U. S. REGIONAL SOYBEAN LABORATORY
URBANA, ILLINOIS

RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS, 1960 PART II. SOUTHERN STATES

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
CROPS RESEARCH DIVISION
COOPERATING WITH
STATE AGRICULTURAL EXPERIMENT STATIONS

MARCH, 1961
RSLM 207

RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS

PART II. SOUTHERN STATES

1960

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INTRODUCTION

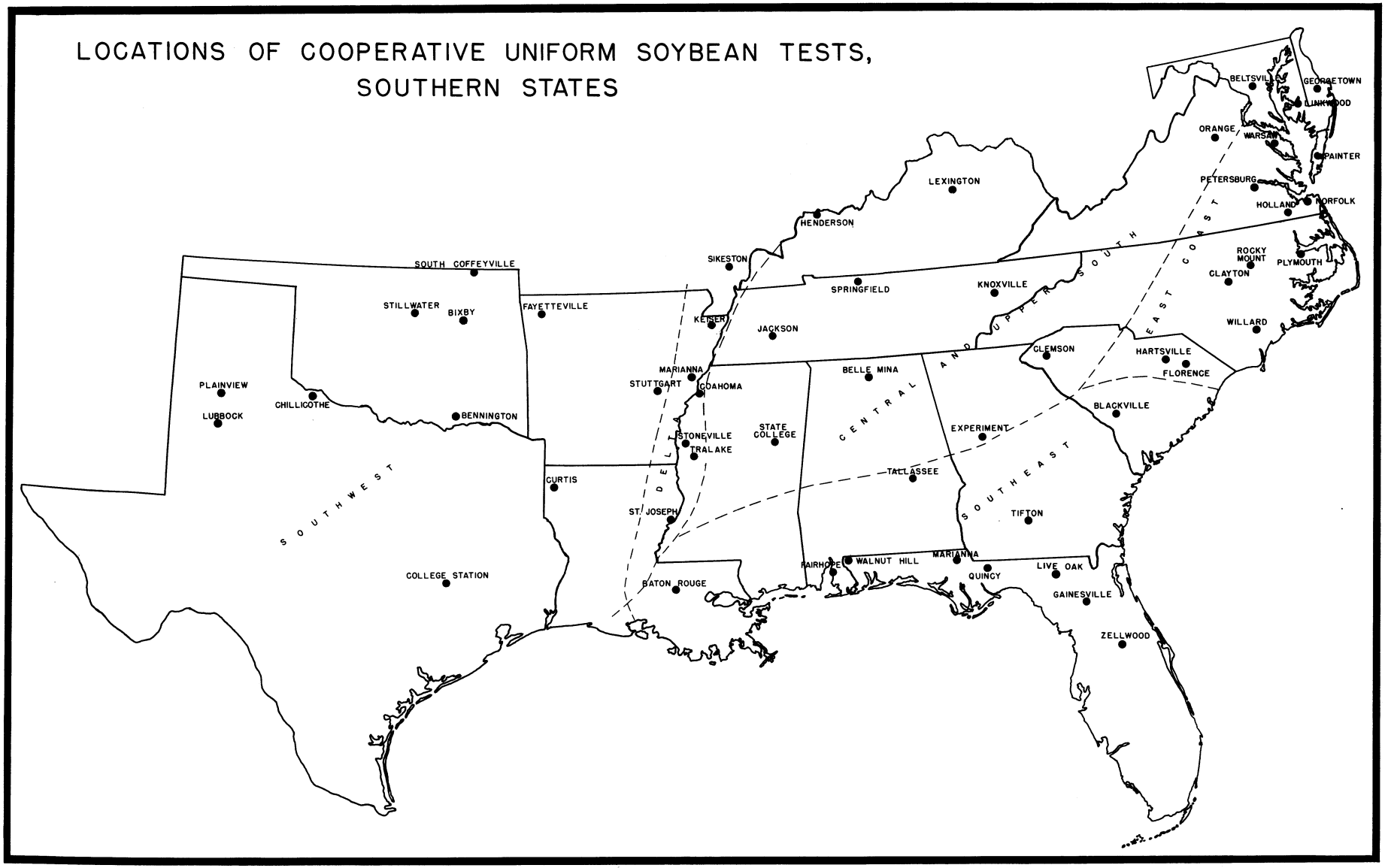
The program of the U. S. Regional Soybean Laboratory has been directed toward the development of improved strains of soybeans and the obtaining of fundamental information necessary to the efficient breeding of strains to meet specific needs. In the Southern Region, fundamental studies and breeding programs 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 O 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 Agricultural Experiment Station.
F - Florida Agric. Expt. Station and U.S. Regional Soybean Laboratory.
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 Agr. Exp. Sta. and U.S. Regional Soybean Laboratory.
S - Missouri Agr. Exp. 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 IV	V	VI	VII	VIII	Soil Type	Soil Analysis P_2O_5	K_2O	pH	Fertilizer[1]	Yield-adapted variety[2]
East Coast											
Georgetown, Del.	1	1				Norfolk sandy loam	H+	M	6.0	0-50-50	37.6 - A
Linkwood, Md.	1	1	1			Sassafras sandy loam	--	-	---	0-38-76	37.0 - A
Warsaw, Va.	1	1	1*			Sassafras sandy loam	H	M	6.5	0-42-42	43.4 - B
Painter, Va.	1	1	1			Sassafras sandy loam	VH	M+	6.0	0-0-0	43.7 - B
Petersburg, Va.		1	1			Norfolk fine sandy loam	H	L	6.3	0-30-60	36.4 - B
Norfolk, Va.		1	1			Woodstown sandy loam	VH	M	5.6	0-84-84	34.2 - B
Holland, Va.		1	1			Woodstown loamy fine sand	H	M	5.5	0-100-100	42.2 - B
Plymouth, N. C.		1	1*			Bladen fine sandy loam	H	H	6.0	0-40-80	39.5 - B
Rocky Mt., N.C.				1		Norfolk sandy loam	H	H	6.2	0-40-80	35.2 - C
Willard, N. C.			1	1*	1	Norfolk sandy loam	VH	M	5.6	0-40-80	39.2 - C
Clayton, N. C.			1	1		Norfolk sandy loam	VH	M	6.0	0-40-80	41.2 - C
Florence, S. C.				1	1*	Norfolk sandy loam					
Hartsville, S. C.			1	1	1	Norfolk sandy loam				9-27-54	48.8 - D
Southeast											
Blackville, S. C.(A)				1*		Norfolk sandy loam	H	M	6.0	0-42-42	37.4 - D
Blackville, S.C.(B)					1	Norfolk sandy loam	VH	M	5.9	0-42-42	36.5 - D
Tallassee, Ala.			1	1	1	Cahaba loamy fine sand				0-42-42	48.8 - D
Tifton, Ga.				1	1	Tifton pebbly loam	116	76	5.7	0-40-80	29.7 - D
Live Oak, Fla.				1	1*	Klej fine sand	26	146	6.2	0-40-80	35.9 - D
Gainesville, Fla.			1	1*	1*	Arredonda fine sand	72	175	5.8	0-40-80	33.7 - D
Quincy, Fla.			1	1	1*	Ruston sandy loam				24-72-72	37.9 - D
Marianna, Fla.				1	1	Ruston sandy loam				24-72-72	
Walnut Hill, Fla.			1*	1*	1	Tifton fine sandy loam	M+	H	5.5	24-72-72	46.3 - D
Fairhope, Ala.			1	1	1	Marlboro fine sandy loam				0-56-56	34.8 - D
Baton Rouge, La.			1	1	1*	Olivier silt loam				15-60-60	41.2 - E
Upper & Central South											
Orange, Va.	1	1				Davidson clay loam	L	M	6.3	50-100-100	36.8 - F
Lexington, Ky.	1	1				Guthrie silt loam	VH	M	5.8	48-48-48	34.1 - F
Springfield, Tenn.	1	1				Dickson silt loam				36-48-48	18.0 - A
Jackson, Tenn.		1	1			Richland silt loam	H	H	6.5	0-60-60	36.5 - B
Belle Mina, Ala.		1	1			Decatur sandy loam				0-40-40	25.6 - A
Clemson, S. C.				1		Cecil sandy loam	L	M	5.6	28-84-84	49.1 - D
Experiment, Ga.		1	1	1*	1*	Lloyd sandy clay loam				20-60-60	26.2 - D
State College, Miss.		1	1	1		Verona fine sandy loam				0-25-75	33.5 - C

Location	Groups Grown IV	V	VI	VII	VIII	Soil Type	Soil Analysis P_2O_5	K_2O	pH	Fertilizer[1]	Yield-adapted variety[2]
Delta											
Henderson, Ky.	1	1				Falaya silt loam	H	VL	6.6	0-0-80	33.2 - A
Sikeston, Mo.	1	1	1*			Dexter sandy loam	132	170	6.2	0-40-40	36.3 - A
Keiser, Ark.(A)	1	1	1			Sharkey clay(overwash)	M	H	7.3		32.9 - B
Keiser, Ark.(B)	1	1	1*			Sharkey clay	M	H	6.2		35.2 - A
Marianna, Ark.	1	1	1			Richland silt loam	H	H	6.3	0-0-40	31.5 - C
Coahoma, Miss.		1	1			Sharkey clay	H	H+	6.1		45.0 - C
Stoneville,Miss.(A)		1	1*	1*	1*	Bosket fine sandy loam	M	H+	6.0		50.0 - C
Stoneville, Miss.(B)	1	1	1*	1		Sharkey clay	H	H+	6.1		48.6 - C
Tralake, Miss.		1	1	1		Forestdale silty clay	M	H	6.0		18.7 - C
St. Joseph, La.		1	1	1	1	Commerce sandy loam					36.3 - C
West											
Stuttgart, Ark.[3]		1	1	1		Crowley silt loam	L	L	7.3	0-46-60	48.7 - C
Curtis, La.		1	1	1	1	Yahola fine sandy loam					52.0 - C
S.Coffeyville,Okla.	1	1				Verdigris silt loam	42	312	6.1		13.3 - A
Bixby, Okla.	1	1	1			Lonoke very fine sandy loam	65	316	7.4		53.0 - B
Milburn, Okla.			1	1		Ochlocknee-Iuka	231	420	7.8		29.2 - C
Chillicothe, Texas			1	1		Abilene loam					
Halfway, Texas[4]		1	1			Amarillo fine clay loam					48.1 - A
Lubbock, Texas[4]		1	1			Amarillo fine sandy loam					25.6 - A
College Station,Texas			1	1	1	Miller clay					29.0 - C

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 July 26, Aug. 8, and Aug. 20.
4/ Irrigated as needed.

METHODS

The uniform nurseries were planted in 4-row plots with 3 replications. All seed was packeted at Stoneville, Mississippi, for planting 19-foot rows. In most cases a 16-foot section was harvested from each of the two center rows. Randomized block designs are used for all groups. Row widths at the different locations vary from 36 to 40 inches. An attempt 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: All strains were packeted at the rate of 175 seeds for planting a 19-foot row. This gives a planting rate of 9 seeds per foot.

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

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 scale of 1 to 5 according to the following criteria:

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

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

Maturity is taken as the date when the pods are dry and most of the leaves have dropped. Under most conditions, the stems are also dry. Maturity in all summaries is expressed as days earlier (-) or later (+) than a standard or reference variety. Reference varieties used for the different Uniform Tests are as follows: Group IV, 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 six weeks after emergence. The estimates are recorded on a scale of 1 to 5 as follows:

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

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

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

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

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

1 - No purple staining.
2 - 1% to 3% purple staining.
3 - 4% to 8% purple staining.
4 - 9% to 19% purple staining.
5 - Over 20% purple staining.

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

UNIFORM GROUP IV

1960

Variety or Strain	Parentage	Generation Composited
1. Perry	Pa:oka x L7-1355	F_7
2. Clark	Lincoln(2) x Richland	F_8
3. Scott	D49-2525 x L6-5679	F_4
4. Kent (C1068)	Lincoln x Ogden	F_7
5. D53-184	D49-2525 x L6-5679	F_5
6. D54-2437	N48-1394 x L6-5679	F_5
7. Bethel (UD321-5)	FC 33243 x Perry	F_5
8. UD36	FC 33243 x Wabash	F_6
9. UD288	Hawkeye x FC 33243	F_6
10. UD672	C799 x FC 33243	F_6
11. S7-5343	Clark(3) x S4-1714	F_3
12. S7-4362	S4-1714 x Clark	F_3

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).

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

S4-1714 is a pustule-resistant line from L49-4091 x Clark. L49-4091 is a pustule-resistant selection from (Lincoln(2) x Richland) x (Lincoln x CNS).

Results of 14 Group IV nurseries are summarized in tables 1 through 7. Table 1 gives a general summary of agronomic qualities, chemical composition, and reaction to diseases. Two- and 3-year data are reported for seed yield and chemical composition.

Two experimental lines, C1068 and UD321-5, have been named Kent and Bethel. Kent has been released by Delaware, Maryland, Indiana, Illinois, and Kansas. A Total of approximately 5000 bushels of seed is available for planting in 1961. Bethel has been released in Delaware and Maryland.

Kent has been included in the Southern Group IV nursery for the past two years but a closely related line, C1069, was tested for four years. Kent has yielded well but is weak in seed holding and produces rather poor quality seed. Since Kent matures approximately nine days later than Clark, it is anticipated that it will escape some of the seed damage suffered by Clark from the pod and stem blight fungus, when grown in the upper East Coast area of Delaware and Maryland.

Bethel is resistant to a species of root-knot nematode, Meloidogyne incognita acrita. This resistance should be of considerable value on root-knot infested soils. Root knot has not been a factor in influencing seed yields in any of the Group IV nurseries during the two years Bethel has been in test.

Additional improvement must be made in seed quality if Group IV strains are to be grown as early varieties in the Southern region. Of the strains now included, D53-184 produces the best quality seed.

Most of these strains have too high a degree of susceptibility to Phytophthora rot to permit successful production on the clay soils of the Delta. D54-2437 has the highest degree of resistance, followed by D53-184 which has field tolerance. The mean yields for Perry, Scott, D53-184, and D54-2437 for eight plantings on clay soil during the past three years are as follows: Perry, 18.4 bushels; Scott, 24.2 bushels; D53-184, 28.0 bushels; and D54-2437, 37.7 bushels per acre.

The two lines S7-5343 and S7-4362 are largely Clark with resistance to bacterial pustule added. In the Delta these two lines averaged approximately two bushels per acre higher in yield than Clark.

Table 1. General summary of performance for the strains in Uniform Group IV, 1960

	Perry	Clark	Scott	Kent	D53-184	D54-2437
Seed Yield - 1960						
East Coast	36.0	33.7	39.1	40.1	36.5	34.8
Upper and Central South	32.5	28.0	26.1	30.4	27.0	24.9
Delta	29.5	29.3	31.9	35.0	34.1	33.7
West	46.7	52.4	48.3	57.4+	43.9	54.5
- 1959-1960						
East Coast	36.1	33.7	36.8	38.6	35.8	36.1
Upper and Central South	35.0	32.7	30.7	33.3	31.0	30.0
Delta	26.5	26.3	29.5	31.4	31.7	33.7
West	37.2	40.4	40.2	43.0	37.7	41.9
- 1958-1960						
East Coast	37.2	36.1	38.9	--	38.3	37.5
Upper and Central South	37.3	35.4	33.1	--	33.7	32.3
Delta	28.5	28.1	31.8	--	33.6	34.9
West	35.1	38.7	37.5	--	36.3	37.8
Oil Content - 1960	22.5	22.7	22.0	22.3	21.9-	21.5-
- 1959-1960	22.4	22.5	21.9	22.3	21.7	21.4
- 1958-1960	22.4	22.5	21.8	--	21.6	21.4
Protein Content - 1960	41.2	40.8	38.7-	40.3-	41.1	40.3-
- 1959-1960	41.5	41.2	38.9	40.6	41.5	40.9
- 1958-1960	41.9	41.5	38.9	--	41.9	41.2
Seed Size	16.9	16.4	14.4-	17.3	13.6-	13.2-
Maturity Index	9-21	-6	+6	+3	+5	+4
Height	35	33	38	35	39	34
Seed Quality[1/]	85	69	62	62	31	54
Bacterial Pustule[2/]	3.0	3.0	1.0	3.0	1.0	1.0
Phytophthora[3/]	3.0	2.5	2.5	2.5	1.5	1.0
Purple Stain[4/]	3.0	3.0	3.0	3.0	1.0	2.0
Shattering[5/]	2.0	2.5	2.7	5.0	1.0	2.5

1/ Percentage of comparisons receiving a quality score of 3 or poorer.
2/ Stoneville data.
3/ Stoneville and Keiser data.
4/ Average of Georgetown, Linkwood, Orange, and Warsaw data.
5/ Warsaw and Stoneville data.

Table 1. (continued)

	Bethel	UD36	UD288	UD672	S7-5343	S7-4362
Seed Yield - 1960						
East Coast	35.9	35.1	37.1	36.4	33.9	33.9
Upper and Central South	23.2	23.0	22.7	26.3	28.7	27.0
Delta	31.7	28.1	28.5	32.2	31.2	31.5
West	37.5-	45.3	36.7-	38.8	52.4	50.4
-1959-1960						
East Coast	35.1					
Upper and Central South	29.0					
Delta	29.1					
West	32.6					
- 1958-1960						
East Coast						
Upper and Central South						
Delta						
West						
Oil Content - 1960	21.1-	21.8-	21.0-	22.9	22.9	23.1+
- 1959-1960	21.0					
- 1958-1960						
Protein Content - 1960	41.7	41.3	41.9	39.6-	40.2-	39.4-
- 1959-1960	42.1					
- 1958-1960						
Seed Size	15.0-	16.0	14.9-	14.7-	14.9-	13.9-
Maturity Index	+3	+1	+8	+3	-6	-6
Height	42	37	40	38	33	33
Seed Quality[1/]	69	69	85	38	62	69
Bacterial Pustule[2/]	4.0	3.0	3.0	4.0	1.0	1.0
Phytophthora[3/]	2.5	3.0	3.0	2.5	2.5	2.5
Purple Stain[4/]	3.0	2.0	4.0	2.0	3.0	3.0
Shattering[5/]	3.0	1.8	1.0	1.3	2.3	2.3

Table 2. Seed yield, in bushels per acre, for the strains in Uniform Group IV, 1960

	Perry	Clark	Scott	Kent	D53-184	D54-2437	Bethel
East Coast							
Georgetown, Del.	28.0	21.1-	34.2+	37.5+	30.5	26.2	30.1
Linkwood, Md.	40.1	40.4	43.2	46.5+	36.8	39.2	38.2
Orange, Va.	36.8	36.8	36.9	35.5	35.0	36.9	36.2
Warsaw, Va.	36.1	29.0-	41.7+	38.8	40.4	30.7-	42.5+
Painter, Va.	38.9	41.3	39.6	42.3	39.9	40.8	32.4-
Mean	36.0	33.7	39.1	40.1	36.5	34.8	35.9
Upper and Central South							
Lexington, Ky.	41.6	34.1	32.3-	37.0	32.6-	29.7-	24.7-
Springfield, Tenn.	23.4	21.9	19.9	23.8	21.4	20.1	21.6
Mean	32.5	28.0	26.1	30.4	27.0	24.9	23.2
Delta							
Henderson, Ky.	33.6	37.3	30.6	41.6+	32.9	28.3-	31.1
Sikeston, Mo.	37.4	37.6	37.6	40.4	38.0	35.0	35.6
Keiser, Ark. (A)	32.9	25.1-	25.6-	32.7	31.2	30.8	29.5
Keiser, Ark. (B)	18.4	20.6	24.7	28.3+	24.3	32.2+	25.1
Marianna, Ark.	29.1	28.5	33.1	32.1	31.1	33.8	35.5
Stoneville, Miss. (B)	25.5	26.5	39.8+	35.1+	46.9+	42.2+	33.5+
Mean	29.5	29.3	31.9	35.0	34.1	33.7	31.7
West							
Bixby, Okla.	46.7	52.4	48.3	57.4+	43.9	54.5	37.5-

(+) - 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)

	UD36	UD288	UD672	S7-5343	S7-4362	L.S.D. (.05)	C.V.
			East Coast				
Georgetown, Del.	26.5	32.6	33.9	27.6	26.8	6.1	12%
Linkwood,Md.	37.6	32.4-	39.4	40.2	39.3	5.1	8%
Orange, Va.	36.4	39.2	34.2	35.2	36.4	N.S.	7%
Warsaw, Va.	39.2	46.0+	39.4	27.5	27.5	4.9	8%
Painter, Va.	35.6	35.5	34.8-	39.2	39.4	3.5	5%
Mean	35.1	37.1	36.4	33.9	33.9	N.S.	
			Upper and Central South				
Lexington, Ky.	25.0-	23.8-	32.9-	35.9	31.8-	8.0	15%
Springfield, Tenn.	22.7	21.6	19.7	21.4	22.3	N.S.	11%
Mean	23.9	22.7	26.3	28.7	27.0	N.S.	
			Delta				
Henderson, Ky.	28.6-	26.9-	35.1	34.3	35.6	4.2	8%
Sikeston, Mo.	34.5	33.5	30.8-	42.0+	40.8	4.5	7%
Keiser, Ark. (A)	28.6	25.6-	29.1	24.1-	25.5-	4.4	9%
Keiser, Ark. (B)	23.1	15.3	25.1	21.9	24.0	6.8	17%
Marianna, Ark.	25.8	33.3	36.2	35.5	32.7	N.S.	12%
Stoneville, Miss. (B)	27.7	36.4+	36.8+	29.4	30.6+	4.7	8%
Mean	28.1	28.5	32.2	31.2	31.5	N.S.	
			West				
Bixby, Okla.	45.3	36.7-	38.8	52.4	50.4	8.8	11%

Table 3. Chemical composition and seed size for the strains in Uniform Group IV, 1960

Location	Perry	Clark	Scott	Kent	D53-184	D54-2437
			Oil Percentage			
Linkwood, Md.	21.8	22.0	21.0	21.7	21.1	21.1
Warsaw, Va.	22.0	22.2	21.6	22.4	21.8	21.6
Henderson, Ky.	21.3	22.5	20.7	22.1	20.3	20.8
Sikeston, Mo.	22.5	23.1	21.8	22.5	22.0	21.3
Keiser, Ark. (B)	22.4	22.8	21.7	21.4	21.7	21.3
Marianna. Ark.	25.3	24.3	25.0	24.1	25.2	23.7
Stoneville, Miss.(B)	22.7	22.7	22.8	22.4	22.3	21.8
Bixby, Okla.	21.6	21.7	21.4	22.1	20.7	20.4
Mean	22.5	22.7	22.0	22.3	21.9-	21.5-
			Protein Percentage			
Linkwood, Md.	40.6	40.5	38.2	40.0	41.0	40.4
Warsaw, Va.	43.1	43.1	39.4	41.7	41.7	41.2
Henderson, Ky.	43.8	43.8	41.0	42.2	43.7	41.3
Sikeston, Mo.	40.4	41.2	40.5	41.7	42.6	41.6
Keiser, Ark. (B)	42.2	39.8	37.7	40.5	41.5	41.3
Marianna, Ark.	38.5	37.9	36.0	37.0	37.3	38.0
Stoneville, Miss.(B)	39.3	39.0	37.2	38.5	40.1	38.4
Bixby, Okla.	41.6	41.2	39.2	40.7	41.0	40.1
Mean	41.2	40.8	38.7-	40.3-	41.1	40.3-
			Grams Per 100 Seeds			
Linkwood, Md.	18.0	19.2	15.4	19.4	14.7	14.9
Warsaw, Va.	19.3	18.0	15.3	17.3	14.0	13.0
Henderson, Ky.	16.6	15.4	13.0	17.6	12.5	12.3
Keiser, Ark. (B)	17.7	15.3	14.0	17.7	13.7	12.7
Marianna, Ark.	15.7	14.0	13.0	14.7	12.3	13.0
Stoneville, Miss.(B)	12.6	12.6	13.6	14.3	13.7	12.9
Bixby, Okla.	18.3	20.4	16.8	19.9	14.1	13.5
Mean	16.9	16.4	14.4-	17.3	13.6-	13.2-

Table 3. (continued)

Location	Bethel	UD36	UD288	UD672	S7-5343	S7-4362	L.S.D. (.05)
			Oil Percentage				
Linkwood, Md.	20.7	21.2	20.3	22.6	22.2	22.5	
Warsaw, Va.	21.5	22.4	21.2	23.1	21.7	22.0	
Henderson, Ky.	20.0	20.2	18.8	21.7	21.9	22.3	
Sikeston, Mo.	21.2	22.3	21.2	21.8	23.6	23.5	
Keiser, Ark. (B)	20.5	19.7	21.3	22.9	22.9	22.7	
Marianna, Ark.	23.0	24.4	23.3	25.5	25.4	26.0	
Stoneville, Miss. (B)	21.4	22.5	21.7	23.5	23.1	23.1	
Bixby, Okla.	20.2	21.5	20.3	21.8	22.3	22.3	
Mean	21.1-	21.8-	21.0-	22.9	22.9	23.1+	0.5
			Protein Percentage				
Linkwood, Md.	41.5	40.9	42.3	40.1	40.3	39.4	
Warsaw, Va.	42.4	40.8	42.4	40.3	42.4	40.9	
Henderson, Ky.	44.2	44.5	45.9	42.4	43.6	42.9	
Sikeston, Mo.	43.2	43.7	43.3	41.8	39.6	40.1	
Keiser, Ark. (B)	41.8	42.2	40.7	36.8	39.1	37.9	
Marianna, Ark.	37.9	37.9	38.9	37.3	37.1	36.6	
Stoneville, Miss. (B)	39.7	39.1	39.8	37.4	38.7	37.6	
Bixby, Okla.	42.6	41.1	42.1	40.5	40.5	40.0	
Mean	41.7	41.3	41.9	39.6-	40.2-	39.4-	0.8
			Grams Per 100 Seeds				
Linkwood, Md.	16.7	17.7	17.5	16.9	16.4	15.3	
Warsaw, Va.	16.3	17.7	17.3	16.0	17.0	15.3	
Henderson, Ky.	13.9	15.6	13.6	14.5	13.8	13.5	
Keiser, Ark. (B)	14.3	14.3	13.3	12.7	14.0	13.0	
Marianna, Ark.	14.3	15.3	13.7	14.3	14.3	13.0	
Stoneville, Miss. (B)	13.7	14.5	15.1	14.5	12.1	11.4	
Bixby, Okla.	15.7	16.8	14.0	14.0	16.9	15.8	
Mean	15.0-	16.0	14.9-	14.7-	14.9-	13.9-	1.2

Table 4. Relative maturity data, days earlier (-) or later (+) than Perry, for the strains in Uniform Group IV, 1960

Location	Date Planted	Perry Matured	Clark	Scott	Kent	D53-184
		East Coast				
Georgetown, Del.	6-7	10-10	-2	+6	+7	+5
Linkwood, Md.	5-19	9-20	-6	+8	+1	+8
Orange, Va.	5-23	9-29	-8	0	+2	+2
Warsaw, Va.	5-20	9-27	-5	+2	0	+6
Mean		9-29	-5	+4	+3	+5
		Upper and Central South				
Lexington, Ky.	5-24	10-1	-6	+3	0	+4
		Delta				
Henderson, Ky.	5-17	9-21	-7	+7	+2	+3
Sikeston, Mo.	5-14	9-13	-5	+5	0	+5
Keiser, Ark. (A)	5-4	9-22	-11	+10	-2	+5
Keiser, Ark. (B)	4-25	9-21	-15	0	-5	0
Marianna, Ark.	5-16	9-12	-8	+11	+4	+11
Stoneville, Miss. (B)	5-3	9-3	-1	+9	+5	+10
Mean		9-15	-8	+7	+4	+6
		West				
Bixby, Okla.	5-13	9-15	-2	+4	-4	+2

Table 4. (continued)

Location	D54-2437	Bethel	UD36	UD288	UD672	S7-5343	S7-4362
			East Coast				
Georgetown, Del.	+4	+3	+3	+7	+?	-1	-2
Linkwood, Md.	+6	+6	+7	+13	+6	-7	-6
Orange, Va.	0	+2	-4	0	-1	-7	-5
Warsaw, Va.	+9	+6	0	+10	+6	-6	-5
Mean	+5	+4	+2	+10	+4	-5	-5
			Upper and Central South				
Lexington, Ky.	+1	0	+1	+5	0	-9	-9
			Delta				
Henderson, Ky.	+4	+3	+5	+12	+10	-6	-6
Sikeston, Mo.	+5	+2	+1	+2	+4	-5	-4
Keiser, Ark. (A)	0	0	+3	+7	-4	-8	-8
Keiser, Ark. (B)	0	-1	-2	0	-2	-15	-14
Marianna, Ark.	+11	+6	-6	+3	-1	-7	-7
Stoneville, Miss. (B)	+12	+7	+1	+12	+12	-1	-1
Mean	+5	+3	0	+6	+3	-7	-7
			West				
Bixby, Okla.	+1	+4	-1	+13	+2	-3	-2

Table 5. Height data for the strains in Uniform Group IV, 1960

Location	Perry	Clark	Scott	Kent	D53-184	D54-2437
			East Coast			
Georgetown, Del.	36	32	38	40	42	37
Linkwood, Md.	41	39	41	41	42	40
Orange, Va.	38	36	42	36	44	35
Warsaw, Va.	28	27	33	30	36	26
Painter, Va.	38	38	40	39	44	38
Mean	36	34	39	37	42	35
			Upper and Central South			
Lexington, Ky.	41	42	43	44	44	36
Springfield, Tenn.	39	35	39	33	41	33
Mean	40	39	41	39	43	35
			Delta			
Henderson, Ky.	42	42	43	41	48	34
Sikeston, Mo.	45	43	51	44	51	47
Keiser, Ark. (A)	34	28	40	32	32	32
Keiser, Ark. (B)	24	27	29	28	30	30
Marianna, Ark.	36	37	38	35	40	38
Stoneville, Miss. (B)	36	37	37	39	38	39
Mean	36	36	40	37	40	37
			West			
Bixby, Okla.	42	38	47	38	47	37

Table 5. (continued)

Location	Bethel	UD36	UD288	UD672	S7-5343	S7-4362
			East Coast			
Georgetown, Del.	43	35	42	39	36	35
Linkwood, Md.	47	42	47	42	39	39
Orange, Va.	47	42	45	37	36	37
Warsaw, Va.	39	33	38	32	26	28
Painter, Va.	45	43	42	39	38	38
Mean	44	39	43	38	35	35
			Upper and Central South			
Lexington, Ky.	50	46	47	44	38	39
Springfield, Tenn.	43	35	40	35	34	33
Mean	47	41	44	40	36	36
			Delta			
Henderson, Ky.	50	44	50	44	41	43
Sikeston, Mo.	54	46	49	49	44	46
Keiser, Ark. (A)	42	36	36	39	31	29
Keiser, Ark. (B)	36	36	33	33	24	25
Marianna, Ark.	42	36	42	38	38	36
Stoneville, Miss. (B)	43	43	43	47	33	36
Mean	45	40	42	42	35	36
			West			
Bixby, Okla.	51	44	48	46	38	39

Table 6. Lodging scores for the strains in Uniform Group IV, 1960

Location	Perry	Clark	Scott	Kent	D53-184	D54-2437
			East Coast			
Georgetwon, Del.	1.3	1.7	1.7	1.0	3.0	2.0
Linkwood, Md.	3.0	3.0	3.0	2.0	3.0	3.0
Orange, Va.	1.3	1.0	2.0	1.3	1.7	1.0
Warsaw, Va.	1.0	1.0	1.0	1.0	1.3	1.0
Painter, Va.	2.7	3.3	3.0	3.3	3.0	3.7
			Upper and Central South			
Lexington, Ky.	1.6	2.2	3.2	1.6	2.3	1.6
Springfield, Tenn.	1.0	1.0	1.0	1.0	1.0	1.0
			Delta			
Henderson, Ky.	3.0	2.3	3.6	3.0	3.6	1.0
Sikeston, Mo.	1.7	1.1	2.0	1.1	2.0	1.2
Keiser, Ark. (A)	2.0	1.3	3.0	2.0	2.3	2.3
Keiser, Ark. (B)	1.0	1.0	1.0	1.0	2.3	1.7
Marianna, Ark.	2.0	1.7	2.3	1.0	2.0	1.7
Stoneville, Miss. (B)	3.0	2.0	3.7	2.0	3.0	2.3
			West			
Bixby, Okla.	2.0	2.0	2.7	2.0	3.3	2.0

Table 6. (continued)

Location	Bethel	UD36	UD288	UD672	S7-5343	S7-4362
			East Coast			
Georgetown, Del.	2.3	2.7	2.3	1.7	1.7	1.7
Linkwood, Md.	3.0	3.0	4.0	2.0	3.0	3.0
Orange, Va.	2.0	3.0	2.0	1.0	1.0	1.0
Warsaw, Va.	1.7	1.0	1.0	1.0	1.0	1.0
Painter, Va.	3.0	4.0	3.3	2.3	3.0	3.7
			Upper and Central South			
Lexington, Ky.	2.5	4.3	3.3	1.6	1.0	1.0
Springfield, Tenn.	1.0	1.0	1.0	1.0	2.0	2.0
			Delta			
Henderson, Ky.	3.5	4.6	3.6	2.6	3.0	3.0
Sikeston, Mo.	3.3	3.2	2.0	1.2	1.1	1.3
Keiser, Ark. (A)	3.3	3.7	2.3	2.3	2.3	1.7
Keiser, Ark. (B)	1.0	2.0	1.0	1.0	1.7	1.7
Marianna, Ark.	3.0	2.3	2.3	1.0	1.7	1.7
Stoneville, Miss. (B)	4.0	4.3	3.7	3.3	2.0	2.3
			West			
Bixby, Okla.	3.0	3.3	3.0	2.3	2.0	3.3

Table 7. Seed quality scores for the strains in Uniform Group IV, 1960

Location	Perry	Clark	Scott	Kent	D53-184	D54-2437
			East Coast			
Georgetown, Del.	3.0	4.0	3.0	3.0	3.0	3.0
Linkwood, Md.	3.0	3.0	3.0	3.0	3.0	3.0
Orange, Va.	4.0	2.0	2.0	1.5	1.0	1.0
Warsaw, Va.	4.5	4.0	3.0	3.0	2.0	2.5
Painter, Va.	3.7	3.3	4.0	4.0	3.3	3.7
			Upper and Central South			
Lexington, Ky.	2.0	2.0	2.0	2.5	2.0	1.0
			Delta			
Henderson, Ky.	3.0	4.0	3.0	3.0	2.0	2.5
Sikeston, Mo.	3.0	2.0	2.0	2.5	1.5	1.5
Keiser, Ark. (A)	2.7	3.0	4.0	2.7	3.0	3.0
Keiser, Ark. (B)	4.0	3.0	2.7	3.0	2.7	3.0
Marianna, Ark.	4.7	4.3	3.3	4.0	2.3	3.3
Stoneville, Miss. (B)	4.0	3.3	3.3	4.0	2.0	3.0
			West			
Bixby, Okla.	3.0	2.0	2.0	2.0	1.0	1.0

Table 7. (continued)

Location	Bethel	UD36	UD288	UD672	S7-5343	S7-4362
			East Coast			
Georgetown, Del.	3.0	4.0	3.0	2.0	3.0	3.0
Linkwood, Md.	3.0	3.0	3.0	3.0	3.0	3.0
Orange, Va.	2.0	2.0	3.0	2.0	2.5	1.5
Warsaw, Va.	3.5	2.5	3.5	2.5	4.0	4.0
Painter, Va.	3.3	3.7	4.0	3.0	3.3	4.0
			Upper and Central South			
Lexington, Ky.	2.0	2.0	3.0	1.0	2.0	2.0
			Delta			
Henderson, Ky.	3.0	3.0	3.0	2.0	4.0	4.0
Sikeston, Mo.	2.0	3.5	2.5	2.0	2.0	2.0
Keiser, Ark. (A)	4.0	4.0	4.0	3.0	3.0	2.7
Keiser, Ark. (B)	3.3	3.7	4.0	2.3	2.3	3.0
Marianna, Ark.	3.0	4.0	3.0	3.3	3.0	3.7
Stoneville, Miss. (B)	3.7	4.0	3.0	3.0	3.0	3.0
			West			
Bixby, Okla.	2.0	3.0	2.0	2.0	2.0	3.0

UNIFORM GROUP V

1960

	Variety or Strain	Parentage	Generation Composited
1.	Hill	D632-15 x D49-2525	F_5
2.	Dorman	Dunfield x Arksoy	F_6
3.	D55-8144	Dorman x N48-1515	F_5
4.	Md55-49	Wabash x Ogden	F_8
5.	D56-1231	Perry x Lee	F_5
6.	S4-7346		F_5
7.	PI 96,983	Introduction from Korea - 1932	
8.	D56-3	Dorman(4) x N48-1515	F_3
9.	D56-1087	D51-5108 x Dorman	F_5
10.	D56-1131	D51-5108 x Dorman	F_5
11.	R57-18	Dorman x D49-2477	F_6
12.	S6-7413	D49-2491 x L3-2010	F_4

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.

D49-2477, D49-2491, and D49-2525 are sister strains to Lee.

N48-1515 is a pustule-resistant line selected from Roanoke x N45-745. N48-1515 was included in Uniform Group VI for the years 1951-1953.

D51-5108 is a selection from D49-772 which was selected from the cross Roanoke x N45-745. Both D49-772 and D51-5108 have been tested in Uniform Group VII.

L3-2010 is a high oil line of Group IV maturity.

Results of 28 Group V nurseries are summarized in tables 8 through 14. Table 8 gives a general summary of seed yields, agronomic qualities, chemical composition, and disease reactions. Two- and 3-year data are reported for seed yield and oil and protein percentages.

Differences among strains were significant in 20 of the 28 nurseries grown. There was a significant variety x location interaction within each production area.

D55-8144 and Md55-49 have each been grown three years. In each of the years D55-8144 has produced yields above those for Hill in each production area. It has very high oil content and relatively low protein content. D55-8144 is the latest maturing line in Group V. In the Northern plantings it is of approximately the same maturity as Hood. Because of its maturity, D55-8144 should perhaps be compared more directly with Hood. It appears desirable to include it in the 1961 Uniform Group VI nursery. Md55-49 has an indeterminate growth type. This strain has produced satisfactorily, but in each of the years that it has been in test, it has had a relatively high rating for purple seed stain at one or more locations.

D56-1231 and S4-7346 have each been tested two years. Both strains average a week later in maturity than Hill. D56-1231 has averaged somewhat higher in yield than Hill in the East Coast and Western areas. Oil percentage is similar to that for Hill but protein percentage is higher.

PI 96,983 was included to obtain additional information on this high protein line which is being used as a parent in the breeding program. The mean protein percentage for the 10 locations analyzed was 45.9. PI 96,983 is very susceptible to several of the foliar diseases.

D56-3, which is essentially Dorman with resistance to bacterial pustule, averages slightly higher in yield than Dorman in the East Coast, Delta, and West production areas. Field appearance was similar. The other four new strains all gave a satisfactory performance.

Table 8. General summary of performance for the strains in Uniform Group V, 1960

	Hill	Dorman	D55-8144	Md55-49	D56-1231	S4-7346
Seed Yield - 1960						
East Coast	37.1	36.4	42.4+	39.9+	38.1	35.3
Upper & Central South	27.0	27.4	28.8	28.8	27.0	28.2
Delta	34.8	33.7	37.3	33.5	36.8	36.0
West	44.3	40.5	46.5	39.2	44.8	40.9
- 1959-60						
East Coast	37.0	36.2	42.2	38.9	39.0	37.2
Upper & Central South	26.6	26.8	30.2	29.2	28.3	28.5
Delta	35.0	32.7	38.3	35.4	35.7	35.2
West	36.6	34.4	40.6	35.8	39.1	35.0
- 1958-60						
East Coast	37.7	37.2	41.5	38.7		
Upper & Central South	25.7	25.1	28.6	27.8		
Delta	35.7	32.9	39.2	36.6		
West	34.3	33.0	38.1	33.0		
Oil Content - 1960	21.7	21.8	23.3+	22.6+	21.8	21.7
- 1959-60	21.6	21.8	23.1	22.4	21.7	21.9
- 1958-60	21.5	21.6	23.0	22.5		
Protein Content - 1960	39.8	39.1-	38.3-	40.3	41.6+	41.4+
- 1959-60	39.8	39.2	38.3	40.1	41.3	41.6
- 1958-60	40.0	39.5	38.3	40.2		
Seed Size	12.7	13.5+	15.1+	15.4+	14.5+	15.1+
Maturity Index	9-30	+2	+7	+7	+7	+7
Height	33	37	38	46	31	29
Bacterial Pustule[1/]	1.0	3.0	1.0	3.0	1.0	1.0
Purple Seed Stain[2/]	1.0	2.0	1.0	3.0	1.0	1.0
Shattering[3/]	1.0	1.5	1.0	2.0	1.0	1.0

1/ Stoneville
2/ Average of 6 locations.
3/ Average of 3 locations.

Table 8. (continued)

	PI 96,983	D56-3	D56-1087	D56-1131	R57-18	S6-7413
Seed Yield - 1960						
East Coast	33.8-	37.3	40.8+	39.0	39.8+	36.2
Upper & Central South	23.0-	26.2	28.2	26.3	26.1	28.7
Delta	29.1-	34.4	36.9	37.1	36.8	36.6
West	36.3	43.1	44.6	47.0	39.3	40.9
- 1959-60						
East Coast						
Upper & Central South						
Delta						
West						
- 1958-60						
East Coast						
Upper & Central South						
Delta						
West						
Oil Content - 1960	16.8-	21.3-	20.6-	20.9-	21.9	22.4+
- 1959-60						
- 1958-60						
Protein Content - 1960	45.9+	40.2	40.7+	41.1+	39.9	38.8-
- 1959-60						
- 1958-60						
Seed Size	17.0+	15.1+	13.3	14.6+	14.5+	14.0
Maturity Index	+3	+4	+7	+5	+2	+6
Height	33	37	38	39	35	35
Bacterial Pustule[1/]	4.0	1.0	1.0	1.0	1.0	1.0
Purple Seed Stain[2/]	1.0	2.0	1.0	1.0	2.0	1.0
Shattering	2.0	1.0	1.0	1.0	1.5	1.0

Table 9. Seed yield, in bushels per acre, for the strains in Uniform Group V, 1960

Location	Hill	Dorman	D55-8144	Md55-49	D56-1231	S4-7346	PI 96,983
East Coast							
Georgetown, Del.	37.6	37.9	42.6	43.4	40.3	36.3	38.4
Linkwood, Md.	37.0	44.1+	44.7+	40.9	40.2	35.1	38.5
Warsaw, Va.	41.1	36.2-	45.4+	40.3	39.4	39.2	33.2-
Painter, Va.	39.0	36.4	42.8	40.2	36.7	34.5-	32.6-
Petersburg, Va.	36.1	32.7	36.9	41.3	36.6	24.9-	32.2
Norfolk, Va.	30.9	32.7	39.9	39.7	36.3	34.0	32.6
Holland, Va.	38.1	36.3	42.6	35.6	34.6	40.5	31.7-
Plymouth, N. C.	35.6	33.8	42.9+	36.6	39.2	35.9	29.9-
Mean	37.1	36.4	42.4+	39.9+	38.1	35.3	33.8-
Upper and Central South							
Orange, Va.	27.9	30.9	33.2	35.6+	28.1	34.8+	24.6
Lexington, Ky.	31.2	31.5	31.9	29.3	32.6	38.2+	25.7-
Springfield, Tenn.	18.4	16.0	19.7	18.8	18.2	15.6	13.6
Jackson, Tenn.	35.3	34.5	32.7	30.5	29.9	30.4	33.9
Belle Mina, Ala.	25.6	27.0	25.1	29.0	25.9	23.0	23.2
Experiment, Ga.	16.2	16.7	23.7+	18.6	18.1	19.2	16.2
State College, Miss.	34.8	35.2	35.2	39.8	35.9	36.4	24.0-
Mean	27.0	27.4	28.8	28.8	27.0	28.2	23.0-
Delta							
Henderson, Ky.	33.2	35.1	39.2+	31.5	36.5	36.6	28.9-
Sikeston, Mo.	36.3	34.3	35.3	41.1	40.1	37.9	30.0
Keiser, Ark. (A)	25.6	31.0	31.3	28.4	31.4	26.6	21.8
Keiser, Ark. (B)	35.2	36.0	30.5	31.9	24.8-	26.6-	28.3-
Marianna, Ark.	39.4	30.9-	45.3	32.3	40.6	45.8	31.4-
Stoneville, Miss. (A)	34.9	34.8	40.2	36.5	38.7	38.8	31.1
Stoneville, Miss. (B)	43.3	38.7	48.5+	40.3	51.4+	48.9+	39.8
Tralake, Miss.	17.4	14.6	15.9	11.2-	19.0	13.2-	13.7-
St. Joseph, La.	48.1	47.9	49.3	48.1	48.7	49.4	36.5-
Mean	34.8	33.7	37.3	33.5	36.8	36.0	29.1-
West							
Stuttgart, Ark.	39.8	38.9	44.7	47.4+	39.4	43.4	39.7
Curtis, La.	41.7	40.0	50.3	37.1	50.1	41.8	31.5-
Bixby, Okla.	47.5	38.7-	42.7	22.2-	41.8	37.1-	36.9-
Halfway, Texas	48.1	44.5	48.1	50.0	47.7	41.3	37.1
Mean	44.3	40.5	46.5	39.2	44.8	40.9	36.3

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

Table 9. (continued)

Location	D56-3	D56-1087	D56-1131	R57-18	S6-7413	L.S.D. (.05)	C.V.
			East Coast				
Georgetown, Del.	36.4	43.7	43.3	35.4	37.0	N.S.	12%
Linkwood, Md.	43.4+	45.6+	37.6	44.0+	42.9+	4.4	6%
Warsaw, Va.	38.3-	41.3	41.0	41.8	39.4	2.5	4%
Painter, Va.	37.3	41.4	39.6	39.0	37.3	4.2	7%
Petersburg, Va.	35.7	38.3	35.9	39.8	26.2-	6.1	10%
Norfolk, Va.	34.8	32.5	35.5	37.6	28.8	N.S.	12%
Holland, Va.	35.8	42.8	37.6	38.4	39.2	5.7	9%
Plymouth, N.C.	35.4	39.5+	40.5+	41.0+	37.7	3.5	6%
Mean	37.3	40.8+	39.0	39.8+	36.2	2.7	
			Upper and Central South				
Orange, Va.	28.0	31.5	27.0	30.2	32.9	5.4	10%
Lexington, Ky.	27.0	35.3	34.1	29.8	32.8	5.1	10%
Springfield, Tenn.	17.3	17.8	16.9	16.4	14.5	5.6	12%
Jackson, Tenn.	34.6	33.4	30.1	32.7	36.7	N.S.	15%
Belle Mina, Ala.	24.5	26.9	26.2	20.6	29.1	N.S.	17%
Experiment, Ga.	16.6	20.6+	15.3	17.1	20.5+	4.3	14%
State College, Miss.	35.3	32.0	34.3	36.3	34.7	5.9	10%
Mean	26.2	28.2	26.3	26.1	28.7	2.7	
			Delta				
Henderson, Ky.	32.1	36.0	36.5	32.9	33.5	4.2	7%
Sikeston, Mo.	34.6	36.5	36.8	35.3	36.3	N.S.	13%
Keiser, Ark. (A)	27.1	34.5	31.9	32.5	30.1	N.S.	16%
Keiser, Ark. (B)	35.4	34.1	38.5	40.3+	36.5	4.9	9%
Marianna, Ark.	37.2	39.1	37.0	40.2	43.9	7.6	12%
Stoneville, Miss. (A)	37.7	35.9	40.4	37.7	38.7	N.S.	10%
Stoneville, Miss. (B)	42.5	49.4+	46.5	45.3	51.6+	4.7	6%
Tralake, Miss.	13.6-	17.7	16.6	15.8	13.4-	3.5	13%
St. Joseph, La.	49.6	48.8	49.1	51.5	45.1	7.1	9%
Mean	34.4	36.9	37.1	36.8	36.6	2.9	
			West				
Stuttgart, Ark.	41.7	43.7	42.2	39.5	37.6	5.0	7%
Curtis, La.	38.9	47.2	44.1	29.9-	37.2	9.0	13%
Bixby, Okla.	45.4	36.7-	47.6	42.3	41.3	7.7	11%
Halfway, Texas	46.3	50.9	54.1	45.4	47.7	N.S.	12%
Mean	43.1	44.6	47.0	39.3	40.9	N.S.	

Table 10. Chemical composition and seed size for the strains in Uniform Group V, 1960

Location	Hill	Dorman	D55-8144	Md55-49	D56-1231	S4-7436
			Oil Percentage			
Linkwood, Md.	20.3	20.3	22.3	22.4	20.7	20.5
Warsaw, Va.	21.3	21.8	22.9	22.2	21.8	22.2
Plymouth, N. C.	22.2	22.2	23.4	21.7	21.9	21.2
Henderson, Ky.	20.1	21.0	22.3	21.8	21.1	21.1
Sikeston, Mo.	22.8	23.3	24.2	23.1	22.7	22.7
Keiser, Ark. (B)	21.2	21.9	23.7	22.6	22.0	21.5
Stoneville, Miss. (A)	23.1	22.0	24.2	24.4	23.0	23.5
Stoneville, Miss. (B)	21.9	22.3	24.1	23.1	21.5	21.6
Stuttgart, Ark.	22.6	23.1	24.1	23.6	23.0	22.0
Bixby, Okla.	21.1	20.4	21.3	20.8	20.7	21.0
Mean	21.7	21.8	23.3+	22.6+	21.8	21.7
			Protein Percentage			
Linkwood, Md.	39.5	38.9	37.4	39.8	41.1	41.7
Warsaw, Va.	38.7	38.6	37.4	40.2	41.5	40.8
Plymouth, N. C.	41.1	39.5	38.7	42.4	42.4	42.1
Henderson, Ky.	42.3	40.3	40.1	41.3	42.6	42.4
Sikeston, Mo.	38.6	37.0	37.4	39.8	41.1	40.0
Keiser, Ark. (B)	39.0	38.4	36.5	39.2	39.7	40.9
Stoneville, Miss. (A)	41.0	41.7	39.3	39.5	40.9	41.7
Stoneville, Miss. (B)	38.8	39.4	38.1	39.0	41.6	40.3
Stuttgart, Ark.	39.0	38.0	38.1	39.5	42.8	41.9
Bixby, Okla.	40.0	39.2	39.8	41.9	42.0	42.1
Mean	39.8	39.1-	38.3-	40.3	41.6+	41.4+
			Grams Per 100 Seed			
Linkwood, Md.	13.0	14.3	16.4	17.1	14.8	15.0
Warsaw, Va.	12.7	14.0	15.0	16.0	14.0	16.0
Plymouth, N. C.	13.0	12.1	14.2	14.0	13.0	14.0
Henderson, Ky.	11.2	11.5	13.4	15.1	13.4	12.6
Keiser, Ark. (B)	11.0	12.3	14.3	15.0	13.7	14.0
Stoneville, Miss. (A)	12.8	15.4	15.0	14.6	14.3	16.5
Stoneville, Miss. (B)	14.6	15.0	17.5	15.2	17.0	15.9
Stuttgart, Ark.	14.3	14.7	17.0	17.3	16.0	17.3
Bixby, Okla.	11.6	12.3	13.1	14.6	14.5	15.0
Mean	12.7	13.5+	15.1+	15.4+	14.5+	15.1+

Table 10. (continued)

Location	PI 96,983	D56-3	D56-1087	D56-1131	R57-18	S6-7413	L.S.D. (.05)
			Oil Percentage				
Linkwood, Md.	16.7	19.6	19.5	19.6	20.9	20.9	
Warsaw, Va.	16.6	21.1	20.4	22.1	22.3	22.5	
Plymouth, N. C.	16.9	20.9	19.9	20.1	22.1	22.6	
Henderson, Ky.	16.8	20.7	20.8	20.8	20.8	20.9	
Sikeston, Mo.	17.8	22.9	21.7	21.6	23.9	23.7	
Keiser, Ark. (B)	16.1	21.0	20.2	20.2	22.0	22.4	
Stoneville, Miss. (A)	17.5	22.1	21.7	21.8	22.4	23.4	
Stoneville, Miss. (B)	16.7	21.6	21.0	20.6	22.3	22.3	
Stuttgart, Ark.	16.8	23.0	21.9	21.8	22.3	23.4	
Bixby, Okla.	16.2	20.4	19.2	20.2	20.4	21.6	
Mean	16.8-	21.3-	20.6-	20.9-	21.9	22.4+	0.4
			Protein Percentage				
Linkwood, Md.	45.2	39.3	40.1	40.2	40.0	38.3	
Warsaw, Va.	45.4	39.2	39.5	41.3	38.6	37.6	
Plymouth, N. C.	46.5	40.6	42.0	40.2	40.9	39.7	
Henderson, Ky.	46.9	42.1	41.9	42.3	41.1	40.3	
Sikeston, Mo.	44.9	38.1	40.5	40.5	38.2	38.1	
Keiser, Ark. (B)	44.1	39.4	40.2	39.8	38.1	37.8	
Stoneville, Miss. (A)	47.7	43.3	41.9	42.0	42.5	39.4	
Stoneville, Miss. (B)	44.6	40.2	39.9	41.0	39.9	38.0	
Stuttgart, Ark.	48.2	39.7	40.2	41.6	39.2	39.5	
Bixby, Okla.	45.4	40.1	41.1	41.6	40.6	39.0	
Mean	45.9+	40.2	40.7+	41.1+	39.9	38.8-	0.7
			Grams Per 100 Seed				
Linkwood, Md.	19.4	15.3	15.1	15.6	16.2	14.3	
Warsaw, Va.	17.7	15.0	13.7	15.3	14.7	12.7	
Plymouth, N. C.	16.9	13.9	12.6	13.3	14.0	13.6	
Henderson, Ky.	16.6	12.6	11.9	12.3	13.9	12.3	
Keiser, Ark. (B)	14.3	14.0	12.0	13.3	13.7	13.7	
Stoneville, Miss. (A)	17.0	16.6	13.4	16.7	14.1	14.6	
Stoneville, Miss. (B)	16.9	17.9	14.4	15.8	16.5	15.5	
Stuttgart, Ark.	20.0	17.0	15.3	16.0	15.0	15.7	
Bixby, Okla.	14.3	13.7	11.0	13.0	12.5	13.5	
Mean	17.0+	15.1+	13.3	14.6+	14.5+	14.0	0.8

Table 11. Relative maturity, days earlier (-) or later (+) than Hill, for the strains in Uniform Group V, 1960

Location	Date Planted	Hill Matured	Dorman	D55-8144	Md55-49	D56-1231
		East Coast				
Georgetown, Del.	6-7	10-21	+7	+8	+5	+6
Linkwood, Md.	5-19	10-4	+7	+9	+9	+5
Warsaw, Va.	5-20	10-14	-1	+5	+2	+1
Petersburg, Va.	5-13	10-6	+8	+11	+11	+4
Holland, Va.	5-24	10-12	+5	+7	+10	+7
Plymouth, N. C.	5-11	9-23	+7	+13	+13	+9
Mean		10-8	+6	+9	+8	+5
		Upper and Central South				
Orange, Va.	5-23	10-10	0	+2	-4	+2
Lexington, Ky.	5-24	10-18	+5	+9	+2	+3
Springfield, Tenn.	5-3	--	-4	+6	+6	+3
Jackson, Tenn.	5-4	9-19	+3	+8	+10	+8
Belle Mina, Ala.	5-30	10-15	0	+1	+1	-2
Experiment, Ga.	5-13	9-17	0	+3	+3	+4
State College, Miss.	5-11	9-10	0	+16	+14	+14
Mean		9-30	0	+6	+5	+5
		Delta				
Henderson, Ky.	5-17	10-3	0	+4	+7	+3
Sikeston, Mo.	5-14	9-24	+5	+9	+10	+11
Keiser, Ark. (A)	5-4	9-24	+7	+8	+15	+14
Keiser, Ark. (B)	4-25	9-24	+4	+9	+12	+9
Marianna, Ark.	5-16	9-23	+2	+7	+2	+5
Stoneville, Miss. (A)	5-19	9-22	+1	+8	+3	+7
Stoneville, Miss. (B)	5-4	9-21	-1	+9	+6	+9
Tralake, Miss.	5-17	9-22	+2	+8	+6	+6
St. Joseph, La.	5-20	9-30	-11	+10	+10	+17
Mean		9-25	+1	+8	+8	+9
		West				
Stuttgart, Ark.	5-30	9-28	0	+8	+8	+8
Curtis, La.	5-27	9-27	-1	+3	+7	+6
Bixby, Okla.	5-13	9-28	0	0	+4	+2
Mean		9-28	0	+4	+6	+5

Table 11. (continued)

Location	S4-7346	PI 96,983	D56-3	D56-1087	D56-1131	R57-18	S6-7413
			East Coast				
Georgetown, Del.	+4	+2	+5	+8	+5	+3	+4
Linkwood, Md.	+6	+2	+7	+10	+10	+6	+5
Warsaw, Va.	+4	+1	+2	+4	+4	+1	0
Petersburg, Va.	+14	+5	+3	+10	+7	+4	+3
Holland, Va.	+5	0	+12	+12	+5	+3	+8
Plymouth, N. C.	+12	+4	+8	+11	+9	+9	+9
Mean	+8	+2	+6	+9	+7	+4	+5
			Upper and Central South				
Orange, Va.	0	+1	+1	+4	+1	-4	0
Lexington, Ky.	+1	+6	+2	+11	+ 4	+4	+4
Springfield, Tenn.	+4	+1	-3	+4	+3	+2	+3
Jackson, Tenn.	+7	+5	+5	+8	+4	+4	+5
Belle Mina, Ala.	+1	-1	-1	-1	-2	-2	+2
Experiment, Ga.	+4	+1	+2	+3	+2	+1	+2
State College, Miss.	+17	+14	+9	+14	+13	+4	+14
Mean	+5	+4	+2	+6	+4	+1	+4
			Delta				
Henderson, Ky.	+3	+2	+3	+6	+1	+2	+4
Sikeston, Mo.	+10	+5	+5	+11	+6	+3	+5
Keiser, Ark. (A)	+19	+8	+8	+19	+7	+7	+11
Keiser, Ark. (B)	+9	+6	+10	+11	+8	+4	+5
Marianna, Ark.	+6	+6	+3	+3	+2	+1	+2
Stoneville, Miss. (A)	+7	+1	+2	+7	+5	+2	+4
Stoneville, Miss. (B)	+8	0	+1	+7	+6	-1	+5
Tralake, Miss.	+8	+8	+4	+6	+8	+4	+8
St. Joseph, La.	+17	0	0	0	+7	0	+17
Mean	+10	+4	+4	+8	+6	+2	+7
			West				
Stuttgart, Ark.	+9	+8	+8	+9	+8	0	+8
Curtis, La.	+4	+3	+2	+3	+3	+5	+21
Bixby, Okla.	+8	0	0	+1	0	0	0
Mean	+7	+4	+3	+4	+4	+2	+10

Table 12. Height data for the strains in Uniform Group V, 1960

Location	Hill	Dorman	D55-8144	Md55-49	D56-1231	S4-7346
			East Coast			
Georgetown, Del.	40	43	42	45	34	35
Linkwood, Md.	39	42	44	52	36	34
Warsaw, Va.	34	37	33	44	29	26
Painter, Va.	37	38	43	47	33	33
Petersburg, Va.	30	36	34	52	30	23
Norfolk Va.	26	29	36	38	24	29
Holland, Va.	35	47	44	55	34	29
Plymouth, N. C.	38	39	41	51	35	30
Mean	35	39	40	48	32	30
			Upper and Central South			
Orange, Va.	39	49	48	43	38	44
Lexington, Ky.	41	50	55	40	40	32
Springfield, Tenn.	38	45	44	42	37	30
Jackson, Tenn.	37	39	39	55	36	33
Belle Mina, Ala.	29	33	34	41	25	27
Experiment, Ga.	18	18	17	21	15	16
State College, Miss.	32	34	35	46	31	30
Mean	33	38	39	41	32	30
			Delta			
Henderson, Ky.	37	42	44	54	33	30
Sikeston, Mo.	42	48	49	59	41	38
Keiser, Ark. (A)	28	32	30	44	23	27
Keiser, Ark. (B)	29	30	30	43	26	24
Marianna, Ark.	36	40	40	49	32	30
Stoneville, Miss. (A)	33	33	34	52	31	28
Stoneville, Miss. (B)	33	33	33	54	31	34
Tralake, Miss.	28	30	30	30	24	20
St. Joseph, La.	28	29	32	52	28	26
Mean	33	35	36	49	30	29
			West			
Stuttgart, Ark.	22	28	28	35	23	18
Curtis, La.	24	32	34	46	22	25
Bixby, Okla.	36	38	41	57	34	29
Halfway, Texas	32	33	34	37	31	31
Mean	29	33	34	44	28	26

Table 12. (continued)

Location	PI 96,983	D56-3	D56-1087	D56-1131	R57-18	S6-7413
			East Coast			
Georgetown, Del.	40	41	39	38	40	41
Linkwood, Md.	39	42	42	43	43	45
Warsaw, Va.	32	36	38	36	34	36
Painter, Va.	38	44	42	41	41	41
Petersburg, Va.	30	33	36	39	35	30
Norfolk, Va.	29	34	31	41	29	30
Holland, Va.	41	45	44	43	43	42
Plymouth, N. C.	36	39	40	39	34	36
Mean	36	39	39	40	37	38
			Upper and Central South			
Orange, Va.	44	52	46	56	45	50
Lexington, Ky.	45	49	47	52	45	43
Springfield, Tenn.	41	42	44	41	41	43
Jackson, Tenn.	37	39	39	38	37	40
Belle Mina, Ala.	28	31	33	37	32	31
Experiment, Ga.	17	19	20	19	16	18
State College, Miss.	34	37	40	45	36	36
Mean	35	38	38	41	36	37
			Delta			
Henderson, Ky.	38	42	42	45	43	35
Sikeston, Mo.	44	47	48	51	46	47
Keiser, Ark. (A)	28	32	34	31	30	29
Keiser, Ark. (B)	29	35	35	30	33	31
Marianna, Ark.	33	39	39	39	36	37
Stoneville, Miss. (A)	29	35	34	35	34	34
Stoneville, Miss. (B)	30	35	32	33	33	34
Tralake, Miss.	24	30	30	36	26	28
St. Joseph, La.	27	27	35	35	29	32
Mean	31	36	37	37	34	34
			West			
Stuttgart, Ark.	25	32	28	31	25	21
Curtis, La.	29	31	35	39	30	24
Bixby, Okla.	36	38	42	44	38	43
Halfway, Texas	29	34	36	36	34	36
Mean	30	34	35	38	32	31

Table 13. Lodging scores for the strains in Uniform Group V, 1960

Location	Hill	Dorman	D5 - 8144	Md55-49	D56- 1231	S4- 7346
			East Coast			
Georgetown, Del.	3.0	3.0	2.7	1.0	2.0	1.0
Linkwood, Md.	4.0	4.0	4.0	3.0	3.0	3.0
Warsaw, Va.	1.5	2.5	1.8	1.0	2.2	1.0
Painter, Va.	4.0	3.3	3.3	2.7	3.0	3.3
Petersburg, Va.	2.3	3.0	3.0	2.0	2.7	2.0
Norfolk, Va.	3.0	3.0	3.0	3.0	3.0	3.0
Holland, Va.	4.7	5.0	4.3	3.0	3.7	4.3
Plymouth, N. C.	4.0	4.0	4.0	4.0	4.0	4.0
			Upper and Central South			
Orange, Va.	2.0	2.0	2.0	1.0	2.3	2.0
Lexington, Ky.	3.3	4.6	4.5	2.0	4.2	1.0
Springfield, Tenn.	1.0	1.0	2.0	1.0	1.0	1.0
Jackson, Tenn.	3.0	5.0	3.0	3.0	1.0	2.0
Belle Mina, Ala.	1.3	1.3	1.0	1.7	1.3	1.0
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
State College, Miss.	2.0	3.0	2.0	2.0	2.0	2.0
			Delta			
Henderson, Ky.	2.0	4.0	3.8	2.0	2.6	1.0
Sikeston, Mo.	3.0	3.3	3.2	1.6	2.2	1.3
Keiser, Ark. (A)	2.3	3.3	3.0	3.7	2.3	1.7
Keiser, Ark. (B)	2.7	2.3	3.0	1.7	1.7	1.7
Marianna, Ark.	2.3	4.7	3.0	2.3	1.3	1.0
Stoneville, Miss. (A)	2.0	3.0	3.0	3.0	2.7	2.0
Stoneville, Miss. (B)	2.0	3.0	4.0	3.3	2.7	2.7
Tralake, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
St. Joseph, La.	1.0	3.0	3.0	2.0	1.0	1.0
			West			
Stuttgart, Ark.	1.3	2.0	1.7	1.3	1.0	1.0
Curtis, La.	1.0	2.0	2.0	2.0	1.0	1.0
Bixby, Okla.	3.0	4.3	3.7	1.7	1.7	2.0
Halfway, Texas	3.0	1.7	2.7	1.0	1.0	1.0

Table 13. (continued

Location	PI 96,983	D56-3	D56-1087	D56-1131	R57-18	S6-7413
			East Coast			
Georgetown, Del.	2.7	3.0	2.3	3.3	3.0	1.7
Linkwood, Md.	4.0	4.0	3.0	4.0	4.0	4.0
Warsaw, Va.	1.5	1.8	1.8	1.7	1.7	1.5
Painter, Va.	3.0	3.7	3.3	3.3	4.0	3.0
Petersburg, Va.	2.7	2.7	2.7	3.0	2.0	2.3
Norfolk, Va.	3.0	3.0	3.0	3.0	3.0	3.0
Holland, Va.	3.7	4.0	3.7	4.0	4.7	4.0
Plymouth, N. C.	4.0	4.0	4.0	4.0	4.0	4.0
			Upper and Central South			
Orange, Va.	2.0	2.0	1.7	2.0	2.7	2.3
Lexington, Ky.	4.6	4.3	3.8	4.0	4.0	2.6
Springfield, Tenn.	1.0	2.0	1.0	2.0	2.0	1.0
Jackson, Tenn.	2.0	4.0	4.0	3.0	4.0	3.0
Belle Mina, Ala.	1.0	1.0	1.0	1.3	1.0	1.3
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
State College, Miss.	2.0	3.0	3.0	2.0	3.0	2.0
			Delta			
Henderson, Ky.	2.6	3.6	2.3	3.6	3.8	1.6
Sikeston, Mo.	3.0	2.7	2.8	3.5	2.8	2.1
Keiser, Ark. (A)	2.0	2.7	3.3	2.3	2.0	2.0
Keiser, Ark. (B)	1.3	2.7	2.7	3.3	1.3	2.0
Marianna, Ark.	2.7	3.7	3.0	3.0	3.0	1.3
Stoneville, Miss. (A)	2.7	3.0	3.0	3.0	2.7	2.3
Stoneville, Miss. (B)	3.0	3.0	3.0	3.0	3.0	2.3
Tralake, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
St. Joseph, La.	1.0	1.0	1.0	3.0	1.0	1.0
			West			
Stuttgart, Ark.	1.0	1.7	1.7	2.0	2.0	1.0
Curtis, La.	1.0	2.0	2.0	2.0	2.0	1.0
Bixby, Okla.	2.0	3.7	2.7	4.0	2.7	2.0
Halfway, Texas	1.0	1.7	2.7	2.0	1.7	1.3

Table 14. Seed quality scores for the strains in Uniform Group V, 1960

Location	Hill	Dorman	D55-8144	Md55-49	D56-1231	S4-7346
			East Coast			
Georgetown, Del.	2.0	1.0	3.0	1.0	2.0	3.0
Linkwood, Md.	2.0	2.0	3.0	2.0	2.0	2.0
Warsaw, Va.	1.5	1.5	1.5	1.5	2.0	1.0
Painter, Va.	2.7	2.0	2.3	2.3	2.3	2.3
Petersburg, Va.	1.0	1.0	1.0	1.0	2.0	1.0
Norfolk, Va.	2.0	2.0	2.0	2.0	2.0	2.0
Holland, Va.	1.5	2.0	1.5	1.5	1.5	2.0
Plymouth, N. C.	1.0	1.5	1.5	2.0	1.5	1.5
			Upper and Central South			
Orange, Va.	1.0	1.0	1.0	1.0	1.0	1.5
Lexington, Ky.	2.0	2.0	1.0	1.0	1.5	2.0
Jackson, Tenn.	3.0	2.0	2.0	2.0	2.0	4.0
Belle Mina, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Experiment, Ga.	1.0	2.0	1.7	2.3	2.0	2.0
State College, Miss.	2.0	1.0	4.0	4.0	3.0	3.0
			Delta			
Henderson, Ky.	2.0	2.0	3.0	2.0	2.0	2.0
Sikeston, Mo.	1.0	1.3	2.3	2.0	1.5	1.8
Keiser, Ark. (A)	1.7	1.7	2.0	2.7	2.7	3.7
Keiser, Ark. (B)	1.3	2.0	2.3	2.7	2.3	3.0
Marianna, Ark.	2.3	2.0	2.3	3.0	3.0	2.3
Stoneville, Miss. (A)	3.0	2.7	3.0	3.0	2.0	2.0
Stoneville, Miss. (B)	3.0	3.0	2.7	3.0	3.0	2.0
Tralake, Miss.	2.0	3.0	3.0	3.3	3.0	3.3
St. Joseph,La.	2.0	1.0	2.0	2.0	1.0	3.0
			West			
Stuttgart, Ark.	1.3	1.3	2.0	3.0	2.3	3.0
Curtis, La.	2.0	1.0	1.0	1.0	1.0	2.0
Bixby, Okla.	1.0	1.0	2.0	2.3	2.7	2.7

Table 14. (continued)

Location	PI 96,983	D56-3	D56-1087	D56-1131	R57-18	S6-7413
			East Coast			
Georgetown, Del.	2.0	2.0	2.0	2.0	2.0	2.0
Linkwood, Md.	3.0	2.0	3.0	3.0	2.0	2.0
Warsaw, Va.	2.0	1.5	1.5	1.5	2.0	2.0
Painter, Va.	2.0	2.7	2.0	2.0	2.3	2.7
Petersburg, Va.	2.0	1.0	1.0	1.0	1.0	2.0
Norfolk, Va.	2.0	2.0	2.0	2.0	2.0	2.0
Holland, Va.	1.5	2.0	2.0	2.5	1.5	2.0
Plymouth, N. C.	1.0	1.5	2.0	1.0	1.0	1.0
			Upper and Central South			
Orange, Va.	2.0	2.0	1.0	1.0	1.0	1.0
Lexington, Ky.	2.0	2.0	3.0	2.0	3.0	3.0
Jackson, Tenn.	3.0	3.0	2.0	3.0	3.0	4.0
Belle Mina, Ala.	1.3	1.0	1.3	1.3	2.3	1.0
Experiment, Ga.	2.0	2.0	2.0	2.0	1.7	2.0
State College, Miss.	5.0	2.0	5.0	2.0	2.0	5.0
			Delta			
Henderson, Ky.	2.0	1.0	2.0	2.0	2.0	3.0
Sikeston, Mo.	1.8	1.5	2.3	1.8	1.5	2.0
Keiser, Ark. (A)	3.3	2.3	3.0	2.0	2.3	2.3
Keiser, Ark. (B)	2.3	2.3	2.0	2.7	1.3	2.0
Marianna, Ark.	3.0	2.7	3.0	3.3	2.7	3.0
Stoneville, Miss. (A)	3.0	3.0	3.0	3.0	3.0	3.3
Stoneville, Miss. (B)	3.0	3.0	2.0	3.0	3.0	3.0
Tralake, Miss.	3.3	3.3	3.0	3.0	3.0	4.0
St. Joseph, La.	1.0	2.0	2.0	3.0	1.0	3.0
			West			
Stuttgart, Ark.	3.3	1.7	2.7	2.0	2.0	3.3
Curtis, La.	2.0	2.0	3.0	3.0	2.0	4.0
Bixby, Okla.	3.0	1.3	2.0	2.0	2.0	3.0

UNIFORM GROUP VI

1960

	Variety or Strain	Parentage	Generation Composited
1.	Hood	Roanoke x N45-745	F_6
2.	Lee	S-100 x CNS	F_6
3.	R54-168	D49-2573 x N45-1497	F_5
4.	S3-7094	N48-1248 x Perry	F_6
5.	D56-1192	Perry x Lee	F_5
6.	N56-4202	N46-1703 x D49-2525	F_6
7.	S5-7075	N48-1248 x Perry	F_8
8.	D55-4060	D50-203 x D49-757	F_5
9.	N57-5461	N48-4860(2) x N48-2484	F_7
10.	N57-6736	Jackson x D49-2491	F_6
11.	R56-49	Rogue in Lee	
12.	D58-1894	D49-2491(5) x Dorman	F_3

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.

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.

D50-203 is bacterial pustule and mildew resistant selection from (S-100 x Rose Non-pop) x N45-745.

D49-757 is a bacterial-pustule-resistant selection from Roanoke x N45-745.

N48-4860 is a selection from Ogden x Haberlandt.

N48-2484 is a bacterial-pustule-resistant selection from N42-26 x N45-745.

The results of 31 Uniform Group VI nurseries are summarized in tables 15 through 21. Table 15 gives a general summary of seed yields, agronomic qualities, chemical composition, and disease reactions. Two- and 3-year data are reported for seed yield and oil and protein percentages.

Differences among strains were significant in 22 of the 31 comparisons. There was a significant variety x location interaction within all production areas except the Upper and Central South. Differences among strains within production areas were significant in all but the Western area. There were no strains which yielded significantly more than Hood within any production area.

All strains within the group are resistant to bacterial pustule and all had low target spot ratings.

Two strains, R54-168 and S3-7094, have been tested three years. Both have produced good seed yields. S3-7094 is weak in seed holding.

Three strains, D56-1192, N56-4202, and S5-7075, have been tested two years. D56-1192 has excellent lodging resistance but has averaged low in seed yield. Perhaps the lodging resistance is directly associated with the low yield. N56-4202 has yielded well in the East Coast and Delta area. It is a relatively low oil strain with moderately high protein. S5-7075 has yielded nearly as well as N56-4202. It is somewhat weak in seed holding.

Of the five lines tested one year, D55-4060 is low in oil and moderately high in protein. It yielded significantly less than Hood in the East Coast and Upper and Central South. N57-5461 was low yielding in all production areas. N57-6736, R46-49, and D58-1894 all produced good yields. D58-1894 is very similar to Lee but has white flowers and grey pubescence.

Table 15. General summary of the performance for the strains in Uniform Group VI, 1960

	Hood	Lee	R54-168	S3-7094	D56-1192	N56-4202
Seed Yield - 1960						
East Coast	40.6	39.9	39.1	40.0	34.4-	42.3
Southeast	35.9	40.3	37.3	34.7	32.5	33.9
Upper & Central South	27.9	23.6-	27.6	25.1	21.3-	24.8
Delta	38.6	37.9	38.4	39.5	31.7-	40.1
West	43.6	41.5	38.6	38.6	36.7	39.5
- 1959-60						
East Coast	39.2	38.4	37.9	39.6	34.2	40.2
Southeast	33.4	37.2	35.5	31.7	29.5	30.8
Upper & Central South	30.8	25.8	29.4	27.8	23.3	29.7
Delta	38.6	37.1	38.8	38.6	32.1	41.0
West	40.0	37.3	35.6	37.4	34.7	38.3
- 1958-60						
East Coast	39.8	38.4	38.0	41.5		
Southeast	35.0	37.6	36.3	31.6		
Upper & Central South	29.2	26.5	29.2	28.6		
Delta	39.0	38.0	39.6	39.1		
West	40.2	37.6	36.0	37.3		
Oil Percentage - 1960	22.0	21.1-	22.8+	21.6-	20.2-	20.3-
- 1959-60	21.9	21.2	22.8	21.8	20.3	20.3
- 1958-60	22.0	21.2	22.9	21.8		
Protein Percentage - 1960	39.9	41.9+	40.7+	41.0+	41.4+	42.9+
- 1959-60	40.0	41.7	40.8	40.9	41.2	42.9
- 1958-60	39.9	41.6	40.6	40.8		
Seed Size	16.4	14.2-	17.1	14.0-	14.2-	15.5-
Maturity Index	10-10	+11	+6	-1	+1	-1
Height	31	32	37	30	26	27
Bacterial Pustule	1.0	1.0	1.0	1.0	1.0	1.0
Target Spot[1/]	1.0	1.0	1.0	1.0	1.0	1.0
Phytophthora[2/]	1.0	1.0	1.0	2.0	3.0	1.0
Purple Seed Stain[3/]	1.0	1.0	1.0	1.0	1.0	1.0
Shattering[4/]	1.4	1.0	2.0	2.7	1.2	2.3

1/ Stoneville
2/ Stoneville
3/ Average of 3 locations.
4/ Average of 6 locations.

Table 15. (continued)

	S5-7075	D55-4060	N57-5461	N57-6736	R56-49	D58-1894
Seed Yield - 1960						
East Coast	41.4	36.8-	35.5-	39.3	41.6	39.6
Southeast	37.1	35.3	31.8	38.0	39.0	40.0
Upper & Central South	26.5	24.0-	21.1-	25.0	26.1	25.2
Delta	41.1	36.3	35.0	39.4	41.4	37.9
West	39.9	39.9	37.1	39.9	42.0	40.2
- 1959-60						
East Coast	39.4					
Southeast	34.4					
Upper & Central South	29.8					
Delta	39.6					
West	38.2					
- 1958-60						
East Coast						
Southeast						
Upper & Central South						
Delta						
West						
Oil Percentage - 1960	21.1-	20.3-	22.2	21.2-	22.6+	20.9-
- 1959-60	21.4					
- 1958-60						
Protein Percentage - 1960	40.9+	43.3+	40.4	41.5+	40.6+	41.2+
- 1959-60	40.9					
- 1958-60						
Seed Size	14.1-	13.9-	13.6-	13.8-	15.1-	13.3-
Maturity Index	0	-2	0	+10	+2	+13
Height	31	36	36	33	29	33
Bacterial Pustule	1.0	1.0	1.0	1.0	1.0	1.0
Target Spot[1/]	1.0	1.0	1.0	1.0	1.0	1.0
Phytophthora[2/]	2.0	1.0	1.0	1.0	1.0	1.0
Purple Seed Stain[3/]	1.0	2.5	1.0	1.0	1.0	1.0
Shattering[4/]	3.0	2.0	1.0	1.0	1.5	1.0

Table 16. Seed yield, in bushels per acre, for the strains in Unifrom Group VI, 1960

Location	Hood	Lee	R54-168	S3-7094	D56-1192	N56-4202	S5-7075
			East Coast				
Linkwood, Md.	37.6	42.3	40.0	45.2+	33.2	43.7+	43.8+
Warsaw, Va.	43.4	44.6	42.8	49.2+	39.3	44.3	50.3+
Painter, Va.	43.7	42.4	43.1	44.1	31.9-	45.3	43.1
Petersburg, Va.	36.4	39.6	42.0+	34.8	31.0-	35.4	41.8+
Norfolk, Va.	34.2	29.8	31.7	32.8	27.8	38.0	38.6
Holland, Va.	42.2	39.1	34.1-	43.7	28.0-	42.0	40.3
Plymouth, N. C.	39.5	38.7	37.3	38.2	35.4	44.2	39.1
Willard, N. C.	41.8	39.2	37.7	38.6	43.6	44.8	38.5
Clayton, N. C.	44.9	41.2	41.2	38.2	31.5	43.8	39.9
Hartsville, S. C.	42.6	42.6	40.6	35.5-	42.4	41.8	38.5
Mean	40.6	39.9	39.1	40.0	34.4-	42.3	41.4
			Southeast				
Tallassee, Ala.	38.8	49.9+	43.1	39.3	35.8	34.5	42.0
Walnut Hill, Fla.	42.4	45.4	39.0	41.2	37.8	40.8	43.6
Fairhope, Ala.	37.4	42.2+	43.6+	41.5	35.1	34.0	38.9
Baton Rouge, La.	25.2	23.6	23.6	16.9-	21.5	26.3	24.1
Mean	35.9	40.3	37.3	34.7	32.5	33.9	37.1
			Upper and Central South				
Jackson, Tenn.	36.5	24.4	32.4	29.5	23.0	34.4	34.8
Belle Mina, Ala.	25.4	21.8	27.1	24.0	22.5	20.4	19.2
Experiment, Ga.	22.0	19.7	19.6	16.9	16.9	15.2	24.0
State College, Miss.	27.6	28.5	31.5	29.9	23.0	29.2	28.2
Mean	27.9	23.6-	27.6	25.1	21.3-	24.8	26.5
			Delta				
Sikeston, Mo.	40.2	37.5	34.2-	37.3	35.5	35.5	39.7
Keiser, Ark. (A)	32.9	28.6	31.5	29.8	24.9	34.3	35.2
Keiser, Ark. (B)	27.4	32.5	35.2+	27.3	18.7-	33.4+	32.3
Marianna, Ark.	35.2	31.5	33.5	38.6	32.0	37.5	38.9
Stoneville, Miss. (A)	50.0	50.0	47.8	54.1	42.0-	51.1	56.6
Stoneville, Miss. (B)	50.5	48.6	47.3	51.5	42.7-	55.9	50.9
St. Joseph, La.	33.8	36.3	39.3	37.5	25.9	33.1	34.4
Mean	38.6	37.9	38.4	39.5	31.7-	40.1	41.1
			West				
Stuttgart, Ark.	49.5	48.7	51.9	47.9	34.9-	41.2-	47.7
Curtis, La.	52.1	52.0	52.6	49.8	44.9-	51.0	52.1
Bixby, Okla.	53.0	41.9-	37.7-	42.2-	45.5	51.9	41.9-
Bennington, Okla.	29.0	29.2	21.5	14.7-	27.8	21.7	25.9
College Station, Texas	31.7	29.0	24.9	32.3	23.4	25.4	26.1
Halfway, Texas	46.3	48.1	43.1	44.9	43.5	45.8	45.4
Mean	43.6	41.5	38.6	38.6	36.7	39.5	39.9

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

Table 16. (continued)

Location	D55-4060	N57-5461	N57-6736	R56-49	D58-1894	L.S.D. (.05)	C.V.
			East Coast				
Linkwood, Md.	37.7	35.1	40.7	45.6+	39.6	5.4	8%
Warsaw, Va.	45.3	43.8	46.1	45.4	43.3	4.7	6%
Painter, Va.	38.7	35.4-	43.0	37.4-	39.8	5.8	8%
Petersburg, Va.	37.6	33.5	37.8	38.9	37.4	5.0	8%
Norfolk, Va.	28.2	29.9	30.9	34.6	34.7	N.S.	15%
Holland, Va.	34.3-	32.9-	33.3-	39.6	34.4-	5.2	8%
Plymouth, N. C.	36.2	33.5-	37.7	38.1	36.3	4.7	7%
Willard, N. C.	35.0-	36.0-	43.4	43.9	40.2	4.1	6%
Clayton, N. C.	39.1	35.9	37.7	45.0	42.8	N.S.	12%
Hartsville, S C.	35.6-	39.7	42.7	47.3	47.1	6.1	9%
Mean	36.8-	35.5-	39.3	41.6	39.6	2.5	
			Southeast				
Tallassee, Ala.	40.2	31.1-	40.4	41.1	51.3+	7.6	11%
Walnut Hill, Fla.	40.2	37.5	43.0	45.4	45.7	5.5	8%
Fairhope, Ala.	39.4	37.4	43.3+	46.4+	41.2	4.8	7%
Baton Rouge, La.	21.2	21.3	25.2	23.0	20.6-	4.2	11%
Mean	35.3	31.8	38.0	39.0	40.0	4.6	
			Upper and Central South				
Jackson, Tenn.	28.3	24.2	34.2	31.8	24.3	N.S.	24%
Belle Mina, Ala.	22.3	26.2	23.2	23.9	25.7	N.S.	17%
Experiment, Ga.	19.6	15.9	17.0	19.4	18.9	N.S.	19%
State College, Miss.	25.9	18.3-	25.7	29.4	31.8	5.5	12%
Mean	24.0-	21.1-	25.0	26.1	25.2	3.9	
			Delta				
Sikeston, Mo.	29.9-	29.0-	35.9	36.9	34.1-	5.8	10%
Keiser, Ark. (A)	28.9	24.7	34.8	29.3	29.3	N.S.	15%
Keiser, Ark. (B)	32.3	33.5+	35.0+	34.6+	36.3+	5.7	11%
Marianna, Ark.	26.2-	26.6-	36.4	38.7	28.8-	4.2	7%
Stoneville, Miss. (A)	43.0	45.0	48.1	52.4	49.9	7.2	9%
Stoneville, Miss. (B)	51.1	51.1	47.1	57.5+	46.8	5.7	7%
St. Joseph, La.	42.9	35.2	38.4	40.7	40.3	N.S.	17%
Mean	36.3	35.0	39.4	41.4	37.9	3.7	
			West				
Stuttgart, Ark.	44.0	41.1-	47.9	50.6	52.4	6.4	8%
Curtis, La.	53.7	45.4-	53.3	51.3	51.6	4.7	5%
Bixby, Okla.	44.6-	41.5-	42.1-	42.2-	37.7-	8.1	11%
Bennington, Okla.	20.4-	24.8	29.5	28.0	28.6	7.6	18%
College Station, Texas	32.6	29.3	23.3	34.4	26.1	N.S.	16%
Halfway, Texas	44.0	40.3	43.5	45.4	44.9	N.S.	9%
Mean	39.9	37.1	39.9	42.0	40.2	N.S.	

Table 17. Chemical composition and seed size for the strains in Uniform Group VI, 1960

Location	Hood	Lee	R54-168	S3-7094	D56-1192	N56-4202
			Oil Percentage			
Warsaw, Va.	20.7	20.5	21.2	20.6	19.7	19.9
Plymouth, N. C.	20.6	20.1	21.7	20.2	18.5	19.3
Clayton, N. C.	21.6	20.7	23.3	21.0	18.7	20.2
Walnut Hill, Fla.	23.5	22.2	24.0	22.6	21.2	20.5
Sikeston, Mo.	22.4	21.1	22.4	21.7	19.8	20.4
Keiser, Ark. (B)	21.4	21.4	22.3	21.7	20.3	19.6
Stoneville, Miss. (A)	22.6	21.9	24.2	22.2	21.2	20.9
Stoneville, Miss. (B)	23.1	21.8	24.4	23.0	21.1	20.6
Stuttgart, Ark.	22.3	20.8	22.5	22.2	21.0	20.5
Bixby, Okla.	21.4	20.6	21.8	20.4	20.1	20.6
Mean	22.0	21.1-	22.8+	21.6-	20.2-	20.3-
			Protein Percentage			
Warsaw, Va.	40.2	42.4	40.3	40.7	41.3	42.4
Plymouth, N. C.	41.6	42.3	41.1	42.9	43.8	44.5
Clayton, N. C.	40.0	42.1	39.8	41.5	42.1	42.4
Walnut Hill, Fla.	40.0	42.3	42.3	42.4	40.9	43.2
Sikeston, Mo.	40.2	40.7	41.2	40.6	41.4	43.3
Keiser, Ark. (B)	38.5	39.7	39.0	39.7	39.8	41.9
Stoneville, Miss. (A)	39.6	42.3	40.6	40.5	40.8	42.6
Stoneville, Miss. (B)	40.0	42.0	40.1	40.3	40.9	43.6
Stuttgart, Ark.	40.0	43.6	41.9	40.8	41.3	44.0
Bixby, Okla.	39.1	41.2	40.5	40.7	41.7	41.5
Mean	39.9	41.9+	40.7+	41.0+	41.4+	42.9+
			Grams Per 100 Seeds			
Warsaw, Va.	18.7	15.7	13.0	14.3	14.3	14.0
Plymouth, N. C.	13.8	12.0	16.0	11.4	13.5	14.9
Clayton, N. C.	15.0	12.8	18.0	11.6	13.5	14.5
Walnut Hill, Fla.	18.1	17.0	19.3	15.9	15.4	16.7
Keiser, Ark. (B)	15.0	13.0	16.3	12.7	13.0	13.7
Stoneville, Miss. (A)	17.8	15.1	17.6	14.8	13.6	16.9
Stoneville, Miss. (B)	17.2	13.0	17.4	15.4	13.4	15.4
Stuttgart, Ark.	17.0	14.3	20.0	16.7	16.3	16.3
Bixby, Okla.	15.1	14.6	15.9	12.8	14.8	16.8
Mean	16.4	14.2-	17.1	14.0-	14.2-	15.5-

Table 17. (continued)

Location	S5-7075	D55-4060	N57-5461	N57-6736	R56-49	D58-1894	L.S.D. (.05)
			Oil Percentage				
Warsaw, Va.	19.9	19.7	21.0	20.7	21.5	20.4	
Plymouth, N. C.	20.0	19.3	20.4	20.4	21.5	19.5	
Clayton, N. C.	18.8	19.1	21.7	20.8	22.2	20.6	
Walnut Hill, Fla.	22.4	21.3	24.0	22.2	23.8	22.1	
Sikeston, Mo.	21.3	21.0	22.4	21.1	22.8	20.9	
Keiser, Ark. (B)	21.5	20.5	22.4	20.9	21.7	20.6	
Stoneville, Miss. (A)	22.4	20.8	23.2	21.8	23.8	21.3	
Stoneville, Miss. (B)	22.4	21.1	23.7	21.8	23.7	22.0	
Stuttgart, Ark.	21.9	20.7	21.9	20.6	22.5	20.1	
Bixby, Okla.	20.4	19.9	21.3	21.7	22.4	21.3	
Mean	21.1-	20.3-	22.2	21.2-	22.6+	20.9-	0.4
			Protein Percentage				
Warsaw, Va.	40.6	43.1	40.8	41.9	40.5	41.2	
Plymouth, N. C.	43.1	44.7	41.5	41.7	41.7	42.5	
Clayton, N. C.	42.2	43.9	39.6	40.7	40.7	41.3	
Walnut Hill, Fla.	41.5	44.9	40.2	42.1	40.7	41.2	
Sikeston, Mo.	40.4	42.0	39.5	40.5	40.5	40.9	
Keiser, Ark. (B)	39.3	41.6	40.2	40.5	39.3	40.1	
Stoneville, Miss. (A)	40.5	42.8	40.0	41.9	40.4	40.6	
Stoneville, Miss. (B)	39.6	43.6	39.6	42.2	40.5	40.2	
Stuttgart, Ark.	40.3	42.7	40.9	42.7	41.1	42.2	
Bixby, Okla.	41.5	43.4	41.3	41.1	40.5	41.5	
Mean	40.9+	43.3+	40.4	41.5+	40.6+	41.2+	0.6
			Grams Per 100 Seed				
Warsaw, Va.	15.0	14.3	15.3	15.0	15.7	13.7	
Plymouth, N. C.	11.7	12.6	12.7	13.2	13.1	11.2	
Clayton, N. C.	12.5	12.8	13.4	13.2	14.2	13.0	
Walnut Hill, Fla.	15.4	15.9	14.9	15.8	17.1	15.3	
Keiser, Ark. (B)	13.3	12.3	12.3	12.7	13.7	13.0	
Stoneville, Miss. (A)	14.9	15.7	15.1	13.6	15.9	13.3	
Stoneville, Miss. (B)	14.6	14.6	13.4	12.6	14.9	12.1	
Stuttgart, Ark.	16.0	14.0	13.0	13.7	16.0	14.0	
Bixby, Okla.	13.3	12.7	12.2	14.2	15.0	14.0	
Mean	14.1-	13.9-	13.6-	13.8-	15.1-	13.3-	0.9

Table 18. Relative maturity data, days earlier (-) or later (+) than Hood, for the strains in Uniform Group VI, 1960

Location	Date Planted	Hood Matured	Lee	R54-168	S3-7094	D56-1192
		East Coast				
Linkwood, Md.	5-19	10-15	+8	+15	+1	0
Warsaw, Va.	5-20	10-20	+6	+11	+3	+2
Petersburg, Va.	5-12	10-19	+9	0	-1	0
Holland, Va.	5-24	10-25	F	F	-2	F
Plymouth, N. C.	5-11	10-8	+10	+9	0	+2
Willard, N. C.	6-23	10-19	+7	+?	0	+2
Clayton, N. C.	5-2	10-7	+11	+11	-3	+5
Hartsville, S. C.	6-3	10-14	+11	+3	-1	+3
Mean		10-16	+9	+7	0	+2
		Southeast				
Tallassee, Ala.	5-16	9-23	+23	+11	+1	+6
Walnut Hill, Fla.	5-30	9-24	+12	+11	-2	+2
Fairhope, Ala.	6-10	9-25	+6	+6	0	+6
Baton Rouge, La.	5-17	9-28	+22	-2	-8	-12
Mean		9-25	+16	+7	-2	0
		Upper and Central South				
Jackson, Tenn.	5-4	9-30	+15	+7	+2	+4
Belle Mina, Ala.	5-30	10-29	+3	0	-4	+3
Experiment, Ga.	5-13	9-24	+19	+3	-2	-2
State College, Miss.	5-11	9-25	+20	+9	0	+5
Mean		10-5	+14	+5	-1	+3
		Delta				
Sikeston, Mo.	5-14	10-8	+10	+5	+1	+2
Keiser, Ark. (A)	5-4	10-17	+7	0	-4	-3
Keiser, Ark. (B)	4-25	10-15	+7	+2	-2	-2
Marianna, Ark.	5-16	10-11	+15	+1	-2	+2
Stoneville, Miss. (A)	5-18	10-8	+8	+4	0	+3
Stoneville, Miss. (B)	5-3	10-8	+8	+6	-2	+2
St. Joseph, La.	6-14	10-17	+3	0	0	0
Mean		10-12	+8	+3	-1	0
		West				
Stuttgart, Ark.	5-30	10-13	+17	+9	+4	+7
Curtis, La.	5-27	10-17	+11	+3	0	+3
Bixby, Okla.	5-13	10-7	+3	+5	-3	+2
College Station, Texas	5-24	10-10	+20	+20	0	0
Mean		10-12	+13	+9	0	+3

Table 18. (continued)

Location	N56-4202	S5-7075	D55-4060	N57-5461	N57-6736	R56-49	D58-1894
			East Coast				
Linkwood, Md.	0	+1	0	+8	+10	+2	+15
Warsaw, Va.	+3	+4	-2	+7	+11	+2	+13
Petersburg, Va.	-1	0	-2	+2	+9	-1	+15
Holland, Va.	-4	F	0	-1	F	F	F
Plymouth, N. C.	0	0	0	+1	+10	+2	+12
Willard, N. C.	-1	-2	-1	-2	+4	+5	+5
Clayton, N. C.	-1	-1	-3	-1	+10	+5	+12
Hartsville, S. C.	-4	-1	-3	-5	+11	+1	+12
Mean	-1	0	-1	+1	+9	+2	+12
			Southeast				
Tallassee, Ala.	-6	+1	-3	0	+19	+4	+23
Walnut Hill, Fla.	-3	-1	-7	-3	+11	+5	+14
Fairhope, Ala.	0	0	0	+6	+6	+6	+6
Baton Rouge, La.	-8	-10	-4	-8	-14	0	+12
Mean	-4	-3	-5	-1	+6	+4	+14
			Upper and Central South				
Jackson, Tenn.	+1	+4	0	+1	+15	+3	+24
Belle Mina, Ala.	-3	-4	-2	+3	+3	+2	0
Experiment, Ga.	-1	+2	-2	0	+19	-1	+18
State College, Miss.	0	+3	0	0	+23	+7	+26
Mean	-1	+1	-1	+1	+15	+3	+17
			Delta				
Sikeston, Mo.	0	+3	-1	0	+13	+1	+14
Keiser, Ark. (A)	-2	-2	-2	-3	+6	-1	+7
Keiser, Ark. (B)	-2	-2	0	-2	+5	0	+8
Marianna, Ark.	0	-2	-3	-5	+17	+1	+16
Stoneville, Miss. (A)	0	0	+1	-1	+8	+3	+8
Stoneville, Miss. (B)	-2	0	-2	-2	+6	+4	+8
St. Joseph, La.	+1	-1	0	0	+2	+1	+3
Mean	0	0	-1	-2	+8	+1	+9
			West				
Stuttgart, Ark.	+3	+4	-7	+4	+17	+4	+17
Curtis, La.	+3	-4	-4	-4	+15	+3	+15
Bixby, Okla.	+2	-1	-6	-1	+9	+2	+9
College Station, Texas	-4	0	-8	0	+20	0	+24
Mean	+1	0	-6	0	+15	+2	+16

Table 19. Plant height for the strains in Unifrom Group VI, 1960

Location	Hood	Lee	R54-168	S3-7094	D56-1192	N56-4202
			East Coast			
Linkwood, Md.	38	40	44	38	36	39
Warsaw, Va.	31	32	37	32	26	32
Petersburg, Va.	31	31	35	27	24	29
Norfolk, Va.	27	31	34	26	25	25
Holland, Va.	37	37	48	41	33	34
Plymouth, N. C.	35	38	45	37	32	34
Willard, N. C.	33	32	36	30	29	31
Clayton, N. C.	33	36	39	31	29	31
Hartsville, S. C.	32	32	37	31	25	22
Mean	33	34	39	33	29	31
			Southeast			
Tallassee, Ala.	32	29	37	30	23	23
Walnut Hill, Fla.	30	32	37	28	24	25
Fairhope, Ala.	19	22	28	24	20	16
Baton Rouge, La.	21	20	26	18	14	15
Mean	26	26	32	25	20	20
			Upper and Central South			
Jackson, Tenn.	41	40	45	40	38	37
Belle Mina, Ala.	25	30	35	25	25	23
Experiment, Ga	19	19	21	17	16	14
State College, Miss.	32	30	36	27	23	27
Mean	29	30	34	27	26	25
			Delta			
Sikeston, Mo.	42	44	49	42	38	37
Keiser, Ark. (A)	33	30	39	34	29	27
Keiser, Ark. (B)	30	31	35	27	20	29
Marianna, Ark.	33	36	39	34	29	35
Stoneville, Miss. (A)	36	36	41	34	32	31
Stoneville, Miss. (B)	32	30	38	33	29	30
St. Joseph, La.	28	29	32	27	26	24
Mean	33	34	39	33	29	30
			West			
Stuttgart, Ark.	25	30	28	24	21	21
Curtis, La.	28	29	40	25	16	20
Bixby, Okla.	37	38	44	36	30	29
Bennington, Okla.	26	31	35	27	24	23
College Station, Texas	27	26	34	25	18	19
Halfway, Texas	33	36	34	30	30	30
Mean	29	32	36	28	23	24

Table 19. (continued)

Location	S5-7075	D55-4060	N57-5461	N57-6736	R56-49	D58-1894
			East Coast			
Linkwood, Md.	41	43	46	38	38	38
Warsaw, Va.	34	39	39	33	31	34
Petersburg, Va.	30	40	42	31	28	33
Norfolk, Va.	35	33	32	29	27	32
Holland, Va.	41	46	45	42	36	43
Plymouth, N. C.	37	39	43	37	32	36
Willard, N. C.	31	36	38	33	29	33
Clayton, N. C.	32	39	41	34	33	32
Hartsville, S. C.	33	34	36	32	27	33
Mean	35	39	40	34	31	35
			Southeast			
Tallassee, Ala.	30	32	35	30	25	35
Walnut Hill, Fla.	27	36	36	34	30	35
Fairhope, Ala.	23	26	30	28	25	23
Baton Rouge, La.	20	24	25	20	20	22
Mean	25	30	32	28	25	29
			Upper and Central South			
Jackson, Tenn.	42	43	43	41	37	41
Belle Mina, Ala.	23	31	32	28	24	29
Experiment, Ga.	18	20	22	19	16	20
State College, Miss.	30	42	35	30	28	30
Mean	28	34	33	30	26	30
			Delta			
Sikeston, Mo.	43	50	44	46	39	41
Keiser, Ark. (A)	31	39	36	34	28	31
Keiser, Ark. (B)	28	37	34	31	30	32
Marianna, Ark.	37	39	40	38	34	35
Stoneville, Miss. (A)	38	45	37	36	31	37
Stoneville, Miss. (B)	32	37	33	31	31	32
St. Joseph, La.	28	32	31	31	27	27
Mean	34	40	36	35	31	34
			West			
Stuttgart, Ark.	24	33	30	32	26	32
Curtis, La.	31	35	32	31	28	32
Bixby, Okla.	35	42	40	38	33	38
Bennington, Okla.	27	21	34	36	27	29
College Station, Texas	22	26	34	28	24	30
Halfway, Texas	30	36	38	35	32	35
Mean	28	32	35	33	28	33

Table 20. Lodging scores for the strains in Uniform Group VI, 1960

Location	Hood	Lee	R54-168	S4-7094	D56-1192	N56-4202
			East Coast			
Linkwood, Md.	4.0	3.0	3.0	3.0	3.0	3.0
Warsaw, Va.	2.3	1.7	1.8	1.0	1.0	1.0
Petersburg, Va.	2.7	2.3	2.3	1.0	1.0	1.0
Norfolk, Va.	3.0	3.0	3.0	3.0	3.0	3.0
Holland, Va.	3.7	3.3	3.0	3.0	2.0	3.0
Plymouth, N. C.	4.0	3.5	4.0	3.5	2.0	3.0
Willard, N. C.	4.0	4.0	3.5	3.5	3.0	3.0
Clayton, N. C.	4.0	3.0	3.0	2.0	2.0	2.5
Hartsville, S. C.	3.3	2.3	3.0	1.3	1.0	1.3
			Southeast			
Tallassee, Ala.	1.0	1.0	1.5	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	1.0	3.0	1.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	1.0	1.0	1.0	1.0	1.0	1.0
			Upper and Central South			
Jackson, Tenn.	3.0	2.0	5.0	2.0	1.0	2.0
Belle Mina, Ala.	1.0	1.3	1.0	1.0	1.0	1.0
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
State College, Miss.	1.0	2.0	2.0	1.0	1.0	2.0
			Delta			
Sikeston, Mo.	1.8	2.0	2.3	1.2	1.0	1.4
Keiser, Ark. (A)	3.7	2.3	3.0	1.7	1.3	1.0
Keiser, Ark. (B)	1.7	2.3	2.0	1.0	1.0	1.0
Marianna, Ark.	2.3	1.7	2.7	1.3	1.0	1.3
Stoneville, Miss. (A)	3.0	2.7	3.3	1.7	1.0	2.0
Stoneville, Miss. (B)	3.0	3.0	4.0	2.0	1.3	2.3
St. Joseph, La.	2.0	1.0	1.0	1.0	1.0	1.0
			West			
Stuttgart, Ark.	1.3	1.7	3.0	1.0	1.0	1.0
Curtis, La.	1.0	2.0	2.0	1.0	1.0	1.0
Bixby, Okla.	2.3	2.3	4.0	2.0	2.0	2.0
Bennington, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
College Station, Texas	1.0	1.0	2.0	1.0	1.0	1.0
Halfway, Texas	1.7	2.7	1.7	1.0	1.0	1.0

Table 20. (continued)

Location	S5-7075	D55-4060	N57-5461	N57-6736	R56-49	D58-1894
			East Coast			
Linkwood, Md.	3.0	4.0	3.0	3.0	3.0	3.0
Warsaw, Va.	1.0	1.8	1.3	1.8	1.0	1.5
Petersburg, Va.	1.0	2.0	2.0	2.7	1.3	3.0
Norfolk, Va.	3.0	3.0	3.0	3.0	3.0	3.0
Holland, Va.	3.0	3.7	3.3	3.3	3.0	3.0
Plymouth, N. C.	3.5	4.0	5.0	3.5	4.0	3.0
Willard, N. C.	3.0	3.7	3.5	3.5	3.5	3.5
Clayton, N. C.	2.0	3.0	3.0	3.0	2.0	3.0
Hartsville, S. C.	2.0	4.0	1.7	2.7	1.7	2.0
			Southeast			
Tallassee, Ala.	1.0	2.5	1.0	1.5	1.0	1.5
Walnut Hill, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	1.0	1.0	1.0	1.0	1.0	1.0
			Upper and Central South			
Jackson, Tenn.	1.0	3.0	1.0	3.0	2.0	2.0
Belle Mina, Ala.	1.0	1.0	1.3	1.0	1.0	1.3
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
State College, Miss.	1.0	2.0	2.0	2.0	1.0	2.0
			Delta			
Sikeston, Mo.	1.2	2.0	1.4	2.5	1.3	2.2
Keiser, Ark. (A)	1.7	3.7	3.0	2.3	2.3	2.3
Keiser, Ark. (B)	1.0	2.0	2.0	2.3	1.3	1.7
Marianna, Ark.	1.7	2.0	1.7	2.0	1.7	1.7
Stoneville, Miss. (A)	2.0	3.0	2.7	3.0	2.3	3.0
Stoneville, Miss. (B)	2.3	3.0	2.7	3.3	2.3	3.0
St. Joseph, La.	1.0	2.0	1.0	1.0	1.0	2.0
			West			
Stuttgart, Ark.	1.0	2.0	1.0	2.0	1.3	1.3
Curtis, La.	1.0	2.0	2.0	2.0	2.0	2.0
Bixby, Okla.	1.3	2.7	2.7	2.7	2.3	2.0
Bennington, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
College Station, Texas	1.0	1.0	2.0	2.0	1.0	1.0
Halfway, Texas	1.0	1.7	1.7	2.0	1.7	2.7

Table 21. Seed quality scores for the strains in Uniform Group VI, 1960

Location	Hood	Lee	R54-168	S4-7094	D56-1192	N56-4202
			East Coast			
Linkwood, Md.	3.0	2.0	2.0	2.0	2.0	2.0
Warsaw, Va.	2.0	1.0	1.5	1.0	2.0	2.5
Painter, Va.	1.3	1.7	1.3	1.3	1.3	1.0
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Norfolk, Va.	2.0	2.0	2.0	2.0	2.0	2.0
Holland, Va.	1.5	1.5	1.5	2.5	1.5	1.5
Plymouth, N. C.	2.0	1.5	1.5	2.0	1.5	2.0
Willard, N. C.	2.0	1.5	2.0	2.0	1.5	1.5
Clayton, N. C.	2.0	1.0	2.0	2.0	2.0	2.0
Hartsville, S. C.	1.0	2.0	2.0	2.0	3.0	1.0
			Southeast			
Tallassee, Ala.	2.5	1.0	3.0	3.5	1.5	3.0
Walnut Hill, Fla.	1.0	1.0	3.0	1.0	1.0	1.0
Fairhope, Ala.	3.0	1.7	3.3	4.3	2.7	3.7
Baton Rouge, La.	2.0	2.0	3.0	3.0	3.0	2.0
			Upper and Central South			
Jackson, Tenn.	2.0	2.0	2.0	3.0	1.0	2.0
Belle Mina, Ala.	1.3	1.0	2.0	2.7	1.0	2.7
Experiment, Ga.	1.7	1.3	1.3	2.0	2.0	1.0
State College, Miss.	1.0	2.0	2.0	1.0	1.0	1.0
			Delta			
Sikeston, Mo.	1.5	1.5	1.8	2.0	1.3	1.8
Keiser, Ark. (A)	2.7	2.7	3.0	3.0	2.0	3.0
Keiser, Ark. (B)	2.0	2.0	2.3	2.7	2.0	3.0
Marianna, Ark.	1.7	2.0	2.7	2.7	2.0	1.7
Stoneville, Miss. (A)	2.0	1.0	2.3	2.3	2.0	2.3
Stoneville, Miss. (B)	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	1.0	1.0	1.0	1.0	1.0	1.0
			West			
Stuttgart, Ark.	1.7	1.7	3.0	1.0	1.0	1.0
Curtis, La.	2.0	2.0	3.0	1.0	2.0	1.0
Bixby, Okla.	1.0	2.3	3.0	1.7	1.3	1.0
Bennignton, Okla.	1.3	2.0	2.0	2.0	1.7	1.3
College Station, Texas	1.0	3.0	3.0	2.0	2.0	2.0

Table 21. (continued)

Location	S5-7075	D55-4060	N57-5461	N57-6736	R56-49	D58-1894
			East Coast			
Linkwood, Md.	2.0	3.0	2.0	2.0	2.0	2.0
Warsaw, Va.	1.0	2.0	1.5	1.5	2.5	1.0
Painter, Va.	2.0	2.0	2.0	1.3	1.7	1.0
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Norfolk, Va.	2.0	2.0	2.0	2.0	2.0	2.0
Holland, Va.	2.0	2.5	2.0	1.0	1.0	1.0
Plymouth, N. C.	2.0	2.0	2.0	1.5	1.5	1.5
Willard, N. C.	2.0	3.0	1.5	1.5	1.5	1.5
Clayton, N. C.	2.0	2.0	1.5	1.0	1.5	1.0
Hartsville, S. C.	2.0	3.0	3.0	3.0	2.0	1.0
			Southeast			
Tallassee, Ala.	2.0	1.5	1.5	1.0	2.0	1.0
Walnut Hill, Fla.	1.0	3.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	4.3	4.7	3.3	2.3	2.3	1.7
Baton Rouge, La.	3.0	2.0	3.0	3.0	2.0	2.0
			Upper and Central South			
Jackson, Tenn.	2.0	2.0	2.0	2.0	2.0	2.0
Belle Mina, Ala.	3.0	2.0	1.0	1.0	1.3	1.0
Experiment, Ga.	1.3	1.3	1.0	1.3	1.3	1.3
State College, Miss.	2.0	2.0	2.0	2.0	1.0	2.0
			Delta			
Sikeston, Mo.	2.0	1.8	1.5	1.8	1.5	1.5
Keiser, Ark. (A)	2.3	3.0	2.7	2.0	2.0	3.0
Keiser, Ark. (B)	3.0	3.0	1.7	2.3	2.0	2.0
Marianna, Ark.	2.7	2.7	2.0	1.7	2.0	2.3
Stoneville, Miss. (A)	2.0	2.3	2.0	1.7	2.0	1.3
Stoneville, Miss. (B)	2.0	2.0	2.0	2.0	2.0	1.3
St. Joseph, La.	1.0	2.0	1.0	2.0	2.0	1.0
			West			
Stuttgart, Ark.	1.0	2.0	1.0	2.0	1.3	1.3
Curtis, La.	2.0	3.0	1.0	2.0	1.0	1.0
Bixby, Okla.	1.7	1.0	1.0	2.0	1.3	2.0
Bennington, Okla.	2.0	2.0	2.0	1.7	1.7	1.3
College Station, Texas	2.0	2.0	2.0	2.0	1.0	4.0

PRELIMINARY GROUP VI

1960

Seven Preliminary VI nurseries were grown. The strains included are listed in table 22 along with their parentage. The results of the several plantings are reported in tables 23 through 28. Table 23 gives a general summary of seed yield, oil and protein percentages, height, maturity, shattering, and reaction to the diseases target spot and Phytophthora rot. All of the strains tested were resistant to bacterial pustule.

The mean seed yield for all 36 varieties and strains for the seven locations was 37.3 bushels per acre. This yield illustrates the general quality of the lines, although there were none yielding significantly above the yield of either of the two check varieties. There were 13 lines which yielded significantly less than Hood and 18 lines which yielded significantly less than Lee. The three highest ranking lines were the lines selected from Ogden(2) x D49-2491. These lines were selected to give yellow seeded types with better seed holding than Ogden. Previous testing at Stoneville had shown these lines to be superior to Ogden in seed holding. However, they are definitely inferior to Lee in this regard.

The lowest yielding line, D58-5076, was selected for the characters narrow leaf and glabrous. This strain was damaged severely by leaf hoppers in the Northern locations. D58-1461 had an average seed size of 9 grams per 100 as compared with approximately 14 grams for Lee. D58-1461 yielded significantly less than Lee at Warsaw, but its yield was within the range of experimental error at the other six locations.

Twenty-four lines had significantly lower oil content than Hood. There were 11 lines which had a significantly higher protein content. D57-727, one of the highest in protein, was 3.2 percentage points above Hood and 1.6 lower in oil.

Five lines were tested from (Roanoke x Hawkeye) x Lee. All five lines appeared to be susceptible to Phytophthora rot in the plantings on clay at Keiser and Stoneville.

Among the lines which appear to merit testing in Uniform Group VI are D57-727, D58-5111, R56-25, and N58-6979.

Table 22. Parentage of the strains in Preliminary Group VI, 1960

	Strain	Parentage	Generation Composited
1.	Hood	Roanoke x N45-745	F_6
2.	Lee	S-100 x CNS	F_6
3.	D55-2148	D50-203 x D49-757	F_5
4.	D56-1096	D51-5108 x Dorman	F_5
5.	D56-1135	D51-5108 x Dorman	F_5
6.	D57-727	N49-2134 x Lee	F_5
7.	D57-733	N49-2134 x Lee	F_5
8.	D57-758	N49-2134 x Lee	F_5
9.	D57-932	(Roanoke x Hawkeye) x Lee	F_5
10.	D57-939	(Roanoke x Hawkeye) x Lee	F_5
11.	D57-950	(Roanoke x Hawkeye) x Lee	F_5
12.	D57-956	(Roanoke x Hawkeye) x Lee	F_5
13.	D57-1008	(Roanoke x Hawkeye) x Lee	F_5
14.	D58-1461	D49-2491(3) x PI 165,926	F_3
15.	D58-1899	D49-2491(5) x Dorman	F_3
16.	D58-5076	D49-2491(3) x PI 181,537	F_4
17.	D58-5097	Ogden(2) x D49-2491	F_5
18.	D58-5101	Ogden(2) x D49-2491	F_5
19.	D58-5111	Ogden(2) x D49-2491	F_5
20.	F57-51	Jackson x D49-2491	F_6
21.	Hale 71		
22.	Hale 321		
23.	R56-25	D49-2573 x N45-1497	F_7
24.	R56-27	D49-2573 x N45-1497	F_7
25.	N55-1066	N48-4860 x Lee	F_5
26.	N57-5580	N44-92 x N48-1867	F_7
27.	N57-5597	N44-92 x N48-1867	F_7
28.	N57-6486	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
29.	N57-6493	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
30.	N57-6527	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
31.	N57-6529	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
32.	N57-6532	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
33.	N57-6534	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
34.	N57-6565	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
35.	N58-6971	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_6
36.	N58-6979	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_6

Table 23. General summary of performance for the strains grown in Preliminary Group VI, 1960

Strain	Seed Yield	Maturity Index	Ht.	Percent Oil	Percent Protein	Target Spot[1]	Phytophthora[2]	Shattering[3]
Hood	40.1	10-9	34	21.9	40.6	1.0	1.0	1.5
Lee	42.1	+10	35	21.2-	41.9+	1.0	1.0	1.0
D55-2148	34.6-	+6	44	19.6-	42.2+	1.0	1.0	1.5
D56-1096	35.0-	0	35	21.0-	40.4	1.0	1.0	1.0
D56-1135	38.8	+12	43	20.9-	39.5	1.0	1.0	1.2
D57-727	39.2	+9	42	20.3-	43.8+	2.0	1.0	1.2
D57-733	36.5	+12	36	20.7-	41.4+	1.0	1.0	1.2
D57-758	39.5	+7	40	19.8-*	43.9+*	1.0	3.0	1.2
D57-932	36.4	+8	47	21.9	40.8	1.0	3.0	1.0
D57-939	39.4	+10	34	20.3-	41.4+	1.0	2.0	1.0
D57-950	38.2	+7	34	22.5+	39.7	1.0	2.0	1.0
D57-956	38.3	+2	41	20.8-	40.2	1.0	3.0	1.0
D57-1008	34.5-	+6	40	21.3-	41.0	2.0	3.0	1.0
D58-1461	38.3	+5	33	19.7-	41.9+	1.0	1.0	1.0
D58-1899	38.8	+9	36	20.8-	42.1+	2.0	1.0	1.0
D58-5076	28.4-	+5	25	19.5-	41.8+	1.0	1.0	1.0
D58-5097	42.1	-1	35	20.6-	42.1+	1.0	1.0	2.3
D58-5101	40.5	-1	34	20.6-	42.1+	1.0	1.0	2.3
D58-5111	42.6	-1	36	20.6-	42.4+	1.0	1.0	2.3
F57-51	40.1	+10	44	21.4*	41.2*	1.0	2.5	1.0
Hale 71	32.8-	+6	47	20.7-	40.1	2.0	1.0	1.8
Hale 321	38.7	0	42	20.7-	40.8	1.0	2.5	1.2
R56-25	40.0	+3	37	21.1-	40.4	1.0	1.0	2.0
R56-27	39.6	+10	41	21.9	40.2	1.0	1.0	1.5
N55-1066	37.2	0	33	21.2-	41.2	2.0	1.0	1.8
N57-5580	35.0-	+12	41	20.8-	39.8	2.0	1.0	1.2
N57-5597	36.4	+9	38	20.6-	40.9	1.0	1.0	1.0
N57-6486	36.4	+9	38	21.2-	40.4	1.0	1.0	1.2
N57-6493	33.3-	+9	36	21.1-	41.2	1.0	1.0	1.2
N57-6527	36.1-	-2	37	22.5+	39.8	1.0	2.0	1.5
N57-6529	35.9-	-2	30	22.8+*	39.0*	1.0	1.0	1.0
N57-6532	36.0-	-1	37	22.2	40.0	2.0	1.0	1.0
N57-6534	34.7-	-2	38	22.7+	39.1	1.0	2.5	1.0
N57-6565	37.1-	-1	33	23.1+	38.2	1.0	2.0	1.2
N58-6971	32.6-	+8	39	21.2-	41.0	1.0	1.0	1.2
N58-6979	38.3	0	37	22.6+	39.9	1.0	1.0	1.5
L.S.D.(.05)	4.0			0.5	0.8			
L.S.D.(.01)	5.3			0.7	1.0			

* Average of 6 location.
1/ Stoneville data.
2/ Stoneville and Keiser data.
3/ Stoneville and Plymouth data.

Table 24. Seed yield, in bushels per acre, for the strains in Preliminary Group VI, 1960

Strain	Warsaw, Va.	Plymouth N.C.	Walnut Hill, Fla.	Sikeston Mo.	Keiser, Ark.	Stone-ville, Miss.(A)	Stone-ville, Miss. (B)
Hood	43.7	39.4	39.0	37.8	29.0	48.5	44.7
Lee	43.6	34.6	44.1	36.3	36.8	54.2	45.4
D55-2148	38.7-	29.5-	38.6	28.2-	29.8	36.7-	40.8
D56-1096	34.1-	35.9	41.3	37.2	31.7	35.5-	29.5-
D56-1135	37.5-	35.1	44.1	34.9	37.3	35.7-	47.3
D57-727	43.7	36.2	39.0	28.2-	33.6	44.2	49.3
D57-733	39.0	30.3-	41.7	33.4	30.6	41.6	39.2
D57-758	46.5+	36.3	43.1	28.9-	--	47.9	42.8
D57-932	40.0	38.2	38.6	36.3	19.6	43.1	39.2
D57-939	44.7	34.6	44.5	38.6	23.2	45.3	45.0
D57-950	45.7	37.6	35.4	36.1	--	45.2	44.1
D57-956	44.9	36.9	41.8	39.6	28.4	45.9	30.5-
D57-1008	40.4	34.1-	37.2	32.0	19.8	38.2-	39.8
D58-1461	33.2-	30.7-	41.3	36.7	39.1+	46.3	40.8
D58-1899	43.5	35.0	45.4+	38.0	36.1	39.1-	39.5
D58-5076	19.6-	21.6-	38.6	27.3-	16.2-	35.2-	40.3
D58-5097	40.9	39.5	39.5	38.3	37.4	48.8	50.7
D58-5101	39.1	37.3	39.0	37.2	38.9+	42.3	49.8
D58-5111	40.9	38.3	42.7	37.4	41.2+	51.0	46.9
F57-51	44.6	33.7-	45.4+	35.0	--	44.2	46.8
Hale 71	37.7-	28.7-	33.6	32.3	29.5	36.7-	31.5-
Hale 321	43.1	38.0	39.9	36.0	27.1	44.3	42.9
R56-25	40.1	36.1	44.1	37.3	34.8	46.2	41.2
R56-27	42.3	34.1-	45.4+	34.8	32.5	39.8	48.2
N55-1066	41.0	35.6	43.1	32.5	31.4	36.6-	40.2
N57-5580	36.7-	32.4-	33.6	33.9	32.3	36.9-	39.4
N57-5597	39.7	33.2-	40.4	30.3-	29.5	40.5	41.6
N57-6486	42.8	29.5-	39.9	31.3	34.7	36.1-	40.3
N57-6493	34.3	26.0-	38.1	25.4-	36.0	37.8-	35.9-
N57-6527	38.2-	32.9-	37.7	33.9	28.2	43.2	38.6
N57-6529	39.9	36.8	33.2	32.8	--	38.9-	39.1
N57-6532	42.0	30.9-	37.8	31.5	36.2	34.0-	40.7
N57-6534	39.7	32.2-	35.4	35.1	24.9	40.6	34.9-
N57-6565	39.3	35.5	39.9	36.6	26.7	42.5	39.2
N58-6971	35.3	33.3-	37.2	25.9-	29.7	32.7-	34.5-
N58-6979	44.8	34.6	40.0	33.3	29.6	42.1	44.1
L.S.D.(.05)	3.8	4.9	6.3	6.8	9.6	9.0	8.7
C.V.	5%	7%	8%	10%	15%	11%	10%

Table 25. Oil percentages for the strains in Preliminary Group VI, 1960

Strain	Warsaw, Va.	Plymouth N.C.	Walnut Hill, Fla.	Sikeston, Mo.	Keiser, Ark.	Stone-Ville, Miss.(A)	Stone-ville, Miss.(B)
Hood	20.7	20.3	23.3	21.6	22.0	23.2	22.5
Lee	20.2	20.1	23.2	20.9	20.8	21.7	21.2
D55-2148	18.4	18.6	21.3	18.9	19.3	20.1	20.9
D56-1096	20.4	20.0	22.6	21.2	19.0	22.3	21.4
D56-1135	20.1	20.0	22.9	20.1	20.5	21.8	20.9
D57-727	20.3	19.2	22.0	19.7	20.0	20.8	20.2
D57-733	19.6	20.6	22.5	19.7	20.3	21.6	20.9
D57-758	19.4	19.0	21.5	19.0	--	19.4	20.5
D57-932	20.9	20.1	24.1	20.8	21.8	22.8	22.5
D57-939	19.5	19.3	21.9	19.3	20.6	21.1	20.4
D57-950	21.0	21.6	24.6	22.0	22.2	23.4	22.4
D57-956	20.0	19.8	22.7	19.6	20.6	21.4	21.7
D57-1008	19.9	20.2	23.1	20.9	21.5	21.9	21.8
D58-1461	19.1	18.0	21.5	19.0	19.9	20.1	20.2
D58-1899	20.0	19.8	22.3	20.5	20.3	21.4	21.2
D58-5076	18.3	18.0	21.0	19.2	18.9	20.5	20.3
D58-5097	19.5	19.3	21.7	20.2	20.3	21.6	21.9
D58-5101	19.5	19.7	22.0	20.3	19.1	21.7	21.7
D58-5111	19.0	19.0	22.4	20.3	19.9	22.2	21.5
F57-51	20.9	20.7	22.1	21.0	--	21.3	22.1
Hale 71	19.4	20.1	23.3	20.3	19.7	20.7	21.2
Hale 321	19.4	19.1	22.8	20.5	20.6	20.8	21.5
R56-25	20.2	20.1	22.5	21.4	20.6	21.2	21.6
R56-27	20.9	20.9	23.7	21.7	21.3	22.1	22.9
N55-1066	19.5	20.0	22.7	22.1	21.1	21.5	21.7
N57-5580	19.5	19.5	24.4	20.8	20.3	20.5	20.7
N57-5597	20.1	19.5	22.5	19.9	20.6	20.5	20.9
N57-6486	20.7	19.6	24.0	21.1	20.4	21.3	21.3
N57-6493	19.9	19.5	23.6	20.3	21.3	21.1	21.7
N57-6527	21.9	20.9	24.3	22.0	21.8	22.9	23.6
N57-6529	21.4	21.4	23.3	22.2	--	23.8	24.7
N57-6532	21.7	20.8	24.1	21.4	21.2	22.7	23.2
N57-6534	21.6	21.5	23.6	22.5	22.1	23.3	24.6
N57-6565	21.8	22.0	24.9	22.4	22.3	23.5	24.6
N58-6971	20.6	20.0	23.9	20.4	20.8	20.6	21.8
N58-6979	21.4	21.4	24.8	22.2	22.1	23.2	23.3

Table 26. Protein percentages for the strains in Preliminary Group VI, 1960

Strain	Warsaw, Va.	Plymouth, N.C.	Walnut Hill, Fla.	Sikeston, Mo.	Keiser, Ark.	Stone-ville, Miss. (A)	Stone-ville, Miss. (B)
Hood	40.8	42.2	40.5	41.5	39.4	40.5	39.5
Lee	42.6	42.8	41.0	41.7	40.6	42.7	41.7
D55-2148	43.4	43.8	40.6	42.0	40.6	43.2	41.5
D56-1096	39.5	42.1	40.0	39.9	40.6	40.2	40.5
D56-1135	39.0	40.5	39.3	39.9	39.3	40.3	38.4
D57-727	42.4	45.0	42.1	44.4	42.2	46.0	44.4
D57-733	41.0	41.3	40.8	41.7	42.2	41.4	41.6
D57-758	42.2	44.8	42.0	45.6	--	45.8	42.8
D57-932	40.1	42.5	39.7	40.3	41.3	41.2	40.3
D57-939	41.2	43.2	40.7	42.0	39.9	42.1	40.9
D57-950	39.4	40.8	38.2	40.3	39.5	40.7	39.2
D57-956	40.0	41.3	39.9	41.4	39.0	40.6	39.3
D57-1008	41.1	42.5	40.4	41.5	40.0	41.1	40.2
D58-1461	42.4	43.5	40.6	42.5	40.0	43.1	41.5
D58-1899	41.7	43.7	41.7	41.7	41.1	42.9	41.7
D58-5076	43.8	43.7	41.0	42.0	40.6	41.0	40.4
D58-5098	41.1	43.8	42.3	42.9	41.2	41.9	41.2
D58-5101	41.0	44.0	42.4	41.7	41.5	42.7	41.6
D58-5111	41.4	44.4	42.3	42.9	42.0	41.9	41.6
F57-51	40.2	42.2	41.6	42.1	--	40.6	40.3
Hale 71	39.5	40.9	39.2	40.7	40.2	40.1	39.9
Hale 321	40.4	42.4	39.8	41.8	39.3	41.9	40.3
R56-25	39.4	41.6	40.6	40.5	40.0	40.8	39.9
R56-27	40.1	41.9	40.6	40.3	39.4	40.0	38.9
N55-1066	40.4	43.1	40.6	40.6	41.1	41.2	41.2
N57-5580	40.4	42.0	37.1	39.3	39.7	40.4	39.4
N57-5597	40.4	43.3	38.9	41.8	39.2	41.6	40.8
N57-6486	39.3	43.6	39.4	39.9	39.7	40.9	40.3
N57-6493	40.6	43.6	40.3	42.0	40.0	41.4	40.7
N57-6527	38.3	41.7	39.7	40.5	39.6	40.1	38.8
N57-6529	38.4	41.2	37.9	40.5	--	38.2	38.0
N57-6532	37.7	42.5	38.7	41.8	39.8	39.8	39.8
N57-6534	38.1	41.4	39.4	39.4	38.5	38.6	38.0
N57-6565	36.6	39.9	36.7	39.8	38.1	38.0	38.1
N58-6971	38.7	42.9	39.2	42.7	40.6	41.9	40.7
N58-6979	38.9	42.0	39.5	41.2	39.4	39.8	38.3

Table 27. Plant height for the strains in Preliminary Group VI, 1960

Strain	Warsaw, Va.	Plymouth, N.C.	Walnut Hill Fla.	Sikeston, Mo.	Keiser, Ark.	Stone-ville, Miss.(A)	Stone-ville, Miss.(B)
Hood	33	36	29	44	30	35	34
Lee	35	36	32	46	32	34	30
D55-2148	43	48	30	55	43	47	42
D56-1096	32	34	30	46	33	31	33
D56-1135	38	46	40	56	39	44	38
D57-727	42	46	32	54	35	44	40
D57-733	36	35	34	46	27	36	35
D57-758	38	43	34	49	--	39	35
D57-932	44	52	44	60	42	49	39
D57-939	36	36	32	41	28	34	32
D57-950	33	35	30	41	--	33	30
D57-956	38	45	36	53	33	42	37
D57-1008	39	44	36	52	33	45	34
D58-1461	34	36	27	41	32	33	31
D58-1899	36	36	36	45	26	37	35
D58-5076	21	23	26	32	17	30	27
D58-5097	35	35	31	47	27	37	31
D58-5101	35	36	29	46	28	36	31
D58-5111	34	38	30	47	31	37	33
F57-51	44	48	40	55	--	39	37
Hale 71	50	48	42	60	44	46	41
Hale 321	42	45	36	55	34	46	38
R56-25	40	39	35	47	32	35	34
R56-27	35	48	38	50	41	38	35
N55-1066	36	36	28	41	29	28	32
N57-5580	41	37	35	51	41	39	40
N57-5597	39	36	34	51	37	37	35
N57-6486	41	36	39	46	35	37	31
N57-6493	34	36	32	44	36	37	35
N57-6527	37	43	34	47	30	36	34
N57-6529	27	32	24	39	--	28	30
N57-6532	36	41	30	46	33	37	34
N57-6534	36	42	37	47	31	34	38
N57-6565	33	35	28	42	26	37	32
N58-6971	39	37	39	49	36	38	35
N58-6979	35	41	31	48	32	35	35

Table 28. Seed quality scores for the strains in Preliminary Group VI, 1960

Strain	Warsaw, Va.	Plymouth, N.C.	Walnut Hill, Fla.	Sikeston, Mo.	Keiser, Ark.	Stone-ville, Miss.(A)	Stone-ville, Miss.(B)
Hood	1.5	2.0	1.0	1.5	2.0	2.5	2.0
Lee	1.5	1.0	1.0	1.3	2.0	1.0	1.0
D55-2148	2.0	2.5	1.0	2.0	3.0	2.0	2.0
D56-1096	1.5	2.0	1.0	1.5	1.5	3.0	1.5
D56-1135	2.0	2.0	1.0	2.0	2.0	2.5	1.0
D57-727	2.5	1.5	1.0	1.5	2.0	2.0	1.5
D57-733	2.5	1.5	1.0	1.5	2.5	2.0	1.0
D57-758	1.5	1.5	1.0	1.8	--	2.0	2.0
D57-932	1.5	2.0	1.0	2.0	2.5	2.0	1.5
D57-939	1.5	1.0	1.0	1.8	1.5	2.0	1.0
D57-950	2.0	2.0	2.0	1.5	--	2.5	2.0
D57-956	1.0	1.5	1.0	1.5	2.5	2.0	2.0
D57-1008	1.0	1.0	2.0	1.5	1.5	2.0	2.0
D58-1461	1.5	2.0	1.0	1.8	2.0	2.5	1.0
D58-1899	1.0	1.5	1.0	1.3	2.5	2.0	1.0
D58-5076	2.5	2.5	1.0	1.8	2.0	2.0	2.0
D58-5097	2.0	2.0	1.0	2.0	2.5	2.5	2.0
D58-5101	2.0	1.5	1.0	1.8	2.5	2.5	2.0
D58-5111	1.5	2.0	1.0	2.0	2.5	2.0	2.0
F57-51	1.0	1.0	1.0	1.5	--	2.0	1.0
Hale 71	2.0	1.5	1.0	1.8	2.0	2.0	2.0
Hale 321	1.5	2.0	1.0	1.8	2.0	1.5	2.0
R56-25	1.5	2.0	1.0	1.5	2.5	2.5	2.5
R56-27	1.0	2.0	1.0	1.8	3.0	2.5	2.5
N55-1066	2.5	2.0	1.0	2.0	3.0	2.0	3.0
N57-5580	3.0	2.0	2.0	2.3	3.0	2.0	2.0
N57-5597	2.5	2.0	2.0	1.8	2.0	2.0	2.0
N57-6486	2.0	2.0	1.0	1.8	2.0	2.0	2.0
N57-6493	1.5	2.0	2.0	1.5	2.0	2.0	2.0
N57-6527	2.0	2.0	2.0	1.8	2.0	2.5	2.0
N57-6529	2.0	2.0	1.0	1.8	--	2.5	2.0
N57-6532	1.5	1.5	1.0	1.8	2.0	2.5	2.0
N57-6534	1.5	2.5	1.0	1.8	2.0	2.5	2.0
N57-6565	2.0	2.0	1.0	1.5	2.5	2.0	2.5
N58-6971	1.5	2.0	1.0	1.8	3.0	2.0	2.0
N58-6979	3.0	2.0	1.0	2.3	2.5	3.0	3.0

UNIFORM GROUP VII

1960

	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.	F55-822	Jackson x D49-2491	F_4
5.	D57-1194	Roanoke(2) x D49-2491	F_5
6.	D57-1299	Roanoke x D49-2491	F_6
7.	F55-255	D49-772 x Improved Pelican	F_4
8.	F57-467	Jackson x D49-2491	F_6
9.	F57-481	Jackson x D49-2491	F_6
10.	N57-6279	Jackson x D49-2491	F_5
11.	N57-6725	Jackson x D49-2491	F_5
12.	N57-6801	Jackson x D49-2491	F_5

Background of strains used as parents:

D49-772 is a selection from Roanoke x N45-745 which was included in Uniform Group VII for the years 1952 and 1953.

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

The results of 23 Uniform Group VII nurseries are summarized in tables 29 through 35. Table 29 gives a general summary of seed yields, agronomic qualities, chemical composition, and disease reactions. Two-year data are reported for seed yield and chemical composition for two experiment lines along with Jackson and Lee. Nine-year means are reported for Jackson and Lee.

Differences among lines were significant in only nine of the 23 comparisons. There was a significant variety x location interaction within the Southeast and Delta production areas. In the Delta the strain D57-1194 contributed much to the interaction, since it yielded very well on the sandy loam soil but suffered severely from Phytophthora rot when grown on the clay at Stoneville.

All of the experimental lines within the group have good resistance to the foliar diseases. All except D57-1194 appear to have satisfactory field tolerance to Phytophthora rot. Only one strain, F55-822, was rated as equal to Lee in seed holding.

Two strains have been tested two years. The strain tested as Jackson 59 is essentially Jackson with resistance to bacterial pustule. The two-year mean yield for Jackson 59 is above that for Jackson in each production area, except the Upper and Central South. F55-822 has also yielded above Jackson in each production area other than the Upper and Central South. F55-822 has a two-year mean yield 10% above Jackson in the Southeast where Jackson is best adapted. It is also superior to Jackson in seed holding and has appeared equal to Jackson in resistance to root-knot nematodes.

D57-1194 yielded well in most plantings, but on the clay at Stoneville and at Stuttgart yields were reduced by Phytophthora rot.

The other seven lines all yielded well and were very satisfactory in other qualities.

Table 29. General summary of performance for the strains in Uniform Group VII, 1960

	Jackson	Jackson 59	Lee	F55-822	D57-1194	D57-1299
Seed Yield - 1960						
East Coast	42.1	44.5	42.4	45.4	41.2	45.5
Southeast	34.4	37.5+	35.3	40.5+	38.3+	36.2
Upper & Central South	36.3	32.0	32.8	34.6	33.9	32.6
Delta	42.3	46.7	45.7	45.2	37.3	47.2
West	38.7	36.6	40.3	38.6	35.7	38.5
- 1959-60						
East Coast	41.4	43.4	39.4	44.5		
Southeast	36.3	37.2	33.7	40.1		
Upper & Central South	35.4	32.3	31.5	33.3		
Delta	39.0	41.9	43.2	43.4		
West	40.9	42.4	43.2	45.4		
- 1952-60						
East Coast	33.7		34.9			
Southeast	33.2		31.3			
Upper & Central South	27.1		28.0			
Delta	33.5		37.3			
West	28.2		31.3			
Oil Percentage - 1960	22.3	22.3	21.7-	22.1	22.1	21.7-
- 1959-60	22.2	22.1	21.8	22.0		
- 1952-60	21.9		21.4			
Protein Percentage - 1960	39.7	39.5	42.0+	41.0+	39.9	40.5+
- 1959-60	39.6	39.8	42.2	41.2		
- 1952-60	39.9		41.6			
Seed Size	16.4	16.2	14.2-	17.5+	16.0	14.9-
Maturity Index	10-25	+1	-7	-4	-1	-6
Height	38	38	29	37	37	29
Shattering[1/]	1.9	2.1	1.0	1.0	1.2	1.5
Bacterial Pustule[2/]	2.5	1.0	1.0	1.0	1.0	1.0
Target Spot[3/]	1.0	1.0	1.0	1.0	2.0	1.0
Purple Seed Stain[4/]	1.5	2.0	1.0	1.0	1.5	1.0
Phytophthora Rot[5/]	1.0	1.0	1.0	1.0	4.0	1.0

1/ Average of 6 locations.
2/ Stoneville data.
3/ Live Oak data.
4/ Walnut Hill, Clayton, Willard, and Clemson.
5/ Stoneville data.

Table 29. (continued)

	F55-255	F57-467	F57-481	N57-6279	N57-6725	N57-6801
Seed Yield - 1960						
East Coast	41.2	40.7	42.8	41.9	44.3	45.7
Southeast	37.6+	35.8	37.3+	36.3	35.6	35.4
Upper & Central South	32.9	32.7	32.9	30.8	31.9	34.3
Delta	44.6	42.2	44.7	47.1	41.8	44.8
West	38.0	37.0	36.3	35.7	39.2	39.5
- 1959-60						
East Coast						
Southeast						
Upper & Central South						
Delta						
West						
- 1952-60						
East Coast						
Southeast						
Upper & Central South						
Delta						
West						
Oil Percentage - 1960	22.1	23.0+	21.9-	22.4	22.5	23.1+
- 1959-60						
- 1952-60						
Protein Percentage - 1960	40.4+	40.9+	41.3+	40.3+	40.6+	39.5
- 1959-60						
- 1952-60						
Seed Size	16.1	16.0	17.9+	17.0	16.2	15.0-
Maturity Index	-4	-4	-4	-7	-6	-5
Height	36	38	39	38	36	37
Shattering[1/]	1.6	1.8	1.2	1.8	1.7	1.4
Bacterial Pustule[2/]	1.0	1.0	1.0	1.0	1.0	1.0
Target Spot[3/]	1.0	2.0	1.7	1.3	1.3	2.0
Purple Seed Stain[4/]	1.0	2.5	1.5	2.0	1.5	2.0
Phytophthora Rot[5/]	1.0	1.0	1.0	1.0	1.0	1.8

Table 30. Seed yield, in bushels per acre, for the strains in Uniform Group VII, 1960

Location	Jackson	Jackson 59	Lee	F55-822	D57-1194	D57-1299	F55-255
		East Coast					
Rocky Mount, N. C.	31.9	34.0	35.2	36.4	30.3	37.1	31.5
Clayton, N. C.	48.5	50.4	47.5	48.2	49.3	48.8	45.9
Willard, N. C.	39.1	44.4+	41.2	45.1+	38.2	45.0+	39.8
Hartsville, S. C.	48.8	49.4	45.6	51.9	47.3	51.0	47.3
Mean	42.1	44.5	42.4	45.4	41.2	45.5	41.2
		Southeast					
Blackville, S. C.	28.4	33.2	25.7	34.3	37.3+	25.6	31.3
Tallassee, Ala.	48.8	48.1	44.0-	50.1	49.5	49.9	47.0
Tifton, Ga.	24.4	24.0	28.8	26.1	29.3	27.5	30.3
Gainesville, Fla.	33.7	43.9+	31.2	49.0+	43.7+	40.0	42.4+
Live Oak, Fla.	35.9	40.4	35.2	45.7+	36.8	31.8	39.6
Quincy, Fla.	37.9	36.4	43.3	39.9	40.7	38.3	38.8
Walnut Hill, Fla.	39.6	39.6	42.0	44.5	39.9	41.2	42.3
Fairhope, Ala.	34.8	44.3+	45.3+	46.8+	45.6+	45.4+	43.5+
Baton Rouge, La.	26.4	27.8	22.5	27.7	22.3	26.2	23.2
Mean	34.4	37.5+	35.3	40.5+	38.3+	36.2	37.6+
		Upper and Central South					
Clemson, S. C.	49.1	39.7	43.7	41.3	45.9	40.0	42.7
Experiment, Ga.	26.2	23.9	21.1	29.6	26.0	25.9	25.7
State College, Miss.	33.5	32.3	33.5	33.0	29.9	31.9	30.5
Mean	36.3	32.0	32.8	34.6	33.9	32.6	32.9
		Delta					
Stoneville, Miss. (A)	41.5	50.5	43.4	42.3	40.7	42.0	47.5
Stoneville, Miss. (B)	40.6	42.8	50.7+	44.2	24.6-	49.7+	42.3
St. Joseph, La.	44.9	46.9	43.0	49.1	46.6	49.9	44.0
Mean	42.3	46.7	45.7	45.2	37.3	47.2	44.6
		West					
Stuttgart, Ark.	49.5	47.7	49.9	47.5	39.7	49.6	43.1
Curtis, La.	44.8	48.5	49.8	49.8	50.0	47.4	46.3
Bennington, Okla.	28.4	21.4	29.1	26.4	26.3	27.6	34.3
College Station, Texas	32.0	28.6	32.2	30.9	26.7	29.4	28.3
Mean	38.7	36.6	40.3	38.6	35.7	38.5	38.0

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

Table 30. (continued)

Location	F57-467	F57-481	N57-6279	N57-6725	N57-6801	L.S.D. (.05)	C.V.
			East Coast				
Rocky Mount, N. C.	27.5	33.8	33.1	36.4	37.0	N.S.	11%
Clayton, N. C.	48.9	43.9	49.1	47.7	46.9	N.S.	8%
Willard, N. C.	38.4	41.2	39.2	43.2+	42.6+	3.1	4%
Hartsville, S. C.	47.9	52.5	46.2	50.1	53.3	N.S.	8%
Mean	40.7	42.8	41.9	44.3	45.7	3.8	
			Southeast				
Blackville, S. C.	27.4	29.2	29.9	30.4	31.2	6.2	12%
Tallassee, Ala.	45.4	45.1	44.5	44.2-	43.8-	4.4	6%
Tifton, Ga.	23.5	26.2	23.7	22.8	22.7	N.S.	13%
Gainesville, Fla.	42.7+	41.0	38.9	40.3	38.0	8.5	12%
Live Oak, Fla.	36.7	46.6+	39.3	39.9	36.8	6.3	10%
Quincy, Fla.	40.7	37.2	39.1	37.2	37.7	N.S.	8%
Walnut Hill, Fla.	42.3	40.8	41.1	39.9	37.5	N.S.	8%
Fairhope, Ala.	39.1+	43.1+	42.6+	46.8+	47.1+	4.0	5%
Baton Rouge, La.	24.1	26.5	27.1	19.1-	23.6	4.7	11%
Mean	35.8	37.3+	36.3	35.6	35.4	2.7	
			Upper and Central South				
Clemson, S. C.	44.5	40.3	39.3	43.5	44.0	N.S.	9%
Experiment, Ga.	24.1	24.6	22.3	21.9	25.1	N.S.	13%
State College, Miss.	29.4	33.9	30.8	30.5	33.7	N.S.	11%
Mean	32.7	32.9	30.8	31.9	34.3	N.S.	
			Delta				
Stoneville, Miss. (A)	39.5	47.8	44.8	39.8	44.4	N.S.	10%
Stoneville, Miss. (B)	44.2	45.3	49.2+	46.3	42.7	6.1	8%
St. Joseph, La.	43.0	41.1	47.3	39.3	47.2	N.S.	12%
Mean	42.2	44.7	47.1	41.8	44.8	N.S.	
			West				
Stuttgart, Ark.	44.6	49.4	45.9	46.2	48.4	N.S.	9%
Curtis, La.	46.1	51.5	49.2	51.4	52.4	N.S.	7%
Bennington, Okla.	25.1	19.1-	19.9-	28.1	22.3	8.1	19%
College Station, Texas	32.4	25.2	27.9	31.1	34.9	N.S.	13%
Mean	37.0	36.3	35.7	39.2	39.5	N.S.	

Table 31. Chemical composition and seed size for the strains in Uniform Group VII, 1960

Location	Jackson	Jackson 59	Lee	F55-822	D57-1194	D57-1299
			Oil Percentage			
Rocky Mount, N. C.	20.3	20.3	19.9	21.0	20.2	19.9
Clayton, N. C.	21.4	21.1	20.3	20.6	20.7	20.6
Hartsville, S. C.	22.6	22.1	22.5	22.5	22.4	22.3
Blackville, S. C.	23.1	23.5	22.0	23.2	22.8	23.7
Tallassee, Ala.	21.9	22.1	21.2	22.6	21.8	21.7
Gainesville, Fla.	24.7	24.7	22.9	23.4	23.2	23.3
Walnut Hill, Fla.	23.0	22.9	22.6	22.6	22.7	22.4
Stoneville, Miss. (A)	22.5	22.5	21.8	21.9	22.2	21.7
Stoneville, Miss. (B)	22.5	22.8	21.9	22.5	22.3	21.5
St. Joseph, La.	21.5	21.9	21.9	21.2	21.6	20.6
Curtis, La.	22.3	21.8	22.0	22.0	23.1	21.5
Mean	22.3	22.3	21.7-	22.1	22.1	21.7-
			Protein Percentage			
Rocky Mount, N. C.	42.5	42.5	43.8	43.0	42.9	42.3
Clayton, N. C.	39.9	39.4	42.0	40.5	40.6	41.8
Hartsville, S. C.	38.3	37.9	38.8	39.6	37.7	37.8
Blackville, S. C.	41.0	40.2	42.8	42.0	40.6	40.0
Tallassee, Ala.	41.0	40.9	43.2	42.6	43.1	41.7
Gainesville, Fla.	38.8	39.2	42.8	41.3	39.0	40.8
Walnut Hill, Fla.	40.2	40.6	42.5	42.0	40.7	40.2
Stoneville, Miss. (A)	39.1	38.9	41.8	39.8	38.9	40.6
Stoneville, Miss. (B)	38.1	37.9	41.5	40.0	38.7	40.4
St. Joseph, La.	38.4	38.3	42.0	40.0	38.2	39.9
Curtis, La.	39.1	38.7	40.6	39.8	38.4	40.0
Mean	39.7	39.5	42.0+	41.0+	39.9	40.5+
			Grams Per 100 Seed			
Rocky Mount, N. C.	16.2	14.5	11.8	17.6	14.1	13.8
Clayton, N. C.	18.2	16.8	13.3	16.9	16.0	15.9
Hartsville, S. C.	18.0	18.0	14.0	19.3	17.3	16.0
Blackville, S. C.	17.9	16.8	15.2	17.5	17.1	15.6
Tallassee, Ala.	18.2	16.4	15.4	18.2	18.0	14.7
Gainesville, Fla.	16.4	17.3	14.9	18.7	15.1	15.2
Walnut Hill, Fla.	17.4	17.3	15.7	18.2	18.0	15.3
Stoneville, Miss. (A)	14.4	15.8	13.1	17.2	14.4	14.4
Stoneville, Miss. (B)	13.2	14.4	14.3	15.6	13.8	14.4
St. Joseph, La.	14.5	14.3	13.5	17.5	15.3	14.0
Curtis, La.	15.5	16.5	15.0	15.5	17.0	14.3
Mean	16.4	16.2	14.2-	17.5+	16.0	14.9-

Table 31. (continued)

Location	F55-255	F57-467	F57-481	N57-6279	N57-6725	N57-6801	L.S.D. (.05)
			Oil Percentage				
Rocky Mount, N. C.	20.9	21.0	19.8	20.6	20.7	21.5	
Clayton, N. C.	21.0	21.5	19.8	20.7	21.3	21.6	
Hartsville, S. C.	23.0	23.6	21.4	23.3	23.7	23.5	
Blackville, S. C.	23.5	23.0	22.7	22.2	23.7	23.7	
Tallassee, Ala.	21.7	22.9	22.2	23.0	22.7	22.6	
Gainesville, Fla.	23.8	24.8	24.4	23.9	23.6	25.1	
Walnut Hill, Fla.	23.0	23.6	23.5	23.1	22.6	24.1	
Stoneville, Miss. (A)	22.4	23.4	21.9	22.8	22.5	22.8	
Stoneville, Miss. (B)	20.8	23.5	22.3	22.8	23.1	23.8	
St. Joseph, La.	20.9	22.5	20.8	22.0	21.0	22.6	
Curtis, La.	22.1	23.0	21.9	22.4	22.3	23.1	
Mean	22.1	23.0+	21.9-	22.4	22.5	23.1+	0.4
			Protein Percentage				
Rocky Mount, N. C.	41.0	42.3	43.4	40.4	43.1	40.9	
Clayton, N. C.	40.7	41.3	42.8	41.6	41.0	39.8	
Hartsville, S. C.	39.0	38.7	39.4	38.7	37.8	37.7	
Blackville, S. C.	41.4	42.5	41.4	41.0	41.0	40.9	
Tallassee, Ala.	41.4	42.0	43.4	41.3	41.9	41.5	
Gainesville, Fla.	40.0	40.9	41.4	40.6	41.5	39.7	
Walnut Hill, Fla.	40.7	41.1	40.5	40.9	41.2	39.9	
Stoneville, Miss. (A)	39.5	41.0	41.6	40.2	40.6	39.4	
Stoneville, Miss. (B)	40.3	40.6	39.9	39.3	39.4	38.1	
St. Joseph, La.	40.2	39.3	41.4	40.1	40.8	39.6	
Curtis, La.	40.1	40.5	39.0	39.4	38.8	37.4	
Mean	40.4+	40.9+	41.3+	40.3+	40.6+	39.5	0.6
			Grams Per 100 Seed				
Rocky Mount, N. C.	14.2	14.6	16.9	16.8	17.1	13.8	
Clayton, N. C.	15.4	15.2	18.9	18.8	17.8	15.2	
Hartsville, S. C.	17.7	17.8	20.5	18.8	18.0	16.7	
Blackville, S. C.	17.2	17.2	17.5	16.3	17.0	14.9	
Tallassee, Ala.	17.0	17.0	19.4	17.4	15.4	16.6	
Gainesville, Fla.	15.1	15.9	18.3	16.0	16.5	14.5	
Walnut Hill, Fla.	17.9	16.8	19.3	18.6	17.1	16.9	
Stoneville, Miss. (A)	16.4	15.4	17.4	16.0	15.7	15.2	
Stoneville, Miss. (B)	15.9	15.0	16.9	15.9	15.4	13.0	
St. Joseph, La.	15.5	14.5	15.0	16.0	13.0	13.5	
Curtis, La.	14.5	17.0	17.0	16.3	15.5	14.5	
Mean	16.1	16.0	17.9+	17.0	16.2	15.0-	0.7

Table 32. Relative maturity data[a], days earlier (-) or later (+) than Jackson, for the strains in Uniform Group VII, 1960

Location	Date Planted	Jackson Matured	Jackson 59	Lee	F55-822	D57-1194
		East Coast				
Rocky Mount, N. C.	5-17	10-24	-1	-6	-2	-3
Clayton, N. C.	5-2	10-3	0	-9	-6	0
Willard, N. C.	6-23	11-2	0	-4	-3	-3
Hartsville, S. C.	6-3	11-3	+1	-8	-4	0
Mean		10-23	0	-7	-4	-2
		Southeast				
Blackville, S. C.	5-20	11-3	0	-16	-13	-2
Tallassee, Ala.	5-16	10-25	-1	-8	-3	-2
Tifton, Ga.	6-8	10-27	+6	-5	-6	-3
Gainesville, Fla.	6-6	10-20	+2	-12	-4	0
Live Oak, Fla.	6-21	10-25	+2	-9	-3	+1
Quincy, Fla.	6-20	10-19	+1	-1	-1	+3
Walnut Hill, Fla.	5-30	10-15	+1	-9	-3	-2
Fairhope, Ala.	6-10	10-15	+3	-14	-5	-10
Baton Rouge, La.	5-17	10-25	-3	-6	-18	-5
Mean		10-23	+1	-9	-6	-2
		Upper and Central South				
Clemson, S. C.	5-16	11-7	+1	-11	-8	-4
Experiment, Ga.	5-13	10-25	+3	-6	-2	-1
State College, Miss.	5-11	10-16	+1	-1	-1	+5
Mean		10-26	+2	-6	-4	0
		Delta				
Stoneville, Miss. (A)	5-18	10-28	0	-10	-2	0
Stoneville, Miss. (B)	5-4	10-26	-1	-9	-2	-2
St. Joseph, La.	5-20	10-22	+9	-1	0	+9
Mean		10-25	+3	-7	-1	+2
		West				
Curtis, La.	5-27	11-2	-2	-5	-2	-1
College Station, Texas	5-24	11-7	-3	-3	0	-3
Mean		11-5	-3	-4	-1	-2

Table 32. (continued)

Location	D57-1299	F55-255	F57-467	F57-481	N57-6279	N57-6725	N57-6801
			East Coast				
Rocky Mount, N. C.	-4	-1	-3	-2	-6	-6	-4
Clayton, N. C.	-6	-6	-7	-7	-7	-9	-8
Willard, N. C.	-5	-3	-1	-3	-4	-4	-7
Hartsville, S. C.	-7	-3	-5	-3	-6	-6	-6
Mean	-6	-3	-4	-4	-6	-6	-6
			Southeast				
Blackville, S. C.	-13	-12	-11	-13	-15	-15	-12
Tallassee, Ala.	-6	-3	-4	-3	-8	-7	-6
Tifton, Ga.	-4	-5	-4	-3	-13	-4	-5
Gainesville, Fla.	-6	-3	-4	-4	-6	-9	-5
Live Oak, Fla.	-8	-5	-1	-5	-9	-8	-8
Quincy, Fla.	-5	-1	-2	-2	-5	-2	-3
Walnut Hill, Fla.	-6	-4	-4	-4	-7	-8	-5
Fairhope, Ala.	-14	-14	-10	-10	-14	-14	-14
Baton Rouge, La.	-5	-3	-5	-1	-19	-13	-1
Mean	-7	-6	-5	-5	-11	-9	-7
			Upper and Central South				
Clemson, S. C.	-10	-7	-6	-7	-11	-11	-12
Experiment, Ga.	-3	-1	-2	-1	-2	-3	-3
State College, Miss.	-1	+2	+4	-1	-4	+1	+6
Mean	-5	-2	-1	-3	-6	-4	-3
			Delta				
Stoneville, Miss. (A)	-4	-3	-2	-3	-4	-3	-2
Stoneville, Miss. (B)	-2	0	-1	-2	-2	-2	-2
St. Joseph, La.	+1	0	0	0	+2	-1	0
Mean	-2	-1	-1	-2	-1	-2	-1
			West				
Curtis, La.	-2	-9	-8	-2	-7	-2	-2
College Station, Texas	-3	-3	-3	0	-3	-3	-3
Mean	-3	-6	-6	-1	-5	-3	-3

Table 33. Plant height for the strains in Uniform Group VII, 1960

Location	Jackson	Jackson 59	Lee	F55-822	D57-1194	D57-1299
		East Coast				
Rocky Mount, N. C.	46	47	35	44	46	34
Clayton, N. C.	51	50	39	53	56	39
Willard, N. C.	40	41	35	41	44	38
Hartsville, S. C.	45	45	31	44	42	33
Mean	46	46	35	46	47	36
		Southeast				
Blackville, S. C.	34	35	28	38	40	29
Tallassee, Ala.	43	43	32	43	40	36
Tifton, Ga.	37	34	30	37	36	28
Gainesville, Fla.	29	29	21	30	33	23
Live Oak, Fla.	30	31	21	29	31	19
Quincy, Fla.	25	27	19	26	25	18
Walnut Hill, Fla.	39	38	29	37	40	32
Fairhope, Ala.	34	33	22	28	34	24
Baton Rouge, La.	28	26	18	24	26	18
Mean	33	33	24	32	34	25
		Upper and Central South				
Clemson, S. C.	40	38	27	37	43	31
Experiment, Ga.	28	27	19	30	24	22
State College, Miss.	42	38	34	40	40	32
Mean	37	34	27	36	36	28
		Delta				
Stoneville, Miss. (A)	47	46	35	46	47	38
Stoneville, Miss. (B)	39	41	33	41	40	32
St. Joseph, La.	36	36	32	40	34	34
Mean	41	41	33	42	40	35
		West				
Stuttgart, Ark.	38	36	29	39	35	30
Curtis, La.	42	40	34	36	42	32
Bennington, Okla.	40	46	36	38	43	32
College Station, Texas	36	34	25	35	34	22
Mean	39	39	31	37	39	29

Table 33. (continued)

Location	F55-255	F57-467	F57-481	N57-6279	N57-6725	N57-6801
			East Coast			
Rocky Mount, N. C.	39	47	47	45	48	48
Clayton, N. C.	37	49	49	47	43	50
Willard, N. C.	40	40	43	39	39	40
Hartsville, S. C.	42	47	43	44	43	47
Mean	40	46	46	44	43	46
			Southeast			
Blackville, S. C.	35	37	40	37	35	36
Tallassee, Ala.	39	42	39	42	40	40
Tifton, Ga.	37	39	37	37	35	36
Gainesville, Fla.	30	34	32	31	30	30
Live Oak, Fla.	31	34	33	34	31	27
Quincy, Fla.	27	30	28	30	26	25
Walnut Hill, Fla.	39	41	41	44	37	38
Fairhope, Ala.	31	34	34	33	29	30
Baton Rouge, La.	28	30	27	26	25	28
Mean	33	36	35	35	32	32
			Upper and Central South			
Clemson, S. C.	38	41	42	43	39	40
Experiment, Ga.	24	25	27	28	27	29
State College, Miss.	36	40	45	40	38	38
Mean	33	35	38	37	35	36
			Delta			
Stoneville, Miss. (A)	45	48	47	47	46	49
Stoneville, Miss. (B)	36	39	39	39	38	40
St. Joseph, La.	36	34	40	36	32	38
Mean	39	40	42	41	39	42
			West			
Stuttgart, Ark.	37	38	39	37	38	36
Curtis, La.	36	42	40	40	34	36
Bennington, Okla.	36	39	37	35	34	41
College Station, Texas	34	30	36	38	35	35
Mean	36	37	38	38	35	37

Table 34. Lodging scores for the strains in Uniform Group VII, 1960

Location	Jackson	Jackson 59	Lee	F55-822	D57-1194	D57-1299
East Coast						
Rocky Mount, N. C.	2.2	2.5	3.0	4.2	4.0	3.0
Clayton, N. C.	4.0	4.0	3.7	4.2	5.0	3.5
Willard, N. C.	4.0	4.0	4.0	4.0	4.0	4.0
Hartsville, S. C.	2.8	2.5	2.1	3.1	3.3	1.9
Southeast						
Blackville, S. C.	1.3	1.3	1.7	1.7	3.0	1.7
Tallassee, Ala.	1.0	1.0	1.0	1.0	2.0	1.0
Tifton, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.3	1.0
Live Oak, Fla.	1.0	1.0	1.0	1.0	1.3	1.0
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	1.0	1.0	1.0	2.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	1.0	2.0	1.0	1.0	1.0	1.0
Upper and Central South						
Clemson, S. C.	1.3	1.0	1.0	1.3	2.3	1.2
Experiment, Ga.	1.0	1.0	1.0	1.3	1.0	1.0
State College, Miss.	2.0	2.0	2.0	2.0	3.0	2.0
Delta						
Stoneville, Miss. (A)	3.0	3.0	3.0	3.0	3.0	3.0
Stoneville, Miss. (B)	3.0	3.0	2.3	3.0	3.3	2.0
St. Joseph, La.	1.0	1.0	1.0	1.0	1.0	1.0
West						
Stuttgart, Ark.	1.7	1.7	1.3	3.0	3.3	1.0
Curtis, La.	2.0	2.0	1.0	2.0	2.0	1.0
Bennington, Okla.	1.0	1.0	1.0	1.3	1.7	1.7
College Station, Texas	2.0	2.0	1.0	2.0	2.0	1.0

Table 34. (continued)

Location	F55-255	F57-467	F57-481	N57-6279	N57-6725	N57-6801
			East Coast			
Rocky Mount, N. C.	3.0	3.2	2.5	2.8	2.8	3.2
Clayton, N. C.	3.2	3.5	3.5	4.5	4.0	3.5
Willard, N. C.	4.0	4.0	4.0	4.0	4.0	4.0
Hartsville, S. C.	2.8	2.9	3.1	4.1	2.7	2.3
			Southeast			
Blackville, S. C.	2.0	2.0	1.3	2.3	1.7	1.0
Tallassee, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Tifton, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, Fla.	1.3	1.7	1.0	1.3	1.3	1.0
Live Oak, Fla.	1.3	2.0	1.0	2.0	1.0	1.0
Quincy, Fla.	1.0	1.0	1.0	2.0	1.0	1.0
Walnut Hill, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	2.0	2.0	2.0	1.0	1.0	2.0
			Upper and Central South			
Clemson, S. C.	1.2	1.8	1.3	2.7	1.5	1.3
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
State College, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
			Delta			
Stoneville, Miss. (A)	3.3	3.3	3.0	3.0	3.7	3.0
Stoneville, Miss. (B)	3.0	3.7	3.3	3.7	3.3	3.0
St. Joseph, La.	1.0	1.0	1.0	2.0	1.0	1.0
			West			
Stuttgart, Ark.	2.7	2.3	3.0	3.0	2.7	2.0
Curtis, La.	2.0	2.0	1.0	2.0	1.0	1.0
Bennington, Okla.	1.0	1.0	1.0	1.0	1.7	1.0
College Station, Texas	2.0	1.0	2.0	2.0	2.0	2.0

Table 35. Seed quality scores for the strains in Uniform Group VII, 1960

Location	Jackson	Jackson 59	Lee	F55-822	D57-1194	D57-1299
			East Coast			
Rocky Mount, N. C.	1.5	1.5	1.5	2.0	2.0	1.5
Clayton, N. C.	1.5	1.5	1.5	1.5	2.0	1.5
Willard, N. C.	1.0	1.0	1.0	1.0	1.5	1.0
Hartsville, S. C.	2.0	2.0	2.0	3.0	3.0	1.0
			Southeast			
Blackville, S. C.	2.0	2.0	1.0	1.7	1.7	1.0
Tallassee, Ala.	1.5	1.5	1.0	2.0	1.5	1.0
Gainesville, Fla.	1.0	1.0	2.0	1.7	1.0	1.3
Live Oak, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Quincy, Fla.	2.0	2.0	2.0	2.0	2.0	2.0
Wlanut Hill, Fla.	1.5	1.5	1.0	1.0	1.0	1.0
Fairhope, Ala.	2.3	3.0	1.7	1.7	2.0	2.3
Baton Rouge, La.	3.0	3.0	2.0	3.0	3.0	2.0
			Upper and Central South			
Clemson, S. C.	2.0	3.0	2.0	2.0	2.0	1.0
Experiment, Ga.	1.7	2.7	1.3	1.0	1.0	1.3
State College, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
			Delta			
Stoneville, Miss. (A)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, Miss. (B)	1.0	1.0	1.0	1.7	2.0	1.0
St. Joseph, La.	2.0	2.0	1.0	1.0	1.0	1.0
			West			
Stuttgart, Ark.	1.0	1.3	1.3	2.0	2.0	1.0
Curtis, La.	3.0	3.0	2.0	2.0	2.0	1.0
Bennington, Okla.	1.7	2.0	1.3	2.0	2.0	1.0
College Station, Texas	4.0	3.0	2.0	4.0	4.0	2.0

Table 35. (continued)

Location	F55-255	F57-467	F57-481	N57-6279	N57-6725	N57-6801
			East Coast			
Rocky Mount, N. C.	2.0	2.0	1.5	2.0	2.0	1.5
Clayton, N. C.	1.5	1.5	2.0	1.5	1.5	1.5
Willard, N. C.	1.0	1.0	1.0	2.0	1.0	1.5
Hartsville, S. C.	3.0	2.0	3.0	2.0	3.0	3.0
			Southeast			
Blackville, S. C.	3.0	2.0	2.0	2.0	1.3	2.0
Tallassee, Ala.	1.0	1.0	1.5	1.5	1.0	1.0
Gainesville, Fla.	1.0	1.3	1.0	1.0	1.0	2.3
Live Oak, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Quincy, Fla.	2.0	2.0	2.0	2.0	2.0	3.0
Walnut Hill, Fla.	1.0	2.0	1.0	1.5	2.0	2.0
Fairhope, Ala.	1.7	3.0	1.3	2.0	1.0	2.3
Baton Rouge, La.	4.0	2.0	1.0	2.0	4.0	3.0
			Upper and Central South			
Clemson, S. C.	2.0	3.0	3.0	3.0	2.0	3.0
Experiment, Ga.	1.0	1.0	1.0	2.3	1.3	2.0
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
Stoneville, Miss. (B)	2.0	2.0	1.7	1.3	1.7	1.3
St. Joseph, La.	1.0	2.0	1.0	1.0	1.0	1.0
			West			
Stuttgart, Ark.	1.7	2.3	2.3	3.0	2.0	2.0
Curtis, La.	1.0	3.0	2.0	4.0	2.0	3.0
Bennington, Okla.	2.0	2.0	2.0	1.7	2.0	2.0
College Station, Texas	4.0	3.0	5.0	3.0	4.0	3.0

PRELIMINARY GROUP VII

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The strains included in the Preliminary Group VII nursery are listed in table 36 along with their parentage. The results of the several plantings are reported in tables 37 through 42. Table 37 gives a general summary of seed yield, oil and protein percentages, height, maturity, shattering, and reaction to diseases.

The mean seed yield for all 36 varieties and strains for five locations was 35.1 bushels per acre. There were no lines yielding significantly better than either of the two check varieties. There was a highly significant strain x location interaction. There were seven strains which averaged significantly lower in yield than Jackson. The highest ranking line was Ga58-33 followed by D58-4300. Ga58-33 is a selection from D49-588 x N51-1956. D49-588 is a rather tall selection from Roanoke x N45-745, while N51-1956 is a high oil selection from Volstate(2) x Palmetto. Both Ga58-33 and D58-4300 should merit advancing to Uniform Group VII.

The three strains N57-6451, N57-6452, and N57-6707 were variable for flower color. N57-6707 also appeared variable for height.

Table 36. Parentage of strains in Preliminary Group VII, 1960

	Variety or Strain	Parentage	Generation Composited
1.	Jackson	Volstate(2) x Palmetto	F_4
2.	Lee	S-100 x CNS	F_6
3.	Co58-204	Majos x Lee	F_6
4.	Co58-222	Majos x Lee	F_6
5.	Co58-255	Majos x Lee	F_6
6.	Co58-260	Majos x Lee	F_6
7.	D58-3358	Jackson(4) x D49-2491	F_3
8.	D58-3379	Jackson(4) x D49-2491	F_3
9.	D58-4300	D51-5052 x D49-2491	F_5
10.	D58-4366	D51-5052 x D49-2491	F_5
11.	D58-4491	D51-5052 x D49-2491	F_5
12.	D58-4493	D51-5052 x D49-2491	F_5
13.	D58-4675	D51-5052 x D49-2491	F_5
14.	D58-4969	D49-2491(2) x D51-5108	F_5
15.	D58-5151	D49-2491 x (D51-5108 x Dorman)	F_5
16.	D58-10,559	D49-2491 x (D51-5052 x PI 171,438)	F_5
17.	F55-889	Jackson x D49-2491	F_4
18.	F57-3882	D49-2491(2) x Improved Pelican	F_4
19.	F57-3990	D49-2491(2) x Improved Pelican	F_4
20.	F58-3719	D49-772 x Improved Pelican	F_7
21.	Ga58-33	D49-588 x N51-1956	
22.	Ga58-93	Jackson x J.E.W. 45	
23.	Ga58-103	CNS4 x J.E.W. 45	
24.	Ga58-105	CNS4 x J.E.W. 45	
25.	Ga58-120	Woods Yellow x Jackson	
26.	Ga58-125	Woods Yellow x Jackson	
27.	N57-6451	Jackson x D49-2491	F_6
28.	N57-6452	Jackson x D49-2491	F_6
29.	N57-6645	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_6
30.	N57-6707	Jackson x Lee	F_6
31.	N57-6711	Jackson x Lee	F_6
32.	N57-6719	Jackson x Lee	F_6
33.	N57-6731	Jackson x Lee	F_6
34.	N57-6746	Jackson x Lee	F_6
35.	N57-6757	Jackson x Lee	F_6
36.	N57-6766	Jackson x Lee	F_6

Table 37. General summary of performance for the strains in Preliminary Group VII, 1960

Strain	Seed Yield	Maturity	Ht.	Percent Oil	Percent Protein	Bact. Pustule	Target Spot	Phytoph-thora	Shatter-ing
Jackson	37.4	10-24	40	22.6	40.7	2.5	1.0	1.0	2.0
Lee	36.8	-9	28	22.2	41.5	1.0	1.0	1.0	1.0
Co58-204	34.9	-8	29	22.4	41.5	1.0	2.0	1.0	1.2
Co58-222	33.5	+2	35	21.5-	41.9+	1.0	1.0	1.0	1.2
Co58-255	30.3-	0	36	20.5-	42.5+	1.0	2.0	1.0	1.2
Co58-260	34.5	-3	31	21.8	39.9	1.0	2.0	1.0	1.0
D58-3358	37.3	0	29	22.4	39.0-	1.0	1.0	1.0	2.0
D58-3379	35.7	0	35	22.4	40.0	1.0	1.0	1.0	2.0
D58-4300	39.3	-4	37	22.5	39.1-	1.0	1.0	1.0	1.2
D58-4366	36.3	-3	31	22.7	39.5-	1.0	1.0	1.0	1.2
D58-4491	34.5	-6	27	22.8	39.2-	1.0	1.0	1.0	1.2
D58-4493	36.6	-3	24	22.3	40.1	1.0	1.0	1.0	1.2
D58-4675	34.1	-7	35	21.6-	40.4	1.0	1.0	1.0	1.2
D58-4969	35.7	-6	32	21.6-	41.1	1.0	1.0	2.0	1.2
D58-5151	29.4-	-8	30	21.5-	41.1	1.0	2.0	1.0	1.5
D58-10,559	35.7	-7	33	20.4-	43.0+	1.0	1.0	1.0	2.0
F55-889	37.6	-2	41	22.9	40.9	1.0	2.0	1.0	1.0
F57-3882	33.8	0	38	22.2	40.4	1.0	2.0	1.0	1.0
F58-3990	35.8	-2	39	22.3	40.8	1.0	1.0	1.0	1.2
F58-3719	36.5	-1	34	20.7-	43.5+	1.0	2.0	1.0	1.5
Ga58-33	40.5	+2	43	22.7	40.0	1.0	1.0	1.0	1.3
Ga58-93	33.5	+2	42	21.5-	40.9	2.5	2.0	1.0	2.3
Ga58-103	28.3-	+2	46	20.0-	41.6	3.0	3.0	1.0	2.0
Ga58-105	27.7-	+3	40	21.1-	42.2+	3.0	3.0	1.0	2.5
Ga58-120	32.2-	+2	39	22.3	39.6	4.0	2.0	1.0	2.5
Ga58-125	32.8-	0	40	22.7	39.0-	4.0	2.0	1.0	2.5
N57-6451	38.2	-4	40	23.2	39.0-	1.0	1.5	1.0	1.0
N57-6452	38.2	-5	36	23.6+	39.2-	1.0	1.0	1.0	1.3
N57-6645	30.6-	-8	30	22.8	40.6	2.0	1.0	1.0	3.0
N57-6707	37.5	-2	40	21.5-	41.8	1.0	1.5	1.0	1.2
N57-6711	36.2	-8	31	22.1	41.4	1.0	1.0	1.0	1.0
N57-6719	35.7	-6	31	22.1	40.9	1.0	1.5	1.0	1.2
N57-6731	36.0	-2	35	22.1	41.2	1.0	1.5	1.0	2.3
N57-6746	37.8	-9	32	22.8	40.4	1.0	1.0	1.0	1.2
N57-6757	35.4	-6	38	21.8	41.2	1.0	1.0	1.0	1.5
N57-6766	38.2	-7	34	22.9	40.1	1.0	1.5	1.0	2.0
L.S.D.(.05)	4.1			0.8	1.2				
L.S.D.(.01)	5.5			1.0	1.6				

Table 38. Seed yield, in bushels per acre, for the strains in Preliminary Group VII, 1960

Strain	Willard, N.C.	Blackville, S.C.	Gainesville, Fla.	Walnut Hill, Fla.	Stoneville, Miss.(A)	Stoneville, Miss. (B) [1/]
Jackson	32.2	37.4	32.7	43.6	41.1	39.8
Lee	34.7	25.3-	31.8	47.2	44.9	51.1
Co58-204	28.1	25.7-	31.9	44.9	43.7	52.9
Co58-222	27.6	25.3-	29.0	43.1	42.4	43.8
Co58-255	28.9	22.8-	21.8-	37.7	45.5	49.1
Co58-260	26.0	28.7-	29.0	39.9	48.9+	46.2
D58-3358	32.4	36.1	36.1	44.5	37.5	41.8
D58-3379	33.1	34.7	25.1	40.0	40.7	40.1
D58-4300	34.1	30.3	37.3	49.5	45.4	46.8
D58-4366	36.8	29.5-	30.0	49.9	35.2	46.9
D58-4491	31.1	29.3-	31.5	46.7	39.0	39.2
D58-4493	35.7	22.8-	37.6	48.1	38.6	45.7
D58-4675	29.3	23.3-	29.8	46.8	41.3	38.3
D58-4969	34.2	28.8-	27.3	45.9	42.5	43.6
D58-5151	27.3	20.8-	21.0-	37.7	40.2	41.5
D58-10,559	30.8	27.1-	28.8	46.3	45.3	44.9
F55-889	39.4	27.7-	40.4	42.2	38.2	50.0
F57-3882	33.9	26.9-	31.0	41.3	35.8	48.2
F57-3990	34.4	24.1-	40.5	38.1	42.0	35.0
F58-3719	32.4	28.5-	39.9	43.6	38.1	39.5
Ga58-33	37.1	34.7	40.8	48.6	41.4	42.9
Ga58-93	34.2	23.3-	29.6	42.2	38.4	33.9
Ga58-103	29.3	21.3-	30.4	34.5-	26.4-	23.3
Ga58-105	33.0	18.0-	29.0	29.1-	29.5-	25.6
Ga58-120	29.3	21.3-	25.5	44.5	40.6	36.2
Ga58-125	30.4	28.5-	26.0	44.0	35.3	33.3
N57-6451	33.3	30.0-	35.2	42.7	50.0+	40.2
N57-6452	33.5	29.7-	30.6	54.5+	43.0	45.4
N57-6645	30.4	23.4-	22.9	40.8	35.5	40.7
N57-6707	35.7	28.0-	30.4	48.1	45.3	50.1
N57-6711	32.3	28.5-	33.4	45.4	41.3	37.5
N57-6719	32.6	30.6	29.3	44.1	42.1	46.4
N57-6731	29.3	22.9-	35.4	47.2	45.2	41.5
N57-6746	35.0	33.6	31.6	47.2	41.9	42.9
N57-6757	32.4	28.9-	27.9	43.6	44.1	42.4
N57-6766	35.6	23.6-	46.5+	45.4	39.7	41.5
L.S.D. (.05)	N.S.	7.3	10.8	7.1	7.5	
C.V.	9%	13%	17%	8%	9%	

1/ Not in mean. Only one plot of each.

Table 39. Oil percentages for the strains in Preliminary Group VII, 1960

Strain	Willard, N.C.	Blackville, S.C.	Experiment, Ga.	Gainesville, Fla.	Walnut Hill, Fla.	Stoneville, Miss.
Jackson	21.4	23.3	22.3	22.5	23.1	22.8
Lee	20.2	22.8	21.5	24.1	22.9	21.7
Co58-204	21.2	23.2	22.2	22.7	23.3	21.5
Co58-222	20.0	20.8	21.4	23.1	22.2	21.3
Co58-255	18.9	20.8	20.1	22.4	21.0	20.0
Co58-260	19.8	21.2	21.9	23.5	22.9	21.4
D58-3358	22.0	23.0	21.7	22.9	22.7	22.0
D58-3379	21.5	23.4	21.7	22.9	22.7	22.0
D58-4300	20.8	23.1	22.3	24.4	23.1	21.2
D58-4366	21.4	23.1	23.7	23.6	22.9	21.3
D58-4491	21.5	23.9	23.1	23.7	22.8	21.5
D58-4493	20.9	23.4	22.4	23.6	22.2	21.0
D58-4675	20.5	22.0	21.2	22.3	22.3	21.0
D58-4969	19.4	22.1	22.2	22.0	22.1	21.6
D58-5151	20.0	21.4	22.1	21.9	22.1	21.7
D58-10,559	19.0	20.6	20.7	21.6	20.6	19.7
F55-889	21.7	23.2	22.5	24.2	23.0	22.5
F57-3882	21.3	22.3	22.7	22.4	22.5	21.6
F57-3990	21.5	22.6	22.8	23.2	22.2	21.6
F58-3719	19.1	21.5	20.1	23.0	20.5	20.2
Ga58-33	21.8	23.2	22.3	24.7	23.2	21.0
Ga58-93	20.1	21.2	21.8	22.8	22.2	20.8
Ga58-103	19.0	20.2	20.4	21.9	20.0	18.6
Ga58-105	19.7	20.8	21.1	24.4	21.3	19.4
Ga58-120	21.1	22.0	21.5	24.6	22.7	22.0
Ga58-125	21.1	22.1	22.6	24.5	23.3	22.6
N57-6451	22.2	23.4	23.2	24.0	24.0	22.3
N57-6452	23.3	23.4	24.7	22.0	24.9	23.3
N57-6645	21.0	23.4	23.5	22.8	24.6	21.4
N57-6707	20.2	22.2	21.9	22.5	21.5	20.4
N57-6711	20.5	22.0	23.4	22.7	22.7	21.5
N57-6719	20.6	23.0	22.9	22.0	22.7	21.1
N57-6731	20.9	22.3	23.4	22.2	22.5	21.2
N57-6746	21.8	22.7	23.2	24.4	22.7	21.7
N57-6757	19.9	22.0	22.1	23.2	22.2	21.2
N57-6766	21.2	23.4	24.0	21.6	24.4	22.5

Table 40. Protein percentages for the strains in Preliminary Group VII, 1960

Strain	Willard, N.C.	Blackville, S.C.	Experiment, Ga.	Gainesville, Fla.	Walnut Hill, Fla.	Stoneville, Miss.
Jackson	41.4	40.7	39.2	43.8	40.1	38.9
Lee	43.2	43.1	39.9	38.9	42.1	42.0
Co58-204	42.0	43.2	38.8	43.6	40.8	40.7
Co58-222	44.1	43.9	40.4	41.8	41.0	40.1
Co58-255	44.1	43.6	40.7	43.5	42.4	40.7
Co58-260	41.8	41.7	37.3	39.5	40.1	38.7
D58-3358	40.0	39.2	39.0	37.8	39.7	38.1
D58-3379	41.5	41.0	38.2	39.5	40.7	39.1
D58-4300	40.2	40.2	37.6	38.9	38.5	39.2
D58-4366	42.1	40.4	36.7	39.9	38.3	39.8
D58-4491	40.3	40.0	36.6	40.3	38.9	39.0
D58-4493	41.1	40.6	37.6	41.0	39.8	40.6
D58-4675	40.9	40.6	40.6	41.2	39.7	39.2
D58-4969	42.7	42.1	37.8	43.0	40.8	40.1
D58-5151	42.5	43.9	38.2	43.5	40.0	38.6
D58-10,559	44.8	42.6	41.0	43.7	43.2	42.6
F55-889	41.6	41.7	40.7	40.6	40.6	40.0
F57-3882	39.3	41.4	35.8	42.8	42.6	40.4
F57-3990	42.0	41.9	37.8	41.7	41.0	40.2
F58-3719	43.9	43.8	43.1	42.4	45.8	41.7
Ga58-33	41.5	40.3	37.9	39.7	40.6	40.1
Ga58-93	42.7	42.1	38.1	40.6	41.8	40.1
Ga58-103	43.0	42.7	39.2	41.7	42.6	40.5
Ga58-105	43.4	43.0	39.2	42.5	43.8	41.0
Ga58-120	42.0	40.9	37.4	39.1	40.4	37.9
Ga58-125	41.1	41.0	36.9	37.9	39.5	37.4
N57-6451	41.6	40.3	35.4	39.6	39.5	37.3
N57-6452	40.3	42.0	33.7	41.6	38.9	38.8
N57-6645	42.4	42.6	37.0	41.0	39.8	40.8
N57-6707	42.5	42.4	39.8	43.1	41.4	41.7
N57-6711	43.7	41.8	37.2	42.6	41.4	41.8
N57-6719	43.2	40.9	38.8	41.3	40.5	40.6
N57-6731	43.0	42.2	38.5	42.6	40.1	40.9
N57-6746	40.3	42.0	37.9	41.5	39.3	41.4
N57-6757	42.9	42.6	38.7	41.6	40.4	40.9
N57-6766	42.6	41.6	37.2	39.9	39.7	39.6

Table 41. Height data for the strains in Preliminary Group VII, 1960

Strain	Willard, N.C.	Blackville, S.C.	Experiment, Ga.	Gainesville, Fla.	Walnut Hill, Fla.	Stoneville, Miss.
Jackson	46	40	27	34	41	50
Lee	32	24	21	25	32	34
Co58-204	30	26	17	30	32	37
Co58-222	35	39	27	33	36	41
Co58-255	38	36	30	30	39	42
Co58-260	31	34	25	27	30	40
D58-3358	35	28	21	21	32	36
D58-3379	44	34	29	25	37	41
D58-4300	38	38	26	33	38	48
D58-4366	32	27	27	27	36	37
D58-4491	26	26	21	24	31	34
D58-4493	22	18	20	21	26	35
D58-4675	35	40	19	32	40	46
D58-4969	35	30	30	25	35	38
D58-5151	29	30	22	23	31	42
D58-10,559	35	36	23	29	38	39
F55-889	46	42	26	39	42	53
F57-3882	35	43	36	33	41	42
F57-3990	40	39	36	33	42	44
F58-3719	36	35	23	30	37	43
Ga58-33	47	42	39	33	41	54
Ga58-93	40	44	36	38	45	51
Ga58-103	46	46	39	40	53	51
Ga58-105	38	37	36	36	43	52
Ga58-120	41	40	27	29	44	52
Ga58-125	42	39	35	32	41	50
N57-6451	41	37	35	34	41	51
N57-6452	38	39	27	31	35	47
N57-6645	33	30	21	26	33	38
N57-6707	45	39	25	37	43	48
N57-6711	33	32	26	27	33	37
N57-6719	34	30	23	28	32	39
N57-6731	39	34	23	31	39	44
N57-6746	35	28	24	30	36	40
N57-6757	40	40	27	34	39	50
N57-6766	37	32	25	29	32	48

Table 42. Seed quality scores for the strains in Preliminary Group VII, 1960

Strain	Willard, N.C.	Experiment, Ga.	Gainesville, Fla.	Walnut Hill, Fla.	Stoneville, Miss.
Jackson	1.0	3.0	1.0	1.0	2.0
Lee	1.0	2.0	2.0	1.0	2.0
Co58-204	1.5	2.0	2.0	1.0	2.0
Co58-222	1.0	1.0	2.0	1.0	2.0
Co58-255	1.0	1.5	2.0	1.0	2.0
Co58-260	1.0	1.5	1.5	1.0	2.0
D58-3358	1.0	3.0	1.0	1.0	2.0
D58-3379	1.0	2.5	2.0	1.0	2.0
D58-4300	1.0	1.5	1.0	1.0	2.0
D58-4366	1.0	1.0	1.5	1.0	2.0
D58-4491	1.0	1.0	1.5	1.0	2.0
D58-4493	1.0	1.0	1.0	1.0	2.0
D58-4675	1.0	2.0	1.0	1.0	1.5
D58-4969	1.0	1.0	1.5	1.0	2.0
D58-5151	1.0	2.0	2.0	1.0	2.0
D58-10,559	1.5	2.0	2.0	1.0	2.0
F55-889	1.0	2.0	1.0	1.0	2.0
F57-3882	1.0	1.0	1.0	1.0	2.0
F57-3990	1.5	1.0	1.0	1.0	1.5
F58-3719	1.0	2.0	1.0	1.0	2.5
Ga58-33	1.0	1.5	1.5	1.0	2.0
Ga58-93	1.0	1.0	1.0	1.0	1.5
Ga58-103	1.0	1.0	1.0	1.0	2.0
Ga58-105	1.0	1.0	2.0	1.0	1.0
Ga58-120	1.0	1.5	1.0	1.0	1.5
Ga58-125	1.0	1.0	1.0	1.0	1.0
N57-6451	1.0	1.0	1.5	1.0	1.0
N57-6452	1.0	1.0	2.0	1.0	2.0
N57-6645	1.5	2.0	3.0	1.0	3.0
N57-6707	1.0	1.0	1.0	1.0	2.0
N57-6711	1.0	1.0	1.0	1.0	2.0
N57-6719	1.0	1.5	1.0	1.0	2.0
N57-6731	1.0	1.5	1.0	2.0	1.5
N57-6746	1.0	1.5	1.5	1.0	2.0
N57-6757	1.5	2.5	2.0	1.0	2.5
N57-6766	1.0	1.5	1.0	1.0	2.0

UNIFORM GROUP VIII

1960

	Variety or Strain	Parentage
1.	Bienville	Pelican #2 x Ogden
2.	Yelnanda 53-116	Nanda x Yelredo
3.	Jackson	Volstate(2) x Palmetto
4.	La56-13-4	Pelican #2 x Ogden
5.	F56-3492	Jackson x D49-2491
6.	Co57-225	Majos x Lee
7.	Co57-248	Majos x Lee
8.	F57-734	D49-772 x Improved Pelican
9.	F57-735	D49-772 x Improved Pelican
10.	F57-784	D49-772 x Improved Pelican
11.	F58-3726	D49-772 x Improved Pelican
12.	F58-3734	D49-772 x Improved Pelican

Background of strains used as parents:

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

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.

The results of 15 Uniform Group VIII nurseries are summarized in tables 43 through 49. Table 43 gives a general summary of seed yields, agronomic qualities, chemical composition, and disease reactions. Two- and 3-year data are reported for seed yield and oil and protein percentages.

Differences among strains were significant in 13 of the 15 nurseries. There was a highly significant strain x location interaction within each area. In the Southeast Yelnanda 53-116 yielded highly significantly less than Bienville and F56-3492 yielded highly significantly more than Bienville. The two-year relationship of these strains is very similar to the one-year data.

The only strain to be tested three years was La56-13-4. This strain has a performance record very similar to that of Bienville.

Of the strains tested one year, Co57-225, F57-734, F57-735, F58-3726, and F58-3734 appear to be very good lines. F57-784 is a very tall growing line. The added height did not appear to be of any advantage under the conditions where these nurseries were grown. These strains are all later in maturity than Bienville, which is desired for Group VIII.

Table 43. General summary of performance for the strains in Uniform Group VIII, 1960

	Bienville	Yelnanda 53-116	Jackson	La56-13-4	F56-3492	Co57-225
Seed Yield - 1960						
Southeast	34.8	29.5-	36.2	34.8	39.4+	37.7
Delta and West	40.7	25.6-	37.9	43.4	42.0	36.6
- 1959-60						
Southeast	36.7	29.9	35.1	35.7	39.2	
Delta and West	41.6	25.3	40.3	43.8	43.7	
- 1958-60						
Southeast	34.4	28.8	33.4	33.8		
Delta and West	42.4	25.1	41.5	43.6		
Oil Percentage - 1960	22.3	20.9-	23.1+	22.4	23.0+	23.3+
- 1959-60	22.2	20.7	22.9	22.1	22.7	
- 1958-60	21.9	20.5	22.6	22.0		
Protein Percentage - 1960	41.2	44.3+	39.3-	40.7	38.3-	39.1-
- 1959-60	41.2	44.5	39.9	41.1	38.6	
- 1958-60	41.5	44.9	40.1	41.1		
Seed Size	17.1	19.7+	16.4	16.8	16.6	17.7
Maturity Index	10-27	+2	-2	0	0	+1
Height	38	43	36	40	36	34
Bacterial Pustule	3.0	4.0	2.5	3.0	1.0	1.0
Target Spot	1.0	4.3	1.0	1.3	1.0	1.0
Shattering	1.9	1.2	2.2	2.1	1.7	1.0

Table 43. (continued)

	Co57-248	F57-734	F57-735	F57-784	F58-3726	F58-3734
Seed Yield - 1960						
Southeast	34.9	33.2	35.0	33.4	37.0	37.4
Delta and West	38.1	39.8	37.1	30.5-	37.3	38.9
- 1959-60						
Southeast						
Delta and West						
- 1958-60						
Southeast						
Delta and West						
Oil Percentage - 1960	20.8-	21.6-	22.2	22.7	21.5-	21.9
- 1959-60						
- 1958-60						
Protein Percentage - 1960	42.0+	41.7	41.8	41.3	41.9+	41.5
- 1959-60						
- 1958-60						
Seed Size	14.9-	15.9-	16.0-	18.5+	15.9-	15.1-
Maturity Index	0	+3	+3	+2	+5	+4
Height	31	42	39	52	43	40
Bacterial Pustule	1.0	1.0	1.0	1.0	1.0	1.0
Target Spot	2.3	1.0	1.0	2.3	2.3	2.0
Shattering	2.2	1.6	1.0	2.5	1.8	1.0

Table 44. Seed yield, in bushels per acre, for the strains in Uniform Group VIII, 1960

Location	Bienville	Yelnanda 53-116	Jackson	La56-13-4	F56-3492	Co57-225	Co57-248
			Southeast				
Willard, N. C.	34.1	30.8	37.0	36.1	40.2+	43.7+	40.4+
Hartsville, S. C.	45.6	39.0-	46.4	45.7	51.8+	53.2+	45.3
Blackville, S. C.	29.8	27.7	36.5+	29.8	34.4+	34.2+	34.4+
Experiment, Ga.	25.4	18.3	31.6	26.2	31.4	30.3	30.8
Tallassee, Ala.	42.4	37.7	46.5	42.2	50.8+	45.8	41.0
Tifton, Ga.	28.6	23.1	29.7	26.9	26.8	30.8	28.7
Live Oak, Fla.	32.4	27.6	32.0	33.0	37.8+	34.1	33.8
Gainesville, Fla.	22.3	17.0	30.5	28.3	44.9+	27.0	23.6
Quincy, Fla.	39.3	33.6-	33.3-	37.3	33.3-	38.4	37.1
Walnut Hill, Fla.	42.1	30.6-	46.3	38.1	46.3	50.8+	39.9
Fairhope, Ala.	34.5	36.8	35.1	35.9	41.3+	41.5+	39.6+
Baton Rouge, La.	41.2	31.9-	29.1-	38.6	33.2-	23.0-	24.7-
Mean	34.8	29.5-	36.2	34.8	39.4+	37.7	34.9
			Delta and West				
Stoneville, Miss.	30.6	29.7	38.8+	39.7+	42.9+	39.9+	39.4+
St. Joseph, La.	43.7	18.3-	34.4	41.9	38.7	26.6-	29.9-
Curtis, La.	47.7	28.9-	40.3-	48.5	44.4	43.4	44.9
Mean	40.7	25.6-	37.9	43.4	42.0	36.6	38.1

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

Table 44. (continued)

Location	F57-734	F57-735	F57-784	F58-3726	F58-3734	L.S.D. (.05)	C.V.
			Southeast				
Willard, N. C.	35.2	34.4	35.8	35.5	36.4	4.5	7%
Hartsville, S. C.	40.2-	43.9	43.7	41.2-	42.8	3.8	5%
Blackville, S. C.	29.6	34.1+	27.1	33.0	32.1	4.2	8%
Experiment, Ga.	20.0	22.4	23.2	33.7	30.1	N.S.	22%
Tallassee, Ala.	39.0	38.3	36.3-	42.7	47.6	6.0	8%
Tifton, Ga.	28.0	24.4	23.9	33.7	29.2	N.S.	13%
Live Oak, Fla.	37.9+	36.3	37.5	38.9+	38.5+	5.2	8%
Gainesville, Fla.	29.1	35.3+	33.6+	37.7+	39.4+	10.8	21%
Quincy, Fla.	32.8-	32.8-	31.9-	32.0-	38.1	3.6	6%
Walnut Hill, Fla.	38.7	41.7	38.7	39.0	39.6	5.8	8%
Fairhope, Ala.	37.3	39.2+	--	42.6+	42.5+	4.7	7%
Baton Rouge, La.	30.8-	37.3	33.8-	33.6-	32.1-	4.6	8%
Mean	33.2	35.0	33.4	37.0	37.4	3.1	
			Delta and West				
Stoneville, Miss.	36.1	37.9+	26.7	30.3	32.1	7.2	12%
St. Joseph, La.	36.2	31.2-	29.4-	39.7	37.3	10.0	17%
Curtis, La.	47.0	42.2	35.3-	41.8	47.2	6.7	9%
Mean	39.8	37.1	30.5-	37.3	38.9	7.6	

Table 45. Chemical composition and seed size for the strains in Uniform Group VIII, 1960

Location	Bienville	Yelnanda 53-116	Jackson	La56-13-4	F56-3492	Co57-225
			Oil Percentage			
Hartsville, S. C.	22.8	21.2	22.9	23.5	22.7	23.3
Blackville, S. C.	21.8	21.9	23.2	22.0	23.4	22.5
Tallassee, Ala.	21.2	19.8	22.5	22.3	22.6	23.2
Live Oak, Fla.	23.0	21.3	23.7	23.4	23.4	24.2
Gainesville, Fla.	24.3	21.0	24.2	21.7	23.7	25.2
Walnut Hill, Fla.	21.4	21.3	23.7	21.5	23.4	23.2
Baton Rouge, La.	22.2	20.8	22.7	22.7	22.7	22.6
Stoneville, Miss.	22.1	20.5	22.9	22.4	23.4	22.5
Curtis, La.	22.1	20.7	22.3	22.4	22.0	22.8
Mean	22.3	20.9-	23.1+	22.4	23.0+	23.3+
			Protein Percentage			
Hartsville, S. C.	39.8	44.4	39.0	39.2	37.2	37.9
Blackville, S. C.	42.9	44.0	39.6	41.9	38.7	40.6
Tallassee, Ala.	43.0	44.7	41.1	42.3	40.1	39.3
Live Oak, Fla.	41.3	46.0	40.4	41.9	40.2	40.7
Gainesville, Fla.	42.4	45.8	38.5	41.4	37.5	39.5
Walnut Hill, Fla.	40.8	44.2	40.4	40.0	38.4	40.0
Baton Rouge, La.	40.0	42.5	39.0	39.8	38.5	38.5
Stoneville, Miss.	40.6	43.9	36.9	39.5	35.5	37.7
Curtis, La.	39.7	43.0	39.1	40.1	38.2	37.8
Mean	41.2	44.3+	39.3-	40.7	38.3-	39.1-
			Grams Per 100 Seed			
Hartsville, S. C.	18.8	23.7	18.3	19.0	18.5	19.8
Blackville, S. C.	17.1	20.0	15.0	17.3	16.0	16.9
Tallassee, Ala.	19.8	18.5	16.4	18.4	18.0	18.3
Live Oak, Fla.	16.2	20.2	13.9	15.0	18.2	18.4
Gainesville, Fla.	13.2	20.7	16.0	13.8	15.0	16.0
Walnut Hill, Fla.	18.8	21.4	18.0	17.8	18.0	17.8
Baton Rouge, La.	18.3	17.5	17.3	17.0	15.5	17.0
Stoneville, Miss.	14.9	18.9	15.4	15.5	14.2	16.4
Curtis, La.	17.0	16.3	17.0	17.3	16.0	18.3
Mean	17.1	19.7+	16.4	16.8	16.6	17.7

Table 45. (continued)

Location	Co57-248	F57-734	F57-735	F57-784	F58-3726	F58-3734	L.S.D. (.05)
			Oil Percentage				
Hartsville, S. C.	20.5	21.3	22.2	22.5	20.6	21.4	
Blackville, S. C.	21.0	22.5	22.8	22.6	21.6	22.1	
Tallassee, Ala.	20.3	21.4	22.0	22.9	21.3	21.0	
Live Oak, Fla.	21.4	22.5	22.9	23.0	22.3	22.9	
Gainesville, Fla.	21.7	22.4	23.4	24.0	22.0	23.5	
Walnut Hill, Fla.	20.2	21.9	22.5	22.4	21.8	21.7	
Baton Rouge, La.	21.1	20.9	21.1	23.0	20.7	21.4	
Stoneville, Miss.	21.0	20.6	21.1	22.3	20.7	21.3	
Curtis, La.	20.1	21.2	21.7	21.8	22.3	22.1	
Mean	20.8-	21.6-	22.2	22.7	21.5-	21.9	0.5
			Protein Percentage				
Hartsville, S. C.	40.9	40.9	41.4	41.6	41.2	41.0	
Blackville, S. C.	43.1	41.6	42.3	42.6	43.0	43.2	
Tallassee, Ala.	43.6	41.3	41.6	40.8	43.2	42.6	
Live Oak, Fla.	42.4	43.7	43.7	41.6	42.5	41.8	
Gainesville, Fla.	43.3	43.3	42.3	43.0	42.5	40.8	
Walnut Hill, Fla.	42.8	42.2	42.2	42.8	42.3	43.1	
Baton Rouge, La.	41.6	41.5	41.3	40.5	42.2	41.7	
Stoneville, Miss.	40.0	40.5	40.6	38.1	39.2	39.5	
Curtis, La.	40.2	40.4	40.4	40.8	40.7	40.1	
Mean	42.0+	41.7	41.8	41.3	41.9+	41.5	0.7
			Grams Per 100 Seed				
Hartsville, S. C.	16.8	17.5	18.3	20.5	18.0	17.2	
Blackville, S. C.	14.6	15.5	15.6	16.9	15.2	16.0	
Tallassee, Ala.	14.9	14.9	15.0	18.5	16.5	16.4	
Live Oak, Fla.	14.3	17.3	17.9	20.0	17.5	12.7	
Gainesville, Fla.	12.2	17.3	14.7	17.5	14.6	15.1	
Walnut Hill, Fla.	15.3	15.8	17.7	21.7	16.3	17.4	
Baton Rouge, La.	17.0	15.3	15.5	18.0	15.5	13.0	
Stoneville, Miss.	13.9	15.1	14.4	15.5	13.4	13.6	
Curtis, La.	15.3	14.5	14.5	17.5	16.3	14.5	
Mean	14.9-	15.9-	16.0-	18.5+	15.9-	15.1-	1.1

Table 46. Relative maturity data, days earlier (-) or later (+) than Bienville, for the strains in Uniform Group VIII, 1960

Location	Date Planted	Bienville Matured	Yelnanda 53-116	Jackson	La56-13-4	F56-3492
			Southeast			
Willard, S. C.	6-23	11-8	0	0	0	0
Hartsville, S. C.	6-3	11-6	+3	-3	0	-2
Blackville, S. C.	6-20	11-2	-4	-3	+1	-3
Experiment, Ga.	5-13	10-25	+8	+4	0	+3
Tallassee, Ala.	5-16	11-1	0	-8	-3	-4
Tifton, Ga.	6-8	10-29	-5	+2	0	+2
Live Oak, Fla.	6-21	10-24	+1	-1	+1	+5
Gainesville, Fla.	6-7	10-20	+5	-1	+1	0
Quincy, Fla.	6-20	10-27	+3	-8	0	+2
Walnut Hill, Fla.	5-30	10-17	-2	+1	+2	0
Fairhope, Ala.	6-10	10-15	+5	0	+5	0
Baton Rouge, La.	5-17	10-29	+10	-3	-1	+6
Mean		10-27	+2	-2	0	0
			Delta and West			
Stoneville, Miss.	6-20	11-3	+1	-6	+1	-2
St. Joseph, La.	6-14	11-3	+1	+2	+3	0
Curtis, La.	5-27	11-2	+3	-4	+1	0
Mean		11-3	+2	-3	+2	-1

Table 46. (continued)

Location	Co57-225	Co57-248	F57-734	F57-735	F57-784	F58-3726	F58-3734
			Southeast				
Willard, S. C.	0	0	0	0	0	0	0
Hartsville, S. C.	-1	-2	+4	+4	+5	+7	+7
Blackville, S. C.	0	-3	-2	0	-1	+2	+2
Experiment, Ga.	+1	0	+7	+5	+5	+2	+2
Tallassee, Ala.	-2	-4	-1	0	-3	+2	+1
Tifton, Ga.	0	0	0	-1	0	-1	0
Live Oak, Fla.	+5	+3	+6	+5	+3	+5	+6
Gainesville, Fla.	+3	+2	+5	+6	+5	+8	+6
Quincy, Fla.	+1	+2	+3	+2	+2	+3	+2
Walnut Hill, Fla.	+3	-1	+6	+6	+3	+7	+7
Fairhope, Ala.	0	0	0	+5	--	+5	+5
Baton Rouge, La.	+3	+3	+7	+5	+5	+10	+2
Mean	+1	0	+3	+3	+2	+4	+3
			Delta and West				
Stoneville, Miss.	+1	-2	+4	+5	+4	+5	+4
St. Joseph, La.	0	0	+5	0	+2	+7	+7
Curtis, La.	+2	+2	+5	+1	+4	+8	+10
Mean	+1	0	+5	+2	+3	+7	+7

Table 47. Height data for the strains in Uniform Group VIII, 1960

Location	Bienville	Yelnanda 53-116	Jackson	La56-13-4	F56-3492	Co57-225
			Southeast			
Hartsville, S. C.	45	46	45	44	43	39
Blackville, S. C.	38	37	31	39	31	28
Experiment, Ga.	28	36	32	30	28	25
Tallassee, Ala.	45	47	40	48	43	39
Tifton, Ga.	40	41	36	43	40	36
Live Oak, Fla.	32	40	30	35	33	31
Gainesville, Fla.	28	35	27	33	31	27
Quincy, Fla.	35	41	29	36	29	31
Walnut Hill, Fla.	46	50	44	49	42	40
Fairhope, Ala.	35	34	33	38	32	33
Baton Rouge, La.	38	45	36	39	35	30
Mean	37	41	35	39	35	33
			Delta and West			
Stoneville, Miss.	45	51	39	49	42	43
St. Joseph, La.	40	46	36	40	36	32
Curtis, La.	40	46	40	40	36	34
Mean	42	48	38	43	38	36

Table 47. (continued)

Location	Co57-248	F57-734	F57-735	F57-784	F58-3726	F58-3734
			Southeast			
Hartsville, S. C.	35	45	49	59	44	47
Blackville, S. C.	26	39	40	48	39	37
Experiment, Ga.	24	34	32	48	39	37
Tallassee, Ala.	35	48	48	64	47	48
Tifton, Ga.	31	43	45	51	47	41
Live Oak, Fla.	27	39	37	42	38	37
Gainesville, Fla.	26	33	35	44	38	35
Quincy, Fla.	28	38	37	44	39	40
Walnut Hill, Fla.	38	49	52	60	54	50
Fairhope, Ala.	31	38	36	--	36	36
Baton Rouge, La.	30	40	27	50	45	36
Mean	30	41	40	51	42	40
			Delta and West			
Stoneville, Miss.	38	45	44	58	49	47
St. Joseph, La.	32	42	32	52	46	38
Curtis, La.	32	42	33	52	46	38
Mean	34	43	36	54	47	41

Table 48. Lodging scores for the strains in Uniform Group VIII, 1960

Location	Bienville	Yelnanda 53-116	Jackson	La56-13-4	F56-3492	Co57-225
			Southeast			
Willard, S. C.	4.0	4.0	4.0	4.0	4.0	4.0
Hartsville, S. C.	3.3	3.8	2.4	3.1	2.1	1.8
Blackville, S. C.	1.7	2.7	1.0	1.0	1.0	1.7
Experiment, Ga.	1.0	1.3	1.0	1.0	1.0	1.0
Tallassee, Ala.	2.0	2.0	1.0	2.0	1.0	1.0
Tifton, Ga.	2.0	1.0	1.0	2.0	1.0	1.0
Live Oak, Fla.	1.3	2.0	1.0	2.0	1.0	1.3
Gainesville, Fla.	1.3	1.0	1.0	1.0	1.3	1.0
Quincy, Fla.	1.0	3.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	2.0	2.0	1.0	3.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	3.0	3.0	1.0	3.0	2.0	1.0
			Delta and West			
Stoneville, Miss.	2.0	3.0	1.7	3.0	1.3	2.0
St. Joseph, La.	1.0	2.0	1.0	1.0	1.0	1.0
Curtis, La.	3.0	2.0	2.0	3.0	3.0	2.0

Table 49. Seed quality scores for the strains in Uniform Group VIII, 1960

Location	Bienville	Yelnanda 53-116	Jackson	La56-13-4	F56-3492	Co57-225
			Southeast			
Willard, S. C.	1.0	1.0	1.0	1.0	1.0	1.0
Hartsville, S. C.	2.0	2.0	2.0	2.0	3.0	2.0
Blackville, S. C.	1.0	2.0	1.3	1.0	2.0	2.0
Experiment, Ga.	1.3	2.7	1.7	1.3	2.0	1.3
Tallassee, Ala.	1.0	1.5	1.5	1.0	1.5	1.5
Live Oak, Fla.	1.0	1.0	1.0	1.0	1.0	1.2
Gainesville, Fla.	1.3	1.7	1.0	1.0	1.0	2.0
Quincy, Fla.	2.0	3.0	2.0	2.0	3.0	3.0
Walnut Hill, Fla.	1.0	1.5	1.0	1.0	2.0	1.0
Fairhope, Ala.	1.7	2.3	3.0	2.0	3.3	2.3
Baton Rouge, La.	1.0	2.0	3.0	2.0	3.0	2.0
			Delta and West			
Stoneville, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	1.0	3.0	2.0	1.0	3.0	2.0
Curtis, La.	1.0	3.0	4.0	1.0	3.0	3.0

Table 48. (continued)

Location	Co57-248	F57-734	F57-735	F57-784	F58-3726	F58-3734
			Southeast			
Willard, S. C.	4.0	4.0	4.0	4.0	4.0	4.0
Hartsville, S. C.	1.3	3.0	2.9	3.9	4.9	4.0
Blackville, S. C.	1.3	2.0	2.0	2.0	2.0	1.3
Experiment, Ga.	1.0	1.0	1.0	2.0	1.7	1.0
Tallassee, Ala.	1.0	1.0	1.5	2.0	2.0	1.5
Tifton, Ga.	1.0	1.0	1.0	1.0	2.0	3.0
Live Oak, Fla.	1.0	1.3	1.7	2.0	1.7	1.0
Gainesville, Fla.	1.0	1.0	1.3	1.7	2.0	1.0
Quincy, Fla.	1.0	2.0	3.0	3.0	3.0	2.0
Walnut Hill, Fla.	1.0	2.0	2.0	2.0	4.0	4.0
Fairhope, Ala.	1.0	1.0	1.0	--	1.0	1.0
Baton Rouge, La.	1.0	3.0	1.0	3.0	3.0	3.0
			Delta and West			
Stoneville, Miss.	1.0	2.0	2.3	3.0	2.3	1.7
St. Joseph, La.	1.0	1.0	1.0	2.0	2.0	2.0
Curtis, La.	2.0	3.0	2.0	3.0	3.0	3.0

Table 49. (continued)

Location	Co57-248	F57-734	F57-735	F57-784	F58-3726	F58-3734
			Southeast			
Willard, S. C.	1.0	1.0	1.0	1.0	1.0	1.0
Hartsville, S. C.	2.0	2.0	2.0	3.0	2.0	2.0
Blackville, S. C.	2.0	2.7	2.1	1.0	2.0	1.6
Experiment, Ga.	1.7	1.7	3.0	1.3	1.3	1.7
Tallassee, Ala.	1.5	1.0	1.0	1.0	1.0	1.0
Live Oak, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, Fla.	1.7	1.3	1.0	1.0	1.0	1.0
Quincy, Fla.	2.0	3.0	3.0	3.0	3.0	3.0
Walnut Hill, Fla.	2.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	2.7	2.7	3.0	--	2.7	2.0
Baton Rouge, La.	3.0	2.0	2.0	1.0	2.0	2.0
			Delta and West			
Stoneville, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	1.0	1.0	2.0	2.0	2.0	2.0
Curtis, La.	3.0	1.0	1.0	1.0	2.0	1.0

PRELIMINARY GROUP VIII

1960

The strains included in the Preliminary Group VIII nursery are listed in table 50 along with their parentage. The results of the several plantings are reported in tables 51 through 56. Table 51 gives a general summary of seed yield, oil and protein percentages, maturity, height, and reaction to the diseases bacterial pustule and target spot.

The mean yield for the six nurseries was 29.6 bushels. The lower yield for this group as compared with Preliminary VII does not necessarily mean that these are poorer lines, since Jackson averaged 37.4 bushels per acre in Preliminary VII but only 27.3 bushels in Preliminary VIII. There was a highly significant variety x location interaction, but differences among strains were non-significant.

There were 25 lines resistant to bacterial pustule. Seventeen of these also had low ratings for target spot. Aerial blight appeared to have caused considerable defoliation at Baton Rouge. Ratings were not made for this disease but there were apparent strain differences. The group included 10 lines which had been selected at Baton Rouge and which appeared to have resistance. The lowest yielding of these 10 ranked 11th at Baton Rouge. The planting at Quincy was severely damaged by stink bugs. Differential feeding may have influenced relative yields.

Table 50. Parentage of strains in Preliminary Group VIII, 1960

	Strain	Parentage	Generation Composited
1.	Bienville	Pelican #2 x Ogden	
2.	Jackson	Volstate(2) x Palmetto	F_4
3.	Co57-257	Majos x Lee	F_5
4.	Co58-211	Majos x Lee	F_6
5.	Co58-219	Majos x Lee	F_6
6.	Co58-220	Majos x Lee	F_6
7.	Co58-224	Majos x Lee	F_6
8.	Co58-239	Majos x Lee	F_6
9.	Co58-240	Majos x Lee	F_6
10.	Co58-257	Majos x Lee	F_6
11.	Co58-266	Majos x Lee	F_6
12.	Co58-271	Majos x Lee	F_6
13.	F56-3228	D49-772 x Improved Pelican	F_5
14.	F57-356	D49-772 x Improved Pelican	F_6
15.	F57-584	D49-772 x Improved Pelican	F_6
16.	F57-1471	D49-2491 x Majos	F_6
17.	F57-1985	D49-2491 x Improved Pelican	F_4
18.	F57-3968	D49-2491(2) x Improved Pelican	F_4
19.	F57-4040	D49-2491(2) x Improved Pelican	F_4
20.	F58-3884	D49-772 x D50-1633	F_7
21.	F58-6213	D49-772 x Improved Pelican	F_7
22.	F58-6217	D49-772 x Improved Pelican	F_7
23.	F58-6285	D49-772 x D50-1633	F_7
24.	F58-6293	D49-772 x Improved Pelican	F_7
25.	F58-6302	D49-772 x Improved Pelican	F_7
26.	F58-6403	D49-772 x Improved Pelican	F_7
27.	F58-6451	D49-772 x Improved Pelican	F_7
28.	La58-13-26	Pelican #2 x Ogden	
29.	La58-17-8	Pelican #2 x Ogden	
30.	La58-26-2	Ogden x Creole	
31.	La58-43-4	Volstate x Creole	
32.	La58-54-6	Pelican #2 x Ogden	
33.	La58-62-3	Pelican #2 x Ogden	
34.	La58-77-12	Pelican #2 x Ogden	
35.	La58-92-17	Pelican #2 x Ogden	
36.	La58-104-15	Pelican #2 x Ogden	

Table 51. General summary of performance for the strains grown in Preliminary Group VIII, 1960

Strain	Seed Yield	Maturity	Ht.	Percent Oil	Percent Protein	Bacterial Pustule	Target Spot
Bienville	34.1	10-27	34	22.7	40.3	3.0	1.0
Jackson	27.3	-3	30	22.6	39.8	2.5	1.0
Co57-257	30.5	+6	34	20.9-	41.1	1.0	4.0
Co58-211	28.0	+3	27	22.1	39.6	1.0	2.0
Co58-219	26.1	+2	28	20.9-	40.8	1.0	3.0
Co58-220	30.6	+3	34	21.1-	40.5	1.0	3.5
Co58-224	28.6	+4	28	20.9-	42.1+	1.0	1.0
Co58-239	27.2	+4	31	20.0-	42.7+	1.0	1.5
Co58-240	31.2	+3	30	20.1-	42.0+	1.0	1.0
Co58-257	28.0	+3	31	20.3-	43.4+	1.0	2.0
Co58-266	28.0	+2	31	22.9	39.1	1.0	1.0
Co58-271	25.5	+5	31	20.6-	41.7+	1.0	3.0
F56-3228	27.9	+2	40	21.6-	40.6	1.0	1.0
F57-356	29.3	+2	35	21.3-	41.0	1.0	1.0
F57-584	26.7	0	37	21.7-	41.1	1.0	1.0
F57-1471	31.6	+4	32	22.0	38.4-	1.0	1.5
F57-1985	30.0	-1	32	20.3-	41.8+	1.0	1.5
F57-3968	29.9	0	28	21.8-	40.4	1.0	2.0
F57-4040	30.6	+1	36	21.6-	41.4	1.0	3.0
F58-3884	28.6	+5	36	21.2-	41.5	1.0	1.0
F58-6213	29.3	+3	37	21.0-	41.6	1.0	1.0
F58-6217	32.3	+4	39	19.9-	41.8+	1.0	1.5
F58-6285	26.7	+5	39	19.1-	42.2+	1.0	1.0
F58-6293	29.8	+2	39	19.3-	41.5	1.0	1.0
F58-6302	29.6	+6	42	20.1-	40.8	1.0	1.5
F58-6403	29.9	+5	38	21.0-	41.2	1.0	1.5
F58-6451	24.1	+3	36	19.9-	43.8+	1.0	1.0
La58-13-26	31.6	0	35	21.6-	41.0	3.0	1.0
La58-17-8	32.7	0	37	21.3-	41.3	3.0	1.0
La58-26-2	32.5	+2	36	20.7-	40.7	3.0	2.0
La58-43-4	28.9	+6	48	20.5-	40.2	3.0	1.0
La58-54-6	33.6	+1	33	21.5-	41.1	3.0	1.0
La58-62-3	32.8	0	38	22.0	40.8	3.0	1.0
La58-77-12	28.5	-1	36	21.9-	41.6	3.0	1.0
La58-92-17	31.5	-1	36	21.8-	41.1	3.0	1.0
La58-104-15	31.0	-3	30	22.2	41.4	3.0	1.0
L.S.D.(.05)	N.S.			0.8	1.4		
L.S.D.(.01)	N.S.			1.2	1.8		

Table 52. Seed yield, in bushels per acre, for the strains in Preliminary Group VIII, 1960

Strain	Experiment Ga.	Live Oak, Fla.	Gainesville, Fla.	Quincy, Fla.	Baton Rouge, La.	Stoneville, Miss.
Bienville	20.5	34.7	27.9	39.3	41.9	40.5
Jackson	23.1	34.2	14.5	33.7-	22.1-	36.1
Co57-257	22.6	32.0	32.0	37.1	27.7-	31.5-
Co58-211	23.8	36.2	22.0	37.5	18.8-	29.8-
Co58-219	14.7	27.3-	22.3	37.8	22.1-	32.2-
Co58-220	23.5	34.9	29.4	41.2	22.5-	32.4-
Co58-224	17.9	43.8+	22.7	38.2	18.5-	30.6-
Co58-239	18.9	28.6	27.7	37.5	19.5-	31.2-
Co58-240	23.7	35.8	30.9	38.2	23.5-	35.2
Co58-257	18.4	27.7-	31.3	41.2	15.9-	33.9
Co58-266	30.6	33.1	11.5	32.2-	23.1-	37.5
Co58-271	23.5	23.2-	21.6	31.4-	25.1-	28.5-
F56-3228	16.2	39.9	25.3	32.9-	27.7-	25.6-
F57-356	18.3	38.0	30.9	33.3-	27.1-	28.2-
F57-584	17.3	35.6	30.6	35.2	21.8-	19.6-
F57-1471	25.8	41.2	24.8	40.5	25.4-	32.2-
F57-1985	19.0	37.2	20.5	41.2	33.0-	28.8-
F57-3968	20.8	37.3	25.1	37.1	25.4-	34.0-
F57-4040	23.2	39.1	23.5	34.5-	32.4-	31.3-
F58-3884	20.5	28.8	31.5	33.3-	27.4-	30.2-
F58-6213	22.2	37.0	19.8	37.1	30.1-	29.9-
F58-6217	24.7	42.3+	40.5	31.0-	27.4-	27.9-
F58-6285	20.7	33.4	15.5	29.3-	22.4-	38.7
F58-6293	22.2	35.5	31.1	31.4-	27.1-	31.6-
F58-6302	25.8	45.6+	24.0	33.3-	24.5-	24.7-
F58-6403	23.9	37.5	33.4	30.6-	27.8-	26.4-
F58-6451	17.9	29.7	28.4	28.0-	24.4-	16.1-
La58-13-26	20.4	32.4	18.5	37.8	37.6	43.0
La58-17-8	25.3	30.5	22.2	37.1	40.9	40.6
La58-26-2	19.8	39.8	24.0	33.7-	43.6	34.3
La58-43-4	26.1	31.7	18.6	33.7-	33.7	29.6-
La58-54-6	23.4	41.8+	28.7	35.2	34.7	37.9
La58-62-3	24.1	31.4	27.0	37.0	39.3	37.9
La58-77-12	23.2	31.8	15.9	34.8	33.0-	32.2-
La58-92-17	21.8	29.5	28.0	34.4-	32.7-	42.8
La58-104-15	23.5	34.7	19.7	33.7-	35.3	39.4
L.S.D.(.05)	N.S.	6.7	N.S.	4.8	8.3	6.8
C.V.	16%	10%	29%	7%	15%	10%

Table 53. Oil percentages for the strains in Preliminary Group VIII, 1960

Strain	Experiment, Ga.	Live Oak, Fla.	Quincy, Fla.	Baton Rouge, La.	Stoneville, Miss.
Bienville	23.9	23.0	22.2	22.3	21.9
Jackson	22.7	24.0	21.7	21.6	22.9
Co57-257	21.3	22.5	20.1	21.0	19.7
Co58-211	22.1	23.7	22.5	20.8	21.4
Co58-219	20.8	21.9	21.0	20.3	20.7
Co58-220	21.4	22.5	21.6	19.5	20.5
Co58-224	21.4	22.9	19.5	21.9	18.8
Co58-239	20.4	20.4	20.2	19.9	19.2
Co58-240	21.2	21.6	19.8	19.5	18.5
Co58-257	21.1	21.7	20.2	18.9	19.8
Co58-266	22.8	24.9	22.6	21.9	22.5
Co58-271	20.7	22.5	19.2	20.7	19.7
F56-3228	20.8	22.7	20.8	21.4	22.1
F57-356	21.5	23.0	20.1	20.4	21.4
F57-584	21.8	23.3	20.4	20.8	22.0
F57-1471	22.7	23.6	20.7	21.8	21.1
F57-1985	21.1	20.3	19.4	19.9	20.9
F57-3968	22.0	22.0	21.5	21.3	22.2
F57-4040	23.2	21.6	20.0	21.0	22.1
F58-3884	21.0	22.1	20.4	21.6	20.9
F58-6213	21.0	21.5	20.4	20.6	21.3
F58-6217	20.6	20.8	18.7	18.9	20.6
F58-6285	18.7	20.1	18.4	19.4	19.1
F58-6293	19.8	19.8	17.7	20.0	19.2
F58-6302	21.2	21.0	18.3	19.9	20.3
F58-6403	22.1	22.1	19.3	20.6	21.1
F58-6451	19.6	22.1	19.2	19.1	19.5
La58-13-26	22.8	21.1	20.8	21.0	22.1
La58-17-8	21.0	22.3	20.7	20.8	21.6
La58-26-2	20.8	22.0	19.9	20.1	20.7
La58-43-4	21.9	21.1	18.3	20.5	20.7
La58-54-6	22.1	22.8	19.7	21.1	22.0
La58-62-3	22.6	22.5	21.4	21.0	22.7
La58-77-12	22.4	21.8	21.3	21.4	22.8
La58-92-17	22.5	22.6	21.5	20.3	22.3
La58-104-15	22.9	22.5	21.8	21.1	22.5

Table 54. Protein percentages for the strains in Preliminary Group VIII, 1960

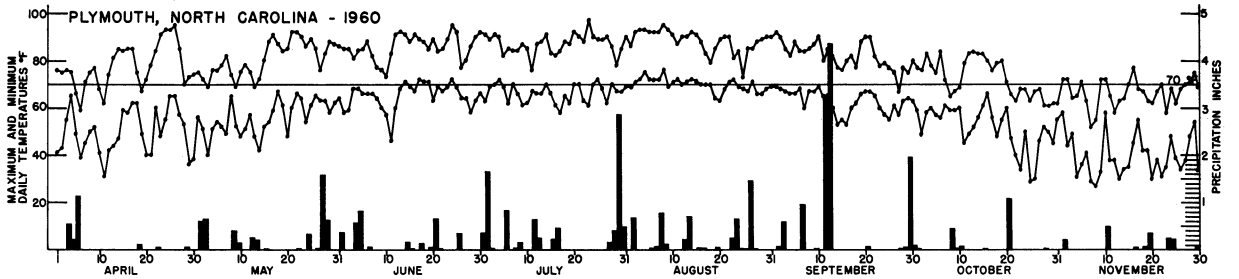
Strain	Experiment, Ga.	Live Oak, Fla.	Quincy, Fla.	Baton Rouge, La.	Stoneville, Miss.
Bienville	38.0	42.0	39.7	41.5	40.1
Jackson	38.6	40.5	41.9	41.1	37.0
Co57-257	39.5	42.0	41.9	40.8	41.5
Co58-211	38.3	39.7	39.5	41.3	39.2
Co58-219	39.2	42.2	40.7	41.5	40.5
Co58-220	37.5	42.5	40.4	41.5	40.7
Co58-224	40.7	41.8	43.3	42.8	42.1
Co58-239	40.9	44.2	42.6	43.2	42.5
Co58-240	38.9	43.0	42.3	42.9	42.8
Co58-257	40.8	43.7	43.2	46.1	43.2
Co58-266	37.1	40.6	40.5	39.7	37.6
Co58-271	41.2	41.8	42.0	41.6	41.7
F56-3228	41.1	41.0	43.0	40.8	36.9
F57-356	38.3	42.6	42.0	42.9	39.4
F57-584	40.4	41.5	43.9	42.3	37.6
F57-1471	36.7	39.4	40.5	37.8	37.6
F57-1985	40.3	43.1	43.8	43.3	38.5
F57-3968	38.9	42.1	42.2	41.8	36.8
F57-4040	38.3	43.8	43.2	43.0	38.9
F58-3884	40.7	41.8	43.1	42.4	39.7
F58-6213	40.9	43.2	42.9	43.0	38.2
F58-6217	41.3	42.3	44.4	43.6	37.6
F58-6285	42.3	42.6	43.1	42.4	40.6
F58-6293	40.7	43.0	43.3	41.3	39.2
F58-6302	39.4	41.3	43.9	41.6	38.0
F58-6403	38.2	42.2	43.3	42.2	40.2
F58-6451	42.9	43.9	46.5	42.9	42.7
La58-13-26	38.7	41.8	42.3	41.8	40.4
La58-17-8	41.4	41.6	41.4	42.0	40.0
La58-26-2	40.4	41.1	42.5	42.0	37.7
La58-43-4	37.4	39.9	42.5	42.8	38.2
La58-54-6	39.4	41.3	43.3	42.6	38.9
La58-62-3	38.5	42.6	41.6	42.4	38.8
La58-77-12	40.7	41.8	43.1	43.3	39.3
La58-92-17	39.6	41.2	42.0	43.2	39.5
La58-104-15	39.6	41.7	42.7	43.5	39.7

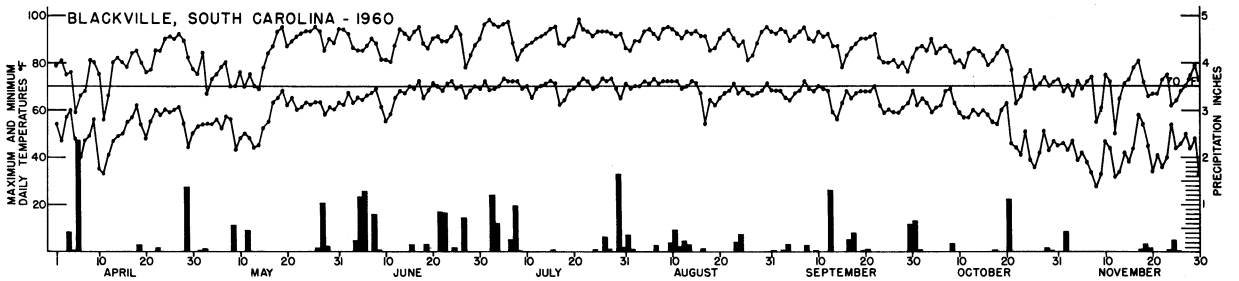
Table 55. Height data for the strains in Preliminary Group VIII, 1960

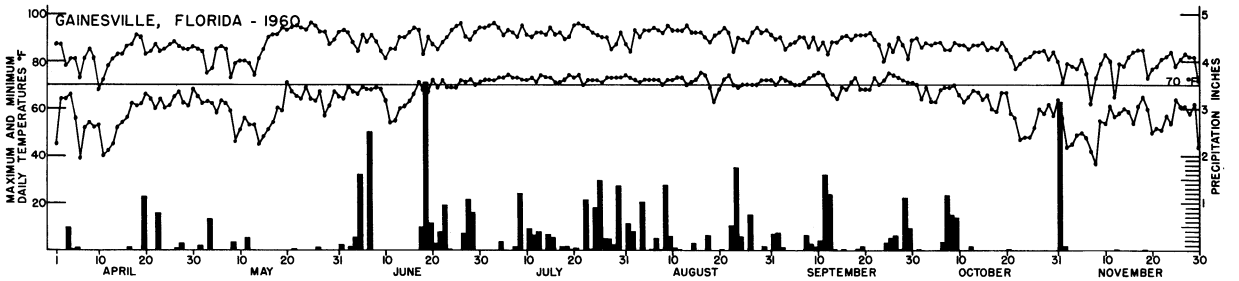
Strain	Experiment, Ga.	Live Oak, Fla.	Gainesville, Fla.	Quincy, Fla.	Baton Rouge, La.	Stoneville, Miss.
Bienville	24	35	31	34	34	48
Jackson	24	30	23	26	32	43
Co57-257	25	32	32	32	38	45
Co58-211	20	25	27	26	23	43
Co58-219	19	30	28	24	22	44
Co58-220	26	31	30	34	34	46
Co58-224	18	30	25	30	26	40
Co58-239	25	29	28	32	28	42
Co58-240	24	28	31	28	24	44
Co58-257	22	29	31	33	25	46
Co58-266	26	32	25	28	33	42
Co58-271	22	31	29	30	29	42
F56-3228	31	39	35	37	40	58
F57-356	31	32	32	33	38	46
F57-584	30	40	37	34	36	47
F57-1471	26	33	29	28	28	45
F57-1085	25	33	27	27	33	44
F57-3968	23	30	26	28	23	39
F57-4040	30	35	34	34	35	46
F58-3884	29	36	34	37	30	48
F58-6213	31	39	35	36	36	47
F58-6217	37	39	36	35	37	47
F58-6285	33	36	34	36	45	50
F58-6293	29	39	39	35	42	50
F58-6302	37	44	35	36	44	55
F58-6403	35	39	35	34	36	48
F58-6451	29	36	31	32	42	48
La58-13-26	26	36	31	34	36	49
La58-17-8	29	34	34	36	36	50
La58-26-2	32	36	32	32	37	49
La58-43-4	44	48	44	43	53	58
La58-54-6	25	34	30	34	32	43
La58-62-3	29	37	37	36	34	53
La58-77-12	29	37	27	34	36	50
La58-92-17	28	37	32	36	34	48
La58-104-15	25	27	27	28	28	42

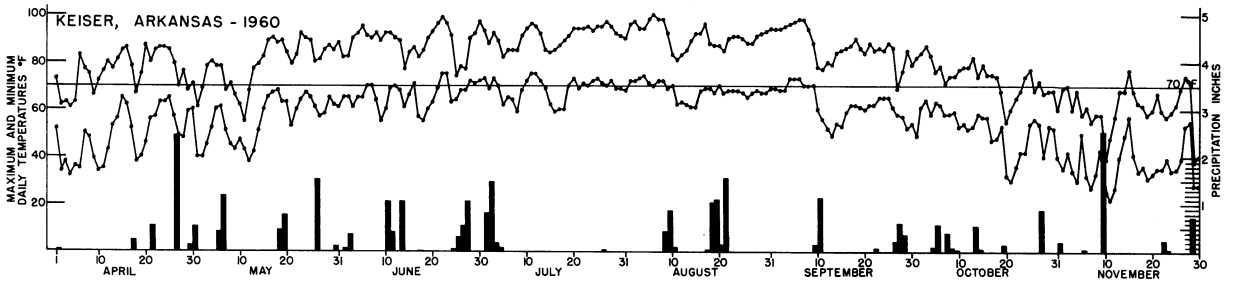
Table 56. Seed quality scores for the strains in Preliminary Group VIII, 1960

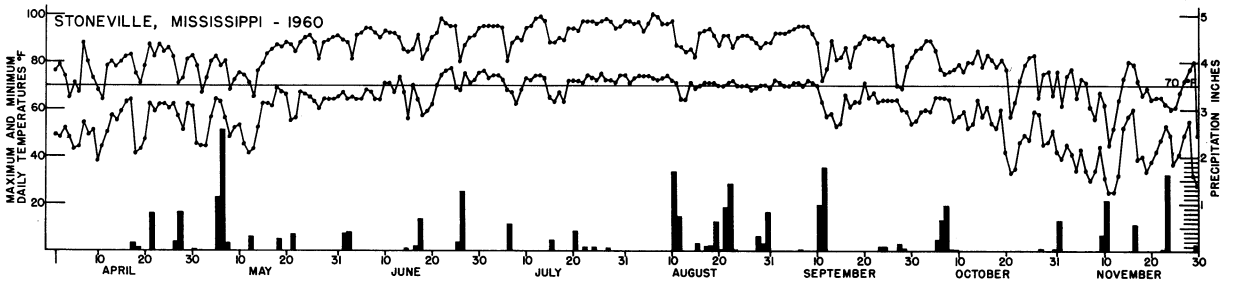
Strain	Experiment, Ga.	Live Oak, Fla.	Gainesville, Fla.	Quincy, Fla.	Baton Rouge La.	Stoneville, Miss.
Bienville	1.5	1.0	1.0	2.0	1.0	2.0
Jackson	2.0	1.0	3.5	2.0	3.0	2.0
Co57-257	1.5	1.0	1.5	2.0	2.0	2.0
Co58-211	1.5	1.0	2.5	2.0	1.0	2.0
Co58-219	1.0	2.0	2.5	3.0	1.0	2.0
Co58-220	1.0	1.0	2.5	2.0	2.0	2.0
Co58-224	1.5	1.0	2.0	2.0	2.0	2.0
Co58-239	1.5	1.0	1.5	2.0	1.0	2.0
Co58-240	1.0	1.0	1.0	2.0	2.0	2.0
Co58-257	1.5	1.0	2.0	2.0	2.0	2.0
Co58-266	2.0	1.0	4.0	2.0	1.0	2.0
Co58-271	1.5	2.0	2.5	3.0	2.0	2.0
F56-3228	2.0	1.0	1.5	2.0	2.0	2.0
F57-356	1.5	1.0	2.0	3.0	2.0	2.0
F57-584	2.0	1.0	2.0	2.0	3.0	2.0
F57-1471	1.5	1.0	2.5	2.0	2.0	2.0
F57-1985	1.5	1.0	1.5	3.0	1.0	2.0
F57-3968	1.5	1.0	1.5	2.0	1.0	2.0
F57-4040	1.0	1.0	3.0	2.0	1.0	2.0
F58-3884	2.0	1.0	1.5	3.0	1.0	2.0
F58-6213	1.5	1.0	1.0	3.0	1.0	2.0
F58-6217	1.5	1.0	1.0	3.0	3.0	2.0
F58-6285	2.5	1.0	2.5	3.0	3.0	2.0
F58-6293	2.0	1.0	2.0	3.0	3.0	2.0
F58-6302	2.0	1.0	1.5	3.0	3.0	2.0
F58-6403	2.0	1.0	1.0	3.0	2.0	2.0
F58-6451	2.0	1.0	1.0	3.0	3.0	2.0
La58-13-26	1.0	1.0	2.5	2.0	1.0	2.0
La58-17-8	2.0	1.0	2.0	2.0	1.0	2.0
La58-26-2	1.5	1.0	1.5	2.0	1.0	2.0
La58-43-4	1.5	1.0	2.0	3.0	1.0	2.0
La58-54-6	1.0	1.0	1.0	2.0	1.0	2.0
La58-62-3	1.5	1.0	1.5	2.0	2.0	2.0
La58-77-12	2.0	1.0	2.0	2.0	1.0	2.0
La58-92-17	1.5	1.0	1.0	2.0	2.0	2.0
La58-104-15	1.5	1.0	2.5	2.0	2.0	2.0

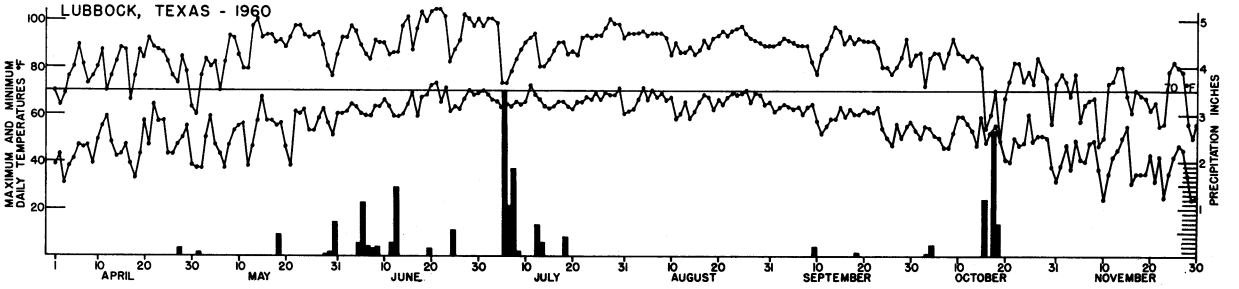

PLYMOUTH, NORTH CAROLINA - 1960
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
70 °F
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


BLACKVILLE, SOUTH CAROLINA - 1960
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
70 °F
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


GAINESVILLE, FLORIDA - 1960
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
70 °F
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


KEISER, ARKANSAS - 1960
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
70 °F
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


STONEVILLE, MISSISSIPPI - 1960
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
70 °F
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


LUBBOCK, TEXAS - 1960
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
70 °F
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER