoneville and Portageville data
Phytophthora Rot - Stoneville and Keiser Data
Mildew - Georgetown and Portageville data
Shattering - average of 6 locations
Damaged Seed - Henderson data
Mottled Seed - Plymouth and Petersburg data

Table 8. - (continued)

	N59-6926	N59-6955	D59-428	N59-6948	N60-6053	R60-66
Seed Yield - 1963						
East Coast	33.7+	34.2+	33.0+	31.1	32.1	33.7+
Upper & Central South	29.7	30.2	32.1+	29.9	28.5	32.9+
Delta	38.8	39.7	38.6	37.9	37.3	39.8
West	31.8	35.9+	31.5	30.0	29.7	34.2+
- 1962-63						
East Coast	35.1	35.2				
Upper & Central South	29.5	29.6				
Delta	38.7	38.7				
West	35.1	35.5				
- 1961-63						
East Coast						
Upper & Central South						
Delta						
West						
Oil Content - 1963	20.6	20.7	21.9+	20.2-	19.4-	20.9
- 1962-63	20.8	21.1				
- 1961-63						
Protein Content - 1963	39.5+	38.8	39.2+	39.4+	40.8+	39.7+
- 1962-63	39.7	39.0				
- 1961-63						
Seed Size	13.5+	12.7+	14.6+	14.7+	12.7+	14.2+
Maturity Index	+7	+6	+1	+7	+6	+1
Height	32	33	33	33	33	32
Bacterial Pustule	1.0	1.0	1.0	1.0	1.0	1.0
Phytophthora Rot	1.0	1.3	1.3	1.0	1.0	1.0
Mildew	1.0	4.2	2.9	1.0	2.5	1.0
Shattering	2.1	1.3	2.5	1.8	2.1	2.7
Damaged Seed (%)	16	17	16	22	6	18
Mottled Seed (%)	8.0	0	5.5	5.0	2.5	0

Table 9. - Seed yield, in bushels per acre, for the strains in Uniform Group V, 1963

Location	Hill	Dorman	D59-415	D59-693	N59-6821	N59-6921	N59-6926
			East Coast				
Georgetown, Del.	25.3	21.3	28.0	29.1	24.2	27.1	28.0
Linkwood, Md.	30.5	28.1	32.8	33.2	30.5	31.4	31.1
Warsaw, Va.	13.1	15.2	15.0	15.7	14.2	16.3	14.7
Painter, Va.	29.3	28.1	37.1	35.4	32.9	33.9	35.7
Petersburg, Va.	34.2	35.8	34.5	39.3	34.0	33.8	33.1
Norfolk, Va.	32.6	34.4	34.8	35.5+	33.5	33.9	39.4+
Holland, Va.	41.6	37.9	38.6	45.0	38.4	41.6	41.8
Plymouth, N. C.	42.1	44.7	44.2	43.7	43.4	46.0	45.7
Mean	31.1	30.7	33.1+	34.6+	31.4	33.0+	33.7+
			Upper and Central South				
Orange, Va.	21.6	19.6	26.9	26.1	22.6	31.2	23.1
Milan, Tenn.	21.3	23.7	26.0	35.7+	27.6	25.9	21.7
Jackson, Tenn.	21.4	13.7-	12.5-	19.3	16.1-	18.3	15.0-
Belle Mina, Ala.	16.8	12.1-	18.6	19.2	14.9	17.5	14.4
Blairsville, Ga.	32.9	41.4	39.2	37.2	35.8	36.4	35.6
Experiment, Ga.	50.3	51.0	61.2+	57.5+	55.4	56.1	59.7+
State College, Miss.	28.7	26.5	35.9+	38.1+	36.9+	33.9+	38.2+
Mean	27.4	26.8	31.5+	33.3+	29.9	31.3+	29.7
			Delta				
Henderson, Ky.	34.0	35.1	44.9+	39.0	37.2	41.7+	40.2+
Portageville, Mo. (A)	49.9	48.4	49.5	49.3	48.2	48.4	49.4
Keiser, Ark.(A)	30.5	29.1	27.2	28.7	28.2	30.4	28.7
Keiser, Ark.(B)	26.1	30.8	37.4+	36.7+	27.8	32.8+	32.4
Marianna, Ark.	34.6	33.2	34.7	37.7	30.0	33.7	39.1
Stoneville, Miss.(A)	33.2	30.2	36.4	35.4	44.1	31.2	36.3
Stoneville, Miss.(B)	37.3	29.6	33.0	34.6	35.3	37.7	33.6
St. Joseph, La.	38.3	47.0+	48.2+	46.1	54.7+	49.3+	50.7+
Mean	35.5	35.4	38.9	38.4	38.2	38.1	38.8
			West				
Stuttgart, Ark.	32.8	33.6	41.3+	38.7	35.3	33.9	39.3+
Curtis, La.	24.5	20.9	35.1	28.4	36.2+	36.3+	34.9
Bixby, Okla.	33.8	26.2	30.3	37.4	30.2	32.1	30.2
Lubbock, Texas	19.9	13.0-	17.8	17.3	15.1	17.5	15.2
Halfway, Texas	32.8	31.6	35.9	35.3	37.6	43.3+	39.3+
Mean	28.8	25.1	32.1	31.4	30.9	32.6	31.8

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

Table 9. - (continued)

Location	N59-6955	D59-428	N59-6948	N60-6053	R60-66	L.S.D. (.05)	C.V.
			East Coast				
Georgetown, Del.	24.8	26.1	24.1	28.2	27.4	N.S.	10%
Linkwood, Md.	33.1	32.2	26.9	30.4	32.4	N.S.	10%
Warsaw, Va.	13.5	15.6	15.3	13.1	14.5	N.S.	12%
Painter, Va.	36.3	33.8	34.5	32.9	38.4	N.S.	11%
Petersburg, Va.	39.5	36.0	34.9	35.6	31.5	N.S.	11%
Norfolk, Va.	36.3+	35.7+	31.4	32.2	34.6	2.7	5%
Holland, Va.	44.8	41.1	39.3	42.0	45.9+	4.3	6%
Plymouth, N. C.	45.0	43.1	42.6	42.8	45.1	N.S.	8%
Mean	34.2+	33.0+	31.1	32.1	33.7+	1.6	
			Upper and Central South				
Orange, Va.	25.6	28.4	24.1	20.0	23.1	N.S.	17%
Milan, Tenn.	23.7	30.9+	23.0	21.3	32.2+	7.1	16%
Jackson, Tenn.	21.8	18.4	20.8	18.2	14.0-	4.8	16%
Belle Mina, Ala.	12.7-	16.2	12.9-	15.4	19.3	3.0	11%
Blairsville, Ga.	37.4	42.2	41.2	36.3	43.6	N.S.	14%
Experiment, Ga.	53.2	54.9	51.0	52.3	58.6+	6.9	7%
State College, Miss.	37.3+	33.9+	36.1+	35.8+	39.7+	5.0	8%
Mean	30.2	32.1+	29.9	28.5	32.9+	3.4	
			Delta				
Henderson, Ky.	40.7+	37.6	38.7	36.8	45.7+	5.4	8%
Portageville, Mo. (A)	49.0	48.9	47.7	50.3	54.2	N.S.	7%
Keiser, Ark.(A)	30.7	32.9	27.3	31.5	28.7	N.S.	10%
Keiser, Ark.(B)	34.9+	27.1	28.3	30.2	29.2	6.6	13%
Marianna, Ark.	33.9	35.1	32.4	34.9	34.0	N.S.	9%
Stoneville, Miss.(A)	39.1	36.0	37.8	34.6	39.9	N.S.	13%
Stoneville, Miss.(B)	37.6	42.9	36.0	38.1	38.8	N.S.	12%
St. Joseph, La.	51.3+	48.2+	54.5+	41.8	47.7+	8.0	10%
Mean	39.7	38.6	37.9	37.3	39.8	N.S.	
			West				
Suttugart, Ark.	39.1+	31.8	37.2	37.5	42.0+	6.3	10%
Curtis, La.	45.5+	39.3+	39.1+	32.8	40.0+	11.3	19%
Bixby, Okla.	34.6	32.5	28.9	29.7	34.8	N.S.	13%
Lubbock, Texas	18.4	17.2	15.0	16.7	14.5	5.9	21%
Halfway, Texas	41.3+	36.8	29.6	31.8	40.0	5.3	8%
Mean	35.9+	31.5	30.0	29.7	34.2+	4.7	

Table 10. - Chemical composition and seed size for the strains in Uniform Group V, 1963

Location	Hill	Dorman	D59-415	D59-693	N59-6821	N59-6921
			Oil Percentage			
Linkwood, Md.	21.2	21.0	21.4	21.0	21.4	20.9
Georgetown, Del.	20.5	19.8	19.5	19.6	19.6	19.0
Warsaw, Va.	19.2	20.6	19.9	19.2	20.2	19.3
Plymouth, N. C.	20.4	20.4	19.5	19.2	19.8	20.1
Henderson, Ky.	19.8	19.1	19.2	20.0	20.0	19.6
Portageville, Mo.	21.8	22.4	21.5	22.0	21.7	21.8
Keiser, Ark.(B)	22.5	21.4	21.3	21.7	21.5	22.1
Stoneville, Miss.(B)	20.4	21.6	21.6	21.1	22.0	21.4
Stuttgart, Ark.	21.2	22.4	20.5	21.0	21.1	20.3
Bixby, Okla.	20.9	21.4	20.3	20.9	19.8	21.4
Mean	20.8	21.0	20.5	20.6	20.7	20.6
			Protein Percentage			
Linkwood, Md.	36.1	36.7	36.0	37.3	38.1	38.7
Georgetown, Del.	38.3	38.3	38.7	38.8	40.0	40.5
Warsaw, Va.	41.6	40.2	39.2	40.1	43.0	42.2
Plymouth, N. C.	37.2	38.4	38.6	39.4	39.0	38.8
Henderson, Ky.	40.6	41.3	40.1	41.0	41.9	41.4
Portageville, Mo.	37.2	38.4	37.9	38.1	39.2	39.1
Keiser, Ark.(B)	36.0	38.5	38.2	38.5	39.2	37.9
Stoneville, Miss.(B)	38.6	37.4	37.6	37.8	37.8	38.8
Stuttgart, Ark.	39.1	37.5	38.1	41.1	40.3	42.5
Bixby, Okla.	39.8	40.0	40.7	41.9	43.8	41.5
Mean	38.5	38.7	38.5	39.4+	40.2+	40.1+
			Grams per 100 Seeds			
Linkwood, Md.	12.8	15.1	13.9	13.5	15.1	14.6
Georgetown, Del.	11.4	14.0	11.4	12.0	14.2	13.3
Warsaw, Va.	13.0	16.7	13.7	14.0	16.7	16.0
Plymouth, N. C.	12.2	13.4	12.6	12.4	16.0	14.9
Henderson, Ky.	13.5	14.0	13.6	14.1	16.5	15.1
Keiser, Ark.(B)	13.0	15.0	13.7	12.0	14.3	13.0
Stoneville, Miss.(B)	10.0	10.2	10.0	10.6	11.8	11.0
Suttgart, Ark.	11.3	13.3	11.7	12.0	15.0	14.0
Bixby, Okla.	11.5	13.3	13.4	13.0	14.0	14.3
Mean	12.1	13.9+	12.7+	12.6	14.8+	14.0+

Table 10. - (continued)

Location	N59-6926	N59-6955	D59-428	N59-6948	N60-6053	R60-66	L.S.D. (.05)
			Oil Percentage				
Linkwood, Md.	21.4	21.8	22.4	20.5	20.4	21.2	
Georgetown, Del.	20.1	20.1	20.7	19.8	19.2	20.3	
Warsaw, Va.	20.0	19.4	20.8	19.6	19.8	20.4	
Plymouth, N. C.	20.5	20.3	21.3	19.7	18.2	20.1	
Henderson, Ky.	19.9	19.7	20.7	19.0	18.5	19.7	
Portageville, Mo.	21.8	21.7	22.7	21.0	20.0	22.1	
Keiser, Ark.(B)	21.4	22.0	23.8	21.0	20.0	21.1	
Stoneville, Miss.(B)	20.9	21.7	22.7	21.0	19.7	21.3	
Stuttgart, Ark.	18.8	20.1	22.1	20.1	18.9	21.1	
Bixby, Okla.	20.7	20.0	22.0	20.2	18.9	21.4	
Mean	20.6	20.7	21.9+	20.2-	19.4-	20.9	0.4
			Protein Percentage				
Linkwood, Md.	36.5	36.4	37.7	37.5	38.3	37.3	
Georgetown, Del.	39.2	38.1	38.0	37.9	40.5	39.7	
Warsaw, Va.	41.2	40.2	42.2	41.3	42.9	41.4	
Plymouth, N. C.	38.9	37.8	38.5	39.2	39.2	40.2	
Henderson, Ky.	41.0	40.8	40.8	41.5	41.1	42.7	
Portageville, Mo.	37.9	39.3	37.9	38.9	39.6	38.1	
Keiser, Ark.(B)	38.0	37.3	37.3	37.8	39.5	39.2	
Stoneville, Miss.(B)	39.0	37.4	38.9	38.0	40.9	37.5	
Stuttgart, Ark.	40.9	39.1	39.0	40.5	42.8	40.0	
Bixby, Okla.	42.4	41.9	41.5	41.8	43.6	41.0	
Mean	39.5+	38.8	39.2+	39.4+	40.8+	39.7+	0.7
			Grams per 100 Seeds				
Linkwood, Md.	14.1	12.5	15.6	16.1	13.2	14.5	
Georgetown, Del.	14.6	12.2	13.5	15.0	12.9	14.2	
Warsaw, Va.	15.0	14.0	16.7	16.0	14.0	16.3	
Plymouth, N. C.	14.4	13.1	14.8	15.9	12.2	14.7	
Henderson, Ky.	15.2	14.0	15.4	16.0	13.9	15.1	
Keiser, Ark.(B)	12.7	12.7	14.3	14.3	13.7	13.7	
Stoneville, Miss.(B)	10.2	11.0	12.4	11.3	10.4	11.6	
Suttgart, Ark.	12.0	11.3	13.7	13.0	11.0	13.7	
Bixby, Okla.	13.5	13.1	15.2	14.7	12.8	14.1	
Mean	13.5+	12.7+	14.6+	14.7+	12.7+	14.2+	0.6

Table 11. - Relative maturity, days earlier (-) or later (+) than Hill, for the strains in Uniform Group V, 1963

Location	Date Planted	Hill Matured	Dorman	D59-415	D59-693	N59-6821
			East Coast			
Georgetown, Del.	5-30	10-17	+4	+8	+6	+8
Linkwood, Md.	5-22	10-8	+3	+6	+8	+10
Warsaw, Va.	5-28	10-10	+1	+6	+6	+6
Painter, Va.	--	10-22	+3	+7	+6	+12
Petersburg, Va.	5-21	10-10	+5	+8	+3	+9
Holland, Va.	6-11	10-29	-1	+1	+4	+5
Plymouth, N. C.	5-20	9-29	+7	+11	+9	+13
Mean		10-14	+3	+7	+6	+9
			Upper and Central South			
Orange, Va.	5-20	10-17	0	+3	+6	+3
Milan, Tenn.	5-22	9-28	+5	+7	+11	+10
Jackson, Tenn.	6-10	10-2	-1	+9	+8	+9
Belle Mina, Ala.	5-23	10-7	-9	-3	-7	-5
Experiment, Ga.	5-8	9-15	+1	+9	+6	+8
State College, Miss.	5-6	9-10	0	+13	+8	+13
Mean		9-28	0	+6	+5	+6
			Delta			
Henderson, Ky.	5-7	10-16	+3	+9	+4	+8
Portageville, Mo.(A)	5-17	9-28	+5	+8	+7	+8
Keiser, Ark.(A)	5-7	9-19	0	+8	+6	+7
Keiser, Ark.(B)	5-6	10-1	+2	+3	0	+3
Marianna, Ark.	5-15	9-30	+5	+5	+5	+5
Stoneville, Miss.(A)	5-9	9-9	-3	+9	+9	+12
Stoneville, Miss.(B)	5-16	9-18	+2	+10	+12	+14
St. Joseph, La.	5-28	9-20	+2	+7	+6	+9
Mean		9-25	+2	+7	+6	+8
			West			
Stuttgart, Ark.	6-3	10-2	0	0	0	+3
Curtis, La.	5-22	9-20	-4	+5	+5	+7
Lubbock, Texas	6-18	10-15	-12	+1	+1	0
Halfway, Texat	6-8	10-15	+5	+3	+5	+4
Mean		10-3	-3	+2	+3	+4

Table 11. - (continued)

Location	N59-6921	N59-6926	N59-6955	D59-428	N59-6948	N60-6053	R60-66
			East Coast				
Georgetown, Del.	+8	+7	+6	+6	+7	+2	-1
Linkwood, Md.	+9	+9	+7	-1	+9	+5	+3
Warsaw, Va.	+10	+5	0	0	+7	+2	-3
Painter, Va.	+11	+12	+7	+3	+12	+7	+2
Petersburg, Va.	+12	+6	+7	+2	+7	+7	-1
Holland, Va.	+2	+5	+2	+2	+5	+2	0
Plymouth, N. C.	+11	+13	+11	+2	+13	+7	+7
Mean	+9	+8	+6	+2	+9	+5	+1
			Upper and Central South				
Orange, Va.	+9	+4	+1	+3	+3	+3	-3
Milan, Tenn.	+10	+11	+9	+5	+11	+5	+3
Jackson, Tenn.	+9	+7	+7	+6	+2	+5	+2
Belle Mina, Ala.	-3	0	-5	-5	-2	0	-7
Experiment, Ga.	+7	+12	+9	+1	+7	+2	+1
State College, Miss.	+14	+12	+8	0	+13	+5	0
Mean	+8	+8	+5	+2	+6	+3	0
			Delta				
Henderson, Ky.	+7	+7	+2	+1	+6	-2	+2
Portageville, Mo.(A)	+8	+7	+7	+4	+8	+4	+5
Keiser, Ark.(A)	+8	+11	+8	0	+8	+4	+4
Keiser, Ark.(B)	+1	+3	+5	-1	+2	+6	+4
Marianna, Ark.	+5	+6	+5	0	+5	+3	+5
Stoneville, Miss.(A)	+10	+12	+10	+1	+13	+7	+2
Stoneville, Miss.(B)	+9	+13	+14	+3	+12	+9	+3
St. Joseph, La.	+6	+9	+8	+3	+5	+6	+4
Mean	+7	+9	+7	+1	+7	+5	+4
			West				
Stuttgart, Ark.	0	+3	0	0	+3	0	0
Curtis, La.	+5	+6	+5	-5	+8	+5	+2
Lubbock, Texas	+3	0	0	0	0	0	-2
Halfway, Texas	+5	+2	+3	+5	0	+1	+5
Mean	+3	+3	+2	0	+3	+1	+1

Table 12. - Plant height data for the strains in Uniform Group V, 1963

Location	Hill	Dorman	D59-415	D59-693	N59-6821	N59-6921
			East Coast			
Georgetown, Del.	28	36	30	29	29	32
Linkwood, Md.	36	41	33	30	36	37
Warsaw, Va.	26	34	25	26	27	27
Painter, Va.	26	32	31	26	31	31
Petersburg, Va.	37	37	30	27	35	34
Norfolk, Va.	26	28	28	29	24	26
Holland, Va.	45	46	40	37	43	42
Plymouth, N. C.	33	35	31	33	34	35
Mean	32	36	31	30	32	33
			Upper and Central South			
Orange, Va.	40	47	38	34	41	43
Milan, Tenn.	33	38	32	30	38	32
Jackson, Tenn.	41	45	38	37	41	41
Belle Mina, Ala.	33	34	34	31	35	37
Blairsville, Ga.	38	37	34	33	37	41
Experiment, Ga.	34	37	35	31	33	38
State College, Miss.	36	38	32	35	36	36
Mean	36	39	35	33	37	38
			Delta			
Henderson, Ky.	41	48	40	36	44	35
Portageville, Mo.(A)	43	48	43	38	46	46
Keiser, Ark.(A)	32	35	33	30	35	37
Keiser, Ark.(B)	32	34	31	29	34	33
Marianna, Ark.	26	30	31	30	35	34
Stoneville, Miss.(A)	39	35	34	33	39	37
Stoneville, Miss.(B)	29	29	29	28	30	35
St. Joseph, La.	27	27	26	26	29	30
Mean	34	36	33	31	37	36
			West			
Stuttgart, Ark.	30	32	29	28	30	30
Curtis, La.	14	20	20	20	18	22
Bixby, Okla.	29	31	36	32	34	35
Lubbock, Texas	18	18	17	16	18	18
Halfway, Texas	28	29	27	24	29	31
Mean	24	26	26	24	26	27

Table 12. - (continued)

Location	N59-6926	N59-6955	D59-428	N59-6948	N60-6053	R60-66
			East Coast			
Georgetown, Del.	30	26	27	28	27	30
Linkwood, Md.	36	34	35	37	38	36
Warsaw, Va.	26	28	26	27	24	22
Painter, Va.	31	30	28	31	30	25
Petersburg, Va.	31	38	33	37	35	31
Norfolk, Va.	26	29	28	29	32	35
Holland, Va.	41	46	42	45	44	39
Plymouth, N. C.	36	34	37	35	32	33
Mean	32	33	32	34	33	31
			Upper and Central South			
Orange, Va.	40	44	44	43	41	33
Milan, Tenn.	34	33	31	35	31	36
Jackson, Tenn.	41	42	41	41	41	39
Belle Mina, Ala.	34	34	35	36	34	33
Blairsville, Ga.	36	39	37	39	39	32
Experiment, Ga.	35	36	38	37	33	32
State College, Miss.	32	35	38	32	32	35
Mean	36	38	38	38	36	34
			Delta			
Henderson, Ky.	38	40	42	34	45	42
Portageville, Mo.(A)	44	46	47	42	46	42
Keiser, Ark.(A)	32	33	35	35	34	35
Keiser, Ark.(B)	31	33	32	32	32	30
Marianna, Ark.	32	31	29	29	28	28
Stoneville, Miss.(A)	37	35	37	37	37	37
Stoneville, Miss.(B)	26	30	32	29	29	34
St. Joseph, La.	27	29	30	25	23	28
Mean	33	35	36	33	34	35
			West			
Stuttgart, Ark.	29	30	28	29	30	30
Curtis, La.	16	21	22	16	17	22
Bixby, Okla.	34	34	31	32	31	32
Lubbock, Texas	15	17	16	18	19	18
Halfway, Texas	27	29	30	26	29	26
Mean	24	26	26	24	25	26

Table 13. - Lodging scores for the strains in Uniform Group V, 1963

Location	Hill	Dorman	D59-415	D59-693	N59-6821	N59-6921
			East Coast			
Georgetown, Del.	2.0	3.3	2.0	2.3	2.0	1.7
Linkwood, Md.	3.2	3.2	2.7	2.8	3.0	3.2
Warsaw, Va.	1.3	1.7	1.0	1.0	1.0	1.0
Painter, Va.	1.7	2.8	1.8	1.3	1.3	1.5
Petersburg, Va.	1.7	2.0	1.0	1.0	1.0	1.0
Norfolk, Va.	2.0	3.0	2.0	3.0	3.0	3.0
Holland, Va.	3.7	3.7	3.3	2.3	2.3	3.0
Plymouth, N. C.	2.7	3.0	2.7	2.7	2.0	2.7
			Upper and Central South			
Orange, Va.	1.0	1.0	1.3	1.0	1.7	1.7
Milan, Tenn.	1.0	1.0	1.0	1.0	1.0	1.0
Jackson, Tenn.	2.0	3.0	1.0	1.0	2.0	1.0
Belle Mina, Ala.	2.0	2.0	1.0	1.0	1.0	1.0
Blairsville, Ga.	3.3	3.0	1.3	1.7	1.7	1.7
Experiment, Ga.	2.0	2.0	2.0	2.0	1.0	2.0
State College, Miss.	2.0	3.0	2.0	1.0	1.0	2.0
			Delta			
Henderson, Ky.	3.0	4.0	2.0	3.0	2.0	3.0
Portageville, Mo.(A)	1.4	2.3	1.5	1.1	1.0	2.2
Keiser, Ark.(A)	1.7	2.0	1.0	1.0	1.0	1.0
Keiser, Ark.(B)	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, Ark.	1.7	3.3	2.0	2.0	1.3	3.7
Stoneville, Miss.(A)	2.3	2.3	1.3	2.0	2.3	3.0
Stoneville, Miss.(B)	1.0	1.7	1.3	1.7	1.7	2.0
St. Joseph, La.	2.0	3.0	2.0	2.0	2.0	2.0
			West			
Stuttgart, Ark.	1.0	1.0	1.0	1.0	1.0	1.0
Curtis, La.	1.0	1.0	1.0	1.0	1.0	2.0
Bixby, Okla.	1.0	1.7	1.1	1.0	1.2	1.0
Lubbock, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Halfway, Texas	1.0	1.7	1.0	1.3	1.7	1.0

Table 13. - (continued)

Location	N59-6926	N59-6955	D59-428	N59-6948	N60-6053	R60-66
			East Coast			
Georgetown, Del.	1.8	1.8	1.3	1.7	2.2	2.7
Linkwood, Md.	2.5	3.2	2.8	2.8	3.0	3.0
Warsaw, Va.	1.0	1.0	1.0	1.0	1.3	1.0
Painter, Va.	1.6	1.5	1.5	1.7	2.5	1.7
Petersburg, Va.	1.0	1.0	1.0	1.0	2.0	1.0
Norfolk, Va.	2.0	3.0	2.0	3.0	2.0	3.0
Holland, Va.	2.7	3.7	2.7	3.0	3.3	2.3
Plymouth, N. C.	3.0	3.0	3.0	2.7	2.7	3.0
			Upper and Central South			
Orange, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Milan, Tenn.	1.0	1.0	1.0	1.0	1.0	1.0
Jackson, Tenn.	2.0	2.0	1.0	1.0	2.0	1.0
Belle Mina, Ala.	1.0	1.0	1.0	1.0	1.7	1.0
Blairsville, Ga.	2.0	2.7	1.7	1.7	2.0	1.7
Experiment, Ga.	2.0	2.0	2.0	1.0	2.0	2.0
State College, Miss.	2.0	2.0	1.0	2.0	2.0	2.0
			Delta			
Henderson, Ky.	3.0	3.0	3.0	3.0	4.0	4.0
Portageville, Mo. (A)	1.4	1.4	1.3	1.3	1.1	1.3
Keiser, Ark.(A)	1.0	1.0	1.3	1.0	1.0	1.7
Keiser, Ark.(B)	1.0	1.0	1.0	1.0	1.3	1.0
Marianna, Ark.	2.3	2.3	1.0	2.7	2.3	3.0
Stoneville, Miss.(A)	2.3	2.3	2.0	1.7	2.3	3.0
Stoneville, Miss.(B)	1.7	1.7	1.0	2.0	2.0	2.0
St. Joseph, La.	2.0	2.0	2.0	2.0	2.0	4.0
			West			
Stuttgart, Ark.	1.0	1.3	1.0	1.0	1.0	1.0
Curtis, La.	1.0	1.0	1.0	1.0	1.0	1.0
Bixby, Okla.	1.0	1.1	1.0	1.0	1.1	2.3
Lubbock, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Halfway, Texas	1.7	3.3	1.0	2.3	1.0	1.0

Table 14. - Seed quality scores for the strains in Uniform Group V, 1963

Location	Hill	Dorman	D59-415	D59-693	N59-6821	N59-6921
			East Coast			
Georgetown, Del.	2.0	1.8	3.0	2.2	2.5	2.7
Linkwood, Md.	2.0	2.0	3.0	2.0	3.0	3.0
Warsaw, Va.	1.0	1.3	1.0	1.0	1.4	2.0
Painter, Va.	1.5	1.0	2.1	1.0	1.9	2.9
Petersburg, Va.	1.0	1.0	1.7	1.3	2.0	2.0
Norfolk, Va.	3.0	1.0	2.0	2.0	1.0	3.0
Holland, Va.	2.0	2.0	2.0	2.0	1.5	1.5
Plymouth, N. C.	1.0	2.5	1.5	1.0	1.5	1.5
			Upper and Central South			
Orange, Va.	1.0	1.0	1.3	1.0	1.7	1.7
Milan, Tenn.	2.0	3.0	3.0	2.0	3.0	3.0
Jackson, Tenn.	3.0	3.0	3.0	3.0	3.0	3.0
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
State College, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
			Delta			
Henderson, Ky.	1.5	2.0	2.5	2.0	2.5	3.0
Portageville, Mo.(A)	1.3	1.5	1.5	1.3	1.8	1.8
Keiser, Ark.(A)	1.7	2.0	2.3	2.3	3.0	3.0
Keiser, Ark.(B)	2.0	2.7	2.3	1.7	3.0	2.7
Marianna, Ark.	2.7	2.3	2.7	2.3	3.7	3.0
Stoneville, Miss.(A)	2.0	2.0	1.7	2.0	2.0	2.0
Stoneville, Miss.(B)	2.0	2.0	2.0	1.3	2.3	2.0
St. Joseph, La.	1.0	2.0	2.0	2.0	3.0	2.0
			West			
Stuttgart, Ark.	2.0	1.7	2.0	1.3	2.3	2.0
Curtis, La.	3.0	2.0	1.0	2.0	1.0	2.0
Bixby, Okla.	3.2	2.6	3.4	2.8	2.4	3.8
Lubbock, Texas	2.0	2.0	3.0	3.0	3.0	3.0

Table 14. - (continued)

Location	N59-6926	N59-6955	D59-428	N59-6948	N60-6053	R60-66
			East Coast			
Georgetown, Del.	2.5	2.0	2.5	2.3	2.5	2.0
Linkwood, Md.	2.0	2.0	3.0	2.0	3.0	3.0
Warsaw, Va.	1.0	1.0	1.9	2.3	1.3	2.1
Painter, Va.	1.2	1.1	1.1	2.0	1.2	1.7
Petersburg, Va.	1.7	1.0	1.7	1.0	1.0	1.3
Norfolk, Va.	3.0	1.0	3.0	1.0	2.0	3.0
Holland, Va.	2.0	2.0	2.5	1.5	1.5	2.0
Plymouth, N. C.	2.0	1.5	1.5	2.5	1.5	2.0
			Upper and Central South			
Orange, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Milan, Tenn.	2.0	2.0	3.0	3.0	3.0	2.0
Jackson, Tenn.	3.0	3.0	3.0	3.0	3.0	3.0
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
State College, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
			Delta			
Henderson, Ky.	2.0	2.0	2.5	2.0	1.0	1.5
Portageville, Mo.(A)	1.8	1.6	1.4	1.6	1.4	1.9
Keiser, Ark.(A)	3.0	2.0	2.3	3.0	2.0	2.3
Keiser, Ark.(B)	2.7	2.3	3.0	2.7	2.3	3.0
Marianna, Ark.	3.0	2.3	3.0	3.3	2.3	2.7
Stoneville, Miss.(A)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, Miss.(B)	2.0	2.0	2.0	2.3	1.7	2.0
St. Joseph, La.	2.0	1.0	3.0	3.0	1.0	2.0
			West			
Stuttgart, Ark.	2.0	1.3	2.0	2.0	1.7	2.3
Curtis, La.	2.0	1.0	2.0	2.0	2.0	1.0
Bixby, Okla.	4.0	3.4	2.8	4.0	3.7	3.8
Lubbock, Texas	3.0	3.0	3.0	3.0	3.0	2.0

PRELIMINARY GROUP V

1963

Preliminary Group V nurseries were grown at six locations. The parentage of these lines is reported in table 15. Performance data are summarized in tables 16 through 21. Differences in seed yield were significant in four of the plantings. The combined analysis of variance for seed yield data showed that four strains produced significantly higher average seed yields than Hill. None of these was significantly higher in yield than the strain D59-693, which was also included as a check.

The four lines D61-632, UD1139, UD1231, and V61-39 yielded significantly less than Hill on the basis of the combined analysis of variance for seed yield. D61-632 is a large seeded type (24 grams per 100) selected from Hill x Hahto. Under the conditions of the 1963 tests, shattering was severe and the low yield is perhaps at least partially the result of seed loss. UD1139, UD1231, and V61-39 were low in the Keiser and Stoneville plantings. In both plantings they showed injury from phytophthora rot, while at Stoneville they also showed heavy development of bacterial pustule.

Conditions were generally favorable for shattering after maturity. There were 17 strains which were rate 2 or greater for shattering.

Several of the lines showed a diffusion of hilum color into the seed coat at Plymouth. Five strains had 10% or more of the seed mottled -- D61-426, 27%; D61-528, 12%; R60-136, 24%; UD1085, 12%; and UD1312, 10%.

The lines D61-901, N59-6091, N59-6913, N60-6056, and V61-20 appear most promising for advancing to Uniform Group V.

Table 15. - Parentage of the strains in Preliminary Group V, 1963

	Strain	Parentage	Generation Composited
1.	Hill		
2.	D59-693	Hill x D52-810	F_5
3.	D60-6022	Hill x D49-2491	F_5
4.	D61-410	Hill(2) x PI 171,442	F_5
5.	D61-426	Hill(2) x PI 171,442	F_5
6.	D61-436	Hill(2) x PI 171,442	F_5
7.	D61-528	Hill(2) x PI 171,442	F_5
8.	D61-632	Hill x Hahto	F_5
9.	D61-752	Hill(2) x D51-4877	F_5
10.	D61-768	Hill(2) x D51-4877	F_5
11.	D61-901	Hill(2) x D51-4877	F_5
12.	D61-1076	Hill(2) x D51-4877	F_5
13.	D61-1513	D49-2491(5) x Hawkeye	F_4
14.	N59-6091	Hill x D52-810	F_5
15.	N59-6113	Hill x D52-810	F_5
16.	N59-6311	Hill x D52-810	F_5
17.	N59-6858	Hill x D52-810	F_5
18.	N59-6873	Hill x D52-810	F_5
19.	N59-6913	Hill x D52-810	F_5
20.	N59-6927	Hill x D52-810	F_5
21.	N60-6056	Hill x D49-2491	F_5
22.	N60-6170	Hill x D49-2491	F_5
23.	R59-114	Dortchsoy 67 x Lee	F_4
24.	R60-291	Hood x Jackson	F_4
25.	R60-136	Nat. cross in irradiated Dorman	F_4
26.	R61-421	R54-168 x Hill	F_4
27.	R61-496	R54-168 x Hill	F_4
28.	UD1085	FC33243 x D49-2491	F_5
29.	UD1110	FC33243 x D49-2491	F_5
30.	UD1139	FC33243 x D49-2491	F_5
31.	UD1229	FC33243 x D49-2491	F_5
32.	UD1231	FC33243 x D49-2491	F_5
33.	UD1312	FC33243 x D49-2491	F_5
34.	V61-20	Dorman x Hood	
35.	V61-39	Dorman x Va. Sel. #2	
36.	V61-46	Dorman x Va. Sel. #2	

Table 16. - General summary of performance for the strains grown in Preliminary Group V, 1963

Strain	Seed Yield	Maturity Index	Ht.	Percent Oil	Percent Protein	Shatter	B.P.	P.R.	Mildew
Hill	29.3	10-3	33	21.2	38.2	1.0	1.0	1.0	3.5
D59-693	32.1	+6	31	20.7	38.7	1.0	1.0	1.0	1.5
D60-6022	30.0	+10	31	19.8-	39.8+	1.0	1.0	1.0	1.8
D61-410	28.2	+4	33	20.6	39.2	1.1	1.0	1.0	1.6
D61-426	28.3	+2	32	20.8	39.6+	3.7	1.0	1.0	1.0
D61-436	26.3	0	29	21.2	38.4	3.7	1.0	1.0	1.0
D61-528	28.3	-1	29	20.5	38.8	3.7	1.0	1.0	2.3
D61-632	15.6-	+8	27	19.8-	40.7+	5.0	1.0	1.0	1.0
D61-752	29.3	+3	36	21.1	37.9	2.8	1.0	1.0	2.5
D61-768	31.1	+8	33	20.6	38.3	2.0	1.0	1.0	3.5
D61-901	32.4	+7	38	20.5	37.4	1.0	1.0	1.0	2.5
D61-1076	30.7	+8	38	20.4-	37.9	1.0	1.0	1.0	3.6
D61-1513	29.9	+8	30	21.1	39.4	1.0	1.0	1.0	1.5
N59-6091	33.4+	+3	33	19.6-	40.3+	1.5	1.0	1.0	2.4
N59-6113	29.4	+7	34	20.6	40.1+	1.5	1.0	2.0	2.9
N59-6311	28.1	+15	38	20.0-	40.0+	1.0	1.0	1.5	2.4
N59-6858	32.7	+7	34	21.5	37.9	1.8	1.0	1.0	1.9
N59-6873	32.7	+8	36	21.1	37.7	2.0	1.0	1.0	1.0
N59-6913	33.8+	+4	30	20.5	38.2	2.0	1.0	1.0	1.4
N59-6927	31.7	+10	32	20.6	38.6	1.8	1.0	1.0	1.2
N60-6056	32.8+	+3	34	20.0-	39.9+	1.0	1.0	1.0	2.5
N60-6170	32.6	+3	31	20.1-	40.0+	2.2	1.0	1.0	3.4
R59-114	29.9	+4	37	20.3-	38.8	3.2	1.0	1.0	1.2
R60-291	32.2	+7	37	20.9	37.5	1.2	1.0	1.0	1.8
R60-136	30.5	+12	35	19.8-	38.3	1.2	1.0	1.0	4.0
R61-421	26.5	+6	34	20.8	39.4	2.2	1.0	1.0	3.9
R61-496	29.7	+4	36	22.1+	36.9	2.0	1.0	1.5	3.8
UD1085	27.4	+10	44	20.1-	40.0+	1.0	3.0	3.0	2.5
UD1110	29.0	+13	44	21.3	38.7	1.5	1.0	2.5	1.9
UD1139	21.5-	-1	26	21.1	39.1	1.8	4.5	2.0	1.2
UD1229	25.9	-4	39	21.6	39.4	3.0	5.0	1.5	1.0
UD1231	24.1-	+1	40	21.4	39.9+	4.0	3.5	2.5	2.5
UD1312	28.7	+1	46	21.5	39.2	4.0	5.0	1.0	1.4
V61-20	33.7+	+6	34	21.1	38.1	1.2	3.5	1.0	2.0
V61-39	25.5-	-4	32	20.6	39.6+	4.3	3.0	2.5	3.2
V61-46	30.8	+5	40	21.2	37.5	2.2	3.0	2.0	2.5
L.S.D.(.05)	3.2			0.8	1.3				
L.S.D.(.01)	4.2			1.1	1.7				

Shattering - Warsaw and Stoneville data
Bacterial Pustule - Portageville and Stoneville data
Phytophthora Rot - Keiser and Stoneville data
Mildew - Georgetown and Portageville data

Table 17. - Seed yield, in bushels per acre, for the strains in Preliminary Group V, 1963

Strain	Georgetown, Del.	Warsaw, Va.	Plymouth, N.C.	Portageville, Mo.1/	Keiser, Ark.(B)	Stoneville, Miss.(B)
Hill	26.3	13.6	40.8	48.9	30.3	35.8
D59-693	30.0	18.1+	45.1	51.3	28.6	39.0
D60-6022	26.9	18.9+	36.8	50.7	30.4	37.1
D61-410	19.4	13.4	42.6	51.1	28.3	37.3
D61-426	18.0-	15.0	47.7	45.0	28.0	33.0
D61-436	20.9	15.7	42.4	43.5	22.0-	30.4
D61-528	22.8	16.8	45.9	42.0	21.4-	34.9
D61-632	18.1	10.3	--	--	15.5-	29.1
D61-752	27.2	15.5	40.4	54.5	27.4	36.1
D61-768	27.2	17.8+	42.0	48.5	35.3	33.4
D61-901	26.8	17.7+	45.6	53.9	31.9	40.3
D61-1076	28.3	15.9	44.1	53.6	27.8	37.5
D61-1513	19.0	15.4	41.0	52.3	36.8	37.3
N59-6091	31.3	16.7	49.1	57.0	27.5	42.3
N59-6113	27.9	15.5	42.6	54.9	30.1	31.0
N59-6311	23.6	15.6	43.7	43.1	25.9	31.9
N59-6858	32.1	16.6	43.0	53.6	34.2	37.5
N59-6873	31.1	15.7	46.3	55.9	29.8	40.8
N59-6813	32.4	17.3+	45.1	52.9	33.7	40.6
N59-6927	22.3	18.5+	50.1	52.4	29.6	37.9
N60-6056	31.6	16.9	46.4	49.4	29.4	40.0
N60-6170	30.7	14.7	47.0	55.6	31.4	39.3
R59-114	28.9	17.3+	40.3	58.0	29.2	34.1
R60-291	28.2	17.2	46.2	48.7	32.0	37.5
R60-136	23.4	15.5	43.2	48.2	34.0	36.5
R61-421	22.7	11.2	40.2	54.5	28.9	29.4
R61-496	25.7	16.7	45.8	59.7	28.3	32.2
UD1085	29.1	17.4+	41.0	41.7	21.5-	27.5
UD1110	27.6	16.8	46.2	39.1	26.9	27.6
UD1139	25.2	17.0	33.9	48.0	16.3-	15.3-
UD1229	21.3	14.0	46.6	47.6	23.1	24.5-
UD1231	22.8	13.6	46.2	43.0	19.2-	18.7-
UD1312	27.8	17.0	43.8	53.0	28.2	26.5-
V61-20	34.2	16.2	49.5	54.5	32.2	36.6
V61-39	24.5	13.6	45.6	46.5	21.5-	22.8-
V61-46	25.4	18.0+	45.9	49.4	33.0	31.8
L.S.D.(.05)	8.3	3.7	N.S.	--	7.6	8.7
C.V.	16%	11%	8%	--	13%	13%

1/ 1 replication.

Table 18. - Oil percentages for the strains in Preliminary Group V, 1963

Strain	Georgetown, Del.	Plymouth, N.C.	Keiser, Ark.(B)	Stoneville, Miss.(B)
Hill	21.1	20.3	22.7	20.6
D59-693	19.3	19.8	21.9	21.6
D60-6022	19.6	19.1	20.2	20.3
D61-410	19.2	20.1	21.9	21.3
D61-426	19.6	20.4	21.8	21.5
D61-436	20.4	20.9	22.5	20.8
D61-528	19.9	19.9	21.8	20.3
D61-632	18.6	--	20.0	20.7
D61-752	19.9	20.8	22.3	21.4
D61-768	20.4	19.2	22.2	20.5
D61-901	19.3	19.2	21.9	21.7
D61-1076	19.4	20.0	21.6	20.6
D61-1513	21.1	20.5	21.3	21.4
N59-6091	19.2	18.1	21.2	19.7
N59-6113	19.7	20.1	21.2	21.4
N59-6311	19.4	19.4	20.4	20.6
N59-6858	20.4	20.7	22.4	22.3
N59-6873	19.9	20.2	21.9	22.2
N59-6913	19.5	19.3	21.4	21.6
N59-6927	19.6	19.9	21.7	21.1
N60-6056	20.2	18.9	20.4	20.6
N60-6170	19.7	19.4	20.6	20.7
R 59-114	20.0	19.9	20.4	21.0
R60-291	19.5	20.2	22.7	21.1
R60-136	18.3	19.3	21.1	20.5
R61-421	19.2	20.6	22.1	21.1
R61-496	20.9	22.1	22.4	23.0
UD1085	20.0	19.9	20.2	20.1
UD1110	20.8	20.9	20.9	22.4
UD1139	20.1	21.2	21.2	21.8
UD1229	20.9	21.3	22.3	22.0
UD1231	21.1	21.1	21.8	21.6
UD1312	21.0	21.9	20.6	22.6
V61-20	20.4	19.9	22.4	21.5
V61-39	19.8	19.1	21.9	21.5
V61-46	20.5	20.4	21.7	22.2

Table 19. - Protein Percentages for the strains in Preliminary Group V, 1963

Strain	Georgetown, Del.	Plymouth, N.C.	Keiser, Ark.(B)	Stoneville, Miss.(B)
Hill	38.3	38.3	36.4	39.8
D59-693	38.4	39.1	38.2	39.1
D60-6022	39.5	39.2	40.0	40.5
D61-410	39.5	39.2	38.0	40.2
D61-426	41.1	39.2	38.4	39.8
D61-436	39.3	38.9	35.1	40.3
D61-528	38.4	39.3	37.9	39.5
D61-632	40.7	--	40.5	40.8
D61-752	37.8	38.4	37.3	38.0
D61-768	39.0	36.9	37.3	40.1
D61-901	38.8	39.1	35.3	36.4
D61-1076	38.5	38.7	35.4	39.0
D61-1513	39.4	40.4	38.5	39.1
N59-6091	39.9	41.7	38.7	40.8
N59-6113	39.5	41.4	38.9	40.6
N59-6311	40.6	41.5	39.0	38.9
N59-6858	39.3	38.9	36.5	36.9
N59-6873	38.6	38.5	35.9	37.8
N59-6913	39.1	39.0	36.6	38.2
N59-6927	39.2	39.3	37.3	38.7
N60-6056	39.4	40.9	39.2	40.1
N60-6170	39.6	41.3	38.8	40.1
R59-114	39.4	38.9	38.5	38.3
R60-291	38.5	39.0	35.9	36.5
R60-136	40.0	39.0	37.4	36.7
R61-421	40.0	40.5	38.3	38.9
R61-496	38.0	37.0	35.6	36.9
UD1085	41.0	40.9	39.5	38.5
UD1110	39.9	39.3	38.5	36.9
UD1139	40.4	39.8	38.1	38.0
UD1229	40.7	40.9	37.7	38.2
UD1231	40.4	40.9	38.5	39.8
UD1312	39.2	39.0	40.4	38.1
V61-20	39.0	39.8	36.1	37.6
V61-39	40.3	40.0	38.3	39.9
V61-46	39.0	38.4	36.6	36.1

Table 20. - Plant height for the strains in Preliminary Group V, 1963

Strain	Georgetown, Del.	Warsaw, Va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.(B)	Stoneville Miss.(B)
Hill	30	28	33	44	33	32
D59-693	27	27	37	39	25	30
D60-6022	27	28	28	42	31	29
D61-410	27	28	34	46	33	31
D61-426	28	30	32	42	35	26
D61-436	27	26	30	38	28	26
D61-528	27	25	30	33	29	29
D61-632	27	28	--	--	27	26
D61-752	38	32	40	36	38	34
D61-768	29	26	35	42	31	34
D61-901	35	33	36	53	34	39
D61-1076	37	29	39	48	38	37
D61-1513	24	24	29	43	28	29
N59-6091	29	28	33	45	33	29
N59-6113	31	27	35	43	35	31
N59-6311	32	31	37	55	37	36
N59-6858	29	28	36	46	31	31
N59-6873	35	28	38	48	33	32
N59-6913	26	24	31	40	27	30
N59-6927	27	28	35	43	32	28
N60-6056	30	28	36	44	33	34
N60-6170	27	25	31	42	32	28
R59-114	34	28	39	50	33	39
R60-291	33	32	39	45	36	34
R60-136	32	31	35	48	33	30
R61-421	31	27	34	50	34	26
R61-496	36	28	37	50	36	28
UD1085	37	29	46	61	46	46
UD1110	34	30	45	62	42	51
UD1139	23	24	27	32	25	23
UD1229	28	25	44	58	35	43
UD1231	30	28	46	58	39	38
UD1312	36	32	46	70	39	54
V61-20	34	28	35	42	33	30
V61-39	29	25	38	40	33	24
V61-46	31	27	46	58	32	47

Table 21. - Seed quality scores for the strains in Preliminary Group V, 1963

Strain	Georgetown, Del.	Warsaw, Va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.(B)	Stoneville, Miss.(B)
Hill	2.8	1.5	1.0	1.3	2.0	2.5
D59-693	2.3	1.0	1.0	1.3	2.0	2.0
D60-6022	2.5	1.0	1.0	1.5	2.0	3.0
D61-410	2.3	2.4	1.0	1.3	2.0	2.5
D61-426	3.0	1.3	1.5	1.5	2.0	2.5
D61-436	2.5	1.0	1.0	1.3	2.0	2.0
D61-528	3.0	2.4	1.0	2.0	2.0	3.5
D61-632	3.0	2.8	--	--	2.0	3.0
D61-752	2.5	1.3	1.5	1.3	2.0	3.0
D61-768	2.5	1.0	1.0	1.3	2.0	2.0
D61-901	2.8	1.3	1.0	1.8	2.0	2.5
D61-1076	3.0	1.0	1.0	1.5	2.0	2.5
D61-1513	2.5	1.0	1.0	1.8	2.0	2.0
N59-6091	2.0	1.9	1.0	1.3	2.0	2.0
N59-6113	2.5	2.0	1.0	1.5	2.0	3.0
N59-6311	3.0	1.0	1.0	1.5	2.0	2.0
N59-6858	2.3	1.3	1.0	1.5	2.0	2.5
N59-6873	2.3	1.0	1.5	1.5	2.0	2.5
N59-6913	1.8	1.0	1.0	1.3	2.0	2.0
N59-6927	2.8	1.0	1.0	2.0	2.0	3.0
N60-6056	2.5	2.0	1.0	1.8	2.0	3.5
N60-6170	2.5	1.0	1.0	1.5	2.0	3.5
R59-114	2.3	1.0	1.0	1.5	2.0	2.5
R60-291	2.0	1.0	1.0	1.3	2.0	2.5
R60-136	3.0	1.3	1.0	2.0	2.0	3.0
R61-421	2.0	1.8	1.0	1.8	2.0	3.0
R61-496	2.0	1.3	1.0	1.3	2.0	2.5
UD1085	2.0	1.0	2.0	2.0	2.0	3.5
UD1110	2.0	1.3	2.0	1.5	2.0	3.0
UD1139	1.8	2.0	1.5	1.3	2.5	3.0
UD1229	2.5	2.4	3.0	2.0	3.0	3.5
UD1231	2.3	2.0	2.0	2.5	3.0	4.0
UD1312	2.0	1.5	1.5	2.0	3.0	4.0
V61-20	2.0	1.8	1.0	1.5	2.0	3.0
V61-39	2.8	1.5	1.5	1.5	2.0	3.5
V61-46	2.3	1.8	1.0	2.3	2.0	4.0

UNIFORM GROUP VI

1963

	Variety or Strain	Parentage	Generation Composited
1.	Hood	Roanoke x N45-745	F_6
2.	Lee	S-100 x CNS	F_6
3.	D59-268	Hill x D52-810	F_5
4.	N59-6800	Hill x D52-810	F_5
5.	N59-6937	Hill x D52-810	F_5
6.	N59-6972	Hill x D52-810	F_5
7.	D60-6458	Hill x D51-4877	F_5
8.	D60-9647	FC31745 x D49-2510	F_6
9.	D60-11,082	D49-2573 x Nansemond	F_6
10.	D60-11,215	D49-2573 x Nansemond	F_6
11.	N60-6407	Hill x D49-2491	F_5
12.	R54-171-1	D49-2573 x N45-1497	

Background of strains used as parents:

N45-745 is a bacterial-pustule-resistant selection from Ogden x CNS.

D52-810 is a selection from Roanoke x Ogden of Ogden type and maturity with yellow seed. It is a selection from N48-1101, which was included in the Uniform Group VI nurseries for the years 1951 through 1953.

FC31745 and Nansemond are farmer selections from southeastern Virginia.

D49-2491 and D49-2510 are sister strains to Lee from the cross S-100 x CNS.

D49-2573 is a selection from Roanoke x N45-745 similar in maturity to Hood, but taller.

N45-1497 is a high oil line selected from Ralsoy x Ogden.

Thirty-eight Group VI nurseries were planted. Results of 32 of these nurseries are summarized in tables 22 through 28, with table 22 giving a general summary of agronomic qualities, chemical composition of the seed, and reaction to several diseases. Two-year data are reported for seed yield by production areas. Two-year means are also reported for oil and protein percentages. Ten-year seed yield and oil and protein percentages are reported for the two varieties Hood and Lee.

Seed yield differences were significant in 24 of the 32 comparisons. The combined analysis of variance for the mean seed yields by production areas show strains to differ in performance in the East Coast, Delta, and Western areas. However, no strain yielded significantly better than Lee within any area. Four strain, N59-6800, N60-6458, D60-9647, and N60-6407, yielded significantly less than Lee in the West.

Ten-year mean yields are reported for Hood and Lee. Hood has a slightly higher mean yield in the East and Upper and Central South areas, while Lee has a higher mean yield in the Southeast and Delta. It is of interest that with the relatively small yield differences in all production areas, Lee is a major variety within each area, while Hood occupies a rather small acreage. This difference in grower acceptance emphasizes the importance of characters in addition to yield. Lee is superior to Hood in seed holding and seed quality. In addition, however, the difficulty to evaluate qualities associated with obtaining a stand and seedling vigor is a factor which causes many growers to prefer Lee over Hood.

Four strains, D59-268, N59-6800, N59-6937, and N59-6972, have been grown two years. All are from the cross Hill x D52-810. N59-6800 and N59-6972 are somewhat earlier maturing than Hood, while D59-268 and N59-6937 are somewhat later maturing. D59-268 has shown superiority over Lee or Hood in the Delta, while N59-6972 has shown promise in the East.

Six strains have been included one year. D60-6458 was weak in seed holding and N60-6407 was rather early at several of the locations. D60-9647 is a high protein line. Mean seed yields were lower than for Lee in each production area. However, D60-9647 did produce as well or better than Lee at 8 locations. D60-11,082 and R54-171-1 produced well. Both are medium-tall types.

It appears that N59-6800, D60-6458, D60-11,215, and N60-6407 can be discontinued.

Table 22. - General summary of the performance for the strains in Uniform Group VI, 1963

	Hood	Lee	D59-268	N59-6800	N59-6937	N59-6972
Seed Yield - 1963						
East Coast	33.6	34.6	33.8	32.0	35.0	36.0
Southeast	34.6	31.5	34.2	32.0	32.3	29.1
Upper & Central South	31.4	31.3	26.7	27.3	30.3	30.8
Delta	33.6	38.7+	41.8+	40.0+	41.2+	40.7+
West	23.4	31.8+	30.2+	25.9	29.7+	32.0+
- 1962-63						
East Coast	33.5	34.5	33.4	32.9	35.3	36.7
Southeast	34.6	32.6	34.9	31.4	33.0	31.1
Upper & Central South	37.2	34.4	32.2	33.2	33.2	33.1
Delta	39.4	42.6	48.6	44.9	45.8	43.8
West	29.0	35.3	35.2	30.1	34.2	33.6
- 1954-63						
East Coast	35.6	34.4				
Southeast	32.1	33.7				
Upper & Central South	27.9	26.3				
Delta	36.6	37.4				
West	32.5	32.5				
Oil Content - 1963	21.1	20.6-	21.0	21.4	21.6+	22.4+
- 1962-63	21.4	20.9	21.3	21.8	21.9	22.8
- 1954-63	21.6	21.1				
Protein Content - 1963	39.3	40.1+	39.1	39.3	38.3-	38.0-
- 1962-63	39.2	40.5	39.3	39.4	38.6	38.3
- 1954-63	39.9	41.4				
Seed Size	14.9	12.6-	14.1-	13.3-	13.9-	12.6-
Maturity Index	10-10	+8	+6	-4	+4	-4
Height	30	33	31	34	34	32
Bacterial Pustule	1.0	1.0	1.0	1.0	1.0	1.0
Mildew	3.5	4.0	2.3	3.0	2.0	2.3
Phytophthora Rot	2.0	1.0	1.0	1.0	1.0	1.0
Mottled Seed(%)	0	1	7	5	21	0
Shattering	2.8	1.0	1.4	3.0	2.7	2.4

Bacterial Pustule - Stoneville data
Mildew - Georgetown data
Phytophthora - Stoneville data
Mottled Seed - Petersburg, Plymouth, and Clayton data
Shattering - average of 8 locations

Table 22. - (continued)

	D60-6458	D60-9647	D60-11,082	D60-11,215	N60-6407	R54-171-1
Seed Yield - 1963						
East Coast	34.3	31.2	33.9	34.4	34.9	32.4
Southeast	34.0	29.7	35.6	34.0	32.5	33.7
Upper & Central South	26.5	29.3	30.3	28.4	28.6	31.0
Delta	38.2+	35.3	41.7+	38.1+	36.0	40.9+
West	21.0	28.2+	31.8+	29.8+	27.8+	32.1+
- 1962-63						
East Coast						
Southeast						
Upper & Central South						
Delta						
West						
- 1954-63						
East Coast						
Southeast						
Upper & Central South						
Delta						
West						
Oil Content - 1963	21.8+	18.6-	19.9-	20.1-	19.8-	20.8
- 1962-63						
- 1954-63						
Protein Content - 1963	38.4-	44.1+	40.3+	38.4-	40.5+	38.8
- 1962-63						
- 1954-63						
Seed Size	14.1-	16.3+	14.7	14.5	12.8-	13.4-
Maturity Index	-3	+8	+4	0	-5	+6
Height	34	33	36	32	28	38
Bacterial Pustule	1.0	1.0	1.0	1.0	1.0	1.0
Mildew	2.0	2.8	3.3	3.5	1.5	3.5
Phytophthora Rot	1.0	1.0	1.0	1.0	1.0	1.0
Mottled Seed(%)	11	19	11	12	12	3
Shattering	3.1	1.5	1.6	1.9	2.3	2.2

Table 23. - Seed yield, in bushels per acre, for the strains in Uniform Group VI, 1963

Location	Hood	Lee	D59-268	N59-6800	N59-6937	N59-6972	D60-6458
			East Coast				
Georgetown, Del.	12.3	18.2	15.1	21.2+	17.1	26.0+	20.2+
Linkwood, Md.	27.5	27.7	32.0+	26.1	29.4	30.2	31.4
Warsaw, Va.	14.8	17.6	15.4	14.9	18.0+	16.4	18.0+
Painter, Va.	32.0	30.8	31.2	31.8	30.3	33.1	32.9
Petersburg, Va.	37.1	40.5	42.5	37.6	46.9+	45.7+	39.1
Norfolk, Va.	34.0	37.2+	36.1	30.3-	35.4	32.8	35.0
Holland, Va.	41.4	41.8	33.4-	37.9	40.5	38.6	43.5
Plymouth, N.C.	32.2	44.8+	41.6+	41.6+	44.1+	43.6+	42.1+
Willard, N.C.	50.0	42.3-	42.3-	39.6-	42.1-	47.8	39.6-
Clayton, N.C.	52.1	44.3	47.0	42.6	43.8	45.2	46.0
Hartsville, S.C.	36.4	35.8	35.0	28.5-	36.9	36.9	29.6-
Mean	33.6	34.6	33.8	32.0	35.0	36.0	34.3
			Southeast				
Tallassee, Ala.[1/]	48.3	39.0	42.0	42.9	34.9	42.6	37.2
Quincy, Fla.	34.8	29.1-	26.9-	33.2	30.2-	29.3-	32.9
Jay, Fla.	40.4	39.9	45.1	38.5	38.7	33.5-	43.0
Fairhope, Ala.	28.6	25.4	30.6	24.4	27.8	24.5	26.2
Baton Rouge, La.[1/]	12.1	13.9	14.1	8.1	11.0	9.2	7.3
Mean	34.6	31.5	34.2	32.0	32.3	29.1	34.0
			Upper and Central South				
Milan, Tenn.	29.8	32.2	23.4-	27.9	32.2	24.1-	24.3-
Jackson, Tenn.	23.9	22.1	22.5	9.2-	19.1	17.4	12.3-
Belle Mina, Ala.	17.3	10.9-	11.3-	13.6-	7.4-	13.3-	13.7-
Experiment, Ga.	57.0	57.7	50.9	54.7	55.7	61.8	48.2
State College, Miss.	29.0	33.8	25.5	31.2	36.9	37.6	34.0
Mean	31.4	31.3	26.7	27.3	30.3	30.8	26.5
			Delta				
Portageville, Mo.(A)	44.2	47.2	48.5	51.2+	49.3+	52.3+	48.1
Keiser, Ark.(B)	21.7	31.2+	32.9+	31.3+	32.3+	34.7+	29.6+
Marianna, Ark.	40.5	31.6-	40.3	36.4	40.1	37.4	34.8-
Stoneville, Miss.(A)	32.5	42.4+	40.5+	40.5+	37.8	43.5+	37.0
Stoneville, Miss.(B)	29.7	40.1+	41.6+	37.6+	41.3+	37.2+	36.3+
Stoneville, Miss.(C)	18.7	35.1+	35.5+	31.1+	33.4+	26.9+	31.6+
St. Joseph, La.	47.5	43.2	53.7	51.7	54.0+	52.9	50.2
Mean	33.6	38.7+	41.8+	40.0+	41.2+	40.7+	38.2+
			West				
Stuttgart, Ark.	38.6	41.4	45.0+	40.2	38.9	38.0	40.3
Curtis, La.	14.9	42.7	41.9	27.9	36.7	36.9	11.3
Bixby, Okla.	24.1	19.9	14.4-	23.6	23.0	38.1+	19.4
Halfway, Texas	21.6	35.5+	33.3+	21.1	33.1+	31.0+	22.9
Lubbock, Texas	18.0	19.6	16.5	16.6	16.6	15.9	10.9
Mean	23.4	31.8+	30.2+	25.9	29.7+	32.0+	21.0

1/ Not included in combined analysis.

Table 23. - (continued)

Location	D60-9647	D60-11,082	D60-11,215	N60-6407	R54-171-1	L.S.D. (.05)	C.V.
			East Coast				
Georgetown, Del.	16.2	18.4	13.4	23.5+	10.6	6.9	23%
Linkwood, Md.	26.3	24.7	27.1	28.5	24.5	4.0	8%
Warsaw, Va.	14.0	16.7	15.6	14.3	20.5+	3.1	11%
Painter, Va.	33.2	32.6	37.2	31.6	30.1	N.S.	14%
Petersburg, Va.	30.7	39.5	41.2	42.2	39.1	7.1	11%
Norfolk, Va.	32.2	29.4-	37.8+	37.2+	31.3-	2.5	4%
Holland, Va.	36.4-	39.2	38.9	41.5	36.3-	4.2	6%
Plymouth, N.C.	35.1	44.6+	44.4+	39.7	37.6	7.8	11%
Willard, N.C.	34.6-	44.6	46.1	44.3	43.7	6.3	9%
Clayton, N.C.	46.3	45.6	41.9	46.2	43.6	N.S.	8%
Hartsville, S.C.	38.1	37.9	35.0	35.0	39.1	5.7	10%
Mean	31.2	33.9	34.4	34.9	32.4	2.6	
			Southeast				
Tallassee, Ala.[1/]	37.2	42.0	45.8	36.8	36.7	N.S.	13%
Quincy, Fla.	25.8-	32.8	35.8	32.5	29.4-	3.4	6%
Jay, Fla.	34.7-	44.9	41.6	34.2-	40.8	5.4	8%
Fairhope, Ala.	28.7	29.1	24.8	30.9	30.7	N.S.	11%
Baton Rouge, La.[1/]	14.5	11.7	8.2	6.6	16.7	N.S.	36%
Mean	29.7	35.6	34.0	32.5	33.7	N.S.	
			Upper and Central South				
Milan, Tenn	26.8	26.8	28.1	23.0-	28.3	4.0	9%
Jackson, Tenn.	19.8	17.9	19.2	24.0	22.1	7.9	24%
Belle Mina, Ala.	11.2-	13.8-	11.0-	14.1-	9.9-	2.4	12%
Experiment, Ga.	53.3	57.6	54.6	50.9	56.9	N.S.	10%
State College, Miss.	35.4	35.6	29.2	31.0	37.6	N.S.	16%
Mean	29.3	30.3	28.4	28.6	31.0	N.S.	
			Delta				
Portageville, Mo.(A)	45.5	57.5	51.8+	52.1+	46.5	5.1	6%
Keiser, Ark.(B)	24.1	26.3	23.2	24.5	32.5+	6.1	13%
Marianna, Ark.	35.2	43.0	36.4	32.8-	35.7	5.7	9%
Stoneville, Miss.(A)	31.1	38.3	39.1+	38.3	37.0	6.5	10%
Stoneville, Miss.(B)	35.6+	40.7+	35.4+	36.2+	42.8+	5.5	9%
Stoneville, Miss.(C)	31.0+	37.1+	34.1+	25.2	39.5+	6.6	12%
St. Joseph, La.	44.8	49.3	47.0	43.0	52.6	6.4	8%
Mean	35.3	41.7+	38.1+	36.0	40.9+	3.6	
			West				
Stuttgart, Ark.	38.0	38.2	33.2-	36.9	37.2	5.4	8%
Curtis, La.	38.2	51.6	40.9	23.4	44.3	N.S.	20%
Bixby, Okla.	17.6	24.6	26.3	33.1+	25.1	7.8	19%
Halfway, Texas	32.8+	28.7+	30.8+	31.7+	38.8+	6.9	14%
Lubbock, Texas	14.6	15.7	17.9	14.0	15.3	N.S.	16%
Mean	28.2+	31.8+	29.8+	27.8+	32.1+	3.3	

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

Table 24. - Chemical composition and seed size for the strains in Uniform Group VI, 1963

Location	Hood	Lee	D59-268	N59-6800	N59-6937	N59-6972
			Oil Percentage			
Linkwood, Md.	20.4	19.9	20.4	21.0	21.9	20.1
Warsaw, Va.	19.4	19.0	19.8	20.0	20.5	22.0
Plymouth, N.C.	20.5	19.9	21.0	20.5	21.3	22.0
Clayton, N.C.	20.9	20.5	21.0	20.6	20.7	21.4
Jay, Fla.	23.3	23.0	23.1	24.3	24.2	25.1
Portageville, Mo.	21.3	20.9	21.1	21.7	21.4	22.6
Keiser, Ark.(B)	21.3	20.5	20.6	22.1	22.3	23.1
Stoneville, Miss.(A)	21.3	21.8	22.2	22.3	21.9	23.8
Stoneville, Miss.(B)	22.7	22.0	22.1	21.7	23.0	23.4
Stuttgart, Ark.	20.8	20.0	20.7	20.9	21.5	21.5
Bixby, Okla.	19.8	18.8	19.5	20.0	19.2	21.7
Mean	21.1	20.6-	21.0	21.4	21.6+	22.4+
			Protein Percentage			
Linkwood, Md.	38.4	37.5	37.7	36.1	37.0	36.5
Warsaw, Va.	43.1	43.4	42.3	42.1	42.0	40.1
Plymouth, N.C.	39.0	39.4	37.7	39.6	37.5	38.0
Clayton, N.C.	39.0	40.0	38.0	39.1	37.6	39.0
Jay, Fla.	36.0	38.5	38.4	37.4	37.0	36.3
Portageville, Mo.	40.6	41.0	39.0	38.9	38.0	38.3
Keiser, Ark.(B)	38.1	39.7	38.9	38.6	37.1	36.8
Stoneville, Miss.(A)	39.5	39.5	39.3	40.0	37.4	37.2
Stoneville, Miss.(B)	36.6	37.8	36.7	38.8	36.0	36.3
Stuttgart, Ark.	39.8	41.0	40.4	39.7	39.4	39.9
Bixby, Okla.	42.4	43.7	42.2	41.5	42.1	39.6
Mean	39.3	40.1+	39.1	39.3	38.3-	38.0-
			Grams Per 100 Seeds			
Linkwood, Md.	14.0	12.5	13.8	14.2	14.9	13.4
Warsaw, Va.	18.0	15.0	17.0	16.0	17.0	14.0
Plymouth, N.C.	15.0	12.8	15.0	13.5	14.4	14.2
Clayton, N.C.	16.6	13.4	14.2	14.0	13.6	14.1
Jay, Fla.	14.9	14.0	15.6	14.3	14.6	13.1
Keiser, Ark.(B)	14.7	11.7	13.3	13.7	13.0	12.0
Stoneville, Miss.(A)	12.8	11.9	13.7	11.8	13.2	11.3
Stoneville, Miss.(B)	12.6	11.0	11.7	10.1	11.8	9.5
Stuttgart, Ark.	13.7	11.7	13.0	12.3	13.0	11.7
Bixby, Okla.	16.8	11.8	13.9	13.4	13.3	12.2
Mean	14.9	12.6-	14.1-	13.3-	13.9-	12.6-

Table 24. - (continued)

Location	D60-6458	D60-9647	D60-11,082	D60-11,215	N60-6407	R54-171-1	L.S.D. (.05)
			Oil Percentage				
Linkwood, Md.	22.4	18.4	19.9	20.7	20.4	20.2	
Warsaw, Va.	21.3	16.9	18.2	19.4	19.4	20.1	
Plymouth, N.C.	21.9	18.6	19.5	20.1	19.1	20.7	
Clayton, N.C.	21.1	18.0	19.0	19.6	19.0	20.6	
Jay, Fla.	23.3	21.0	21.7	21.5	21.7	22.6	
Portageville, Mo.	21.6	17.8	20.4	20.0	19.5	20.9	
Keiser, Ark.(B)	21.7	18.4	20.5	20.5	20.2	21.2	
Stoneville, Miss.(A)	22.9	19.3	20.4	20.9	20.4	21.3	
Stoneville, Miss.(B)	22.6	20.3	21.1	20.7	20.4	22.1	
Stuttgart, Ark.	21.5	18.8	19.5	19.4	19.4	20.4	
Bixby, Okla.	19.7	17.2	18.6	18.3	18.5	18.9	
Mean	21.8+	18.6-	19.9-	20.1-	19.8-	20.8	0.4
			Protein Percentage				
Linkwood, Md.	36.4	42.0	38.5	36.3	37.8	38.5	
Warsaw, Va.	40.6	47.9	44.8	40.6	41.8	41.1	
Plymouth, N.C.	36.9	42.2	39.7	37.2	39.2	38.5	
Clayton, N.C.	38.3	44.3	40.9	38.1	41.1	38.9	
Jay, Fla.	36.6	40.2	38.2	37.1	39.5	35.6	
Portageville, Mo.	38.5	45.2	40.7	37.9	40.7	38.9	
Keiser, Ark.(B)	37.4	45.4	39.3	37.6	38.4	38.1	
Stoneville, Miss.(A)	39.8	44.1	40.4	39.4	41.2	38.8	
Stoneville, Miss.(B)	36.1	41.6	37.1	36.6	40.2	36.4	
Stuttgart, Ark.	39.9	45.0	40.9	40.1	42.0	39.6	
Bixby, Okla.	41.6	46.9	42.9	41.3	43.2	42.5	
Mean	38.4-	44.1+	40.3+	38.4-	40.5+	38.8	0.7
			Grams Per 100 Seeds				
Linkwood, Md.	14.1	16.7	15.0	15.2	13.4	12.9	
Warsaw, Va.	16.0	19.0	18.0	17.0	14.0	16.0	
Plymouth, N.C.	14.8	17.8	15.4	15.3	13.2	15.2	
Clayton, N.C.	15.9	18.2	15.7	15.5	14.2	14.6	
Jay, Fla.	14.7	16.7	15.7	14.9	13.9	13.8	
Keiser, Ark.(B)	14.0	15.7	14.7	15.3	12.3	12.3	
Stoneville, Miss.(A)	12.9	14.4	12.6	11.9	11.6	12.4	
Stoneville, Miss.(B)	11.4	14.6	11.7	10.4	10.3	11.2	
Stuttgart, Ark.	13.7	15.3	13.7	13.3	12.0	12.0	
Bixby, Okla.	13.4	14.3	14.3	15.7	13.4	13.2	
Mean	14.1-	16.3+	14.7	14.5	12.8-	13.4-	0.6

Table 25. - Relative maturity data, days earlier (-) or later (+) than Hood, for the strains in Uniform Group VI, 1963

Location	Date Planted	Hood Matured	Lee	D59-268	N59-6800	N59-6937
		East Coast				
Georgetown, Del.	5-30	10-30	+5	+11	0	+6
Linkwood, Md.	5-22	10-19	+3	+11	0	+6
Warsaw, Va.	5-28	10-22	+11	+10	-2	+11
Painter, Va.	--	11-3	-2	+7	-2	0
Petersburg, Va.	5-22	10-23	+6	+5	+3	+4
Plymouth, N.C.	5-20	10-20	+2	+5	-12	+2
Willard, N.C.	5-13	10-16	+6	+6	-9	+2
Clayton, N.C.	5-15	10-16	+6	+8	-9	-2
Hartsville, S.C.	6-4	10-12	+6	+4	-9	0
Mean		10-21	+5	+7	-4	+3
		Southeast				
Tallassee, Ala.[1/]	5-14	9-30	+7	+3	-7	+2
Quincy, Fla.	6-10	9-29	+9	+9	-1	+8
Jay, Fla.	5-23	9-28	+5	+2	-11	-1
Fairhope, Ala.	6-29	10-6	+9	+8	0	+4
Baton Rouge, La.	5-22	10-1	+19	+9	+3	+9
Mean		10-1	+11	+7	-2	+5
		Upper and Central South				
Jackson, Tenn.	6-10	10-15	+6	+3	-4	+4
Belle Mina, Ala.	5-23	10-2	+11	+11	0	+12
Experiment, Ga.	5-8	9-30	+11	+9	-2	+3
State College, Miss.	5-6	9-23	+15	+14	0	+14
Mean		10-3	+11	+9	-2	+8
		Delta				
Portageville, Mo.(A)	5-17	10-13	+8	+5	-6	+2
Keiser, Ark.(B)	5-6	10-15	+5	-1	-12	-1
Marianna, Ark.	5-15	10-12	+11	+3	-5	+2
Stoneville, Miss.(A)	5-9	10-1	+14	+9	0	+6
Stoneville, Miss.(B)	5-15	10-5	+10	+6	-5	+6
Stoneville, Miss.(C)	5-14	10-7	+9	+4	-6	0
St. Joseph, La.	5-28	10-7	+2	+2	-1	+2
Mean		10-9	+8	+4	-5	+2
		West				
Stuttgart, Ark.	6-3	10-14	+6	+11	-9	+6
Curtis, La.	5-22	9-29	+16	+6	-1	+7
Bixby, Okla.	5-10	10-20	0	+3	-11	0
Halfway, Texas	6-8	10-20	+12	+5	+6	+11
Lubbock, Texas	6-18	10-18	-1	0	-2	-1
Mean		10-14	+7	+5	-3	+5

1/ Not included in mean.

Table 25. - (continued)

Location	N59-6972	D60-6458	D60-9647	D60-11,082	D60-11,215	N60-6407	R54-171-1
			East Coast				
Georgetown, Del.	-3	-1	+9	+8	+3	-6	+12
Linkwood, Md.	-1	-2	+11	+4	-1	-5	+10
Warsaw, Va.	-6	-7	+15	+11	-3	-12	+11
Painter, Va.	-7	-11	+4	+8	-1	-9	+7
Petersburg, Va.	-4	-6	+8	+6	+3	-7	+4
Plymouth, N.C.	-8	-12	+2	+2	-8	-12	+6
Willard, N.C.	-3	-2	+4	+4	-3	-7	+6
Clayton, N.C.	-9	-7	+8	-2	+2	-9	+6
Hartsville, S.C.	-5	-3	+12	+2	-2	-4	+4
Mean	-5	-6	+8	+5	-1	-8	+7
			Southeast				
Tallassee, Ala.[1/]	-6	-7	+5	+1	-2	-9	+1
Quincy, Fla.	0	-5	+6	+5	+5	-4	+10
Jay, Fla.	-7	-8	+4	+2	-2	-9	+4
Fairhope, Ala.	0	0	+9	+9	+4	+4	+9
Baton Rouge, La.	+2	0	+17	+9	0	+2	+9
Mean	-1	-3	+9	+6	+2	-2	+8
			Upper and Central South				
Jackson, Tenn.	-2	0	+7	+4	-3	-6	+3
Belle Mina, Ala.	0	+4	+10	+8	0	+5	+14
Experiment, Ga.	-5	+2	+8	+4	-3	-10	+10
State College, Miss.	0	0	+14	+10	0	-3	+12
Mean	-2	+2	+10	+7	-2	-4	+10
			Delta				
Portageville, Mo.(A)	-5	-3	+8	+3	-3	-6	+4
Keiser, Ark.(B)	-11	-2	+6	+1	-6	0	+4
Marianna, Ark.	-5	-5	+7	+2	-4	-5	+2
Stoneville, Miss.(A)	-2	0	+9	+6	+1	-8	+7
Stoneville, Miss.(B)	-5	-2	+8	+3	-4	-2	+6
Stoneville, Miss.(C)	-7	0	+7	+2	-2	-7	+7
St. Joseph, La.	-1	0	+1	+1	0	0	-1
Mean	-5	-2	+7	+3	-3	-4	+4
			West				
Stuttgart, Ark.	-10	0	+11	+2	-5	-9	+9
Curtis, La.	0	+2	+15	+6	+2	-7	+8
Bixby, Okla.	-2	-2	-2	-1	-2	-11	-2
Halfway, Texas	-2	+8	+10	+11	+9	+12	+7
Lubbock, Texas	-3	-4	+1	-2	-2	-1	0
Mean	-3	0	+7	+3	0	-3	+6

Table 26. - Plant height for the strains in Uniform Group VI, 1963

Location	Hood	Lee	D59-268	N59-6800	N59-6937	N59-6972
			East Coast			
Georgetown, Del.	27	30	28	32	30	29
Linkwood, Md.	34	40	35	40	38	35
Warsaw, Va.	29	30	26	29	31	29
Painter, Va.	27	31	26	30	32	29
Petersburg, Va.	31	40	34	40	38	36
Norfolk, Va.	39	38	33	34	37	40
Holland, Va.	41	43	39	46	43	41
Plymouth, N.C.	31	38	33	45	40	36
Willard, N.C.	34	35	32	39	38	36
Clayton, N.C.	38	40	33	36	37	32
Hartsville, S.C.	25	28	24	28	30	23
Mean	32	36	31	36	36	33
			Southeast			
Tallassee, Ala.[1/]	33	33	32	36	37	30
Quincy, Fla.	23	23	24	23	24	22
Jay, Fla.	27	26	31	31	27	23
Fairhope, Ala.	15	17	21	23	21	24
Baton Rouge, La.	16	20	16	24	24	20
Mean	20	22	23	25	24	22
			Upper and Central South			
Milan, Tenn.	33	38	36	39	43	34
Jackson, Tenn.	37	42	39	42	45	43
Belle Mina, Ala.	31	34	32	36	36	34
Experiment, Ga.	32	32	36	35	37	36
State College, Miss.	34	32	34	38	36	36
Mean	33	36	35	38	39	37
			Delta			
Portageville, Mo.(A)	39	45	47	51	49	47
Keiser, Ark.(B)	29	34	31	32	36	31
Marianna, Ark.	35	31	36	36	31	31
Stoneville, Miss.(A)	34	36	33	43	39	38
Stoneville, Miss.(B)	29	35	31	35	35	33
Stoneville, Miss.(C)	22	30	29	31	31	26
St. Joseph, La.	30	30	30	32	30	29
Mean	31	34	34	37	36	34
			West			
Stuttgart, Ark.	29	35	33	33	35	30
Curtis, La.	19	25	32	24	26	24
Bixby, Okla.	30	32	35	39	38	33
Halfway, Texas	27	31	28	34	31	29
Lubbock, Texas	17	20	15	18	19	19
Mean	24	29	29	30	30	27

1/ Not included in mean.

Table 26. - (continued)

Location	D60-6458	D60-9647	D60-11,082	D60-11,215	N60-6407	R54-171-1
			East Coast			
Georgetown, Del.	31	29	37	29	25	31
Linkwood, Md.	45	40	44	43	33	44
Warsaw, Va.	33	29	30	29	26	33
Painter, Va.	34	31	35	32	25	36
Petersburg, Va.	36	34	43	40	31	40
Norfolk, Va.	34	35	39	38	36	28
Holland, Va.	51	40	45	43	41	45
Plymouth, N. C.	33	35	42	39	31	43
Willard, N. C.	34	32	41	36	31	43
Clayton, N. C.	39	35	40	37	32	40
Hartsville, S. C.	27	29	36	29	24	36
Mean	36	34	39	36	30	38
			Southeast			
Tallassee, Ala.[1/]	33	36	36	33	28	40
Quincy, Fla.	22	25	25	20	20	30
Jay, Fla.	24	29	27	24	23	33
Fairhope, Ala.	19	22	28	14	16	28
Baton Rouge, La.	14	20	25	22	14	28
Mean	20	24	26	20	18	30
			Upper and Central South			
Milan, Tenn.	43	35	43	39	32	44
Jackson, Tenn.	43	42	43	41	40	41
Belle Mina, Ala.	36	32	39	34	30	37
Experiment, Ga.	35	36	39	34	32	43
State College, Miss.	34	34	37	32	30	45
Mean	38	36	40	36	33	42
			Delta			
Portageville, Mo.(A)	54	50	52	46	41	56
Keiser, Ark.(B)	36	36	36	32	29	39
Marianna, Ark.	41	35	35	29	22	41
Stoneville, Miss.(A)	47	39	40	40	34	41
Stoneville, Miss.(B)	39	35	37	34	27	39
Stoneville, Miss.(C)	31	32	33	29	24	38
St. Joseph, La.	32	30	32	31	22	33
Mean	40	37	38	34	28	41
			West			
Stuttgart, Ark.	35	34	37	29	26	41
Curtis, La.	21	29	31	26	17	37
Bixby, Okla.	40	33	36	37	29	37
Halfway, Texas	34	31	33	26	26	35
Lubbock, Texas	17	19	19	19	15	20
Mean	29	29	31	27	23	34

Table 27. - Lodging scores for the strains in Uniform Group VI, 1963

Location	Hood	Lee	D59-268	N59-6800	N59-6937	N59-6972
			East Coast			
Georgetown, Del.	3.0	2.3	1.7	1.3	1.3	1.7
Linkwood, Md.	3.7	3.5	3.3	2.7	3.0	3.2
Warsaw, Va.	1.0	1.8	1.0	1.0	1.0	1.0
Painter, Va.	2.3	2.8	2.5	1.6	2.2	1.8
Petersburg, Va.	1.5	2.0	1.3	1.0	1.2	1.0
Norfolk, Va.	2.0	2.0	2.0	2.0	3.0	3.0
Holland, Va.	4.0	4.0	5.0	3.0	2.3	4.0
Plymouth, N. C.	3.0	3.3	2.7	3.0	3.0	3.3
Willard, N.C.	2.0	3.0	2.5	1.7	2.0	2.0
Clayton, N.C.	3.0	3.5	2.3	2.7	3.0	3.0
Hartsville, S. C.	1.0	2.3	1.3	1.0	2.0	1.0
			Southeast			
Tallassee, Ala.	1.0	1.0	1.0	1.0	2.0	1.0
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Jay, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	1.0	1.0	2.0	1.0	1.0	1.0
			Upper and Central South			
Milan, Tenn.	1.0	1.0	1.0	1.0	1.0	1.0
Jackson, Tenn.	2.0	3.0	2.0	1.0	2.0	1.0
Belle Mina, Ala.	1.0	1.7	1.0	1.0	1.7	1.0
Experiment, Ga.	1.7	1.0	1.3	1.7	1.7	1.3
State College, Miss.	2.0	3.0	2.0	2.0	2.0	2.0
			Delta			
Portageville, Mo.(A)	3.0	3.5	1.5	1.3	1.9	1.5
Keiser, Ark.(B)	1.0	1.7	1.0	1.0	1.0	1.0
Marianna, Ark.	3.3	3.3	1.7	2.0	2.3	2.7
Stoneville, Miss.(A)	2.3	3.0	2.0	2.0	3.0	2.3
Stoneville, Miss.(B)	2.0	3.0	1.7	2.0	2.7	2.0
Stoneville, Miss.(C)	1.7	1.7	1.3	1.0	1.0	1.0
St. Joseph, La.	2.0	2.0	2.0	2.0	2.0	2.0
			West			
Stuttgart, Ark.	1.3	2.0	1.0	1.0	1.0	1.0
Curtis, La.	1.0	2.0	1.0	2.0	1.0	1.0
Bixby, Okla.	1.5	2.3	2.0	1.7	1.0	1.3
Halfway, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Lubbock, Texas	1.0	1.0	1.0	1.0	1.0	1.0

Table 27. - (continued)

Location	D60-6458	D60-9647	D60-11,082	D60-11,215	N60-6407	R54-171-1
			East Coast			
Georgetown, Del.	2.3	2.0	1.7	2.0	1.7	2.0
Linkwood, Md.	3.2	3.5	3.5	3.5	3.5	3.5
Warsaw, Va.	1.0	1.5	1.2	1.2	1.2	1.0
Painter, Va.	1.7	2.8	2.7	2.7	2.2	3.5
Petersburg, Va.	1.0	2.0	1.7	1.2	1.0	1.5
Norfolk, Va.	3.0	3.0	3.0	2.0	4.0	4.0
Holland, Va.	2.0	3.0	3.7	3.3	3.7	4.0
Plymouth, N. C.	2.3	4.0	4.0	3.3	2.7	3.7
Willard, N. C.	2.0	3.0	3.0	2.0	1.7	3.0
Clayton, N. C.	2.3	3.5	3.0	3.3	3.0	3.5
Hartsville, S. C.	1.7	2.7	2.8	2.7	1.3	2.0
			Southeast			
Tallassee, Ala.	1.0	2.0	2.0	1.0	1.0	2.0
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Jay, Fla.	1.0	2.0	1.0	1.0	1.0	3.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	1.0	1.0	2.0	1.0	1.0	2.0
			Upper and Central South			
Milan, Tenn.	1.0	1.0	1.0	1.0	1.0	1.0
Jackson, Tenn.	2.0	3.0	3.0	2.0	2.0	3.0
Belle Mina, Ala.	1.0	2.0	2.0	1.3	1.7	1.7
Experiment, Ga.	1.0	2.3	2.3	2.3	1.0	2.3
State College, Miss.	1.0	3.0	3.0	2.0	2.0	3.0
			Delta			
Portageville, Mo.(A)	1.3	2.5	3.2	2.1	1.3	2.8
Keiser, Ark.(B)	1.0	2.0	1.3	1.0	1.0	1.3
Marianna, Ark.	3.0	3.0	3.0	2.7	2.3	4.0
Stoneville, Miss.(A)	2.7	3.0	2.3	2.7	2.0	3.0
Stoneville, Miss.(B)	2.0	3.0	2.3	2.0	2.0	3.0
Stoneville, Miss.(C)	2.0	2.3	1.7	1.0	1.0	2.3
St. Joseph, La.	2.0	2.0	3.0	3.0	2.0	3.0
			West			
Stuttgart, Ark.	1.0	1.7	1.0	1.0	1.0	1.7
Curtis, La.	1.0	2.0	1.0	1.0	1.0	2.0
Bixby, Okla.	1.3	2.7	2.0	3.7	1.0	1.7
Halfway, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Lubbock, Texas	1.0	1.0	1.0	1.0	1.0	1.0

Table 28. - Seed quality scores for the strains in Uniform Group VI, 1963

Location	Hood	Lee	D59-268	N59-6800	N59-6937	N59-6972
			East Coast			
Georgetown, Del.	2.0	2.5	2.7	2.3	2.2	1.7
Linkwood, Md.	2.0	2.0	3.0	2.0	2.0	2.0
Warsaw, Va.	1.2	1.0	1.4	1.2	1.0	1.0
Painter, Va.	1.0	1.1	1.1	1.0	1.1	1.2
Petersburg, Va.	1.0	1.0	1.3	1.3	2.0	1.0
Norfolk, Va.	1.0	1.0	1.0	3.0	3.0	2.0
Holland, Va.	1.5	1.5	2.0	2.0	1.5	1.5
Plymouth, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
Willard, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
Clayton, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
Hartsville, S.C.	1.0	1.0	1.0	1.0	2.0	1.0
			Southeast			
Tallassee, Ala.	2.0	1.0	2.0	2.0	2.0	1.0
Quincy, Fla.	2.0	2.0	2.0	3.0	3.0	2.0
Jay, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	2.0	1.2	2.3	2.2	2.2	1.7
Baton Rouge, La.	2.0	1.0	1.0	1.0	2.0	3.0
			Upper and Central South			
Milan, Tenn.	2.0	2.0	3.0	3.0	3.0	2.0
Jackson, Tenn.	2.0	2.0	3.0	4.0	4.0	3.0
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
State College, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
			Delta			
Portageville, Mo.(A)	1.4	1.6	1.5	1.6	1.6	1.5
Keiser, Ark.(B)	2.3	2.3	2.7	2.0	2.3	2.3
Marianna, Ark.	2.3	2.3	1.7	2.3	2.3	1.3
Stoneville, Miss.(A)	2.0	2.0	2.0	2.0	2.0	1.7
Stoneville, Miss.(B)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, Miss.(C)	2.0	1.0	1.0	1.7	2.0	1.3
St. Joseph, La.	1.0	1.0	1.0	1.0	2.0	1.0
			West			
Stuttgart, Ark.	2.0	2.0	1.7	2.0	2.0	1.3
Curtis, La.	1.0	1.0	1.0	1.0	1.0	1.0
Bixby, Okla.	2.5	2.7	2.7	2.3	3.0	2.0
Lubbock, Texas	3.0	2.0	3.0	3.0	3.0	3.0

Table 28. - (continued)

Location	D60-6458	D60-9647	D60-11,082	D60-11,215	N60-6407	R54-171-1
			East Coast			
Georgetown, Del.	2.2	3.0	2.0	2.3	2.0	2.3
Linkwood, Md.	3.0	2.0	2.0	3.0	3.0	2.0
Warsaw, Va.	1.5	1.7	1.7	1.4	1.4	1.0
Painter, Va.	1.0	5.0	1.2	1.2	1.4	1.0
Petersburg, Va.	2.0	1.7	1.3	2.0	1.0	1.0
Norfolk, Va.	2.0	4.0	3.0	2.0	1.0	3.0
Holland, Va.	2.0	1.5	1.5	2.0	2.0	1.5
Plymouth, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
Willard, N. C.	1.0	1.0	1.0	1.0	1.0	1.5
Clayton, N. C.	1.0	1.0	1.0	1.0	1.0	1.0
Hartsville, S. C.	2.0	2.0	2.0	2.0	1.0	1.0
			Southeast			
Tallassee, Ala.	3.0	2.0	3.0	3.0	1.0	2.0
Quincy, Fla.	4.0	3.0	3.0	4.0	3.0	3.0
Jay, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	4.0	2.3	2.0	2.8	1.2	1.7
Baton Rouge, La.	3.0	1.0	1.0	1.0	1.0	2.0
			Upper and Central South			
Milan, Tenn.	2.0	4.0	2.0	3.0	2.0	4.0
Jackson, Tenn.	3.0	4.0	3.0	2.0	2.0	3.0
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
State College, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
			Delta			
Portageville, Mo.(A)	1.7	2.0	2.1	1.7	1.5	1.7
Keiser, Ark.(B)	2.0	4.0	2.7	3.0	2.7	2.3
Marianna, Ark.	2.0	3.0	1.7	2.7	2.0	1.7
Stoneville, Miss.(A)	2.0	2.0	1.7	2.0	2.0	2.0
Stoneville, Miss.(B)	2.0	2.0	1.7	2.0	2.0	2.0
Stoneville, Miss.(C)	2.0	2.0	1.0	2.0	2.7	1.0
St. Joseph, La.	1.0	2.0	2.0	1.0	2.0	1.0
			West			
Stuttgart, Ark.	2.0	2.3	2.0	2.3	1.3	1.3
Curtis, La.	1.0	1.0	1.0	2.0	2.0	1.0
Bixby, Okla.	3.0	2.3	2.7	2.0	3.0	2.3
Lubbock, Texas	2.0	3.0	2.0	3.0	2.0	3.0

PRELIMINARY GROUP VI

1963

Six Preliminary Group VI nurseries were grown. The parentage of these lines is reported in table 29. Performance data are summarized in tables 30 through 35. Differences in seed yield were significant in four of the plantings. On the basis of the combined analysis of variance for seed yield, 11 strains were significantly higher in yield than Hood. There were not any which were significantly higher in yield than Lee.

One line, D61-640, was significantly lower in yield than Hood. This a large seeded selection from Hill x Hahto. Shattering before harvest probably contributed to its low yield.

Eight strains were given scores of 2 or higher for shattering. One strain, V61-54, was too early for the group, while five strains were later maturing than Lee.

Four strains should merit being advanced to Uniform Group VI. These are D61-1185, D61-2002, N60-6195, and N60-6352.

Table 29. - Parentage of the strains in Preliminary Group VI, 1963

	Strain	Parentage	Generation Composited
1.	Hood		
2.	Lee		
3.	D60-6071	Hill x D49-2491	F_5
4.	D60-11,086	D49-2573 x Nansemond	F_6
5.	D60-11,463	D51-5427 x D49-2491	F_6
6.	D60-12,217	D51-5427 x D49-2491	F_6
7.	D61-543	Hill(2) x PI 171,442	F5
8.	D61-618	Hill(2) x PI 171,442	F5
9.	D61-640	Hill x Hahto	F5
10.	D61-838	Hill(2) x D51-4877	F5
11.	D61-1185	Hill(2) x D51-4877	F5
12.	D61-1933	Hill x D51-4877	F5
13.	D61-2002	Hill x [D49-2491(2) x Tanner]	F5
14.	N59-6825	Hill x D52-810	F5
15.	N59-6958	Hill x D52-810	F5
16.	N60-6148	Hill x D49-2491	F5
17.	N60-6180	Hill x D49-2491	F5
18.	N60-6187	Hill x D49-2491	F5
19.	N60-6195	Hill x D49-2491	F5
20.	N60-6328	Hill x D49-2491	F5
21.	N60-6352	Hill x D49-2491	F5
22.	N60-6356	Hill x D49-2491	F5
23.	N60-6389	Hill x D49-2491	F5
24.	N60-6392	Hill x D49-2491	F5
25.	N60-6401	Hill x D49-2491	F5
26.	R60-390	Hood x Jackson	F_4
27.	R60-459	Lee(2) x Dortchsoy 67	F_4
28.	R60-985	Lee(3) x Dortchsoy 67	F_3
29.	R61-117	Lee(2) x Dortchsoy 67	F5
30.	R61-251	Lee x Dortchsoy 110	F_4
31.	R61-801	Lee(4) x Dortchsoy 67	F_3
32.	UD1115	FC33243 x D49-2491	F5
33.	UD1195	FC33243 x D49-2491	F5
34.	UD1252	FC33243 x D49-2491	F5
35.	UD1515	FC33243 x D49-2491	F5
36.	V61-54	Dorman x Va. Sel. #2	

Table 30. - General summary of performance for the strains in Preliminary Group VI, 1963

Strain	Seed Yield	Maturity Index	Ht.	Percent Oil	Percent Protein	Shatter	Bacterial Pustule	Phytophthora Rot
Hood	26.2	10-14	33	21.4	38.9	2.5	1.0	2.0
Lee	31.6+	+7	35	21.3	39.7	1.0	1.0	1.0
D60-6071	30.9+	+6	38	19.9-	39.5	1.0	1.0	1.0
D60-11,086	29.6	-1	35	19.9-	41.1+	1.7	1.0	1.0
D60-11,463	31.3+	+9	36	21.2	38.7	1.2	1.0	1.0
D60-12,217	31.5+	+3	37	21.7	36.9-	1.7	1.0	1.0
D61-543	25.7	-2	35	19.5-	40.4+	1.5	1.0	1.0
D61-618	27.2	-1	37	19.1-	40.6+	1.2	1.0	1.0
D61-640	19.8-	+4	34	19.7-	41.4+	5.0	1.0	1.0
D61-838	29.6	-3	40	20.2-	37.9	1.7	1.0	1.0
D61-1185	31.7+	-4	44	20.5-	37.5-	1.7	1.0	1.0
D61-1933	29.6	-4	43	19.8-	39.0	3.0	1.0	1.0
D61-2002	33.0+	-1	38	20.3-	38.1	2.0	1-0	1.0
N59-6825	30.3	-4	37	21.2	39.1	2.0	1.0	1.0
N59-6958	29.8	0	35	20.5-	39.9	1.5	1.0	1.0
N60-6148	31.4+	+3	34	19.1-	39.8	1.0	1.0	1.0
N60-6180	30.4	+3	37	19.4-	40.2	1.2	1.0	2.0
N60-6187	29.8	0	37	20.4-	39.2	1.3	1.0	1.0
N60-6195	31.9+	+3	35	19.4-	40.6+	1.0	1.0	1.0
N60-6328	29.2	+5	36	20.6-	39.2	1.0	1.0	1.0
N60-6352	31.8+	+5	36	20.4-	39.5	1.0	1.0	1.0
N60-6356	31.6+	+7	38	20.8	39.2	1.0	1.0	1.0
N60-6389	29.5	+1	38	19.8-	40.0	1.0	1.0	1.0
N60-6392	29.3	+4	37	19.2-	40.6+	2.0	1.0	1.0
N60-6401	29.7	+5	36	20.2-	40.2	1.2	1.0	1.0
R60-390	26.9	+13	42	21.3	40.0	1.3	1.0	1.0
R60-459	30.9+	+7	35	20.5-	40.3+	1.0	1.0	1.0
R60-985	26.9	+12	37	20.5-	40.6+	1.0	1.0	1.0
R61-117	29.4	+11	34	21.0	40.2	1.0	1.0	2.0
R61-251	30.3	+6	35	20.9	38.9	1.2	1.0	1.0
R61-801	32.7+	+8	34	20.5-	39.0	1.0	1.0	1.0
UD1115	25.6	-1	24	21.7	38.3	2.3	1.0	2.0
UD1195	22.1	-1	53	21.3	38.2	1.0	3.0	1.0
UD1252	24.2	0	53	21.7	38.9	1.5	3.0	2.0
UD1515	24.3	-1	49	21.8	38.4	1.0	4.0	2.0
V61-54	26.7	-11	34	22.0	38.4	3.0	4.0	2.0
L.S.D.(.05)	4.7			0.7	1.4			
L.S.D.(.01)	6.2			0.9	1.8			

Shatter - Warsaw and Stoneville data
Bacterial Pustule - Stoneville data
Phytophthora Rot - Keiser and Stoneville data

Table 31. - Seed yield, in bushels per acre, for the strains in Preliminary Group VI, 1963

Strain	Warsaw, Va.	Plymouth, N.C.	Portageville, Mo.1/	Keiser, Ark.	Stoneville, Miss.(A)	Stoneville, Miss.(B)
Hood	14.8	39.2	43.2	27.1	29.6	20.6
Lee	13.0	37.8	49.5	31.0	37.8+	38.5+
D60-6071	12.8	32.4	50.7	30.9	37.9+	40.7+
D60-11,086	11.8	39.5	42.5	20.2-	38.8+	37.9+
D60-11,463	13.2	37.3	50.9	28.9	39.7+	37.8+
D60-12,217	17.2	35.0	47.2	28.5	35.8	41.0+
D61-543	9.9-	34.1	43.5	24.3	26.9	33.4+
D61-618	10.4-	35.6	48.2	27.6	29.2	33.3+
D61-640	8.6-	38.4	35.9	11.6-	20.7-	19.6
D61-838	10.8-	36.9	49.5	33.0+	31.7	35.6+
D61-1185	14.4	40.5	52.4	31.2	36.8+	35.6+
D61-1933	12.0	39.6	48.5	28.2	33.4	34.9+
D61-2002	13.0	41.1	50.3	34.7+	35.5	40.6+
N59-6825	12.6	35.0	53.5	29.5	40.0+	34.2+
N59-6958	13.0	31.6	51.2	28.1	38.5+	38.0+
N60-6148	12.8	36.6	47.1	32.3	38.8+	31.8+
N60-6180	13.2	33.2	50.5	27.3	40.3+	37.5+
N60-6187	10.2-	35.7	43.2	27.4	36.2	39.8+
N60-6195	13.1	37.9	49.4	29.2	38.2+	41.1+
N60-6328	12.7	35.4	52.7	26.8	33.7	37.6+
N60-6352	12.6	37.1	51.1	28.0	40.0+	41.3+
N60-6356	13.6	35.4	46.5	27.8	37.2+	44.1+
N60-6389	12.2	34.2	46.4	27.1	35.9	38.2+
N60-6392	13.9	38.5	53.1	24.4	31.6	38.0+
N60-6401	11.6	37.0	54.1	28.1	34.4	37.7+
R60-390	13.6	30.7	46.6	21.6-	34.8	33.7+
R60-459	14.6	33.4	48.3	29.5	39.5+	37.4+
R60-985	13.9	27.8	34.4	26.1	32.1	34.6+
R61-117	14.0	31.2	40.7	28.7	37.7+	35.3+
R61-251	15.0	35.2	49.0	27.4	35.3	38.9+
R61-801	13.3	37.6	44.7	32.7+	38.4+	41.4+
UD1115	12.7	35.4	41.7	21.2-	29.7	29.0+
UD1195	13.3	32.0	46.1	18.5-	20.7-	25.8
UD1252	13.7	35.0	51.9	19.4-	27.9	24.6
UD1515	15.2	30.0	51.2	26.8	27.2	22.6
V61-54	12.1	42.7	57.0	29.3	25.0	24.3
L.S.D.(.05)	3.3	N.S.	--	5.5	7.1	7.9
C.V.	13%	12%	--	10%	10%	11%

1/ Not included in combined analysis, only one plot harvested

Table 32. - Oil percentages for the strains in Preliminary Group VI, 1963

Strain	Plymouth, N.C.	Keiser, Ark.	Stoneville, Miss.(A)	Stoneville, Miss.(B)
Hood	19.8	21.5	21.8	22.4
Lee	20.0	20.7	21.7	22.6
D60-6071	18.7	19.3	20.3	21.2
D60-11,086	18.7	19.8	20.4	20.5
D60-11,463	20.1	20.6	21.7	22.4
D60-12,217	20.5	21.1	22.1	23.2
D61-543	18.8	19.2	19.6	20.5
D61-618	18.7	19.2	18.9	19.7
D61-640	18.5	19.6	20.4	20.4
D61-838	19.5	20.3	20.2	20.7
D61-1185	19.9	19.3	21.3	21.5
D61-1933	19.4	18.5	20.2	20.9
D61-2002	19.7	20.0	20.2	21.4
N59-6825	19.9	20.9	22.0	21.9
N59-6958	18.7	20.4	21.7	21.2
N60-6148	17.9	18.9	19.1	20.6
N60-6180	18.5	18.3	19.8	21.0
N60-6187	18.7	20.1	20.5	22.1
N60-6195	18.8	17.7	20.0	21.0
N60-6328	19.5	19.7	21.0	22.0
N60-6352	19.0	19.6	21.0	22.1
N60-6356	19.3	20.2	21.2	22.3
N60-6389	18.4	19.3	20.2	21.3
N60-6392	18.1	18.3	20.0	20.2
N60-6401	18.8	19.5	20.4	22.2
R60-390	18.7	21.2	22.0	23.4
R60-459	19.2	19.9	21.0	21.7
R60-985	18.5	19.5	21.5	22.6
R61-117	19.5	19.6	21.7	23.0
R61-251	19.6	20.0	21.3	22.6
R61-801	19.3	20.0	21.2	21.4
UD1115	20.4	21.3	22.0	23.0
UD1195	20.6	20.4	21.9	22.3
UD1252	20.7	21.0	22.6	22.6
UD1515	20.3	20.7	22.9	23.3
V61-54	20.4	22.6	22.4	22.5

Table 33. - Protein percentages for the strains in Preliminary Group VI, 1963

Strain	Plymouth, N.C.	Keiser, Ark.	Stoneville, Miss.(A)	Stoneville, Miss.(B)
Hood	40.3	38.8	39.5	36.8
Lee	41.5	39.6	40.1	37.7
D60-6071	41.2	39.9	39.8	37.1
D60-11,086	42.3	41.5	40.9	39.5
D60-11,463	40.7	39.2	38.2	36.7
D60-12,217	38.9	36.2	38.0	34.5
D61-543	40.8	40.7	41.1	39.1
D61-618	40.6	41.0	42.3	38.3
D61-640	42.1	42.0	41.1	40.3
D61-838	39.0	36.5	39.3	36.6
D61-1185	38.4	36.5	38.6	36.5
D61-1933	39.5	38.2	40.4	37.9
D61-2002	38.7	38.2	39.2	36.1
N59-6825	40.8	38.0	38.9	38.5
N59-6958	41.2	40.0	39.7	38.5
N60-6148	42.2	38.6	40.4	37.8
N60-6180	42.1	40.7	40.6	37.3
N60-6187	40.3	39.6	40.9	35.8
N60-6195	41.8	40.1	41.5	38.8
N60-6328	41.0	37.4	40.8	37.4
N60-6352	43.3	38.5	39.6	36.4
N60-6356	41.3	38.5	39.9	37.1
N60-6389	41.5	41.5	40.5	36.3
N60-6392	42.1	41.8	40.8	37.5
N60-6401	42.2	41.3	40.4	36.8
R60-390	43.5	40.3	39.7	36.4
R60-459	41.6	41.5	40.2	37.7
R60-985	42.9	42.2	40.3	36.9
R61-117	41.5	42.0	40.0	37.3
R61-251	40.5	40.0	38.8	36.3
R61-801	40.9	38.7	40.0	36.5
UD1115	40.5	39.5	37.8	35.5
UD1195	40.3	39.7	37.8	35.0
UD1252	38.9	40.8	39.0	36.8
UD1515	41.0	39.4	37.7	35.3
V61-54	38.9	38.5	39.1	37.0

Table 34. - Plant height for the strains in Preliminary Group VI, 1963

Strain	Warsaw, Va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.	Stoneville, Miss.(A)	Stoneville, Miss.(B)
Hood	27	33	41	33	34	29
Lee	28	33	45	33	40	32
D60-6071	24	38	49	37	41	37
D60-11,086	24	40	36	35	41	34
D60-11,463	22	34	50	35	39	37
D60-12,217	26	36	42	37	40	38
D61-543	24	35	43	36	39	35
D61-618	24	36	50	35	41	36
D61-640	28	32	47	30	35	30
D61-838	27	39	51	36	43	41
D61-1185	32	45	54	40	46	44
D61-1933	28	47	53	39	49	42
D61-2002	27	39	43	37	43	38
N59-6825	24	37	48	38	42	33
N59-6958	26	38	40	36	42	29
N60-6148	24	32	46	32	37	34
N60-6180	24	36	48	37	40	38
N60-6187	27	36	43	38	40	36
N60-6195	28	35	47	33	33	32
N60-6328	27	37	45	34	37	36
N60-6352	26	38	43	38	40	33
N60-6356	25	38	52	38	41	36
N60-6389	25	35	49	39	40	37
N60-6392	28	35	46	36	41	37
N60-6401	25	34	45	36	37	36
R60-390	30	43	54	43	42	37
R60-459	24	35	46	35	40	31
R60-985	23	39	51	34	38	37
R61-117	23	33	44	35	36	34
R61-251	28	34	41	35	40	34
R61-801	24	32	47	34	35	34
UD1115	19	28	38	19	22	16
UD1195	26	48	68	59	65	53
UD1252	27	48	66	56	67	54
UD1515	26	46	63	47	62	50
V61-54	22	35	48	33	40	26

Table 35 - Seed quality scores for the strains in Preliminary Group VI, 1963

Strain	Warsaw, Va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.	Stoneville, Miss.(A)	Stoneville, Miss.(B)
Hood	2.0	1.0	1.8	2.5	2.0	2.0
Lee	1.0	1.0	1.5	2.0	2.0	1.5
D60-6071	1.0	1.0	1.8	2.0	2.0	2.0
D60-11,086	2.5	2.0	2.0	3.0	2.0	2.0
D60-11,463	1.0	2.0	2.0	2.5	1.5	2.0
D60-12,217	1.3	2.0	1.8	3.0	2.0	2.0
D61-543	1.3	2.0	1.8	2.5	2.0	1.5
D61-618	1.5	1.0	1.3	2.5	2.0	2.0
D61-640	2.3	2.0	2.3	3.5	2.0	2.0
D61-838	1.5	1.0	1.3	2.0	2.0	2.0
D61-1185	2.0	2.0	1.8	1.5	2.0	1.5
D61-1933	2.0	1.0	1.8	3.0	2.0	2.0
D61-2002	1.0	2.0	1.3	2.0	2.0	2.0
N59-6825	1.5	2.0	2.0	2.5	2.0	2.0
N59-6958	2.0	1.5	2.0	3.0	2.0	2.0
N60-6148	1.0	1.5	1.0	2.0	2.0	2.0
N60-6180	1.3	1.5	1.5	3.0	1.5	2.0
N60-6187	1.0	1.0	1.0	1.5	1.0	1.0
N60-6195	1.0	1.5	1.3	2.5	1.5	2.0
N60-6328	1.0	1.5	1.5	3.0	2.0	2.0
N60-6352	1.0	1.5	1.8	2.5	2.0	2.0
N60-6356	1.0	1.5	1.8	3.0	2.0	2.0
N60-6389	1.5	1.5	1.3	2.0	2.0	2.0
N60-6392	1.3	1.5	1.5	2.5	2.0	2.0
N60-6401	1.0	1.5	1.5	2.5	2.0	1.5
R60-390	1.5	1.5	1.8	3.0	2.0	2.0
R60-459	1.0	1.5	1.8	2.0	2.0	2.0
R60-985	1.0	1.5	1.3	2.0	2.0	2.0
R61-117	1.0	1.5	1.8	2.5	2.0	2.0
R61-251	1.3	1.0	1.3	2.0	1.5	2.0
R61-801	1.0	1.5	1.5	2.0	2.0	2.0
UD1115	2.0	1.5	1.3	3.0	2.0	2.0
UD1195	1.3	2.0	1.8	3.0	2.0	2.0
UD1252	2.5	3.0	2.5	3.5	2.5	2.5
UD1515	2.5	1.0	1.0	2.5	2.0	2.0
V61-54	2.5	1.5	1.5	3.5	2.0	2.0

UNIFORM GROUP VII

1963

	Variety or Strain	Parentage	Generation Composited
1.	Jackson	Volstate(2) x Palmetto	F_4
2.	Lee	S-100 x CNS	F_6
3.	Bragg (F58-3786)	Jackson x D49-2491	F_6
4.	D58-4300	D51-5052 x D49-2491	F_5
5.	Ga58-33	D49-588 x N51-1956	
6.	D57-1501	Jackson x D49-2491	F_6
7.	N58-5850	N51-1971 x D49-2491	F_5
8.	D60-8107	D51-4877 x D55-4168	F_5
9.	D60-12,327	D51-5427 x D49-2491	F_6
10.	F59-1362	Jackson x D49-2491	F_5
11.	F59-1851	D51-5091 x Jackson	F_5
12.	Ga59-895	Jackson x D49-2491	F_7

Background of strains used as parents:

D49-2491 is a sister strain to Lee selected from S-100 x CNS.

D51-5052 is a selection from Roanoke x N45-745 which was included in Uniform Group VII for the years 1953-1956.

D49-588 is a selection from Roanoke x N45-745 which was included in Uniform Group VII for the years 1952-1953.

N51-1956 is a selection from N47-3545, a high oil selection from Volstate(2) x Palmetto.

N51-1971 is a selection from Roanoke x Ogden which was included in Uniform Group VI for the years 1954-1956.

D55-4168 is a high protein line selected from Ogden x Biloxi.

D51-5427 is a subline of N45-1497, a high oil line selected from Ralsoy x Ogden.

D51-5091 is a rather tall selection from Roanoke x N45-745 which as included in Uniform Group VII nursery for the years 1954-1957. D51-4877 is a rather short type included for the years 1954-1956.

Twenty-seven Group VII nurseries were planted. Results of 22 of these nurseries are summarized in tables 36 through 42, with table 36 giving a general summary of agronomic qualities, chemical composition of the seed, and reaction to several diseases. Two- and three-year data are reported for seed yield and oil and protein percentages.

Seed yield differences were significant in 12 of the comparisons. The combined analysis of variance for the mean seed yields by production areas shows strains to differ in performance in the East Coast, Southeast, and Upper and Central South areas. In the Southeast, D57-1501 and N58-5850 yielded significiantly better than Jackson but not better than Lee. The fact that Lee had an average yield above that for Jackson in the Southeast was somewhat unusual.

Two strains, D58-4300 and Ga58-33, have been grown three years. Both have given good performance but are not superior to Bragg in any production area.

The two strains D57-1501 and N58-5850 have been grown two years. The two-year seed yield means are close to the means for Bragg in each area. Neither is as shatter resistant as Bragg.

Of the strains grown one year, D60-8107 was selected for high protein percentage. Its performance in the Delta and West compared favorably with that of Jackson. D60-12,327 was selected for the Arksoy-type reaction to phytophthora rot. This disease did not limit yield seriously in any test, and only to a limited extent on highly susceptible strains in the Stoneville(B) planting. D60-12,327, along with Lee, was damaged by root-knot nematodes at Willard. F59-1362 and F59-1851 yielded as well as Bragg in all areas except the West. Ga59-895 yielded as well as Bragg in the Southeast and Upper and Central areas but ranked lower in other areas.

The strain F58-3786, a subline of F55-822, was named Bragg and seed-increase fields were grown in North Carolina, South Carolina, Georgia, and Florida.

Table 36. - General summary of performance for the strains in Uniform Group VII, 1963

	Jackson	Lee	Bragg	D58-4300	Ga58-33	D57-1501
Seed Yield - 1963						
East Coast	39.5	38.8	39.0	37.4	37.5	39.4
Southeast	26.2	27.9	26.1	27.6	27.2	30.7+
Upper and Central South	42.6	44.1	41.4	41.5	41.8	46.2
Delta	37.8	35.5	40.8	38.3	39.3	40.2
West	31.6	41.5	40.5	35.1	29.7	43.2
- 1962-63						
East Coast	39.0	40.7	40.3	40.6	39.4	40.7
Southeast	29.4	28.5	31.2	30.7	31.0	32.8
Upper and Central South	34.5	34.9	36.1	36.1	34.0	36.3
Delta	41.4	41.3	44.4	42.9	43.0	45.2
West	36.9	43.2	42.6	39.0	37.1	43.9
- 1961-63						
East Coast	34.2	36.9	37.0	36.5	36.8	
Southeast	30.8	30.8	33.9	33.3	33.7	
Upper and Central South	36.4	38.0	38.7	37.8	36.2	
Delta	41.3	42.2	44.0	44.2	42.2	
West	38.1	42.8	41.9	40.2	38.3	
Oil Percentage - 1963	21.5	21.1	21.8	21.1	21.5	21.5
- 1962-63	21.9	21.4	21.9	21.7	21.9	21.8
- 1961-63	21.8	21.4	21.7	21.6	21.8	
Protein Percentage - 1963	38.8	40.5+	39.7+	38.2	39.0	38.9
- 1962-63	39.0	40.8	40.0	38.3	39.1	39.2
- 1961-63	39.1	41.0	40.1	38.5	39.3	
Seed Size	15.8	13.6	16.5	13.9	18.1	13.6
Maturity Index	10-27	-10	-5	-1	+2	-5
Height	41	31	42	38	45	35
Shattering	3.0	1.5	1.0	2.2	1.5	1.5
Bacterial Pustule	2.5	1.0	1.0	1.0	1.0	1.0
Target Spot	1.0	1.0	1.0	1.0	1.0	1.0
Phytophthora Rot	2.5	1.0	1.5	1.5	3.0	2.5
Frogeye	2.0	1.0	2.0	1.0	1.0	1.0

Shattering - Blackville, State College, and Stoneville data
Bacterial Pustule - Stoneville data
Target Spot - Stoneville data
Frogeye - Florence data
Phytophthora Rot - Stoneville data

Table 36. - (continued)

	N58-5850	D60-8107	D60-12,327	F59-1362	F59-1851	Ga59-895
Seed Yield - 1963						
East Coast	39.2	37.3	34.3-	41.0	39.5	35.5-
Southeast	29.1+	25.2	24.4	28.8	28.4	26.3
Upper and Central South	40.1	37.8	36.0-	43.6	44.4	42.2
Delta	41.7	40.4	39.7	39.8	40.0	33.1
West	41.7	31.6	37.0	33.2	34.7	34.3
- 1962-63						
East Coast	40.3					
Southeast	30.4					
Upper and Central South	35.7					
Delta	43.6					
West	45.5					
- 1961-63						
East Coast						
Southeast						
Upper and Central South						
Delta						
West						
Oil Percentage - 1963	21.9	18.9-	21.0-	21.8	21.6	21.5
- 1962-63	22.3					
- 1961-63						
Protein Percentage - 1963	39.5+	43.9+	40.1+	39.2+	39.1+	40.1+
- 1962-63	39.9					
- 1961-63						
Seed Size	15.5	15.0	15.0	15.6	14.9	17.3
Maturity Index	0	-7	-5	-1	-2	0
Height	37	39	38	42	38	47
Shattering	1.5	2.0	1.5	1.3	2.0	1.5
Bacterial Pustule	1.0	1.0	1.0	1.0	1.0	1.0
Target Spot	1.0	1.0	1.0	1.0	1.0	1.0
Phytophthora Rot	2.0	1.0	1.0	2.5	3.0	2.5
Frogeye	1.0	1.0	1.0	2.0	1.0	3.0

Table 37. - Seed yield, in bushels per acre, for the strains in Uniform Group VII, 1963

Location	Jackson	Lee	Bragg	D58-4300	Ga58-33	D57-1501	N58-5850
East Coast							
Rocky Mount, N.C.	35.0	38.4	36.7	38.4	34.1	37.5	33.0
Clayton, N.C.	35.1	42.8	36.2	35.3	33.9	41.2	40.0
Willard, N.C.	38.7	29.6-	37.1	31.9	31.0	37.9	37.6
Florence, S.C.(A)	49.7	49.1	47.8	47.4	51.0	51.0	50.9
Florence, S.C.(B)	38.5	37.1	36.6	31.7	35.9	28.4	34.4
Hartsville, S. C.	40.0	35.6	39.4	39.8	39.1	40.7	39.3
Mean	39.5	38.8	39.0	37.4	37.5	39.4	39.2
Southeast							
Blackville, S.C.	24.2	21.3	23.4	26.3	21.7	22.1	26.4
Tallassee, Ala.	27.0	37.2	28.6	27.2	32.0	35.6	38.1
Gainesville, Fla.	13.9	11.6	13.2	19.0+	18.9+	15.7	15.4
Live Oak, Fla.	28.8	28.5	28.4	29.6	28.2	32.5	30.2
Quincy, Fla.	24.9	30.9+	26.9	28.1	25.5	32.9+	28.2
Jay, Fla.	35.8	35.1	33.5	34.4	36.1	44.7+	36.6
Fairhope, Ala.	28.5	30.7	29.0	28.9	27.5	31.2	28.7
Baton Rouge, La. 1/	29.3	30.3	26.6	23.3	32.1	23.5	33.0
Mean	26.2	27.9	26.1	27.6	27.2	30.7+	29.1+
Upper and Central South							
Clemson, S.C.	51.3	48.3	45.4-	45.0-	47.3	45.7	43.1-
Experiment, Ga.	53.4	55.6	50.4	53.8	58.3	59.4	53.7
State College, Miss.	23.1	28.3	28.3	25.7	19.9	33.4	23.6
Mean	42.6	44.1	41.4	41.5	41.8	46.2	40.1
Delta							
Stoneville, Miss.(A)	29.2	36.8	33.0	33.0	33.7	32.9	38.8
Stoneville, Miss.(B)	35.5	33.0	36.4	34.2	30.5-	34.8	34.1
St. Joseph, La.	48.6	36.7-	53.1	47.7	53.7	52.9	52.2
Mean	37.8	35.5	40.8	38.3	39.3	40.2	41.7
West							
Stuttgart, Ark.	36.1	39.6	34.8	34.8	33.8	41.0	37.7
Curtis, La.	27.0	43.4+	46.1+	35.4	25.6	45.4+	45.7+
Mean	31.6	41.5	40.5	35.1	29.7	43.2	41.7

1/ Not included in combined analysis.
(+) - Strains yielding significantly more (odds 19:1 or greater) than Jackson.
(-) - Strains yielding significantly less (odds 19:1 or greater) than Jackson.

Table 37. - (continued)

Location	D60-8107	D60-12,327	F59-1362	F59-1851	Ga59-895	L.S.D. (.05)	C.V.
			East Coast				
Rocky Mount, N.C.	33.1	30.0	36.9	34.9	32.7	5.1	9%
Clayton, N.C.	36.6	33.3	38.3	39.8	34.2	N.S.	10%
Willard, N.C.	37.7	22.9-	38.7	38.4	30.7	8.5	15%
Florence, S.C.(A)	45.6	47.8	55.5+	48.9	42.9-	5.5	7%
Florence, S.C.(B)	30.7	32.5	35.7	34.9	33.0	N.S.	13%
Hartsville, S.C.	39.8	39.5	41.1	40.4	39.4	N.S.	9%
Mean	37.3	34.3-	41.0	39.5	35.5-	3.4	
			Southeast				
Blackville, S.C.	17.2-	17.7-	28.6+	27.1	25.1	4.4	11%
Tallassee, Ala.	27.0	29.2	31.3	33.6	32.7	N.S.	15%
Gainesville, Fla.	14.7	9.4-	13.3	12.0	13.5	3.2	13%
Live Oak, Fla.	25.8	26.1	31.0	27.1	29.0	N.S.	9%
Quincy, Fla.	29.8+	27.3	28.3	30.0+	24.4	3.6	8%
Jay, Fla.	35.8	33.2	36.3	39.9	29.9	6.3	10%
Fairhope, Ala.	26.3	28.2	32.5	29.4	29.4	N.S.	11%
Baton Rouge, La. 1/	27.3	32.1	30.1	25.5	35.0	N.S.	46%
Mean	25.2	24.4	28.8	28.4	26.3	2.8	
			Upper and Central South				
Clemson, S.C.	35.6-	40.3-	47.4	50.6	48.7	5.8	7%
Experiment, Ga.	54.5	43.5	57.2	59.3	52.9	N.S.	9%
State College, Miss.	23.3	24.0	26.1	23.3	25.0	N.S.	28%
Mean	37.8	36.0-	43.6	44.4	42.2	5.1	
			Delta				
Stoneville, Miss.(A)	31.7	34.7	32.4	37.0	30.5	N.S.	11%
Stoneville, Miss.(B)	33.8	35.4	38.0	27.7-	30.3-	4.6	8%
St. Joseph, La.	55.6	49.0	49.1	55.3	38.3-	8.5	10%
Mean	40.4	39.7	39.8	40.0	33.1	N.S.	
			West				
Stuttgart, Ark.	41.2+	35.0	35.9	38.3	33.2	5.0	8%
Curtis, La.	22.0	38.9+	30.4	31.1	35.5	10.8	18%
Mean	31.6	37.0	33.2	34.7	34.3	N.S.	

Table 38. - Chemical composition and seed size for the strains in Uniform Group VII, 1963

Location	Jackson	Lee	Bragg	D58-4300	Ga58-33	D57-1501	N58-5850
			Oil Percentage				
Clayton, N.C.	19.8	19.7	19.9	19.1	18.7	19.4	19.2
Hartsville, S.C.	20.0	20.0	21.1	19.8	19.7	19.9	19.8
Blackville, S.C.	21.1	20.5	20.9	20.0	20.8	20.7	20.9
Live Oak, Fla.	23.1	22.1	23.3	23.1	24.4	23.2	24.0
Jay, Fla.	22.6	22.7	22.3	21.5	22.6	22.5	23.9
Experiment, Ga.	21.8	21.1	22.5	21.9	22.1	21.7	22.2
Stoneville, Miss.(A)	21.9	20.8	21.2	21.0	21.4	21.8	22.0
St. Joseph, La.	21.8	21.7	22.9	22.4	21.9	22.6	22.8
Mean	21.5	21.1	21.8	21.1	21.5	21.5	21.9
			Protein Percentage				
Clayton, N.C.	38.5	40.3	38.2	39.5	40.9	39.0	40.9
Hartsville, S.C.	38.6	39.5	40.1	38.5	38.6	38.4	40.0
Blackville, S.C.	39.2	42.9	41.0	40.0	40.9	41.4	41.2
Live Oak, Fla.	38.6	42.1	40.6	37.6	38.9	39.9	39.7
Jay, Fla.	38.4	38.2	39.1	36.5	37.4	38.2	36.3
Experiment, Ga.	39.6	40.0	38.8	37.3	37.4	38.8	39.2
Stoneville, Miss.(A)	38.8	40.7	39.5	37.5	38.8	36.1	39.0
St. Joseph, La.	39.0	40.1	40.0	38.3	39.2	39.1	39.5
Mean	38.8	40.5+	39.7+	38.2	39.0	38.9	39.5
			Grams per 100 Seeds				
Clayton, N.C.	15.3	14.0	15.6	14.2	17.4	12.6	15.2
Hartsville, S.C.	15.8	13.2	15.4	15.0	18.5	13.6	16.0
Blackville, S.C.	18.3	14.8	18.2	16.9	20.3	15.0	17.2
Live Oak, Fla.	13.6	13.8	14.1	12.5	15.6	13.3	14.5
Jay, Fla.	14.2	14.4	14.3	11.6	16.4	14.1	13.5
Experiment, Ga.	17.0	15.0	18.8	14.0	20.4	14.4	17.5
Stoneville, Miss.(A)	14.8	13.4	16.8	12.3	16.5	12.0	14.4
St. Joseph, La.	15.3	10.5	16.3	13.0	17.3	13.3	14.5
Mean	15.5	13.6-	16.2	13.7-	17.8+	13.5-	15.4

Table 38. - (continued)

Location	D60-8107	D60-12,327	F59-1362	F59-1851	Ga59-895	L.S.D. (.05)
			Oil Percentage			
Clayton, N.C.	17.5	19.0	19.6	19.2	19.6	
Hartsville, S.C.	18.4	19.7	21.4	20.0	20.4	
Blackville, S.C.	18.0	20.8	21.7	21.4	21.1	
Live Oak, Fla.	20.2	22.4	23.7	23.7	22.8	
Jay, Fla.	20.4	22.4	22.0	23.0	22.4	
Experiment, Ga.	19.2	21.0	22.1	21.2	21.6	
Stoneville, Miss.(A)	18.0	21.0	21.9	21.2	21.5	
St. Joseph, La.	19.2	21.8	22.2	22.7	22.6	
Mean	18.9-	21.0-	21.8	21.6	21.5	0.5
			Protein Percentage			
Clayton, N.C.	45.2	41.0	39.5	40.1	41.0	
Hartsville, S.C.	42.6	40.6	38.8	38.8	39.7	
Blackville, S.C.	45.9	41.4	41.2	40.3	41.6	
Live Oak, Fla.	45.8	39.7	38.8	38.3	41.2	
Jay, Fla.	41.1	38.2	37.9	37.5	37.8	
Experiment, Ga.	43.3	40.2	38.9	39.8	39.1	
Stoneville, Miss.(A)	43.5	39.5	39.0	39.2	39.2	
St. Joseph, La.	43.7	39.9	39.5	39.0	40.9	
Mean	43.9+	40.1+	39.2	39.1	40.1+	0.8
			Grams per 100 Seeds			
Clayton, N.C.	15.6	14.0	15.3	14.2	17.3	
Hartsville, S.C.	15.4	14.3	15.6	14.3	17.8	
Blackville, S.C.	14.4	16.1	19.3	16.3	20.2	
Live Oak, Fla.	14.5	12.4	14.7	13.3	15.4	
Jay, Fla.	14.5	15.4	14.4	14.3	15.8	
Experiment, Ga.	17.5	17.5	17.2	18.0	19.8	
Stoneville, Miss.(A)	13.0	13.2	13.6	13.1	15.2	
St. Joseph, La.	14.5	14.5	14.0	14.0	15.0	
Mean	14.9	14.7	15.5	14.7	17.1+	0.9

Table 39. - Relative maturity data, days earlier (-) or later (+) than Jackson, for the strains in Uniform Group VII, 1963

Location	Date Planted	Jackson Matured	Lee	Bragg	D58-4300	Ga58-33	D57-1501
			East Coast				
Rocky Mount,N.C.	5-25	10-31	-8	-2	-4	0	-4
Clayton, N.C.	5-15	10-30	-8	-4	-4	+2	-4
Willard, N.C.	5-13	10-27	-15	-6	-4	+2	-5
Florence, S.C.(A)	5-17	11-7	-9	-7	+2	+4	+4
Florence, S.C.(B)	6-2	11-8	-11	-9	0	0	0
Hartsville, S.C.	6-4	11-3	-16	-8	-3	+3	-10
Mean		11-2	-11	-6	-2	+2	-3
			Southeast				
Tallassee, Ala.	5-14	10-11	-5	0	+4	+4	-1
Gainesville, Fla.	6-6	10-16	-6	+2	+6	+4	-4
Quincy, Fla.	6-10	10-17	-9	-2	-1	+4	-1
Jay, Fla.	5-23	10-11	-9	-5	-2	0	-5
Fairhope, Ala.	6-29	10-20	-3	-3	+3	+6	-3
Baton Rouge, La.	5-22	10-27	-11	-2	+3	-2	-11
Mean		10-17	-7	-2	+2	+3	-4
			Upper and Central South				
Clemson, S.C.	5-22	10-25	-10	-2	-5	+4	-7
Experiment, Ga.	5-8	10-25	-13	-5	-2	+1	-5
State College, Miss.	5-6	10-21	-13	-5	-3	+2	-7
Mean		10-24	-12	-4	-3	+3	-6
			Delta				
Stoneville, Miss.(A)	5-9	10-24	-8	0	-2	+4	-6
Stoneville, Miss.(B)	5-14	10-23	-9	-4	-5	+3	-5
St. Joseph, La.	5-28	11-2	-21	-8	-9	-1	-9
Mean		10-27	-13	-4	-5	+2	-7
			West				
Stuttgart, Ark.	6-3	10-25	-5	+1	0	+2	-1
Curtis, La.	5-22	10-28	-7	-3	+2	-4	-12
Mean		10-27	-6	-1	+1	-1	-7

Table 39. - (continued)

Location	N58-5850	D60-8107	D60-12,327	F59-1362	F59-1851	Ga59-895
			East Coast			
Rocky Mount, N.C.	-2	-4	-4	-2	-2	0
Clayton, N.C.	-2	-6	-4	-4	-2	0
Willard, N.C.	+1	-7	-8	-5	-1	0
Florence, S.C.(A)	+2	+1	+2	+3	+3	+3
Florence, S.C.(B)	0	-2	+10	0	0	+10
Hartsville, S.C.	-2	-11	-10	-6	-1	-3
Mean	0	-5	-2	-2	0	+2
			Southeast			
Tallassee, Ala.	+5	-5	-3	+1	-2	+9
Gainesville, Fla.	+5	-9	-8	+2	-7	+4
Quincy, Fla.	-2	-8	-7	+1	-5	+3
Jay, Fla.	-1	-8	-8	-2	0	-2
Fairhope, Ala.	-3	-3	-3	-3	-3	+3
Baton Rouge, La.	+3	-12	-12	+3	-4	-2
Mean	+1	-8	-7	0	-4	+3
			Upper and Central South			
Clemson, S.C.	+4	-5	-4	-2	-2	+4
Experiment, Ga.	0	-13	-6	0	+1	0
State College, Miss.	-6	-13	-4	-6	-11	-2
Mean	0	-10	-5	-3	-4	0
			Delta			
Stoneville, Miss.(A)	+1	-6	-2	+1	+2	+3
Stoneville, Miss.(B)	0	-9	-5	-1	-1	-1
St. Joseph, La.	-7	-8	-9	-9	-8	-9
Mean	-2	-8	-5	-3	-2	-2
			West			
Stuttgart, Ark.	+1	-2	+1	0	0	0
Curtis, La.	+2	-11	-13	+2	-6	-4
Mean	+2	-7	-6	+1	-3	-2

Table 40. - Plant height for the strains in Uniform Group VII, 1963

Location	Jackson	Lee	Bragg	D58-4300	Ga58-33	D57-1501
			East Coast			
Rocky Mount, N.C.	46	37	45	44	48	38
Clayton, N.C.	46	34	44	39	47	40
Willard, N.C.	44	32	44	31	50	39
Florence, S.C.(A)	44	32	43	37	45	38
Florences, S.C.(B)	30	20	30	23	36	20
Hartsville, S.C.	38	29	40	34	41	28
Mean	41	31	41	35	45	34
			Southeast			
Tallassee, Ala.	40	33	43	43	45	39
Gainesville, Fla.	37	24	37	35	37	30
Live Oak, Fla.	32	26	32	32	31	24
Quincy, Fla.	26	23	28	30	37	23
Jay, Fla.	39	28	36	36	36	36
Fairhope, Ala.	25	19	27	29	30	18
Baton Rouge, La.	34	22	34	32	44	18
Mean	33	25	34	34	37	27
			Upper and Central South			
Clemson, S. C.	41	38	43	33	46	34
Experiment, Ga.	45	34	46	37	47	41
State College, Miss.	44	32	44	40	55	40
Mean	43	35	44	37	49	38
			Delta			
Stoneville, Miss.(A)	47	38	49	44	52	46
Stoneville, Miss.(B)	44	31	45	41	47	35
St. Joseph, La.	38	29	37	39	40	37
Mean	43	33	44	41	46	39
			West			
Stuttgart, Ark.	44	33	47	42	47	40
Curtis, La.	39	24	39	37	45	31
Mean	42	29	43	40	46	36

Table 40. - (continued)

Location	N58-5850	D60-8107	D60-12,327	F59-1362	F59-1851	Ga59-895
			East Coast			
Rocky Mount, N.C.	44	42	40	43	42	47
Clayton, N.C.	37	41	37	38	45	45
Willard, N.C.	43	45	42	47	41	51
Florence, S.C.(A)	40	41	40	42	38	46
Florence, S.C.(B)	27	25	22	33	27	33
Hartsville, S.C.	31	36	35	38	36	43
Mean	37	38	36	40	38	44
			Southeast			
Tallassee, Ala.	40	39	40	44	41	44
Gainesville, Fla.	29	35	35	43	32	46
Live Oak, Fla.	32	31	31	35	27	41
Quincy, Fla.	28	27	30	34	28	41
Jay, Fla.	36	40	38	41	35	43
Fairhope, Ala.	16	20	26	20	17	35
Baton Rouge, La.	22	28	30	34	26	45
Mean	29	31	33	36	29	42
			Upper and Central South			
Clemson, S.C.	38	41	38	42	40	46
Experiment, Ga.	41	45	44	46	49	54
State College, Miss.	38	40	40	43	45	51
Mean	39	42	41	44	45	50
			Delta			
Stoneville, Miss.(A)	43	46	43	48	43	55
Stoneville, Miss.(B)	39	41	39	45	39	47
St. Joseph, La.	39	36	36	40	35	43
Mean	40	41	39	44	39	48
			West			
Stuttgart, Ark.	39	41	41	43	40	47
Curtis, La.	35	37	38	38	41	46
Mean	37	39	40	41	41	47

Table 41. - Lodging scores for the strains in Uniform Group VII, 1963

Location	Jackson	Lee	Bragg	D58-4300	Ga58-33	D57-1501
			East Coast			
Rocky Mount, N.C.	3.0	3.0	3.0	3.0	3.7	3.0
Clayton, N.C.	2.7	3.3	3.3	3.7	4.3	2.7
Willard, N.C.	3.8	2.7	2.0	2.0	3.7	2.0
Florence, S.C.(A)	1.0	1.0	1.0	1.0	2.0	1.0
Florence, S.C.(B)	1.0	1.0	1.0	1.0	1.0	1.0
Hartsville, S.C.	2.1	2.0	2.2	2.3	4.0	1.2
			Southeast			
Tallassee, Ala.	2.0	1.0	3.0	2.0	2.0	1.0
Gainesville, Fla.	1.7	1.0	1.0	1.0	2.0	1.0
Live Oak, Fla.	1.0	1.0	1.0	1.0	2.0	1.0
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Jay, Fla.	2.0	1.0	2.0	2.0	2.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	2.0	1.0	2.0	2.0	2.0	1.0
			Upper and Central South			
Clemson, S.C.	2.3	1.7	2.0	1.3	3.5	1.3
Experiment, Ga.	2.0	1.0	2.0	1.7	3.0	1.0
State College, Miss.	2.0	2.0	3.0	2.0	4.0	2.0
			Delta			
Stoneville, Miss.(A)	3.3	2.7	3.3	3.0	4.0	2.3
Stoneville, Miss.(B)	3.0	2.3	3.0	3.0	3.0	2.0
St. Joseph, La.	3.0	2.0	3.0	2.0	3.0	2.0
			West			
Stuttgart, Ark.	1.3	1.7	2.0	1.0	2.7	1.0
Curtis, La.	2.0	1.0	3.0	3.0	4.0	1.0

Table 41. - (continued)

Location	N58-5850	D60-8107	D60-12,327	F59 1362	F59-1851	Ga59-895
			East Coast			
Rocky Mount, N.C.	4.0	2.7	3.3	2.7	3.0	3.2
Clayton, N.C.	4.0	2.7	2.7	3.7	3.2	3.7
Willard, N.C.	3.3	3.3	3.0	3.2	3.0	3.5
Florence, S.C.(A)	1.0	1.0	1.0	1.0	2.0	2.0
Florence, S.C.(B)	1.0	1.0	1.0	1.0	1.0	1.0
Hartsville, S.C.	3.0	2.7	1.4	1.9	3.0	3.0
			Southeast			
Tallassee, Ala.	2.0	1.0	1.0	2.0	2.0	3.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.3	2.0
Live Oak, Fla.	1.0	1.0	1.0	1.0	1.0	2.0
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Jay, Fla.	2.0	1.0	1.0	3.0	2.0	3.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	2.0	1.0	2.0	2.0	2.0	2.0
			Upper and Central South			
Clemson, S. C.	2.3	1.0	1.7	1.8	2.8	4.0
Experiment, Ga.	3.0	1.3	1.7	2.7	3.0	2.3
State College, Miss.	3.0	2.0	2.0	3.0	2.0	4.0
			Delta			
Stoneville, Miss.(A)	4.0	3.0	3.0	3.3	3.0	4.0
Stoneville, Miss.(B)	3.0	2.3	2.3	3.0	3.0	3.0
St. Joseph, La.	3.0	3.0	2.0	2.0	3.0	4.0
			West			
Stuttgart, Ark.	2.0	1.7	1.7	2.0	1.7	2.3
Curtis, La.	3.0	3.0	2.0	3.0	3.0	3.0

Table 42. - Seed quality scores for the strains in Uniform Group VII, 1963

Location	Jackson	Lee	Bragg	D58-4300	Ga58-33	D57-1501
			East Coast			
Rocky Mount, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
Clayton, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
Willard, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
Hartsville, S.C.	1.0	1.0	2.0	1.0	1.0	1.0
			Southeast			
Tallassee, Ala.	2.0	1.0	2.0	1.0	2.0	1.0
Gainesville, Fla.	2.0	3.0	2.3	1.3	2.0	2.0
Live Oak, Fla.	1.0	1.0	1.0	1.0	2.0	1.0
Quincy, Fla.	2.0	2.0	2.0	2.0	2.0	2.0
Jay, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	2.0	2.0	1.5	1.8	2.7	1.5
Baton Rouge, La.	2.0	2.0	1.0	1.0	1.0	1.0
			Upper and Central South			
Clemson, S.C.	1.0	1.0	1.5	1.3	3.0	2.5
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.3
State College, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
			Delta			
Stoneville, Miss.(A)	2.0	1.0	1.0	1.7	2.0	1.0
Stoneville, Miss.(B)	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	2.0	1.0	1.0	1.0	2.0	1.0
			West			
Stuttgart, Ark.	1.7	1.7	2.0	2.0	3.0	2.0
Curtis, La.	1.0	2.0	1.0	1.0	2.0	1.0

Table 42. - (continued)

Location	N58-5850	D60-8107	D60-12,327	F59-1362	F59-1851	Ga59-895
			East Coast			
Rocky Mount, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
Clayton, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
Willard, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
Hartsville, S.C.	1.0	2.0	1.0	1.0	3.0	1.0
			Southeast			
Tallassee, Ala.	2.0	2.0	2.0	1.0	2.0	2.0
Gainesville, Fla.	2.0	2.3	1.7	1.7	2.0	1.7
Live Oak, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Quincy, Fla.	3.0	4.0	2.0	3.0	3.0	2.0
Jay, Fla.	1.0	1.0	1.0	2.0	1.0	1.0
Fairhope, Ala.	2.5	2.7	2.8	1.0	2.3	1.7
Baton Rouge, La.	2.0	1.0	1.0	2.0	2.0	1.0
			Upper and Central South			
Clemson, S.C.	3.5	2.5	2.0	2.0	2.0	2.0
Experiment, Ga.	1.0	1.0	1.0	1.3	1.0	1.0
State College, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
			Delta			
Stoneville, Miss.(A)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, Miss.(B)	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	1.0	2.0	2.0	1.0	2.0	2.0
			West			
Stuttgart, Ark.	1.7	1.7	2.3	2.7	2.0	2.0
Curtis, La.	2.0	1.0	1.0	2.0	1.0	1.0

PRELIMINARY GROUP VII

1963

Seven Preliminary Group VII nurseries were grown. The parentage of these lines is reported in table 43. Performance data are summarized in tables 45 through 49. Differences in seed yield were significant in four of the seven plantings. On the basis of the combined analysis of variance for seed yield, there were no strains yielding significantly better than Jackson. One strain, F59-1505, yielded significantly better than Bragg. Twenty-three strains yielded significantly less than Jackson.

Conditions were favorable for expression of shattering at several of the locations. Seven strains appeared equal to Bragg in seed holding.

Eighteen strains were significantly higher in protein and lower in oil than Jackson.

D61-5400 and F59-1485 were severely damaged by root-knot nematodes at Willard.

Among the better performing lines are D61-5306, F59-1505, F61-1864, and N60-5174. D61-5306 appeared to withstand drouth conditions somewhat better than other strains. It looked particularly good at Blackville and Tallassee. F59-1505 was included in Preliminary VII in 1962 and ranked at the top in yield as it did again in 1963. F61-1864 was outstanding in lodging resistance. N60-5174 combines high protein percentage with fairly satisfactory agronomic qualities.

Table 43. - Parentage of strains in Preliminary Group VII, 1963

	Strain	Parentage	Generation Composited
1.	Jackson	Volstate(2) x Palmetto	F_4
2.	Bragg (F58-3786)	Jackson x D49-2491	F_6
3.	D58-4409	D51-5052 x D49-2491	F_5
4.	D58-10,143	D49-2491 x (D51-5052 x PI 171,438	F_5
5.	D59-6941	Jackson(3) x D49-2491	F_4
6.	D59-6955	Jackson(3) x D49-2491	F_4
7.	D60-7965	D55-4090 x D55-4159	F_5
8.	D60-8106	D51-4877 x D55-4168	F_5
9.	D60-8922	D51-4877 x D55-4168	F_5
10.	D60-11,418	D51-5427 x D49-2491	F_6
11.	D60-11,783	D51-5427 x D49-2491	F_6
12.	D61-4269	D49-2491(6) x Barchet	F_4
13.	D61-5306	Lee x PI 200,532	F_7
14.	D61-5400	Lee x PI 200,532	F_7
15.	F59-1285	Jackson x D49-2491	F_5
16.	F59-1485	Jackson x D49-2491	F_5
17.	F59-1505	Jackson x D49-2491	F_5
18.	F60-1952	D49-2491(3) x Biloxi	F_4
19.	F60-2006	D49-2491(3) x Biloxi	F_5
20.	F60-2014	D49-2491(3) x Biloxi	F_5
21.	F61-1864	Palmetto x D49-2491	F_7
22.	N60-5101	D55-4110 x N56-4071	F_5
23.	N60-5127	D55-4110 x N56-4071	F_5
24.	N50-5132	D55-4110 x N56-4071	F_5
25.	N60-5136	D55-4110 x N56-4071	F_5
26.	N60-5159	D55-4110 x N56-4071	F_5
27.	N60-5168	D55-4110 x N56-4071	F_5
28.	N60-5170	D55-4110 x N56-4071	F_5
29.	N60-5174	D55-4110 x N56-4071	F_5
30.	N60-5189	D55-4110 x N56-4071	F_5
31.	N60-5210	D55-4110 x N56-4071	F_5
32.	N60-5219	D55-4110 x N56-4071	F_5
33.	N60-5229	D55-4110 x N56-4071	F_5
34.	N60-5237	D55-4110 x N56-4071	F_5
35.	N60-5293	D55-4110 x N56-4071	F_5
36.	N60-5303	D55-4110 x N56-4071	F_5

Table 44. - General summary of performance for the strains in Preliminary Group VII, 1963

Strain	Seed Yield	Maturity Index	Ht.	Percent Oil	Percent Protein	Shatter	Phytoph-thora Rot	Target Spot
Jackson	35.4	10-21	44	21.2	39.4	2.5	2.5	1.0
Bragg(F58-3786)	32.8	-4	44	21.0	40.0	1.0	1.0	1.0
D58-4409	35.6	-1	41	21.6	38.5	1.2	1.0	1.0
D58-10,143	28.8-	-5	41	19.6-	40.6+	3.5	1.0	1.0
D59-6941	31.5	-2	41	21.9+	39.3	2.0	1.0	1.0
D59-6955	33.9	-1	42	20.7	40.4	2.5	1.0	1.0
D60-7965	26.0-	0	44	18.4-	45.8+	3.0	1.0	1.0
D60-8106	29.8-	-8	42	18.5-	44.6+	3.2	1.0	1.0
D60-8922	30.2-	-5	42	20.6	41.9+	2.0	1.0	1.0
D60-11,418	28.9-	-2	38	21.8+	39.6	1.2	1.0	1.0
D60-11,783	33.3	+1	36	21.4	40.4	1.7	1.0	1.0
D61-4269	32.4	0	38	21.3	39.6	1.0	1.5	1.0
D61-5306	33.7	+3	40	19.2-	40.0	1.0	1.0	2.0
D61-5400	23.2-	-9	41	19.7-	40.8+	3.0	1.0	2.5
F59-1285	33.5	0	38	21.1	40.0	1.7	2.0	2.0
F59-1485	28.4-	-2	44	21.9+	40.0	1.5	1.5	1.0
F59-1505	37.6	-2	47	20.9	40.2	1.2	1.5	1.0
F60-1952	31.8	0	36	21.6	39.8	1.2	1.5	1.0
F60-2006	30.0-	-5	41	21.0	40.9+	1.0	1.5	1.0
F60-2014	27.0-	-5	42	21.0	41.8+	1.5	1.5	1.0
F61-1864	31.9	-3	34	20.0-	41.1+	2.0	1.5	1.0
N60-5101	30.7-	-7	30	19.9-	45.0+	3.0	1.5	1.0
N60-5127	29.9-	-1	39	20.2-	42.9+	2.7	1.5	1.0
N60-5132	30.4-	-5	37	20.4-	42.2+	3.0	1.5	1.0
N60-5136	28.0-	-6	33	19.6-	44.5+	2.0	2.5	1.0
N60-5159	29.6-	-3	38	20.3-	42.7+	2.3	1.5	1.0
N60-5168	29.6-	-8	30	21.2	43.6+	2.5	2.0	1.0
N60-5170	28.4-	-7	33	20.2-	44.2+	3.2	1.5	1.0
N60-5174	32.0	+2	37	19.2-	45.6+	2.0	2.0	1.0
N60-5189	29.8-	-5	36	19.7-	44.5+	3.0	1.5	1.0
N60-5210	28.5-	-5	35	20.1-	44.6+	3.0	1.0	1.0
N60-5219	28.9-	-5	32	19.9-	43.2+	3.2	1.5	1.0
N60-5229	29.4-	-5	34	21.1	42.1+	2.2	2.0	1.0
N60-5237	27.1-	-5	34	20.5-	44.1+	2.5	1.5	1.0
N60-5293	29.7-	-5	39	20.5-	44.5+	2.0	2.0	1.0
N60-5303	25.4-	-3	39	19.0-	45.1+	3.0	2.0	1.0
L.S.D.(.05)	4.6			0.6	1.1			
L.S.D.(.01)	6.0			0.8	1.5			

Shatter - Stoneville, Tallassee, and Gainesville data
Phytophthora Rot - Stoneville data
Target Spot - Stoneville data

Table 45. - Seed yield, in bushels per acre, for the strains in Preliminary Group VII, 1963

	Willard, N.C.	Black-ville, S.C.	Experi-ment, Ga.	Tallassee, Ala.	Gainesville, Fla.	Jay, Fla.	Stoneville, Miss.(A)
Jackson	37.8	27.0	53.1	35.0	29.5	36.2	29.4
Bragg	38.1	26.5	41.7	33.3	26.3	32.3	31.2
D58-4409	41.8	29.0	48.3	32.5	26.2	35.5	36.1+
D58-10,143	33.7	20.1-	40.3	19.1-	21.2	34.8	32.6
D59-6941	36.6	24.5	55.5	29.2	18.4	33.0	23.4
D59-6955	43.0	23.0	48.4	25.2	31.8	30.5-	35.6
D60-7965	22.4	17.0-	35.4	29.6	31.1	27.3-	19.5-
D60-8106	28.4	21.7-	46.3	25.5	24.0	34.1	28.6
D60-8922	28.8	23.0	48.7	26.9	14.8	39.1	30.5
D60-11,418	28.8	25.1	41.1	25.5	15.5	32.7	33.6
D60-11,783	43.6	23.3	44.3	32.6	23.7	31.2-	34.8
D61-4269	32.2	28.4	41.6	34.0	25.5	33.0	32.3
D61-5306	38.1	27.5	42.9	40.8	27.5	32.6	26.3
D61-5400	-- 1/	18.0-	43.5	20.8-	15.5	30.8-	29.1
F59-1285	37.8	25.6	41.5	37.0	25.7	32.6	34.3
F59-1485	-- 1/	28.0	46.6	29.6	9.2	38.7	40.1+
F59-1505	41.0	25.0	40.6	43.2	38.4	40.2	35.0
F60-1952	27.5	24.5	42.0	33.0	31.6	33.7	30.6
F60-2006	25.2	25.0	43.4	33.0	22.2	34.8	26.2
F60-2014	32.4	21.0-	36.7	18.4-	19.5	33.0	27.8
F61-1864	29.5	22.6	45.4	31.6	25.3	35.1	33.7
N60-5101	38.1	22.5	45.0	23.5-	30.3	29.8-	26.0
N60-5127	29.8	26.3	42.9	29.0	26.8	31.9	22.7-
N60-5132	36.0	22.6	47.8	26.2	21.3	33.4	25.6
N60-5136	34.3	24.3	37.3	21.4-	19.9	34.4	24.5
N60-5159	42.2	21.9	38.3	25.5	20.7	28.0-	30.4
N60-5168	42.6	19.7-	43.8	28.2	21.5	24.4-	26.8
N60-5170	40.6	18.2-	31.9	19.4-	29.0	31.2-	28.3
N60-5174	36.4	23.6	42.5	30.7	31.3	33.4	26.4
N60-5189	35.4	21.1-	42.8	21.1-	31.8	33.0	23.5
N60-5210	35.8	21.1-	40.3	30.3	23.3	25.8-	22.8
N60-5219	37.2	20.2-	36.3	20.8-	24.8	33.7	29.3
N60-5229	37.4	22.9	40.7	28.9	19.3	30.9-	25.7
N60-5237	38.0	25.1	40.2	16.7-	12.7	28.7	28.4
N60-5293	40.2	24.7	41.7	29.6	20.8	28.0	23.0
N60-5303	33.9	17.3-	34.9	17.3	20.0	31.9	22.3-
L.S.D.(.05)	N.S.	5.2	N.S.	11.4	N.S.	5.0	6.7
C.V.	19%	11%	12%	20%	34%	8%	11%

1/ Severely injured by root-knot nematodes.

Table 46. - Oil percentages for the strains in Preliminary Group VII, 1963

Strain	Willard, N.C.	Experiment, Ga.	Jay, Fla.	Stoneville, Miss.(A)
Jackson	20.9	21.3	21.0	21.6
Bragg	19.8	21.8	21.4	20.8
D58-4409	20.6	22.2	21.8	21.7
D58-10,143	18.6	20.1	20.4	19.2
D59-6941	21.1	22.1	22.7	21.5
D59-6955	19.8	21.5	20.6	20.9
D60-7965	17.5	18.2	19.1	18.6
D60-8106	17.7	18.3	19.9	17.9
D60-8922	20.0	20.1	21.7	20.5
D60-11,418	20.7	22.0	22.7	21.9
D60-11,783	20.1	22.4	21.8	21.3
D61-4269	19.7	21.4	22.5	21.4
D61-5306	18.0	19.7	20.1	18.8
D61-5400	19.0	20.4	20.3	19.4
F59-1285	20.0	21.5	21.5	21.2
F59-1485	21.6	21.8	22.3	21.7
F59-1505	19.5	20.8	22.4	20.9
F60-1952	20.9	21.8	22.4	21.1
F60-2006	20.1	21.4	21.3	21.1
F60-2014	19.6	21.9	22.2	20.1
F61-1864	19.0	20.1	21.0	19.9
N60-5101	18.7	20.8	20.1	19.9
N60-5127	18.7	20.9	21.0	20.0
N60-5132	19.8	21.1	20.9	19.8
N60-5136	18.5	20.1	20.8	19.1
N60-5159	19.2	20.7	21.2	20.0
N60-5168	20.3	20.9	22.6	20.9
N60-5170	19.2	20.8	21.0	19.9
N60-5174	17.9	19.4	20.3	19.0
N60-5189	18.7	20.9	19.3	19.8
N60-5210	18.8	20.5	20.7	20.2
N60-5219	19.4	19.8	20.3	20.0
N60-5229	19.9	21.9	21.3	21.3
N60-5237	19.1	21.1	21.3	20.5
N60-5293	19.5	21.3	20.2	21.0
N60-5303	18.1	19.6	19.1	19.0

Table 47. - Protein percentages for the strains in Preliminary Group VII, 1963

Strain	Willard, N.C.	Experiment, Ga.	Jay, Fla.	Stoneville, Miss.(A)
Jackson	41.4	40.3	37.5	38.3
Bragg	41.7	39.7	39.0	39.7
D58-4409	40.0	37.6	38.0	38.2
D58-10,143	42.5	40.6	38.8	40.3
D59-6941	41.4	38.9	37.8	39.0
D59-6955	42.1	39.8	40.1	39.4
D60-7965	49.7	46.6	41.7	45.3
D60-8106	47.0	45.3	41.1	45.1
D60-8922	43.5	42.5	40.1	41.4
D60-11,418	42.0	40.0	37.0	39.4
D60-11,783	43.4	40.0	37.8	40.5
D61-4269	43.0	40.0	36.0	39.5
D61-5306	42.7	39.9	37.4	39.9
D61-5400	44.9	40.6	37.7	40.0
F59-1285	42.0	40.6	38.3	39.0
F59-1485	41.0	41.1	38.2	39.6
F59-1505	41.6	40.7	38.1	40.2
F60-1952	41.6	39.9	37.5	40.3
F60-2006	42.9	41.6	38.2	40.9
F60-2014	45.3	41.9	39.4	40.7
F61-1864	42.4	42.0	39.5	40.6
N60-5101	47.1	44.7	43.0	45.0
N60-5127	44.9	43.6	39.5	43.4
N60-5132	44.3	42.4	40.5	41.6
N60-5136	46.2	43.8	42.6	45.5
N60-5159	45.0	42.7	40.4	42.5
N60-5168	44.5	45.2	41.5	43.1
N60-5170	46.5	45.2	41.6	43.3
N60-5174	47.7	45.6	43.7	45.3
N60-5189	47.6	44.5	42.1	43.9
N60-5210	47.6	44.6	42.3	43.7
N60-5219	44.3	44.2	41.6	42.8
N60-5229	44.3	42.2	40.9	41.0
N60-5237	46.2	44.1	42.4	43.5
N60-5293	46.5	44.9	44.0	42.7
N60-5303	47.1	45.5	43.0	44.6

Table 48. - Plant height for the strains in Preliminary Group VII, 1963

Strain	Willard, N.C.	Experiment, Ga.	Tallassee, Ala.	Gainesville, Fla.	Jay, Fla.	Stoneville, Miss.(A)
Jackson	46	46	42	39	39	49
Bragg	48	48	42	39	37	50
D58-4409	44	41	35	36	41	46
D58-10,143	39	41	40	37	39	47
D59-6941	41	47	35	39	40	46
D59-6955	48	42	39	35	44	45
D60-7965	48	48	45	39	41	45
D60-8106	41	45	38	40	42	44
D60-8922	43	45	39	37	43	46
D60-11,418	40	36	37	35	36	43
D60-11,783	39	36	34	33	36	38
D61-4269	39	34	39	36	36	41
D61-5306	39	40	37	37	41	44
D61-5400	45	38	40	42	37	44
F59-1285	39	36	38	34	36	42
F59-1485	45	45	42	44	43	45
F59-1505	51	51	42	41	44	54
F60-1952	38	34	36	36	33	41
F60-2006	44	45	40	37	38	44
F60-2014	46	43	42	38	35	48
F61-1864	34	32	34	33	34	38
N60-5101	34	29	29	23	26	36
N60-5127	46	37	38	32	32	46
N60-5132	42	37	37	31	34	41
N60-5136	38	32	35	27	26	41
N60-5159	44	40	36	30	32	44
N60-5168	39	32	34	20	18	35
N60-5170	42	33	37	23	26	39
N60-5174	41	38	36	34	31	42
N60-5189	40	40	37	33	26	41
N60-5210	44	32	36	26	28	41
N60-5219	34	31	33	27	32	36
N60-5229	42	31	33	26	29	41
N60-5237	39	34	35	29	28	37
N60-5293	44	40	39	30	36	43
N60-5303	43	40	39	31	36	43

Table 49. - Seed quality scores for the strains in Preliminary Group VII, 1963

Strain	Willard, N.C.	Experiment, Ga.	Tallassee, Ala.	Gainesville, Fla.	Jay, Fla.	Stoneville, Miss.(A)
Jackson	1.0	2.0	2.0	1.0	1.0	2.0
Bragg	1.0	1.0	1.5	1.5	1.0	2.0
D58-4409	1.0	1.5	1.5	1.0	1.0	2.0
D58-10,143	1.5	1.5	3.0	1.5	2.0	2.0
D59-6941	1.0	1.5	3.0	2.0	1.0	2.0
D59-6955	1.0	1.5	3.0	1.0	1.0	2.0
D60-7965	1.0	1.0	3.0	1.0	1.0	2.0
D60-8106	1.5	1.0	3.0	2.0	1.0	2.0
D60-8922	1.5	1.0	3.5	2.0	2.0	2.0
D60-11,418	1.5	1.0	3.5	1.5	2.0	2.0
D60-11,783	1.0	1.0	4.0	1.5	1.0	2.0
D61-4269	1.0	1.0	1.0	1.0	1.0	2.0
D61-5306	1.0	1.5	2.0	1.0	2.0	2.0
D61-5400	1.5	1.0	1.5	1.5	1.0	2.0
F59-1285	1.0	1.0	2.5	1.0	1.0	2.0
F59-1485	1.0	1.0	2.0	2.0	2.0	1.0
F59-1505	1.0	1.0	3.5	1.0	1.0	2.0
F60-1952	1.0	1.0	1.5	1.0	1.0	2.0
F60-2006	1.0	1.0	2.5	1.0	1.0	2.0
F60-2014	1.0	1.0	2.5	1.0	1.0	2.0
F61-1864	1.0	1.0	2.5	1.0	1.0	2.0
N60-5101	1.0	1.0	2.5	1.0	1.0	2.0
N60-5127	1.0	1.0	4.0	2.5	1.0	2.0
N60-5132	1.0	1.0	2.0	1.5	1.0	2.0
N60-5136	1.0	1.0	2.5	2.0	1.0	2.0
N60-5159	1.0	1.0	4.0	1.5	1.0	2.0
N60-5168	1.5	1.0	2.5	2.0	1.0	2.0
N60-5170	1.0	1.0	2.0	1.0	1.0	2.0
N60-5174	1.0	1.0	1.5	1.0	1.0	2.0
N60-5189	1.0	1.0	3.0	1.0	1.0	2.0
N60-5210	1.0	1.0	2.5	1.5	1.0	2.0
N60-5219	1.0	1.0	2.5	2.0	1.0	2.0
N60-5229	1.0	2.5	2.0	2.5	1.0	2.0
N60-5237	1.0	1.0	2.5	3.0	2.0	2.0
N60-5293	1.0	2.0	2.0	1.5	2.0	2.0
N60-5303	1.0	2.0	3.0	1.5	1.0	2.0

UNIFORM GROUP VIII

1963

	Variety or Strain	Parentage	Generation Composited
1.	Bienville	Pelican #2 x Ogden	
2.	Jackson	Volstate(2) x Palmetto	F_4
3.	Hampton	Majos x Lee	
4.	Hardee	D49-722 x Improved Pelican	F_7
5.	La58-54-6	Pelican #2 x Ogden	
6.	La59-7-21	Pelican #2 x Ogden	
7.	Co60-231	Majos x Lee	
8.	F58-6421	D49-772 x Improved Pelican	F_7
9.	F59-2008	D49-2491(2) x Improved Pelican	F_5
10.	F59-2643	D49-2491(2) x Barchet	F_5
11.	La59-72-11	Pelican #2 x Ogden	
12.	La60-97-A	Pelican #2 x Ogden	

Background of strains used as parents:

D49-772 is a selection from Roanoke x N45-745 which was tested in Uniform Group VII. It is resistant to bacterial pustule and target spot.

D49-2491 is a selection from S-100 x CNS closely related to Lee.

Nineteen Group VIII nurseries were planted. Results of 16 of these nurseries are summarized in tables 50 through 56, with table 50 giving a general summary of agronomic qualities, chemical composition of the seed, and reaction to several diseases. Two- and three-year data are reported for seed yield and oil and protein percentages.

Differences in seed yield were significant in 11 of the 16 comparisons. The combined analysis of variance for the mean seed yields by production areas showed strain differences to be nonsignificant.

The 3-year mean shows Hampton to be 3 bushels above Bienville and 4 bushels of Jackson in the Southeast. Hampton is also superior to Bienville and Jackson in seed holding. La58-4-6 has been tested three years. Its yield performance has been very similar to that for Bienville. At Florence, a difference in reaction to frogeye was noted. La59-7-21 has been tested two years. Its 2-year mean yield is above that for Bienville.

Six strains were tested for the first time. Not any of these lines gave a regional performance superior to the named varieties.

Table 50. - General summary of performance for the strains in Uniform Group VIII, 1963

	Bienville	Jackson	Hampton	Hardee	La58-54-6	La59-7-21
Seed Yield - 1963						
Southeast	29.4	29.2	32.9	28.2	29.8	30.8
West	35.6	34.5	38.4	30.2	33.0	35.0
- 1962-63						
Southeast	32.4	31.9	35.6	31.5	33.5	34.2
West	35.5	38.4	40.9	36.5	36.3	39.9
- 1961-63						
Southeast	32.7	31.7	35.7	32.7	33.7	
West	38.0	38.6	41.5	36.8	37.7	
Oil Percentage - 1963	20.8	21.2	21.7+	21.4	20.7	20.7
- 1962-63	21.5	21.9	22.4	21.8	21.2	21.7
- 1961-63	21.6	22.0	22.3	21.5	21.2	
Protein Percentage - 1963	40.9	40.0	38.7-	40.5	41.3	41.4
- 1962-63	40.5	40.0	38.3	40.5	41.1	40.8
- 1961-63	40.6	39.4	38.3	40.8	41.0	
Seed Size	15.4	13.7-	16.4	13.8-	15.0	14.2
Maturity Index	10-30	-3	0	+5	0	-3
Height	39	36	33	41	38	32
Bacterial Pustule	3.0	3.0	1.0	1.0	3.0	3.0
Target Spot	1.0	1.0	1.0	1.0	1.0	1.0
Frogeye	3.0	3.0	1.0	1.0	1.0	1.0
Shattering	2.5	3.5	1.5	1.5	2.5	3.2

Bacterial Pustule - Stoneville data
Target Spot - Florence data
Frogeye - Florence data
Shattering - Blackville and Gainesville data

Table 50. - (continued)

	Co60-231	F58-6421	F59-2008	F59-2643	La59-72-11	La60-97-A
Seed Yield - 1963						
Southeast	29.0	28.4	28.4	27.7	29.9	30.4
West	32.5	33.3	35.9	37.6	33.3	33.8
- 1962-63						
Southeast						
West						
- 1961-63						
Southeast						
West						
Oil Percentage - 1963	19.9-	20.5	21.3	20.8	20.0-	20.6
- 1962-63						
- 1961-63						
Protein Percentage - 1963	41.2	40.7	39.2-	40.2	41.0	40.7
- 1962-63						
- 1961-63						
Seed Size	19.1+	14.8	12.8-	14.0	14.3	14.1
Maturity Index	+3	+3	+1	0	-3	-4
Height	37	42	37	33	30	31
Bacterial Pustule	1.0	1.0	1.0	1.0	3.0	3.0
Target Spot	3.0	1.0	1.0	1.0	1.0	1.0
Frogeye	1.0	1.0	1.0	4.0	1.0	3.0
Shattering	1.0	2.0	1.0	2.5	2.5	3.0

Table 51. - Seed yield, in bushels per acre, for the strains in Uniform Group VIII, 1963

Location	Bienville	Jackson	Hampton	Hardee	La58-54-6	La59-7-21	Co60-231
			Southeast				
Florence, S.C.(A)	39.1	44.5	54.6+	39.2	39.6	47.6+	39.5
Florence, S.C.(B)	32.8	35.1	39.4+	26.9	31.6	38.8	30.4
Hartsville, S.C.(A)	27.9	34.4+	27.6	27.5	28.7	29.1	18.3-
Hartsville, S.C.(B)	19.4	17.3	22.1	19.0	20.1	22.4	19.9
Blackville, S.C.	22.8	25.6	31.7	28.4	23.9	23.9	25.0
Experiment, Ga.	38.1	43.7	51.3+	38.6	41.7	47.1	45.9
Tallassee, Ala.	27.2	14.8-	26.5	30.8	24.3	22.9	29.3
Live Oak, Fla.	29.2	29.0	31.6	26.7	29.7	26.1	32.8
Gainesville, Fla.	24.9	14.5-	19.6-	27.5	24.9	17.6-	26.5
Quincy, Fla.	21.1	23.7	25.5+	22.4	21.2	22.7	27.6+
Jay, Fla.	30.1	33.7+	33.2	22.9-	31.5	32.2	23.7-
Fairhope, Ala.	28.4	28.7	31.4	24.6-	27.6	28.7	26.8
Baton Rouge, La.	40.5	31.0-	32.6-	32.5-	36.3	40.7	31.2-
Mean	29.4	29.2	32.9	28.2	29.8	30.8	29.0
			West				
Stoneville, Miss.(A)	28.8	37.6	33.1	27.5	29.6	32.5	25.6
St. Joseph, La.	54.4	50.6	55.6	48.8	52.2	52.0	54.7
Curtis, La.	23.7	15.5-	26.5	14.4-	17.1	20.3	17.1
Mean	35.6	34.5	38.4	30.2	33.0	35.0	32.5

Table 51. - (continued)

Location	F58-6421	F59-2008	F59-2643	La59-72-11	La60-97-A	L.S.D. (.05)	C.V.
			Southeast				
Florence, S.C.(A)	36.0	39.9	38.5	47.0+	48.8+	5.8	8%
Florence, S.C.(B)	22.8-	29.8	25.9-	38.5	36.6	6.0	11%
Hartsville, S.C.(A)	29.7	25.3	24.1	31.1	30.4	5.5	12%
Hartsville, S.C.(B)	23.2	22.1	19.7	19.5	20.5	N.S.	10%
Blackville, S.C.	30.9	27.4	23.3	22.2	25.2	N.S.	15%
Experiment, Ga.	37.3	38.0	38.4	44.4	49.9	10.2	13%
Tallassee, Ala.	29.0	25.6	26.0	22.0	22.0	7.1	17%
Live Oak, Fla.	31.7	28.5	29.7	28.3	25.8	N.S.	10%
Gainesville, Fla.	28.5	23.3	24.8	13.3-	15.8-	4.1	11%
Quincy, Fla.	20.1	20.4	22.7	23.3	23.9+	2.7	7%
Jay, Fla.	25.1-	31.6	31.3	32.3	33.2	3.2	6%
Fairhope, Ala.	24.9-	25.7	27.9	29.1	30.0	3.3	7%
Baton Rouge, La.	29.9-	31.4-	27.7-	37.8	32.6-	5.9	10%
Mean	28.4	28.4	27.7	29.9	30.4	N.S.	
			West				
Stoneville, Miss.(A)	28.2	34.6	27.6	30.6	32.6	N.S.	17%
St. Joseph, La.	47.5	51.5	51.1	51.1	54.4	N.S.	13%
Curtis, La.	24.3	21.4	34.0+	18.2	14.4-	7.8	22%
Mean	33.3	35.9	37.6	33.3	33.8	N.S.	

Table 52. - Chemical composition and seed size for the strains in Uniform Group VIII, 1963

Location	Bienville	Jackson	Hampton	Hardee	La58-54-6	La59-7-21
			Oil Percentage			
Hartsville, S.C.	18.8	20.3	19.8	19.8	19.2	20.3
Blackville, S.C.	17.9	19.8	19.5	19.3	17.2	17.4
Live Oak, Fla.	20.9	22.7	23.0	22.1	22.2	23.2
Gainesville, Fla.	21.8	21.2	21.4	21.6	21.4	20.2
Quincy, Fla.	21.2	20.2	22.7	22.5	21.8	20.0
Jay, Fla.	21.9	21.3	22.4	21.8	21.4	20.1
Baton Rouge, La.	22.7	22.2	23.5	22.2	22.2	22.7
Curtis, La.	21.1	21.5	21.2	21.7	20.1	21.3
Mean	20.8	21.2	21.7+	21.4	20.7	20.7
			Protein Percentage			
Hartsville, S.C.	40.3	38.2	39.3	40.1	41.2	40.9
Blackville, S.C.	43.0	40.4	39.0	40.6	43.3	43.8
Live Oak, Fla.	40.4	39.3	38.3	40.6	40.7	39.7
Gainesville, Fla.	43.0	42.9	42.2	43.1	42.6	44.7
Quincy, Fla.	39.3	38.7	36.6	39.0	40.0	40.2
Jay, Fla.	39.0	38.8	37.5	39.9	38.9	40.2
Baton Rouge, La.	39.9	39.9	37.3	40.8	40.8	39.4
Curtis, La.	42.0	41.4	39.5	39.8	43.0	42.5
Mean	40.9	40.0	38.7-	40.5	41.3	41.4
			Grams per 100 Seeds			
Hartsville, S.C.	18.7	15.6	18.6	14.2	18.0	17.2
Blackville, S.C.	15.9	17.1	16.8	14.6	15.9	17.4
Live Oak, Fla.	14.3	13.6	16.2	14.0	13.4	12.8
Gainesville, Fla.	17.1	11.5	17.1	16.4	16.4	13.0
Quincy, Fla.	14.0	11.0	17.0	15.0	14.0	11.0
Jay, Fla.	13.5	13.0	14.5	10.3	12.0	12.7
Baton Rouge, La.	15.3	14.5	15.3	12.5	15.5	14.5
Curtis, La.	14.3	13.3	15.3	13.3	14.5	15.0
Mean	15.4	13.7-	16.4	13.8-	15.0	14.2

Table 52. - (continued)

Location	Co60-231	F58-6421	F59-2008	F59-2643	La59-72-11	La60-97-A	L.S.D. (.05)
			Oil Percentage				
Hartsville, S.C.	17.7	18.5	19.9	18.8	20.8	20.8	
Blackville, S.C.	17.4	18.7	19.3	18.5	15.8	19.1	
Live Oak, Fla.	21.4	21.3	22.1	21.2	22.1	22.5	
Gainesville, Fla.	20.7	21.3	21.7	21.2	19.0	19.8	
Quincy, Fla.	21.1	20.5	20.6	21.2	17.9	18.9	
Jay, Fla.	20.3	21.5	22.4	21.7	21.3	21.2	
Baton Rouge, La.	22.1	21.6	23.5	22.5	23.4	23.0	
Curtis, La.	18.7	20.8	21.0	21.3	19.7	19.8	
Mean	19.9-	20.5	21.3	20.8	20.0-	20.6	0.8
			Protein Percentage				
Hartsville, S.C.	41.8	40.7	39.4	40.2	39.4	39.7	
Blackville, S.C.	41.2	40.4	39.6	41.0	41.9	41.3	
Live Oak, Fla.	42.0	41.6	39.7	41.5	39.6	38.3	
Gainesville, Fla.	44.1	42.9	42.6	43.4	44.7	44.8	
Quincy, Fla.	36.8	39.8	35.7	39.0	40.9	40.0	
Jay, Fla.	40.2	39.9	35.7	37.7	39.4	39.8	
Baton Rouge, La.	38.8	40.2	40.0	38.3	38.3	37.8	
Curtis, La.	44.3	40.4	40.5	40.5	44.1	44.0	
Mean	41.2	40.7	39.2-	40.2	41.0	40.7	1.1
			Grams per 100 Seeds				
Hartsville, S.C.	19.9	17.5	16.1	17.8	21.2	20.0	
Blackville, S.C.	16.7	14.5	13.8	13.8	16.2	16.6	
Live Oak, Fla.	20.0	14.8	12.8	13.7	13.4	12.5	
Gainesville, Fla.	19.9	16.7	13.9	14.7	11.1	12.4	
Quincy, Fla.	23.0	16.0	11.0	15.0	12.0	12.0	
Jay, Fla.	17.3	12.3	12.0	12.0	12.5	12.0	
Baton Rouge, La.	19.0	12.5	10.5	12.3	14.3	13.5	
Curtis, La.	17.0	14.3	12.0	12.5	14.0	13.5	
Mean	19.1+	14.8	12.8-	14.0	14.3	14.1	1.5

Table 53. - Relative maturity, days earlier (-) or later (+) than Bienville, for the strains in Uniform Group VIII, 1963

Location	Date Planted	Bienville Matured	Jackson	Hampton	Hardee	La58-54-6
		Southeast				
Florence, S.C.(A)	5-17	11-8	0	-2	+12	+4
Florence, S.C.(B)	7-2	11-8	-1	-1	+12	+4
Hartsville, S.C.(A)	6-4	11-8	-6	-2	+2	-1
Hartsville, S.C.(B)	7-5	11-6	0	0	+6	+1
Blackville, S.C.	6-26	11-13	-6	-5	-3	0
Experiment, Ga.	5-8	10-30	-5	-2	+6	+2
Tallassee, Ala.	5-15	10-23	-10	-4	+7	-3
Live Oak, Fla.	6-21	10-21	-4	+3	+5	+2
Gainesville, Fla.	6-6	10-28	-9	-2	+3	0
Quincy, Fla.	6-10	10-22	-5	0	+2	0
Jay, Fla.	5-23	10-14	-5	-3	+4	0
Fairhope, Ala.	6-29	10-23	+2	0	+2	+2
Baton Rouge, La.	5-22	10-25	+2	+9	+7	+3
Mean		10-30	-4	0	+5	+1
		West				
Stoneville, Miss.(A)	5-9	10-30	-4	0	+5	-2
St. Joseph, La.	5-28	11-2	-1	0	+1	-1
Curtis, La.	5-22	10-28	0	+8	+3	-2
Mean		10-30	-2	+3	+3	-2

Table 53. - (continued)

Location	La59-7-21	Co60-231	F58-6421	F59-2008	F59-2643	La59-72-11	La60-97-A
			Southeast				
Florence, S.C.(A)	-2	-2	+2	-2	+2	+4	+4
Florence, S.C.(B)	+2	+2	+4	+2	+2	+4	+2
Hartsville, S.C.(A)	-7	+6	+2	-4	-5	-7	-8
Hartsville, S.C.(B)	0	+3	+7	0	-2	-1	0
Blackville, S.C.	-2	-2	-4	-6	-5	-1	-6
Experiment, Ga.	+4	+3	+5	-1	-1	-1	-1
Tallassee, Ala.	-10	+7	+7	+3	0	-10	-11
Live Oak, Fla.	-5	+9	+8	+1	+3	-4	-4
Gainesville, Fla.	-10	+2	+3	+1	0	-10	-9
Quincy, Fla.	-5	+8	+6	-1	+1	-4	-5
Jay, Fla.	-7	+10	+12	+2	0	-7	-7
Fairhope, Ala.	0	+5	+5	-3	0	0	0
Baton Rouge, La.	-5	+11	+8	+13	+8	-3	-5
Mean	-4	+5	+5	0	0	-3	-4
			West				
Stoneville, Miss.(A)	-4	+5	+5	+5	-2	-6	-5
St. Joseph, La.	-1	+1	+1	-1	-1	-1	-1
Curtis, La.	-3	+9	+8	+7	+7	-8	-3
Mean	-3	+5	+5	+4	+2	-5	-3

Table 54. - Plant height for the strains in Uniform Group VIII, 1963

Location	Bienville	Jackson	Hampton	Hardee	La58-54-6	La59-7-21
			Southeast			
Florence, S.C.(A)	44	46	43	52	42	43
Florence, S.C.(B)	34	32	33	34	35	31
Hartsville, S.C.(A)	36	35	30	35	36	31
Hartsville, S.C.(B)	24	24	21	23	25	23
Blackville, S.C.	30	26	25	25	29	25
Experiment, Ga.	49	46	44	48	49	39
Tallassee, Ala.	40	42	38	47	41	34
Live Oak, Fla.	36	33	31	41	35	27
Gainesville, Fla.	41	37	37	44	41	33
Jay, Fla.	42	41	39	47	42	37
Fairhope, Ala.	30	29	20	26	33	20
Baton Rouge, La.	38	38	29	48	36	31
Mean	37	36	33	39	37	31
			West			
Stoneville, Miss.(A)	48	43	42	55	47	42
St. Joseph, La.	43	37	36	43	40	36
Curtis, La.	45	35	34	48	44	33
Mean	45	38	37	49	44	37

Table 54. - (continued)

Location	C060-231	F58-6421	F59-2008	F59-2643	La59-72-11	La60-97-A
			Southeast			
Florence, S.C.(A)	39	48	45	37	38	40
Florence, S.C.(B)	34	36	35	31	25	24
Hartsville, S.C.(A)	32	38	34	31	31	31
Hartsville, S.C.(B)	26	27	26	23	19	21
Blackville, S.C.	25	26	26	27	22	23
Experiment, Ga.	46	51	41	36	41	40
Tallassee, Ala.	45	48	42	38	34	36
Live Oak, Fla.	36	44	36	32	26	28
Gainesville, Fla.	38	45	41	37	33	34
Jay, Fla.	42	44	41	37	32	35
Fairhope, Ala.	29	30	30	27	15	20
Baton Rouge, La.	46	42	39	38	23	26
Mean	37	40	36	33	28	30
			West			
Stoneville, Miss.(A)	44	55	45	42	41	37
St. Joseph, La.	41	49	36	33	33	35
Curtis, La.	35	41	39	28	30	32
Mean	40	48	40	34	35	35

Table 55. - Lodging scores for the strains in Uniform Group VIII, 1963

Location	Bienville	Jackson	Hampton	Hardee	La58-54-6	La59-7-21
			Southeast			
Florence, S.C.(A)	2.0	1.0	1.0	2.0	1.0	3.0
Florence, S.C.(B)	1.0	1.0	1.0	2.0	1.0	1.0
Hartsville, S.C.(A)	2.0	1.5	1.4	2.7	2.1	1.9
Hartsville, S.C.(B)	1.0	1.0	1.0	1.0	1.0	1.0
Blackville, S.C.	1.0	1.0	1.0	1.0	1.0	1.0
Experiment, Ga.	2.0	2.0	1.0	2.7	2.0	2.0
Tallassee, Ala.	2.0	1.0	1.0	2.0	3.0	3.0
Live Oak, Fla.	2.0	1.0	2.0	1.5	3.0	1.0
Gainesville, Fla.	2.0	1.0	1.0	1.0	2.0	2.0
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Jay, Fla.	2.0	3.0	3.0	3.0	2.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	2.0	2.0	2.0	3.0	2.0	2.0
			West			
Stoneville, Miss.(A)	3.7	3.0	3.0	4.0	3.7	3.0
St. Jospeh, La.	3.0	2.0	2.0	3.0	3.0	2.0
Curtis, La.	3.0	3.0	2.0	3.0	3.0	3.0

Table 55. - (continued)

Location	Co60-231	F58-6421	F59-2008	F59-2643	La59-72-11	La60-97-A
			Southeast			
Florence, S.C.(A)	2.0	2.0	4.0	4.0	2.0	2.0
Florence, S.C.(B)	2.0	3.0	2.0	1.0	2.0	1.0
Hartsville, S.C.(A)	2.1	2.5	3.4	2.1	1.4	2.0
Hartsville, S.C.(B)	1.3	1.0	2.0	1.3	1.0	1.0
Blackville, S.C.	2.0	1.0	3.0	2.0	1.0	1.0
Experiment, Ga.	2.0	2.0	3.0	2.0	1.7	2.0
Tallassee, Ala.	2.0	2.0	3.0	2.0	1.0	2.0
Live Oak, Fla.	1.5	2.0	2.0	2.0	1.5	1.5
Gainesville, Fla.	2.0	1.0	2.0	1.0	2.0	1.0
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Jay, Fla.	3.0	3.0	4.0	3.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	3.0	3.0	3.0	4.0	1.0	1.0
			West			
Stoneville, Miss.(A)	4.3	4.0	3.7	3.3	3.3	3.3
St. Joseph, La.	2.0	4.0	4.0	3.0	2.0	2.0
Curtis, La.	3.0	3.0	4.0	3.0	2.0	2.0

Table 56. - Seed quality scores for the strains in Uniform Group VIII, 1963

Location	Bienville	Jackson	Hampton	Hardee	La58-54-6	La59-7-21
			Southeast			
Hartsville, S.C.(A)	1.0	1.0	1.0	2.0	1.0	1.0
Hartsville, S.C.(B)	1.0	1.0	1.0	2.0	1.0	1.0
Tallassee, Ala.	2.0	2.0	3.0	3.0	3.0	3.0
Live Oak, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, Fla.	1.3	2.0	2.0	1.0	1.0	1.7
Quincy, Fla.	2.0	2.0	2.0	2.0	2.0	2.0
Jay, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	2.0	2.0	2.8	2.7	2.5	2.7
Baton Rouge, La.	1.0	2.0	1.0	1.0	1.0	1.0
			West			
Stoneville, Miss.(A)	2.0	2.0	2.7	2.0	2.0	2.0
St. Joseph, La.	1.0	1.0	2.0	2.0	1.0	1.0
Curtis, La.	1.0	2.0	3.0	2.0	1.0	1.0

Table 56. - (continued)

Location	Co60-231	F58-6421	F59-2008	F59-2643	La59-72-11	La60-97-A
			Southeast			
Hartsville, S.C.(A)	1.0	2.0	1.0	1.0	1.0	1.0
Hartsville, S.C.(B)	1.0	2.0	2.0	1.0	1.0	1.0
Tallassee, Ala.	4.0	2.0	1.0	2.0	3.0	2.0
Live Oak, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	2.0	2.0
Quincy, Fla.	1.0	2.0	2.0	2.0	2.0	2.0
Jay, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	2.7	1.5	1.0	2.2	2.7	2.7
Baton Rouge, La.	1.0	1.0	1.0	1.0	1.0	1.0
			West			
Stoneville, Miss.(A)	2.3	2.0	2.3	2.0	2.0	2.0
St. Joseph, La.	1.0	1.0	2.0	2.0	1.0	1.0
Curtis, La.	1.0	2.0	1.0	2.0	1.0	2.0

PRELIMINARY GROUP VIII

1963

Seven Preliminary Group VIII nurseries were harvested. The parentage of these lines is reported in table 57. Performance data are summarized in tables 58 through 63. Differences in seed yield were significant in five of the plantings. On the basis of the combined analysis of variance for seed yield, six strains yielded significantly less than Bienville. There were not any which yielded significantly better.

At Quincy, four strains yielded significantly better than Bienville. None of these were significantly better than Hampton. At Jay, Hampton and seven other strains yielded significantly better than Bienville. However, at Baton rouge, the results were entirely different -- all but five strains yielded significantly less than Bienville. Of these five lines, four were Louisiana selections.

Table 57. - Parentage of strains in Preliminary Group VIII, 1963

	Variety or Strain	Parentage	Generation Composited
1.	Bienville	Pelican #2 x Ogden	
2.	Hampton	Majos x Lee	
3.	Co58-102	Majos x Lee	
4.	Co59-264	Majos x Lee	
5.	Co60-235	Majos x Lee	
6.	Co60-239	Majos x Lee	
7.	Co61-207	Majos x Lee	
8.	Co61-211	Majos x Lee	
9.	Co61-212	Majos x Lee	
10.	D60-7911	D55-4090 x D55-4159	F_5
11.	D60-8011	D55-4090 x D55-4159	F_5
12.	D60-1896	La49-1-4 x D51-5091	F_5
13.	F61-1042	PI 163,453 x Lee	F_8
14.	F61-1047	PI 163,453 x Lee	F_8
15.	F61-2865	D49-2491 x Improved Pelican	F_8
16.	F61-2890	D49-2491(2) x Improved Pelican	F_7
17.	F61-2901	D49-2491(2) x Improved Pelican	F_7
18.	F61-2926	D49-2491(2) x Improved Pelican	F_7
19.	F61-2982	D49-2491(2) x Improved Pelican	F_7
20.	F61-2998	D49-2491 x Majos	F_8
21.	F61-3093	D51-5091 x Jackson	F_7
22.	F61-3116	D51-5091 x Jackson	F_7
23.	F61-3118	D51-5091 x Jackson	F_7
24.	F61-3124	D51-5091 x Jackson	F_7
25.	F61-3126	D51-5091 x Jackson	F_7
26.	F61-3130	D51-5091 x Jackson	F_7
27.	F61-3131	D51-5091 x Jackson	F_7
28.	F61-3132	D51-5091 x Jackson	F_7
29.	F61-3134	D51-5091 x Jackson	F_7
30.	La60-26-2	Pelican #2 x Ogden	F_7
31.	La61-11	Pelican x Ogden	
32.	La61-54-1	Pelican #2 x Ogden	
33.	La61-55-3	Pelican #2 x Ogden	
34.	La61-91	Ogden x Creole	
35.	La61-115	Pelican x Ogden	
36.	La61-160	Pelican x Ogden	

Table 58. - General summary of performance for the strains in Preliminary Group VIII, 1963

Strain	Seed Yield	Maturity Index	Ht.	Oil	Protein	Bacterial Pustule	Frogeye
Bienville	33.1	10-24	39	22.1	40.0	3.0	2.0
Hampton	32.7	+2	34	22.7	38.0-	1.0	1.0
Co58-102	28.3-	+3	45	21.5	40.3	1.0	1.0
Co59-264	29.9	+5	34	20.4-	40.7	1.0	1.0
Co60-235	30.8	+2	37	21.3-	38.7-	1.0	1.0
Co60-239	29.5	+4	31	21.0-	41.3+	1.0	2.0
Co61-207	33.1	+2	37	22.7	38.1-	1.0	1.0
Co61-211	34.3	0	35	22.9+	36.5-	1.0	1.0
Co61-212	36.3	+1	35	23.3+	37.5-	1.0	1.0
D60-7911	26.9-	-2	41	18.4-	45.4+	1.0	1.0
D60-8011	25.5-	-2	42	17.9-	44.9+	1.0	1.0
F60-1896	26.1-	0	42	20.6-	41.9+	1.0	1.0
F61-1042	30.0	+2	40	22.2	38.1-	1.0	3.0
F61-1047	29.0	+5	35	21.2-	40.0	1.0	2.0
F61-2865	29.9	+2	40	21.7	39.4	1.0	1.0
F61-2890	26.6-	+5	42	21.7	40.0	1.0	1.0
F61-2901	28.6	+2	40	21.8	39.3	1.0	1.0
F61-2926	28.2-	+4	41	21.1-	40.6	1.0	1.0
F61-2982	29.3	+1	38	21.7	39.8	1.0	1.0
F61-2998	30.3	+2	35	21.4	38.7-	1.0	1.0
F61-3093	31.1	0	48	22.5	38.6-	1.0	1.0
F61-3116	32.5	0	46	22.2	38.6-	1.0	2.0
F61-3118	32.2	0	48	22.1	38.5-	1.0	1.0
F61-3124	31.1	+2	49	22.0	38.4-	1.0	2.0
F61-3126	31.1	0	49	22.0	38.4-	1.0	1.0
F61-3130	30.7	+1	48	22.5	38.4-	1.0	2.0
F61-3131	30.5	0	44	22.3	38.5-	1.0	1.0
F61-3132	33.2	0	42	22.5	38.5-	1.0	1.0
F61-3134	29.8	-1	41	22.0	38.8-	1.0	1.0
La60-26-2	34.5	-4	31	21.5	39.7	3.0	1.0
La61-11	31.3	0	39	22.2	39.6	3.0	1.0
La61-54-1	33.2	0	40	21.9	39.4	3.0	1.0
La61-55-3	35.0	0	39	21.8	39.8	3.0	1.0
La61-91	28.6	0	39	21.4	39.4	1.0	1.0
La61-115	30.4	-4	32	21.7	40.2	3.0	1.0
La61-160	33.4	-4	32	21.8	40.1	3.0	1.0
L.S.D.(.05)	4.6			0.8	1.1		
L.S.D.(.01)	6.1			1.1	1.5		

Table 59. - Seed yield, in bushels per acre, for the strains in Preliminary Group VIII, 1963

Strain	Florence, S.C	Experiment, Ga.	Live Oak, Fla.	Gainesville, Fla.	Quincy, Fla.	Jay, Fla.	Baton Rouge, La.
Bienville	34.8	32.8	32.2	37.2	21.2	31.2	42.6
Hampton	40.3	32.2	31.5	39.4	23.0	39.4+	23.1-
Co58-102	32.6	23.3	30.1	35.8	21.8	29.8	24.5-
Co59-264	32.4	32.4	35.4	29.9	22.5	29.1	27.8-
Co60-235	34.6	34.9	31.5	33.8	24.2	27.6	29.4-
Co60-239	28.6	31.4	33.7	33.0	21.1	30.1	28.4-
Co61-207	31.6	31.7	38.3	37.0	21.5	36.9	35.0-
Co61-211	32.3	47.6	32.3	41.3	22.2	39.1+	25.4-
Co61-212	37.3	42.3	33.9	37.9	22.2	41.2+	39.6
D60-7911	25.8-	22.7	27.4	37.3	21.4	29.4	24.5-
D60-8011	23.6-	22.4	31.4	34.2	22.1	28.3	16.8-
F60-1896	24.0-	25.2	29.7	33.0	20.3	29.4	21.5-
F61-1042	31.6	28.9	33.3	40.7	21.3	26.9	27.8-
F61-1047	31.9	29.0	35.0	39.8	16.3-	28.0	23.5-
F61-2865	25.5-	26.6	33.2	37.9	21.8	29.1	35.3-
F61-2890	26.4-	27.2	28.8	36.1	21.0	27.6	19.5-
F61-2901	26.8-	27.2	30.0	40.0	16.9-	31.9	27.4-
F61-2926	30.3	25.2	31.8	33.1	21.0	25.5	30.7-
F61-2982	32.3	30.7	32.5	30.9	21.9	29.8	27.1-
F61-2998	26.6-	28.5	32.6	34.0	21.7	34.5	34.4-
F61-3093	35.2	32.2	30.5	31.5	22.2	38.4+	27.7-
F61-3116	36.0	30.1	33.0	38.1	20.8	42.3+	27.4-
F61-3118	33.0	35.7	30.2	40.8	24.0	37.3+	24.8-
F61-3124	37.5	23.3	34.1	43.7	19.3	36.9	22.8-
F61-3126	31.4	27.8	34.0	41.4	22.1	32.3	29.1-
F61-3130	31.3	25.7	30.0	42.0	20.0	41.6+	24.8-
F61-3131	33.7	29.4	38.1	41.7	20.3	29.8	20.8-
F61-3132	36.5	27.2	36.8	42.3	22.4	40.5+	26.8-
F61-3134	32.7	27.0	32.4	37.5	26.0+	34.5	18.8-
La60-26-2	39.1	34.7	33.1	28.7	24.6+	35.9	45.5
La61-11	35.0	31.6	30.0	35.2	21.5	35.5	30.7-
La61-54-1	33.6	39.3	33.6	32.2	21.2	27.6	44.9
La61-55-3	32.5	38.4	32.2	36.5	21.6	33.4	43.6
La61-91	28.5	26.8	33.2	31.5	25.7+	27.6	27.1-
La61-115	35.5	29.0	30.0	26.0	26.2+	34.1	32.0-
La61-160	38.1	38.9	30.7	30.4	21.2	34.8	39.9
L.S.D.(.05)	7.0	N.S.	N.S.	7.4	3.2	6.1	7.1
C.V.	11%	30%	10%	10%	7%	9%	12%

Table 60. - Oil percentages for the strains in Preliminary Group VIII, 1963

Strain	Experiment, Ga.	Live Oak, Fla.	Gainesville, Fla.	Quincy, Fla.	Jay, Fla.	Baton Rouge, La.
Bienville	19.5	23.0	22.7	21.9	22.3	23.0
Hampton	20.8	23.9	22.0	22.2	23.2	24.3
Co58-102	19.4	21.7	22.0	21.8	22.4	21.6
Co59-264	19.1	21.2	21.0	20.3	19.5	21.4
Co60-235	19.4	21.6	22.1	21.6	20.3	22.9
Co60-239	18.8	21.6	21.0	21.4	21.3	22.1
Co61-207	21.4	23.2	22.7	22.5	22.6	23.6
Co61-211	21.7	24.2	23.4	21.8	22.5	23.6
Co61-212	21.9	24.2	23.4	23.1	22.8	24.2
D60-7911	18.3	17.7	19.1	16.5	19.7	18.9
D60-8011	17.2	17.9	18.3	16.2	18.8	19.0
F60-1896	18.0	21.7	20.3	20.8	21.3	21.7
F61-1042	20.2	22.6	22.0	23.3	22.4	22.7
F61-1047	19.9	21.7	21.2	21.4	21.4	21.6
F61-2865	21.0	22.1	21.3	21.6	21.8	22.2
F61-2890	19.8	22.3	20.9	21.4	22.4	23.2
F61-2901	20.3	22.3	21.9	21.4	22.5	22.3
F61-2926	19.9	20.6	21.0	21.0	22.0	22.1
F61-2982	20.9	21.4	21.6	20.3	22.6	23.1
F61-2998	20.0	21.5	21.8	20.9	20.8	23.4
F61-3093	20.8	23.0	22.7	22.2	22.7	23.6
F61-3116	20.9	23.2	22.8	20.2	23.3	22.6
F61-3118	21.0	23.5	22.6	20.8	22.2	22.6
F61-3124	19.3	23.2	23.5	21.3	22.1	22.3
F61-3126	18.7	23.1	23.1	21.5	22.7	23.1
F61-3130	20.1	23.9	23.0	22.8	22.3	23.0
F61-3131	21.0	22.9	23.2	21.4	22.4	23.0
F61-3132	20.2	23.5	23.2	22.1	22.5	23.2
F61-3134	20.8	22.7	22.9	20.4	22.1	23.2
La60-26-2	21.3	21.9	22.5	18.0	22.6	22.6
La61-11	20.7	22.5	22.1	21.8	22.7	23.6
La61-54-1	20.9	21.9	21.7	22.1	22.4	22.3
La61-55-3	20.6	22.6	21.7	20.8	22.3	22.6
La61-91	19.2	21.5	20.5	21.7	22.2	23.2
La61-115	21.0	22.3	21.8	19.8	21.9	23.5
La61-160	21.7	22.7	22.9	18.2	21.7	23.5

Table 61. - Protein percentages for the strains in Preliminary Group VIII, 1963

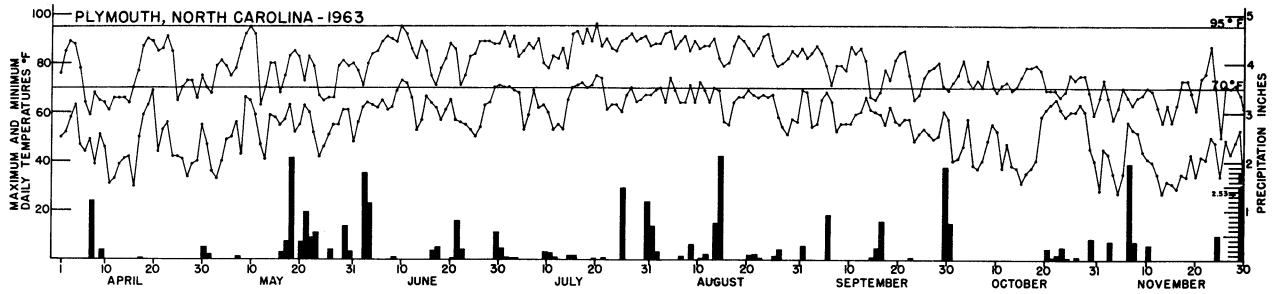
Strain	Experiment, Ga.	Live Oak, Fla.	Gainesville, Fla.	Quincy, Fla.	Jay, Fla.	Baton Rouge, La.
Bienville	41.5	40.6	41.8	38.7	38.1	39.5
Hampton	40.2	38.5	38.7	36.4	37.1	36.8
Co58-102	43.6	41.1	41.3	37.8	38.0	39.7
Co59-264	42.4	41.4	41.9	39.1	40.2	39.3
Co60-235	40.6	40.0	39.0	36.6	38.7	37.0
Co60-239	42.4	42.6	42.4	39.1	40.7	40.6
Co61-207	39.9	38.6	40.5	36.5	36.7	36.3
Co61-211	36.3	37.2	37.3	36.6	36.4	35.2
Co61-212	38.3	38.3	38.3	36.8	36.8	36.6
D60-7911	45.3	47.1	46.7	44.9	42.9	45.4
D60-8011	47.0	45.9	46.5	44.0	42.0	44.2
F60-1896	45.4	42.4	43.9	40.6	39.7	39.4
F61-1042	41.8	39.1	39.4	35.9	35.8	36.3
F61-1047	41.5	41.8	41.4	38.7	40.2	36.3
F61-2865	40.3	40.4	41.3	38.2	37.2	38.9
F61-2890	41.5	41.4	42.0	40.2	37.6	37.3
F61-2901	40.8	40.2	41.0	38.3	37.1	38.3
F61-2926	42.5	43.0	42.7	39.5	38.1	37.5
F61-2982	42.6	41.4	42.5	39.1	38.2	35.1
F61-2998	40.7	39.8	39.9	36.6	38.6	36.3
F61-3093	41.0	39.4	39.2	37.7	37.9	36.3
F61-3116	40.0	37.0	40.2	39.5	36.6	38.0
F61-3118	39.8	38.4	39.2	37.5	37.6	38.2
F61-3124	40.0	37.9	40.3	37.8	36.4	38.0
F61-3126	40.6	38.8	39.1	38.1	36.7	36.9
F61-3130	41.7	39.2	38.9	37.4	36.9	36.5
F61-3131	41.0	38.9	38.9	37.9	37.5	36.6
F61-3132	41.6	39.1	38.8	37.5	37.6	36.2
F61-3134	41.7	39.0	40.1	39.0	36.7	36.2
La60-26-2	40.3	40.6	40.8	41.4	37.7	37.6
La61-11	41.8	41.1	41.4	38.8	38.2	36.5
La61-54-1	39.7	40.4	41.6	38.6	37.6	38.4
La61-55-3	41.7	40.9	42.0	39.5	37.7	37.0
La61-91	41.0	40.1	41.6	39.8	37.0	36.6
La61-115	41.3	41.5	42.0	41.2	38.7	36.6
La61-160	41.2	40.4	40.8	42.5	38.2	37.3

Table 62. - Plant height for the strains in Preliminary Group VIII, 1963

Strain	Florence, S.C.	Experiment, Ga.	Live Oak, Fla.	Gainesville, Fla.	Quincy, Fla.	Jay, Fla.	Baton Rouge, La.
Bienville	35	41	37	40	38	38	41
Hampton	31	35	30	40	34	38	30
Co58-102	36	49	42	48	46	49	46
Co59-264	32	36	31	38	30	37	31
Co60-235	32	44	30	39	34	41	37
Co60-239	29	38	33	38	28	35	28
Co61-207	26	45	34	45	34	41	34
Co61-211	35	38	28	39	31	37	38
Co61-212	33	44	30	40	29	38	32
D60-7911	32	45	40	46	39	41	41
D60-8011	30	45	41	49	38	46	46
F60-1896	35	49	37	46	42	41	41
F61-1042	45	45	35	40	39	34	41
F61-1047	34	38	35	38	28	36	36
F61-2865	35	45	34	43	38	39	43
F61-2890	38	46	39	48	38	41	47
F61-2901	31	43	36	43	41	42	45
F61-2926	36	45	38	44	40	39	45
F61-2982	34	42	33	42	35	37	42
F61-2998	35	37	32	35	35	33	37
F61-3093	46	52	45	49	47	48	48
F61-3116	48	55	47	47	38	41	46
F61-3118	40	60	47	48	42	48	49
F61-3124	48	57	47	50	43	47	54
F61-3126	44	56	48	46	50	45	52
F61-3130	47	56	46	50	45	48	41
F61-3131	44	51	46	44	38	42	45
F61-3132	44	44	40	44	39	41	42
F61-3134	28	51	36	45	37	42	48
La60-26-2	29	37	28	34	26	28	36
La61-11	32	48	30	42	42	42	39
La61-54-1	36	49	36	43	40	39	36
La61-55-3	36	43	34	42	37	40	42
La61-91	34	49	39	38	35	36	41
La61-115	29	38	26	34	30	30	36
La61-160	32	37	27	35	29	30	34

Table 63. - Seed quality scores for the strains in Preliminary Group VIII, 1963

Strain	Experiment, Ga.	Live Oak, Fla.	Gainesville, Fla.	Quincy, Fla.	Jay, Fla.	Baton Rouge, La.
Bienville	1.5	1.0	1.0	2.0	1.0	1.0
Hampton	1.5	1.0	1.0	2.0	1.0	1.0
Co58-102	1.0	1.0	1.0	2.0	1.0	2.0
Co59-264	1.0	1.0	1.0	2.0	1.0	1.0
Co60-235	1.0	1.0	1.0	1.0	1.0	2.0
Co60-239	1.0	1.0	1.0	2.0	1.0	1.0
Co61-207	1.0	1.0	1.0	1.0	1.0	2.0
Co61-211	1.0	1.0	1.0	2.0	1.0	1.0
Co61-212	1.0	1.0	1.0	2.0	1.0	1.0
D60-7911	1.5	1.0	1.0	2.0	1.0	1.0
D60-8011	1.5	1.0	1.0	4.0	1.0	1.0
F60-1896	1.0	1.0	1.0	2.0	1.0	2.0
F61-1042	2.0	1.0	1.0	2.0	1.0	2.0
F61-1047	1.0	1.0	1.5	4.0	1.0	3.0
F61-2865	1.0	1.0	1.0	3.0	1.0	1.0
F61-2890	1.5	1.0	1.0	2.0	1.0	2.0
F61-2901	1.0	1.0	1.0	2.0	1.0	1.0
F61-2926	1.0	1.0	1.0	2.0	1.0	2.0
F61-2982	1.0	1.0	1.0	2.0	1.0	1.0
F61-2998	1.0	1.0	1.0	2.0	1.0	1.0
F61-3093	1.5	1.0	1.0	2.0	1.0	2.0
F61-3116	1.0	1.0	1.5	2.0	1.0	2.0
F61-3118	1.0	1.0	1.0	2.0	1.0	2.0
F61-3124	1.5	1.0	1.0	2.0	1.0	2.0
F61-3126	1.5	1.0	1.0	2.0	1.0	2.0
F61-3130	1.5	1.0	1.0	2.0	1.0	2.0
F61-3131	1.5	1.0	1.0	2.0	1.0	2.0
F61-3132	1.0	1.0	1.0	2.0	1.0	2.0
F61-3134	1.5	1.0	1.0	2.0	1.0	1.0
La60-26-2	1.0	1.0	1.0	2.0	1.0	1.0
La61-11	1.0	1.0	1.0	2.0	1.0	1.0
La61-54-1	1.0	1.0	1.0	2.0	1.0	1.0
La61-55-3	1.0	1.0	1.0	2.0	1.0	1.0
La61-91	1.5	1.0	1.0	2.0	1.0	1.0
La61-115	1.0	1.0	1.0	2.0	1.0	1.0
La61-160	1.5	1.0	1.0	2.0	1.0	1.0


PLYMOUTH, NORTH CAROLINA - 1963
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PRECIPITATION INCHES
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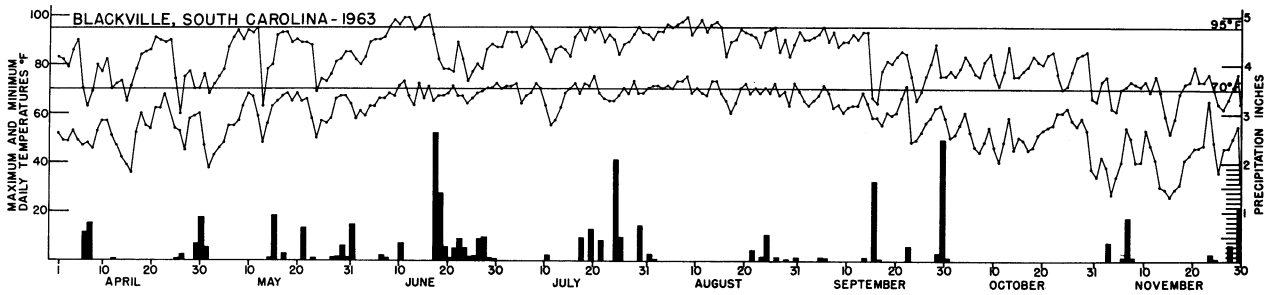
70° F
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER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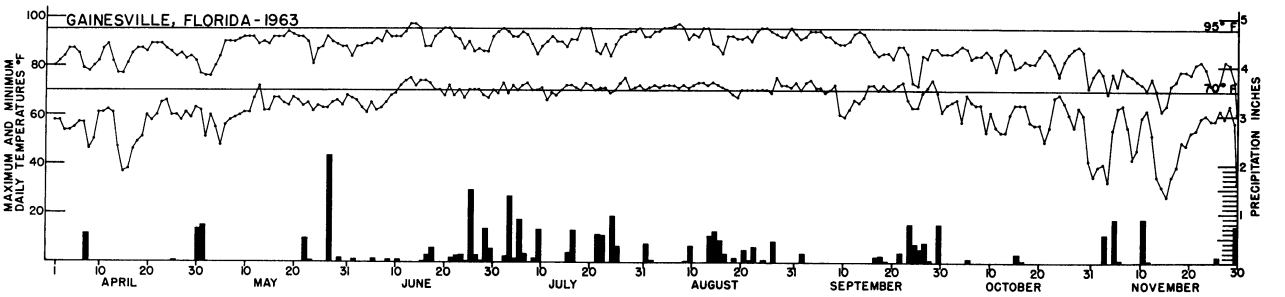
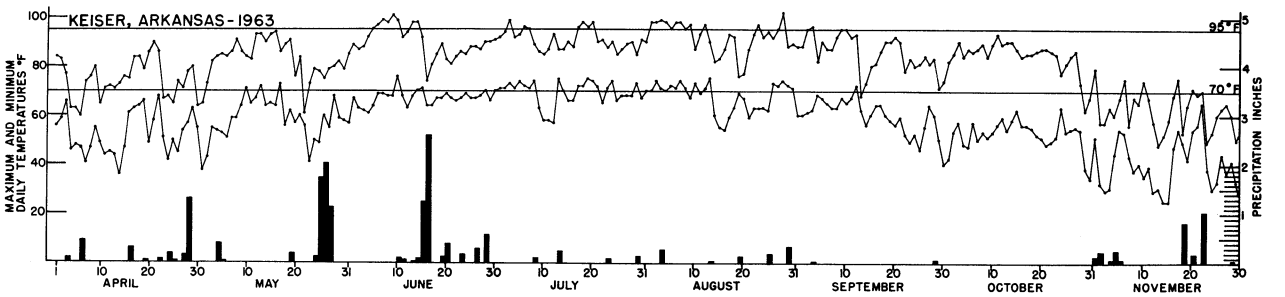
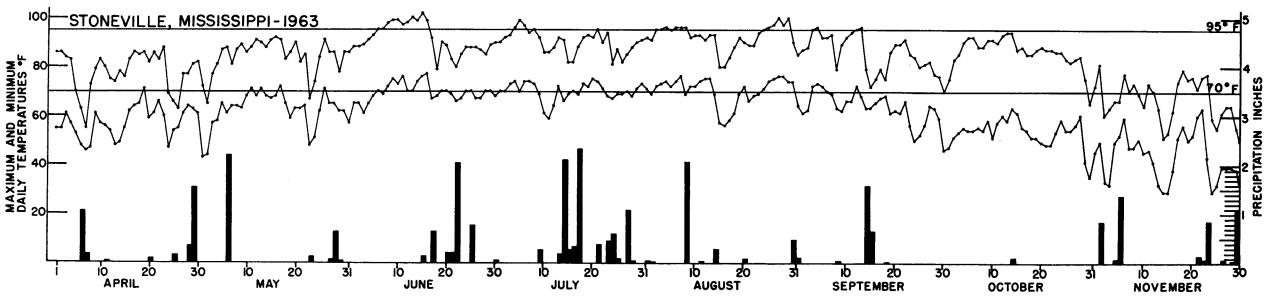
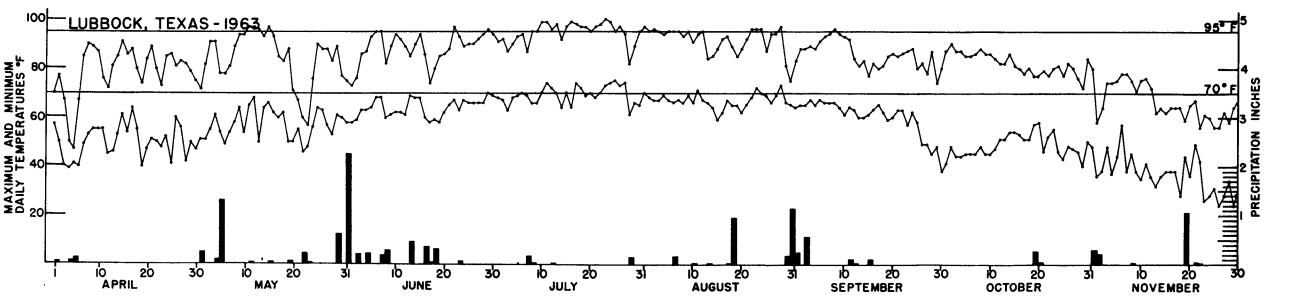
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


GAINESVILLE, FLORIDA - 1963
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
95° F
70° F
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


KEISER, ARKANSAS - 1963
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
95° F
70° F
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


STONEVILLE, MISSISSIPPI - 1963
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
95° F
70° F
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


LUBBOCK, TEXAS - 1963
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
95° F
70° F
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER