U. S. REGIONAL SOYBEAN LABORATORY
URBANA, ILLINOIS

RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS, 1959 PART II. SOUTHERN STATES

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RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS

PART II. SOUTHERN STATES

1959

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INTRODUCTION

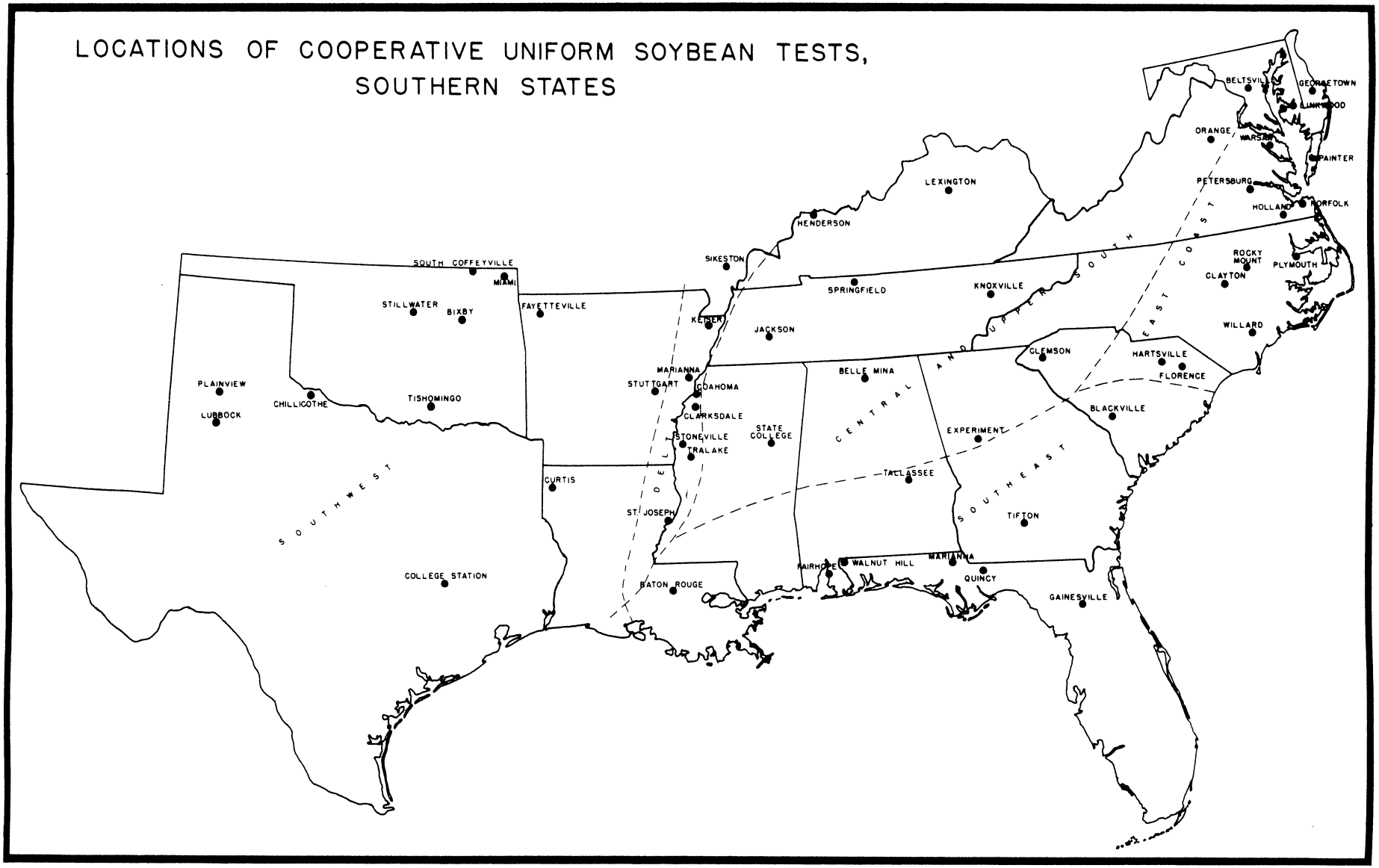
The program of the U. S. Regional Soybean Laboratory has been directed toward the development of improved strains of soybeans and the obtaining of fundamental information necessary to the efficient breeding of strains to meet specific needs. In the Southern Region, fundamental studies and breeding programs 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.

Nine uniform test groups have been established to evaluate the better strains developed in the breeding programs. The Groups 0 through IV are adapted in the northern part of the United States, and the Groups 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 Perry, 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: Perry, September 6; Hill, September 20; Hood, October 8; Jackson, October 25; and Bienville, November 1.

A wide range of soil and climatic conditions exist in the region. 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 soils 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. 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, rate of fertilization, and number of irrigations is included.

LOCATIONS OF COOPERATIVE UNIFORM SOYBEAN TESTS, SOUTHERN STATES



The soil test information is included for many of the locations. Soil analyses were run by laboratories within the states. Different methods are used for extraction and reporting by the various laboratories. Consequently, the analyses may not be too meaningful. For example, a P_2O_5 level of 60 pounds may be rated as low by the methods of one state and very high by the methods of another state. In most cases soil samples were taken after the soybeans were mature.

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.

B - Southwestern Irrigation Field Station and U.S. Regional Soybean Laboratory.
C - Purdue Agric. Expt. Station and U.S. Regional Soybean Laboratory.
Co - Coker Pedigreed Seed Co., Hartsville, South Carolina.
D - Delta Branch Expt. Station and U.S. Regional Soybean Laboratory.
UD - Delaware Agric. Experiment Station.
J.E.W. - John Wannamaker, St. Matthews, South Carolina.
L - Illinois Agric. Expt. Sta. and U.S. Regional Soybean Laboratory.
La - Louisiana Agricultural Experiment Station
N - North Carolina Agric. Expt. Sta. and U.S. Regional Soybean Laboratory.
S - Missouri Agri. Expt. Sta. and U.S. Regional Soybean Laboratory.
P - Paymaster Farm, Plainview, Texas.

Locations at which cooperative soybean nurseries were grown; and soil type, soil analyses, and fertilization at these locations.

Location	Groups Grown					Soil Type	Soil Analysis			Fertilizer[1]	Yield[2]
	IV	V	VI	VII	VIII		P_2O_5	K_2O	pH		
East Coast											
Georgetown, Del.	1	1				Norfolk loamy sand	H+	M	6.0	0-50-50	40.1 - A
Linkwood, Md.	1	1*	1			Sassafras sandy loam	--	-	---	0-60-60	36.1 - A
Warsaw, Va.	1	1*	1*			Sassafras sandy loam	109	101	5.7	0-0-0	30.3 - B
Painter, Va.	1	1	1			Sassafras sandy loam	282	124	6.0	0-0-0	50.0 - B
Petersburg, Va.	1	1	1			Norfolk fine sandy loam	VH	M	6.0	9-27-36	27.0 - B
Norfolk, Va.		1	1			Woodstown sandy loam	VH	H	6.4	--	36.2 - B
Holland, Va.		1	1			Dragston loamy fine sand	H	M	5.7	0-50-50	35.0 - D
Plymouth, N. C.		1*	1*			Bladen fine sandy loam	M	M	5.7	0-40-80	41.8 - B
Rocky Mt., N. C.				1		Norfolk sandy loam	M	M	6.2	0-40-80	26.1 - C
Willard, N. C.			1	1*		Norfolk sandy loam	VH	H	6.2	0-40-80	39.7 - C
Clayton, N. C.[3]			1	1		Norfolk sandy loam	H	M	6.1	0-40-80	36.9 - C
Florence, S. C.				1	1	Norfolk sandy loam					
Hartsville, S. C.			1	1	1	Norfolk sandy loam				12-36-36	50.7 - D
Southeast											
Blackville, S. C. (A)				1*		Norfolk sandy loam	H	H	6.2	0-42-42	34.0 - D
Blackville, S. C.(B)					1	Norfolk sandy loam	H	L	6.2	0-42-42	30.0 - D
Tallassee, Ala.			1	1*	1	Cahaba loamy fine sand				0-42-42	42.0 - D
Tifton, Ga.				1	1	Tifton pebbly loam				0-40-80	31.0 - D
Gainesville, Fla.			1	1*	1*	Arredonda fine sand	74	138	5.2	0-40-80	41.3 - D
Quincy, Fla.			1	1*	1	Ruston sandy loam				24-72-72	
Marianna, Fla.				1		Ruston sandy loam				24-72-72	
Walnut Hill, Fla.			1*	1*	1	Tifton fine sandy loam	M+	H	5.5	24-72-72	46.7 - D
Fairhope, Ala.			1	1		Marlboro fine sandy loam				0-56-56	37.3 - D
Baton Rouge, La.			1	1	1	Olivier silt loam				15-60-60	40.2 - E
Upper & Central South											
Orange, Va.	1					Davidson clay loam	L	H	5.6[5]	50-100-100	29.1 - F
Lexington, Ky.	1	1				Guthrie silt loam				48-48-48	35.0 - F
Springfield, Tenn.	1	1				Dickson silt loam				33-25-60	27.0 - A
Jackson, Tenn.	1	1	1			Richland silt loam	M	H	6.6	0-30-30	48.0 - B
Belle Mina, Ala.		1	1			Decatur sandy loam				0-52-52	25.7 - F
Clemson, S. C.				1		Cecil sandy loam	L	M	5.6	24-72-72	33.1 - D
Experiment, Ga.		1	1	1*	1*	Cecil sandy loam	H	M	6.7	20-60-60	42.5 - D
State College, Miss.		1	1	1		Verona fine sandy loam				0-25-75	32.6 - C

Location	Group Grown IV	V	VI	VII	VIII	Soil Type	Soil Analysis P_2O_5	K_2O	pH	Fertilizer[1]	Yield[2]
Delta											
Henderson, Ky.	1	1				Falaya silt loam	VH	VL	6.8	--	31.8 - A
Sikeston, Mo.	1	1*	1*			Dexter sandy loam				0-40-40	29.4 - A
Bell City, Mo.	1	1	1			Sharkey clay	448	660	5.2	--	40.0 - A
Keiser, Ark. (A)	1	1	1			Sharkey clay(overwash)	150	600	6.2	--	36.6 - A
Keiser, Ark. (B)	1	1*	1*			Sharkey clay	100	470	6.2	--	29.3 - A
Marianna, Ark.	1	1	1			Richland silt loam	386	270	6.8	0-0-40	35.2 - C
Coahoma, Miss.	1	1	1			Sharkey clay	145	531	6.1	--	41.9 - C
Stoneville, Miss.(A)		1	1	1*	1*	Bosket fine sandy loam	60	206	5.6	--	49.2 - C
Stoneville, Miss.(B)	1	1*	1*	1		Sharkey clay	175	524	5.8	--	38.9 - C
Tralake, Miss.	1	1	1			Forestdale silty clay	78	339	6.0	--	31.0 - C
St. Joseph, La.		1	1	1	1	Commerce sandy loam				--	51.7 - C
West											
Stuttgart, Ark.[4]		1	1	1		Crowley silt loam	68	160	7.4	0-46-60	44.6 - C
Curtis, La.		1	1	1	1	Yahola fine sandy loam				--	47.6 - C
S. Coffeyville, Okla.	1	1				Verdigris silt loam	42	312	6.1	--	25.0 - F
Bixby, Okla.	1	1*	1*			Lonoke very fine sandy loam	65	316	7.4	--	35.0 - C
Perkins, Okla.	1	1	1			Vanoss very fine sandy loam	29	320	5.6	--	26.6 - A
Milburn, Okla.			1	1		Ochlocknee-Iuka	231	420	7.3	--	30.2 - C
Chillicothe, Texas			1	1	1	Abilene loam					25.0 - C
Plainview, Texas		1	1			Amarillo fine clay loam					41.0 - A
Tulia, Texas		1	1			Pulman silty clay				--	21.0 - A
College Station, Texas			1	1	1						

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= Jackson; E = Bienville; F = Clark.
3/ Irrigated Aug. 25.
4/ Irrigated July 13, Aug. 27, and Sept. 23.
5/ 300 pounds lime applied after soil test was taken.

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 2 center rows. Randomized block designs are used for all groups. Row widths at the different locations vary from 36 to 40 inches. An attempt is 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: Since the later-maturing varieties usually make heavier growth than earlier-maturing varieties, lighter planting rates can be used and have equal, or superior, ground cover. Planting later-maturing varieties at a thinner rate reduces lodging. The number of seed packeted for 19 feet of row for the various groups were as follows: IV - 225 sees; V - 200 seeds; VI - 200 seeds; VII - 170 seeds; and VIII - 170 seeds. This gave a planting rate of 12 seeds per foot for Group IV, $10\frac{1}{2}$ for V and VI, and 9 for VII and VIII.

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

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 - 0 to 5% shattered
2 - 6% to 10% shattered
3 - 11% to 24% shattered
4 - 25% to 50% shattered
5 - Over 50% 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 seeds.

Lodging notes are recorded on a scales 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 are as follows: Group IV, Perry; 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" - 6" gap between rows
3 - 6" - 10" gap between rows
4 - 10"-18" gap between rows
5 - 18"-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 convered with lesions and much necrosis.

B. Root and Stem
1 - 0-5% of plants killed.
2 - 6%-10% of plants killed.
3 - 11%-24% of plants killed.
4 - 25%-50% of plants killed.
5 - Over 50% of plants killed.

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

1 - 0-5% purple staining.
2 - 6%-10% purple staining.
3 - 11%-24% purple staining
4 - 25%-50% purple staining.
5 - Over 50% 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

1959

Variety or Strain	Parentage	Generation Composited
1. Perry	Patoka x L7-1355	F_7
2. Clark	Lincoln(2) x Richland	F_8
3. Scott	D49-2525 x L6-5679	F_4
4. C1068	Lincoln x Ogden	F_7
5. D53-184	D49-2525 x L6-5679	F_5
6. D53-1254	D49-2525 x L6-5679	F_5
7. D54-2437	N48-1394 x L6-5679	F_5
8. Cx193-88-3	Perry x C1066	
9. S4-1771	L9-4091 x L6-2132	
10. S5-7144	D49-2525 x L6-5679	F_7
11. UD321-5	FC33243 x Perry	
12. UD580-10	FC33243 x C985	

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.

N48-1394 is a pustule-resistant line of Group VI maturity selected from the cross Roanoke x N45-745 (a selection from Ogden x CNS).

C1066 is a selection from C985, Lincoln x Ogden.

L9-4091 is a pustule-resistant selection from (Lincoln(2) x Richland) x Lincoln x CNS.

L6-2132 is a selection from Lincoln(2) x Richland which is closely related to Clark.

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

Results of 20 Group IV nurseries are summarized in tables 1 through 7. Table 1 gives a general summary of agronomic qualities, chemical composition, and disease reaction. Two- and 3-year data are reported for seed yield and chemical composition.

The group included the three named varieties Perry, Clark, and Scott, along with 9 experimental lines. C1068 was included in the Southern Group IV nursery for the first time, but this strain had been included in the Northern Group IV nursery for the years 1954-1958. D53-184, D53-1254, and D54-2437 have each been tested in the uniform group for 3 years, while the 5 remaining lines were tested for the first time.

Differences among strains were significant in 13 of the 20 tests. A combined analysis of variance for seed yield for each region showed a highly significant strain x location interaction for within each region. Differences among strains were significant in the Delta and Western regions. In the Delta region, 4 strains yielded significantly higher than Perry. There were no strains yielding significantly less than Perry. The differences in mean yield in the Delta area are largely attributable to the fact that 4 nurseries were grown on heavy soil where Phytophthora rot reduced yields on most strains. D54-2437,which has field resistance to Phytophthora rot, averaged 10 bushels per acre higher in yield for the area than Perry.

Seed quality continues to be one of the major problems associated with producing strains of IV maturity in the Southern region. Perry and Clark produced seed with quality ratings of 3 or poorer in 68 and 74 percent of the locations, respectively. Seed quality of C1068 was similar to that of Perry and Clark. D53-1254 ranked highest in seed quality.

The two lines UD321-5 and UD580-10 were selected for resistance to root knot nematodes. Nematodes were not a factor limiting seed yield at any of the locations where these nurseries were planted.

Table 1. General summary of performance for the strains in Uniform Group IV, 1959

	Perry	Clark	Scott	C1068	D53-184	D53-1254
Seed Yield - 1959						
East Coast	36.3	33.7	34.4	37.1	35.1	35.3
Delta	23.6	23.3	27.1	27.9+	29.3+	28.0+
West	27.7	28.4	32.1	28.5	31.4	24.6
- 1958-59						
East Coast	37.9	37.3	38.9		39.2	39.2
Delta	28.0	27.5	31.8		33.4	31.9
West	29.4	31.9	33.2		34.3	28.7
- 1957-59						
East Coast	34.6	34.1	36.4		36.4	35.8
Delta	28.5	28.7	33.7		35.0	34.3
West	28.3	30.1	31.8		31.4	29.1
Oil Content - 1959	22.3	22.4	21.7	22.3	21.8	22.0
- 1958-59	22.4	22.5	21.7		21.7	22.1
- 1957-59	22.4	22.4	21.7		21.6	22.0
Protein Content - 1959	41.9	41.5	39.0	41.0	41.9	40.6
- 1958-59	42.3	41.9	39.1		42.3	40.8
- 1957-59	42.0	41.7	39.0		42.3	40.7
Seed Size	15.9	15.7	14.1-	16.4	14.0-	13.5-
Maturity Index	9-19	-6	+4	+2	+3	+2
Height	36	35	38	37	40	39
Seed Quality 1/	68	74	37	68	42	20
Bacterial Pustule 2/	4.0	3.5	1.0	4.0	1.0	1.0
Phytophthora 3/	3.5	3.5	3.5	2.5	2.0	2.0
Purple Stain 4/	1.3	1.0	1.0	2.0	1.3	1.0
Shattering 5/	1.0	1.0	2.0	1.0	1.0	1.0

1/ Percentage of comparisons receiving a quality score of 3 or poorer.
2/ Stoneville data.
3/ Tralake data.
4/ Average Linkwood, Warsaw, and Jackson.
5/ Jackson, Tenn. data.

Table 1. (continued)

	D54-2437	CX193-88-3	S4-1771	S5-7144	UD321-5	UD580-10
Seed Yield - 1959						
East Coast	37.4	32.5	33.5	36.1	34.4	31.5
Delta	33.7+	24.9	25.0	25.8	26.5	24.8
West	29.2	25.0	25.3	27.1	27.7	22.5-
- 1958-59						
East Coast	38.4					
Delta	35.5					
West	29.5					
- 1957-59						
East	35.0					
Delta	36.8					
West	28.8					
Oil Content - 1959	21.3	22.9	22.0	21.8	21.0	23.1
- 1958-59	21.3					
- 1957-59	21.2					
Protein Content - 1959	41.5	40.0	41.5	40.7	42.6	39.5
- 1958-59	41.7					
- 1957-59	41.2					
Seed Size	14.2-	15.0	13.4-	13.9-	15.2	16.3
Maturity Index	+5	-1	-3	+5	+3	-1
Height	39	40	38	41	41	36
Seed Quality[1/]	32	53	53	47	42	74
Bacterial Pustule[2/]	1.0	3.5	1.0	1.0	3.0	3.0
Phytophthora[3/]	1.0	4.0	3.0	2.0	3.0	4.0
Purple Stain[4/]	1.3	1.0	1.0	1.5	1.3	1.0
Shattering[5/]	2.0	1.0	1.0	3.0	1.0	1.0

Table 2. Seed yield, in bushels per acre, for the strains in Uniform Group IV, 1959

Location	Perry	Clark	Scott	C1068	D53-184	D53-1254	D54-2437
East Coast							
Georgetown, Del.	35.1	31.6	21.9-	36.9	37.4	27.1	38.4
Linkwood, Md.	38.2	37.0	39.0	38.4	37.8	40.4	37.6
Orange, Va.	32.3	29.1	36.6+	30.5	29.1	33.3	35.5
Warsaw, Va.	36.1	30.1	33.9	36.8	34.1	33.1	34.1
Painter, Va.	39.7	40.6	40.3	42.9	37.2	42.5	41.3
Mean	36.3	33.7	34.4	37.1	35.1	35.3	37.4
Upper and Central South							
Lexington, Ky.	37.9	35.0	32.3-	33.7	28.7-	36.1	36.4
Springfield, Tenn.	32.2	31.3	32.6	32.6	35.9	32.4	35.0
Jackson, Tenn.	42.3	45.5	41.1	41.9	40.5	35.7	34.2
Mean	37.5	37.3	35.3	36.1	34.9	34.7	35.2
Delta							
Henderson, Ky.	36.5	35.4	32.6	39.4	32.7	34.8	32.6
Sikeston, Mo.	30.8	34.0	31.9	30.0	32.9	30.0	33.7
Bell City, Mo.	35.6	36.4	43.6+	44.7+	44.7+	40.4	46.6+
Keiser, Ark. (A)	30.4	34.7	35.9	38.1	40.2	35.9	37.7
Keiser, Ark. (B)	16.5	14.0	20.4	21.0	23.8+	20.7	26.6+
Marianna, Ark.	30.1	22.6	37.6	31.8	34.1	34.6	35.0
Coahoma, Miss.	12.1	15.4	17.4	22.6+	30.6+	20.8	30.4+
Tralake, Miss.	12.7	10.8	11.3	13.0	8.1	18.6	34.4+
Stoneville, Miss. (B)	7.6	6.8	13.7+	10.0	16.8+	16.2+	26.1+
Mean	23.6	23.3	27.1	27.9+	29.3+	28.0+	33.7+
West							
South Coffeyville, Okla.	23.2	25.0	25.1	24.8	27.7	24.0	21.7
Bixby, Okla.	28.6	32.0	40.6+	31.6	37.3+	22.3	37.7+
Perkins, Okla.	31.4	28.2	30.5	29.2	29.1	27.4	28.3
Mean	27.7	28.4	32.1	28.5	31.4	24.6	29.2

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

Table 2. (continued)

Location	CX193-88-3	S4-1771	S5-7144	UD321-5	UD580-10	L.S.D. (.05)	C.V.
			East Coast				
Georgetwon, Del.	30.7	25.2-	32.2	33.3	25.7-	8.8	17%
Linkwood, Md.	35.6	36.6	41.8+	35.1	34.6-	3.1	5%
Orange, Va.	28.2	32.3	32.1	30.2	28.2	4.3	8%
Warsaw, Va.	29.6-	32.5	33.5	30.8-	28.1-	3.8	7%
Painter, Va.	38.4	40.9	40.8	42.3	40.8	N.S.	8%
Mean	32.5	33.5	36.1	34.4	31.5	N.S.	
			Upper and Central South				
Lexington, Ky.	35.3	34.1	29.8-	32.1-	37.7	4.8	8%
Springfield, Tenn.	39.1	36.1	34.6	39.6	31.8	N.S.	13%
Jackson, Tenn.	34.9	34.1	29.7-	32.7-	42.5	9.0	14%
Mean	36.4	34.8	31.4	34.8	37.3	N.S.	
			Delta				
Henderson, Ky.	33.5	32.8	31.1-	33.1	36.0	4.1	7%
Sikeston, Mo.	33.7	33.4	29.6	28.7	32.8	N.S.	13%
Bell City Mo.	38.9	34.6	39.5	41.4+	38.0	5.6	8%
Keiser, Ark. (A)	40.4	36.7	36.8	33.3	36.2	N.S.	10%
Keiser, Ark. (B)	17.8	16.2	22.6+	21.8	15.8	6.1	18%
Marianna, Ark.	27.1	25.6	30.7	28.3	28.7	N.S.	23%
Coahoma, Miss.	13.4	20.8	16.1	29.2+	19.7	9.3	27%
Tralake, Miss.	10.2	13.9	10.6	9.5	8.7	6.1	27%
Stoneville, Miss. (B)	9.5	10.8	14.8+	13.3+	7.0	3.8	18%
Mean	24.9	25.0	25.8	26.5	24.8	3.5	
			West				
South Coffeyville, Okla.	21.5	20.1	25.2	21.9	20.0	N.S.	15%
Bixby, Okla.	29.2	30.7	27.3	33.5	22.6	8.1	15%
Perkins, Okla.	24.1	25.1	28.9	27.9	24.9	N.S.	11%
Mean	25.0	25.3	27.1	27.7	22.5-	5.2	

Tabe 3. Chemical composition and seed size for the strains in Uniform Group IV, 1959

Location	Perry	Clark	Scott	C1068	D53-184	D53-1254
			Oil Percentage			
Linkwood, Md.	21.3	23.0	20.9	22.3	20.4	22.0
Warsaw, Va.	23.0	21.6	22.7	22.8	22.3	22.8
Henderson, Ky.	21.5	21.7	19.7	21.9	20.5	20.4
Sikeston, Mo.	20.9	20.7	21.5	20.8	21.7	21.2
Marianna, Ark.	23.1	22.9	22.9	23.0	22.7	22.5
Coahoma, Miss.	24.4	24.0	23.0	22.9	23.4	23.7
Bixby, Okla.	22.1	22.9	21.2	22.1	22.4	21.7
Mean	22.3	22.4	21.7	22.3	21.4	22.0
			Protein Percentage			
Linkwood, Md.	42.6	41.6	39.7	41.1	43.0	40.9
Warsaw, Va.	41.1	43.0	38.5	40.8	40.9	40.2
Henderson, Ky.	43.5	43.5	41.1	43.4	43.5	43.0
Sikeston, Mo.	43.9	42.7	39.8	42.3	42.8	41.6
Marianna, Ark.	41.7	41.7	38.9	39.9	41.3	40.5
Coahoma, Miss.	39.7	39.2	37.5	39.8	40.2	38.8
Bixby, Okla.	40.8	38.7	37.3	40.0	41.9	39.3
Mean	41.9	41.5	39.0-	41.0	41.9	40.6-
			Grams Per 100 Seeds			
Linkwood, Md.	18.8	19.4	16.0	18.8	15.1	16.2
Warsaw, Va.	17.0	14.0	15.0	17.0	14.0	14.0
Henderson, Ky.	15.7	15.5	13.1	17.2	13.0	13.1
Sikeston, Mo.	14.1	12.9	13.4	14.4	13.8	12.3
Marianna, Ark.	18.7	18.0	16.0	18.3	16.0	15.0
Coahoma, Miss.	14.0	15.1	11.7	15.1	12.3	11.5
Bixby, Okla.	12.8	15.2	13.8	14.3	13.5	12.1
Mean	15.9	15.7	14.1-	16.4	14.0-	13.5-

Table 3. (continued)

Location	D54-2437	CX193-88-3	S4-1771	S5-7144	UD321-5	UD580-10	L.S.D. (.05)
			Oil Percentage				
Linkwood, Md.	21.5	23.0	22.2	21.1	20.8	23.3	
Warsaw, Va.	21.4	23.6	22.5	22.6	21.1	22.9	
Henderson, Ky.	20.4	21.2	20.5	20.2	21.0	22.1	
Sikeston, Mo.	21.4	22.4	20.8	21.2	20.0	22.5	
Marianna, Ark.	21.9	23.0	22.5	23.0	21.6	23.2	
Coahoma, Miss.	21.7	24.4	23.8	22.9	21.5	25.0	
Bixby, Okla.	21.0	22.4	22.1	22.1	20.8	22.5	
Mean	21.3-	22.9+	22.0	21.8	21.0-	23.1+	0.6
			Protein Percentage				
Linkwood, Md.	42.2	41.1	41.5	40.9	42.6	39.9	
Warsaw, Va.	41.2	39.2	41.1	40.1	43.2	39.5	
Henderson, Ky.	43.3	42.9	43.9	41.0	43.8	41.0	
Sikeston, Mo.	42.1	40.4	42.8	42.4	43.7	39.9	
Marianna, Ark.	40.9	39.7	41.8	40.9	41.8	40.1	
Coahoma, Miss.	40.5	37.9	39.2	40.7	42.2	37.6	
Bixby, Okla.	40.6	38.5	40.0	39.0	41.2	38.7	
Mean	41.5	40.0-	41.5	40.7-	42.6+	39.5-	0.7
			Grams Per 100 Seeds				
Linkwood, Md.	16.6	17.3	16.0	15.8	18.3	19.8	
Warsaw, Va.	15.0	16.0	13.0	15.0	16.0	15.0	
Henderson, Ky.	12.8	13.7	12.6	13.3	13.6	15.7	
Sikeston, Mo.	13.4	14.2	12.0	12.3	13.2	14.7	
Marianna, Ark.	16.7	17.0	15.7	16.0	17.3	20.3	
Coahoma, Miss.	12.4	12.7	12.5	11.8	14.5	14.1	
Bixby, Okla.	12.3	14.2	12.0	13.3	13.7	14.2	
Mean	14.2-	15.0	13.4-	13.9-	15.2	16.3	0.9

Table 4. Relative maturity data, days earlier (-) or later (+) than Perry, for the strains in Uniform Group IV, 1959

Location	Date Planted	Perry Matured	Clark	Scott	C1068	D53-184
		East Coast				
Georgetown, Del.	5-29	10-4	-11	+4	+1	+2
Linkwood, Md.	5-28	10-1	-11	+2	-4	+3
Orange, Va.	5-21	9-25	0	+2	+2	+2
Warsaw, Va.	5-20	9-24	-7	+1	-1	+1
Mean		9-29	-7	+2	0	+2
		Upper and Central South				
Lexington, Ky.	5-23	9-27	-11	+1	+1	+2
Jackson, Tenn.	4-24	8-29	-3	+21	+10	+14
Mean		9-12	-7	+11	+6	+8
		Delta				
Henderson, Ky.	6-4	10-1	-7	+1	+1	+2
Sikeston, Mo.	5-16	9-18	-12	0	-4	+2
Bell City, Mo.	5-1	9-14	-2	+4	+4	+5
Keiser, Ark. (A)	5-4	10-4	-6	-1	+1	-6
Keiser, Ark. (B)	5-20	10-4	-6	-1	+1	-6
Marianna, Ark.	5-18	9-13	-7	+2	0	-2
Tralake, Miss.	5-14	8-27	-1	+1	+2	+2
Stoneville, Miss. (B)	5-6	8-20	0	+15	+15	+15
Mean		9-16	-6	+3	+3	+1
		West				
South Coffeyville, Okla.	5-16	9-10	0	+11	+9	+11
Bixby, Okla.	6-9	9-21	-2	+2	+2	+2
Perkins, Okla.	5-14	9-21	-11	+1	-3	+2
Mean		9-17	-4	+5	+3	+5

Table 4. (continued)

Location	D53-1254	D54-2437	CX193-88-3	S4-1771	S5-7144	UD321-5	UD580-10
			East Coast				
Georgetown, Del.	+1	+2	-1	-4	+5	+3	-1
Linkwood, Md.	0	+4	-6	-7	+4	0	-3
Orange, Va.	0	+4	-1	-1	+4	+1	0
Warsaw, Va.	0	+3	-1	-1	+5	+2	-2
Mean	0	+3	-2	-3	+5	+2	-2
			Upper and Central South				
Lexington, Ky	-2	+2	-3	-3	+1	+1	+1
Jackson, Tenn.	+17	+23	+9	+1	+28	+14	+6
Mean	+7	+12	+3	+1	+14	+7	+3
			Delta				
Henderson, Ky.	0	+2	-3	-3	+1	+1	+1
Sikeston, Mo.	-3	-1	-3	-5	0	0	-4
Bell City, Mo.	+2	+7	+3	+1	+6	+5	+3
Keiser, Ark. (A)	-4	-3	-5	-8	-2	-3	-18
Keiser, Ark. (B)	-4	-3	-5	-8	-2	-3	-2
Marianna, Ark.	+2	+6	-4	0	+8	-8	0
Tralake, Miss.	+3	+12	+1	+3	+4	+2	0
Stoneville, Miss. (B)	+15	+15	+15	+2	+15	+15	0
Mean	+1	+4	0	-2	+4	+1	-2
			West				
South Coffeyville, Okla.	+7	+12	+7	0	+11	+11	0
Bixby, Okla.	0	+2	-1	+1	+3	+2	+2
Perkins, Okla.	-1	+1	-10	-10	+2	+2	-9
Mean	+2	+5	-4	-3	+5	+5	-2

Table 5. Height data for the strains in Uniform Group IV, 1959

Location	Perry	Clark	Scott	C1068	D53-184	D53-1254
			East Coast			
Georgetown, Del.	34	41	33	38	33	37
Linkwood, Md.	46	46	43	46	43	46
Orange, Va.	36	37	49	40	40	42
Warsaw, Va.	42	42	44	44	44	45
Painter, Va.	40	39	43	40	41	40
Mean	40	41	42	42	40	42
			Upper and Central South			
Lexington, Ky.	43	41	45	44	48	45
Springfield, Tenn.	31	31	38	31	44	34
Jackson, Tenn.	43	38	49	37	47	50
Mean	39	37	44	37	46	43
			Delta			
Henderson, Ky.	41	40	45	43	48	47
Sikeston, Mo.	46	45	49	47	49	47
Bell City, Mo.	33	35	36	38	41	33
Keiser, Ark. (A)	22	22	23	26	28	24
Keiser, Ark. (B)	22	22	23	26	28	24
Marianna, Ark.	37	37	42	37	45	44
Coahoma, Miss.	21	23	24	25	30	27
Tralake, Miss.	24	26	20	26	30	34
Stoneville, Miss. (B)	19	17	18	19	23	25
Mean	29	30	31	32	36	34
			West			
South Coffeyville, Okla.	52	47	49	50	53	51
Bixby, Okla.	40	38	44	42	42	44
Perkins, Okla.	38	34	40	36	41	38
Mean	43	40	44	43	45	44

Table 5. (continued)

Location	D54-2437	CX193-88-3	S4-1771	S5-7144	UD321-5	UD580-10
			East Coast			
Georgetwon, Del.	36	34	35	36	36	35
Linkwood, Md.	48	51	50	54	46	42
Orange, Va.	42	42	40	49	46	39
Warsaw, Va.	46	47	48	50	46	41
Painter, Va.	41	38	41	40	44	39
Mean	43	42	43	46	44	39
			Upper and Central South			
Lexington, Ky.	47	46	44	48	49	45
Springfield, Tenn.	34	39	36	40	39	34
Jackson, Tenn.	45	51	45	54	49	38
Mean	42	45	42	47	45	39
			Delta			
Henderson, Ky.	43	49	47	50	48	46
Sikeston, Mo.	45	51	47	49	51	46
Bell City, Mo.	37	39	36	37	39	33
Keiser, Ark. (A)	22	25	23	23	23	32
Keiser, Ark. (B)	22	25	23	23	23	21
Marianna, Ark.	38	45	42	44	46	38
Coahoma, Miss.	31	29	24	31	35	23
Tralake, Miss.	38	32	30	23	30	24
Stoneville, Miss. (B)	30	25	23	24	29	18
Mean	34	36	33	34	36	31
			West			
South Coffeyville, Okla.	47	56	49	55	53	46
Bixby, Okla.	43	43	44	46	46	39
Perkins, Okla.	37	40	39	42	42	36
Mean	42	46	44	48	47	40

Table 6. Lodging scores for the strains in Uniform Group IV, 1959

Location	Perry	Clark	Scott	C1068	D53-184	D53-1254
			East Coast			
Georgetown, Del.	1.0	1.0	1.0	1.0	1.0	1.0
Linkwood, Md.	3.0	3.0	3.0	3.0	4.0	4.0
Orange, Va.	1.3	1.7	2.0	1.0	1.3	1.7
Warsaw, Va.	1.0	1.0	1.0	1.0	2.0	1.0
Painter, Va.	2.3	3.3	2.3	1.7	3.0	2.0
			Upper and Central South			
Lexington, Ky.	2.0	2.5	2.5	1.0	3.3	2 2
Springfield, Tenn.	1.0	1.0	2.0	1.3	3.0	1.0
Jackson, Tenn.	2.0	1.0	2.0	2.0	3.0	2 0
			Delta			
Henderson, Ky.	2.2	2.2	2.5	3.0	3.3	3.0
Sikeston, Mo.	1.8	1.4	1.7	1.1	3.2	1.4
Bell City, Mo.	1.0	1.2	1.4	1.2	2.1	1.2
Keiser, Ark. (A)	1.0	1.0	1.0	1.0	1.3	1.0
Keiser, Ark. (B)	1.0	1.0	1.0	1.0	1.3	1.0
Marianna, Ark.	2.7	2.0	3.3	2.7	4.0	2.3
Coahoma, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
Tralake, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, Miss. (B)	1.0	1.0	1.0	1.0	1.0	1.0
			West			
South Coffeyville, Okla.	4.7	1.7	3.7	2.0	4.3	3.7
Bixby, Okla.	2.7	2.3	2.0	2.0	3.7	1.7
Perkins, Okla.	1.3	1.0	2.7	2.0	3.7	2.7

Table 6. (continued)

Location	D54-2437	CX193-88-3	S4-1771	S5-7144	UD321-5	UD580-10
			East Coast			
Georgetown, Del.	1.0	1.0	1.0	1.0	1.0	1.0
Linkwood, Md.	3.0	3.0	4.0	3.0	4.0	4.0
Orange, Va.	1.7	1.3	2.0	1.0	1.7	2.3
Warsaw, Va.	1.0	1.0	3.0	1.0	2.0	5.0
Painter, Va.	2.3	2.0	4.0	2.7	3.3	3.0
			Upper and Central South			
Lexington, Ky.	2.0	1.3	2.3	2.0	3.0	2.7
Springfield, Tenn.	1.3	1.6	2.0	2.0	2.0	2.3
Jackson, Tenn.	3.0	1.0	2.0	3.0	2.0	2.0
			Delta			
Henderson, Ky.	2.5	1.3	2.7	2.5	4.0	3.5
Sikeston, Mo.	1.4	1.1	1.9	1.4	3.0	1.8
Bell City, Mo.	1.4	1.1	1.7	1.3	1.6	1.5
Keiser, Ark. (A)	1.0	1.0	1.3	1.0	1.0	1.7
Keiser, Ark. (B)	1.0	1.0	1.3	1.0	1.0	1.0
Marianna, Ark.	2.3	2.3	3.3	2.3	3.0	2.7
Coahoma, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
Tralake, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
			West			
South Coffeyville, Okla.	3.7	1.7	3.7	4.7	4.0	4.7
Bixby, Okla.	2.0	1.7	4.0	2.0	3.0	3.3
Perkins, Okla.	2.3	1.0	2.3	3.0	3.0	1.3

Table 7. Seed quality scores for the strains in Uniform Group IV, 1959

Location	Perry	Clark	Scott	C1068	D53-184	D53-1254
			East Coast			
Georgetown, Del.	3.0	2.0	1.0	3.0	3.0	2.0
Linkwood, Md.	3.0	3.0	3.0	3.0	3.0	3.0
Orange, Va.	2.0	3.0	2.0	2.0	2.0	1.0
Warsaw, Va.	3.0	4.0	2.0	3.0	2.0	1.0
Painter, Va.	3.0	3.0	3.0	4.0	3.0	2 0
			Upper and Central South			
Lexington, Ky.	2.0	2.5	2.0	3.0	2.5	2.0
Jackson, Tenn.	4.0	5.0	4.0	4.0	3.0	4.0
			Delta			
Henderson, Ky.	2.5	3.0	2.0	3.0	2.0	2.0
Sikeston, Mo.	4.0	3.0	2.5	2.8	2.3	2.5
Bell City, Mo.	3.5	3.5	2.3	2.8	2.5	2.3
Keiser, Ark. (A)	4.3	3.7	2.0	3.3	2.0	2.0
Keiser, Ark. (B)	5.0	4.0	2.3	3.0	2.3	2.3
Marianna, Ark.	4.0	3.7	3.0	3.3	3.0	3.0
Coahoma, Miss.	3.7	3.3	3.0	3.3	3.0	3.0
Tralake, Miss.	4.7	4.0	3.7	3.7	4.0	2.3
Stoneville, Miss. (B)	4.3	4.0	3.0	3.3	3.0	2.7
			West			
South Coffeyville, Okla.	1.7	1.0	1.3	1.7	1.0	1.7
Bixby, Okla.	1.0	1.3	1.0	1.0	1.0	1.7
Perkins, Okla.	1.7	2.0	1.7	1.7	1.7	1.7

Table 7. (continued)

Location	D54-2437	CX193-88-3	S4-1771	S5-7144	UD321-5	UD580-10
			East Coast			
Georgetown, Del.	2.0	2.0	2.0	1.0	2.0	2.0
Linkwood, Md.	3.0	3.0	3.0	3.0	3.0	3.0
Orange, Va.	2.0	2.0	2.0	1.0	2.0	4.0
Warsaw, Va.	2.0	3.0	2.0	2.0	2.0	4.0
Painter, Va.	4.0	3.0	3.0	3.0	2.0	5.0
			Upper and Central South			
Lexington, Ky.	2.5	2.5	3.0	2.5	2.0	3.0
Jackson, Tenn.	4.0	3.0	3.0	4.0	4.0	4.0
			Delta			
Henderson, Ky.	2.5	2.5	3.0	3.0	2.5	2.5
Sikeston, Mo.	2.5	2.5	3.0	2.5	2.8	3.5
Bell City, Mo.	2.3	2.5	2.8	2.8	2.5	3.0
Keiser, Ark. (A)	3.0	3.0	3.3	3.0	3.7	4.0
Keiser, Ark. (B)	2.3	3.3	3.7	2.7	3.3	4.3
Marianna, Ark.	3.0	3.7	3.7	3.0	3.7	5.0
Coahoma, Miss.	3.0	3.3	3.3	3.3	3.7	3.3
Tralake, Miss.	2.0	3.7	3.0	4.0	4.3	4.0
Stoneville, Miss. (B)	2.3	3.7	3.0	4.0	3.0	4.0
			West			
South Coffeyville, Okla.	2.0	1.3	1.7	1.7	1.7	2.0
Bixby, Okla.	2.0	1.0	2.0	1.3	1.0	2.7
Perkins, Okla.	1.0	2.0	1.3	1.7	2.0	1.7

UNIFORM GROUP V

1959

Variety or Strain	Parentage	Generation Composited
1. Hill (D53-526	D632-15 x D49-2525	F_5
2. Dorman	Dunfield x Arksoy	F_6
3. D53-142	D49-2525 x L6-5679	F_5
4. D53-697	L7-163 x D49-2573	F_5
5. D54-2213	Wabash x D49-2573	F_5
6. D55-8144	Dorman x N48-1515	F_5
7. Md55-49	Wabash x Ogden	F_8
8. S4-7312	Ogden x L6-5679	F_5
9. D56-126	Dorman(2) x N48-1515	F_5
10. D56-1231	Perry x Lee	F_5
11. D56-1247	Perry x Lee	F_5
12. S4-7346		F_5

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 is a sister strain to Lee from the cross S-100 x CNS.

L6-5679 is a selection from Lincoln x Richland, which was included in the Group IV nursery for the years 1949 through 1953.

L7-163 is of Group IV maturity, has curled, deciduous pubescence, and produces high quality seed. It is a selection from a plant introduction.

D49-2573 is a pustule-resistant line of Group VI maturity selected from the cross Roanoke x N45-745. N45-745 is a selection from Ogden x CNS.

N48-1515 is another selection from Roanoke x N45-745. This line was grown in the Uniform Group VI nursery during the years 1951-1953.

Results of 30 Group V nurseries are summarized in tables 8 through 14. Table 8 gives a general summary of agronomic qualities, chemical composition, and disease reaction. Two- and 3-year data are reported for seed yield and chemical composition.

The strain D53-526 has been released for production and has been given the name Hill. Along with the two check varieties Hill and Dorman, the Group V nursery included 3 strains that were being tested the third year, 3 strains being tested the second year, and 4 strains being tested their first year. Differences among strains were significant in 21 of the 30 nurseries. A combined analysis of variance for seed yield by regions showed a highly significant variety x location interaction in the Upper and Central area and the Western area. In the Eastern area there was no interaction, while in the Delta area the variety x location interaction was significant at the 5% level.

In the East the two latest maturing lines, D55-8144 and D56-1231, produced the highest average yields and both yielded significantly higher than Hill. D55-8144 ranked highest in yield within each production are in 1959 and also ranked highest in yield in each area for the 2 years 1958 and 1959.

The greatest difference among strains was expressed in the Delta area. Four nurseries were grown on heavy soil where Phytophthora rot caused stunting and killing. Differences in strain reaction to Phytophthora rot were observed. The two strains Hill and D53-142 are nearly similar in plant type and maturity. The 3-year average yields for the East Coast area for 1957 to 1959 are 38.4 bushels for Hill and 36.8 bushels for D53-142. D53-142 frequently shows only slight killing from Phytophthora rot but does show severe stunting. In 1959, Hill produced an average yield of 34 bushels per acre on the heavy soil at Keiser, Coahoma, Stoneville, and Tralake; whereas, D53-142 produced an average yield of 17 bushels per acre. Strains susceptible to Phytophthora rot showed killing or stunting at these 4 locations.

Md55-49 has been included in the Group V nursery 2 years. It was grown in the Preliminary Group V nursery in 1957. In each of the 3 years it has appeared to be highly susceptible to the development of purple seed stain at one or more locations.

The good performance of D53-697 at most locations over the 3 years it has been in Group V plantings suggests that satisfactory yields can be produced by a strain having curled, deciduous pubescence. Pubescence of this type gives less protection from leaf hoppers. Pubescence is shed shortly after maturity.

Table 8. General summary of performance for the strains in Univorm Group V, 1959

	Hill	Dorman	D53-142	D53-697	D54-2213	D55-8144
Seed Yield - 1959						
East Coast	36.8	36.0	36.1	38.5	35.9	42.1+
Upper & Central South	26.1	26.3	25.5	29.2	24.1	31.7
Delta	35.1	31.6	27.3-	30.0-	29.6-	39.3+
West	28.8	28.3	28.6	31.8	28.6	34.8
- 1958-59						
East Coast	37.9	37.6	35.7	37.9	37.8	41.0
Upper & Central South	25.1	24.0	24.3	26.1	24.0	28.5
Delta	36.1	32.5	29.8	32.8	31.6	40.7
West	29.3	29.3	28.9	31.4	29.3	33.9
1957-59						
East Coast	38.4	38.1	36.8	37.9	38.0	
Upper and Central South	22.4	22.0	22.6	21.1	21.4	
Delta	36.0	32.7	30.6	34.2	32.1	
West	31.1	30.0	30.9	32.7	31.4	
Oil Content - 1959	21.4	21.8+	21.7	21.0	21.1	23.0+
- 1958-59	21.4	21.5	21.3	21.0	21.0	22.8
- 1957-59	21.5	21.6	21.3	21.1	21.3	
Protein Content - 1959	39.7	39.2	40.0	40.0	40.2	38.2-
- 1958-59	40.0	39.7	40.5	40.2	40.8	38.4
- 1957-59	39.4	39.2	40.0	39.9	40.1	
Seed Size	11.6	12.8+	13.4+	12.6+	12.4+	14.6+
Maturity Index	9-26	+1	+3	+5	+4	+6
Height	33	37	29	36	33	36
Bacterial Pustule[1/]	1.0	3.0	1.0	1.0	1.0	1.0
Phytophthora[2/]	1.0	1.0	3.5	1.5	2.0	1.0
Purple Stain[3/]	1.0	1.5	1.5	1.0	1.2	1.2
Shattering[2/]	1.0	1.3	2.0	2.5	2.0	2.0

1/ Stoneville
2/ Tralake
3/ Warsaw and Experiment

Table 8. (continued)

	Md55-49	S4-7312	D56-126	D56-1231	D56-1247	S4-7346
Seed Yield - 1959						
East Coast	38.0	38.2	36.7	40.0+	38.6	39.0
Upper & Central South	29.7	29.1	25.2	29.7	26.4	28.8
Delta	37.4	29.2-	30.0-	34.6	30.5-	34.4
West	32.4	28.9	29.9	33.4	27.7	29.1
- 1958-59						
East Coast	38.1	38.2				
Upper & Central South	27.3	26.6				
Delta	38.2	33.1				
West	29.9	29.8				
- 1957-59						
East Coast						
Upper & Central South						
Delta						
West						
Oil Content - 1959	22.2+	22.0+	22.6+	21.6	21.2	22.2+
- 1958-59	22.3	22.0				
- 1957-59						
Protein Content - 1959	40.0	39.1	39.2	41.0+	41.8+	41.8+
- 1958-59	40.2	39.8				
- 1957-59						
Seed Size	15.1+	13.8+	13.3+	13.9+	13.2+	14.6+
Maturity Index	+5	+4	-1	+6	+4	+6
Height	47	36	31	29	27	30
Bacterial Pustule[1/]	4.0	3.0	1.0	1.0	1.0	1.0
Phytophthora[2/]	1.5	3.5	1.0	1.5	2.5	2.0
Purple Stain[3/]	3.0	1.8	1.0	2.0	1.0	1.0
Shattering[2/]	2.7	1.3	3.0	1.0	2.0	2.0

Table 9. Seed yield, in bushels per acre, for the strains in Uniform Group V, 1959

Location	Hill	Dorman	D53-142	D53-697	D54-2213	D55-8144	Md55-49
East Coast							
Georgetown, Del.	40.1	38.1	37.7	41.2	40.3	46.4	36.5
Linkwood, Md.	36.1	34.7	35.1	35.2	36.8	40.1+	36.9
Warsaw, Va.	27.3	28.1	28.8	32.0+	29.6	34.9+	30.7
Painter, Va.	49.4	44.4	49.2	47.0	47.9	51.5	52.9
Petersburg, Va.	27.3	31.8+	28.3	32.5+	30.0	31.5+	26.2
Norfolk, Va. 1/	15.4	17.9	22.9	25.0	14.2	21.9	10.9
Holland, Va.	34.5	28.9-	31.7	31.8	27.6-	38.4	30.8
Plymouth, N. C.	42.8	45.7	41.6	49.6	39.3	52.1+	52.0+
Mean	36.8	36.0	36.1	38.5	35.9	42.1+	38.0
Upper and Central South							
Lexington, Ky.	25.9	21.3-	22.7	26.1	24.4	22.1-	28.0
Springfield, Tenn.	27.0	30.9	31.8	31.6	20.1-	35.3+	34.4+
Jackson, Tenn.	33.8	36.9	37.3	35.7	40.7	43.1	42.4
Experiment, Ga.	27.1	24.8	20.1	36.2+	20.0	37.4+	27.5
State College, Miss.	16.6	17.4	15.6	16.6	15.4	20.8	16.0
Mean	26.1	26.3	25.5	29.2	24.1	31.7	29.7
Delta							
Henderson, Ky.	31.8	30.9	32.8	29.5	32.2	39.2+	35.5
Sikeston, Mo.	29.4	28.5	27.8	29.4	30.1	29.1	31.4
Vinson, Mo.	36.0	26.6-	30.3-	31.2	33.8	42.2+	44.5+
Keiser, Ark. (A)	36.6	33.5	29.1-	27.7-	31.3	41.2	39.9
Keiser, Ark. (B)	29.3	29.0	18.1-	16.7-	17.7-	35.6	32.5
Marianna, Ark.	35.8	31.9	31.7	23.5-	33.7	44.0+	35.8
Coahoma, Miss.	39.4	33.2	19.2-	17.0-	26.2-	27.2-	33.7
Stoneville, Miss. (A)	32.9	33.5	31.6	40.7	36.6	40.0	39.9
Stoneville, Miss. (B)	45.0	28.7-	27.2-	40.8	23.2-	51.2	42.9
Tralake, Miss.	21.2	23.2	5.3-	18.3	16.4	21.4	19.2
St. Joseph, La.	48.7	48.3	47.5	55.3	44.3	61.6	55.9
Mean	35.1	31.6	27.3-	30.0-	29.6-	39.3+	37.4
West							
Stuttgart, Ark.	43.7	34.8-	35.8-	40.8	38.4-	46.0	49.1+
Curtis, La.	43.0	52.8+	44.0	54.1+	38.5	66.5+	53.9+
South Coffeyville, Okla.	17.5	15.9	22.4	17.8	15.2	16.0	14.5
Bixby, Okla.	20.8	18.0	19.7	22.3	19.4	29.0+	24.1
Perkins, Okla.	26.6	30.3	24.8	29.5	30.9	30.0	26.8
Tulia, Texas	21.2	18.2	25.1	26.5+	29.2+	21.3	26.2
Mean	28.8	28.3	28.6	31.8	28.6	34.8	32.4

1/ Not included in mean

Table 9. (continued)

Location	S4-7312	D56-126	D56-1231	D56-1247	S4-7346	L.S.D. (.05)	C.V.
			East Coast				
Georgetown, Del.	37.9	38.7	43.2	41.2	39.8	N.S.	17%
Linkwood, Md.	36.8	38.7	40.4+	39.0+	35.9	2.9	5%
Warsaw, Va.	32.7+	33.0+	31.8+	28.9	32.4+	3.8	7%
Painter, Va.	47.7	44.6	48.6	49.1	49.0	N.S.	9%
Petersburg, Va.	31.6+	31.9+	33.7+	29.8	30.2	3.4	7%
Norfolk, Va.1/	20.2	16.5	23.1	24.4	28.5	N.S.	30%
Holland, Va.	31.8	30.4	33.5	39.6+	36.6	4.4	8%
Plymouth, N. C.	49.1	39.8	48.6	42.8	49.5	7.4	10%
Mean	38.2	36.7	40.0+	38.6	39.0	2.3	
			Upper and Central South				
Lexington, Ky.	27.6	24.1	24.6	28.0	28.2	3.2	6%
Springfield, Tenn.	34.1+	33.1	30.5	30.0	33.3	6.6	13%
Jackson, Tenn.	44.1	31.4	38.9	41.3	39.7	N.S.	15%
Experiment, Ga.	28.6	24.1	34.0	19.9	23.3	8.6	19%
State College, Miss.	11.3-	13.5	20.3	12.8	19.3	5.1	18%
Mean	29.1	25.2	29.7	26.4	28.8	N.S.	
			Delta				
Henderson, Ky.	33.5	32.5	35.3	34.1	38.6+	4.0	7%
Sikeston, Mo.	26.1	30.9	29.1	30.6	32.6	N.S.	9%
Vinson, Mo.	35.0	21.2-	33.0	39.0	40.2	5.6	10%
Keiser, Ark. (A)	29.9-	32.6	37.4	31.9	33.1	6.0	11%
Keiser, Ark. (B)	25.2-	27.2-	25.3-	24.8-	26.3-	5.1	12%
Marianna, Ark.	30.3	33.9	38.3	32.0	27.7-	7.8	14%
Coahoma, Miss.	20.9-	27.6-	26.0-	22.1-	32.1	7.5	16%
Stoneville, Miss. (A)	34.9	31.1	39.2	33.6	35.5	N.S.	12%
Stoneville, Miss. (B)	18.0-	33.0	40.6	21.3-	36.1	12.3	21%
Tralake, Miss.	13.0-	16.4	18.5	11.7-	15.0	6.6	23%
St. Joseph, La.	54.7	43.5	58.1	54.7	60.6	N.S.	15%
Mean	29.2-	30.0-	34.6	30.5-	34.4	3.9	
			West				
Stuttgart, Ark.	37.7-	35.5-	41.1	35.0-	40.0-	3.0	4%
Curtis, La.	44.0	39.5	57.0+	41.5	47.0	8.8	11%
South Coffeyville, Okla.	20.6	17.2	19.9	16.2	19.0	N.S.	18%
Bixby, Okla.	21.0	28.0	32.8+	16.6	18.9	7.7	20%
Perkins, Okla.	26.0	31.7	27.4	30.6	29.0	N.S.	12%
Tulia, Texas	24.0	27.4+	22.4	26.4	20.6	5.3	13%
Mean	28.9	29.9	33.4	27.7	29.1	N.S.	

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

Table 10. Chemical composition and seed size for the strains in Uniform Group V, 1959

Location	Hill	Dorman	D53-142	D53-697	D54-2213	D55-8144
			Oil Percentage			
Linkwood, Md.	19.8	20.1	20.3	19.9	19.6	21.4
Warsaw, Va.	21.9	22.0	22.4	20.7	21.6	22.4
Plymouth, N. C.	21.4	21.3	21.8	21.4	21.0	23.7
Henderson, Ky.	19.6	20.4	20.2	19.6	20.1	21.7
Sikeston, Mo.	22.4	22.1	21.0	20.6	21.7	23.2
Coahoma, Miss.	21.7	22.6	22.2	21.5	21.4	24.0
Stoneville, Miss. (B)	22.0	23.0	22.2	21.7	22.4	23.9
Stuttgart, Ark.	21.9	22.8	22.5	21.2	21.4	23.6
Bixby, Okla.	21.7	21.9	22.9	22.4	21.3	23.1
Mean	21.4	21.8+	21.7	21.0	21.1	23 0+
			Protein Percentage			
Linkwood, Md.	40.7	41.0	40.5	39.6	43.1	40.2
Warsaw, Va.	39.7	40.5	40.3	41.1	40.7	39.8
Plymouth, N. C.	40.0	39.2	39.2	40.4	40.0	37.1
Henderson, Ky.	41.2	40.2	41.9	40.2	41.2	38.8
Sikeston, Mo.	38.6	39.7	40.9	42.7	40.9	39.5
Coahoma, Miss.	38.4	38.0	39.4	39.1	38.9	36.7
Stoneville, Miss.	39.2	37.5	39.7	39.2	37.7	36.9
Stuttgart, Ark.	40.0	38.7	39.4	40.2	39.5	38.2
Bixby, Okla.	39.1	38.1	35.7	37.3	39.7	36.5
Mean	39.7	39.2	40.0	40.0	40.2	38.2
			Grams Per 100 Seed			
Linkwood, Md.	11.3	12.9	14.3	12.8	14.7	16.6
Warsaw, Va.	13.0	15.0	14.0	14.0	14.0	16.0
Plymouth, N. C.	10.6	14.4	12.4	13.5	11.9	15.5
Henderson, Ky.	10.3	11.8	12.6	10.2	11.5	12.4
Sikeston, Mo.	11.0	12.6	13.0	13.0	12.5	14.2
Coahoma, Miss.	11.9	11.3	12.5	11.2	11.0	13.3
Stoneville, Miss. (B)	12.3	11.3	14.3	13.3	12.4	15.2
Stuttgart, Ark.	12.7	13.0	14.3	13.0	12.0	15.0
Bixby, Okla.	11.1	12.5	12.8	12.5	11.9	13.3
Mean	11.6	12.8+	13.4+	12.6+	12.4+	14.6+

Table 10. (continued)

Location	Md55-49	S4-7312	D56-126	D56-1231	D56-1247	S4-7346	L.S.D. (.05)
			Oil Percentage				
Linkwood, Md.	20.7	20.2	21.1	20.8	20.4	20.5	
Warsaw, Va.	21.5	22.7	23.0	21.9	21.6	22.7	
Plymouth, N. C.	21.9	21.9	22.5	22.0	21.5	22.6	
Henderson, Ky.	20.8	19.7	21.9	19.8	19.6	20.4	
Sikeston, Mo.	22.3	22.1	22.7	21.6	21.3	22.1	
Coahoma, Miss.	23.6	23.0	23.4	22.6	21.8	22.4	
Stoneville, Miss. (B)	23.5	23.1	23.0	22.3	22.4	23.2	
Stuttgart, Ark.	23.2	23.0	23.3	22.3	21.6	22.9	
Bixby, Okla.	22.7	22.4	22.1	21.3	20.9	22.8	
Mean	22.2+	22.0+	22.6+	21.6	21.2	22.2+	0.4
			Protein Percentage				
Linkwood, Md.	41.1	39.2	40.3	40.3	40.9	42.6	
Warsaw, Va.	42.7	38.7	40.4	42.0	42.4	42.7	
Plymouth, N. C.	39.5	39.2	39.3	41.4	40.9	41.6	
Henderson, Ky.	41.2	40.6	40.0	43.3	44.3	42.7	
Sikeston, Mo.	40.9	40.3	38.9	42.0	43.0	42.6	
Coahoma, Miss.	38.9	38.3	37.6	39.9	40.4	41.0	
Stoneville, Miss. (B)	38.3	39.5	39.0	39.7	41.4	41.6	
Stuttgart, Ark.	38.8	38.8	38.5	40.3	41.7	42.1	
Bixby, Okla.	38.2	37.1	38.8	39.7	40.9	39.0	
Mean	40.0	39.1	39.2	41.0+	41.8+	41.8+	0.8
			Grams Per 100 Seed				
Linkwood, Md.	16.5	14.4	14.2	14.7	14.2	14.3	
Warsaw, Va.	17.0	15.0	15.0	13.0	14.0	15.0	
Plymouth, N. C.	15.0	14.0	12.8	14.6	13.2	14.9	
Henderson, Ky.	14.4	12.7	12.2	12.8	11.8	12.9	
Sikeston, Mo.	14.9	13.2	13.3	13.7	13.2	14.3	
Coahoma, Miss.	14.0	13.0	11.8	13.5	12.4	14.0	
Stoneville, Miss. (B)	12.5	14.4	14.8	15.2	13.8	15.4	
Stuttgart, Ark.	15.3	14.3	12.7	14.7	14.0	15.7	
Bixby, Okla.	15.9	13.3	12.8	12.6	12.3	14.6	
Mean	15.1+	13.8+	13.3+	13.9+	13.2+	14 6+	0.7

Table 11. Relative maturity, days earlier (-) or later (+) than Hill, for the strains in Uniform Group V, 1959

Location	Date Planted	Hill Matured	Dorman	D53-142	D53-697	D54-2213
East Coast						
Georgetown, Del.	5-29	10-15	+6	+5	+11	+14
Linkwood, Md.	5-28	10-2	+3	+4	+5	+5
Warsaw, Va.	5-20	10-13	-1	0	-1	0
Petersburg, Va.	5-5	10-2	+9	+1	+5	+4
Holland, Va.	5-19	9-29	+6	+1	+6	+6
Plymouth, N. C.	5-11	9-22	+4	+2	+12	0
Mean		10-3	+5	+2	+6	+5
Upper and Central South						
Lexington, Ky.	5-23	10-5	+3	+1	-1	+2
Jackson, Tenn.	4-24	9-19	+3	+11	+10	+13
Belle Mina, Ala.	5-18	9-25	+3	+1	-2	-3
Experiment, Ga.	5-19	9-24	+1	+3	+3	+2
State College, Miss.	5-7	9-17	-10	-4	+4	+1
Mean		9-24	0	+2	+3	+3
Delta						
Henderson, Ky.	6-4	10-12	0	+1	-3	-1
Sikeston, Mo.	5-16	9-24	+3	+3	+6	+4
Vinson, Mo.	5-2	9-23	+1	0	+6	0
Keiser, Ark. (A)	5-20	10-1	+2	+6	+4	+2
Keiser, Ark. (B)	5-20	10-1	+2	+13	+6	+4
Marianna, Ark.	5-18	10-1	-3	-2	-8	+1
Coahoma, Miss.	5-4	9-21	-1	0	+6	+1
Stoneville, Miss. (A)	5-25	9-23	+1	+2	+7	+7
Stoneville, Miss. (B)	5-6	9-18	0	+10	+12	+4
Tralake, Miss.	5-14	9-12	0	+8	+8	+8
Mean		9-23	0	+3	+4	+3
West						
Stuttgart, Ark.	5-18	9-19	+2	+6	+6	+6
Curtis, La.	5-23	9-20	-2	+10	+5	+3
South Coffeyville, Okla.	5-16	10-10	-2	0	+8	+5
Bixby Okla.	6-11	10-3	-2	-1	+5	+1
Perkins, Okla.	5-14	9-26	-2	+1	+1	+1
Mean		9-28	-1	+3	+5	+3

Table 11. (continued)

Location	D55-8144	Md55-49	S4-7312	D56-126	D56-1231	D56-1247	S4-7346
East Coast							
Georgetown, Del.	+13	+8	+14	+14	+11	+8	+12
Linkwood, Md.	+6	+8	+4	+4	+6	+4	+4
Warsaw, Va.	0	+1	-1	0	0	+1	0
Petersburg, Va.	+9	+7	+4	0	+7	+3	+4
Holland, Va.	+9	+13	+6	+3	+6	+4	+13
Plymouth, N. C.	+14	+11	+10	-2	+10	+10	+10
Mean	+9	+8	+6	+3	+9	+5	+7
Upper and Central South							
Lexington, Ky.	+4	0	-2	-3	+2	0	+2
Jackson, Tenn.	+15	+15	+12	+2	+13	+2	+13
Belle Mina, Ala.	+4	-1	-1	+2	-3	+1	-2
Experiment, Ga.	+4	+4	+3	+3	+2	+4	+3
State College, Miss.	0	-1	0	-10	+2	0	+4
Mean	+3	+3	+2	-1	+3	+1	+4
Delta							
Henderson, Ky.	+3	+4	+1	-3	-1	+1	+2
Sikeston, Mo.	+5	+6	+3	+2	+7	+4	+6
Vinson, Mo.	+5	+7	+4	-1	+5	+2	+7
Keiser, Ark. (A)	+3	+7	+2	0	+6	+6	+3
Keiser, Ark. (B)	+11	+4	+7	+3	+9	+15	+13
Marianna, Ark.	+1	-6	-2	-5	-5	-4	-3
Coahoma, Miss.	+10	+10	+6	-1	+10	+10	+10
Stoneville, Miss. (A)	+7	+7	+7	0	+7	+7	+7
Stoneville, Miss. (B)	+12	+4	+7	+4	+12	+12	+12
Tralake, Miss.	+8	+8	+8	-2	+8	+8	+8
Mean	+7	+5	+4	0	+6	+6	+7
West							
Stuttgart, Ark.	+7	+7	+6	-4	+7	+6	+7
Curtis, La.	+2	+8	+5	-2	+10	+8	+8
South Coffeyville, Okla.	+8	+2	-2	-2	+2	-2	-2
Bixby, Okla.	+2	+12	-1	0	+7	-2	+5
Perkins, Okla.	+1	+1	-1	-2	+1	0	+2
Mean	+4	+6	+1	-2	+5	+2	+4

Table 12. Height data for the strains in Uniform Group V, 1959

Location	Hill	Dorman	D53-142	D53-697	D54-2213	D55-8144
			East Coast			
Georgetown, Del.	31	35	30	35	28	32
Linkwood, Md.	36	37	35	41	34	36
Warsaw, Va.	38	36	37	40	36	38
Painter, Va.	32	38	32	36	33	34
Petersburg, Va.	30	33	30	40	34	35
Norfolk, Va.	32	34	30	29	26	32
Holland, Va.	37	43	34	40	38	43
Plymouth, N. C.	39	38	37	43	36	42
Mean	34	37	33	38	33	37
			Upper and Central South			
Lexington, Ky.	40	46	44	42	47	47
Springfield, Tenn.	35	41	33	44	41	42
Jackson, Tenn.	39	39	41	44	41	43
Belle Mina, Ala.	36	40	30	39	37	45
Experiment, Ga.	33	37	28	40	36	40
State College, Miss.	24	24	15	28	28	20
Mean	35	38	32	40	38	40
			Delta			
Henderson, Ky.	36	41	33	34	35	43
Sikeston, Mo.	42	46	40	46	45	47
Vinson, Mo.	37	40	34	43	40	43
Keiser, Ark. (A)	29	33	21	32	30	32
Keiser, Ark. (B)	24	27	19	20	17	23
Marianna, Ark.	34	41	35	39	37	40
Coahoma, Miss.	25	26	17	25	24	26
Stoneville, Miss. (A)	35	41	30	41	37	39
Stoneville, Miss. (B)	21	25	15	27	19	27
Tralake, Miss.	27	25	18	29	25	29
St. Joseph, La.	32	36	24	30	30	34
Mean	31	34	26	32	31	35
			West			
Stuttgart, Ark.	24	33	17	29	25	30
Curtis, La.	28	26	13	22	22	24
South Coffeyville, Okla.	42	45	44	53	42	46
Bixby, Okla.	35	38	35	40	35	39
Perkins, Okla.	25	24	28	31	31	28
Mean	31	33	27	35	31	33

Table 12. (continued)

Location	Md55-49	S4-7312	D56-126	D56-1231	D56-1247	S4-7346
			East Coast			
Georgetown, Del.	44	33	28	29	26	27
Linkwood, Md.	57	42	34	35	33	37
Warsaw, Va.	51	43	36	34	33	36
Painter, Va.	42	33	32	31	29	31
Petersburg, Va.	53	37	29	29	28	27
Norfolk, Va.	42	35	34	32	31	36
Holland, Va.	54	43	39	35	31	37
Plymouth, N. C.	52	47	36	35	34	36
Mean	49	39	34	33	31	33
			Upper and Central South			
Lexington, Ky.	51	44	41	40	35	37
Springfield, Tenn.	47	39	39	34	30	35
Jackson, Tenn.	59	44	35	41	34	39
Belle Mina, Ala.	46	38	33	32	29	33
Experiment, Ga.	40	32	31	27	23	31
State College, Miss.	30	28	19	18	16	20
Mean	46	38	33	32	28	33
			Delta			
Henderson, Ky.	43	42	38	32	32	33
Sikeston, Mo.	49	44	44	40	47	39
Vinson, Mo.	60	42	38	33	32	38
Keiser, Ark. (A)	52	25	28	26	26	23
Keiser, Ark. (B)	33	22	21	20	20	21
Marianna, Ark.	54	37	33	31	26	35
Coahoma, Miss.	43	21	17	19	17	21
Stoneville, Miss. (A)	59	39	37	31	29	31
Stoneville, Miss. (B)	45	13	17	21	15	18
Tralake, Miss.	39	22	25	18	17	23
St. Joseph, La.	52	35	26	26	25	27
Mean	48	31	29	26	25	28
			West			
Stuttgart, Ark.	42	24	28	18	18	18
Curtis, La.	44	21	18	16	13	15
South Coffeyville, Okla.	56	49	42	39	38	43
Bixby, Okla.	48	40	36	37	31	34
Perkins, Okla.	42	32	23	26	24	27
Mean	46	33	29	27	25	27

Table 13. Lodging scores for the strains in Uniform Group V, 1959

Location	Hill	Dorman	D53-142	D53-697	D54-2213	D55-8144
			East Coast			
Georgetown, Del.	1.0	2.0	1.0	1.0	1.0	1.0
Linkwood, Md.	3.0	4.0	3.0	3.0	3.0	4.0
Warsaw, Va.	2.0	3.0	1.0	1.0	2.0	3.0
Painter, Va.	2.7	3.7	2.0	2.3	2.7	3.3
Petersburg, Va.	1.0	1.3	1.0	1.0	1.0	2.0
Norfolk, Va.	1.0	1.3	1.0	2.0	1.0	1.0
Holland, Va.	2.0	3.7	1.0	3.7	2.7	3.7
Plymouth, N. C.	3.0	5.0	3.0	4.0	4.0	5.0
			Upper and Central South			
Lexington, Ky.	4.0	4.8	2.2	2.7	3.2	4.3
Springfield, Tenn.	2.3	4.0	2.0	3.0	2.3	3.6
Jackson, Tenn.	2.0	2.0	1.0	2.0	2.0	3.0
Belle Mina, Ala.	1.7	2.0	1.0	1.7	2.7	2.7
Experiment, Ga.	2.3	2 7	1.0	2.7	2.5	3.0
State College, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
			Delta			
Henderson, Ky.	3.3	3.5	1.3	2.3	2.5	4.2
Sikeston, Mo.	1.9	2.3	1.0	1.8	1.9	2.1
Vinson, Mos.	2.8	2.8	1.1	3.0	1.6	3.5
Keiser, Ark. (A)	3.0	2.7	1.0	1.0	2.0	2.3
Keiser, Ark. (B)	1.3	1.3	1.0	1.3	2.7	1.3
Marianna, Ark.	2.0	4.3	1.3	5.0	3.3	5.0
Coahoma, Miss.	1.0	1.0	1.0	1.3	1.0	1.0
Stoneville, Miss. (A)	1.7	3.0	1.0	2.0	2.3	2.3
Stoneville, Miss. (B)	1.0	1.0	1.0	1.0	1.0	1.0
Tralake, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
St. Joseph, La.	2.0	3.0	1.0	3.0	3.0	3.0
			West			
Stuttgart, Ark.	1.0	2.0	1.0	1.0	1.0	1.7
Curtis, La.	1.0	1.0	1.0	1.0	1.0	1.0
South Coffeyville, Okla.	3.3	4.3	2.0	3.3	3.0	4.3
Bixby, Okla.	1.0	2.0	1.0	2.0	2.7	3.0
Perkins, Okla.	1.0	2.7	1.0	1.3	2.0	2.7
Tulia, Texas	3.0	3.0	2.0	2.0	1.0	3.0

Table 13. (Continued)

Location	Md55-49	S4-7312	D56-126	D56-1231	D56-1247	S4-7346
		East Coast				
Georgetown, Del.	1.0	1.0	1.0	1.0	1.0	1.0
Linkwood, Md.	2.0	3.0	3.0	3.0	3.0	3.0
Warsaw, Va.	1.0	1.0	3.0	2.0	1.0	1.0
Painter, Va.	2.3	2.7	4.3	2.0	2.0	2.0
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Norfolk, Va.	1.0	1.0	2.0	2.0	1.0	2.0
Holland, Va.	2.0	2.3	3.7	2.0	1.0	1.7
Plymouth, N. C.	2.0	3.0	4.0	4.0	2.0	2.0
		Upper and Central South				
Lexington, Ky.	1.0	2.0	3.7	3.7	2.0	2.5
Springfield, Tenn.	2.3	3.3	3.0	3.3	2.0	2.3
Jackson, Tenn.	2.0	2.0	2.0	1.0	1.0	1.0
Belle Mina, Ala.	1.0	1.3	1.7	1.7	1.0	1.0
Experiment, Ga.	1.3	1.7	2.0	1.7	1.0	2.0
State College, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
		Delta				
Henderson, Ky.	1.2	1.7	3.3	1.5	1.7	1.5
Sikeston, Mo.	1.0	1.3	1.3	1.7	1.1	1.3
Vinson, Mo.	1.7	1.5	2.1	1.7	1.1	1.4
Keiser, Ark. (A)	3.3	1.3	2.0	1.0	1.0	1.0
Keiser, Ark. (B)	1.0	1.0	1.3	1.0	1.3	1.7
Marianna, Ark.	2.0	2.7	4.0	1.7	1.3	1.7
Coahoma, Miss.	2.7	1.0	1.0	1.0	1.0	1.0
Stoneville, Miss. (A)	2.3	1.7	1.7	1.0	1.0	1.3
Stoneville, Miss. (B)	1.0	1.0	1.0	1.0	1.0	1.0
Tralake, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
St. Joseph, La.	3.0	3.0	2.0	1.0	1.0	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	1.0
South Coffeyville, Okla.	2.0	3.3	3.7	3.3	2.7	2.7
Bixby, Okla.	1.0	1.0	2.0	2.0	1.0	2.0
Perkins, Okla.	1.0	2.7	1.7	1.0	1.0	1.3
Tulia, Texas	1.0	2.0	2.0	3.0	2 0	2.0

Table 14. Seed quality scores for the strains in Uniform Group V, 1959

Location	Hill	Dorman	D53-142	D53-697	D54-2213	D55-8144
			East Coast			
Georgetown, Del.	1.0	2.0	1.0	2.0	2.0	1.0
Linkwood, Md.	3.0	2.0	3.0	2.0	3.0	3.0
Warsaw, Va.	2.0	3.0	3.0	2.0	2.0	2.0
Painter, Va.	2.0	2.0	2.0	2.0	2.0	4.0
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Norfolk, Va.	4.0	4.0	3.0	3.0	3.0	4.0
Holland, Va.	1.5	1.5	3.5	3.0	3.0	1.5
Plymouth, N. C.	1.0	1.5	1.5	1.5	2.0	1.5
			Upper and Central South			
Lexington, Ky.	2.0	2.5	2.0	2.5	2.0	2.0
Jackson, Tenn.	2.0	2.0	3.0	2.0	2.0	3.0
Experiment, Ga.	3.7	3.3	4.0	2.7	4.0	2.7
State College, Miss.	3.0	2.0	3.0	2.0	3.0	2.0
			Delta			
Henderson, Ky.	2.0	1.5	2.0	2.0	2.0	2.0
Sikeston, Mo.	1.5	1.5	1.8	2.0	2.3	2.0
Vinson, Mo.	1.8	1.7	2.2	2.0	2.4	2.0
Keiser, Ark. (A)	2.3	1.7	2.7	3.0	2.3	2.3
Keiser, Ark. (B)	1.3	2.0	2.3	2.3	2.3	1.7
Marianna, Ark.	3.0	2.7	2.7	3.0	3.0	3.0
Coahoma, Miss.	1.7	2.0	2.7	2.0	2.0	2.0
Stoneville, Miss. (A)	1.7	1.7	2.0	1.3	2.0	2.0
Stoneville, Miss. (B)	2.0	2.0	4.0	2.0	2.0	1.3
Tralake, Miss.	2.7	2.3	3.3	2.3	2.3	2.0
St. Joseph, La.	2.0	1.0	2.0	1.0	1.0	2.0
			West			
Stuttgart, Ark.	3.0	2.3	2.7	2.7	2.0	2.7
Curtis, La.	2.0	2.0	3.0	1.0	2.0	1.0
South Coffeyville, Okla.	1.0	1.7	1.3	2.3	2.0	2.0
Bixby, Okla.	1.7	1.7	2.0	3.3	2.0	3.0
Perkins, Okla.	1.0	1.7	1.0	1.0	1.0	1.0
Tulia, Texas	2.0	2.0	2.0	1.0	2.0	2.0

Table 14. (continued)

Location	Md55-49	S4-7312	D56-126	D56-1231	D56-1247	S4-7346
			East Coast			
Georgetown, Del.	1.0	1.0	1.0	1.0	2.0	2.0
Linkwood, Md.	2.0	2.0	3.0	3.0	3.0	3.0
Warsaw, Va.	4.0	2.0	1.0	2.0	1.0	1.0
Painter, Va.	4.0	2.0	2.0	3.0	2.0	1.0
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Norfolk, Va.	5.0	4.0	3.0	3.0	3.0	3.0
Holland, Va.	3.5	3.0	2.0	3.0	2.5	2.5
Plymouth, N. C.	1.5	1.0	1.5	1.5	2.0	1.5
			Upper and Central South			
Lexington, Ky.	2.0	2.5	1.5	2.5	2.5	2.0
Jackson, Tenn.	2.0	3.0	1.0	2.0	3.0	3.0
Experiment, Ga.	3.0	3.7	3.0	2.7	3.7	4.0
State College, Miss.	3.0	4.0	2.0	3.0	3.0	4.0
			Delta			
Henderson, Ky.	2.5	2.5	1.0	2.0	2 5	3.0
Sikeston, Mo.	2.5	3.0	2.0	2.3	1.8	2.0
Vinson, Mos.	2.4	2.7	1.7	2 1	2 1	2.2
Keiser, Ark. (A)	3.0	3.0	2.3	2.7	3.0	3.0
Keiser, Ark. (B)	2.0	3.0	2.0	3.0	3.0	3.0
Marianna, Ark.	4.0	3.3	2.7	3.0	3.0	3.7
Coahoma, Miss.	2.0	2.7	2.0	2.3	2 3	2.0
Stoneville, Miss. (A)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, Miss. (B)	1.3	3.0	2.0	2.0	2.7	2.0
Tralake, Miss.	3.0	3.7	2.0	2.3	3.0	3.3
St. Joseph, La.	1.0	2.0	1.0	2.0	4.0	1.0
			West			
Stuttgart, Ark.	2.0	3.0	2.7	2.0	2.0	2.7
Curtis, La.	2.0	1.0	2.0	1.0	2.0	1.0
South Coffeyville, Okla.	2.0	1.3	1.0	2.3	2.0	1.7
Bixby, Okla.	1.3	3.0	1.0	2.0	2.3	3.7
Perkins, Okla.	2.0	1.0	1.0	1.0	1.0	2.0
Tulia, Texas	1.0	2.0	2.0	2.0	2.0	3.0

PRELIMINARY GROUP V

1959

Eight Preliminary Group V nurseries were planted. The group included 26 experimental lines and two introductions along with Hill and Dorman as check varieties. The parentage of the experimental lines is reported in table 15. A general summary of agronomic qualities, chemical composition, and disease reaction is reported in table 16. Tables 17 through 21 report additional data for these strains.

There was considerable variability in performance of some of the lines. Phytophthora rot reduced the yield of some lines at Keiser and Stoneville. Results at Stoneville were also influenced by the fact that a 3.25-inch rain fell shortly after planting. Emergence from some seed lots was only fair. D56-1058, a line very susceptible to Phytophthora rot, died out completely at Keiser, produced 6.1 bushels per acre at Stoneville, but was one of the highest yielding lines at Vinson with a yield of 45.6 bushels.

Two introductions, PI 96,983 and PI 171,442, were included to evaluate their productivity, since both have been used as parents. Neither produced as well as was anticipated. PI 171,442 was the lowest yielding strain in the group with a yield averaging 9 bushels per acre less than the lowest yielding experimental line. Shattering may have contributed somewhat to this low yield. PI 96,983 produces seed having a high protein content. The seed also have colorless hilums. It is resistant to Phytophthora rot.

The importance of uniformly good quality seed for evaluating strains is illustrated by the comparison of Hill and D54-3362. D54-3362 is a sub-line of Hill. In 1956, there was no measurable difference between Hill and its sub-line D54-3362 in the Preliminary Group V nursery. However, for the 1959 plantings, the seed of Hill was very good quality and germinated very well, while badly weathered seed was used of D54-3362. At Plymouth, Hill was given a lodging score of 4 and produced at the rate of 40 bushels per acre, while D54-3362 was given a lodging score of 2 and yielded at the rate of 47.6 bushels per acre. The plantings at Keiser were made under more adverse conditions and D54-3362 failed to produce a stand.

Very little development of target spot was observed at Stoneville, except for the line R57-40 which showed considerable development.

Lines which appear to merit advancing to Uniform Group V are D56-3, D56-540, D56-1087, D56-1131, R57-18, and S6-7413.

Table 15. Parentage of the strains in Preliminary Group V, 1959

	Variety or Strain	Parentage or Origin	Generation Composited
1.	Hill (D53-526)	D632-15 x D49-2525	F_5
2.	Dorman	Dunfield x Arksoy	F_6
3.	PI 96,983-Ped	Korea - 1932	
4.	PI 171,442	China - 1948	
5.	D54-3362	D632-15 x D49-2525	F_6
6.	D55-55	D632-15 x D49-2525	F_7
7.	D55-186	D632-15 x D49-2525	F_7
8.	D56-3	Dorman(4) x N48-1515	F_3
9.	D56-4	Dorman(4) x N48-1515	F_3
10.	D56-20	Dorman(2) x N48-1515	F_5
11.	D56-314	Dorman(2) x N48-1515	F_5
12.	D56-501	Dorman(2) x N48-1515	F_5
13.	D56-540	Dorman(2) x N48-1515	F_5
14.	D56-999	PI 179,826 x D49-772	F_5
15.	D56-1058	Adams x Ogden	F_5
16.	D56-1087	D51-5108 x Dorman	F_5
17.	D56-1128	D51-5108 x Dorman	F_5
18.	D56-1131	D51-5108 x Dorman	F_5
19.	D56-1174	Perry x Lee	F_5
20.	D56-1185	Perry x Lee	F_5
21.	D56-1246	Perry x Lee	F_5
22.	D56-1251	(Adams x Ogden) x D49-2491	F_5
23.	N55-3643	Lincoln x Ralsoy	F_{10}
24.	R57-18	Dorman x D49-2477	
25.	R57-40	Dorman x D49-2477	
26.	S4-7404	Adams x Roanoke	
27.	S5-7179	Wabash x Ogden	
28.	S5-8120	Dorman x D49-2477	
29.	S6-7413	D49-2491 x L3-2010	
30.	S6-7416	D49-2491 x L3-2010	

Table 16. General summary of performance for the strains in Preliminary Group V, 1959

Strain	Seed Yield	Maturity Index	Ht.	Percent Oil	Percent Protein	Bact. Pustule 1/	Phytoph-thora 2/	Purple Stain 3/
Hill	33.8	9-28	35	21.9	39.2	1.0	1.0	0
Dorman	32.6	+2	37	21.7	39.5	3.0	1.0	0
PI 96,983-Ped	27.1	+1	34	17.2-	45.6+	3.0	1.0	0
PI 171,442	20.2	+10	40	19.4-	43.0+	5.0	1.0	0
D54-3362	32.1	0	33	21.9	39.0	1.0	1.0	0
D55-55	29.6	-2	38	22.4	39.9	1.0	1.0	0
D55-186	30.6	-2	41	21.9	40.8+	1.0	1.0	0
D56-3	32.3	+2	41	21.3	39.7	1.0	1.0	1.0
D56-4	30.2	+3	41	21.6	40.5	1.0	1.0	2.0
D56-20	32.0	+2	38	21.7	40.9+	1.0	2.0	1.0
D56-314	31.9	+2	37	22.1	39.6	1.0	1.0	1.0
D56-501	31.9	+3	33	22.6+	38.6	1.0	2.0	1.0
D56-540	33.8	+5	40	21.6	39.8	1.0	1.0	2.0
D56-999	36.5	+8	34	21.0-	41.0+	1.0	1.0	0
D56-1058	29.2	-7	35	22.8	40.4	2.0	4.0	1.0
D56-1087	34.9	+6	38	20.5-	41.5+	1.0	1.0	1.0
D56-1128	30.9	+6	37	21.1-	39.6	1.0	1.0	3.0
D56-1131	35.8	+2	37	20.7-	41.4+	1.0	1.0	1.0
D56-1174	33.1	+10	29	20.4-	42.5+	1.0	2.0	1.0
D56-1185	30.6	+8	24	21.2-	43.3+	1.0	3.0	1.0
D56-1246	30.4	+8	29	21.4	41.8+	1.0	2.0	1.0
D56-1251	32.8	+14	39	21.5	41.3+	1.0	1.0	2.0
N55-3643	32.5	+7	33	21.5	42.2+	4.0	1.0	2.0
R57-18	34.1	0	36	22.6+	39.6	1.0	1.0	1.0
R57-40	33.4	+5	34	22.7+	37.9	1.0	1.0	1.0
S4-7404	31.6	+11	34	22.6+	39.3	3.0	4.0	2.0
S5-7179	34.5	-2	48	22.8+	39.6	3.0	3.0	1.0
S5-8120	29.0	+7	34	21.2-	39.8	3.0	2.0	1.0
S6-7413	36.5	+2	37	22.4	38.8	1.0	1.0	1.0
S6-7416	35.0	+9	35	21.5	40.3	3.0	1.0	1.0
L.S.D.(.05)	N.S.			0.7	1.4			

1/ Stoneville data.
2/ Keiser and Stoneville data.
3/ Warsaw data.

Table 17. Seed yield, in bushels per acre, for the strains in Preliminary Group V, 1959

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Sikeston, Mo.	Vinson, Mo.	Keiser, Ark.	Stone-ville, Miss.(B)	Bixby, Okla.
Hill	32.6	33.6	40.0	26.4	35.6	29.4	50.8	23.0
Dorman	36.4	35.0	43.9	25.0	27.0-	30.4	36.2-	26.6
PI 96,983-Ped	31.4	31.8	36.4	24.1	25.7-	24.1	25.5-	17.6
PI 171,442	18.8-	24.5-	33.4	11.5-	10.2-	16.4-	26.8-	19.8
D54-3362	35.0	31.4	47.6	32.7+	29.6	--	30.3-	20.6
D55-55	34.4	30.7	36.1	23.6	29.9	26.4	33.4-	22.2
D55-186	32.9	32.3	40.3	23.7	33.8	25.3	36.8-	19.6
D56-3	37.2	34.4	41.7	28.8	29.0	22.5	41.1	23.4
D56-4	34.2	29.8	40.1	24.4	26.6-	21.2-	46.4	19.0
D56-20	35.4	30.3	41.7	27.1	30.7	24.0	42.4	24.7
D56-314	37.7+	36.6	48.7	25.1	37.7	21.7-	21.0-	26.8
D56-501	37.5	35.0	44.7	27.3	31.2	19.4-	37.6-	22.6
D56-540	36.3	32.8	45.2	27.1	37.8	33.7	36.7-	21.2
D56-999	37.6+	30.3	51.0+	32.1+	39.5	25.5	41.9	33.8+
D56-1058	35.0	31.5	46.0	30.2	45.6+	--	6.1-	28.8
D56-1087	39.0+	37.8	46.6	27.9	34.8	28.3	46.6	18.4
D56-1128	32.0	24.8-	38.8	26.8	32.1	26.1	39.0-	28.1
D56-1131	35.8	33.6	48.7	29.7	37.5	29.7	43.6	28.3
D56-1174	39.8+	33.6	55.4+	29.1	32.0	22.7	23.0-	29.3
D56-1185	40.0+	36.2	45.2	32.6+	30.6	14 1-	24.1-	22.1
D56-1246	37.9+	29.6	45.2	26.6	38.1	11.1-	23.0-	30.0
D56-1251	36.5	29.3	38.7	27.0	41.1	25.1	41.4	23.8
N55-3643	37.6+	37.5	49.0	29.3	29.1	26.3	32.2-	19.0
R57-18	37.4	37.9	49.0	28.8	34.4	19.9-	42.3	23.3
R57-40	38.8+	36.7	42.5	30.9	23.5-	25.9	38.5-	30.6
S4-7404	38.6+	37.8	50.2+	28.4	41.8	22.6	8.8-	24.9
S5-7179	41.6+	38.6	48.2	31.3	46.8+	21.4-	26.4-	22.0
S5-8120	32.8	29.8	45.6	25.7	33.6	21.7-	24.2-	19.0
S6-7413	40.2+	31.8	46.9	28.0	45.6+	28.7	46.7	24.0
S6-7416	39.8+	32.8	51.8+	30.2	41.4	32.4	33.3-	18.0
L.S.D.(.05)	5.0	5.6	9.6	5.4	8.4	7.3	10.7	8.5
C.V.	7%	8%	11%	10%	12%	15%	16%	18%

Table 18. Oil percentages for the strains in Preliminary Group V, 1959

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Sikeston, Mo.	Stoneville, Miss. (B)	Bixby, Okla.
Hill	20.0	20.9	21.3	23.2	22.3	23.5
Dorman	20.4	20.9	21.9	21.7	22.9	22.6
PI 96,983-Ped	16.5	16.5	17.7	17.2	17.4	17.8
PI 171,442	19.2	18.7	19.3	19.8	19.5	19.6
D54-3362	20.5	21.3	22.2	22.0	22.7	22.7
D55-55	20.8	22.2	22.4	23.0	23.6	22.5
D55-186	20.2	21.2	21.9	23.0	23.1	21.7
D56-3	20.2	20.8	21.0	21.3	21.8	22.5
D56-4	20.2	21.3	21.3	22.0	22.4	22.2
D56-20	20.1	22.2	21.2	23.0	22.0	21.7
D56-314	20.8	22.0	22.3	22.0	23.4	21.9
D56-501	21.1	23.0	23.1	23.5	24.4	20.7
D56-540	19.8	21.2	21.9	21.6	22.6	22 5
D56-999	19.7	21.1	21.3	21.6	21.1	21.0
D56-1058	21.7	22.9	22.2	23.9	23.6	22.7
D56-1087	18.9	19.8	21.9	20.6	20.9	20.8
D56-1128	20.1	19.9	20.9	21.4	22.6	21.5
D56-1131	19.4	20.4	20.8	20.8	21.7	20.8
D56-1174	20.0	19.9	19.9	20.8	21.6	20.2
D56-1185	20.2	20.9	21.8	21.1	21.9	21.1
D56-1246	20.7	20.9	21.5	22.2	22.3	20.7
D56-1251	20.8	20.2	22.1	21.1	22.9	21.9
N55-3643	20.4	20.6	21.7	21.6	22.1	22.8
R57-18	20.9	22.1	22.3	23.3	22.8	23.9
R57-40	21.0	22.4	22.6	23.4	23.5	23.0
S4-7404	21.2	21.7	22.3	22.7	23.3	24.2
S5-7179	21.1	21.9	22.2	23.2	24.2	24.3
S5-8120	19.9	20.2	22.0	21.3	23.1	20.7
S6-7413	20.7	21.2	22.3	23.3	23.9	22.8
S6-7416	20.3	19.9	22.7	22.0	23.1	21.2

Table 19. Protein percentages for the strains in Preliminary Group V, 1959

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Sikeston, Mo.	Stoneville, Miss. (B)	Bixby, Okla.
Hill	41.6	42.1	40.6	37.8	38.9	34.1
Dorman	40.6	41.1	39.7	40.4	38.0	37.3
PI 96,983-Ped	46.2	47.9	45.4	44.7	46.0	43.4
PI 171,442	42.6	45.8	42.7	47.1	40.9	39.1
D54-3362	41.8	40.3	36.7	40.0	38.6	36.3
D55-55	40.4	42.0	39.4	39.0	39.4	39.2
D55-186	41.7	41.6	41.7	38.7	40.1	40.7
D56-3	40.9	40.9	38.0	40.5	39.2	38.5
D56-4	41.1	41.9	41.6	40.1	40.2	38.1
D56-20	41.8	41.3	41.4	40.0	40.0	40.8
D56-314	40.0	40.4	37.8	40.2	39.4	40.0
D56-501	40.3	39.7	38.4	36.2	37.0	40.1
D56-540	40.5	42.6	39.1	40.1	39.5	37.0
D56-999	42.1	42.4	42.1	39.2	40.7	39.2
D56-1058	42.2	40.3	42.3	38.4	40.5	38.8
D56-1087	43.2	42.9	42.2	40.7	40.4	39.7
D56-1128	40.2	42.8	38.6	40.3	37.4	38.5
D56-1131	42.6	42.9	41.1	40.1	40.9	40.7
D56-1174	42.0	45.7	43.2	39.7	42.1	42.0
D56-1185	43.1	45.9	43.6	43.1	42.7	41.3
D56-1246	41.9	44.0	42.0	40.6	41.5	40.7
D56-1251	40.9	44.6	39.2	42.6	40.8	39.5
N55-3643	42.3	44.9	42.2	43.6	39.8	40.1
R57-18	41.5	41.4	39.3	38.7	39.4	37.2
R57-40	39.6	39.0	38.1	36.1	37.6	37.1
S4-7404	41.2	41.4	39.8	39.2	39.9	34.4
S5-7179	41.5	42.1	41.4	38.6	38.2	35.6
S5-8120	41.0	42.0	38.5	39.6	39.4	38.1
S6-7413	40.0	39.6	40.2	36.4	39.3	37.2
S6-7416	40.1	43.4	38.5	39.9	40.3	39.3

Table 20. Plant height for the strains in Preliminary Group V, 1959

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Sikeston, Mo.	Vinson, Mo.	Keiser, Ark.	Stoneville, Miss.(B)	Bixby, Okla.
Hill	36	36	38	43	38	25	28	38
Dorman	40	36	40	47	42	29	22	41
PI 96,983-Ped	38	38	38	44	37	22	18	33
PI 171,442	44	47	44	49	44	30	24	41
D54-3362	39	34	37	37	33	--	20	34
D55-55	42	38	40	48	46	28	20	40
D55-186	46	42	42	49	49	30	26	41
D56-3	40	38	40	45	39	23	25	37
D56-4	40	38	41	46	40	22	26	41
D56-20	38	37	45	51	47	24	26	35
D56-314	41	40	46	51	45	23	17	36
D56-501	42	32	37	42	40	20	18	36
D56-540	42	40	44	54	46	27	27	43
D56-999	36	36	38	43	38	23	23	35
D56-1058	40	28	39	43	44	--	14	36
D56-1087	48	35	38	52	45	23	28	37
D56-1128	39	36	40	46	45	25	25	39
D56-1131	46	35	40	53	45	16	25	38
D56-1174	36	32	37	37	29	18	15	30
D56-1185	33	26	31	38	27	19	15	32
D56-1246	34	29	34	37	35	15	18	28
D56-1251	44	39	40	51	43	27	26	41
N55-3643	38	36	38	43	34	22	19	32
R57-18	38	34	39	48	41	21	22	41
R57-40	36	34	38	45	37	20	23	36
S4-7404	38	38	40	49	37	24	10	37
S5-7179	54	49	51	57	60	26	35	48
S5-8120	39	36	39	46	40	19	17	33
S6-7413	43	38	39	46	41	22	23	40
S6-7416	36	34	38	47	40	26	19	36

Table 21. Seed quality scores for the strains in Preliminary Group V, 1959

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Sikeston, Mo.	Vinson, Mo.	Keiser, Ark.	Stone-ville, Miss.(B)	Bixby, Okla.
Hill	2.0	2.0	1.0	2.0	1.9	2.0	1.5	2.0
Dorman	2.0	2.0	1.5	2.0	1.7	2.0	2.0	1.0
PI 96,983-Ped	3.0	2.0	2.0	2.0	2.4	2.0	3.0	2.0
PI 171,442	3.0	2.0	2.0	2.0	2.0	1.5	2.5	1.0
D54-3362	3.0	1.0	1.0	1.8	2.0	-	2.0	2.0
D55-55	3.0	2.0	1.5	1.8	2.2	1.0	2.0	1.5
D55-186	3.0	1.0	1.5	1.8	2.2	1.0	2.0	1.0
D56-3	2.0	1.0	1.5	2.0	1.9	2.0	2.0	1.0
D56-4	2.0	2.0	2.0	2.0	1.9	2.5	2.0	1.5
D56-20	3.0	1.0	1.5	2.0	2.1	2.5	2.5	2.0
D56-314	2.0	1.0	2.0	2.5	3.0	1.0	2.0	1.5
D56-501	2.0	2.0	1.5	2.5	2.0	3.0	2.0	1.5
D56-540	3.0	3.0	3.0	2.8	2.6	3.5	2.0	2.0
D56-999	3.0	1.0	2.0	2.0	2.0	2.0	2.0	1.0
D56-1058	2.0	2.0	3.0	-	3.0	-	3.5	2.0
D56-1087	2.0	2.0	2.0	2.3	1.9	2.5	2.0	2.0
D56-1128	2.0	3.0	2.0	2.5	2.0	2.5	2.0	2.0
D56-1131	2.0	1.0	1.5	1.5	1.7	2.0	2 0	2.0
D56-1174	2.0	2.0	1.5	2.0	2.2	3.5	2 5	2.5
D56-1185	2.0	2.0	1.5	1.5	2.3	4.0	3.0	2.5
D56-1246	2.0	2.0	1.0	1.5	2.0	3.0	2.5	3.5
D56-1251	2.0	3.0	1.0	2.5	2.6	3.5	2.0	2.0
N55-3643	2.0	3.0	1.5	2.0	1.7	3.0	2.0	2.5
R57-18	2.0	1.0	1.0	1.8	2.2	1.5	2.0	2.0
R57-40	2.0	2.0	1.5	1.8	2.2	2.5	2.0	2.0
S4-7404	2.0	3.0	2.0	2.3	2.0	3.5	3.0	1.5
S5-7179	3.0	3.0	3.0	2.3	3.5	3.5	3.0	1.5
S5-8120	2.0	1.0	1.5	1.8	2.0	2.0	3.0	3.0
S6-7413	3.0	2.0	2.5	2.0	2.5	2.0	2.0	2.0
S6-7416	2.0	1.0	1.5	1.8	2.0	2.5	2.0	4.0

UNIFORM GROUP VI

1959

	Variety or Strain	Parentage	Generation Composited
1.	Hood	Roanoke x N45-745	F_6
2.	Lee	S-100 x CNS	F_6
3.	N53-5146	N48-1248 x Perry	F_7
4.	R54-168	D49-2573 x N45-1497	F_5
5.	S3-7094	N48-1248 x Perry	F_6
6.	D56-1102	D51-5108 x Dorman	F_5
7.	D56-1192	Perry x Lee	F_5
8.	D56-1241	Hawkeye x Lee	F_5
9.	N55-3830	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
10.	N56-4141	N46-1703 x D49-2525	F_6
11.	N56-4202	N46-1703 x D49-2525	F_6
12.	S5-7075	N48-1248 x Perry	F_8

Background of strains used as parents:

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

N48-1248 is a bacterial pustule resistant line selected from the cross Roanoke x N45-745.

D49-2573 is a selection from N48-1248.

N45-1497 is a selection from Ralsoy x Ogden selected for very high oil content.

D51-5108 is a reselection from D49-772 which was selected from the cross Roanoke x N45-745.

N45-2994 is a selection from Ralsoy x Ogden which was included in the Uniform Group VI nursery for the years 1948-1950.

N44-92 is a selection from Haberlandt x Ogden which was tested in Uniform Group VII for the years 1946-48.

N46-1703 is a selection from Volstate x Ogden which was included in the Uniform Group VI nursery for the years 1950-1952.

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

The results of 34 Group VI nurseries are summarized in tables 22 through 28. Table 22 gives a general summary of agronomic qualities, chemical composition, and disease reactions. Two-year data for seed yield and chemical composition are also reported along with 7-year data for Hood and Lee.

This group included the two check varieties Hood and Lee, three strains that were being tested for the second year, and 7 strains which were being tested on a regional basis for the first time. Differences among lines in seed yield were significant in 27 of the 34 comparisons. A combined analysis of variance for seed yield by regions showed a highly significant variety x location interaction for within each region. Differences among strains were significant in all but the Southeast area where this material is least suited for production.

All strains in the group were resistant to bacterial pustule. Only N55-3830 showed a moderate development of target spot. None of these strains have a high degree of susceptibility to Phytophthora rot but several did show some injury.

The experimental lines included are good lines. However, none appears to be appreciably better than either of the check varieties. D56-1192 has excellent lodging resistance. However, it yielded significantly lower than Hood in 13 of the 34 comparisons. N56-4202 produced good yields in all areas but is somewhat weak in seed holding. N55-3830 has a very high oil content but has a higher degree of suscpetibility to Phytophthora rot than is considered acceptable for commercial porduction.

Table 22. General summary of the performance for the strains in Uniform Group VI, 1959

	Hood	Lee	N53-5146	R54-168	S3-7094	D56-1102
Seed Yield - 1959						
East Coast	37.8	36.9	37.3	36.6	39.3	35 0
Southeast	30.9	34.1	30.4	33.8	28.7	33.6
Upper & Central South	33.8	27.9-	31.2	31.2	30.6	31.6
Delta	38.5	36.2	36.5	39.3	37.8	36.8
West	36.3	33.0	34.6	32.5	36.2	31.1-
- 1958-59						
East Coast	39.4	37.7	39.8	37.4	42.2	
Southeast	34.5	36.3	33.0	35.7	30.0	
Upper & Central South	29.8	27.9	29.4	30.0	30.3	
Delta	39.2	38.1	38.4	40.2	39.0	
West	38.6	35.6	36.2	34.7	36.6	
- 1953-59						
East Coast	34.6	33.4				
Southeast	30.0	31.8				
Upper & Central South	22.9	21.8				
Delta	34.7	35.5				
West	30.4	28.0				
Oil Percentage - 1959	21.8	21.2-	22.5+	22.9+	22.0	21.7
- 1958-59	21.9	21.3	22.4	23.0	21.8	
- 1953-59	21.8	21.1				
Protein Percentage - 1959	40.0	41.5+	40.0	40.8	40.7	40.5
- 1958-59	39.9	41.4	39.8	40.5	40.7	
- 1953-59	40.0	41.4				
Seed Size	14.8	13.4-	14.4	17.2+	13.2-	15.6
Maturity Index	10-9	+12	-1	+5	-1	+4
Height	33	32	32	38	32	38
Bacterial Pustule[1/]	1.0	1.0	1.0	1.0	1.0	1.0
Target Spot[2/]	1.0	1.0	1.0	2.0	2.0	1.0
Phytophthora[3/]	1.0	1.0	1.0	1.0	2.0	2.0
Purple Stain[4/]	2.0	1.0	2.0	2.0	1.0	2.0
Shattering[5/]	1.5	1.0	1.0	2.5	2.0	1.0

1/ Stoneville.
2/ Stoneville.
3/ Tralake.
4/ Average 6 locations.
5/ Tallassee.

Table 22. (continued)

	D56-1192	D56-1241	N55-3830	N56-4141	N56-4202	S5-7075
Seed Yield - 1959						
East Coast	34.0-	34.7-	34.6-	35.4	38.1	37.5
Southeast	26.5	24.1	30.4	28.9	27.6	31.7
Upper & Central South	25.2-	24.6-	28.5	33.5	34.6	33.1
Delta	32.5-	30.5-	34.2-	36.5	41.9	38.2
West	32.7	34.2	35.1	30.8-	37.1	36 6
- 1958-59						
East Coast						
Southeast						
Upper & Central South						
Delta						
West						
- 1953-59						
East Coast						
Southeast						
Upper & Central South						
Delta						
West						
Oil Percentage - 1959	20.5-	21.2-	23.3+	20.9-	20.2-	21.7
- 1958-59						
- 1953-59						
Protein Percentage - 1959	41.0+	42.5+	39.3	~~40.5~~ 41.7+	42.8+	40.9+
- 1958-59						
- 1953-59						
Seed Size	13.5-	14.1	16.9+	12.6-	14.1	13.7-
Maturity Index	+3	+6	-1	-2	0	-1
Height	28	27	34	35	30	33
Bacterial Pustule[1/]	1.0	1.0	1.0	1.0	1.0	1.0
Target Spot[2/]	1.0	1.0	2.5	1.0	1.0	1.0
Phytophthora[3/]	2.0	2.0	2.5	1.0	1.0	2.0
Purple Stain[4/]	1.0	1.0	1.0	1.0	1.0	1.0
Shattering[5/]	1.0	1.0	2.0	2.0	3.0	2.0

Table 23. Seed yield, in bushels per acre, for the strains in Uniform Group VI, 1959

Location	Hood	Lee	N53-5146	R54-168	S3-7094	D56-1102	D56-1192
East Coast							
Linkwood, Md.	41.1	33.7-	40.7	38.8	38.8	40.0	37.2
Warsaw, Va.	30.3	31.8	27.2	28.7	34.6+	27.0-	24.4-
Painter, Va.	50.0	49.4	52.5	50.5	54.0	45.4	49.3
Petersburg, Va.	27.0	25.7	27.2	27.9	33.1+	26.7	24.8
Norfolk, Va.	36.2	32.7	41.2	29.8	28.3	22.5-	25.6-
Holland, Va.	35.0	31.6	33.4	34.0	41.6+	29.8-	27.2-
Plymouth, N. C.	41.8	42.1	38.2	43.5	46.0+	36.6-	35.3-
Willard, N. C.	42.7	34.6-	40.6	42.6	44.1	44.0	38.3
Clayton, N. C.	31.4	34.2	29.6	34.2	31.6	33.8	35.4
Hartsville, S. C.	42.4	52.8+	42.2	36.4	40.6	44.5	42.8
Mean	37.8	36.9	37.3	36.6	39.3	35.0	34.0-
Southeast							
Tallassee, Ala.	24.3	38.1+	19.9	24.9	24.9	22.9	17.2
Gainesville, Fla.	34.8	23.5-	35.3	38.4	27.3-	41.1	24.0-
Walnut Hill, Fla.	38.9	46.2+	41.2	46.5+	36.9	43.2	39.6
Baton Rouge, La.	25.5	28.5	25.3	25.5	25.7	27.2	25.1
Mean	30.9	34.1	30.4	33.8	28.7	33.6	26.5
Upper and Central South							
Jackson, Tenn.	48.8	37.3-	48.5	34.5	42.5	41.3	32.7-
Belle Mina, Ala.	25.7	23.6	19.9	22.0	25.1	28.1	20.0
Experiment, Ga.	31.1	32.1	27.8	33.2	32.7	28.4	24.1-
State College, Miss.	29.7	18.7-	28.7	35.1	21.9	28.7	24.2
Mean	33.8	27.9-	31.2	31.2	30.6	31.6	25.2-
Delta							
Sikeston, Mo.	32.3	28.7	29.3	28.2	32.6	28.3	26.7
Vinson, Mo.	39.6	38.0	36.2	45.9+	41.4	39.9	28.9-
Keiser, Ark. (A)	35.1	34.7	34.9	29.6	39.7	37.7	27.4
Keiser, Ark. (B)	27.7	26.5	27.1	38.8+	26.8	31.9	31.3
Marianna, Ark.	46.8	35.2-	38.0-	40.9	47.2	37.0-	38.7-
Coahoma, Miss.	41.2	41.8	42.1	43.6	40.0	36.1-	31.0-
Stoneville, Miss. (A)	38.5	38.0	39.8	35.4	39.6	38.7	32.2-
Tralake, Miss.	25.6	31.0	21.6	32.3	18.1	27.7	19.9
St. Joseph, La.	59.5	51.7-	59.9	58.9	55.1	53.6	56.1
Mean	38.5	36.2	36.5	39.3	37.8	36.8	32.5-
West							
Stuttgart, Ark.	48.7	44.6	43.8-	47.5	46.6	42.1-	39.8-
Crutis, La.	54.4	37.9-	51.1	45.3	47.5-	45.8-	44.3-
Bixby, Okla.	33.0	35.2	38.0	30.9	41.7+	25.9-	35.6
Perkins, Okla.	21.3	26.6	22.9	20.7	21.6	21.8	22.3
Bennington, Okla.[1/]	18.6	30.2	17.2	22.4	31.1	29.8	23.3
Chillicothe, Texas[1/]	16.7	18.2	15.3	13.0	14.8	16.8	24.9+
Tulia, Texas	24.2	20.5	17.3	18.0	23.3	19.8	21.3
Mean	36.3	33.0	34.6	32.5	36.2	31.1-	32.7

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

Table 23. (continued)

Location	D56-1241	N55-3830	N56-4141	N56-4202	S5-7075	L.S.D. (.05)	C.V.
			East Coast				
Linkwood, Md.	38.6	36.5	38.3	44.6	39.4	4.6	7%
Warsaw, Va.	26.5-	28.6	29.9	29.3	31.2	3.1	6%
Painter, Va.	46.4	50.0	49.0	51.0	53.3	N.S.	9%
Petersburg, Va.	21.5-	25.5	25.5	29.9	29.3	3.0	7%
Norfolk, Va.	28.7	29.4	21.3-	36.8	31.7	10.2	20%
Holland, Va.	32.0	32.2	30.0-	34.5	37.6	3.9	7%
Plymouth, N. C.	39.5	33.3-	40.7	41.5	39.5	4.0	6%
Willard, N. C.	40.2	38.2	47.7	40.3	41.3	6.6	9%
Clayton, N. C.	33.2	34.2	31.4	31.2	33.0	N.S.	11%
Hartsville, S. C.	40.7	37.7	39.8	41.4	38.5	7.1	10%
Mean	34.7-	34.6-	35.4	38.1	37.5	2.9	
			Southeast				
Tallassee, Ala.	17.7	23.8	17.9	22.0	26.1	9.8	25%
Gainesville, Fla.	14.7-	31.4	32.4	25.4-	32.7	6.5	13%
Walnut Hill, Fla.	38.6	40.4	40.6	35.1	41.9	5.3	8%
Baton Rouge, La.	25.3	25.9	24.6	27.9+	26.1	1.9	4%
Mean	24.1	30.4	28.9	27.6	31.7	N.S.	
			Upper and Central South				
Jackson, Tenn.	34.0-	37.7-	42.8	47.4	40.7	6.7	10%
Belle Mina, Ala.	20.8	20.0	20.5	21.3	25.8	N.S.	18%
Experiment, Ga.	21.8-	30.7	36.4	33.4	35.8	7.0	13%
State College, Miss.	21.8	25.5	34.4	36.2	30.1	9.2	19%
Mean	24.6-	28.5	33.5	34.6	33.1	5.7	
			Delta				
Sikeston, Mo.	25.2	26.7	27.4	30.3	28.0	N.S.	9%
Vinson, Mo.	30.6-	32.7-	32.6-	42.6	45.0	5.7	9%
Keiser, Ark. (A)	23.1-	42.6	36.3	34.6	37.6	9.6	17%
Keiser, Ark. (B)	25.9	27.5	30.2	31.2	32.9	7.2	11%
Marianna, Ark.	35.1-	39.4-	41.9	47.0	40.5	7.3	11%
Coahoma, Miss.	31.8-	34.4-	46.6+	44.9	43.5	4.3	6%
Stoneville, Miss. (A)	30.8-	30.7-	36.7	40.1	37.1	4.8	8%
Tralake, Miss.	20.3	24.3	23.5	39.2+	22.3	9.7	22%
St. Joseph, La.	51.3-	49.8-	53.2	66.9+	57.0	6.8	7%
Mean	30.5-	34.2-	36.5	41.9	38.2	3.5	
			West				
Stuttgart, Ark.	44.4-	43.6-	42.2-	44.3-	47.9	4.2	6%
Curtis, La.	46.3-	52.9	39.7-	52.9	47.4-	6.1	8%
Bixby, Okla.	36.4	35.9	34.4	44.9+	39.4	7.0	12%
Perkins, Okla.	20.8	20.8	16.5	21.7	23.2	N.S.	17%
Bennington, Okla.[1/]	18.2	29.2	15.1	30.9	35.3	N.S.	47%
Chillicothe, Texas[1/]	20.7	10.2	13.7	9.9-	19.8	6.6	--
Tulia, Texas	23.1	22.3	20.9	21.6	24.9	N.S.	14%
Mean	34.2	35.1	30.8-	37.1	36.6	4.3	

1/ Not included in mean.

Table 24. Chemical composition and seed size for the strains in Uniform Group VI, 1959

Location	Hood	Lee	N53-5146	R54-168	S4-7094	D56-1102
			Oil Percentage			
Warsaw, Va.	21.4	19.9	20.6	20.6	20.3	18.8
Plymouth, N. C.	22.0	21.2	22.7	22.7	22.1	21.5
Clayton, N. C.	21.9	20.3	22.4	21.6	21.6	21.3
Walnut Hill, Fla.	23.1	22.8	24.3	25.5	23.7	23.8
Coahoma, Miss.	20.7	22.1	22.7	23.9	22.2	22.1
Stoneville, Miss. (A)	22.5	20.8	22.8	23.6	22.0	22.7
Stuttgart, Ark.	22.0	19.9	22.0	22.4	21.9	21.5
Bixby, Okla.	21.1	22.3	22.1	23.1	21.9	21.6
Mean	21.8	21.2-	22.5+	22.9+	22.0	21.7
			Protein Percentage			
Warsaw, Va.	42.2	42.4	42.2	43.3	42.6	42.3
Plymouth, N. C.	40.9	41.6	39.9	41.9	41.7	42.1
Clayton, N. C.	43.0	44.6	42.1	43.5	42.9	42.5
Walnut Hill, Fla.	40.8	43.0	40.2	39.8	41.1	41.7
Coahoma, Miss.	38.0	40.3	38.9	39.7	39.6	39.0
Stoneville, Miss. (A)	40.9	42.9	40.5	42.0	40.9	40.1
Stuttgart, Ark.	39.3	41.7	39.3	40.0	40.4	39.9
Bixby, Okla.	35.2	35.3	34.2	36.1	36.0	36.1
Mean	40.0	41.5+	40.0	40.8+	40.7	40.5
			Grams Per 100 Seed			
Warsaw, Va.	14.0	13.0	14.0	17.0	13.0	15.0
Plymouth, N. C.	14.6	12.8	15.3	18.1	12.6	14.8
Clayton, N. C.	13.4	11.6	13.5	16.8	10.4	14.9
Walnut Hill, Fla.	17.8	18.5	17.3	20.7	16.9	19.1
Coahoma, Miss.	13.5	13.2	12.1	15.5	12.2	13.6
Stoneville, Miss. (A)	14.4	12.2	13.7	15.3	11.8	15.1
Stuttgart, Ark.	15.3	12.0	14.3	16.7	14.7	15.3
Bixby, Okla.	15.5	14.1	14.7	17.5	13.8	17.0
Mean	14.8	13.4-	14.4	17.2+	13.2-	15.6

Table 24. (continued)

Location	D56-1192	D56-1241	N55-3830	N56-4141	N56-4202	S5-7075	L.S.D. (.05)
			Oil Percentage				
Warsaw, Va.	18.9	19.5	20.9	19.7	18.9	19.8	
Plymouth, N. C.	20.1	20.7	23.3	20.9	20.0	21.0	
Clayton, N. C.	19.8	20.2	23.1	20.2	20.3	21.4	
Walnut Hill, Fla.	23.0	24.1	24.8	22.5	22.2	23.4	
Coahoma, Miss.	21.1	21.9	23.4	20.7	20.2	22.0	
Stoneville, Miss. (A)	20.2	21.3	24.2	21.4	19.4	21.2	
Stuttgart, Ark.	19.9	20.8	23.3	20.0	20.1	21.7	
Bixby, Okla.	21.1	21.4	23.0	21.7	20.6	22.7	
Mean	20.5-	21.2-	23.3+	20.9-	20.2-	21.7	0.5
			Protein Percentage				
Warsaw, Va.	44.4	43.9	41.7	43.2	43.6	43.6	
Plymouth, N. C.	42.3	43.5	40.1	42.6	43.7	42 3	
Clayton, N. C.	42.5	45.3	40.9	45.1	43.2	42.9	
Walnut Hill, Fla.	41.4	42.3	39.0	42.2	44.9	41.6	
Coahoma, Miss.	40.2	42.1	37.7	41.4	42.4	39.4	
Stoneville, Miss. (A)	42.6	43.2	39.3	41.8	43.8	41.6	
Stuttgart, Ark.	40.1	42.4	39.0	41.7	42.4	41.2	
Bixby, Okla.	34.2	36.9	36.3	35.7	38.4	34.7	
Mean	41.0+	42.5+	39.3	~~40.5~~ 41.7+	42.8+	40.9+	0.8
			Grams Per 100 Seed				
Warsaw, Va.	12.0	13.0	16.0	12.0	13.0	13.0	
Plymouth, N. C.	12.8	13.9	16.3	12.8	13.4	12.1	
Clayton, N. C.	13.4	13.4	17.7	11.3	12.7	11.8	
Walnut Hill, Fla.	17.6	18.7	18.8	16.2	16.5	17.2	
Coahoma, Miss.	12.4	13.4	15.5	11.2	13.6	12.6	
Stoneville, Miss. (A)	11.9	12.6	15.2	12.0	13.8	12.2	
Stuttgart, Ark.	13.0	12.7	17.7	12.0	14.0	15.0	
Bixby, Okla.	14.7	15.2	18.3	13.1	15.6	15.9	
Mean	13.5-	14.1	16.9+	12.6-	14.1	13.7-	0.8

Table 25. Relative maturity data, days earlier (-) or later (+) than Hood, for the strains in Uniform Group VI, 1959

Location	Date Planted	Hood Matured	Lee	N53-5146	R54-168	S3-7094
		East Coast				
Linkwood, Md.	5-28	10-12	+18	0	+18	0
Warsaw, Va.	5-20	10-14	+10	0	+14	-1
Petersburg, Va.	5-6	10-12	+25	+10	+10	+3
Holland, Va.	5-19	10-18	+8	-3	+4	-4
Plymouth, N. C.	5-11	10-10	+16	-4	+6	-6
Willard, N. C.	5-18	10-5	+17	0	+5	-3
Clayton, N. C.	5-4	10-5	+17	0	+10	0
Hartsville, S. C.	6-3	10-10	+18	0	+3	+1
Mean		10-11	+16	0	+9	-1
		Southeast				
Tallassee, Ala.	5-13	9-24	+25	+2	+7	-1
Gainesville, Fla.	6-19	10-9	+6	-1	+3	0
Walnut Hill, Fla.	7-2	10-10	+17	0	+11	+1
Baton Rouge, La.	5-19	10-10	+10	-15	-5	-12
Mean		10-5	+14	-3	+4	-3
		Upper and Central South				
Jackson, Tenn.	4-24	10-4	+6	+1	+4	+1
Belle Mina, Ala.	5-18	10-20	+6	-3	+2	-3
Experiment, Ga.	5-19	9-29	+12	+2	+8	+1
State College, Miss.	5-7	9-23	+8	-3	+3	0
Mean		10-4	+8	0	+4	0
		Delta				
Sikeston, Mo.	5-16	10-5	+13	-1	+4	-1
Vinson, Mo.	5-2	10-6	+9	-3	+2	-4
Keiser, Ark. (A)	5-5	10-13	+26	-2	+15	0
Keiser, Ark. (B)	5-20	10-25	+15	-6	0	-4
Marianna, Ark.	5-18	10-9	+8	-2	-1	+2
Coahoma, Miss.	5-4	10-8	+8	0	+4	0
Stoneville, Miss. (A)	5-25	10-5	+11	0	+3	0
Tralake, Miss.	5-14	10-8	+4	0	0	-3
Mean		10-10	+13	-2	+3	-1
		West				
Stuttgart, Ark.	5-18	10-6	+12	-5	0	-5
Curtis, La.	5-23	10-10	+6	+6	+8	+4
Bixby, Okla.	6-11	10-21	+10	+1	+2	-1
Perkins, Okla.	5-15	10-14	+11	-4	0	-4
Mean		10-13	+10	0	+3	-1

Table 25. (continued)

Location	D56-1102	D56-1192	D56-1241	N55-3830	N56-4141	N56-4202	S5-7075
			East Coast				
Linkwood, Md.	+15	+9	+12	+1	+2	+2	+1
Warsaw, Va.	+3	+3	+5	-1	-1	0	0
Petersburg, Va.	+11	+8	+11	+8	+2	0	+2
Holland, Va.	+11	+6	+8	-4	-8	-6	+2
Plymouth, N. C.	+8	0	+6	-6	-4	0	-4
Willard, N. C.	+4	+3	+13	+3	0	0	0
Clayton, N. C.	+9	+7	+9	+6	+1	+2	0
Hartsville, S. C.	+6	+6	+5	+1	+1	+2	0
Mean	+8	+5	+9	+1	0	0	0
			Southeast				
Tallassee, Ala.	+6	+16	+17	+2	-1	-3	-1
Gainesville, Fla.	+2	0	+4	-2	-1	-1	0
Walnut Hill, Fla.	+8	+7	+2	-3	-2	-1	+7
Baton Rouge, La.	-8	-5	-2	-7	-12	-9	-15
Mean	+2	+4	+5	-2	-4	-3	-2
			Upper and Central South				
Jackson, Tenn.	+3	+1	0	-1	-4	+3	+4
Belle Mina, Ala.	-1	+5	+5	-2	+4	+3	+6
Experiment, Ga.	+10	+6	+5	+2	+2	+1	+1
State College, Miss.	+1	+5	+8	-1	-3	-3	0
Mean	+3	+4	+5	0	0	+1	+3
			Delta				
Sikeston, Mo.	+5	+1	+2	-1	-1	+1	+1
Vinson, Mo.	+3	-1	+2	-6	-8	0	-3
Keiser, Ark. (A)	+3	+13	+15	-8	-9	+1	+2
Keiser, Ark. (B)	-2	+1	+2	-12	-6	-4	-2
Marianna, Ark.	-4	-4	+7	-8	-2	-7	-10
Coahoma, Miss.	0	+2	+2	0	0	0	-2
Stoneville, Miss. (A)	+3	0	+3	0	0	0	0
Tralake, Miss.	-3	0	0	-3	0	0	-3
Mean	+1	+1	+4	-5	-3	-1	-3
			West				
Stuttgart, Ark.	0	+3	+7	-5	-8	-5	-3
Curtis, La.	+4	+4	+4	+14	+6	0	+10
Bixby, Okla.	+5	+2	+2	-3	-1	-2	+3
Perkins, Okla.	-1	-1	+2	-5	-6	-2	-5
Mean	+2	+2	+4	+3	-2	-2	+1

Table 26. Plant height for the strains in Uniform Group VI, 1959

Location	Hood	Lee	N53-5146	R54-168	S3-7094	D56-1102
		East Coast				
Linkwood, Md.	42	37	37	42	42	41
Warsaw, Va.	37	38	36	42	35	39
Painter, Va.	38	36	39	44	35	46
Petersburg, Va.	35	34	32	41	34	39
Norfolk, Va.	28	32	33	30	27	42
Holland, Va.	38	39	39	47	37	47
Plymouth, N. C.	39	37	38	44	40	41
Willard, N. C.	36	34	34	40	40	42
Clayton, N. C.	35	34	35	40	37	42
Hartsville, S. C.	29	32	30	37	29	38
Mean	36	35	35	41	36	42
		Southeast				
Tallassee, Ala.	24	25	24	34	22	35
Gainesville, Fla.	21	18	23	27	19	27
Walnut Hill, Fla.	21	22	23	26	19	26
Baton Rouge, La.	18	18	16	16	18	24
Mean	21	21	21	26	20	28
		Upper and Central South				
Jackson, Tenn.	45	45	43	48	45	41
Belle Mina, Ala.	37	36	35	41	34	44
Experiment, Ga.	32	30	31	39	28	44
State College, Miss.	29	27	29	36	27	37
Mean	36	35	35	41	34	42
		Delta				
Sikeston, Mo.	44	46	43	55	44	52
Vinson, Mo.	39	40	41	48	41	46
Keiser, Ark. (A)	31	24	28	41	32	37
Keiser, Ark. (B)	23	22	20	26	21	24
Marianna, Ark.	38	36	37	45	39	45
Coahoma, Miss.	27	19	23	35	22	31
Stoneville, Miss.(A)	40	35	39	41	35	47
Tralake, Miss.	28	19	29	37	25	38
St. Joseph, La.	32	28	33	38	26	40
Mean	33	30	32	41	32	40
		West				
Stuttgart, Ark.	31	25	26	39	23	34
Curtis, La.	27	32	31	30	34	23
Bixby, Okla.	35	37	38	37	33	41
Perkins, Okla.	29	28	30	33	29	38
Bennington, Okla.	36	34	35	39	34	46
Chillicothe, Texas	28	33	24	32	21	29
Mean	31	32	31	35	29	35

Table 26. (continued)

Location	D56-1192	D56-1241	N55-3830	N56-4141	N56-4202	S5-7075
		East Coast				
Linkwood, Md.	37	35	40	39	38	42
Warsaw, Va.	34	31	37	38	35	36
Painter, Va.	37	32	33	37	34	35
Petersburg, Va.	33	31	37	34	32	34
Norfolk, Va.	30	34	34	38	29	34
Holland, Va.	36	36	39	39	39	40
Plymouth, N.C.	35	32	42	41	38	42
Willard, N. C.	34	33	43	37	34	39
Clayton, N. C.	30	28	40	40	34	38
Hartsville, S. C.	28	29	29	32	29	31
Mean	33	32	37	38	34	37
		Southeast				
Tallassee, Ala.	17	15	24	27	20	24
Gainesville, Fla.	14	14	23	24	15	21
Walnut Hill, Fla.	20	18	22	23	20	21
Baton Rouge, La.	12	13	18	18	16	15
Mean	16	15	22	23	18	20
		Upper and Central South				
Jackson, Tenn.	42	43	48	48	45	47
Belle Mina, Ala.	26	28	35	40	35	35
Experiment, Ga.	26	22	39	37	33	32
State College, Miss.	15	17	21	26	18	27
Mean	27	28	36	38	33	35
		Delta				
Sikeston, Mo.	42	42	46	49	45	46
Vinson, Mo.	30	33	41	45	36	44
Keiser, Ark. (A)	19	18	35	32	27	29
Keiser, Ark. (B)	20	17	26	26	22	22
Marianna, Ark.	35	30	39	39	33	41
Coahoma, Miss.	17	15	23	30	23	25
Stoneville, Miss. (A)	28	31	41	39	33	39
Tralake, Miss.	17	11	28	30	25	27
St. Joseph, La.	18	26	30	36	30	33
Mean	25	25	34	36	30	34
		West				
Stuttgart, Ark.	21	20	27	34	21	27
Curtis, La.	40	30	30	28	34	24
Bixby, Okla.	35	38	40	39	38	37
Perkins, Okla.	20	29	32	32	29	30
Bennington, Okla.	32	29	39	43	35	37
Chillicothe, Texas	23	28	29	30	22	28
Mean	29	29	33	34	30	31

Table 27. Lodging scores for the strains in Uniform Group VI, 1959

Location	Hood	Lee	N53-5146	R54-168	S3-7094	D56-1102
			East Coast			
Linkwood, Md.	3.0	4.0	3.0	3.0	2.0	3.0
Warsaw, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Painter, Va.	3.0	3.3	2.0	3.0	2.0	3.7
Petersburg, Va.	1.0	2.0	2.0	2.0	1.0	3.0
Norfolk, Va.	1.0	3.0	2.0	3.0	1.0	3.0
Holland, Va.	2.0	2.3	1.0	1.7	1.0	2.0
Plymouth, N. C.	2.8	4.0	2.3	3.0	2.0	3.7
Willard, N. C.	3.3	3.0	2.7	3.3	2.0	3.7
Clayton, N. C.	2.0	1.7	2.0	2.3	2.0	3.0
Hartsville, S. C.	2.0	2.7	1.1	2.0	1.0	2.3
			Southeast			
Tallassee, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	1.0	2.0	2.0	1.0	2.0
Baton Rouge, La.	1.0	1.0	1.0	1.0	1.0	1.0
			Upper and Central South			
Jackson,Tenn.	2.0	2.0	3.0	3.0	1.0	4.0
Belle Mina, Ala.	1.3	1.3	1.0	1.0	1.0	2.0
Experiment, Ga.	1.7	1.7	1.7	1.7	1.0	2.0
State College, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
			Delta			
Sikeston, Mo.	1.3	1.8	1.1	1.8	1.1	1.7
Vinson, Mo.	2.8	2.5	1.4	3.3	1.2	2.7
Keiser, Ark. (A)	1.7	1.7	1.0	2.3	1.0	1.3
Keiser, Ark. (B)	2.7	1.3	1.0	1.7	1.0	1.7
Marianna, Ark.	2.3	3.0	2.0	2.7	1.0	4.0
Coahoma, Miss.	1.0	1.0	1.0	2.0	1.0	1.7
Stoneville, Miss. (A)	3.0	2.7	2.0	2.7	1.0	2.7
Tralake, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
St. Joseph, La.	2.0	3.0	3.0	3.0	2.0	3.0
			West			
Stuttgart, Ark.	1.0	1.0	1.0	2.0	1.0	1.7
Curtis, La.	2.0	2.0	2.0	2.0	2.0	3.0
Bixby, Okla.	1.7	2.3	2.0	2.3	1.3	2.7
Perkins, Okla.	1.3	2.7	1.3	2.0	1.0	2.3
Bennington, Okla.	4.0	3.0	3.0	3.7	2.0	3.0
Chillicothe, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Tulia, Texas	2.0	2.0	3.0	3.0	2.0	2.0

Table 27. (continued)

Location	D56-1192	D56-1241	N55-3830	N56-4141	N56-4202	S5-7075
			East Coast			
Linkwood, Md.	2.0	3.0	3.0	3.0	2.0	2.0
Warsaw, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Painter, Va.	2.3	2.0	1.7	2.3	2.0	1.3
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Norfolk, Va.	1.0	2.0	1.0	3.0	2.0	1.0
Holland, Va.	1.0	1.3	1.7	2.0	1.0	1.7
Plymouth, N. C.	1.7	2.0	2.7	3.0	1.7	2.0
Willard, N. C.	2.0	3.0	2.7	3.0	2.7	2.0
Clayton, N. C.	1.3	1.7	2.3	2.3	2.0	2.0
Hartsville, S. C.	1.0	2.0	1.0	1.7	1.0	1.0
			Southeast			
Tallassee, Ala.	1.0	1.0	1.0	1.0	1.5	1.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	1.0	1.0	2.0	1.0	1.0
Baton Rouge, La.	1.0	1.0	1.0	1.0	1.0	1.0
			Upper and Central South			
Jackson, Tenn.	1.0	2.0	2.0	2.0	1.0	1.0
Belle Mina, Ala.	1.0	1.0	1.0	1.3	1.0	1.0
Experiment, Ga.	1.0	1.0	2.0	2.3	1.3	1.7
State College, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
			Delta			
Sikeston, Mo.	1.0	1.4	1.1	1.2	1.1	1.1
Vinson, Mo.	1.0	1.2	1.8	2.0	1.7	1.3
Keiser, Ark. (A)	1.0	1.0	1.0	1.0	1.0	1.0
Keiser, Ark. (B)	1.0	1.0	1.7	1.7	1.0	1.0
Marianna, Ark.	1.0	1.0	2.0	3.0	1.0	1.0
Coahoma, Miss.	1.0	1.0	1.0	1.3	1.0	1.0
Stoneville, Miss. (A)	1.0	1.3	2.3	1.7	1.3	1.7
Tralake, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
St. Joseph, La.	1.0	2.0	2.0	2.3	2.0	2.0
			West			
Stuttgart, Ark.	1.0	1.0	1.0	1.0	1.3	1.0
Curtis, La.	2.0	2.0	2.0	2.0	2.0	2.0
Bixby, Okla.	1.0	2.3	1.7	2.0	1.0	2.0
Perkins, Okla.	1.0	1.0	2.0	2.0	1.0	1.0
Bennington, Okla.	3.7	2.7	2.3	3.7	2.0	3.0
Chillicothe, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Tulia, Texas	1.0	2.0	2.0	3.0	2.0	2.0

Table 28. Seed quality scores for the strains in Uniform Group VI, 1959

Location	Hood	Lee	N53-5146	R54-168	S3-7094	D56-1102
			East Coast			
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	3.0
Warsaw, Va.	3.0	2.0	2.0	2.0	3.0	1.0
Painter, Va.	3.0	3.0	2.0	3.0	3.0	4.0
Petersburg, Va.	2.0	2.0	2.0	3.0	1.0	3.0
Norfolk, Va.	2.0	2.0	2.0	2.0	2.0	3.0
Holland, Va.	2.5	3.0	3.0	3.0	3.0	3.5
Plymouth, N. C.	2.0	1.5	2.5	2.0	2.5	3.0
Willard, N. C.	3.0	3.0	3.0	2.0	3.0	3.0
Clayton, N. C.	3.0	1.5	3.0	3.0	3.0	3.0
Hartsville, S. C.	4.0	3.0	4.0	4.0	4.0	4.0
			Southeast			
Tallassee, Ala.	5.0	3.0	4.0	5.0	5.0	4.0
Gainesville, Fla.	2.0	2.0	2.7	2.0	3.0	2.3
Walnut Hill, Fla.	2.0	2.0	4.0	3.0	3.0	4.0
Baton Rouge, La.	4.0	2.0	4.0	3.0	4.0	4.0
			Upper and Central South			
Jackson, Tenn.	1.0	2.0	2.0	2.0	2.0	3.0
Belle Mina, Ala.	1.0	1.3	1.3	3.0	2.0	1.0
Experiment, Ga.	2.7	1.3	2.7	2.1	2.3	2.7
State College, Miss.	2.0	3.0	2.0	2.0	3.0	3.0
			Delta			
Sikeston, Mo.	1.5	2.0	2.3	2.5	2.0	3.0
Vinson, Mo.	1.6	2.0	2.3	2.0	2.1	2.9
Keiser, Ark. (A)	2.0	2.7	3.0	3.0	3.7	3.7
Keiser, Ark. (B)	2.0	2.0	4.0	2.3	3.7	3.3
Marianna, Ark.	2.0	2.0	3.3	3.0	2.7	3.0
Coahoma, Miss.	1.3	1.7	1.7	2.0	1.7	2.0
Stoneville, Miss. (A)	2.0	2.0	2.0	2.0	2.0	2.0
Tralake, Miss.	2.3	2.0	2.0	2.7	2.7	2.3
St. Joseph, La.	2.0	1.0	2.0	1.0	3.0	2.0
			West			
Stuttgart, Ark.	1.7	1.0	1.7	2.0	2.0	2.3
Curtis, La.	1.0	1.0	2.0	2.0	1.0	1.0
Bixby, Okla.	1.0	1.0	1.7	1.0	1.3	2.0
Perkins, Okla.	1.7	1.0	2.0	2.3	2.0	2.3
Bennington, Okla.	3.7	2.7	3.7	4.0	2.7	2.7
Chillicothe, Texas	3.0	3.0	3.0	3.0	3.0	3.0
Tulia, Texas	2.0	2.0	4.0	3.0	2.0	3.0

Table 28. (continued)

Location	D56-1192	D56-1241	N55-3830	N56-4141	N56-4202	S5-7075
			East Coast			
Linkwood, Md.	2.0	2.0	3.0	2.0	2.0	2.0
Warsaw, Va.	1.0	1.0	1.0	1.0	2.0	2.0
Painter, Va.	2.0	3.0	3.0	3.0	1.0	2.0
Petersburg, Va.	2.0	2.0	3.0	2.0	1.0	2.0
Norfolk, Va.	2.0	2.0	3.0	3.0	2.0	2.0
Holland, Va.	2.5	2.5	3.0	2.5	2.0	2.5
Plymouth, N. C.	1.5	1.5	2.0	2.0	2.0	2.0
Willard, N. C.	2.0	3.0	3.0	4.0	3.0	3.0
Clayton, N. C.	1.5	3.0	3.0	3.5	2.5	3.0
Hartsville, S. C.	4.0	4.0	4.0	5.0	4.0	4.0
			Southeast			
Tallassee, Ala.	3.0	4.0	5.0	5.0	5.0	4.0
Gainesville, Fla.	2.7	3.3	3.7	2.7	2.7	2.3
Walnut Hill, Fla.	4.5	3.0	3.0	3.0	4.0	2.0
Baton Rouge, La.	2.0	4.0	4.0	4.0	3.0	4.0
			Upper and Central South			
Jackson, Tenn.	2.0	2.0	3.0	2.0	1.0	2.0
Belle Mina, Ala.	1.3	1.7	2.0	1.7	2.0	1.3
Experiment, Ga.	2.0	2.0	2.3	2.7	2.7	1.7
State College, Miss.	2.0	2.0	3.0	2.0	1.0	2.0
			Delta			
Sikeston, Mo.	1.8	1.5	2.3	1.8	2.0	2.3
Vinson, Mo.	1.6	2.0	2.6	1.9	2.0	2.3
Keiser, Ark. (A)	2.7	2.0	3.0	2.0	2.3	3.0
Keiser, Ark. (B)	4.0	3.0	3.0	2.3	2.7	4.0
Marianna, Ark.	2.3	2.0	3.0	2.0	2.3	2.7
Coahoma, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, Miss. (A)	2.0	2.0	2.0	2.0	2.0	2.0
Tralake, Miss.	2.3	2.3	2.7	3.0	2.0	2.3
St. Joseph, La.	1.0	1.0	3.0	3.0	2.0	2.0
			West			
Stuttgart, Ark.	1.0	1.3	2.0	2.0	2.0	1.7
Curtis, La.	1.0	1.0	2.0	2.0	1.0	1.0
Bixby, Okla.	1.0	1.7	1.3	1.3	1.0	2.0
Perkins, Okla.	2.0	2.3	2.0	2.0	2.0	2.0
Bennington, Okla.	2.8	3.7	2.3	3.5	2.3	2.7
Chillicothe, Texas	2.0	4.0	3.0	3.0	3.0	3.0
Tulia, Texas	3.0	2.0	1.0	2.0	3.0	3.0

PRELIMINARY GROUP VI

1959

Eight Preliminary Group VI nurseries were planted. The group included 34 experimental lines along with Hood and Lee as checks. The results from 7 nurseries are reported in tables 29 through 35. The parentage of the lines is reported in table 29, while table 30 gives a summary of seed yield, growth characteristics, chemical composition, and reaction to bacterial pustule, Phytophthora rot, and purple stain.

Lee had an average yield for the 7 locations significantly higher than the yield of Hood. Three experimental lines yielded significantly higher than Hood. There were no lines yielding significantly higher than Lee. There were 5 lines that yielded significantly less than the yield of Hood. Thirty of the lines yielded significantly below Lee.

Seven lines had a significantly higher protein percentage than Hood. Three of these had a significantly lower oil percentage. Six of the lines having a significantly higher protein percentage than Hood were also significantly higher than Lee. There were two lines having an oil percentage significantly above that for Hood.

The three lines D56-1242, N56-4566, and N57-5736 appeard too late for this group and should be classified as Group VII maturity.

Ratings for green stems at maturity were made at Plymouth. Eleven lines had a high percentage of their stems remaining green. These were D55-1168, D55-2168, D55-4051, D55-4054, D55-4061, D56-711, D56-1004, N57-5400, N57-5560, N57-5785, and N57-5974.

The two lines N56-4566 and N56-4569 are closely related and differ in reaction to Phytophthora rot. N56-4569 produced a lower yield than N56-4566 at Plymouth, Walnut Hill, Vinson, and Keiser. There was a maturity difference at all locations except Bixby. It may be possible that Phytophthora rot hastened maturity of N56-4569 without reducing seed yield.

Among the lines which appear to merit further testing are D55-1168, D55-4060, D56-1004, N57-5461, N57-5560, N57-6736, and R56-49.

Table 29. Parentage of the strains in Preliminary Group VI, 1959

	Strain	Parentage	Generation Composited
1.	Hood		
2.	Lee		
3.	D55-1168	(Adams x Ogden) x D50-203	F_5
4.	D55-2124	D50-203 x D49-757	F_5
5.	D55-2168	D50-203 x D49-1066	F_5
6.	D55-4051	D50-203 x D49-757	F_5
7.	D55-4054	D50-203 x D49-757	F_5
8.	D55-4060	D50-203 x D49-757	F_5
9.	D55-4061	D50-203 x D49-757	F_5
10.	D56-282	Dorman(2) x N48-1515	F_5
11.	D56-711	D49-507(2) x D49-2510	F_5
12.	D56-1004	D51-5108 x Dorman	F_5
13.	D56-1120	D51-5108 x Dorman	F_5
14.	D56-1242	Rokusun x Lee	F_5
15.	N56-4566	N46-1703 x D49-2525	F_5
16.	N56-4569	N46-1703 x D49-2525	F_5
17.	N57-5359	N48-1289 x N48-4860	F_6
18.	N57-5400	N48-4860 x N47-309	F_6
19.	N57-5454	N48-4860(2) x N49-2484	F_7
20.	N57-5461	N48-4860(2) x N49-2484	F_7
21.	N57-5493	N48-4860(2) x N49-2484	F_7
22.	N57-5560	N44-92 x N48-1867	F_7
23.	N57-5736	(N47-2981 x Roanoke) x (N44-92 x N48-1867)	F_6
24.	N57-5785	N48-1835 x (N46-1703 x Roanoke)	F_5
25.	N57-5929	N48-1835 x (N46-1703 x Roanoke)	F_5
26.	N57-5974	N48-1835 x (N46-1703 x Roanoke)	F_5
27.	N57-6160	N46-1872 x N48-1835	F_5
28.	N57-6736	Jackson x D49-2491	F_6
29.	R56-6	Dorman x D49-2477	
30.	R56-26	D49-2573 x N45-1497	
31.	R56-49	Lee rogue	
32.	S4-7158	Ogden x L6-1503	
33.	S5-7402	Ogden x Dorman	
34.	S5-7610	Adams x Roanoke	
35.	S6-7453	Ogden x (L6-2132 x Dortchsoy 2)	
36.	S6-7464	S8-5139 x C985	

Table 30. General summary of performance for the strains grown in Preliminary Group VI, 1959

Strain	Seed Yield	Maturity Index	Ht.	Percent Oil	Percent Protein	Bact. 1/ Pustule	Phytoph-thora 2/	Purple Stain 3/
Hood	32.0	10-12	33	21.6	40.9	1.0	1.0	2.0
Lee	36.0+	+13	36	21.3	41.1	1.0	1.0	1.0
D55-1168	29.5	-1	39	19.4-	43.8+	1.0	1.0	2.0
D55-2124	32.7	-5	41	20.4-	42.3	1.0	1.0	2.0
D55-2168	29.3-	-2	40	20.6-	42.3	1.0	1.0	2.0
D55-4051	30.6	+6	45	19.6-	43.7+	1.0	1.0	2.5
D55-4054	31.7	+1	44	20.1-	43.9+	1.0	1.0	2.0
D55-4060	31.0	-6	41	20.1-	43.0+	1.0	1.0	2.0
D55-4061	31.9	+4	45	19.2-	41.8	1.0	1.0	1.5
D56-282	30.9	-6	35	21.7	39.7	1.0	1.0	1.5
D56-711	31.8	-3	38	21.0	42.5+	1.0	2.0	2.0
D56-1004	35.2+	+3	37	22.2	39.7	1.0	1.0	2.0
D56-1120	31.3	-2	35	22.4+	40.1	1.0	1.0	1.5
D56-1242	31.5	+16	40	20.9	42.4+	1.0	1.0	2.0
N56-4566	32.5	+17	47	20.4	40.5	2.0	2.0	1.0
N56-4569	24.9-	+6	37	20.0-	41.6	1.0	5.0	1.0
N57-5359	29.0-	+3	35	21.3	39.2-	1.0	4.0	1.0
N57-5400	32.4	+10	40	20.2-	41.3	1.0	1.0	2.0
N57-5454	31.0	+2	38	21.4	39.6	1.0	3.0	1.0
N57-5461	32.0	+1	39	21.4	41.1	1.0	1.0	1.0
N57-5493	31.1	+6	40	19.8-	42.1	1.0	3.0	1.5
N57-5560	32.7	+10	39	21.0	39.6	1.0	1.0	1.0
N57-5736	30.1	+16	45	21.9	40.0	1.0	1.0	2.0
N57-5785	33.0	+7	40	21.1	42.6+	1.0	1.0	2.5
N57-5929	33.4	+12	47	21.6	40.4	1.0	2.0	1.0
N57-5974	28.8-	+11	38	20.7-	41.7	1.0	1.0	1.0
N57-6160	33.1	+14	41	21.8	39.3-	1.0	1.0	2.0
N57-6736	35.4+	+13	41	21.3	40.8	1.0	1.0	1.0
R56-6	30.1	-2	43	20.4-	41.9	1.0	2.0	2.0
R56-26	32.8	+3	40	21.3	41.5	3.0	1.0	1.0
R56-49	36.6+	+3	39	22.2	40.2	1.0	1.0	1.0
S4-7158	31.1	+4	36	20.5-	41.4	3.0	3.0	1.5
S5-7402	31.3	0	39	22.0	41.3	3.0	2.0	2.0
S5-7610	31.7	-2	37	22.7+	39.9	3.0	3.0	2.0
S5-7453	31.8	+2	36	21.5	41.3	3.0	2.0	3.0
S5-7464	27.3-	-4	33	21.8	40.9	3.0	1.0	1.5
L.S.D.(.05)	2.6			0.8	1.4			
L.S.D.(.01)	3.5			1.0	1.9			

1/ Stoneville data.
2/ Stoneville and Keiser data.
3/ Plymouth and Warsaw data.

Table 31. Seed yield, in bushels per acre, for the strains in Preliminary Group VI, 1959

Strain	Warsaw, Va.	Plymouth, N.C.	Walnut Hill, Fla.	Sikeston, Mo.	Vinson, Mo.	Keiser, Ark.	Bixby, Okla.
Hood	29.9	40.0	26.2	36.4	32.6	23.4	35.3
Lee	29.6	43.4	43.6+	32.4	37.7	29.5+	35.8
D55-1168	26.5	36.0	31.1	30.2-	39.9	23.9	18.8-
D55-2124	32.1	34.8	33.0+	27.5-	36.5	33.7+	31.6
D55-2168	27.9	35.8	29.9	25.0-	33.1	26.8	26.9
D55-4051	27.0	32.7	35.2+	25.4-	38.5	29.9+	25.5-
D55-4054	29.3	36.7	33.0+	24.6-	40.6+	27.0	31.3
D55-4060	27.7	32.9	30.3	29.2-	40.1	35.9+	20.8-
D55-4061	25.4	41.1	39.4+	22.8-	34.0	32.5+	28.4
D56-282	28.9	34.3	32.6+	32.2	26.2	34.4+	27.5
D56-711	26.1	36.1	30.7	28.3-	37.7	31.4+	32.2
D56-1004	28.5	39.6	36.0+	32.3	39.7	37.6+	32.9
D56-1120	28.4	39.4	36.8+	31.4	22.6-	30.6+	30.3
D56-1242	24.0-	39.5	41.0+	24.7-	31.2	33.0+	27.2
N56-4566	29.6	39.1	39.8+	27.0-	38.7	27.8	25.3-
N56-4569	30.1	18.9-	28.8	27.9-	31.1	11.2-	26.1
N57-5359	23.1-	35.7	31.1	25.8-	40.5	--	29.5
N57-5400	25.8	35.6	39.8+	26.4-	38.3	31.0+	30.0
N57-5454	24.6-	37.6	40.5+	24.8-	27.6	24.7	37.9
N57-5461	24.0-	37.8	39.6+	29.3-	29.4	35.4+	28.8
N57-5493	22.5-	36.5	42.8+	20.2-	39.7	26.7	29.5
N57-5560	24.4-	37.6	38.3+	27.3-	42.4+	25.5	33.2
N57-5736	25.7	36.0	37.1+	23.6-	35.2	30.5+	22.7-
N57-5785	33.1	39.6	37.1+	27.2-	39.2	29.6+	25.3-
N57-5929	28.0	37.4	40.2+	28.2-	38.9	29.7+	31.7
N57-5974	25.7	34.2	34.5+	25.0-	34.9	26.7	20.5-
N57-6160	34.7	38.7	36.7+	32.3	38.2	29.8+	21.6-
N57-6736	25.4	43.1	44.7+	33.4	35.6	37.8+	28.3
R56-6	26.3	38.5	32.2	26.9-	24.8	33.2+	28.1
R56-26	28.0	35.4	40.5+	29.6-	35.9	34.5+	25.7-
R56-49	28.5	47.0	40.2+	30.1-	37.1	36.8+	36.6
S4-7158	27.6	36.6	35.3+	27.6-	38.7	26.5	25.3-
S5-7402	30.1	38.2	25.4	29.6-	39.0	24.0	33.0
S5-7610	29.4	34.1	34.1+	32.6	39.4	21.5	30.6
S6-7453	22.9-	36.6	41.3+	23.8-	33.5	34.7+	29.5
S6-7464	26.9	37.5	29.6	25.6-	19.5-	22.2	30.3
L.S.D.(.05)	4.9	8.6	6.4	5.2	8.0	6.1	9.5
C.V.	9%	11%	9%	9%	11%	10%	16%

Table 32. Oil percentages for the strains in Preliminary Group VI, 1959

Strain	Warsaw, Va.	Plymouth, N.C.	Walnut Hill, Fla.	Sikeston, Mo.	Bixby, Okla.
Hood	20.8	21.5	22.7	20.6	22.4
Lee	20.4	21.0	23.0	19.7	22.3
D55-1168	18.7	18.4	21.7	18.2	20.0
D55-2124	18.3	20.7	22.7	19.3	21.1
D55-2168	19.5	20.4	22.9	18.8	21.4
D55-4051	18.1	19.6	21.5	18.3	20.5
D55-4054	19.2	19.8	22.1	18.7	20.8
D55-4060	19.0	20.2	22.2	17.5	21.8
D55-4061	17.5	19.5	21.3	17.4	20.2
D56-282	20.3	21.8	24.3	20.3	22.0
D56-711	19.7	21.3	23.3	18.6	22.1
D56-1004	20.0	23.3	24.6	20.7	22.4
D56-1120	21.1	22.9	23.1	20.7	24.0
D56-1242	20.5	20.8	22.6	19.4	21.3
N56-4566	20.3	19.9	21.8	18.7	21.5
N56-4569	19.0	19.8	22.0	18.1	21.3
N57-5359	19.1	21.6	24.1	18.6	23 2
N57-5400	18.8	20.2	22.7	18.0	21.4
N57-5454	20.1	21.3	23.3	19.9	22.2
N57-5461	19.3	22.2	23.4	19.8	22.4
N57-5493	17.4	19.8	22.6	17.5	21.9
N57-5560	20.0	21.0	22.9	19.5	21.6
N57-5736	21.6	21.7	24.1	20.4	21.5
N57-5785	20.2	21.4	22.2	20.1	21.6
N57-5929	20.7	21.5	23.4	20.8	21.5
N57-5974	19.7	20.7	22.5	18.9	21.5
N57-6160	21.6	21.2	23.5	20.7	22.2
N57-6736	19.4	21.5	23.6	19.2	22.7
R56-6	18.4	21.0	23.1	18.5	21.0
R56-26	18.2	22.0	23.4	20.3	22.5
R56-49	20.2	22.6	24.3	19.8	23.9
S4-7158	18.3	20.5	22.7	18.1	22.8
S5-7402	19.4	22.8	24.8	20.2	22.8
S5-7610	21.5	22.9	25.2	21.6	22.5
S6-7453	19.5	22.0	22.9	20.2	23.1
S6-7464	20.4	22.6	24.3	19.6	22.2

Table 33. Protein percentages for the strains in Preliminary Group VI, 1959

Strain	Warsaw, Va.	Plymouth, N.C.	Walnut Hill Fla.	Sikeston, Mo.	Bixby, Okla.
Hood	42.6	41.0	41.5	43.2	36.4
Lee	41.6	41.2	42.0	43.6	37.0
D55-1168	42.2	45.4	43.5	46.2	41.8
D55-2124	42.1	42.7	43.0	44.6	38 9
D55-2168	42.3	44.0	42.5	45.0	37.5
D55-4051	44.0	45.0	44.2	46.0	39.3
D55-4054	43.0	45.7	44.9	46.7	39.4
D55-4060	43.9	44.2	42.8	46.0	38.0
D55-4061	43.0	42.2	41.6	44.2	38.1
D56-282	40.5	40.1	39.3	41.8	36.8
D56-711	42.8	43.3	43.3	45.9	37.3
D56-1004	41.1	39.6	40.0	41.0	36.9
D56-1120	41.8	39.5	41.6	42.3	34.9
D56-1242	40.9	44.5	43.0	45.0	38.8
N56-4566	41.0	42.2	42.0	43.3	34.1
N56-4569	41.7	42.6	43.0	43.8	36.8
N57-5359	40.1	39.8	39.8	43.7	32.6
N57-5400	41.2	43.5	41.3	43.3	36.5
N57-5454	40.8	40.5	39.6	42.5	34.7
N57-5461	41.4	41.0	41.3	43.3	33.1
N57-5493	42.6	42.9	41.8	45.8	37.2
N57-5560	40.2	39.6	40.1	42.0	36.0
N57-5736	38.9	40.9	40.3	41.1	38.7
N57-5785	42.0	42.5	43.9	44.3	40.3
N57-5929	40.1	41.4	40.7	41.2	38.5
N57-5974	41.2	42.5	42.5	43.5	39.0
N57-6160	39.4	40.6	39.6	40.1	36.8
N57-6736	42.0	42.0	41.0	42.4	36.4
R56-6	41.9	41.8	41.1	45.3	39.5
R56-26	44.6	41.4	41.1	43.2	37.3
R56-49	40.8	41.5	41.3	45.0	32 6
S4-7158	43.7	42.3	40.8	46.0	34.2
S5-7402	43.4	41.3	41.5	43.3	36.9
S5-7610	40.2	40.1	41.0	41.5	36.5
S6-7453	43.6	40.9	41.3	44.1	36.8
S6-7464	41.1	40.4	41.2	44.6	37.3

Table 34. Plant height for the strains in Preliminary Group VI, 1959

Strain	Warsaw, Va.	Plymouth, N.C.	Walnut Hill, Fla.	Sikeston, Mo.	Vinson, Mo.	Keiser, Ark.	Bixby, Okla.
Hood	38	39	18	40	40	22	36
Lee	37	40	21	46	40	30	38
D55-1168	44	48	23	45	45	28	42
D55-2124	40	45	23	54	52	31	39
D55-2168	40	47	24	52	51	29	38
D55-4051	46	48	28	57	57	35	44
D55-4054	48	43	28	58	58	32	43
D55-4060	42	44	28	52	50	28	41
D55-4061	47	43	33	60	56	31	46
D56-282	38	41	19	50	41	13	40
D56-711	39	40	25	47	48	27	38
D56-1004	39	41	23	45	45	30	39
D56-1120	34	36	21	47	43	22	39
D56-1242	45	49	24	52	42	31	39
N56-4566	45	45	24	56	47	30	40
N56-4569	42	41	21	47	45	20	41
N57-5359	40	36	22	45	43	--	38
N57-5400	44	43	27	49	50	26	41
N57-5454	40	41	27	48	45	27	40
N57-5461	42	41	28	48	46	29	36
N57-5493	42	44	28	51	47	21	46
N57-5560	42	46	23	48	45	29	39
N57-5736	48	44	25	58	57	37	44
N57-5785	40	43	23	55	52	29	41
N57-5929	44	43	23	52	50	30	43
N57-5974	42	40	20	48	45	29	39
N57-6160	42	44	24	56	46	32	41
N57-6736	37	42	21	43	39	26	37
R56-6	40	48	28	51	53	35	45
R56-26	40	44	27	50	49	29	42
R56-49	40	35	19	42	36	20	36
S4-7158	40	43	22	42	45	23	38
S5-7402	38	41	20	55	54	23	40
S5-7610	38	44	20	50	47	22	37
S6-7453	38	43	21	45	43	23	41
S6-7464	31	40	19	41	45	19	36

Table 35. Seed quality scores for the strains in Preliminary Group VI, 1959

Strain	Warsaw, Va.	Plymouth, N.C.	Walnut Hill, Fla.	Sikeston, Mo.	Vinson, Mo.	Keiser, Ark.	Bixby, Okla.
Hood	2.0	2.0	1.0	1.8	1.5	3.0	1.0
Lee	1.0	1.5	1.0	2.0	1.9	1.5	1.0
D55-1168	3.0	2.5	1.0	2.8	2.5	5.0	2.0
D55-2124	2.0	3.0	2.0	2.5	2.0	2.5	2.0
D55-2168	2.0	2.5	1.0	2.5	2.6	3.0	2.0
D55-4051	1.0	3.0	2.0	2.8	2.5	3.5	2.0
D55-4054	2.0	3.0	2.0	3.0	2.6	4.0	1.5
D55-4060	2.0	2.0	2.0	2.3	2.4	3.0	3.0
D55-4061	2.0	2.0	2.0	2.5	2.6	3.0	2.5
D56-282	2.0	2.5	1.0	2.3	2.0	3.0	1.5
D56-711	1.0	3.0	1.0	2.3	2.3	2.0	1.5
D56-1004	2.0	2.0	2.0	3.0	2.5	3.0	2.5
D56-1120	2.0	2.0	1.0	1.5	1.7	3.0	1.5
D56-1242	1.0	2.0	1.0	2.5	3.0	3.0	2.0
N56-4566	1.0	2.0	1.0	2.3	2.0	2.0	2.0
N56-4569	1.0	2.0	1.0	2.0	1.9	2.0	1.0
N57-5359	1.0	2.0	1.0	2.0	2.5	--	1.5
N57-5400	1.0	3.0	1.0	2.8	2.7	2.5	2.5
N57-5454	2.0	2.0	1.0	2.0	2.4	2.0	1.0
N57-5461	1.0	1.5	1.0	2.0	2.2	2.0	2.0
N57-5493	2.0	2.0	1.0	2.8	2.4	1.0	2.0
N57-5560	1.0	1.5	1.0	2.0	2.5	1.0	1.5
N57-5736	1.0	2.5	1.0	2.5	2.3	3.0	3.0
N57-5785	1.0	2.5	2.0	2.5	2.2	3.0	2.0
N57-5929	1.0	2.0	2.0	1.5	1.7	1.5	2.0
N57-5974	1.0	2.0	1.0	2.0	1.9	1.5	2.0
N57-6160	1.0	1.5	1.0	2.0	1.7	2.0	1.5
N57-6736	1.0	1.5	1.0	2.3	2.2	2.0	1.5
R56-6	2.0	2.5	2.0	2.0	2.4	3.0	2.0
R56-26	1.0	2.0	1.0	1.5	1.9	2.0	2.0
R56-49	1.0	2.0	1.0	1.8	1.8	2.5	2.0
S4-7158	1.0	2.0	1.0	2.0	2.3	3.0	1.5
S5-7402	2.0	3.0	1.0	2.8	3.0	3.5	2.0
S5-7610	2.0	2.0	1.0	1.8	1.5	3.0	2.0
S6-7453	3.0	2.5	1.0	2.5	1.9	3.5	2.0
S6-7464	2.0	3.0	1.0	1.8	2.4	1.5	1.5

UNIFORM GROUP VII

1959

	Variety or Strain	Parentage	Generation Composited
1.	Jackson	Volstate(2) x Palmetto	F_4
2.	Jackson 59	Jackson(4) x D49-2491	F_2
3.	Lee	S-100 x CNS	F_6
4.	N52-3908	Roanoke x N45-745	F_7
5.	N55-5931	Roanoke x D49-2491	F_5
6.	D55-4110	Ogden x CNS	F_7
7.	F55-822	Jackson x D49-2491	F_4
8.	F55-861	Jackson x D49-2491	F_4
9.	N55-2934	Jackson x D49-2491	F_4
10.	N56-3901	N48-1574 x (Roanoke x N45-3799)	F_5
11.	N56-3918	N48-1574 x (Roanoke x N45-3799)	F_5
12.	N56-5249	Jackson x D49-2491	F_5

Background of strains used as parents:

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

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

N48-1574 is a selection from Roanoke x N45-745 which was included in Uniform Group VII 1951-53.

N45-3799 is a selection from Ogden x Palmetto which was included in Uniform Group VII 1949-51.

The results of 20 Uniform Group VII nurseries are summarized in tables 36 through 42. Table 36 gives a general summary of agronomic qualities, chemical composition, and reaction to the major diseases. Two- and 3-year data for seed yield and chemical composition are also reported.

This nursery included 10 experimental lines along with Jackson and Lee as check varieties. One strain,N52-3908, was included for its third year. Two other strains were tested their second year, while 6 strains were tested on a regional basis for the first time. Differences among strains for seed yield were significant in 11 of the 20 nurseries for which data are reported. There was a significant variety x location interaction for within the East, Southeast, and Delta areas. Differences among strains within areas were significant for the East, Southeast, and West.

Lee averaged lower in seed yield than Jackson in the East, Southeast, and Upper and Central areas. However, Lee averaged higher in yield than Jackson in the Delta and West. The strain entered as Jackson 59 is essentially Jackson with resistance to bacterial pustule added. At some locations, Jackson 59 showed a tendency for green stems and was rated later than Jackson. For 7 locations where bacterial pustule was observed, Willard, Hartsville, Gainesville, Stoneville, St. Joseph, Stuttgart, and Curtis, Jackson had an average yield of 42.6 bushels and Jackson 59 had an average yield of 45.8 bushels. This is a 7.5% advantage for the bacterial pustule-resistant line.

N52-3908 had produced well during the three years that it has been in test. However, it does not appear to have enough advantage over either Jackson or Lee to merit consideration as a variety. F55-822 appears to be one of the most promising of the new lines in the group.

Table 36. General summary of performance for the strains in Uniform Group VII, 1959

	Jackson	Jackson 59	Lee	N52-3908	N55-5931	D55-4110
Seed Yield - 1959						
East Coast	40.8	42.3	36.3-	40.2	37.5	38.6
Southeast	38.1	36.8	32.1-	41.4	34.7	33.7
Upper & Central South	34.6	32.5	30.1	31.5	32.3	28.3
Delta	35.6	37.0	40.7	37.3	36.4	33.0
West	43.2	48.3+	46.0	46.3	44.9	44.7
- 1958-59						
East Coast	40.6		38.9	39.2	38.3	37.2
Southeast	36.5		32.0	37.8	33.1	32.9
Upper & Central South	33.0		31.8	32.7	31.8	29.6
Delta	38.8		44.0	40.3	40.6	35.1
West	40.8		42.2	43.4	41.8	40.1
- 1957-59						
East Coast	39.3		39.0	38.4		
Southeast	36.6		32.4	38.1		
Upper & Central South	32.5		32.0	31.7		
Delta	38.9		43.0	42.2		
West	37.9		40.0	41.4		
Oil Percentage - 1959	22.2	21.9	21.9	21.9	22.8	19.2
- 1958-59	22.3		21.8	21.9	22.9	19.4
- 1957-59	22.2		21.8	21.8		
Protein Percentage - 1959	39.5	40.0	42.3	40.9	39.9	45.9
- 1958-59	39.5		42.0	40.6	39.6	45.8
- 1957-59	39.5		41.8	40.6		
Seed Size	16.8	16.5	14.7	17.9	16.0	17.4
Maturity Index	10-29	+2	-10	-4	-3	+2
Height	42	40	28	33	34	32
Shattering[1/]	2.0	2.0	1.0	2.0	1.0	1.0
Bacterial Pustule[2/]	2.5	1.0	1.0	1.0	1.0	1.0
Targets Spot[3/]	1.0	1.0	1.0	1.0	1.0	1.0
Purple Stain[4/]	3.0	3.0	2.0	1.8	3.0	1.0
Phytophthora Rot[5/]	1.0	1.0	1.0	2.0	3.0	1.0

1/ Blackville data.
2/ Stoneville data.
3/ Stoneville and Gainesville data.
4/ Average of 5 N. Carolina, S. Carolina and Georgia locations.
5/ Tralake data.

Table 36. (continued)

	F55-822	F55-861	N55-2934	N56-3901	N56-3918	N56-5249
Seed Yield - 1959						
East Coast	43.6	40.7	38.6	43.9	41.6	39.2
Southeast	39.7	39.8	35.7	39.9	39.9	40.1
Upper & Central South	32.0	31.1	32.7	31.7	31.8	26.1
Delta	41.7	39.2	34.9	35.5	38.7	37.2
West	52.2+	49.6+	47.4	45.7	48.7+	49.1+
- 1958-59						
East Coast						
Southeast						
Upper & Central South						
Delta						
West						
- 1957-59						
East Coast						
Southeast						
Upper & Central South						
Delta						
West						
Oil Percentage - 1959	21.8	22.1	23.7	21.6	21.7	22.5
- 1958-59						
- 1957-59						
Protein Percentage - 1959	41.4	40.1	39.6	39.7	40.2	40.4
- 1958-59						
- 1957-59						
Seed Size	17.5	14.6	16.6	16.6	18.2	16.3
Maturity Index	-3	-3	-3	-1	0	-3
Height	39	41	41	33	32	38
Shattering[1/]	1.3	1.3	2.7	2.7	3.0	1.7
Bacterial Pustule[2/]	1.0	1.0	1.0	1.0	1.0	1.0
Target Spot[3/]	1.0	1.0	1.0	1.0	1.0	1.0
Purple Stain[4/]	2.0	2.5	2.5	2.5	2 3	2 0
Phytophthora Rot[5/]	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, 1959

Location	Jackson	Jackson 59	Lee	N52-3908	N55-5931	D55-4110	F55-822
			East Coast				
Rocky Mt., N. C.	30.9	32.9	26.1	26.1	25.9	30.1	30.1
Clayton, N. C.	38.3	38.3	36.9	44.1	32.1	34.6	42.0
Willard, N. C.	43.3	45.6	39.7	42.7	41.6	44.4	47.1
Hartsville, S. C.	50.7	52.2	42.5-	48.1	50.3	45.4-	55.2+
Mean	40.8	42.3	36.3-	40.2	37.5	38.6	43.6
			Southeast				
Blackville, S. C.	34.0	27.6-	32.4	34.9	32.8	31.3	37.6
Tallassee, Ala.	41.7	42.2	32.6	46.9	33.7	33.1	37.6
Tifton, Ga.[1/]	30.7	25.7-	25.5-	29.6	26.4-	28.0	28.1
Gainesville, Fla.	41.3	43.8	21.0-	37.9	34.7	33.2	39.2
Walnut Hill, Fla.	46.7	43.9	43.7	50.8	46.2	39.9-	49.8
Baton Rouge, La.	26.8	26.8	30.9+	36.3+	26.4	31.3+	34.1+
Mean	38.1	36.8	32.1-	41.4	34 7	33.7	39.7
			Upper and Central South				
Clemson, S. C.	33.1	33.5	24.3	27.8	25.9	26.5	28.1
Experiment, Ga.	42.5	35.1	33.3	36.0	39.9	35.5	38.7
State College, Miss.	28.3	28.8	32.6	30.8	31.0	22.8	29.2
Mean	34.6	32.5	30.1	31.5	32.3	28.3	32.0
			Delta				
Stoneville, Miss. (A)	32.6	36.7	49.2+	40.9	39.7	34.3	43.1+
Tralake, Miss.	30.1	28.8	27.5	18.0	22.1	22.5	27.0
St. Joseph, La.	44.1	45.6	45.4	53.0	47.3	42.2	54.9
Mean	35.6	37.0	40.7	37.3	36.4	33.0	41.7
			West				
Stuttgart, Ark.	40.7	43.1	44.3+	38.1	38.8	41.5	44.3+
Curtis, La.	45.6	53.6+	47.6	54.6+	51.1	48.0	60.2+
Bennington, Okla.[1/]	15.1	26.7	34.7	22.7	22.5	22.3	22.5
Chillicothe, Texas[1/]	18.6	17.5	25.1+	21.5	25.6+	13.8	16.8
Mean	43.2	48.3+	46.0	46.3	44.9	44.7	52.2+

(+) - 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	F55-861	N55-2934	N56-3901	N56-3918	N56-5249	L.S.D. (.05)	C.V.
			East Coast				
Rocky Mt., N. C.	26.9	26.7	31.8	32.5	27.5	N.S.	12%
Clayton, N. C.	45.2	42.0	42.3	38.3	37.1	N.S.	13%
Willard, N. C.	41.4	36.6-	47.8	46.4	40.4	4.8	7%
Hartsville, S. C.	49.5	49.1	53.6	49.3	51.8	4.4	5%
Mean	40.7	38.6	43.9	41.6	39.2	4.0	
			Southeast				
Blackville, S. C.	39.1	28.6-	30.7	33.1	38.0	5.2	9%
Tallassee, Ala.	45.3	33.5	45.6	46.0	40.1	N.S.	16%
Tifton, Ga.1/	28.7	22.9-	30.3	25.7-	27.8	3.8	8%
Gainesville, Fla.	35.8	44.9	39.3	40.8	38.3	9.2	14%
Walnut Hill, Fla.	46.4	45.0	51.3	48.5	49.2	6.1	8%
Baton Rouge, La.	32.4+	26.4	32.4+	30.9+	35.0+	3.2	7%
Mean	39.8	35.7	39.9	39.9	40.1	5.0	
			Upper and Central South				
Clemson, S. C.	26.7	30.1	32.8	33.9	30.0	N.S.	16%
Experiment, Ga.	37.6	32.9	37.4	33.9	29.6	N.S.	14%
State College, Miss.	29.0	35.2	24.8	27.6	18.8	N.S.	25%
Mean	31.1	32.7	31.7	31.8	26.1	N.S.	
			Delta				
Stoneville, Miss. (A)	39.6	33.6	35.9	41.4+	36.0	8.5	13%
Tralake, Miss.	25.0	22.6	22.1	26.7	24.7	N.S.	19%
St. Joseph, La.	53.0	48.4	48.5	47.9	50.9	N.S.	10%
Mean	39.2	34.9	35.5	38.7	37.2	N.S.	
			West				
Stuttgart, Ark.	44.3+	41.7	39.4	42.3	43.7+	2.7	4%
Curtis, La.	54.9+	53.0+	51.9+	55.1+	54.5+	6.2	7%
Bennington, Okla.1/	25.3	14.2	22.7	31.0	34.4	N.S.	32%
Chillicothe, Texas1/	15.5	20.6	18.8	23.2	19.0	5.8	
Mean	49.6+	47.4	45.7	48.7+	49.1+	4.8	

1/ Not included in mean.

Table 38. Chemical composition and seed size for the strains in Uniform Group VII, 1959

Location	Jackson	Jackson 59	Lee	N52-3908	N55-5931	D55-4110
			Oil Percentage			
Clayton, N. C.	21.3	20.7	21.1	21.3	21.2	18.4
Hartsville, S. C.	21.9	21.9	21.8	20.9	23.0	19.2
Blackville, S. C.	22.6	22.1	22.7	22.5	23.2	17.8
Gainesville, Fla.	23.6	23.3	22.7	23.9	24.2	20.9
Stoneville, Miss. (A)	21.8	21.5	21.1	21.3	21.9	18.8
Curtis, La.	22.1	22.1	22.1	21.6	23.3	20.3
Mean	22.2	21.9	21.9	21.9	22.8+	19.2-
			Protein Percentage			
Clayton, N. C.	40.6	41.7	44.0	41.7	42.4	47.0
Hartsville, S. C.	39.9	39.9	41.2	41.3	38.9	46.1
Blackville, S. C.	39.4	40.1	42.7	41.5	40.0	46.9
Gainesville, Fla.	39.0	39.5	43.4	41.1	40.1	45.5
Stoneville, Miss. (A)	39.2	40.2	41.6	40.4	39.8	45.7
Curtis, La.	38.6	38.4	40.7	39.4	37.9	44.4
Mean	39.5	40.0	42.3+	40.9+	39.9	45.9+
			Grams Per 100 Seed			
Clayton, N. C.	17.1	16.6	13.1	18.2	14.4	16.9
Hartsville, S. C.	17.7	17.7	15.0	19.3	16.7	18.7
Blackville, S. C.	15.2	15.6	13.7	16.5	15.0	17.0
Gainesville, Fla.	17.5	18.5	16.4	19.0	19.1	19.4
Walnut Hill, Fla.	19.6	17.7	19.4	20.6	18.7	17.0
Clemson, S. C.	15.9	15.5	12.2	15.5	14.4	16.8
Stoneville, Miss. (A)	14.4	13.6	12.8	16.3	13.8	16.2
Mean	16.8	16.5	14.7	17.9	16.0	17.4

Table 38. (continued)

Location	F55-822	F55-861	N55-2934	N56-3901	N56-3918	N56-5249	L.S.D. (.05)
			Oil Percentage				
Clayton, N. C.	20.2	20.8	22.7	21.1	20.8	21.4	
Hartsville, S. C.	21.4	21.9	23.6	21.5	21.5	22.7	
Blackville, S. C.	22.3	22.5	25.1	22.2	22.8	22.7	
Gainesville, Fla.	22.7	23.7	25.1	22.7	22.8	23.4	
Stoneville, Miss. (A)	21.5	21.0	21.8	20.1	20.3	21.5	
Curtis, La.	22.4	22.4	23.7	21.9	21.8	23.5	
Mean	21.8	22.1	23.7+	21.6-	21.7	22.5	0.6
			Protein Percentage				
Clayton, N. C.	42.5	41.5	40.0	40.4	40.8	41 9	
Hartsville, S. C.	41.3	39.8	38.7	38.5	39.6	39.5	
Blackville, S. C.	42.1	40.4	40.7	39.9	40.7	40.5	
Gainesville, Fla.	41.9	39.5	39.4	40.2	40.7	40.4	
Stoneville, Miss. (A)	40.5	40.3	40.5	41.0	40.1	41.3	
Curtis, La.	40.1	39.1	38.5	38.4	39.1	38.7	
Mean	41.4+	40.1	39.6	39.7	40.2	40.4+	0.7
			Grams Per 100 Seed				
Clayton, N. C.	16.8	14.6	15.2	15.3	17.8	15.2	
Hartsville, S. C.	19.0	15.7	17.7	18.0	19.0	17.3	
Blackville, S. C.	16.6	13.9	16.7	15.9	17.2	16.2	
Gainesville, Fla.	17.4	15.5	18.3	18.8	21.4	16.8	
Wlanut Hill, Fla.	19.4	16.1	19.4	19.0	20.2	19.6	
Clemson, S. C.	16.0	13.3	15.3	15.5	15.9	15.0	
Stoneville, Miss. (A)	17.0	13.0	13.5	14.0	15.8	14.0	
Mean	17.5	14.6	16.6	16.6	18.2	16.3	0.9

Table 39. Relative maturity date, days earlier (-) or later (+) than Jackson, for the strains in Uniform Group VII, 1959

Location	Date Planted	Jackson Matured	Jackson 59	Lee	N52-3908	N55-5931
		East Coast				
Rocky Mt. N. C.	5-13	11-2	0	-12	-2	-9
Clayton, N. C.	5-4	11-2	+5	-10	-3	-2
Willard, N. C.	5-18	11-1	+5	-5	-1	-1
Hartsville, S. C.	6-3	11-6	+4	-9	0	-4
Mean		11-3	+4	-9	-2	-4
		Southeast				
Blackville, S. C.	5-15	11-2	+4	-11	-8	-6
Tallassee, Ala.	5-13	11-2	0	-11	-9	-7
Gainesville, Fla.	6-19	10-27	+2	-4	-1	0
Marianna, Fla.	5-27	10-27	+1	-9	-5	-2
Wlanut Hill, Fla.	7-2	10-30	+1	-5	-3	-3
Baton Rouge, La.	5-19	10-26	+6	-5	-2	-6
Mean		10-29	+2	-8	-5	-4
		Upper and Central South				
Clemson, S. C.	5-21	11-7	+1	-13	-2	-3
Experiment, Ga.	5-19	11-5	0	-5	-6	-5
State College, Miss.	5-9	10-13	+2	-1	-1	+7
Mean		11-2	+1	-6	-3	0
		Delta				
Stoneville, Miss. (A)	5-25	10-25	0	-9	0	0
Tralake, Miss.	5-14	10-18	0	-6	-6	-3
Mean		10-22	0	-7	-3	-2
		West				
Stuttgart, Ark.	5-18	10-26	+2	0	0	0
Curtis, La.	5-23	11-1	+2	-12	-10	-8
Mean		10-29	+2	-6	-5	-4

Table 39. (continued)

Location	D55-4110	F55-822	F55-861	N55-2934	N56-3901	N56-3918	N56-5249
			East Coast				
Rocky Mt., N. C.	+7	-2	+3	-9	0	-2	-2
Clayton, N. C.	+5	-1	-1	-3	-2	0	-3
Willard, N. C.	+1	0	0	-2	+5	+5	-4
Hartsville, S. C.	+5	-3	-3	0	+1	+3	-3
Mean	+5	-2	0	-4	+1	+2	-3
			Southeast				
Blackville, S. C.	+3	-8	-3	+1	+3	+3	-8
Tallassee, Ala.	-8	-6	-10	-4	-5	-2	-7
Gainesville, Fla.	0	-4	-6	-1	+1	0	-2
Marianna, Fla.	-1	-3	-1	+1	-5	-5	-6
Walnut Hill, Fla.	+1	-4	-4	0	0	0	0
Baton Rouge, La.	+4	-4	-8	-6	-2	+2	-6
Mean	0	-5	-5	-2	-1	0	-5
			Upper and Central South				
Clemson, S. C.	+5	-4	-2	0	0	0	-4
Experiment, Ga.	-5	-5	-6	-2	-5	-5	-3
State College, Miss.	+1	+2	+1	+1	+7	+2	+2
Mean	0	-2	-2	0	0	-1	-2
			Delta				
Stoneville, Miss. (A)	+3	0	-3	-7	-1	+2	0
Tralake, Miss.	+5	0	-10	-6	-4	-2	0
Mean	+4	0	-7	-7	-3	0	0
			West				
Stuttgart, Ark.	+7	0	0	0	0	+7	0
Curtis, La.	0	-7	-12	-12	-8	-2	-7
Mean	+4	-4	-6	-6	-4	+3	-3

Table 40. Plant height for the strains in Uniform Group VII, 1959

Location	Jackson	Jackson 59	Lee	N52-3908	N55-5931	D55-4110
		East Coast				
Rocky Mt., N. C.	47	47	35	38	38	41
Clayton, N. C.	45	42	31	35	36	36
Willard, N. C.	47	46	33	40	39	42
Hartsville, S. C.	43	44	35	35	37	36
Mean	46	45	34	37	38	39
		Southeast				
Blackville, S. C.	38	41	26	31	31	33
Tallassee, Ala.	38	38	21	30	26	27
Gainesville, Fla.	31	31	19	23	27	19
Marianna, Fla.	38	41	24	30	34	28
Walnut Hill, Fla.	31	31	18	25	28	19
Baton Rouge, La.	30	34	20	26	20	20
Mean	34	36	21	28	28	24
		Upper and Central South				
Clemson, S. C.	36	36	30	30	28	36
Experiment, Ga.	48	46	33	36	41	44
State College, Miss.	45	32	26	30	26	35
Mean	43	38	30	32	32	38
		Delta				
Stoneville, Miss. (A)	46	47	36	46	45	41
Tralake, Miss.	43	41	17	31	29	27
St. Joseph, La.	50	40	30	38	40	32
Mean	46	43	28	38	38	33
		West				
Stuttgart, Ark.	42	44	27	35	35	37
Curtis, La.	44	34	23	34	36	32
Bennington, Okla.	53	53	38	42	46	42
Chillicothe, Texas	38	31	28	26	34	25
Mean	44	41	29	34	38	34

Table 40. (continued)

Location	F55-822	F55-861	N55-2934	N56-3901	N56-3918	N56-5249
			East Coast			
Rocky Mt., N. C.	47	44	48	37	38	42
Clayton, N. C.	42	45	43	36	36	37
Willard, N. C.	47	45	48	43	40	40
Hartsville, S. C.	46	41	46	35	34	43
Mean	46	44	46	38	37	41
			Southeast			
Blackville, S. C.	38	42	41	32	31	35
Tallassee, Ala.	34	40	33	29	26	29
Gainesville, Fla.	29	33	35	25	19	27
Marianna, Fla.	38	41	42	32	26	37
Walnut Hill, Fla.	30	32	32	24	21	29
Baton Rouge, La.	24	34	24	26	28	20
Mean	32	37	35	28	25	30
			Upper and Central South			
Clemson, S. C.	34	35	36	29	29	36
Experiment, Ga.	46	46	43	35	36	45
State College, Miss.	43	28	42	25	26	29
Mean	41	36	40	30	30	37
			Delta			
Stoneville, Miss. (A)	47	47	49	45	43	46
Tralake, Miss.	39	39	41	34	31	37
St. Joseph, La.	40	51	40	42	40	42
Mean	42	46	43	40	38	42
			West			
Stuttgart, Ark.	44	42	43	34	39	43
Curtis, La.	39	40	42	30	28	40
Bennington, Okla.	49	51	53	45	43	48
Chillicothe, Texas	33	36	34	28	26	34
Mean	41	42	43	34	34	41

Table 41. Lodging scores for the strains in Uniform Group VII, 1959

Location	Jackson	Jackson 59	Lee	N52-3908	N55-5931	D55-4110
			East Coast			
Rocky Mt., N. C.	2.0	2.0	2.0	2.0	3.5	3.0
Clayton, N. C.	2.0	2.3	2.3	2.5	2.7	3.8
Willard, N. C.	3.2	3.0	3.0	3.0	3.8	4.0
Hartsville, S. C.	3.0	2.1	2.8	2.8	2.7	3.8
			Southeast			
Blackville, S. C.	2.0	1.7	2.3	2.0	2.0	2.0
Tallassee, Ala.	1.5	1.5	1.0	1.0	1.0	1.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	1.0	1.0	2.0	1.0	1.0
Baton Rouge, La.	2.0	2.0	2.0	2.0	1.0	2.0
			Upper and Central South			
Clemson, S. C.	1.3	1.8	2.0	1.3	1.5	3.3
Experiment, Ga.	1.7	1.3	1.7	1.3	2.3	2.0
State College, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
			Delta			
Stoneville, Miss. (A)	3.0	2.7	3.0	3.0	3.3	3.0
Tralake, Miss.	1.0	1.0	1.0	1.0	1.0	2.0
St. Joseph, La.	3.0	2.0	2.0	1.0	2.0	1.0
			West			
Stuttgart, Ark.	1.3	1.3	1.0	1.3	2.3	3.0
Curtis, La.	2.0	2.0	1.0	1.0	1.0	1.0
Bennington, Okla.	2.3	3.0	2.7	2.7	3.0	2.7
Chillicothe, Texas	1.0	1.0	1.0	1.0	1.0	1.0

Table 41. (continued)

Location	F55-822	F55-861	N55-2934	N56-3901	N56-3918	N56-5249
			East Coast			
Rocky Mt., N. C.	3.2	3.0	3.2	2.0	2.0	2.7
Clayton, N. C.	2.8	3.6	3.0	2.2	2.2	2.2
Willard, N. C.	3.7	4.5	3.0	3.0	3.0	3.0
Hartsville, S. C.	3.0	3.7	2.3	2.0	2.4	2.0
			Southeast			
Blackville, S. C.	2.7	2.7	2.3	1.7	2.0	1.7
Tallassee, Ala.	1.0	1.5	1.0	1.5	1.0	1.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, Fla.	1.0	2.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	3.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	2.0	2.0	1.0	2.0	2.0	1.0
			Upper and Central South			
Clemson, S. C.	1.5	1.7	1.7	1.0	1.1	1.7
Experiment, Ga.	1.3	2.0	1.0	1.3	1 0	1.0
State College, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
			Delta			
Stoneville, Miss. (A)	3.0	3.3	3.0	2.7	3.0	2.7
Tralake, Miss.	2.0	2.0	1.0	1.0	1.0	1.0
St. Joseph, La.	2.0	3.0	2.0	2.0	2.0	2.0
			West			
Stuttgart, Ark.	2.0	3.0	2.0	1.0	1.0	1.3
Curtis, La.	2.0	3.0	2.0	2.0	1.0	2.0
Bennington, Okla.	3.3	3.0	4.0	2.0	2.0	2.0
Chillicothe, Texas	1.0	1.0	1.0	1.0	1.0	1.0

Table 42. Seed quality scores for the strains in Uniform Group VII, 1959

Location	Jackson	Jackson 59	Lee	N52-3908	N55-5931	D55-4110
			East Coast			
Rocky Mt., N. C.	2.0	2.0	2.0	2.5	2.0	2.0
Clayton, N. C.	1.5	1.5	1.5	1.5	3.0	1.0
Willard, N. C.	2.0	2.0	3.0	3.0	3.5	1.0
Hartsville, S. C.	2.0	2.0	4.0	3.0	3.0	1.0
			Southeast			
Blackville, S. C.	3.3	3.0	4.7	4.3	3.7	1.3
Tallassee, Ala.	2.5	2.0	1.5	2.0	---	1.0
Gainesville, Fla.	1.3	1.7	2.0	2.0	2.0	1.3
Walnut Hill, Fla.	2.0	2.0	2.0	3.0	3.0	3.0
Baton Rouge, La.	3.0	3.0	3.0	3.0	3.0	1.0
			Upper and Central South			
Clemson, S. C.	2.0	2.0	2.0	1.0	3.0	1.0
Experiment, Ga.	3.0	3.3	3.7	3.0	3.3	1.3
State College, Miss.	2.0	3.0	2.0	2.0	2.0	2.0
			Delta			
Stoneville, Miss. (A)	2.0	2.0	2.0	2.0	2.0	2.0
Tralake, Miss.	2.0	2.0	2.0	2.0	2.3	2.0
St. Joseph, La.	3.0	2.0	2.0	2.0	2.0	1.0
			West			
Stuttgart, Ark.	1.3	1.3	1.0	1.7	1.7	2.0
Curtis, La.	2.0	2.0	1.0	2.0	2.0	2.0
Bennington, Okla.	1.3	1.3	1.7	1.3	1.7	1.0
Chillicothe, Texas	3.0	3.0	3.0	3.0	3.0	3.0

Table 42. (continued)

Location	F55-822	F55-861	N55-2934	N56-3901	N56-3918	N56-5249
			East Coast			
Rocky Mt. N. C.	2.0	2.0	2.0	1.5	2.0	1.5
Clayton, N. C.	1.5	1.5	2.0	1.0	1.5	1.5
Willard, N. C.	2.0	2.0	2.0	2.0	2.5	2.0
Hartsville, S. C.	3.0	2.0	3.0	3.0	3.0	3.0
			Southeast			
Blackville, S. C.	4.0	3.3	4.3	4.0	3.7	3.0
Tallassee, Ala.	2.5	2.5	2.0	1.5	2.0	1.5
Gainesville, Fla.	1.5	1.7	1.3	2.7	2.3	1.3
Walnut Hill, Fla.	1.0	3.0	3.0	2.0	2.0	2.0
Baton Rouge, La.	3.0	3.0	3.0	3.0	3.0	2.0
			Upper and Central South			
Clemson, S. C.	2.0	2.0	2.0	1.0	1.0	1.0
Experiment, Ga.	3.0	3.0	3.0	3.0	3.3	2.7
State College, Miss.	2.0	2.0	2.0	3.0	2.0	2.0
			Delta			
Stoneville, Miss. (A)	2.0	2.0	2.3	2.0	2.0	2.0
Tralake, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	2.0	2.0	1.0	2.0	2.0	2.0
			West			
Stuttgart, Ark.	1.3	1.0	2.0	2.0	2.0	1.3
Curtis, La.	1.0	2.0	1.0	3.0	1.0	1.0
Bennington, Okla.	2.3	1.7	3.0	2.3	1.7	2.0
Chillicothe, Texas	3.0	3.0	3.0	3.0	3.0	3.0

PRELIMINARY GROUP VII

1959

Eight Preliminary Group VII nurseries were planted. The group included Jackson and Lee as check varieties along with 34 experimental lines. The reults from 6 nurseries are summarized in tables 43 through 49. Table 43 gives the parentage of the lines included, while table 44 gives a general summary of seed yield, growth characteristics, chemical composition, and reactions to the major diseases.

The mean seed yield for the 6 locations was 37.5 bushels. The combined analysis of variance for seed yield for the 6 locations showed differences to be non-significant. There was a highly significant variety x location interaction.

The seed of line D57-1185 showed considerable purple stain development at Willard. The lines D57-1504 and D57-1544 had green stems at maturity at Willard, while F57-467 had heavy green stems at Stoneville. F57-1559 and N57-6780 were segregating for flower color, while N57-6772 was segregating for pubescence color.

Among the lines which would appear to merit testing in Uniform Group VII are N57-6725, F55-255, D57-1194, F57-481, D57-1299, F57-477, F57-1544, and Co57-248.

The two strains D56-1543 and D56-4310 are large seeded types averaging 29 grams and 32 grams per 100 seeds, respectively. Although neither strain was outstanding in seed yield at any location, each yielded well and has good agronomic qualities. D56-1543 has black seed coats.

Table 43. Parentage of strains in Preliminary Group VII, 1959

	Variety or Strain	Parentage	Generation Composited
1.	Jackson		
2.	Lee		
3.	B56-469	Roanoke x D49-2491	F_5
4.	Co57-221	Majos x Lee	F_5
5.	Co57-248	Majos x Lee	F_5
6.	Co57-249	Majos x Lee	F_5
7.	D56-1543	D49-772 x PI 181,564	F_5
8.	D56-3884	Roanoke x N45-745 (D51-5108)	F_{10}
9.	D56-4310	Lee x Rokusun	F_5
10.	D57-1185	Roanoke(2) x D49-2491	F_5
11.	D57-1187	Roanoke(2) x D49-2491	F_5
12.	D57-1194	Roanoke(2) x D49-2491	F_5
13.	D57-1299	Roanoke x D49-2491	F_6
14.	D57-1331	Roanoke x D49-2491	F_6
15.	D57-1504	Jackson x D49-2491	F_6
16.	D57-1544	Jackson x D49-2491	F_6
17.	D57-1570	Jackson x D49-2491	F_6
18.	F55-255	D49-772 x Improved Pelican	F_4
19.	F55-793	Jackson x D49-2491	F_4
20.	F55-890	Jackson x D49-2491	F_4
21.	F57-467	Jackson x D49-2491	F_6
22.	F57-477	Jackson x D49-2491	F_6
23.	F57-481	Jackson x D49-2491	F_6
24.	F57-1542	Jackson x D49-2491	F_5
25.	F57-1554	Jackson x D49-2491	F_5
26.	F57-1559	Jackson x D49-2491	F_5
27.	N57-6279	Jackson x D49-2491	F_5
28.	N57-6288	Jackson x D49-2491	F_5
29.	N57-6291	Jackson x D49-2491	F_5
30.	N57-6725	Jackson x D49-2491	F_5
31.	N57-6770	Jackson x D49-2491	F_5
32.	N57-6772	Jackson x D49-2491	F_5
33.	N57-6774	Jackson x D49-2491	F_5
34.	N57-6780	Jackson x D49-2491	F_5
35.	N57-6801	Jackson x D49-2491	F_5
36.	N57-6808	Jackson x D49-2491	F_5

Table 44. General summary of performance for the strains grown in Preliminary Group VII, 1959

Strain	Seed Yield	Maturity	Ht.	Percent Oil	Percent Protein	Bact. Pustule	Target Spot	Phytoph-thora	Shatter-ing
Jackson	37.4	10-28	37	22.6	40.1	3.0	1.0	1.0	2.0
Lee	34.0	-10	26	22.4	42.6+	1.0	1.0	1.0	1.0
B56-469	37.0	-4	37	22.5	40.2	1.0	1.0	2.0	1.3
Co57-221	37.6	-1	32	21.5-	39.9	1.0	1.5	1.0	1.3
Co57-248	37.5	+4	30	19.9-	42.0+	1.0	2.0	1.0	1.3
Co57-249	34.5	+3	31	21.0-	39.3	1.0	1.5	1.0	1.0
D56-1543	36.3	0	31	21.9-	42.2+	1.0	1.0	2.0	2.5
D56-3884	37.6	-4	35	23.0	40.1	1.0	1.0	1.0	2.3
D56-4310	33.8	0	32	22.9	41.3	1.0	1.0	2.0	1.0
D57-1185	39.3	-1	32	23.9+	39.4	1.0	1.0	1.0	1.6
D57-1187	34.0	-7	30	23.7+	40.5	1.0	1.0	1.0	1.3
D57-1194	39.6	+1	37	22.3	40.3	1.0	2.0	1.0	1.3
D57-1299	38.4	-5	27	22.4	40.7	1.0	1.0	1.0	2.0
D57-1331	38.0	-4	30	22.2	40.8	1.0	1.0	2.0	1.3
D57-1504	36.9	-7	30	22.8	41.0	1.0	2.0	1.0	1.5
D57-1544	38.7	-2	29	23.1	40.1	1.0	1.0	1.0	1.7
D57-1570	35.3	-1	33	21.6-	42.0+	1.0	1.0	1.0	1.8
F55-255	40.7	-2	34	22.8	40.6	1.0	1.0	1.0	1.8
F55-793	39.9	0	39	22.9	39.0-	1.0	1.5	1.0	1.8
F55-890	39.3	-7	35	23.1	40.6	1.0	1.0	1.0	1.3
F57-467	39.3	-2	36	24.0+	40.8	1.0	1.0	1.0	1.8
F57-477	38.4	-2	37	23.6+	41.2+	1.0	1.0	2.0	1.5
F57-481	39.3	-3	37	22.1	41.5+	1.0	1.5	1.0	1.0
F57-1542	37.8	-7	41	23.8+	38.9	1.0	1.0	1.0	1.3
F57-1554	38.2	-6	41	22.6	41.2+	1.0	1.5	1.0	1.3
F57-1559	40.5	-6	33	21.4	40.5	1.0	1.0	1.0	1.8
N57-6279	40.3	-8	37	23.0	40.5	1.0	1.0	1.0	1.5
N57-6288	36.4	-1	37	23.4+	40.4	1.0	2.5	2.0	1.8
N57-6291	35.9	-6	34	24.2+	40.3	1.0	1.5	1.0	1.8
N57-6725	41.2	-7	34	23 2	41.0	1.0	2.0	1.0	1.5
N57-6770	32.6	-11	34	23.6+	41.3+	1.0	1.0	2.0	1.5
N57-6772	34.2	-6	36	23.4+	39.9	1.0	2 0	2.0	2.3
N57-6774	38.1	-10	33	23.5+	39.2	1.0	2 0	3.0	1.3
N57-6780	37.3	-2	36	23.4+	40.6	1.0	1.5	1.0	2.0
N57-6801	38.7	-5	37	23.5+	40.0	1.0	1.5	1.0	1.0
N57-6808	37.8	-8	31	23.5+	39.7	1.0	2.0	1.0	1.3
L.S.D.(.05)	N.S.			0.6	0.9				
L.S.D.(.01)				0.8	1.2				

Table 45. Seed yield, in bushels per acre, for the strains in Preliminary Group VII, 1959

Strain	Willard, N.C.	Blackville, S.C.	Tallassee, Ala.	Gainesville, Fla.	Walnut Hill, Fla.	Stoneville, Miss.
Jackson	41.9	37.0	35.4	35.4	44.0	30.8
Lee	39.0	31.8	36.4	14.3-	40.9	41.9+
B56-469	35.4-	33.4	40.5	35.5	37.9-	39.2
Co57-221	40.9	32.9	35.4	36.8	39.8	40.2+
Co57-248	45.8	31.9	31.3	35.4	44.3	36.5
Co57-249	43.9	27.4-	27.6	32.2	44.7	31.4
D56-1543	42.3	32.6	35.7	31.3	41.3	34.4
D56-3884	44.8	39.7	38.8	33.5	31.8-	36.9
D56-4310	42.0	30.1-	33.3	31.6	36.8-	29.4
D57-1185	44.4	36.6	32.7	32.6	48.9	40.8+
D57-1187	40.2	29.5-	26.9-	30.0	41.3	38.4
D57-1194	37.6	33.9	41.2	38.2	51.6+	35.3
D57-1299	50.8+	33.9	32.6	24.3-	44.7	44.3+
D57-1331	42.9	35.7	42.5	24.7-	41.3	40.7+
D57-1504	42.2	37.5	28.9	36.0	42.5	34.2
D57-1544	43.6	35.6	42.5	30.3	40.9	39.5
D57-1570	39.0	29.3-	36.4	29.2	43.6	34.4
F55-255	45.3	37.6	49.3+	36.2	39.0	36.8
F55-793	40.8	34.8	44.6+	37.5	43.2	38.8
F55-890	43.0	40.1	34.7	32.3	45.5	40.0+
F57-467	41.2	34.8	40.8	37.1	44.7	37.0
F57-477	40.3	34.9	34.4	42.4	43.2	35.0
F57-481	44.4	37.4	36.7	31.6	44.3	41.6+
F57-1542	35.2-	34.3	42.5	40.2	40.2	34.4
F57-1554	40.4	35.3	39.1	35.2	39.4	39.7+
F57-1559	41.7	36.4	35.4	39.9	45.9	44.0+
N57-6279	45.1	36.1	33.7	40.0	43.6	43.1+
N57-6288	36.2-	37.3	33.7	34.6	41.7	34.8
N57-6291	35.7-	33.5	32.7	35.9	38.3-	39.4
N57-6725	44.4	36.7	31.3	37.5	45.9	51.3+
N57-6770	39.6	30.4-	24.2-	29.1	36.8-	35.9
N57-6772	35.4-	30.6-	35.0	31.0	42.1	31.3
N57-6774	34.9-	35.3	32.7	39.5	46.2	40.1+
N57-6780	40.8	34.4	32.0	34.6	45.1	37.0
N57-6801	39.8	36.6	34.0	35.7	44.3	42.0+
N57-6808	43.1	31.3	29.3	38.6	44.3	40.6+
L.S.D.(.05)	5.4	5.9	8.4	10.1	5.5	8.8
C.V.	6%	9%	12%	15%	6%	11%

Table 46. Oil percentages for the strains in Preliminary Group VII, 1959

Strain	Willard, N.C.	Blackville, S.C.	Tallassee, Ala.	Gainesville, Fla.	Walnut Hill, Fla.	Stone-ville, Miss.
Jackson	22.4	22.3	23.7	23.8	23.5	20.0
Lee	21.6	23.3	22.8	22.8	23.1	20.8
B56-469	21.5	22.6	22.6	23.2	23.5	21.6
Co57-221	20.8	21.4	22.7	21.1	22.8	20.2
Co57-248	19.4	19.3	20.6	21.0	20.2	18.9
Co57-249	20.1	20.8	21.8	21.5	22.2	19.4
D56-1543	21.2	21.8	22.4	22.2	22.7	21.2
D56-3884	21.4	23.4	23.4	25.1	23.6	21.1
D56-4310	22.0	22.6	23.4	23.4	24.2	21.6
D57-1185	22.9	24.1	24.4	25.1	24.1	22.8
D57-1187	23.9	23.7	23.6	25.1	24.1	21.8
D57-1194	21.9	21.9	22.9	22.8	22.7	21.4
D57-1299	21.7	23.2	22.9	23.8	23.0	20.0
D57-1331	21.7	22.3	22.2	21.8	24.6	20.6
D57-1504	22.6	23.3	23.7	23.3	23.3	20.8
D57-1544	22.4	23.2	24.0	23.5	23.9	21.5
D57-1570	21.4	22.2	22.7	20.6	22.5	20.0
F55-255	22.1	23.1	22.9	23.3	23.7	21.6
F55-793	22.3	22.6	24.0	22.6	23.6	22.0
F55-890	22.2	23.5	24.0	23.8	23.9	21.3
F57-467	24.1	24.2	24.7	24.2	23.9	23.0
F57-477	22.9	23.5	24.3	24.8	24.7	21.1
F57-481	21.1	22.0	23.3	22.1	23.4	20.6
F57-1542	22.9	24.0	24.1	25.4	24.5	21.9
F57-1554	22.0	22.6	23.2	23.5	23.4	20.8
F57-1559	20.3	21.8	22.0	22.2	22.5	19.8
N57-6279	21.9	22.7	23.4	23.6	23.7	22.7
N57-6288	23.1	23.2	24.2	23.7	24.1	21.9
N57-6291	23.6	25.3	25.4	23.5	24.5	22.9
N57-6725	22.2	23.4	24.5	23.9	23.2	22.0
N57-6770	23.4	24.4	24.1	23.5	24.3	22.0
N57-6772	21.9	24.0	24.6	24.4	24.2	21.5
N57-6774	22.5	23.5	24.8	23.8	24.3	22.0
N57-6780	22.2	23.8	24.4	23.6	24.2	22.1
N57-6801	23.0	24.2	24.2	24.1	23.8	21.7
N57-6808	22.6	24.4	24.3	24.1	23.9	21.6

Table 47.- Protein percentages for the strains in Preliminary Group VII, 1959

Strain	Willard, N.C.	Blackville, S.C.	Tallassee, Ala.	Gainesville, Fla.	Walnut Hill, Fla.	Stone-ville, Miss.
Jackson	39.6	40.7	40.9	38.6	39.6	41.4
Lee	42.1	42.1	43.2	43.1	42.7	42.6
B56-469	39.7	41.9	41.2	38.8	39.0	40.3
Co57-221	39.1	40.4	40.4	38.6	38.4	41.2
Co57-248	41.9	42.4	42.3	40.8	42.3	42.1
Co57-249	40.0	39.6	39.8	38.9	37.7	40.0
D56-1543	41.0	42.8	42.1	42.7	41.8	42.8
D56-3884	40.0	41.0	41.9	39.9	40.4	39.9
D56-4310	40.8	43.7	41.4	40.9	39.7	41.4
D57-1185	38.5	40.2	39.6	38.8	39.4	39.7
D57-1187	39.4	41.7	42.0	40.8	39.8	39.4
D57-1194	39.3	41.9	41.2	39.6	40.0	40.0
D57-1299	39.5	40.6	41.2	41.7	39.6	41.5
D57-1331	40.5	41.8	40.5	42.8	38.4	41.0
D57-1504	39.2	41.5	42.5	41.1	40.5	41.1
D57-1544	39.9	40.1	40.6	40.1	38.8	41.0
D57-1570	41.1	42.8	41.3	42.5	41.5	42.9
F55-255	40.0	40.9	40.2	41.7	40.0	40.8
F55-793	39.1	39.9	39.0	39.0	37.9	38.9
F55-890	40.6	41.5	40.2	41.4	40.4	39.3
F57-467	40.3	41.9	40.9	41.8	40.9	39.0
F57-477	40.5	41.5	42.4	41.0	40.8	40.7
F57-481	40.1	42.0	42.6	43.5	39.5	41.3
F57-1542	38.5	40.0	39.9	38.6	37.8	38.6
F57-1554	40.0	43.2	41.0	41.8	39.7	41.6
F57-1559	39.5	41.5	41.3	40.2	39.8	40.6
N57-6279	40.2	41.9	40.5	41.1	40.2	39.2
N57-6288	39.3	42.0	40.6	42.2	40.3	38.0
N57-6291	39.0	40.8	41.0	41.0	40.2	39.9
N57-6725	40.6	41.4	40.3	41.6	40.7	41.3
N57-6770	39.5	41.0	42.0	42.7	41.2	41.1
N57-6772	39.4	39.9	40.1	40.8	39.1	40.1
N57-6774	39.1	40.0	39.1	39.7	37.5	40.0
N57-6780	39.5	40.2	41.3	41.6	40.4	40.8
N57-6801	39.6	40.5	39.9	41.0	39.7	39.3
N57-6808	39.6	39.5	40.2	40.0	39.1	39.8

Table 48. Height data for the strains in Preliminary Group VII, 1959

Strain	Willard, N.C.	Blackville, S.C.	Tallassee, Ala.	Gainesville, Fla.	Walnut Hill, Fla.	Stone-ville, Miss.
Jackson	45	36	37	29	26	47
Lee	34	25	21	18	20	36
B56-469	46	34	39	29	24	47
Co57-221	35	29	31	28	25	44
Co57-248	40	27	22	27	23	38
Co57-249	36	31	27	26	24	41
D56-1543	40	28	31	24	25	40
D56-3884	38	35	37	29	23	48
D56-4310	40	26	33	26	26	40
D57-1185	40	32	27	25	23	46
D57-1187	36	33	24	23	24	39
D57-1194	45	35	35	30	30	47
D57-1299	35	35	20	17	17	39
D57-1331	39	30	26	22	19	43
D57-1504	41	30	20	24	22	45
D57-1544	32	30	25	21	23	40
D57-1570	41	34	31	24	22	44
F55-255	41	33	35	26	27	40
F55-793	42	39	45	34	29	45
F55-890	47	37	31	26	23	48
F57-467	40	36	36	31	27	46
F57-477	50	34	35	33	27	44
F57-481	43	36	35	32	29	44
F57-1542	50	38	43	33	31	50
F57-1554	48	40	43	30	30	54
F57-1559	41	34	27	25	25	43
N57-6279	43	33	39	30	26	48
N57-6288	47	35	34	33	30	45
N57-6291	45	33	30	28	22	46
N57-6725	44	33	33	27	26	43
N57-6770	46	34	26	23	24	51
N57-6772	48	34	34	30	25	47
N57-6774	40	35	27	27	26	44
N57-6780	42	32	35	33	27	47
N57-6801	44	38	36	28	27	51
N57-6808	38	28	25	24	22	47

Table 49. Seed quality scores for the strains in Preliminary Group VII, 1959

Strain	Willard, N.C.	Blackville, S.C.	Tallassee, Ala.	Gainesville, Fla.	Walnut Hill, Fla.	Stone-ville, Miss.
Jackson	1.5	1.5	3.0	2.0	2.0	2.0
Lee	2.5	1.5	2.0	2.5	2.0	2.0
B56-469	2.0	2.0	3.0	1.5	2.0	2.0
Co57-221	3.0	2.0	2.0	1.0	2.0	2.0
Co57-248	1.5	2.0	2.0	1.5	1.0	2.0
Co57-249	1.5	2.0	2.0	2.0	2.0	2.5
D56-1543	2.0	2.0	3.0	2.0	2.0	3.0
D56-3884	2.0	2.5	3.0	2.5	4.0	2.5
D56-4310	2.0	3.0	3.0	2.0	2.0	3.0
D57-1185	3.0	2.5	3.0	1.5	3.0	2.0
D57-1187	4.0	1.5	3.0	3.0	3.0	2.0
D57-1194	2.0	3.5	3.0	1.5	1.0	2.0
D57-1299	2.0	2.0	3.0	2.0	2.0	2.0
D57-1331	3.0	2.0	2.0	2.5	3.0	2.0
D57-1504	2.0	1.0	3.0	2.0	3.0	2.0
D57-1544	2.0	1.0	3.0	2.5	2.0	2.0
D57-1570	1.5	1.5	3.0	2.0	2.0	2.5
F55-255	1.5	3.0	3.0	1.5	2.0	2.0
F55-793	2.0	3.0	3.0	2.0	2.0	2.0
F55-890	2.0	2.0	3.0	2.0	3.0	2.0
F57-467	2.0	2.0	3.0	1.5	2 0	2.0
F57-477	2.0	2.0	3.0	2.0	3.0	2.5
F57-481	1.5	1.5	3.0	2.0	1.0	2.0
F57-1542	2.5	2.0	3.0	2.0	3.0	2 0
F57-1554	2.5	2.0	3.0	2.0	2.0	2.0
F57-1559	3.0	1.5	3.0	1.5	2 0	2.0
N57-6279	2.0	2.0	3.0	1.5	2.0	2.0
N57-6288	2.0	2.5	3.0	2.0	2.0	2.0
N57-6291	3.0	2.0	3.0	2.0	2.0	2.0
N57-6725	1.5	2.0	2.0	1.5	2.0	2.0
N57-6770	3.0	1.5	3.0	2.5	3.0	2.5
N57-6772	3.5	2.5	3.0	2.0	2.0	2.5
N57-6774	3.0	2.0	3.0	1.5	3.0	2.0
N57-6780	2.0	2.0	3.0	1.5	3.0	2.0
N57-6801	3.0	2.5	3.0	1.5	3.0	2.0
N57-6808	3.5	1.0	3.0	2.0	3.0	2.0

UNIFORM GROUP VIII

1959

	Variety or Strain	Parentage
1.	Bienville	Pelican #2 x Ogden
2.	J.E.W. 45	Sel. from mixed seed lot
3.	Yelnanda 53-116	Nanda x Yelredo
4.	Jackson	Volstate(2) x Palmetto
5.	La56-8-4	Pelican #2 x Ogden
6.	La56-13-4	Pelican #2 x Ogden
7.	F55-375	D49-772 x Improved Pelican
8.	F55-377	D49-772 x Improved Pelican
9.	F55-941	D49-772 x D50-1633
10.	F55-978	D49-772 x D50-1633
11.	F56-3460	Jackson x D49-2491
12.	F56-3492	Jackson x D49-2491

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.

D50-1633 is a selection from FC31592 x Barchet.

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

The results of 11 Uniform Group VIII nurseries are summarized in tables 50 through 56. Table 50 gives a general summary of agronomic qualities, chemical composition, and reactions to bacterial pustule and target spot. Two- and 3-year data for seed yield and chemical composition are also reported.

The group included the 4 named varieties Bienville, J.E.W. 45, Yelnanda 53-116, and Jackson, and 8 experimental lines. Three lines were being tested their second year, while 5 lines were tested on a regional basis for the first year. Differences among strains for seed yield were significant in 9 of the 11 nurseries. Of the experimental lines F56-3492 appears most promising.

Table 50. General summary of performance for the strains in Uniform Group VIII, 1959

	Bienville	J.E.W. 45	Yelnanda 53-116	Jackson	La56-8-4	La56-13-4
Seed Yield - 1959						
Southeast	38.5	32.1-	30.3-	33.9-	35.9-	36.6
Delta and West	42.4	29.7-	24.9-	42.8	44.4	44.2
- 1958-59						
Southeast	34.3	28.8	28.4	32.0	33.7	33.3
Delta and West	43.3	31.5	24.8	43.4	44.0	43.7
- 1957-59						
Southeast	34.3	28.7	27.8	32.6		
Delta and West	41.4	31.2	26.8	42.0		
Oil Content - 1959	22.0	21.0-	20.5-	22.7+	21.8	21.7
- 1958-59	21.8	20.7	20.2	22.4	21.8	21.8
- 1957-59	21.7	20.5	20.0	22.4		
Protein Content - 1959	41.3	42.0	44.8+	40.5	41.3	41.4
- 1958-59	41.6	41.9	45.2	40.5	41.4	41.3
- 1957-59	41.7	42.1	45.1	40.8		
Seed Size	17.2	19.4+	19.5+	16.1	16.9	17.1
Maturity Index	11-1	0	+3	-1	+2	+2
Height	39	41	44	38	41	40
Bacterial Pustule[1/]	3.0	3.0	4.0	2.0	3.0	3.0
Target Spot[2/]	2.0	3.0	4.0	1.0	1.5	1.0
Shattering[3/]	2.5	2.0	1.3	2.0	2.0	2.0

1/ Stoneville data.
2/ Stoneville and Gainesville data.
3/ Stoneville and Blackville data.

Table 50. (continued)

	F55-375	F55-377	F55-941	F55-978	F56-3460	F56-3492
Seed Yield - 1959						
Southeast	36.7	35.9-	34.4-	31.4-	36.2-	39.0
Delta and West	41.5	36.0-	37.7-	38.5	44.6	45.4
- 1958-59						
Southeast	34.6					
Delta and West	43.1					
- 1957-59						
Southeast						
Delta and West						
Oil Content - 1959	21.0-	21.0-	20.2-	20.9-	21.4-	22.4
- 1958-59	21.0					
- 1957-59						
Protein Content - 1959	42.7+	42.2	41.8	41.9	40.5	38.9-
- 1958-59	42.4					
- 1957-59						
Seed Size	17.8	15.8-	14.6-	14.2-	19.3+	16.2
Maturity Index	-1	+5	0	+1	+4	+1
Height	38	41	43	41	42	37
Bacterial Pustule[1/]	1.0	1.0	1.0	1.0	1.0	1.0
Target Spot[2/]	1.0	1.5	1.0	1.5	1.0	1.0
Shattering[3/]	1.2	1.2	1.2	1.5	1.0	1.2

Table 51. Seed yield, in bushels per acre, for the strains in Uniform Group VIII, 1959

Location	Bienville	J.E.W. 45	Yelnanda 53-116	Jackson	La56-8-4	La56-13-4	F55-375
			Southeast				
Hartsville, S. C.	43.7	35.0-	36.1-	49.1	42.3	42 1	48.3
Blackville, S. C.	31.3	31.2	30.1	30.0	31.0	29.7	28.9
Experiment, Ga.	33.5	26.3	22.7	29.2	34 9	28.6	26.2
Tallassee, Ala.	39.7	27.9-	28.3-	28.6-	31.3-	41.5	41.2
Tifton, Ga.1/	22.3	20.6	19.0	23.8	21.4	25.6	24.9
Walnut Hill, Fla.	42.4	41.2	36.4-	39.9	39.4	39.9	39.9
Baton Rouge, La.	40.2	31.3-	28.3-	27.0-	36.5-	37.6	35.8-
Mean	38.5	32.1-	30.3-	33.9-	35.9	36.6	36.7
			Delta and West				
Stoneville, Miss.	33.3	29.3	23.8-	39.0	36.9	40.7	37.2
St. Joseph, La.	44.1	29.3-	20.7-	42.7	43.9	43.6	39.9
Curtis, La.	49.8	30.4-	30.3-	46.8	52.2	48.3	47.3
Chillicothe, Texas1/	19.6	14.1	15.8	18.6	20.0	17.1	15.7
Mean	42.4	29.7-	24.9-	42.8	44.4	44.2	41.5

1/ Not included in mean.

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

Table 51. (continued)

Location	F55-377	F55-941	F55-978	F56-3460	F56-3492	L.S.D. (.05)	C.V.
			Southeast				
Hartsville, S. C.	48.0	44.8	33.8-	48.9	42.9	6.1	8%
Blackville, S. C.	28.9	29.1	26.9-	32.3	38.1+	4.0	8%
Experiment, Ga.	24.5	30.0	21.5	29.2	31.9	N.S.	17%
Tallassee, Ala.	34.5	36.7	34.2	28.5-	39.6	5.8	10%
Tifton, Ga.[1/]	24.2	21.8	21.3	18.1	27.6	N.S.	14%
Walnut Hill, Fla.	46.0	37.4-	37.9-	39.4	46.7	4.1	6%
Baton Rouge, La.	33.5-	28.8-	34.3-	39.1	34.5-	2.5	4%
Mean	35.9	34.4	31.4-	36.2	39.0	4.2	
			Delta and West				
Stoneville, Miss.	31.4	33.7	34.5	39.6	39.0	7.9	13%
St. Joseph, La.	34.4-	40.3	36.5-	41.4	38.6	4.5	7%
Curtis, La.	42.2-	39.0-	44.5	52.9	58.7+	6.9	9%
Chillicothe, Texas[1/]	16.0	15.1	12.3-	17.0	15.4	5.2	
Mean	36.0-	37.7	38.5	44.6	45.4	5.8	

Table 52. Chemical composition and seed size for the strains in Uniform Group VIII, 1959

Location	Bienville	J.E.W. 45	Yelnanda 53-116	Jackson	La56-8-4	La56-13-4
			Oil Percentage			
Hartsville, S. C.	21.4	20.0	19.5	22.0	21.1	21.4
Blackville, S. C.	21.5	19.7	19.8	21.7	21.1	21.8
Tallassee, Ala.	22.7	21.5	21.3	23.8	22.0	22.7
Walnut Hill, Fla.	22.9	21.9	21.3	23.6	22.8	21.5
Baton Rouge, La.	22.4	22.3	22.2	23.3	22.8	22.4
Stoneville, Miss.	20.8	20.5	18.9	21.6	21.1	20.2
Mean	22.0	21.0-	20.5-	22.7+	21.8	21.7
			Protein Percentage			
Hartsville, S. C.	41.3	41.5	45.8	39.8	42.3	42.2
Blackville, S. C.	41.4	42.8	44.0	40.4	42.3	41.5
Tallassee, Ala.	40.6	41.4	45.1	41.0	41.9	41.0
Walnut Hill, Fla.	40.4	41.9	45.7	40.9	40.5	41.0
Baton Rouge, La.	41.6	41.0	41.6	40.0	38.9	40.8
Stoneville, Miss.	42.5	43.2	46.8	40.8	41.8	41.6
Mean	41.3	42.0	44.8+	40.5	41.3	41.4
			Grams Per 100 Seed			
Hartsville, S. C.	18.0	20.0	21.0	17.0	18.7	18.0
Blackville, S. C.	15.0	16.6	20.0	15.4	15.4	15.7
Tallassee, Ala.	18.3	20.0	19.8	18.8	17.3	16.6
Walnut Hill, Fla.	19.2	23.5	22.8	16.8	17.6	18.5
Baton Rouge, La.	17.0	19.5	17.5	14.0	15.0	16.5
Stoneville, Miss.	15.5	16.9	15.7	14.8	17.5	17.3
Mean	17.2	19.4+	19.5+	16.1	16.9	17.1

Table 52. (continued)

Location	F55-375	F55-377	F55-941	F55-978	F56-3460	F56-3492	L.S.D. (.05)
			Oil Percentage				
Hartsville, S. C.	20.9	20.5	19.4	19.7	20.4	21.7	
Blackville, S. C.	20.5	20.1	19.0	19.5	21.0	21.5	
Tallassee, Ala.	21.6	22.3	20.5	22.0	22.5	23.0	
Walnut Hill, Fla.	21.2	22.0	21.4	21.1	22.2	23.0	
Baton Rouge, La.	21.6	20.7	21.8	22.5	21.6	23.4	
Stoneville, Miss.	20.1	20.1	19.3	20.3	20.6	21.9	
Mean	21.0-	21.0-	20.2-	20.9-	21.4-	22.4	0.5
			Protein Percentage				
Hartsville, S. C.	41.7	42.0	41.7	41.1	42.2	38.2	
Blackville, S. C.	43.5	42.3	42.9	43.7	38.5	38.8	
Tallassee, Ala.	42.0	41.3	42.0	42.0	38.6	39.7	
Walnut Hill, Fla.	44.6	43.6	41.5	42.5	41.4	40.0	
Baton Rouge, La.	41.3	42.0	40.4	40.6	41.3	38.9	
Stoneville, Miss.	42.9	42.0	42.0	41.5	40.9	38.0	
Mean	42.7+	42.2	41.8	41.9	40.5	38.9-	1.2
			Grams Per 100 Seed				
Hartsville, S. C.	18.7	18.0	15.7	13.7	21.7	16.3	
Blackville, S. C.	17.7	15.7	13.6	13.4	17.5	16.2	
Tallassee, Ala.	19.1	15.8	15.5	14.6	18.1	16.5	
Walnut Hill, Fla.	19.9	17.3	16.2	16.8	22.0	18.7	
Baton Rouge, La.	15.0	14.0	13.5	13.5	18.5	15.5	
Stoneville, Miss.	16.3	14.2	13.0	13.3	18.1	14.2	
Mean	17.3	15.8-	14.6-	14.2-	19.3+	16.2	1.2

Table 53. Relative maturity data, days earlier (-) or later (+) than Bienville, for the strains in Uniform Group VIII, 1959

Location	Date Planted	Bienville Matured	J.E.W. 45	Yelnanda 53-116	Jackson	La56-8-4
			Southeast			
Hartsville, S. C.	6-3	11-9	-2	+2	-3	+1
Blackville, S. C.	6-19	11-6	-2	+2	-1	+1
Experiment, Ga.	5-19	11-1	+1	+9	+2	0
Tallassee, Ala.	5-13	11-3	-5	-2	0	+1
Walnut Hill, Fla.	7-2	11-1	+1	+3	-2	0
Baton Rouge, La.	5-19	10-28	+2	+4	-2	+4
Mean		11-3	-1	+3	-1	+1
			Delta and West			
Stoneville, Miss.	5-25	10-31	0	+2	-6	+6
Curtis, La.	5-23	10-28	+2	+7	+4	+4
Mean		10-30	+1	+5	-1	+5

Table 54. Height data for the strains in Uniform Group VIII, 1959

Location	Bienville	J.E.W. 45	Yelnanda 53-116	Jackson	La56-8-4	La56-13-4
Hartsville, S. C.	44	45	49	43	46	45
Blackville, S. C.	32	36	32	30	32	35
Experiment, Ga.	46	38	42	43	45	47
Tallassee, Ala.	40	45	47	40	39	40
Walnut Hill, Fla.	32	32	37	28	35	32
Baton Rouge, La.	34	30	38	25	34	32
Mean	38	38	41	35	38	38
			Delta and West			
Stoneville, Miss.	47	47	50	47	46	47
St. Joseph, La.	42	46	54	48	46	50
Curtis, La.	40	46	46	40	48	36
Chillicothe, Texas	37	40	40	38	38	40
Mean	42	45	48	44	45	43

Table 53. (continued)

Location	La56-13-4	F55-375	F55-377	F55-941	F55-978	F56-3460	F56-3492
			Southeast				
Hartsville, S. C.	+1	-1	+3	-2	-1	+3	-6
Blackville, S. C.	+1	+2	+4	+4	+4	+4	+3
Experiment, Ga.	+1	+1	+3	+3	+3	+4	+10
Tallassee, Ala.	+1	-2	+1	-2	-3	+2	0
Wlanut Hill, Fla.	+1	-1	+6	+1	+3	+6	+1
Baton Rouge, La.	0	-2	+10	0	+3	+13	+5
Mean	+1	0	+5	+1	+2	+5	+2
			Delta and West				
Stoneville, Miss.	+5	-3	+4	-2	-2	-1	-2
Curtis, La.	+4	-2	+5	-3	+2	+4	0
Mean	+4	-3	+5	-3	0	+2	-1

Table 54. (continued)

Location	F55-375	F55-377	F55-941	F55-978	F56-3460	F56-3492
Hartsville, S. C.	44	45	47	47	49	45
Blackville, S. C.	34	35	37	31	36	29
Experiment, Ga.	38	36	48	43	44	44
Tallassee, Ala.	39	45	48	46	46	38
Walnut Hill, Fla.	31	35	34	32	32	31
Baton Rouge, La.	30	38	34	38	38	25
Mean	36	39	41	40	41	35
			Delta and West			
Stoneville, Miss.	49	48	50	47	49	48
St. Joseph, La.	41	48	48	50	50	45
Curtis, La.	38	46	48	36	38	32
Chillicothe, Texas	37	38	39	37	42	35
Mean	41	45	46	43	45	40

Table 55. Lodging scores for the strains in Uniform Group VIII, 1959

Location	Bienville	J.E.W. 45	Yelnanda 53-116	Jackson	La56-8-4	La56-13-4
			Southeast			
Hartsville, S. C.	3.3	4.0	3.7	2.8	3.2	3.0
Blackville, S. C.	2.3	3.0	3.3	2.0	2.7	2.7
Experiment, Ga.	1.3	2.0	2.0	1.3	2.7	1.3
Tallassee, Ala.	1.5	2.5	2.5	1.5	2.0	2.0
Walnut Hill, Fla.	1.0	2.0	3.0	1.0	2.0	1.0
Baton Rouge, La.	2.0	2.0	3.0	1.0	2.0	2.0
			Delta and West			
Stoneville, Miss.	3.3	4.0	3.0	3.0	3.3	3.0
St. Joseph, La.	3.0	4.0	2.0	1.0	4.0	3.0
Curtis, La.	2.0	3.0	3.0	3.0	3.0	2.0
Chillicothe, Texas	1.0	1.0	1.0	1.0	1.0	1.0

Table 56. Seed quality scores for the strains in Uniform Group VIII, 1959

Location	Bienville	J.E.W. 45	Yelnanda 53-116	Jackson	La56-8-4	La56-13-4
			Southeast			
Hartsville, S. C.	2.0	2.0	2.0	2.0	2.0	2.0
Blackville, S. C.	1.0	2.3	1.3	2.7	1.0	1.0
Experiment, Ga.	1.3	2.0	2.0	3.0	1.7	1.0
Tallassee, Ala.	2.0	2.0	3.0	3.0	2.0	3.0
Walnut Hill, Fla.	1.0	2.0	1.0	1.5	1.0	1.0
Baton Rouge, La.	1.0	2.0	2.0	3.0	2.0	1.0
			Delta and West			
Stoneville, Miss.	2.3	2.7	3.0	2.7	2.3	3.0
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	1.0
Chillicothe, Texas	3.0	3.0	3.0	3.0	2.0	3.0

Table 55. (continued)

Location	F55-375	F55-377	F55-941	F55-978	F56-3460	F56-3492
			Southeast			
Hartsville, S. C.	2.3	3.2	2.2	2.1	3.0	1.8
Blackville, S. C.	2.0	2.7	2.3	3.3	2.0	1.0
Experiment, Ga.	1.3	1.3	1.7	1.7	1.0	1.0
Tallassee, Ala.	1.5	2.0	2.0	2.0	1.5	1.5
Walnut Hill, Fla.	1.0	2.0	2.0	3.0	1.0	1.0
Baton Rouge, La.	2.0	2.0	3.0	2.0	2.0	1.0
			Delta and West			
Stoneville, Miss.	2.3	4.0	3.0	3.0	3.3	3.0
St. Joseph, La.	2.0	4.0	2.0	2.0	3.0	4.0
Curtis, La.	3.0	3.0	3.0	2.0	2.0	2.0
Chillicothe, Texas	1.0	1.0	1.0	1.0	1.0	1.0

Table 56. (continued)

Location	F55-375	F55-377	F55-941	F55-978	F56-3460	F56-3492
			Southeast			
Hartsville, S. C.	2.0	2.0	4.0	2.0	2.0	2.0
Blackville, S. C.	1.7	2.0	3.0	2.0	2.0	2.0
Experiment, Ga.	2.0	1.3	2.7	2.0	2.0	3.0
Tallassee, Ala.	2.0	2.0	3.0	2.0	3.0	3.0
Walnut Hill, Fla.	1.0	1.0	2.0	1.0	1.0	1.0
Baton Rouge, La.	1.0	2.0	2.0	1.0	3.0	3.0
			Delta and West			
Stoneville, Miss.	2.3	3.0	3.0	2.7	3.0	2.3
St. Joseph, La.	1.0	1.0	3.0	1.0	1.0	2.0
Curtis, La.	1.0	1.0	3.0	2.0	2.0	1.0
Chillicothe, Texas	2.0	3.0	4.0	4.0	3.0	4.0

PRELIMINARY GROUP VIII

1959

Four Preliminary Group VIII nurseries were planted. Bienville and Jackson were included as check varieties along with 34 experimental lines. The parentage of these lines is reported in table 57. The results from 3 nurseries are summarized in table 58 through 63. Table 58 gives a general summary of seed yield, maturity, height, shattering, chemical composition, and reaction to the major diseases.

Of the 3 nurseries grown, Gainesville results have greatest value, since stands were somewhat irregular at Experiment and Stoneville is too far north for best evaluation of growth qualities of Group VIII lines. Among the lines which appear most promising are Co57-225, F57-734, F57-735, F57-784, F57-3882, F57-3968, F58-3726, and F58-3734.

Table 57. Parentage of strains in Preliminary Group VIII, 1959

	Strain	Parentage	Generation Composited
1.	Bienville	Pelican #2 x Ogden	
2.	Jackson	Volstate(2) x Jackson	
3.	Co57-201	Majos x Lee	F_5
4.	Co57-215	Majos x Lee	F_5
5.	Co57-225	Majos x Lee	F_5
6.	Co57-232	Majos x Lee	F_5
7.	Co57-235	Majos x Lee	F_5
8.	Co57-239	Majos x Lee	F_5
9.	Co57-254	Majos x Lee	F_5
10.	Co57-257	Majos x Lee	F_5
11.	F55-889	Jackson x D49-2491	F_4
12.	F57-348	D49-772 x Improved Pelican	F_6
13.	F57-356	D49-772 x Improved Pelican	F_6
14.	F57-626	D49-772 x Improved Pelican	F_6
15.	F57-734	D49-772 x Improved Pelican	F_6
16.	F57-735	D49-772 x Improved Pelican	F_6
17.	F57-741	D49-772 x Improved Pelican	F_6
18.	F57-773	D49-772 x Improved Pelican	F_6
19.	F57-784	D49-772 x Improved Pelican	F_6
20.	F57-1469	D49-2491 x Majos	F_6
21.	F57-1471	D49-2491 x Majos	F_6
22.	F57-1710	D49-2491 x Improved Pelican	F_4
23.	F57-1756	D49-2491 x Improved Pelican	F_4
24.	F57-1814	D49-2491 x Improved Pelican	F_4
25.	F57-1683	D49-2491 x Improved Pelican	F_4
26.	F57-1898	D49-2491 x Improved Pelican	F_4
27.	F57-1956	D49-2491 x Improved Pelican	F_4
28.	F57-3882	D49-2491(2) x Improved Pelican	F_4
29.	F57-3937	D49-2491(2) x Improved Pelican	F_4
30.	F57-3968	D49-2491(2) x Improved Pelican	F_4
31.	F57-3990	D49-2491(2) x Improved Pelican	F_4
32.	F57-4004	D49-2491(2) x Improved Pelican	F_4
33.	F58-3719	D49-772 x Improved Pelican	F_7
34.	F58-3726	D49-772 x Improved Pelican	F_7
35.	F58-3734	D49-772 x Improved Pelican	F_7
36.	F58-3884	D49-772 x D50-1633	F_7

Table 58. General summary of performance for the strains grown in Preliminary Group VIII, 1959

	Seed Yield	Maturity	Ht.	Percent Oil	Percent Protein	Bact Pustule[1]	Target Spot[2]	Shattering[3]
Bienville	29.0	10-31	36	21.9	41.6	3.0	1.5	2.0
Jackson	27.9	-1	35	22.9	39.5-	3.0	1.0	2.0
Co57-201	27.6	+5	36	22.3	40.1	1.0	2.5	1.0
Co57-215	31.9	+1	37	21.4	41.1	1.0	3.5	1.0
Co57-225	31.3	+4	32	22.7	38.7-	1.0	1.5	1.0
Co57-232	24.6	+10	41	21.0	41.7	1.0	4.5	1.0
Co57-235	30.7	+4	37	21.3	40.6	1.0	2.0	1.0
Co57-239	26.5	+7	35	20.9	41.5	1.0	4.0	2.0
Co57-254	27.3	0	35	21.3	40.5	1.0	3.5	1.0
Co57-257	28.1	+6	40	19.9-	43.1	1.0	4.0	1.0
F55-889	33.3	0	40	22.8	39.9	1.0	1.0	1.0
F57-348	27.9	+5	48	21.0	42.0	1.0	1.0	1.0
F57-356	28.9	+2	41	21.5	40.9	1.0	1.0	2.0
F57-626	27.2	-2	42	21.6	40.8	1.0	2.0	1.0
F57-734	31.7	+5	40	20.7-	42.0	1.0	2.0	2.0
F57-735	31.3	+4	39	21.0	42.3	1.0	1.0	1.0
F57-741	27.0	+2	45	21.3	40.1	1.0	1.0	1.0
F57-773	23.6	+4	45	21.0	42.5	1.0	2.5	1.0
F57-784	27.0	+3	52	21.8	41.5	1.0	2.0	1.0
F57-1469	27.8	+2	32	22.2	38.1-	1.0	3.5	1.0
F57-1471	30.2	+3	36	21.7	38.4-	1.0	2.0	1.0
F57-1710	27.7	+2	37	21.3	41.4	1.0	3.0	1.0
F57-1756	24.8	-3	35	20.3-	42.3	1.0	2.5	1.0
F57-1814	27.3	-3	32	21.6	42.1	1.0	1.0	1.0
F57-1683	27.3	0	43	20.0-	42.0	1.0	3.5	1.0
F57-1898	25.3	+1	35	20.7-	41.5	1.0	1.5	1.0
F57-1956	29.0	-3	36	20.9	43.5+	1.0	2.0	1.0
F57-3882	31.6	-2	33	22.3	40.1	1.0	2.5	1.0
F57-3937	28.0	-1	30	20.8	42.8	1.0	2.5	1.0
F57-3968	31.0	+2	33	21.4	41.0	1.0	1.0	1.0
F57-3990	26.7	-2	37	21.9	39.9	1.0	2.5	1.0
F57-4004	26.5	-2	36	22.8	38.9-	1.0	3.0	1.0
F58-3719	28.2	-1	39	20.9	42.4	1.0	2.0	1.0
F58-3726	32.7	+7	41	20.9	41.2	1.0	1.5	1.0
F58-3734	32.0	+5	36	21.5	40.5	1.0	1.0	1.0
F58-3884	26.0	+1	41	20.8	42.3	1.0	1.5	1.0
L.S.D.(.05)	N.S.			1.1	1.7			
L.S.D.(.01)				1.5	2.3			

1/ Stoneville data.
2/ Gainesville data.
3/ Stoneville Data.

Table 59. Seed yield, in bushels per acre, for the strains in Preliminary Group VIII, 1959

Strain	Experiment, Ga.	Gainesville, Fla.	Stoneville, Miss.
Bienville	13.4	37.7	32.8
Jackson	14.2	34.3	35.2
Co57-201	16.9	37.5	28.6-
Co57-215	18.2	39.3	38.3
Co57-225	16.5	38.1	39.4
Co57-232	20.4	29.7	23.8-
Co57-235	16.0	41.5	34.6
Co57-239	25.3	30.1	24.1-
Co57-254	18.5	31.9	31.6
Co57-257	23.1	29.9	31.5
F55-889	12.6	42.1	45.3+
F57-348	18.2	36.1	29.5-
F57-356	11.0	43.2	32.6
F57-626	15.2	36.3	30.0
F57-734	21.0	49.1	25.2-
F57-735	17.2	42.3	34.4
F57-741	16.9	33.4	30.8
F57-773	11.0	37.1	22.8-
F57-784	13.9	41.8	25.2-
F57-1469	10.9	39.2	33.3
F57-1471	16.1	38.7	35.9
F57-1710	13.4	35.7	34.1
F57-1756	14.5	27.0-	32.9
F57-1814	18.4	26.3-	37.1
F57-1683	17.9	37.8	26.3-
F57-1898	14.4	33.7	27.8-
F57-1956	14.8	34.5	37.7
F57-3882	18.6	36.2	40.0
F57-3937	11.8	32.8	39.5
F57-3968	20.5	32.8	39.8
F57-3990	6.8	36.6	36.7
F57-4004	10.4	30.3	38.8
F58-3719	11.0	41.2	32.6
F58-3726	20.8	44.0	33.4
F58-3734	13.4	48.3+	34.2
F58-3884	11.1	38.5	28.3-
L.S.F. (.05)	N.S.	10.2	8.8
C.V.	32%	14%	11%

Table 60. Oil percentage for the strains in Preliminary Group VIII, 1959

Strain	Experiment, Ga.	Gainesville, Fla.	Stoneville, Miss.
Bienville	22.2	23.1	20.5
Jackson	23.3	24.2	21.1
Co57-201	22.4	24.4	20.1
Co57-215	22.2	23.2	18.9
Co57-225	22.8	23.9	21.4
Co57-232	22.6	22.7	17.8
Co57-235	21.6	22.4	19.8
Co57-239	22.2	22.2	18.3
Co57-254	22.5	23.0	19.8
Co57-257	20.7	21.7	17.3
F55-889	23.0	23.6	21.7
F57-348	20.4	22.4	20.1
F57-356	21.1	22.7	20.7
F57-626	21.1	23.0	20.8
F57-734	20.2	21.7	20.3
F57-735	20.5	22.3	20.1
F57-741	21.9	21.5	20.5
F57-773	21.3	22.4	19.2
F57-784	22.1	23.4	20.0
F57-1469	22.5	23.3	20.9
F57-1471	22.1	23.3	19.7
F57-1710	22.4	21.3	20.1
F57-1756	20.7	21.1	19.1
F57-1814	21.5	22.4	20.9
F57-1683	19.6	21.1	19.2
F57-1898	20.7	21.5	19.9
F57-1956	21.4	21.2	20.1
F57-3882	22.9	22.7	21.3
F57-3937	20.5	21.9	19.9
F57-3968	20.8	22.8	20.6
F57-3990	22.4	22.5	20.7
F57-4004	24.0	23.0	21.3
F58-3719	21.0	21.8	19 8
F58-3726	21.1	21.4	20.3
F58-3734	22.4	22.4	19.7
F58-3884	21.1	22.2	19.2

Table 61. Protein percentage for the strains in Preliminary Group VIII, 1959

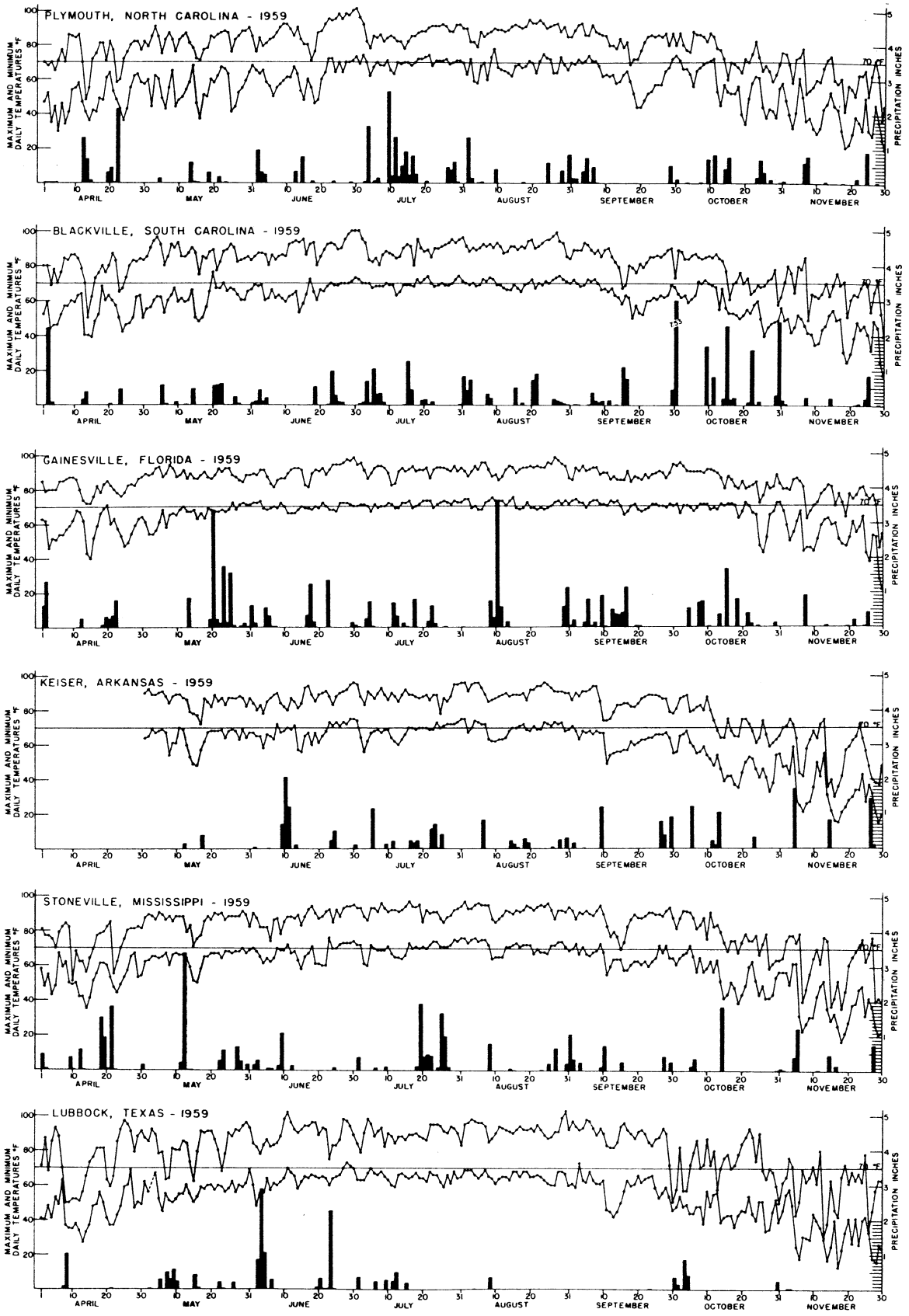
Strain	Experiment, Ga.	Gainesville, Fla.	Stoneville, Miss.
Bienville	41.3	41.5	42.1
Jackson	39.1	39.0	40.3
Co57-201	37.4	40.3	42.7
Co57-215	39.0	41.4	43.0
Co57-225	37.7	39.1	39.2
Co57-232	41.5	40.3	43.2
Co57-235	39.4	40.8	41.5
Co57-239	38.7	42.4	43.4
Co57-254	37.7	41.7	42.2
Co57-257	41.6	43.3	44.3
F55-889	39.3	40.6	39.7
F57-348	41.8	42.1	42.0
F57-356	41.0	41.1	40.6
F57-626	40.4	40.9	41.2
F57-734	41.9	42.6	41.4
F57-735	42.1	42.4	42.3
F57-741	38.8	40.1	41.5
F57-773	40.0	42.8	44.6
F57-784	40.0	41.8	42.7
F57-1469	36.1	39.0	39.3
F57-1471	36.8	38.2	40.2
F57-1710	38.2	42.6	43.4
F57-1756	40.2	42.3	44.3
F57-1814	40.2	43.3	42.8
F57-1683	40.2	42.4	43.3
F57-1898	39.2	41.9	43.3
F57-1956	42.0	44.6	43.8
F57-3882	37.1	41.5	41.7
F57-3937	41.6	43.0	43.8
F57-3968	39.5	41.3	42.1
F57-3990	37.6	40.7	41.5
F57-4004	34.8	40.3	41.1
F58-3719	40.7	43.4	43.2
F58-3726	39.1	42.2	42.3
F58-3734	38.2	40.9	42.3
F58-3884	40.9	42.0	44.1

Table 62. Height data for the strains in Preliminary Group VIII, 1959

Strain	Experiment, Ga.	Gainesville, Fla.	Stoneville, Miss.
Bienville	31	30	46
Jackson	33	25	48
Co57-201	30	32	46
Co57-215	29	35	48
Co57-225	28	31	38
Co57-232	41	39	42
Co57-235	28	31	42
Co57-239	36	27	42
Co57-254	34	32	38
Co57-257	38	34	48
F55-889	33	33	54
F57-348	45	39	60
F57-356	36	33	54
F57-626	37	40	48
F57-734	34	39	48
F57-735	37	35	46
F57-741	44	37	54
F57-773	38	43	54
F57-784	53	44	60
F57-1469	28	30	38
F57-1471	30	35	42
F57-1710	32	33	46
F57-1756	33	26	46
F57-1814	34	21	40
F57-1683	34	40	54
F57-1898	31	31	42
F57-1956	36	25	48
F57-3882	33	29	38
F57-3937	27	24	38
F57-3968	34	24	40
F57-3990	30	32	48
F57-4004	36	29	44
F58-3719	29	33	54
F58-3726	37	39	48
F58-3734	33	35	40
F58-3884	38	38	46

Table 63. Seed quality scores for the strains in Preliminary Group VIII, 1959

Strain	Experiment, Ga.	Gainesville, Fla.	Stoneville, Miss.
Bienville	1.5	1.0	2.5
Jackson	3.0	2.5	2.5
Co57-201	1.5	1.5	3.0
Co57-215	1.5	1.5	3.5
Co57-225	2.0	1.5	2.5
Co57-232	2.0	1.0	3.5
Co57-235	1.5	1.0	3.0
Co57-239	1.5	1.5	4.0
Co57-254	1.5	1.5	3.0
Co57-257	2.5	1.0	3.0
F55-889	2.0	1.0	2.5
F57-348	2.0	2.0	2.5
F57-356	1.5	1.5	3.0
F57-626	1.0	1.0	2.5
F57-734	2.0	1.0	3.0
F57-735	1.5	1.0	3.0
F57-741	1.0	1.0	2.5
F57-773	2.0	1.0	3.0
F57-784	1.5	1.0	3.5
F57-1469	1.5	1.0	2.0
F57-1471	2.0	1.0	3.0
F57-1710	1.0	1.0	3.0
F57-1756	1.0	2.0	2.5
F57-1814	1.5	2.0	2.5
F57-1683	1.0	1.0	3.0
F57-1898	1.0	1.0	2.5
F57-1956	1.0	2.0	2.5
F57-3882	2.0	1.0	2.0
F57-3937	2.0	1.0	2.5
F57-3968	1.0	1.0	2.5
F57-3990	2.0	1.0	3.0
F57-4004	1.5	1.0	2.5
F58-3719	2.0	2.0	3.0
F58-3726	2.0	1.0	2.5
F58-3734	1.0	1.0	3.0
F58-3884	2.0	1.0	3.5


PLYMOUTH, NORTH CAROLINA - 1959
BLACKVILLE, SOUTH CAROLINA - 1959
GAINESVILLE, FLORIDA - 1959
KEISER, ARKANSAS - 1959
STONEVILLE, MISSISSIPPI - 1959
LUBBOCK, TEXAS - 1959
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER