U. S. REGIONAL SOYBEAN LABORATORY
URBANA, ILLINOIS

RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS, 1958 PART II. SOUTHERN STATES

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

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RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS

PART II. SOUTHERN STATES

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1958

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INTRODUCTION

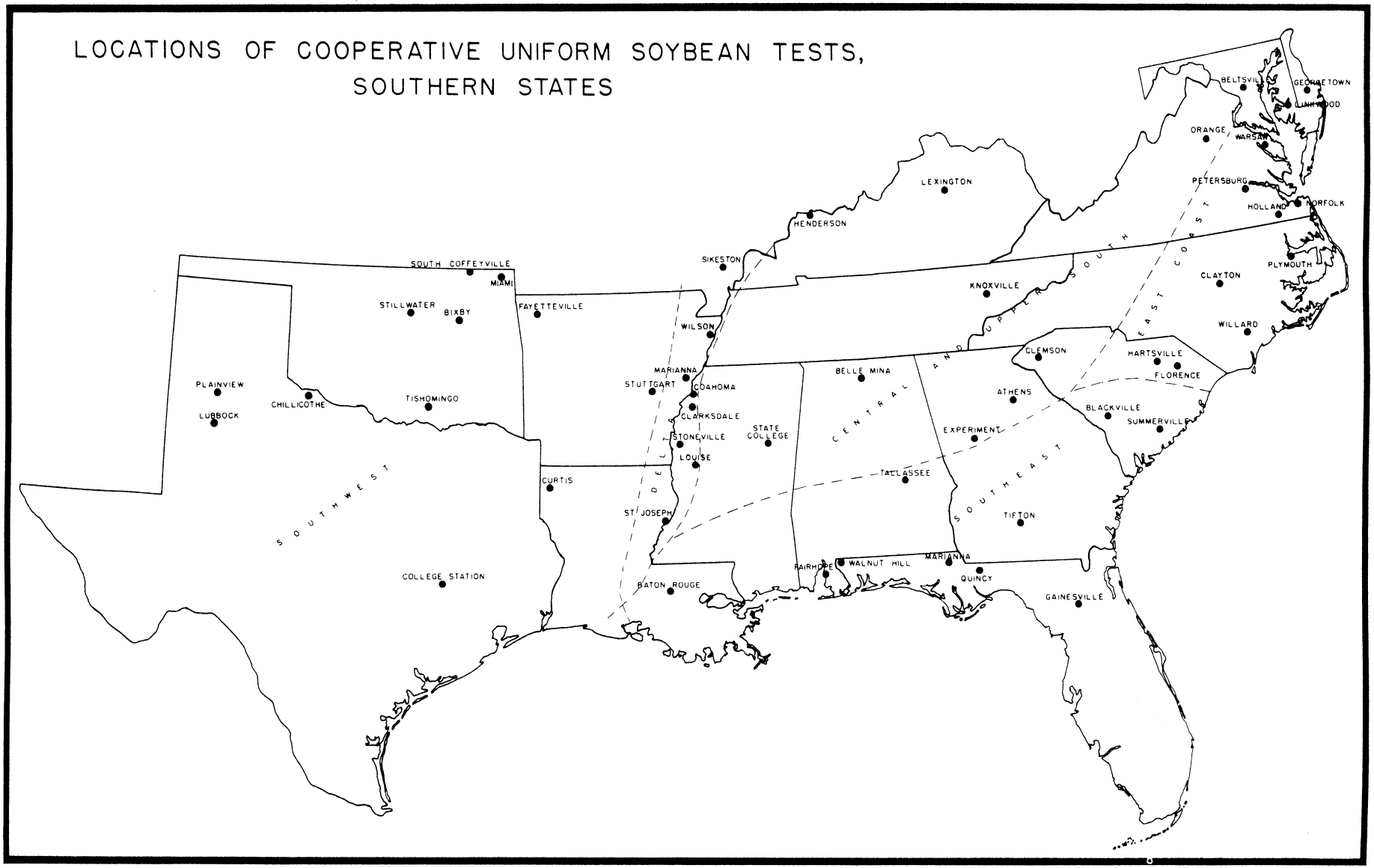
The program of the U. S. Regional Soybean Laboratory has been directed toward the development of improved strains of soybeans and the obtaining of fundamental information necessary to the efficient breeding of strains to meet specific needs. In the Southern Region, fundamental studies and breeding programs are conducted at the three locations, Stoneville, Mississippi; Raleigh, North Carolina; and Gainesville, Florida. After promising new strains are developed at these breeding centers, or by any other cooperating agency, they are advanced to the preliminary and uniform regional tests, conducted in cooperation with the Southeastern States. This testing program enables the breeder to evaluate new strains under a wide variety of conditions, and permits new strains to be put into production in a minimum amount of time.

Nine uniform test groups have been established to evaluate the better strains developed in the breeding programs. The Groups 0 through IV are adapted in the northern part of the United States, and the Groups IV through VIII are grown in the southern part. Within their area of adaptation, there is a maturity range of 12 to 18 days within each maturity class. The best standard variety available of each maturity class is used as a check variety with which to compare new strains as to seed yield, chemical composition, maturity, height, lodging, seed quality, and disease reaction. For the groups grown in the southern area, the check varieties are Perry, Dorman, Ogden, 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; Dorman, September 20; Ogden, October 10; 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, rate of fertilization, and number of irrigations is included.

LOCATIONS OF COOPERATIVE UNIFORM SOYBEAN TESTS, SOUTHERN STATES



Growing conditions were generally good over the region. Excessive rains during April and early May caused difficulty in getting land in shape for planting in the Delta area. Excessive rain in late September reduced seed quality of early maturing strains. Deficiency of moisture in September and October reduced yields for the later maturing lines in the Southeast.

As an indication of the temperature and rainfall pattern in areas where much of the breeding work is being done, daily minimum and maximum temperatures and rainfall are reported for Plymouth, North Carolina; Gainesville, Florida; Stoneville, Mississippi; and Stillwater, Oklahoma.

STRAIN IDENTIFICATION

The strains designated by number carry a letter prefix. This letter identifies the state where this strain was selected.

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.
Del - Delaware Agric. Expt. Station
J.E.W.-John Wannamaker, St. Matthews, South Carolina
L - Illinois Agric. Expt. Sta. and U. S. Regional Soybean Laboratory.
La - Louisiana Agric. Expt. Station.
N - North Carolina Agric. Expt. Sta. and U. S. Regional Soybean Laboratory.
S - Missouri Agric. Expt. Sta. and U. S. Regional Soybean Laboratory.
P - Paymaster Farm, Plainview, Texas.

Location of Cooperative Nurseries

Location	Cooperator	IV	V	VI	VII	VIII	Soil Type	Fertilizer[1/]
				East Coast				
Georgetown, Del.	Delaware Agric. Expt. Sta.	1	1				Norfolk loamy sand	0-50-50
Linkwood, Md.	J. C. Johnson	1*	1*	1			Sassafras sandy loam	0-60-60
Warsaw, Va.	Eastern Va. Research Sta.	1	1*	1*			Sassafras sandy loam	0-70-70
Painter, Va.	Eastern Shore Va. Truck Exp. Sta.	1	1	1			Sassafras sandy loam	None
Petersburg, Va.	Va. State College Field Sta.		1	1			Norfolk fine sandy loam	0-30-60
Norfolk, Va.	Va. Truck Expt. Sta.		1	1			Woodstown sandy loam	0-56-56
Holland, Va.	Tidewater Field Sta.		1	1			Woodstown loamy fine sand	0-50-100
Plymouth, N. C.	Tidewater Research Sta.		1*	1*	1		Bladen fine sandy loam	0-40-80
Willard, N. C.	Lower Coastal Plain Res. Sta.			1	1*		Norfolk sandy loam	0-40-80
Clayton, N. C.	N. C. Agric. Expt. Sta.			1	1		Norfolk sandy loam	0-40-80
Florence, S. C.	Pee Dee Expt. Sta.				1	1*	Norfolk sandy loam	0-40-80
Hartsville, S. C.	Coker Pedigreed Seed Co.			1	1	1	Norfolk sandy loam	10-30-30
				Southeast				
Blackville, S. C.	Edisto Expt. Sta.				1*	1	Marlboro sandy loam	16-48-48
Tallassee, Ala.	Ala. Agric. Expt. Sta.			1	1*	1	Cahaba loamy fine sand	0-70-70
Tifton, Ga.	Ga. Coastal Plain Expt. Sta.				1	1	Tifton Pebbly loam	0-40-80
Gainesville, Fla.	Fla. Agric. Expt. Sta.			1	1*	1*	Arradondo sandy loam	0-40-80
Quincy, Fla.	North Fla. Expt. Sta.			1	1*	1	Ruston sandy loam	24-72-72
Marianna, Fla.	Mobile Unit #3				1		Red Bay sandy loam	24-72-72
Walnut Hill, Fla.	W. Fla. Expt. Sta.			1*	1*	1	Tifton fine sandy loam	24-72-72
Fairhope, Ala.	Gulf Coast Substation			1	1		Marlboro fine sandy loam	0-45-45
Baton Rouge, La.	La. Agric. Expt. Sta.			1	1	1*	Olivier silt loam	15-60-60
				Upper and Central South				
Orange, Va.	Piedmont Field Sta.	1					Davidson clay loam	0-84-84
Lexington, Ky.	Ky. Agric. Expt. Sta.	1	1				Guthrie silt loam	8 T. manure
Belle Mina, Ala.	Tenn. Valley Substation		1	1			Decatur sandy loam	None
Clemson, S. C.	S. C. Agric. Expt. Sta.				1		Cecil sandy loam	24-72-72
Experiment, Ga.	Ga. Agric. Expt. Sta.		1	1	1*	1*	Cecil sandy loam	50-60-60
State College, Miss.	Miss. Agric. Expt. Sta.		1	1	1		Verona fine sandy loam	18-24-16

Location	Cooperator	IV	V	VI	VII	VIII	Soil Type	Fertilizer[1]
		Delta						
Henderson, Ky.	Ohio Valley Soybean Coop.	1	1				Falaya silt loam	0-0-70
Sikeston, Mo.	Missouri Agric. Expt. Sta.	1*	1*	1*			Dexter sandy loam	0-60-60
Keiser, Ark.	Northeast Branch Expt. Sta.	1*	1*	1*			Sharkey clay	None
Marianna, Ark.	Cotton Branch Sta.	1	1	1			Richland silt loam	None
Coahoma, Miss.	J. M. Slater	1	1	1			Sharkey clay	None
Clarksdale, Miss.	J. E. Weeks	1	1	1			Sharkey clay	None
Stoneville,(A) Miss.	Delta Branch Expt. Sta.		1	1	1*	1*	Bosket fine sandy loam	None
Stoneville,(B) Miss.	Delta Branch Expt. Sta.	1*	1*	1*	1		Sharkey clay	None
Louise, Miss.	Stoner Brothers			1	1		Brittain silt loam	None
St. Joseph, La.	Northeast La. Expt. Sta.		1	1	1		Commerce sandy loam	None
		West						
Stuttgart, Ark.	Rice Branch Expt. Sta.		1	1	1		Crowley silt loam	0-30-60
Curtis, La.	Red River Valley Expt. Sta.		1	1	1	1	Yahola fine sandy loam	None
Fayetteville, Ark.	Ark. Agric. Expt. Sta.	1	1	1			Richland silt loam	0-40-40
Miami, Okla.	Northeast A & M College	1	1				Dennis silt loam	None
South Coffeyville,Okla.	Triplett	1	1				Sandy clay loam	None
Bixby, Okla.	Okla. Veg. Research Sta.	1	1*	1*			Lonoke very fine sandy loam	None
Perkins, Okla.[2]	Okla. Agric. Expt. Sta.	1*	1	1			Vanoss very fine sandy loam	16-20-0
Milburn, Okla.	Murray State Jr. College			1	1		Ochlocknee-Iuka	None
Chillicothe, Texas	Texas Substation No. 12			1	1	1	Abilene loam	None
Plainview, Texas[2]	Paymaster Farm	1	1*	1*	1		Amarillo fine clay loam	None
College Station, Texas[2]	Texas Agric. Expt. Sta.			1	1	1	Miller clay loam	40-50-0

1/ Fertilizer applied converted to pounds of N, P_2O_5, K_2O; for example, 400 pounds of 2-12-12 equals 8-48-48.
2/ Irrigated as needed.

* Preliminary nursery grown in addition to uniform nursery.

METHODS

The uniform nurseries were planted in 4-row plots with three 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 two replications at each of six to eight locations.

Planting Rate: Since the later-maturing varieties usually make heavier growth than earlier-maturing varieties, lighter planting rates can be used and have equal,or superior, ground cover. Planting later-maturing varieties at a thinner rate reduces lodging. The number of seed packeted for 19 feet of row for the various groups were as follows: IV - 225 seeds; V - 200 seeds; VI - 200 seeds; VII - 170 seeds; and VIII - 170 seeds. This gave a planting rate of 12 seeds per foot for Group IV, $10\frac{1}{2}$ for V and VI, and 9 for VII and VIII.

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

Shattering notes, where taken, are on the border rows, fourteen 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, Dorman; Group VI, Ogden; 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" - 6" gap between rows
3. 6" - 10" gap between rows
4. 10" - 18" gap between rows
5. 18" - 24" gap between rows

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

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

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

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

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

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

UNIFORM GROUP IV

1958

Variety or Strain	Parentage	Generation Composited
1. Perry	Patoka x L7-1355	F_7
2. Clark	Lincoln(2) x Richland	F_8
3. C1069	Lincoln x Ogden	F_7
4. D53-138	D49-2525 x L6-5679	F_5
5. D53-184	D49-2525 x L6-5679	F_5
6. D53-190	D49-2525 x L6-5679	F_5
7. D53-354	D49-2525 x L6-5679	F_5
8. D53-1254	D49-2525 x L6-5679	F_5
9. D54-2437	N48-1394 x L6-5679	F_5
10. D54-3281	D49-2525 x L6-5679	F_7
11. D52-203	N48-1248 x Perry	F_5
12. Scott (S2-7158)	D49-2525 x L6-5679	F_4

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 and N48-1248 are pustule resistant lines of Group VI maturity selected from the cross Roanoke x N45-745 (a selection from Ogden x CNS).

Twenty-two Group IV nurseries were planted in the Southern Region. Results of 18 of these nurseries are summarized in tables 1 through 7. Table 1 gives a general summary of the performance of lines in this group this past season, as well as a 3-year summary for seed yield and chemical composition.

The two varieties Perry and Clark have been grown as check varieties for the past six years. During the past season, the strain S2-7158 was given the name Scott by the Missouri Agricultural Experiment Station and released as a variety. Differences among strains were significant in 9 of the 18 comparisons. A combined analysis of variance by regions showed a highly significant variety x location interaction within each region. Variety differences were significant in only the East Coast region where D53-184, D53-1254, and Scott yielded significantly more than Perry.

Although Perry has produced satisfactory yields over the area, it frequently produces seed having rather poor quality. During the 3 years 1956-1958, Perry has produced seed rating 3 or worse in 57 percent of the comparisons. In contrast to Perry, D53-354 has had seed rated 3 or worse in only 9 percent of the comparisons when grown in the same comparisons with Perry. This indicates that progress can be made in developing strains that will produce good quality seed when maturing under high temperatures.

Purple stain development was sufficient for strain evaluation at Stoneville. The strains given higher ratings had all been given high ratings previously. The two check varieties both had less than 5 percent of the seed stained purple, while on previous occasions they had been more heavily infected.

During the past several years, data has been reported on injury from what was considered to be pod and stem blight. During the past season, a Phytophthora was isolated from plants showing this type injury. Consequently, the strain evaluation in table 1 for Phytophthora injury is comparable to the pod stem blight scores reported in 1957. It is somewhat difficult to give scores for this disease, since under some conditions plants are stunted, while under other conditions there is loss of stand. D54-2437 has the highest degree of resistance to Phytophthora of the strains in this group.

The two lines C1069 and D53-184 have been tested 4 years. The three lines D53-138, D53-190, and D53-354 have been tested 3 years. C1069 and D53-184 have nearly similar seed yield records in all areas. C1069 has a higher average oil content along with a lower protein content. D53-184 is superior in seed holding and in seed quality and has had less purple stain development. The other three lines have all averaged lower in yield than D53-184, but D53-138 and D53-354 are superior to it in seed quality. D53-354 has given the best ground cover of the Group IV lines

Of the lines tested two years, D53-1254 appears comparable to D53-184 in most respects. D53-2437 has good resistance to Phytophthora but is not as good in seed quality, seed holding, or purple stain resistance as would be desired.

Table 1. General summary of performance for the strains in Univorm Group IV, 1958

	Perry	Clark	C1069	D53-138	D53-184	D53-190
Seed Yield - 1958						
East Coast	39.5	40.9	41.6	39.2	43.2+	39.2
Delta	32.3	31.6	36.0	35.5	37.4	33.0
West	31.0	35.3	34.5	30.1	33.5	31.6
- 1957-58						
East Coast	33.8	34.3	37.7	34.0	37.0	35.0
Delta	31.0	31.3	37.9	35.3	37.9	33.4
West	28.6	31.0	32.0	28.7	31.4	29.8
- 1956-58						
East Coast	33.1	34.6	37.9	34.3	36.7	32.7
Delta	29.6	29.6	34.8	32.6	34.5	31.9
West	22.9	24.4	25.5	23.4	25.8	24.4
Oil Content - 1958	22.4	22.5	23.2+	21.1-	21.5-	21.2-
- 1957-58	22.4	22.3	22.8	20.9	21.5	21.0
- 1956-58	22.3	22.3	22.9	20.9	21.6	21.1
Protein Content - 1958	42.7	42.2	40.7-	43.5	42.6	42.0
- 1957-58	42.1	41.8	40.8	43.4	42.5	41.6
- 1956-58	41.6	41.4	40.3	43.1	43.0	41.3
Seed Size	16.4	16.4	17.2	13.9-	14.1-	13.8-
Maturity Index	9-22	-6	+2	+2	+3	+1
Height	38	38	44	45	43	41
Seed Quality[1/] - 1958	56	38	31	19	19	31
- 1957-58	59	38	28	14	14	24
- 1956-58	57	38	30	13	19	21
Bacterial Pustule[2/]	4.0	4.0	3.0	1.0	1.0	1.0
Purple Stain[2/]	1.0	1.0	2.0	1.0	1.0	1.0
Phytophthora[2/]	2.0	1.0	1.0	1.0	1.0	2.0

1/ Percentage of comparisons receiving a seed quality score of 3 or higher.
2/ Stoneville data.

Table 1. (Continued)

	D53-354	D53-1254	D54-2437	D54-3281	D52-203	Scott
Seed Yield - 1958						
East Coast	37.9	43.1+	40.4	41.2	41.6	43.3+
Delta	33.6	35.7	37.2	36.8	34.9	36.5
West	32.1	32.7	29.8	31.3	31.7	32.0
- 1957-58						
East Coast	32.7	36.1	33.8	34.3	36.6	37.4
Delta	34.1	37.4	38.4	37.7	36.7	37.0
West	28.6	31.3	28.6	31.8	30.5	31.6
- 1956-58						
East Coast	32.8					
Delta	31.9					
West	23.7					
Oil Content - 1958	20.9-	22.1	21.3-	21.4-	20.9-	21.7-
- 1957-58	20.9	22.0	21.2	21.4	20.8	21.6
- 1956-58	21.0					
Protein Content - 1958	41.1-	41.0-	41.8	42.2	42.7	39.1-
- 1957-58	41.1	40.7	41.1	42.0	42.1	39.0
- 1956-58	40.7					
Seed Size	12.6-	14.2-	14.1-	13.4-	15.0-	14.4-
Maturity Index	+1	+2	+3	+3	+6	+3
Height	41	44	41	42	43	42
Seed Quality[1/] - 1958	19	25	25	25	31	19
- 1957-58	10	14	24	28	34	28
- 1956-58	9					
Bacterial Pustule[2/]	1.0	1.0	1.0	1.0	1.0	1.0
Purple Stain[2/]	1.0	1.0	2.0	2.0	3.0	3.0
Phytophthora[2/]	1.0	1.0	1.0	1.0	1.5	2.5

Table 2. Yield, in bushels per acre, for the strains in Uniform Group IV, 1958

Location	Perry	Clark	C1069	D53-138	D53-184	D53-190
			East Coast			
Georgetown, Del.	49.3	55.1	53.5	47.3	51.4	49.2
Linkwood, Md.	39.3	42.6	40.2	38.8	42.4	38.8
Orange, Va.	21.9	20.8	27.7	22.3	23.0	23.7
Warsaw, Va.	43.8	41.3	43.5	42.5	46.6	39.1
Painter, Va.	43.3	44.6	43.0	45.1	52.5+	45.3
Mean	39.5	40.9	41.6	39.2	43.2+	39.2
			Upper and Central South			
Lexington, Ky.	41.8	41.0	37.4	38.0	39.2	35.9
			Delta			
Henderson, Ky.	41.7	39.8	44.3	37.5	39.8	38.1
Sikeston, Mo.	40.9	46.2	43.4	39.3	43.1	41.9
Marianna, Ark.	31.1	29.3	35.8	33.5	37.6	22.4
Coahoma, Miss.	21.7	20.4	26.1	28.9	30.4	25.9
Clarksdale, Miss.	25.3	22.9	24.7	29.8	30.4	30.2
Stoneville (B), Miss.	33.0	30.9	41.6+	43.8+	42.9+	39.6+
Mean	32.3	31.6	36.0	35.5	37.4	33.0
			West			
Fayetteville, Ark.	25.5	34.5+	26.0	24.3	28.6	33.5+
Miami, Okla.	27.5	34.5	37.6	29.8	35.6	25.5
South Coffeyville, Okla.	25.2	24.8	26.4	22.9	31.6	28.2
Perkins, Okla.	38.0	44.5	41.3	36.8	36.5	40.5
Plainview, Texas	29.3	30.2	32.2	30.5	35.8	28.0
Bixby, Okla.	40.5	42.9	43.7	36.1	32.7-	43.1
Mean	31.0	35.3	34.5	30.1	33.5	31.6

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

Table 2. (Continued)

Location	D53-354	D53-1254	D54-2437	D54-3281	D52-203	Scott	L.S.D. (.05)	C.V.
			East Coast					
Georgetown, Del.	42.6	55.7	51.0	51.0	51.4	54.5	4.5	5%
Linkwood, Md.	40.4	41.0	41.7	40.6	42.3	41.8	N.S.	7%
Orange, Va.	23.4	26.3	25.3	23.8	27.1	24.7	N.S.	12%
Warsaw, Va.	42.4	47.1	40.8	44.2	43.5	44.3	3.5	5%
Painter, Va.	40.8	45.5	42.8	46.2	44.0	51.4+	5.2	7%
Mean	37.9	43.1+	40.4	41.2	41.6	43.3+	2.9	
			Upper and Central South					
Lexington, Ky.	35.5	42.0	36.8	43.1	37.3	37.9	N.S.	8%
			Delta					
Henderson, Ky.	37.4	39.7	37.7	41.0	37.2	43.0	N.S.	7%
Sikeston, Mo.	39.0	41.4	41.0	42.1	39.1	42.4	N.S.	7%
Marianna, Ark.	29.8	31.1	33.7	34.2	36.2	36.6	N.S.	18%
Coahoma, Miss.	29.6	23.1	38.5	26.6	21.2	26.7	6.0	13%
Clarksdale, Miss.	25.2	29.3	25.3	34.4	30.7	30.7	4.3	9%
Stoneville (B), Miss.	40.6+	49.7+	47.3+	42.3+	44.8+	39.5+	4.7	7%
Mean	33.6	35.7	37.2	36.8	34.9	36.5	N.S.	
			West					
Fayetteville, Ark.	24.7	24.9	27.8	29.8	27.9	27.5	5.9	13%
Miami, Okla.	28.8	34.8	31.8	32.7	32.5	31.5	6.7	12%
South Coffeyville, Okla.	23.7	25.6	20.4	24.5	18.5	21.8	N.S.	29%
Perkins, Okla.	40.3	40.0	38.3	37.6	38.5	38.0	N.S.	7%
Plainview, Texas	33.1	34.5	30.5	26.6	30.7	34.7	N.S.	17%
Bixby, Okla.	42.3	36.6	30.1-	36.8	42.0	38.3	6.6	10%
Mean	32.1	32.7	29.8	31.3	31.7	32.0	N.S.	

Table 3. Chemical composition and seed size for the strains in Uniform Group IV, 1958

Location	Perry	Clark	C1069	D53-138	D53-184	D53-190
			Oil Percentage			
Linkwood, Md.	22.0	21.8	22.1	19.8	20.5	20.8
Warsaw, Va.	20.8	21.2	22.5	19.4	20.4	20.1
Henderson, Ky.	20.8	21.6	22.1	19.5	20.1	19.8
Sikeston, Mo.	21.4	22.7	22.9	20.8	21.8	21.0
Marianna, Ark.	23.6	20.7	24.2	23.8	22.4	22.0
Coahoma, Miss.	24.3	23.5	24.1	22.6	22.8	22.2
Bixby, Okla.	23.9	25.9	24.2	22.0	22.7	22.4
Mean	22.4	22.5	23.2+	21.1-	21.5-	21.2-
			Protein Percentage			
Linkwood, Md.	42.9	41.4	41.9	44.1	42.6	42.2
Warsaw, Va.	43.1	43.3	40.1	45.2	42.4	42.7
Henderson, Ky.	43.2	43.6	40.8	45.2	44.8	42.1
Sikeston, Mo.	41.6	42.3	39.8	42.6	42.4	41.1
Marianna, Ark.	45.0	46.0	42.8	44.9	43.4	43.1
Coahoma, Miss.	41.3	42.0	40.8	41.7	41.0	41.3
Bixby, Okla.	41.7	37.1	38.6	40.6	41.5	41.4
Mean	42.7	42.2	40.7-	43.5	42.6	42.0
			Grams Per 100 Seeds			
Linkwood, Md.	19.2	18.2	20.5	16.4	16.2	15.9
Warsaw, Va.	20.0	19.0	19.0	16.0	16.0	16.0
Henderson, Ky.	17.8	17.4	18.1	14.8	15.0	13.6
Sikeston, Mo.	14.7	15.5	14.9	13.1	13.7	12.5
Marianna, Ark.	15.0	15.3	14.3	11.7	12.3	11.7
Coahoma, Miss.	15.9	15.6	15.3	12.5	13.3	13.1
Stoneville (B), Miss.	14.5	15.9	16.0	14.3	14.2	14.4
Bixby, Okla.	14.1	14.5	19.8	11.4	10.8	12.1
Mean	16.4	16.4	17.2	13.9-	14.1-	13.8-

Table 3. (Continued)

Location	D53-354	D53-1254	D54-2437	D54-3281	D52-203	Scott	L.S.D (.05)
			Oil Percentage				
Linkwood, Md.	19.7	20.9	20.6	20.6	20.4	20.5	
Warsaw, Va.	19.4	20.9	20.5	20.3	20.2	19.4	
Henderson, Ky.	19.3	20.5	20.5	20.1	19.9	20.3	
Sikeston, Mo.	21.0	21.7	21.5	21.4	20.6	22.1	
Marianna, Ark.	21.7	22.8	21.8	22.1	20.9	23.2	
Coahoma, Miss.	22.4	23.3	22.0	22.2	22.3	22.7	
Bixby, Okla.	22.8	24.3	21.9	23.3	21.8	23.6	
Mean	20.9-	22.1	21.3-	21.4-	20.9-	21.7-	0.6
			Protein Percentage				
Linkwood, Md.	41.0	41.7	40.7	42.9	42.6	39.3	
Warsaw, Va.	42.9	42.3	42.3	43.0	43.3	40.6	
Henderson, Ky.	42.9	43.7	42.1	43.9	43.8	40.3	
Sikeston, Mo.	40.1	40.0	41.6	40.6	41.3	37.8	
Marianna, Ark.	41.7	41.8	43.4	43.1	44.8	40.1	
Coahoma, Miss.	40.8	40.2	40.6	41.5	41.9	38.8	
Bixby, Okla.	38.3	37.2	41.6	40.4	41.1	37.0	
Mean	41.1-	41.0-	41.8	42.2	42.7	39.1-	1.1
			Grams Per 100 Seeds				
Linkwood, Md.	14.8	17.0	16.9	15.8	18.2	17.1	
Warsaw, Va.	15.0	17.0	16.0	16.0	18.0	17.0	
Henderson, Ky.	12.4	15.0	14.6	14.5	15.7	14.6	
Sikeston, Mo.	11.8	13.2	13.9	12.9	13.8	13.3	
Marianna, Ark.	10.3	11.3	12.0	11.3	13.0	11.3	
Coahoma, Miss.	11.8	12.8	12.7	12.5	13.4	13.5	
Stoneville (B), Miss.	12.6	13.6	14.2	11.7	15.1	14.7	
Bixby, Okla.	10.5	11.8	11.7	11.2	12.5	11.8	
Mean	12.6-	14.2-	14.1-	13.4-	15.0-	14.4-	0.8

Table 4. Relative maturity data, days earlier (-) or later (+) than Perry, for the strains in Uniform Group IV, 1958

Location	Date Planted	Perry Matured	Clark	C1069	D53-133	D53-134
		East Coast				
Georgetown, Del.	5-26	10-12	-16	-2	-4	-1
Linkwood, Md.	6-22	9-29	- 9	+4	+3	+5
Orange, Va.	5-23	9-23	0	+2	0	0
Warsaw, Va.	5-24	10-8	-21	0	+1	0
Mean		10-3	-14	+1	0	+1
		Upper and Central South				
Lexington, Ky.	5-26	10-12	- 8	-1	0	-2
		Delta				
Henderson, Ky.	5-16	10-6	-11	-5	0	+4
Sikeston, Mo.	5-15	9-21	-11	+5	0	+5
Marianna, Ark.	5-16	9-15	+ 2	+3	0	+2
Coahoma, Miss.	5-24	9-11	- 1	+6	+3	+3
Clarksdale, Miss.	5-24	9-8	- 2	+4	0	+3
Stoneville (B), Miss.	5-26	9-15	- 3	+5	+3	+5
Mean		9-18	- 4	+3	+1	+4
		West				
Fayetteville, Ark.	5-20	9-9	0	+7	+3	+6
Miami, Okla.	5-21	9-15	- 3	+2	+6	+6
South Coffeyville, Okla.	5-20	9-15	- 3	+12	+13	+13
Perkins, Okla.	5-8	9-9	- 2	+5	+5	+7
Plainview, Texas	5-28	9-24	- 4	-3	-4	-4
Bixby, Okla.	5-15	9-15	0	0	0	+1
Mean		9-15	- 2	+4	+4	+5

Table 4. (Continued)

Location	D53-190	D53-354	D53-1254	D54-2437	D54-3281	D52-203	Scott
			East Coast				
Georgetown, Del.	-3	-2	-3	-3	-2	0	-4
Linkwood, Md.	0	+3	+3	+3	+2	+12	+5
Orange, Va.	+1	+1	+3	+1	+1	+ 2	+1
Warsaw, Va.	0	0	-3	0	0	+13	+1
Mean	-1	+1	0	0	0	+ 7	+1
			Upper and Central South				
Lexington, Ky.	+1	+1	0	+4	+1	+ 4	+2
			Delta				
Henderson, Ky.	-1	-3	+2	-1	0	+ 5	+3
Sikeston, Mo.	+1	0	+3	+7	+3	+ 8	+3
Marianna, Ark.	0	0	+1	+1	+1	+ 2	0
Coahoma, Miss.	+1	+1	+3	+6	+3	+ 5	+5
Clarksdale, Miss.	0	0	+1	+3	+2	+ 4	0
Stoneville (B), Miss.	+3	+1	+3	+5	+4	+ 5	+5
Mean	+1	0	+2	+4	+2	+ 5	+3
			West				
Fayetteville, Ark.	0	+3	+3	+6	+6	+ 6	+3
Miami, Okla.	0	+4	+13	+15	+14	+14	+14
South Coffeyville, Okla.	+12	+11	+13	+12	+14	+15	+12
Perkins, Okla.	+ 6	+ 5	+ 4	+ 6	+ 6	+ 8	+ 7
Plainview, Texas	- 4	- 4	- 3	- 3	- 4	- 3	- 3
Bixby	+ 1	+ 1	+ 1	+ 2	+ 1	+ 2	+ 2
Mean	+ 3	+ 3	+ 5	+ 6	+ 6	+ 7	+ 6

Table 5. Height data for the strains in Uniform Group IV, 1958

Location	Perry	Clark	C1069	D53-138	D53-184	D53-190
		East Coast				
Georgetown, Del.	42	42	45	51	47	47
Linkwood, Md.	42	44	48	50	49	47
Orange, Va.	36	33	40	44	40	38
Warsaw, Va.	40	38	43	48	46	42
Painter, Va.	41	40	45	48	46	43
Mean	40	39	44	48	46	43
		Upper and Central South				
Lexington, Ky.	49	50	54	53	51	50
		Delta				
Henderson, Ky.	47	44	52	50	50	50
Sikeston, Mo.	45	45	47	49	46	46
Marianna, Ark.	34	34	37	37	35	35
Coahoma, Miss.	25	23	31	31	29	29
Clarksdale, Miss.	36	37	43	44	39	38
Stoneville (B), Miss.	35	35	39	39	36	36
Mean	37	36	42	42	39	39
		West				
Fayetteville, Ark.	36	39	43	44	43	40
Miami, Okla.	40	43	49	49	45	45
South Coffeyville, Okla.	50	45	52	50	50	52
Perkins, Okla.	36	35	44	44	45	40
Plainview, Texas	20	21	29	29	25	25
Bixby, Okla.	47	49	54	57	50	52
Mean	38	39	45	46	43	42

Table 5. (Continued)

Location	D53-354	D53-1254	D54-2437	D54-3281	D52-203	Scott
			East Coast			
Georgetown, Del.	48	49	45	49	47	46
Linkwood, Md.	47	48	46	47	48	48
Orange, Va.	39	41	35	37	35	35
Warsaw, Va.	44	44	41	46	46	45
Painter, Va.	45	46	45	48	43	45
Mean	45	46	42	45	44	44
			Upper and Central South			
Lexington, Ky.	49	50	48	49	51	51
			Delta			
Henderson, Ky.	48	51	47	50	49	48
Sikeston, Mo.	44	47	42	44	44	45
Marianna, Ark.	36	38	35	36	40	33
Coahoma, Miss.	31	29	34	27	26	27
Clarksdale, Miss.	40	40	41	41	41	38
Stoneville (B), Miss.	37	40	38	35	39	37
Mean	39	41	40	39	40	38
			West			
Fayetteville, Ark.	41	45	42	42	44	43
Miami, Okla.	47	46	45	46	45	47
South Coffeyville, Okla.	55	54	51	51	52	52
Perkins, Okla.	44	43	42	42	45	43
Plainview, Texas	29	28	24	26	29	28
Bixby, Okla.	49	54	47	47	50	51
Mean	44	45	42	42	44	44

Table 6. Lodging scores for the strains in Uniform Group IV, 1958

Location	Perry	Clark	C1069	D53-138	D53-184	D53-190
			East Coast			
Georgetown, Del.	2.0	2.0	2.7	2.0	2.3	3.0
Linkwood, Md.	3.0	3.0	3.0	3.0	3.0	3.0
Orange, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Warsaw, Va.	1.0	1.0	1.0	1.0	1.7	2.7
Painter, Va.	2.0	2.2	1.7	2.7	2.2	3.5
			Upper and Central South			
Lexington, Ky.	2.3	2.0	2.0	2.7	3.3	3.0
			Delta			
Henderson, Ky.	2.7	2.3	2.3	3.0	4.0	5.0
Sikeston, Mo.	1.9	1.7	2.0	2.3	3.2	2.7
Marianna, Ark.	1.7	1.3	1.3	1.7	2.3	2.0
Coahoma, Miss.	1.0	1.3	1.0	2.0	2.0	2.0
Clarksdale, Miss.	3.0	3.0	4.0	3.0	3.3	3.0
Stoneville (B), Miss.	2.3	3.7	3.3	3.7	4.0	3.3
			West			
Fayetteville, Ark.	2.0	2.3	2.3	2.7	3.7	3.7
Miami, Okla.	1.2	1.0	1.3	1.3	1.5	1.2
South Coffeyville, Okla.	1.8	1.0	1.5	1.5	2.0	2.3
Perkins, Okla.	1.0	1.3	1.7	1.5	1.7	1.7
Plainview, Texas	1.0	2.0	1.7	1.3	1.0	1.7
Bixby, Okla.	3.2	1.3	1.2	1.5	2.8	3.2

Table 6. (Continued)

Location	D53-354	D53-1254	D54-2437	D54-3281	D52-203	Scott
East Coast						
Georgetown, Del.	3.0	1.7	2.7	2.0	2.7	2.0
Linkwood, Md.	3.0	3.0	3.0	3.0	3.0	3.0
Orange, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Warsaw, Va.	1.0	1.0	2.0	1.7	1.0	1.0
Painter, Va.	3.0	1.8	1.8	3.7	1.2	1.3
Upper and Central South						
Lexington, Ky.	2.7	2.0	3.3	2.3	2.7	2.3
Delta						
Henderson, Ky.	4.3	3.3	4.7	3.3	3.3	2.0
Sikeston, Mo.	2.5	1.7	2.3	3.0	2.1	1.6
Marianna, Ark.	1.7	2.3	2.7	2.0	2.0	2.0
Coahoma, Miss.	2.0	2.0	2.5	2.0	1.0	1.0
Clarksdale, Miss.	3.0	2.7	3.3	3.0	4.0	2.7
Stoneville (B), Miss.	2.7	2.7	3.7	4.0	3.3	2.3
West						
Fayetteville, Ark.	2.3	2.0	2.3	4.0	3.0	3.0
Miami, Okla.	1.3	1.2	1.3	1.3	1.2	1.5
South Coffeyville, Okla.	1.0	2.0	2.5	2.3	1.0	2.5
Perkins, Okla.	1.2	1.3	1.2	1.7	1.7	1.5
Plainview, Texas	2.0	1.0	1.0	1.0	1.0	1.3
Bixby, Okla.	2.2	1.5	2.0	2.7	2.8	2.2

Table 7. Seed quality scores for the strains in Uniform Group IV, 1958

Location	Perry	Clark	C1069	D53-138	D53-184	D53-190
		East Coast				
Georgetown, Del.	3.0	2.0	2.0	1.3	1.3	1.7
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Orange, Va.	3.0	1.0	2.0	2.0	2.0	3.0
Warsaw, Va.	4.0	3.0	1.0	1.0	1.0	3.0
Painter, Va.	1.0	2.0	1.0	2.0	2.0	2.0
		Upper and Central South				
Lexington, Ky.	3.0	3.0	1.0	1.0	2.0	2.0
		Delta				
Henderson, Ky.	3.0	2.0	3.0	2.5	3.0	2.0
Sikeston, Mo.	2.5	2.0	2.0	2.0	2.0	1.5
Marianna, Ark.	5.0	3.7	4.0	3.3	2.0	3.3
Coahoma, Miss.	3.0	3.0	3.0	2.7	2.0	2.7
Clarksdale, Miss.	5.0	5.0	5.0	5.0	4.0	5.0
Stoneville (B), Miss.	4.0	3.3	3.3	3.0	3.0	3.0
		West				
Fayetteville, Ark.	2.7	3.0	2.0	1.3	2.3	1.7
Miami, Okla.	1.7	1.5	1.5	1.2	1.3	1.5
South Coffeyville, Okla.	1.7	1.5	1.5	1.5	1.5	1.5
Perkins, Okla.	2.0	2.0	2.0	1.5	1.5	1.5
Bixby, Okla.	2.0	1.5	2.8	1.0	1.2	1.5

Table 7. (Continued)

Location	D53-354	D53-1254	D54-2437	D54-3281	D52-203	Scott
			East Coast			
Georgetown, Del.	1.7	1.7	2.0	2.0	1.3	2.0
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Orange, Va.	2.0	2.0	2.0	2.0	2.0	2.0
Warsaw, Va.	3.0	1.0	2.0	2.0	1.0	2.0
Painter, Va.	1.0	1.0	1.0	2.0	1.0	2.0
			Upper and Central South			
Lexington, Ky.	2.0	1.0	3.0	2.0	2.0	2.0
			Delta			
Henderson, Ky.	2.0	2.5	2.0	3.0	3.5	2.5
Sikeston, Mo.	1.5	2.0	2.5	2.0	3.0	2.0
Marianna, Ark.	2.7	3.7	3.7	3.0	2.7	3.3
Coahoma, Miss.	2.0	3.0	2.0	2.0	2.7	2.3
Clarksdale, Miss.	5.0	5.0	5.0	3.7	4.7	5.0
Stoneville (B), Miss.	3.0	3.0	3.3	3.0	4.0	3.7
			West			
Fayetteville, Ark.	1.7	2.0	2.3	1.7	3.0	2.0
Miami, Okla.	1.0	1.2	1.5	1.3	1.5	1.5
South Coffeyville, Okla.	1.2	1.2	1.5	1.5	1.3	1.3
Perkins, Okla.	1.5	1.5	1.5	1.5	1.5	1.5
Bixby, Okla.	1.5	1.5	1.5	1.5	1.5	1.5

PRELIMINARY GROUP IV

1958

Thirty-four experimental lines along with Perry and Clark were planted at 5 locations. Plots were harvested at 3 locations. Parentage of these lines is reported in table 8. Table 9 gives a general summary of agronomic, chemical, and disease reaction information on these lines. Data by individual locations are reported in tables 10 through 14.

Differences among strains were significant at each of the 3 locations. At Stoneville, 11 strains yielded significantly higher than Perry and 3 strains yielded significantly less. At Linkwood, there were 3 strains yielding significantly less than Perry, while at Perkins there were 18 strains yielding significantly less. The combined analysis for seed yield for the 3 locations showed the variety x location interaction to be highly significant, but between strains was nonsignificant.

Eighteen lines had been selected for resistance to bacterial pustule. However, only 5 of these lines also had low scores for Phytophthora and purple seed stain. The 3 lines D52-3378, D54-3261, and D54-3270, which had previously shown high susceptibility to what had been considered to be pod and stem blight, again showed high susceptibility to injury by Phytophthora.

Six lines were included that had been selected for resistance to root knot in Delaware. These lines were reported to be free from root knot injury in Missouri plantings where other lines showed heavy root knot development.

C1068 had been tested in the 1956 Preliminary Group IV nursery. In that year it yielded no better than the check varieties and shattered more than either of the check varieties. However, in the North uniform IV tests, planted in Delaware and Maryland, C1068 had performed very well. For this reason, it was retested in the 1958 Preliminary IV nursery. As a mean of the 3 locations, it ranked highest in seed yield. This strain has a distinct advantage over C1069 in lodging resistance in the Delaware and Maryland plantings.

Among the lines considered to be the best for advancing to the Uniform Group IV nursery are C1068, D56-1404, CX193-88-3, UD-321, UD-580, S4-1771, and S5-7144.

Table 8. Parentage of the strains in Preliminary Group IV, 1958

	Strain	Parentage
1.	Perry	Patoka x L7-1355
2.	Clark	Lincoln(2) x Richland
3.	C1068	Lincoln x Ogden
4.	D52-3378	Sel. from L6-5679
5.	D53-354	D49-2525 x L6-5679
6.	D54-2314	Wabash x D49-2573
7.	D54-2483	D49-2573 x L6-5679
8.	D54-3261	D49-2525 x L6-5679
9.	D54-3269	D49-2525 x L6-5679
10.	D54-3270	D49-2525 x L6-5679
11.	D56-1025	Ogden x Hawkeye
12.	D56-1168	Perry x Lee
13.	D56-1224	Hawkeye x Lee
14.	D56-1387	PI 179,826 x D49-2510
15.	D56-1404	PI 179,826 x D49-2510
16.	CX171-87-3-1	Wabash x L6-2132
17.	CX188-97-3	LX1061-9-15 x Richland
18.	CX193-88-3	Perry x C1066
19.	CX195B-122-1	Wabash x C1066
20.	CX224-6-5	Kingwa x C1067
21.	CX224-11-3	Kingwa x C1067
22.	UD-29	PC33243 x Wabash
23.	UD-74	PC33243 x Wabash
24.	UD-295	PC33243 x Hawkeye
25.	UD-297	PC33243 x Hawkeye
26.	UD-321	PC33243 x Perry
27.	UD-580	PC33243 x C985
28.	Scott (S2-7158)	D49-2525 x L6-5679
29.	S4-1771	L9-4091 x L6-2132
30.	S5-46	D49-2525 x L6-5679
31.	S5-7047	N48-1248 x Adams
32.	S5-7116	D49-2525 x L6-5679
33.	S5-7127	D49-2525 x L6-5679
34.	S5-7130	D49-2525 x L6-5679
35.	S5-7132	D49-2525 x L6-5679
36.	S5-7144	D49-2525 x L6-5679

Table 9. General summary of the performance for the strains in Preliminary Group IV, 1958

Strain	Seed Yield	Maturity Index	Ht.	Percent Oil 1/	Percent Protein 1/	Bact. Pustule	Phytoph-thora	Purple Stain
Perry	36.4	9-13	39	21.7	43.0	3.5	2.0	2.0
Clark	36.0	-6	38	21.6	41.8	4.0	1.0	1.0
C1068	44.1	0	39	22.1	41.5	3.0	1.0	3.0
D52-3378	30.4	+1	42	20.7	40.9	3.0	4.0	1.0
D53-354	33.8	+1	42	19.9	41.1	1.0	1.0	1.0
D54-2314	40.0	+2	43	21.2	42.0	1.0	1.0	2.0
D54-2483	35.9	0	35	19.9	44.4	1.0	1.0	3.0
D54-3261	36.4	+2	40	19.8	43.1	1.0	3.0	1.0
D54-3269	39.2	+3	46	19.7	42.0	1.0	1.0	1.0
D54-3270	29.0	-1	39	20.8	42.3	1.0	5.0	1.0
D56-1025	33.7	+1	25	21.5	42.2	3.0	1.0	4.0
D56-1168	33.2	+1	37	20.8	42.3	3.5	2.0	1.0
D56-1224	33.5	-6	36	21.5	41.6	1.0	3.0	1.0
D56-1387	35.7	-4	38	22.4	41.5	1.0	1.0	1.0
D56-1404	37.3	-1	40	23.0	40.7	1.0	1.0	3.0
CX171-87-3-1	38.5	0	42	21.3	42.9	4.0	2.0	1.0
CX188-97-3	37.1	-2	39	22.4	41.0	3.0	2.0	1.0
CX193-88-3	39.8	-3	43	21.8	41.0	4.0	1.0	1.0
CX195B-122-1	36.1	-1	42	22.7	38.7	3.5	2.0	1.0
CX224-6-5	30.5	0	50	20.6	41.8	5.0	1.0	2.0
CX224-11-3	35.5	-3	43	22.7	40.3	3.5	2.0	1.0
UD-29	36.8	0	40	21.3	41.8	3.0	1.0	2.0
UD-74	30.5	-3	41	21.5	40.9	4.5	2.0	1.0
UD-295	29.3	0	41	22.2	41.8	3.0	4.0	1.0
UD-297	34.0	+3	45	20.7	42.6	3.0	3.0	3.0
UD-321	37.7	+2	45	21.3	41.9	4.0	1.0	1.0
UD-580	38.5	0	38	23.0	39.7	4.0	1.0	3.0
Scott(S2-7158)	36.5	+3	41	20.5	39.9	1.0	2.5	1.0
S4-1771	40.2	-2	40	21.0	41.5	1.0	1.0	3.0
S5-46	35.2	+3	39	20.3	40.2	1.0	3.0	3.0
S5-7047	40.2	+3	51	22.0	41.0	1.0	1.0	3.0
S5-7116	38.4	+3	50	20.9	41.1	1.0	1.0	3.0
S5-7127	32.4	0	44	20.5	41.8	1.0	2.0	1.0
S5-7130	35.3	+2	46	20.5	41.8	1.0	3.0	3.0
S5-7132	29.0	+1	42	20.2	42.5	1.0	4.0	1.0
S5-7144	39.2	+5	45	20.4	41.6	1.0	1.0	3.0
L.S.D. (.05)	N.S.							

1/ Linkwood, Md. data only.

Table 10. Seed yield, in bushels per acre, for the strains in Preliminary Group IV, 1958

Strain	Linkwood, Md.	Stoneville(B),Miss.	Perkins, Okla.
Perry	41.7	25.5	42.1
Clark	41.0	27.5	39.4
C1068	44.8	42.7+	44.8
D52-3378	37.2	15.5-	38.6
D53-354	39.2	29.7	32.5-
D54-2314	42.2	35.2+	33.5-
D54-2483	44.0	31.6	32.0-
D54-3261	42.0	32.2	35.0-
D54-3269	41.2	42.5+	33.7-
D54-3270	36.4	11.5-	39.1
D56-1025	37.3	29.6	34.2-
D56-1168	42.4	25.5	31.6-
D56-1224	37.5	23.5	39.6
D56-1387	41.6	35.4+	30.2-
D56-1404	37.1	41.9+	33.0-
CX171-87-3-1	42.7	27.8	45.1
CX188-97-3	45.0	26.6	39.8
CX193-88-3	41.5	35.3+	42.6
CX195B-122-1	44.6	22.7	41.0
CX224-6-5	30.6-	31.9	29.2-
CX224-11-3	40.9	29.3	36.2
UD-29	38.2	32.2	40.0
UD-74	36.6	20.2	34.8-
UD-295	40.5	13.1-	34.3-
UD-297	41.4	30.0	30.6-
UD-321	39.2	33.4	40.6
UD-580	45.2	29.9	40.2
Scott	40.6	31.5	37.4
S4-1771	44.2	35.7+	40.8
S5-46	38.6	31.8	35.0-
S5-7047	41.2	42.0+	37.4
S5-7116	35.7-	38.8+	40.8
S5-7127	36.6	27.3	33.2-
S5-7130	36.8	35.1+	34.0-
S5-7132	35.0-	20.8	31.2-
S5-7144	43.9	38.5+	35.2-
L.S.D. (.05)	5.5	8.2	6.7
C.V.	7%	13%	9%

Table 11. Oil percentages for the strains in Preliminary Group IV, 1958

Strain	Linkwood, Md.	Perkins, Okla.
Perry	21.7	26.0
Clark	21.6	25.0
C1068	22.1	24.3
D52-3378	20.7	23.8
D53-354	19.9	25.2
D54-2314	21.2	26.4
D54-2483	19.9	25.5
D54-3261	19.8	26.4
D54-3269	19.7	25.4
D54-3270	20.8	25.2
D56-1025	21.5	23.6
D56-1168	20.8	25.2
D56-1224	21.5	26.6
D56-1387	22.4	26.7
D56-1404	23.0	27.2
CX171-87-3-1	21.3	24.0
CX188-97-3	22.4	25.1
CX193-88-3	21.8	24.6
CX195B-122-1	22.7	27.0
CX224-6-5	20.6	24.4
CX224-11-3	22.7	26.6
UD-29	21.3	24.8
UD-74	21.5	24.7
UD-295	22.2	26.0
UD-297	20.7	24.7
UD-321	21.3	23.1
UD-580	23.0	25.9
Scott	20.5	25.4
S4-1771	21.0	24.5
S5-46	20.3	25.0
S5-7047	22.0	25.5
S5-7116	20.9	24.8
S5-7127	20.5	25.3
S5-7130	20.5	24.7
S5-7132	20.2	25.0
S5-7144	20.4	25.7

Table 12. Protein percentages for the strains in Preliminary Group IV, 1958

Strain	Linkwood, Md.	Perkins, Okla.
Perry	43.0	37.9
Clark	41.8	37.7
C1068	41.5	38.2
D52-3378	40.9	35.5
D53-354	41.1	34.0
D54-2314	42.0	33.9
D54-2483	44.4	34.8
D54-3261	43.1	33.9
D54-3269	42.0	32.2
D54-3270	42.3	36.2
D56-1025	42.2	36.6
D56-1168	42.3	34.8
D56-1224	41.6	31.6
D56-1387	41.5	36.4
D56-1404	40.7	35.1
CX171-87-3-1	42.9	38.1
CX188-97-3	41.0	35.4
CX193-88-3	41.0	36.1
CX195B-122-1	38.7	34.8
CX224-6-5	41.8	36.0
CX224-11-3	40.3	35.4
UD-29	41.8	35.4
UD-74	40.9	35.2
UD-295	41.8	34.0
UD-297	42.6	34.8
UD-321	41.9	38.6
UD-580	39.7	33.5
Scott	39.9	32.4
S4-1771	41.5	36.4
S5-46	40.2	30.8
S5-7047	41.0	34.1
S5-7116	41.1	37.1
S5-7127	41.8	32.4
S5-7130	41.8	35.0
S5-7132	42.5	33.4
S5-7144	41.6	33.5

Table 13. Height data for the strains in Preliminary Group IV, 1958

Strain	Linkwood, Md.	Stoneville (B), Miss.	Perkins, Okla.
Perry	46	33	38
Clark	48	33	34
C1068	46	34	38
D52-3378	52	27	46
D53-354	48	36	43
D54-2314	52	36	42
D54-2483	41	31	34
D54-3261	48	33	38
D54-3269	53	41	44
D54-3270	50	23	44
D56-1025	36	19	20
D56-1168	45	28	37
D56-1224	44	28	36
D56-1387	44	36	35
D56-1404	46	40	34
CX171-87-3-1	48	35	43
CX188-97-3	50	32	36
CX193-88-3	50	37	42
CX195B-122-1	52	36	38
CX224-6-5	54	44	51
CX224-11-3	52	36	42
UD-29	42	37	41
UD-74	46	33	43
UD-295	50	29	44
UD-297	54	36	45
UD-321	51	40	45
UD-580	47	34	33
Scott	50	30	43
S4-1771	50	35	36
S5-46	45	34	39
S5-7047	56	46	52
S5-7116	56	42	51
S5-7127	52	37	44
S5-7130	53	39	47
S5-7132	52	31	44
S5-7144	50	38	47

Table 14. Seed quality scores for the strains in Preliminary Group IV, 1958

Strain	Linkwood, Md.	Stoneville(B), Miss.	Perkins, Okla.
Perry	2.0	4.0	1.8
Clark	3.0	3.0	1.5
C1068	3.0	3.5	1.0
D52-3378	3.0	4.0	1.0
D53-354	2.0	3.0	1.5
D54-2314	3.0	3.0	1.5
D54-2483	3.0	4.5	2.0
D54-3261	3.0	3.0	1.5
D54-3269	3.0	3.5	1.0
D54-3270	3.0	5.0	1.8
D56-1025	3.0	4.0	2.0
D56-1168	2.0	3.0	1.5
D56-1224	3.0	4.0	1.5
D56-1387	3.0	3.0	1.5
D56-1404	3.0	3.5	1.3
CX171-87-3-1	2.0	3.0	1.5
CX188-97-3	3.0	4.0	1.8
CX193-88-3	2.0	3.0	1.8
CX195B-122-1	3.0	3.0	1.0
CX224-6-5	3.0	5.0	1.5
CX224-11-3	3.0	5.0	3.0
UD-29	3.0	3.0	1.0
UD-74	3.0	4.0	1.5
UD-295	3.0	4.0	2.0
UD-297	2.0	3.0	1.8
UD-321	3.0	3.5	2.0
UD-580	3.0	5.0	2.0
Scott	2.0	3.5	1.5
S4-1771	3.0	3.0	1.5
S5-46	3.0	3.0	1.5
S5-7047	3.0	3.0	1.0
S5-7116	2.0	4.0	1.5
S5-7127	2.0	3.5	1.5
S5-7130	3.0	3.5	1.5
S5-7132	2.0	4.0	1.5
S5-7144	3.0	3.5	1.5

UNIFORM GROUP V

1958

Variety or Strain	Parentage	Generation Composited
1. Dorman	Dunfield x Arksoy	F_6
2. D53-526	D632-15 x D49-2525	F_5
3. D53-142	D49-2525 x L6-5679	F_5
4. D53-697	L7-163 x D49-2573	F_5
5. D54-2213	Wabash x D49-2573	F_5
6. D54-3310	D49-2525 x L6-5679	F_7
7. D54-3350	D632-15 x D49-2525	F_7
8. D54-3416	Wabash x D49-2573	F_7
9. D55-8144	Dorman x N48-1515	F_5
10. Md55-49	Wabash x Ogden	F_8
11. Md55-54	Wabash x Ogden	F_8
12. S4-7312	Ogden x L6-5679	F_5

Background of strains used as parents:

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

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

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

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

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

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

Thirty-two Uniform Group V nurseries were planted. Results of 25 nurseries are summarized in tables 15 through 21. Table 15 gives a general summary of the performance of lines in this group this past season, as well as 2-year data on seed yield and oil and protein percentages. Four-year average yields by production areas are also presented for Dorman and D53-526 along with 4-year averages for oil and protein percentages.

Differences among strains for seed yield were significant at 14 of the 25 locations where nurseries were grown. Differences among strains were significant for within each of the 3 areas, East Coast, Upper and Central South, and Delta. Differences among strains were nonsignificant for the Western area. Differences in lodging are reported as a percentage of the locations where a line was given a lodging score greater than 3. Under most conditions, a strain given a score of 3 would offer no problem in harvesting. Differences in purple stain development are reported for Plymouth and Stoneville.

D53-526 is being increased for release in Delaware, Maryland, Virginia, North Carolina, Mississippi, Missouri, Arkansas, and Oklahoma. This strain will be named in the summer of 1959. For the 4-year period 1955 through 1958, D53-526 shows an 8 percent increase in yield over Dorman in the Delta area and a 6 percent increase over Dorman in the West. Its primary advantage over Dorman in the East Coast area is in better lodging resistance. In that area, D53-526 averages nearly 5 days earlier in maturity than Dorman. D53-526 is resistant to bacterial pustule, frogeye, and purple seed stain. It has appeared to have good field resistance to Phytophthora and to root knot nematodes. It has also appeared to be free from the tendency shown by some strains for the stems to remain green after pods are mature.

D53-142 appeared outstanding in the East Coast tests prior to maturity, because of its lodging resistance. However, it yielded significantly less than Dorman or D53-526 in that area. In the plantings on Sharkey clay soil in Mississippi, D53-142 showed little killing from Phytophthora, but did have the appearance of being stunted in each of the plantings.

D53-697 has been one of the highest yielding lines in this group in each of the 2 years that it has been grown. This is of interest, since D53-697 has deciduous pubescence. This type pubescence gives less protection from leafhoppers than the normal type pubescence. Leafhopper injury has been observed at several of the more northern plantings, such as Lexington, Kentucky and Linkwood, Maryland. D53-697 produces very good quality seed.

Of the 4 new lines included in 1958, D55-8144 is the latest maturing strain in the group. It was the highest ranking strain for yield in each production area. It was also the highest in oil content and lowest in protein content. Md55-49 and Md55-54 are tall, coarse types that stand very well. Both strains yield well. Both showed high susceptibility to purple seed stain at Stoneville and Plymouth, as well as in the preliminary nursery in 1957. S4-7312 produced satisfactorily but showed the same type of stunting from Phytophthora as D53-142.

Table 15. General summary of performance for the strains in Uniform Group V, 1958

	Dorman	D53-526	D53-142	D53-697	D54-2213	D54-3310
Seed Yield - 1958						
East Coast	39.3	39.1	35.3-	37.3	39.7	34.9-
Upper & Central South	21.6	24.1+	23.1	23.1	23.9+	20.9
Delta	33.4	37.1	32.3	35.5	34.1	30.7
West	30.3	29.8	29.2	31.1	30.1	27.3
- 1957-58						
East Coast	39.2	39.2	37.1	37.6	39.0	35.4
Upper & Central South	19.8	20.6	21.2	22.0	20.0	19.5
Delta	33.2	36.5	32.3	36.3	33.4	30.6
West	30.8	32.2	32.0	34.3	32.8	29.6
- 1955-58						
East Coast	34.9	34.8				
Upper & Central South	21.6	21.8				
Delta	31.0	33.4				
West	24.2	25.6				
Oil Content - 1958	21.1	21.3	20.9	21.0	21.0	21.0
- 1957-58	21.5	21.5	21.1	21.2	21.4	21.1
- 1955-58	21.3	21.2				
Protein Content - 1958	40.2	40.4	41.0+	40.4	41.3+	41.5+
- 1957-58	39.2	39.3	40.0	39.8	40.1	40.3
- 1955-58	39.0	39.4				
Seed Size	13.2	12.2-	13.5	12.6	13.0	12.8
Maturity Index	10-4	-3	-3	+4	+1	-3
Height	36	34	33	37	35	34
Lodging 1/	43	17	4	22	26	4
Bacterial Pustule	3.0	1.0	1.0	1.0	1.0	1.0
Phytophthora	1.0	1.0	3.0	1.0	1.0	2.0
Purple Stain 2/	3.0	1.0	1.0	2.0	1.0	1.0
Purple Stain 3/	2.0	1.0	2.0	1.0	2.0	2.0

1/ Percent of locations given a lodging score greater than 3.
2/ Plymouth
3/ Stoneville

Table 15. (Continued)

	D54-3350	D54-3416	D55-8144	Md55-49	Md55-54	S4-7312
Seed Yield-1958						
East Coast	36.6	37.7	39.9	38.3	37.9	38.3
Upper & Central South	21.7	22.1	25.4+	25.0+	24.1+	24.9+
Delta	34.7	31.6	42.1+	39.0+	37.1	33.7
West	27.8	28.2	33.0	27.4	27.3	30.7
-1957-58						
East Coast	36.5	37.5				
Upper & Central South	20.0	20.4				
Delta	33.5	31.1				
West	30.9	32.1				
-1955-58						
East Coast						
Upper & Central South						
Delta						
West						
Oil Content - 1958	21.9+	21.1	22.6+	22.4+	22.0+	21.2
- 1957-58	22.1	21.5				
- 1955-58						
Protein Content - 1958	39.4-	40.8	38.5-	40.4	40.6	39.5
- 1957-58	38.3	39.6				
- 1955-58						
Seed Size	11.7-	13.5	15.3+	15.8+	15.5+	13.9+
Maturity Index	-1	+1	+6	+5	+5	0
Height	36	33	37	49	48	37
Lodging[1/]	22	17	48			
Bacterial Pustule	1.0	1.0	1.0	3.0	3.0	3.0
Phytophthora	1.0	2.0	1.0	1.0	1.0	3.0
Purple Stain[2/]	1.0	1.0	2.0	4.0	3.0	1.0
Purple Stain[3/]	2.0	2.0	1.0	3.0	3.0	1.0

Table 16. Seed yield, in bushels per acre, for the strains in Uniform Group V, 1958

Location	Dorman	D53-526	D53-142	D53-697	D54-2213	D54-3310	D54-3350
		East Coast					
Georgetown, Del.	39.8	41.7	38.5	48.7	44.3	40.4	40.6
Linkwood, Md.	42.6	39.1	31.0	37.2	41.4	32.7	35.4
Warsaw, Va.	41.1	40.0	39.3	33.1-	39.7	38.9	40.0
Painter, Va.	43.3	43.5	36.0-	35.8-	46.6	35.2-	38.2
Petersburg, Va.	43.7	44.7	40.5	37.6	40.8	38.0	42.2
Norfolk, Va.	24.2	23.8	29.6	31.8	27.2	25.1	23.1
Plymouth, N. C.	40.1	40.6	32.3	37.0	38.3	33.9	36.7
Mean	39.3	39.1	35.3-	37.3	39.7	34.9-	36.6
		Upper and Central South					
Lexington, Ky.	35.7	38.5	39.2	30.9	39.4	32.1	34.2
Belle Mina, Ala.	14.4	14.7	13.7	14.6	13.0	13.2	13.3
Experiment, Ga.	13.5	16.7	13.7	15.2	14.1	12.7	12.1
State College, Miss.	22.6	26.4	25.7	31.6	29.0	25.5	27.0
Mean	21.6	24.1+	23.1	23.1	23.9+	20.9	21.7
		Delta					
Henderson, Ky.	38.6	42.5	41.6	37.3	40.1	37.5	39.3
Sikeston, Mo.	35.5	38.9	39.1	41.0	40.7	37.4	38.1
Marianna, Ark.	32.2	34.0	29.9	23.4	29.4	23.2	29.4
Coahoma, Miss.	32.6	33.7	22.8-	31.4	31.1	31.0	31.5
Clarksdale, Miss.	27.2	30.9+	24.9	31.9+	29.8	21.4-	31.8+
Stoneville (A), Miss.	32.2	38.8+	35.6	38.1+	35.4	34.2	36.1
Stoneville (B), Miss.	35.4	40.9	32.0	45.3+	31.9	29.9	36.7
Mean	33.4	37.1	32.3	35.5	34.1	30.7	34.7
		West					
Stuttgart, Ark.	19.7	23.1+	22.7+	18.9	21.7	20.7	22.4+
Curtis, La.	37.0	31.1	39.0	45.5+	38.2	40.5	31.9
Fayetteville, Ark.	25.7	25.6	29.3	35.1+	26.8	25.3	25.2
South Coffeyville, Okla.	21.0	22.3	19.3	13.4	24.6	13.4	13.8
Bixby, Okla.	34.7	39.6	34.0	43.2+	40.1	35.1	35.5
Perkins, Okla.	36.3	35.7	29.0-	30.0-	30.2-	27.6-	31.0-
Plainview, Texas	37.9	30.9	31.0	31.6	29.2	28.7	35.1
Mean	30.3	29.8	29.2	31.1	30.1	27.3	27.8

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

Table 16. (Continued)

Location	D54-3416	D55-8144	Md55-49	Md55-54	S4-7312	L.S.D. (.05)	C.V.
		East Coast					
Georgetown, Del.	42.4	50.4+	45.3	42.3	42.5	6.1	8%
Linkwood, Md.	34.9	36.6	36.4	37.2	37.2	N.S.	11%
Warsaw, Va.	40.0	43.1	38.2	38.9	37.2-	3.5	5%
Painter, Va.	38.2	43.1	37.1-	40.1	42.3	5.1	8%
Petersburg, Va.	41.0	43.3	38.6	35.9	40.8	N.S.	10%
Norfolk, Va.	25.7	24.0	30.5	30.5	30.0	N.S.	31%
Plymouth, N. C.	41.9	39.1	41.5	41.4	38.0	N.S.	14%
Mean	37.7	39.9	38.3	37.9	38.3	2.9	
		Upper and Central South					
Lexington, Ky.	34.8	36.7	39.8	37.3	38.8	4.7	8%
Belle Mina, Ala.	13.9	14.4	14.8	12.9	14.5	N.S.	11%
Experiment, Ga.	12.6	18.6	16.2	15.7	15.9	N.S.	16%
State College, Miss.	27.1	31.7	29.3	30.3	30.3	N.S.	15%
Mean	22.1	25.4+	25.0+	24.1+	24.9+	2.3	
		Delta					
Henderson, Ky.	36.6	41.4	38.5	35.7	37.3	N.S.	7%
Sikeston, Mo.	40.6	36.4	37.1	34.7	39.4	N.S.	12%
Marianna, Ark.	23.0	42.1+	33.7	32.0	34.9	9.7	19%
Coahoma, Miss.	29.1	43.7+	43.2+	41.0+	30.1	6.4	11%
Clarksdale, Miss	28.5	36.4+	29.6	28.3	23.6	3.7	8%
Stoneville (A), Miss.	32.5	46.4+	41.9+	39.5+	35.3	4.6	7%
Stoneville (B), Miss.	31.3	48.4+	49.3+	48.2+	35.2	6.5	10%
Mean	31.6	42.1+	39.0+	37.1	33.7	4.1	
		West					
Stuttgart, Ark.	25.0+	23.5+	25.0+	24.0+	22.8+	2.6	7%
Curtis, La.	37.4	46.4+	38.5	34.9	42.0	6.3	10%
Fayetteville, Ark.	30.6	31.5	26.7	30.4	35.4+	7.1	14%
South Coffeyville, Okla.	13.1	19.3	19.7	17.7	14.5	N.S.	28%
Bixby, Okla.	31.1	40.0	29.9	30.8	38.2	7.5	12%
Perkins, Okla.	31.2-	30.9-	20.9-	22.8-	29.9-	3.9	8%
Plainview, Texas	29.2	39.4	31.4	30.9	32.1	N.S.	14%
Mean	28.2	33.0	27.4	27.3	30.7	N.S.	

Table 17. Chemical composition and seed size for the strains in Uniform Group V, 1958

Location	Dorman	D53-526	D53-142	D53-697	D54-2213	D54-3310
			Oil Percentage			
Linkwood, Md.	19.6	19.9	20.2	20.6	19.9	19.9
Warsaw, Va.	19.9	21.1	20.1	20.4	20.3	20.5
Plymouth, N. C.	21.7	21.4	21.4	21.5	21.3	22.1
Henderson, Ky.	19.4	20.3	19.5	19.4	19.9	19.8
Sikeston, Mo.	21.0	21.2	21.4	20.6	20.8	20.4
Coahoma, Miss.	22.7	22.6	21.6	21.9	22.2	22.1
Stoneville (B), Miss.	23.6	22.9	22.7	21.6	23.6	22.6
Stuttgart, Ark.	21.5	20.6	21.0	20.6	19.9	20.2
Bixby, Okla.	20.0	21.6	20.3	21.4	20.6	20.0
Plainview, Texas	21.8	21.2	21.0	21.5	21.9	22.1
Mean	21.1	21.3	20.9	21.0	21.0	21.0
			Protein Percentage			
Linkwood, Md.	40.9	40.2	41.5	40.1	41.6	42.4
Warsaw, Va.	41.2	39.7	42.1	41.3	42.0	41.4
Plymouth, N. C.	39.0	40.3	40.1	40.5	41.7	40.7
Henderson, Ky.	41.4	41.1	41.8	40.9	42.4	42.6
Sikeston, Mo.	39.5	40.2	39.7	39.2	41.2	41.5
Coahoma, Miss.	39.5	42.5	41.1	40.0	40.6	41.7
Stoneville (B), Miss.	38.6	40.7	40.4	39.0	39.6	41.3
Stuttgart, Ark.	43.9	45.0	44.5	44.2	44.6	44.9
Bixby, Okla.	40.1	38.6	40.0	39.4	41.1	39.6
Plainview, Texas	38.0	36.1	38.6	38.9	38.4	38.6
Mean	40.2	40.4	41.0+	40.4	41.3+	41.5+
			Grams Per 100 Seeds			
Linkwood, Md.	16.7	14.1	15.8	14.0	15.9	14.6
Warsaw, Va.	15.3	13.6	15.6	15.3	16.0	14.6
Plymouth, N. C.	12.8	13.0	12.8	13.3	12.6	12.2
Henderson, Ky.	14.8	13.1	15.2	13.2	14.9	13.6
Sikeston, Mo.	11.9	12.0	13.3	12.2	13.8	12.1
Coahoma, Miss.	12.4	10.8	11.4	11.1	11.3	11.3
Stoneville (B), Miss.	13.3	12.3	13.6	12.7	12.2	13.2
Stuttgart, Ark.	12.3	11.0	12.7	11.0	11.0	12.0
Bixby, Okla.	9.4	10.0	10.8	11.0	10.9	10.6
Plainview, Texas	13.5	11.9	14.0	12.4	11.6	13.3
Mean	13.2	12.2-	13.5	12.6	13.0	12.8

Table 17. (Continued)

Location	D54-3350	D54-3416	D55-8144	Md55-49	Md55-54	S4-7312	L.S.D. (.05)
			Oil Percentage				
Linkwood, Md.	20.7	19.8	21.7	21.4	20.9	20.6	
Warsaw, Va.	20.7	20.6	21.4	21.1	21.2	20.8	
Plymouth, N. C.	22.7	21.7	23.1	23.2	21.4	20.9	
Henderson, Ky.	20.4	19.5	20.9	20.2	19.9	18.9	
Sikeston, Mo.	22.0	21.3	21.7	22.0	22.2	21.3	
Coahoma, Miss.	22.9	23.0	24.5	24.9	24.5	23.0	
Stoneville (B), Miss.	24.0	23.4	25.0	24.2	24.3	22.7	
Stuttgart, Ark.	21.9	20.2	21.5	22.2	21.1	20.5	
Bixby, Okla.	21.2	20.2	22.9	22.7	22.9	21.6	
Plainview, Texas	22.5	21.6	22.8	22.3	21.7	21.7	
Mean	21.9+	21.1	22.6+	22.4+	22.0+	21.2	0.5
			Protein Percentage				
Linkwood, Md.	39.8	42.0	38.9	41.5	41.9	40.2	
Warsaw, Va.	39.3	40.9	39.6	41.7	41.0	40.0	
Plymouth, N. C.	39.0	40.5	38.7	40.0	40.1	38.9	
Henderson, Ky.	40.6	42.7	40.2	43.3	43.2	41.5	
Sikeston, Mo.	39.0	40.6	39.0	39.0	39.9	38.4	
Coahoma, Miss.	39.7	39.7	36.7	38.5	39.0	39.6	
Stoneville (B), Miss.	38.4	39.1	36.5	39.5	40.5	38.8	
Stuttgart, Ark.	42.9	44.4	42.6	42.0	42.1	41.8	
Bixby, Okla.	39.1	40.2	38.4	40.1	40.5	38.5	
Plainview, Texas	35.7	37.7	34.5	37.9	37.9	37.4	
Mean	39.4-	40.8	38.5-	40.4	40.6	39.5	0.7
			Grams Per 100 Seeds				
Linkwood, Md.	13.0	16.4	18.0	18.6	18.3	16.4	
Warsaw, Va.	13.3	16.6	18.0	18.6	19.0	16.0	
Plymouth, N. C.	11.5	13.5	15.0	16.4	15.1	13.6	
Henderson, Ky.	13.4	15.5	14.8	16.1	15.7	14.4	
Sikeston, Mo.	11.8	13.7	15.0	16.4	16.2	13.2	
Coahoma, Miss.	11.2	12.5	14.4	14.5	15.3	12.1	
Stoneville (B), Miss.	11.7	13.6	15.9	13.9	15.9	13.7	
Stuttgart, Ark.	10.3	11.0	12.3	13.7	13.0	12.7	
Bixby,Okla.	9.8	10.8	13.4	14.7	14.9	11.4	
Plainview, Texas	11.2	11.7	15.9	15.1	11.6	15.1	
Mean	11.7-	13.5	15.3+	15.8+	15.5+	13.9+	0.7

Table 18. Relative maturity data, days earlier (-) or later (+) than Dorman, for the strains in Uniform Group V, 1958

Location	Date Planted	Dorman Matured	D53-526	D53-142	D53-697	D54-2213
		East Coast				
Georgetown, Del.	5-26	10-15	-2	0	+7	+5
Linkwood, Md.	6-22	10-13	-6	-5	+1	-1
Warsaw, Va.	5-24	10-19	-6	-7	+2	-3
Petersburg, Va.	5-4	10-12	-12	-12	+3	+2
Plymouth, N. C.	5-19	10-3	-8	0	+5	+2
Mean		10-12	-7	-5	+4	+1
		Upper and Central South				
Lexington, Ky.	5-27	10-26	-6	-7	-2	+3
Experiment, Ga.	5-16	9-7	+3	+1	+8	+3
Mean		10-1	-1	-3	+3	+3
		Delta				
Henderson, Ky.	5-16	10-18	-3	-7	+1	-2
Sikeston, Mo.	5-15	10-2	-3	-3	+5	+4
Marianna, Ark.	5-16	9-28	+3	+3	0	0
Coahoma, Miss.	5-24	9-24	0	+2	+8	+3
Clarksdale, Miss.	5-24	9-24	0	+1	+4	+1
Stoneville (A), Miss.	5-8	9-19	-1	0	+4	0
Stoneville (B), Miss.	5-26	9-25	-2	-2	+6	-1
Mean		9-29	-1	-1	+4	+1
		West				
Stuttgart, Ark.	5-28	10-2	0	0	0	-2
Curtis, La.	5-23	10-1	-6	-4	0	0
Fayetteville, Ark.	5-20	9-30	-7	-9	+2	0
South Coffeyville, Okla.	5-20	10-2	-2	-1	+4	+1
Bixby, Okla.	5-15	9-21	-1	+1	+8	+6
Perkins, Okla.	5-8	9-17	+1	+6	+8	+6
Plainview, Texas	5-28	10-6	0	-3	0	-6
Mean		9-28	-2	-1	+3	+1

Table 18. (Continued)

Location	D54-3310	D54-3350	D54-3416	D55-8144	Md55-49	Md55-54	S4-7312
East Coast							
Georgetown, Del.	0	-2	+3	+8	+5	+4	+2
Linkwood, Md.	-3	-6	-2	+3	+3	+3	-1
Warsaw, Va.	-6	-5	-4	+4	+2	+2	-2
Petersburg, Va.	-8	+4	0	+2	+3	+3	-3
Plymouth, N. C.	-8	-8	+2	+7	+5	+5	+1
Mean	-5	-4	0	+5	+4	+3	-1
Upper and Central South							
Lexington, Ky.	-6	-5	+10	+12	+2	+4	+2
Experiment, Ga.	+1	+4	+3	+5	+6	+6	+3
Mean	-3	0	+6	+8	+4	+5	+2
Delta							
Henderson, Ky.	-8	-4	+2	0	+6	+7	-5
Sikeston, Mo.	-3	-2	+4	+7	+8	+6	-1
Marianna, Ark.	+3	+3	-2	+8	+2	+2	+2
Coahoma, Miss.	+1	+3	+1	+9	+10	+9	+1
Clarksdale, Miss.	-3	+2	0	+10	+4	+3	+1
Stoneville (A), Miss.	-1	-1	+1	+6	+4	+4	0
Stoneville (B), Miss.	-3	-1	0	+8	+4	+4	0
Mean	-2	0	+1	+7	+5	+5	0
West							
Stuttgart, Ark.	0	0	0	0	+1	0	+1
Curtis, La.	0	-4	+9	+11	+14	+12	+9
Fayetteville, Ark.	-7	-7	0	+6	+8	+8	0
South Coffeyville, Okla.	-1	+18	+7	+3	+4	+3	+1
Bixby, Okla.	0	0	+3	+9	+14	+12	+2
Perkins, Okla.	+2	+4	+5	+8	+9	+8	+6
Plainview, Texas	-5	+2	-5	+5	-1	+1	+1
Mean	-2	+2	+3	+6	+7	+6	+3

Table 19. Height data for the strains in Uniform Group V, 1958

Location	Dorman	D53-526	D53-142	D53-697	D54-2213	D54-3310
		East Coast				
Georgetown, Del.	40	40	40	41	41	43
Linkwood, Md.	45	43	42	43	44	44
Warsaw, Va.	42	40	40	37	37	42
Painter, Va.	43	40	38	39	38	40
Petersburg, Va.	35	34	36	42	36	37
Plymouth, N. C.	41	37	34	41	35	38
Mean	41	39	38	41	39	41
		Upper and Central South				
Lexington, Ky.	51	42	45	41	51	48
Belle Mina, Ala.	34	32	28	31	30	30
Experiment, Ga.	26	24	21	20	22	20
State College, Miss.	36	36	36	45	40	36
Mean	37	34	33	34	36	34
		Delta				
Henderson, Ky.	46	40	41	46	45	43
Sikeston, Mo.	46	39	40	44	46	42
Marianna, Ark.	29	30	26	30	32	25
Coahoma, Miss.	30	27	21	27	23	24
Clarksdale, Miss.	31	35	34	33	34	33
Stoneville (A), Miss.	37	36	34	40	39	33
Stoneville (B), Miss.	30	29	23	31	29	23
Mean	36	34	31	36	35	32
		West				
Stuttgart, Ark.	33	28	25	31	30	27
Curtis, La.	27	27	27	30	30	24
Fayetteville, Ark.	37	31	32	40	35	33
South Coffeyville, Okla.	39	40	39	51	42	43
Bixby, Okla.	27	33	31	37	28	30
Perkins, Okla.	27	31	29	33	29	30
Plainview, Texas	25	24	21	27	25	21
Mean	31	31	29	36	31	30

Table 19. (Continued)

Location	D54-3350	D54-3416	D55-8144	Md55-49	Md55-54	S4-7312
			East Coast			
Georgetown, Del.	42	37	43	45	47	44
Linkwood, Md.	47	42	48	57	54	48
Warsaw, Va.	42	37	40	52	50	46
Painter, Va.	39	38	46	52	51	45
Petersburg, Va.	40	34	40	51	51	39
Plymouth, N. C.	38	35	42	53	53	44
Mean	41	37	43	52	51	44
			Upper and Central South			
Lexington, Ky.	48	41	55	57	55	48
Belle Mina, Ala.	35	31	33	34	29	32
Experiment, Ga.	23	20	24	34	36	26
State College, Miss.	38	36	40	55	50	36
Mean	36	32	38	45	43	36
			Delta			
Henderson, Ky.	44	40	49	56	56	48
Sikeston, Mo.	43	38	43	57	57	43
Marianna, Ark.	33	28	32	46	46	28
Coahoma, Miss.	27	24	29	43	43	24
Clarksdale, Miss.	35	34	35	47	43	35
Stoneville (A), Miss.	35	35	37	53	53	35
Stoneville (B), Miss.	29	27	30	48	45	27
Mean	35	32	36	50	49	34
			West			
Stuttgart, Ark.	29	30	36	38	39	31
Curtis, La.	28	28	28	48	47	29
Fayetteville, Ark.	36	34	37	49	48	39
South Coffeyville, Okla.	41	48	38	61	60	48
Bixby, Okla.	34	31	31	47	55	30
Perkins, Okla.	34	27	31	51	52	30
Plainview, Texas	26	23	24	34	32	30
Mean	33	32	32	47	48	34

Table 20. Lodging scores for the strains in Uniform Group V, 1958

Location	Dorman	D53-526	D53-142	D53-697	D54-2213	D54-3310
East Coast						
Georgetown, Del.	3.7	2.7	1.0	3.0	3.0	1.3
Linkwood, Md.	4.0	3.0	3.0	3.0	4.0	3.0
Warsaw, Va.	2.3	1.5	1.0	3.0	2.6	1.0
Painter, Va.	4.2	3.8	3.5	4.5	3.0	2.7
Petersburg, Va.	2.7	1.0	1.0	1.7	1.3	1.0
Plymouth, N. C.	3.3	3.0	3.0	4.3	3.3	2.8
Upper and Central South						
Lexington, Ky.	5.0	4.0	2.7	5.0	4.3	3.7
Belle Mina, Ala.	1.0	1.0	1.0	1.0	1.3	1.0
Experiment, Ga.	2.0	2.0	1.0	1.0	2.0	1.0
Delta						
Henderson, Ky.	5.0	4.2	2.3	3.3	4.0	3.0
Sikeston, Mo.	3.7	3.5	1.7	2.2	3.7	2.1
Marianna, Ark.	2.0	1.0	1.0	3.0	2.7	1.0
Coahoma, Miss.	2.0	1.7	1.0	2.3	1.7	1.0
Clarksdale, Miss.	3.3	2.0	1.0	3.0	3.3	1.0
Stoneville (A), Miss.	2.7	2.0	1.3	3.0	3.0	1.0
Stoneville (B), Miss.	2.7	2.0	1.0	3.0	2.3	1.0
West						
Stuttgart, Ark.	3.3	2.0	1.3	4.0	2.7	1.7
Curtis, La.	1.0	1.0	1.0	1.0	1.0	1.0
Fayetteville, Ark.	3.0	2.3	1.7	3.0	2.3	2.0
South Coffeyville, Okla.	3.5	1.5	1.5	2.5	2.7	1.5
Bixby, Okla.	1.7	1.0	1.0	1.5	1.5	1.2
Perkins, Okla.	1.2	1.0	1.0	1.0	1.5	1.0
Plainview, Texas	2.3	2.3	1.0	2.0	2.0	1.0

Table 20. (Continued)

Location	D54-3350	D54-3416	D55-8144	Md55-49	Md55-54	S4-7312
			East Coast			
Georgetown, Del.	2.0	2.3	3.0	2.0	1.3	2.7
Linkwood, Md.	3.0	3.0	4.0	2.0	2.0	3.0
Warsaw, Va.	1.0	1.0	2.6	1.2	1.2	1.2
Painter, Va.	3.3	2.5	4.2	2.5	1.3	4.3
Petersburg, Va.	1.7	1.0	3.3	1.3	2.0	2.3
Plymouth, N. C.	3.5	3.0	5.0	3.0	2.7	3.3
			Upper and Central South			
Lexington, Ky.	3.7	4.7	5.0	2.3	2.3	4.0
Belle Mina, Ala.	1.3	1.0	1.7	1.0	1.0	1.0
Experiment, Ga.	1.0	2.0	2.0	1.0	1.0	1.0
			Delta			
Henderson, Ky.	3.2	3.3	4.7	2.3	2.3	3.7
Sikeston, Mo.	2.5	2.8	3.8	3.0	2.7	2.2
Marianna, Ark.	1.0	1.7	3.3	2.3	2.7	1.0
Coahoma, Miss.	1.3	1.3	1.7	2.0	2.0	1.0
Clarksdale, Miss.	2.3	3.7	3.3	3.0	3.0	2.7
Stoneville (A), Miss.	2.0	3.0	3.0	4.0	3.7	2.0
Stoneville (B), Miss.	2.0	2.7	2.7	2.0	2.3	1.7
			West			
Stuttgart, Ark.	1.7	2.7	2.7	3.3	2.7	2.3
Curtis, La.	1.0	1.0	1.0	2.0	2.0	1.0
Fayetteville, Ark.	2.0	2.7	4.0	2.3	2.7	2.0
South Coffeyville, Okla.	3.3	4.0	3.5	2.3	2.5	2.0
Bixby, Okla.	1.0	1.3	2.0	1.0	1.0	1.0
Perkins, Okla.	1.2	1.5	1.8	1.3	1.3	1.0
Plainview, Texas	2.7	1.0	2.0	1.0	1.7	1.7

Table 21. Seed quality scores for the strains in Uniform Group V, 1958

Location	Dorman	D53-526	D53-142	D53-697	D54-2213	D54-3310
		East Coast				
Georgetown, Del.	1.0	1.0	1.0	1.0	1.0	1.3
Linkwood, Md.	2.0	2.0	2.0	3.0	3.0	2.0
Warsaw, Va.	2.0	2.0	2.0	3.0	1.0	2.5
Painter, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Petersburg, Va.	1.0	1.0	2.0	1.0	1.0	1.0
Plymouth, N. C.	3.5	2.0	2.5	3.0	3.0	2.0
		Upper and Central South				
Lexington, Ky.	1.0	2.0	2.0	3.0	2.5	2.0
Experiment, Ga.	2.0	3.0	2.3	2.0	2.7	2.3
State College, Miss.	2.0	2.0	3.0	2.0	4.0	2.0
		Delta				
Henderson, Ky.	2.0	3.0	3.0	3.0	3.0	4.0
Sikeston, Mo.	1.0	2.0	1.5	2.0	2.0	1.5
Marianna, Ark.	2.3	2.0	3.7	1.7	2.7	3.3
Coahoma, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
Clarksdale, Miss.	3.3	3.3	4.7	3.0	3.7	5.0
Stoneville (A), Miss.	3.3	3.0	3.7	2.7	3.0	3.3
Stoneville (B), Miss.	3.0	3.0	3.7	2.0	3.0	3.3
		West				
Stuttgart, Ark.	2.3	3.0	3.0	2.7	2.7	3.0
Curtis, La.	4.0	5.0	5.0	4.0	5.0	5.0
Fayetteville, Ark.	1.7	1.7	2.0	1.7	2.7	2.0
South Coffeyville, Okla.	1.5	1.5	1.3	1.0	1.3	1.3
Bixby, Okla.	1.2	1.0	1.5	1.0	1.5	1.3
Perkins, Okla.	1.0	1.5	1.5	1.0	1.2	1.2
Plainview, Texas	1.5	2.0	2.0	1.5	2.0	2.0

Table 21. (Continued)

Location	D54-3350	D54-3416	D55-8144	Md55-49	Md55-54	S4-7312
			East Coast			
Georgetown, Del.	2.0	1.0	1.0	1.0	1.0	1.0
Linkwood, Md.	2.0	3.0	2.0	2.0	2.0	2.0
Warsaw, Va.	1.0	1.0	1.0	2.0	1.5	2.0
Painter, Va.	1.0	1.0	1.0	1.0	1.0	2.0
Petersburg, Va.	1.0	1.0	1.0	1.0	2.0	1.0
Plymouth, N. C.	3.0	3.5	3.5	2.0	3.5	2.0
			Upper and Central South			
Lexington, Ky.	2.5	2.0	2.0	1.0	1.5	3.0
Experiment, Ga.	2.7	2.0	2.0	2.0	2.7	2.3
State College, Miss.	2.0	3.0	3.0	2.0	2.0	3.0
			Delta			
Henderson, Ky.	3.0	2.0	2.0	2.0	2.0	3.0
Sikeston, Mo.	2.0	1.5	1.5	2.0	2.0	2.0
Marianna, Ark.	2.0	2.0	2.3	3.7	3.0	3.0
Coahoma, Miss.	2.0	2.0	1.7	2.0	2.0	2.0
Clarksdale, Miss.	3.3	3.0	3.0	3.0	3.3	3.7
Stoneville (A), Miss.	3.0	3.0	3.0	3.0	3.0	3.3
Stoneville (B), Miss.	3.0	3.0	2.0	3.0	2.7	3.0
			West			
Stuttgart, Ark.	3.0	2.7	3.0	3.0	2.3	4.0
Curtis, La.	5.0	5.0	3.0	4.0	5.0	4.0
Fayetteville, Ark.	1.3	2.0	2.0	3.3	2.0	2.7
South Coffeyville, Okla.	1.2	1.0	1.2	1.2	1.3	1.7
Bixby, Okla.	1.0	1.0	1.2	1.8	2.0	1.5
Perkins, Okla.	1.3	1.0	1.0	1.0	1.0	1.5
Plainview, Texas	2.0	1.5	1.5	1.5	1.5	2.0

PRELIMINARY GROUP V

1958

Eight Preliminary Group V nurseries were planted. This group included Dorman and D53-526 as check varieties and 34 experimental lines. Parentage of these lines is reported in table 22. Results from 6 of the locations are reported in tables 23 through 28. Table 23 gives a general summary of performance of these lines.

There were no lines averaging significantly higher in yield than Dorman. There were 6 lines averaging significantly lower in yield. One line, D56-1107, should have been grown with Group VI material.

Nine lines showed a high percentage of the stems remaining green after pods were mature at Plymouth. These were D56-44, D56-306, D56-533, D56-1080, D56-1162, N55-3632, N55-3638, N55-3643, and N55-3647. All of these lines also had a high percentage of purple stained seed.

Two lines, D56-126 and S4-7346, equalled Dorman in protein content and had significantly higher oil content. There were two lines having significantly lower oil content than Dorman. There were 8 lines which had significantly higher protein content and which were comparable in oil content.

Among the more promising lines, which should merit testing in Uniform Group V, are D56-126, D56-1185, D56-1231, D56-1247, and S4-7346.

D56-1 and D56-2 are bulk F_4 composites from the cross D53-500 x D53-492. D56-1 is a composite of short F_2 plants with a determinate growth type. D56-2 is a composite to tall, indeterminate F_2 plants. In the F_3 generation, the composite of tall F_2 plants would be expected to include a mixture of 16 percent short plants. In the F_4 generation, the percentage of short plants would be expected to increase to 28 percent of the population. In 1957, as a mean of 4 locations the determinate type composite exceeded the indeterminate composite in yield by 2.6 bushels per acre. This past season, the mean of 6 locations showed a yield advantage for the determinate types of 0.9 bushels per acre.

Table 22. Parentage of the strains in Preliminary Group V, 1958

	Strain	Parentage	Generation Composited
1.	Dorman	Dunfield x Arksoy	F_6
2.	D53-526	D632-15 x D49-2525	F_5
3.	D53-8243	Dorman x N48-1515	F_5
4.	D54-3337	D632-15 x D49-2525	F_7
5.	D56-44	Dorman(2) x N48-1515	F_5
6.	D56-84	Dorman(2) x N48-1515	F_5
7.	D56-126	Dorman(2) x N48-1515	F_5
8.	D56-306	Dorman(2) x N48-1515	F_5
9.	D56-533	Dorman(2) x N48-1515	F_5
10.	D56-541	Dorman(2) x N48-1515	F_5
11.	D56-549	Dorman(2) x N48-1515	F_5
12.	D56-599	Dorman(2) x N48-1515	F_5
13.	D56-602	Dorman(2) x N48-1515	F_5
14.	D56-1026	Ogden x Hawkeye	F_5
15.	D56-1080	D51-5108 x Dorman	F_5
16.	D56-1087	D51-5108 x Dorman	F_5
17.	D56-1107	D51-5108 x Dorman	F_5
18.	D56-1162	D51-5108 x Dorman	F_5
19.	D56-1185	Perry x Lee	F_5
20.	D56-1215	Perry x Lee	F_5
21.	D56-1223	Perry x Lee	F_5
22.	D56-1231	Perry x Lee	F_5
23.	D56-1246	Perry x Lee	F_5
24.	D56-1247	Perry x Lee	F_5
25.	D56-1	D53-500 x D53-492	F_2
26.	D56-2	D53-500 x D53-492	F_2
27.	R54-26	Dorman x D49-2477	F_4
28.	R54-36	Dorman x D49-2477	F_4
29.	N55-3632	Lincoln x Ralsoy (S8-5139)	F_{10}
30.	N55-3638	Lincoln x Ralsoy (S8-5139)	F_{10}
31.	N55-3643	Lincoln x Ralsoy (S8-5139)	F_{10}
32.	N55-3647	Lincoln x Ralsoy (S8-5139)	F_{10}
33.	S4-7213	Ogden x L6-5679	F_5
34.	S4-7346		F_5
35.	S5-7208	Wabash x Ogden	F_4
36.	S5-7587	Dorman x Adams	F_5

Table 23. General summary of performance for the strains in Preliminary Group V, 1958

Strain	Seed Yield	Maturity Index	Ht.	Percent Oil	Percent Protein	Mil-dew 1/	Bact. Pustule 1/	Phytoph-thora 1/	Purple Stain 2/
Dorman	37.4	10-3	36	21.2	39.3	2.0	3.0	1.0	2.0
D53-526	36.0	-2	34	21.0	40.1	1.0	1.0	1.0	1.0
D53-8243	40.4	+6	36	21.9	37.5-	3.0	1.0	1.0	3.0
D54-3337	36.0	-1	42	21.3	40.2	1.0	1.0	1.0	1.0
D56-44	37.2	+8	39	20.6	39.8	1.0	1.0	1.0	3.0
D56-84	35.0	+7	35	21.2	39.0	4.0	1.0	3.0	2.0
D56-126	40.0	-3	33	22.2+	39.5	3.5	1.0	1.0	1.0
D56-306	38.1	+8	36	21.3	39.0	1.0	1.0	2.0	4.0
D56-533	38.3	+4	37	20.7	39.8	3.5	1.0	1.0	4.0
D56-541	36.5	+3	36	21.4	39.1	2.5	1.0	3.0	3.0
D56-549	34.7	0	38	22.0	38.8	3.5	1.0	2.0	2.0
D56-599	33.1-	-4	32	21.8	40.5	3.0	1.0	3.0	1.0
D56-602	32.5-	-3	37	21.4	40.2	3.0	1.0	1.0	2.0
D56-1026	33.3-	+2	35	21.3	41.2+	1.0	3.0	1.0	2.0
D56-1080	37.8	+7	39	20.2-	40.7	2.0	1.0	1.0	3.0
D56-1087	41.1	+6	36	20.7	40.4	3.0	1.0	1.0	3.0
D56-1107	31.6-	+13	42	19.2-	42.2+	3.0	3.0	1.0	1.0
D56-1162	40.5	+9	38	20.6	39.9	3.0	1.0	1.0	3.0
D56-1185	37.1	+1	26	21.4	42.1+	1.0	1.0	2.0	1.0
D56-1215	35.8	+7	28	20.8	42.5+	1.0	1.0	2.0	1.0
D56-1223	32.9-	+6	31	21.7	41.7+	3.0	1.0	1.0	1.0
D56-1231	39.9	+4	32	21.8	40.5	3.5	1.0	1.0	2.0
D56-1246	37.1	+2	30	21.5	41.0+	2.0	1.0	2.0	1.0
D56-1247	38.7	+1	29	21.0	41.4+	2.0	1.0	1.0	1.0
D56-1	38.3	-2	34	20.7	40.8	1.0	1.0	1.0	1.0
D56-2	37.4	-3	40	20.7	40.8	1.0	1.0	1.0	1.0
R54-26	35.9	-1	32	21.6	40.2	1.5	3.0	1.0	1.0
R54-36	31.8-	+1	37	20.8	41.6+	1.0	3.5	1.0	1.0
N55-3632	40.8	+5	34	22.0	40.9+	3.5	4.0	1.0	5.0
N55-3638	40.9	+5	35	22.1	40.1	3.5	4.0	1.0	4.0
N55-3643	41.0	+5	33	21.8	40.5	3.0	4.0	1.0	5.0
N55-3647	38.3	+4	34	21.9	40.3	3.0	4.0	1.0	4.0
S4-7213	37.1	+4	37	21.5	39.8	1.0	3.0	2.0	3.0
S4-7346	38.5	+3	31	22.5+	40.6	2.0	1.0	1.0	2.0
S5-7208	35.7	+2	45	21.9	40.8	1.0	3.0	1.0	3.0
S5-7587	35.6	+2	36	21.6	39.9	2.0	3.5	3.0	3.0
L.S.D.(.05)	4.1			0.9	1.5				
L.S.D.(.01)	5.4			1.2	1.9				

1/ Stoneville data. 2/ Plymouth data.

Table 24. Seed yield, in bushels per acre, for the strains in Preliminary Group V, 1958

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N. C.	Stoneville (B), Miss.	Bixby, Okla.	Plainview Texas
Dorman	40.9	30.2	40.7	45.9	30.3	36.3
D53-526	37.2	28.9	35.4	44.2	36.4	34.1
D53-8243	38.8	32.3	47.8	48.2	41.0+	34.2
D54-3337	35.9-	30.4	37.6	47.6	35.0	29.5
D56-44	33.3-	29.4	45.4	51.2	32.3	31.9
D56-84	35.2-	33.8	30.5-	34.7-	35.0	40.9
D56-126	48.3+	38.3+	41.8	46.5	32.9	32.0
D56-306	42.2	31.6	45.4	43.3	33.1	33.1
D56-533	38.3	30.8	39.6	47.4	33.9	39.6
D56-541	38.6	32.0	42.4	40.2	33.0	32.6
D56-549	40.2	30.3	38.4	37.5	29.0	32.7
D56-599	40.7	30.9	36.8	27.7-	29.2	33.3
D56-602	38.7	28.3	36.7	39.6	28.4	23.5
D56-1026	35.0-	33.4	45.0	31.7-	26.4	28.1
D56-1080	37.2	27.7	42.6	43.3	44.0+	32.1
D56-1087	41.5	35.9+	43.6	46.6	36.5	42.5
D56-1107	27.8-	25.9-	36.9	32.4-	33.2	30.4
D56-1162	37.6	32.7	44.2	47.1	38.7+	42.9
D56-1185	40.4	35.0+	41.8	45.9	29.4	30.3
D56-1215	35.6-	30.1	36.2	43.6	38.0+	31.5
D56-1223	28.8-	28.2	35.8	40.3	34.9	29.5
D56-1231	39.1	35.2+	52.2+	41.3	42.0+	29.6
D56-1246	40.5	32.1	41.4	36.9	42.2+	29.8
D56-1247	35.4-	31.3	41.0	49.2	36.0	39.1
D56-1	40.7	32.7	37.5	47.0	37.4	34.3
D56-2	37.2	30.4	40.4	44.4	37.2	34.7
R54-26	35.2-	28.0	41.0	45.4	33.6	32.4
R54-36	31.6-	26.3	39.5	38.9	23.2	31.5
N55-3632	40.7	32.4	45.9	52.4	40.7+	32.6
N55-3638	41.5	36.2+	44.0	50.7	42.8+	30.1
N55-3643	37.6	35.2	42.2	51.4	43.1+	36.3
N55-3647	39.3	32.2	41.8	47.2	40.8+	28.5
S4-7213	35.9-	29.9	43.7	42.2	38.7+	32.3
S4-7346	33.0-	31.9	47.6	44.4	43.0+	31.1
S5-7208	34.7-	32.4	36.7	41.4	28.2	41.1
S5-7587	36.7	29.8	41.5	38.3	31.0	36.4
L.S.D. (.05)	4.3	4.3	7.1	10.6	7.7	N.S.
C.V.	6%	7%	10%	12%	11%	18%

Table 25. Oil percentages for the strains in Preliminary Group V, 1958

Strain	Warsaw, Va.	Plymouth, N.C.	Stoneville (B), Miss.	Bixby, Okla.	Plainview, Texas
Dorman	20.3	20.4	23.2	20.4	21.8
D53-526	20.1	20.9	22.4	20.3	21.4
D53-8243	21.5	20.9	22.8	23.3	21.1
D54-3337	21.3	20.1	22.2	21.0	21.7
D56-44	19.2	19.5	21.7	21.8	20.6
D56-84	20.5	20.2	22.5	21.5	21.5
D56-126	20.6	22.0	24.3	21.2	22.9
D56-306	20.7	20.4	22.5	21.6	21.2
D56-533	19.6	19.7	22.4	21.0	20.9
D56-541	19.9	20.3	23.8	20.4	22.6
D56-549	20.4	21.6	24.0	21.3	22.6
D56-599	19.8	21.7	24.3	20.3	22.7
D56-602	20.6	21.1	22.5	19.9	22.8
D56-1026	20.6	21.6	23.0	19.6	21.6
D56-1080	19.2	19.2	21.2	21.0	20.3
D56-1087	19.8	20.5	22.3	19.9	21.2
D56-1107	18.0	18.4	19.4	19.8	20.2
D56-1162	19.3	19.3	22.2	22.0	20.0
D56-1185	21.1	21.1	22.9	19.8	22.0
D56-1215	20.7	19.8	21.4	20.5	21.6
D56-1223	20.5	21.1	22.8	22.3	21.7
D56-1231	21.2	20.0	23.7	22.4	21.6
D56-1246	20.1	20.7	23.5	21.6	21.6
D56-1247	19.4	20.7	22.3	20.7	21.9
D56-1	19.2	21.0	21.8	20.1	21.6
D56-2	19.6	21.0	21.8	20.5	20.7
R54-26	20.9	21.1	22.6	20.8	22.6
R54-36	19.0	21.2	23.0	19.1	21.7
N55-3632	20.2	21.5	23.4	22.7	22.4
N55-3638	20.4	21.0	23.1	23.0	22.8
N55-3643	20.8	21.1	22.5	22.7	22.0
N55-3647	20.0	20.9	23.0	23.0	22.5
S4-7213	20.6	21.0	22.0	22.3	21.5
S4-7346	21.1	22.1	22.7	24.1	22.5
S5-7208	21.1	21.9	23.0	21.2	22.1
S5-7587	20.1	21.5	23.6	20.9	21.9

Table 26. Protein percentages for the strains in Preliminary Group V, 1958

Strain	Warsaw, Va.	Plymouth, N.C.	Stoneville (B), Miss.	Bixby, Okla.	Plainview, Texas
Dorman	40.0	39.0	38.2	41.9	37.4
D53-526	40.3	40.8	41.0	41.7	36.6
D53-8243	38.2	37.7	37.5	38.0	36.2
D54-3337	37.3	41.8	40.9	42.2	38.6
D56-44	39.6	41.9	41.1	39.8	36.5
D56-84	39.1	41.5	39.5	38.7	36.4
D56-126	38.3	39.2	40.3	42.1	37.6
D56-306	38.0	41.4	39.1	39.6	37.0
D56-533	39.5	41.0	39.3	41.2	38.2
D56-541	38.3	39.7	38.8	41.5	37.2
D56-549	40.3	39.0	37.9	41.5	35.4
D56-599	42.2	39.2	40.5	42.5	38.0
D56-602	39.7	39.4	40.7	42.5	38.6
D56-1026	40.7	40.9	42.1	43.5	38.9
D56-1080	41.2	41.5	41.1	40.4	39.4
D56-1087	40.9	41.1	40.2	42.5	37.3
D56-1107	43.8	43.4	43.0	42.1	38.9
D56-1162	40.7	41.8	40.0	38.6	38.4
D56-1185	41.5	42.8	42.0	45.8	38.5
D56-1215	43.1	44.1	43.6	43.1	38.8
D56-1223	42.6	43.0	42.4	41.2	39.3
D56-1231	40.9	42.7	41.0	40.2	37.6
D56-1246	41.6	41.8	41.6	40.4	39.4
D56-1247	43.8	42.1	41.9	41.8	37.5
D56-1	40.0	42.1	41.9	43.0	37.1
D56-2	39.2	42.2	41.8	41.9	38.7
R54-26	40.6	40.9	39.7	41.8	37.9
R54-36	42.1	42.5	40.2	44.0	39.4
N55-3632	43.1	41.9	40.0	39.5	40.1
N55-3638	41.8	42.4	39.5	38.4	38.6
N55-3643	41.2	42.2	39.8	39.4	39.8
N55-3647	41.1	42.7	38.6	39.1	39.8
S4-7213	39.6	41.5	40.1	39.9	37.7
S4-7346	41.2	42.5	41.4	40.1	38.0
S5-7208	40.6	41.0	40.9	42.4	39.1
S5-7587	40.5	39.4	40.4	40.9	38.4

Table 27. Plant height for the strains in Preliminary Group V, 1958

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Stoneville (B), Miss.	Bixby, Okla.	Plainview, Texas
Dorman	45	39	40	31	33	27
D53-526	43	35	36	31	31	28
D53-8243	45	42	40	31	31	27
D54-3337	55	44	44	37	42	29
D56-44	47	38	45	33	42	27
D56-84	49	38	36	27	33	25
D56-126	44	36	37	27	31	21
D56-306	48	40	42	30	33	25
D56-533	50	38	40	32	35	27
D56-541	46	38	38	30	33	29
D56-549	52	43	39	30	31	30
D56-599	43	37	38	23	32	19
D56-602	50	41	40	31	35	26
D56-1026	46	41	42	24	34	24
D56-1080	51	40	42	32	37	30
D56-1087	49	40	35	29	32	29
D56-1107	54	43	44	38	37	35
D56-1162	48	41	40	33	38	29
D56-1185	36	30	28	22	27	15
D56-1215	39	29	27	21	30	20
D56-1223	42	32	31	28	32	22
D56-1231	43	37	34	26	30	24
D56-1246	39	33	33	24	31	21
D56-1247	39	27	30	28	32	19
D56-1	42	35	35	28	37	29
D56-2	48	43	42	37	35	34
R54-26	41	33	37	27	31	23
R54-36	47	35	43	34	39	27
N55-3632	45	36	36	32	34	23
N55-3638	46	40	38	32	30	25
N55-3643	44	37	35	29	30	20
N55-3647	44	38	38	29	31	25
S4-7213	49	36	46	29	34	27
S4-7346	42	32	34	24	31	22
S5-7208	53	44	52	42	53	24
S5-7587	48	39	44	26	34	26

Table 28. Seed quality scores for the strains in Preliminary Group V, 1958

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Stoneville (B), Miss.	Bixby, Okla.	Plainview, Texas
Dorman	2.0	1.5	2.5	3.0	1.0	1.0
D53-526	3.0	1.0	1.5	3.0	1.0	2.0
D53-8243	2.0	1.0	3.0	1.5	2.0	1.5
D54-3337	3.0	1.5	1.5	3.0	1.0	1.5
D56-44	3.0	2.5	3.0	2.0	1.0	2.0
D56-84	2.0	2.0	2.5	2.0	1.0	1.5
D56-126	3.0	1.0	2.0	3.0	1.0	2.0
D56-306	3.0	1.0	3.0	2.0	1.0	2.0
D56-533	2.0	1.0	3.5	2.5	1.0	2.0
D56-541	2.0	2.0	2.5	2.5	1.0	1.0
D56-549	3.0	2.0	2.5	4.0	1.0	1.5
D56-599	3.0	1.5	3.0	3.5	1.0	1.5
D56-602	3.0	1.5	2.0	3.0	1.0	1.0
D56-1026	3.0	1.5	2.0	2.5	1.0	1.5
D56-1080	2.0	1.5	3.0	3.0	1.0	1.5
D56-1087	2.5	2.0	3.0	3.0	1.0	2.0
D56-1107	2.0	2.0	2.5	2.5	1.0	2.0
D56-1162	2.0	1.5	2.5	1.0	1.0	1.5
D56-1185	3.0	2.0	1.5	2.5	1.0	2.0
D56-1215	2.0	1.0	2.0	2.0	1.0	1.5
D56-1223	2.5	1.5	3.5	2.0	1.0	1.5
D56-1231	2.5	1.0	2.0	2.0	1.0	1.5
D56-1246	3.0	1.5	1.5	3.0	1.0	2.0
D56-1247	3.0	1.5	2.5	3.0	1.0	2.0
D56-1	2.5	1.0	2.0	4.0	1.0	1.5
D56-2	3.0	1.5	2.0	3.5	1.0	1.5
R54-26	2.5	2.0	2.0	2.0	1.0	1.0
R54-36	3.0	1.5	2.0	2.5	1.0	1.0
N55-3632	3.0	1.5	3.0	2.0	1.5	1.0
N55-3638	2.5	1.0	3.0	2.0	1.0	1.5
N55-3643	3.0	1.0	3.0	1.0	1.0	1.0
N55-3647	2.0	1.5	3.5	2.0	1.0	1.0
S4-7213	2.5	1.5	3.0	2.5	1.0	1.5
S4-7346	3.0	1.0	2.0	1.0	1.0	1.5
S5-7208	3.0	1.5	3.0	3.0	1.0	2.0
S5-7587	2.0	1.0	3.0	3.5	1.0	2.0

UNIFORM GROUP VI

1958

	Variety or Strain	Parentage	Generation Composited
1.	Ogden	Tokyo x PI 54610	
2.	Lee	S-100 x CNS	F_6
3.	Hood (D51-4888)	Roanoke x N45-745	F_6
4.	D51-4969	Roanoke x N45-745	F_6
5.	D53-1569	N46-1703 x D49-2525	F_5
6.	N53-3592	N46-1703 x D49-2525	F_5
7.	N53-3599	N46-1703 x D49-2525	F_5
8.	N53-3494	N46-1703 x D49-2525	F_5
9.	N53-5146	N48-1248 x Perry	F_7
10.	N55-3843	(N45-2994 x Ogden)x(N44-92 x N48-1867)	F_5
11.	R54-168	D49-2573 x N45-1497	F_5
12.	S3-7094	N48-1248 x Perry	F_6

Background of strains used as parents:

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

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

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

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

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

D49-2573 is a selection from N48-1248.

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

Thirty-eight Uniform Group VI nurseries were planted. Results of 33 of these nurseries are summarized in tables 29 through 35. Table 29 gives a general summary of performance for 1958 along with a 2-year summary for seed yield and chemical composition. This table also shows the 6-year data for seed yield and oil and protein percentages for Ogden, Lee, and Hood.

The strain D51-4888 was given the name Hood in July 1958. Approximately 1500 acres were grown for seed production in 1958. States participating in its increase were Delaware, Maryland, Virginia, North Carolina, Kentucky, Missouri, Arkansas, and Oklahoma. Hood has averaged 6 percent higher in yield than Ogden in the East Coast and Delta areas and 9 percent higher than Ogden in the West for the 6-year period 1953-1958. Hood has yellow seed coats with a buff hilum. It is higher in oil content and lower in protein content than Ogden.

Since Lee has been in production, fields have been observed showing considerable development of chlorosis resulting from a particular strain of rhizobium in the soil. Differences among strains were observed in all plantings in the Delta area of Mississippi. It is of interest that at Stoneville Ogden showed more chlorosis than Lee. N53-3494 was outstanding in its sensitivity to the expression of chlorosis. Yield of this strain was good.

Of the strains grown two years, D51-4969, D53-1569, N53-3592, and N53-3599, not any have proved to be superior to Hood. D51-4969 is a taller growing type, while the other three are comparable to Hood in plant type.

The five new lines, N53-3494, N53-5146, N55-3843, R54-168, and S3-7094, are all high oil lines. N55-3843 and R54-168 are both higher in oil than Hood. N55-3843 has green seed coats and R54-168 is segregating for seed coat color. S3-7094 was the earliest maturing line in the group. It ranked highest in yield in the East Coast area and lowest in the Southeast.

Table 29. General summary of the performance for the strains in Uniform Group VI, 1958

	Ogden	Lee	Hood	D51-4969	D53-1569	N53 3592
Seed Yield - 1958						
East Coast	38.4	38.5	41.1+	38.5	41.2+	41.4+
Southeast	34.7	38.4	38.1	35.3	35.1	33.5
Upper & Central South	28.9	27.9	25.9	29.6	25.4	26.5
Delta	41.3	39.9	39.8	40.5	42.7	43.4
West	36.1	38.1	40.9	38.4	35.7	36.4
- 1957-58						
East Coast	38.0	37.5	40.3	38.2	39.2	40.0
Southeast	33.0	36.3	34.8	35.6	30.9	31.1
Upper & Central South	27.7	27.9	25.9	28.8	24.3	25.0
Delta	37.4	38.9	38.2	40.9	39.6	39.1
West	35.8	38.0	39.2	38.1	35.6	36.2
- 1953-58						
East	32.1	32.7	34.1			
Southeast	30.1	31.4	29.8			
Upper & Central South	21.0	20.8	21.1			
Delta	32.0	35.1	34.1			
West	26.9	27.1	29.4			
Oil Percentage - 1958	21.1	21.3	22.0+	21.0	21.3	20.7
- 1957-58	21.0	21.3	22.0	21.1	21.4	21.0
- 1953-58	21.0	21.1	21.8			
Protein Percentage - 1958	41.0	41.3	39.7-	40.5	41.1	41.2
- 1957-58	40.5	41.4	39.7	40.4	41.0	40.8
- 1953-58	40.7	41.3	40.0			
Seed Size	16.2	13.9-	15.4	13.9-	14.3-	13.2-
Maturity Index	10-15	+6	-4	-4	-6	-6
Height	35	32	32	39	35	32
Bacterial Pustule	2.5	1.0	1.0	1.0	1.0	1.0
Targets Spot	2.0	1.0	1.0	1.3	2.7	2.3
Chlorosis	2.0	1.3	1.7	1.0	1.0	1.0
Shattering	2.2	1.0	1.0	1.0	1.0	1.7

Table 29. (Continued)

	N53-3599	N53-3494	N53-5146	N55-3843	R54-168	S3-7094
Seed Yield - 1958						
East Coast	41.5+	42.8+	42.3+	39.3	38.2	45.1+
Southeast	35.2	34.0	35.6	34.1	37.7	31.3
Upper & Central South	24.6	24.9	27.7	26.5	28.8	30.1
Delta	42.9	40.8	40.4	39.5	41.0	40.1
West	35.8	38.3	37.8	35.2	36.9	37.0
- 1957-58						
East Coast	39.8					
Southeast	33.3					
Upper & Central South	24.0					
Delta	39.2					
West	36.3					
- 1953-58						
East						
Southeast						
Upper & Central South						
Delta						
West						
Oil Percentage - 1958	21.0	22.1+	22.3+	23.1+	23.1+	21.7+
- 1957-58	21.0					
- 1953-58						
Protein Percentage - 1958	41.2	41.5	39.6-	38.7-	40.2-	40.7
- 1957-58	41.1					
- 1953-58						
Seed Size	14.0-	15.1-	14.7-	15.5	17.7+	13.6-
Maturity Index	-3	-6	-4	-7	+3	-7
Height	33	31	32	34	38	30
Bacterial Pustule	1.0	1.0	1.0	1.0	1.0	1.0
Targets Spot	2.7	1.0	1.3	1.3	1.7	2.0
Chlorosis	1.0	3.7	1.0	1.0	1.0	1.7
Shattering	1.5	1.8	1.0	2.0	1.5	2.0

Table 30. Seed yield, in bushels per acre, for the strains in Uniform Group VI, 1958

Location	Ogden	Lee	Hood	D51-4969	D53-1569	N53-3592	N53-3599
			East Coast				
Linkwood, Md.	32.4	30.5	32.7	31.1	34.1	37.6+	34.3
Warsaw, Va.	37.3	39.5	43.3+	39.6	39.2	41.2+	41.3+
Painter, Va.	36.2	34.0	37.9	34.5	38.9	43.3+	43.3+
Petersburg, Va.	39.9	41.8	50.5+	45.4	45.4	45.4	46.1
Norfolk, Va.	23.5	24.4	24.0	22.3	24.7	27.3	28.1
Holland, Va.	36.4	48.2+	45.4+	42.0+	43.5+	44.6+	42.9+
Plymouth, N. C.	47.7	35.8	43.5	40.5	48.3	44.1	41.8
Willard, N. C.	41.6	42.6	39.4	40.7	44.1	42.3	43.7
Clayton, N. C.	43.2	42.3	45.3	41.7	44.9	43.6	46.0
Hartsville, S. C.	45.8	46.0	48.5	47.0	48.8	44.5	47.7
Mean	38.4	38.5	41.1+	38.5	41.2+	41.4+	41.5+
			Southeast				
Tallassee, Ala.	38.4	45.8	44.4	37.8	43.9	47.1	42.4
Gainesville, Fla.[1/]	38.4	33.7	43.1	43.0	41.1	40.1	43.8
Quincy, Fla.	16.6	23.7+	21.2+	19.4+	22.7+	12.3-	17.9
Walnut Hill, Fla.	47.2	50.0	47.7	47.7	43.7	43.2	47.0
Fairhope, Ala.	44.2	39.2	47.6	44.2	42.5	44.4	44.1
Baton Rouge, La.	27.2	33.6+	29.7	27.4	22.6-	20.3-	24.6
Mean	34.7	38.4	38.1	35.3	35.1	33.5	35.2
			Upper and Central South				
Belle Mina, Ala.	22.1	21.6	19.6	22.9	17.4-	18.6	17.9
Experiment, Ga.	23.5	17.8	24.1	24.1	22.0	18.3	19.9
State College, Miss.	41.4	44.3	33.9-	41.8	36.7	42.6	35.9
Mean	28.9	27.9	25.9	29.6	25.4	26.5	24.6
			Delta				
Sikeston, Mo.	42.1	44.9	47.7	42.2	47.8	49.6+	47.4
Marianna, Ark.	27.9	20.3-	27.6	31.3	22.5	24.3	23.5
Coahoma, Miss.	39.6	39.8	40.2	30.6-	44.8+	46.1+	45.0+
Clarksdale, Miss.	35.6	38.6	35.2	36.8	36.4	36.8	38.2
Stoneville (A), Miss.	43.5	40.7	43.3	46.4	44.8	45.1	42.9
Stoneville (B), Miss.	51.7	46.2-	48.2-	52.7	55.5+	59.4+	58.3+
St. Joseph, La.	48.4	48.5	36.7	43.5	47.3	42.6	44.8
Mean	41.3	39.9	39.8	40.5	42.7	43.4	42.9
			West				
Stuttgart, Ark.	31.0	37.7+	33.5	29.2	22.1-	25.7-	27.3
Curtis, La.	53.6	53.6	51.8	53.3	53.4	50.2	49.9
Fayetteville, Ark.	36.3	34.7	48.7+	40.2	40.5	41.0	32.6
Bixby, Okla.	40.7	37.9	47.1+	46.0+	42.5	44.8	47.0+
Perkins, Okla.	24.6	29.8+	28.8+	27.7	25.1	25.6	25.5
Chillicothe, Texas[1/]	7.7	9.4	5.7	7.7	8.2	6.5	7.9
Plainview, Texas	30.1	34.9	35.6	30.1	30.8	30.9	32.3
Mean	36.1	38.1	40.9	38.4	35.7	36.4	35.8

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

Table 30. (Continued)

Location	N53-3494	N53-5146	N55-3843	R54-168	S3-7094	L.S.D. (.05)	C.V.
			East Coast				
Linkwood, Md.	37.7+	34.1	32.7	33.7	42.7+	4.5	8%
Warsaw, Va.	44.8+	41.1+	40.3+	37.4	46.0+	2.5	4%
Painter, Va.	43.7+	39.6	37.5	35.3	49.1+	7.0	11%
Petersburg, Va.	47.9	51.8+	46.9	45.9	53.5+	5.5	7%
Norfolk, Va.	25.5	24.2	22.5	24.0	31.3	N.S.	24%
Holland, Va.	46.7+	49.2+	33.5	35.6	39.7	3.1	4%
Plymouth, N. C.	42.6	39.9	48.4	38.2	50.6	N.S.	13%
Willard, N. C.	43.7	42.7	44.0	40.5	47.7	N.S.	9%
Clayton, N. C.	48.3+	47.2	41.4	43.4	49.4+	4.6	6%
Hartsville, S. C.	46.9	49.7	45.8	48.0	41.0	N.S.	6%
Mean	42.8+	42.3+	39.3	38.2	45.1+	2.7	
			Southeast				
Tallassee, Ala.	46.8	38.7	41.2	45.5	43.1	N.S.	13%
Gainesville, Fla.1/	44.2	40.0	41.5	40.2	40.1	N.S.	9%
Quincy, Fla.	20.2-	20.9+	16.4	19.6+	15.9	3.4	11%
Walnut Hill, Fla.	41.6	47.2	40.6	45.2	47.2	N.S.	11%
Fairhope, Ala.	40.8	44.6	38.5-	49.7+	35.9-	5.2	7%
Baton Rouge, La.	20.6-	26.6	33.6+	28.3	14.4-	2.8	6%
Mean	34.0	35.6	34.1	37.7	31.3	N.S.	
			Upper and Central South				
Belle Mina, Ala.	19.1	22.1	16.2-	23.0	20.6	3.8	11%
Experiment, Ga.	22.2	24.7	24.3	23.9	30.5	N.S.	19%
State College, Miss.	33.5-	36.2	39.1	39.5	39.1	5.6	9%
Mean	24.9	27.7	26.5	28.8	30.1	N.S.	
			Delta				
Sikeston, Mo.	51.6+	47.8	44.9	43.4	47.6	6.0	6%
Marianna, Ark.	18.8-	22.8	27.2	31.3	23.2	6.2	15%
Coahoma, Miss.	39.9	37.3	41.2	44.8+	35.0-	3.9	6%
Clarksdale, Miss.	32.4	34.7	31.5	32.3	30.9-	4.7	8%
Stoneville (A), Miss.	45.0	41.7	42.8	45.2	44.4	N.S.	6%
Stoneville (B), Miss.	52.6	47.9-	52.4	53.6	55.1+	3.4	4%
St. Joseph, La.	45.0	50.7	36.7	36.3	44.7	N.S.	16%
Mean	40.8	40.4	39.5	41.0	40.1	N.S.	
			West				
Stuttgart, Ark.	28.2	28.8	27.0	36.9+	25.8-	4.6	9%
Curtis, La.	57.0	48.1	46.0	50.9	54.4	N.S.	8%
Fayetteville, Ark.	37.6	42.4	42.5	37.3	37.6	6.3	9%
Bixby, Okla.	43.9	47.1+	40.5	38.9	40.1	4.6	6%
Perkins, Okla.	29.9+	25.8	23.1	21.2	29.3+	4.0	9%
Chillicothe, Texas1/	8.6	7.8	8.2	7.5	7.2	1.9	14%
Plainview, Texas	33.7	34.5	32.3	36.5	34.8	N.S.	16%
Mean	38.3	37.8	35.2	36.9	37.0	N.S.	

1/ Not in combined analysis.

Table 31. Chemical composition and seed size for the strains in Uniform Group VI, 1958

Location	Ogden	Lee	Hood	D51-4969	D53-1569	N53-3592
			Oil Percentage			
Warsaw, Va.	19.3	19.4	19.8	18.8	19.5	19.6
Plymouth, N. C.	20.3	19.9	21.0	19.9	20.6	20.3
Clayton, N. C.	20.3	21.5	21.7	20.1	20.6	20.1
Tallessee, Ala.	20.1	21.5	22.0	20.5	21.7	20.5
Walnut Hill, Fla.	22.7	23.2	23.2	22.8	22.8	22.3
Coahoma, Miss.	22.2	21.9	22.7	21.5	21.7	21.8
Stoneville (B), Miss.	22.2	22.0	23.0	22.3	22.7	22.1
Stuttgart, Ark.	20.4	20.1	21.2	20.7	19.8	19.1
Bixby, Okla.	21.5	22.3	22.6	22.0	21.2	21.3
Plainview, Texas	21.6	21.0	22.3	21.3	21.9	19.8
Mean	21.1	21.3	22.0+	21.0	21.3	20.7
			Protein Percentage			
Warsaw, Va.	42.1	42.6	41.7	42.7	42.6	42.8
Plymouth, N. C.	42.6	42.9	42.1	40.2	42.4	42.3
Clayton, N. C.	41.1	42.2	39.9	41.3	41.1	40.7
Tallassee, Ala.	44.3	41.6	41.3	42.6	43.3	44.2
Walnut Hill, Fla.	40.3	40.6	40.0	40.6	42.4	40.2
Coahoma, Miss.	39.7	39.8	38.5	38.2	40.5	39.1
Stoneville (B), Miss.	40.2	41.2	38.3	39.1	40.4	40.0
Stuttgart, Ark.	41.7	43.8	40.2	42.5	39.8	42.2
Bixby, Okla.	40.0	40.3	38.2	40.0	40.5	41.0
Plainview, Texas	37.7	37.5	37.1	37.7	37.6	39.6
Mean	41.0	41.3	39.7-	40.5	41.1	41.2
			Grams Per 100 Seeds			
Warsaw, Va.	18.0	15.0	17.0	16.3	16.0	15.3
Plymouth, N. C.	16.9	13.3	16.2	14.9	41.7	13.9
Clayton, N. C.	14.4	12.8	13.9	12.8	13.0	12.8
Tallassee, Ala.	13.2	13.2	14.5	11.4	14.7	11.1
Walnut Hill, Fla.	22.6	16.6	18.1	16.0	16.7	14.6
Coahoma, Miss.	13.9	12.1	13.9	11.1	13.3	12.3
Stoneville (B), Miss.	14.8	13.7	14.4	13.1	14.5	13.8
Stuttgart, Ark.	15.0	13.7	14.0	13.7	12.3	11.3
Bixby, Okla.	16.1	14.0	14.9	14.4	13.4	13.4
Plainview, Texas	16.8	14.5	17.0	15.0	14.8	13.2
Mean	16.2	13.9-	15.4	13.9-	14.3-	13.2-

Table 31. (Continued)

Location	N53-3599	N53-3494	N53-5146	N55-3843	R54-168	S3-7094	L.S.D. (.05)
			Oil Percentage				
Warsaw, Va.	19.5	20.8	20.9	20.7	20.4	20.3	
Plymouth, N.C.	19.9	21.5	21.5	21.1	22.3	21.0	
Clayton, N. C.	19.9	21.6	21.0	22.8	22.7	20.5	
Tallassee, Ala.	20.7	22.4	21.1	23.5	23.5	22.3	
Walnut Hill, Fla.	22.3	23.0	23.5	24.9	24.2	22.9	
Coahoma, Miss.	21.8	23.1	23.5	24.7	23.9	22.6	
Stoneville (B), Miss.	21.9	24.0	24.9	25.2	24.8	23.8	
Stuttgart, Ark.	19.4	20.5	20.9	22.8	23.0	20.2	
Bixby, Okla.	23.2	22.2	22.7	23.7	23.2	21.2	
Plainview, Texas	21.2	22.0	22.5	21.8	22.5	22.1	
Mean	21.0	22.1+	22.3+	23.1+	23.1+	21.7+	0.5
			Protein Percentage				
Warsaw, Va.	42.5	41.7	42.6	40.1	42.2	41.5	
Plymouth, N. C.	43.2	42.7	39.5	40.7	41.2	41.5	
Clayton, N. C.	41.0	41.9	39.3	38.5	40.3	40.5	
Tallassee, Ala.	44.3	43.8	45.1	42.4	42.2	44.0	
Walnut Hill, Fla.	40.7	41.6	38.8	38.1	40.4	41.5	
Coahoma, Miss.	39.9	40.4	37.7	36.5	38.4	39.6	
Stoneville (B), Miss.	40.0	40.3	36.9	36.8	39.0	38.8	
Stuttgart, Ark.	41.3	42.6	40.5	39.4	40.8	42.3	
Bixby, Okla.	40.8	40.3	38.3	37.7	39.8	39.9	
Plainview, Texas	38.5	40.0	36.8	36.9	37.4	37.1	
Mean	41.2	41.5	39.6-	38.7-	40.2-	40.7	0.7
			Grams Per 100 Seeds				
Warsaw, Va.	16.0	16.3	17.0	18.0	20.3	17.3	
Plymouth, N. C.	14.4	15.0	15.9	19.3	17.8	14.0	
Clayton, N. C.	13.0	14.5	14.2	14.4	17.3	12.6	
Tallassee, Ala.	12.9	16.1	13.3	13.9	17.4	13.5	
Walnut Hill, Fla.	16.4	19.6	16.8	17.4	21.2	17.0	
Coahoma, Miss.	12.8	14.0	12.8	14.3	15.1	11.7	
Stoneville (B), Miss.	14.1	15.2	13.6	13.5	16.4	13.1	
Stuttgart, Ark.	11.7	12.3	13.3	13.7	16.3	12.3	
Bixby, Okla.	14.3	13.8	14.0	14.1	17 7	10.3	
Plainview, Texas	14.7	14.5	15.9	16.5	17.8	14.4	
Mean	14.0-	15.1-	14.7-	15.5	17.7+	13.6-	0.8

Table 32. Relative maturity data, days earlier (-) or later (+) than Ogden, for the strains in Uniform Group VI, 1958

Location	Date Planted	Ogden Matured	Lee	Hood	D51-4969	D53-1569
		East Coast				
Linkwood, Md.	5-21	10-26	-4	-10	-7	-9
Warsaw, Va.	5-24	10-31	-1	-6	-3	-6
Petersburg, Va.	5-4	10-28	+8	-9	+3	+2
Holland, Va.	5-20	11-4	-2	-6	-11	-15
Plymouth, N. C.	5-19	10-18	+6	-3	-3	-5
Willard, N. C.	5-16	10-10	+8	-2	-2	-2
Clayton, N. C.	5-5	10-11	+6	-2	0	-4
Hartsville, S. C.	5-31	10-20	+6	-5	-8	-7
Mean		10-22	+3	-5	-4	-6
		Southeast				
Tallassee, Ala.	5-15	10-3	+1	-1	-5	0
Gainesville, Fla.	6-11	10-4	+5	-2	-2	-3
Quincy, Fla.	6-30	10-13	-6	0	-6	-6
Walnut Hill, Fla.	6-4	10-6	+3	-5	-8	-11
Baton Rouge, La.	5-27	10-10	+8	-2	-2	+2
Mean		10-7	+2	-2	-5	-4
		Upper and Central South				
Experiment, Ga.	5-16	9-30	+10	-7	+2	-17
		Delta				
Sikeston, Mo.	5-15	10-20	+7	-3	-2	-6
Marianna, Ark.	5-16	10-9	+11	-1	+1	-2
Coahoma, Miss.	5-24	10-15	+8	-7	-9	-11
Clarksdale, Miss.	5-24	10-16	+7	-6	-6	-5
Stoneville (A), Miss.	5-14	10-8	+10	-3	-1	-3
Stoneville (B), Miss.	5-29	10-12	+6	-4	-4	-4
St. Joseph, La.	5-13	10-5	+18	-3	-6	-6
Mean		10-12	+10	-4	-4	-5
		West				
Stuttgart, Ark.	5-28	10-11	+16	-1	+3	-5
Curtis, La.	5-23	10-20	+11	-12	-2	0
Fayetteville, Ark.	5-20	10-18	+7	-4	0	-5
Bixby, Okla.	5-15	10-13	+7	-2	-2	-3
Perkins, Okla.	5-8	10-12	+8	-8	-5	-10
Plainview, Texas	5-28	10-20	+1	-3	-7	-8
Mean		10-16	+8	-5	-3	-5

Table 32. (Continued)

Location	N53-3592	N53-3599	N53-3494	N53-5146	N55-3843	R54-168	S3-7094
			East Coast				
Linkwood, Md.	-8	-7	-11	-8	-11	+3	-6
Warsaw, Va.	-5	-8	-7	-6	-10	+3	-5
Petersburg, Va.	-1	-1	-9	-3	-7	+6	-9
Holland, Va.	-16	-13	-16	-13	-16	-2	-20
Plymouth, N. C.	-6	-4	-8	-4	-6	+4	-4
Willard, N. C.	-2	-1	-2	-2	-2	+3	-2
Clayton, N. C.	-4	-2	-2	-4	-4	+4	-4
Hartsville, S. C.	-8	-5	-2	-5	-8	0	-4
Mean	-6	-5	-7	-6	-8	+3	-7
			Southeast				
Tallassee, Ala.	-3	-2	-4	+3	-6	+1	+6
Gainesville, Fla.	-2	-1	+1	-2	-3	+2	+2
Quincy, Fla.	-6	0	0	-6	-6	+12	-6
Walnut Hill, Fla.	-8	-5	-6	-8	-9	+2	-8
Baton Rouge, La.	-2	-2	0	+2	-2	+3	-2
Mean	-4	-2	-2	-2	-5	+4	-2
			Upper and Central South				
Experiment, Ga.	-10	0	-18	-5	-15	0	-17
			Delta				
Sikeston, Mo.	-5	-5	-4	-3	-7	+7	-4
Marianna, Ark.	-3	-4	-7	-4	+1	0	-8
Coahoma, Miss.	-9	-7	-11	-10	-11	+3	-12
Clarksdale, Miss.	-7	-6	-5	-7	-13	+4	-16
Stoneville (A), Miss.	-5	-1	-1	-2	-4	+1	-13
Stoneville (B), Miss.	-4	-3	-3	-4	-6	+1	-3
St. Joseph, La.	-6	0	0	-3	-6	-6	-6
Mean	-6	-4	-4	-5	-7	+1	-9
			West				
Stuttgart, Ark.	-5	-2	-5	0	-1	+3	-1
Curtis, La.	0	+5	-5	0	-2	+6	0
Fayetteville, Ark.	-7	0	-7	-5	-5	+7	-5
Bixby, Okla.	-4	-2	-4	-2	-8	+1	-12
Perkins, Okla.	-10	-8	-10	-1	-9	0	-11
Plainview, Texas	-9	-7	-8	-3	-8	+1	-7
Mean	-6	-2	-7	-2	-6	+3	-6

Table 33. Plant height for the strains in Uniform Group VI, 1953

Location	Ogden	Lee	Hood	D51-4969	D53-1569	N53-3592
		East Coast				
Linkwood, Md.	48	44	44	48	48	44
Warsaw, Va.	42	41	38	47	42	41
Painter, Va.	40	36	36	46	41	38
Petersburg, Va.	36	37	34	41	39	34
Holland, Va.	44	39	38	46	44	39
Plymouth, N. C.	42	38	39	45	45	42
Willard, N. C.	40	34	36	44	42	40
Clayton, N. C.	36	28	28	34	35	29
Hartsville, S. C.	29	29	28	32	32	26
Mean	40	36	36	43	41	37
		Southeast				
Tallassee, Ala.	33	28	30	40	35	29
Gainesville, Fla.	25	22	23	31	23	22
Quincy, Fla.	29	26	26	30	30	26
Walnut Hill, Fla.	28	28	28	32	29	29
Baton Rouge, La.	30	28	28	36	30	30
Mean	29	26	27	34	29	27
		Upper and Central South				
Belle Mina, Ala.	36	38	32	42	37	34
Experiment, Ga.	30	25	30	31	27	24
State College, Miss.	42	36	36	45	40	39
Mean	36	33	33	39	35	32
		Delta				
Sikeston, Mo.	44	40	40	45	41	39
Marianna, Ark.	38	33	29	39	28	27
Coahoma, Miss.	27	29	27	29	29	27
Clarksdale, Miss.	35	35	31	37	33	33
Stoneville (A), Miss.	37	34	32	41	37	32
Stoneville (B), Miss.	31	31	32	39	35	33
St. Joseph, La.	33	29	28	36	29	28
Mean	35	33	31	38	33	31
		West				
Stuttgart, Ark.	34	32	30	34	31	31
Curtis, La.	36	30	29	41	33	31
Fayetteville, Ark.	38	32	34	40	39	36
Bixby, Okla.	37	32	34	42	36	38
Perkins, Okla.	33	33	30	37	33	31
Plainview, Texas	28	28	25	30	25	23
Mean	34	31	30	37	33	32

Table 33. (Continued)

Location	N53-3599	N53-3494	N53-5146	N55-3843	R54-168	S3-7094
		East Coast				
Linkwood, Md.	47	41	40	48	49	41
Warsaw, Va.	39	38	38	41	43	37
Painter, Va.	40	37	36	39	46	35
Petersburg, Va.	38	34	30	39	39	33
Holland, Va.	41	38	37	43	44	37
Plymouth, N. C.	40	38	37	43	44	40
Willard, N. C.	41	40	38	38	42	36
Clayton, N. C.	35	27	28	30	37	29
Hartsville, S. C.	27	25	26	29	32	23
Mean	39	35	34	39	42	35
		Southeast				
Tallassee, Ala.	30	28	37	35	30	34
Gainesville, Fla.	23	21	25	24	29	17
Quincy, Fla.	22	26	29	29	35	24
Walnut Hill, Fla.	27	25	29	28	29	24
Baton Rouge, La.	28	24	32	26	38	28
Mean	26	25	30	28	32	25
		Upper and Central South				
Belle Mina, Ala.	32	32	35	35	37	29
Experiment, Ga.	24	28	30	23	33	24
State College, Miss.	40	34	40	40	42	36
Mean	32	31	35	33	37	26
		Delta				
Sikeston, Mo.	37	37	37	43	46	41
Marianna, Ark.	31	29	29	33	38	27
Coahoma, Miss.	29	25	27	27	34	23
Clarksdale, Miss.	31	33	33	34	34	31
Stoneville (A), Miss.	36	35	33	35	39	32
Stoneville (B), Miss.	35	32	35	35	33	34
St. Joseph, La.	28	27	30	25	33	27
Mean	32	31	32	33	37	31
		West				
Stuttgart, Ark.	31	28	28	30	34	26
Curtis, La.	28	29	31	32	37	27
Fayetteville, Ark.	35	33	35	36	38	34
Bixby, Okla.	33	31	31	36	39	30
Perkins, Okla.	29	28	31	31	42	26
Plainview, Texas	24	26	26	26	31	24
Mean	30	29	30	32	37	28

Table 34. Lodging scores for the strains in Uniform Group VI, 1958

Location	Ogden	Lee	Hood	D51-4969	D53-1569	N53-3592
			East Coast			
Linkwood, Md.	2.3	3.6	4.0	2.3	3.0	2.6
Warsaw, Va.	2.2	2.2	2.3	1.6	2.0	2.0
Painter, Va.	2.0	4.0	2.5	4.0	3.5	2.8
Petersburg, Va.	1.3	1.7	1.0	1.0	1.0	1.0
Holland, Va.	2.0	2.0	2.7	2.0	2.7	2.0
Plymouth, N. C.	3.0	3.0	3.0	3.0	3.0	3.0
Willard, N. C.	3.0	3.0	3.0	3.0	3.0	2.5
Clayton, N. C.	3.0	2.0	1.0	3.0	3.0	2.0
Hartsville, S. C.	1.0	1.0	1.0	1.0	1.0	1.0
			Southeast			
Tallassee, Ala.	1.0	1.0	2.0	1.0	1.0	2.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	1.0	3.0	2.0	2.0	2.0	2.0
			Upper and Central South			
Belle Mina, Ala.	1.0	2.0	2.0	1.3	1.3	2.0
Experiment, Ga.	2.0	2.0	2.0	2.0	2.0	1.0
			Delta			
Sikeston, Mo.	2.5	3.8	3.5	2.5	3.2	3.0
Marianna, Ark.	1.3	2.0	1.7	1.3	1.0	1.7
Coahoma, Miss.	2.0	2.0	2.0	2.3	1.7	2.0
Clarksdale, Miss.	2.3	2.7	2.3	2.7	3.0	2.7
Stoneville (A), Miss.	3.0	3.0	3.0	2.7	1.7	1.7
Stoneville (B), Miss.	3.3	2.7	3.0	3.0	3.0	2.7
St. Joseph, La.	2.0	2.0	2.0	1.0	1.0	1.0
			West			
Stuttgart, Ark.	2.7	2.0	2.7	1.7	1.7	2.7
Curtis, La.	1.0	1.0	1.0	2.0	1.0	1.0
Fayetteville, Ark.	2.0	3.0	2.0	2.0	2.7	2.7
Bixby, Okla.	1.5	1.7	1.5	1.3	1.3	1.2
Perkins, Okla.	1.0	1.3	1.3	1.2	1.2	1.3
Plainview, Texas	1.7	2.3	1.7	1.3	1.7	1.3

Table 34. (Continued)

Location	N53-3599	N53-3494	N53-5146	N55-3843	R54-168	S3-7094
			East Coast			
Linkwood, Md.	2.0	3.0	3.3	2.0	3.3	2.3
Warsaw, Va.	1.5	1.0	1.6	1.0	2.5	1.5
Painter, Va.	2.2	2.7	2.0	1.6	4.2	1.0
Petersburg, Va.	1.0	1.0	1.0	1.0	2.3	1.0
Holland, Va.	2.3	2.0	3.7	2.0	2.7	2.3
Plymouth, N. C.	3.0	2.0	3.0	2.0	3.0	3.0
Willard, N. C.	2.0	3.0	3.0	2.0	4.0	2.0
Clayton, N. C.	3.0	2.0	2.0	2.0	2.0	2.0
Hartsville, S. C.	1.0	1.0	1.0	1.0	1.0	1.0
			Southeast			
Tallassee, Ala.	1.0	2.0	2.0	1.0	1.0	2.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	2.0	2.0	2.0	2.0	2.0	1.0
			Upper and Central South			
Belle Mina, Ala.	1.3	2.0	1.0	1.3	1.7	1.0
Experiment, Ga.	1.0	2.0	2.0	1.0	3.0	1.0
			Delta			
Sikeston, Mo.	2.5	2.8	3.0	2.2	4.2	2.2
Marianna, Ark.	1.7	1.3	1.3	1.0	3.0	1.0
Coahoma, Miss.	1.7	1.7	1.3	1.3	2.7	1.0
Clarksdale, Miss.	2.0	3.0	3.0	2.0	3.0	2.0
Stoneville (A), Miss.	2.0	2.3	3.0	2.0	3.7	1.0
Stoneville (B), Miss.	3.0	3.0	2.7	2.0	3.3	2.3
St. Joseph, La.	1.0	2.0	3.0	1.0	1.0	1.0
			West			
Stuttgart, Ark.	1.0	1.3	1.0	1.3	1.7	2.7
Curtis, La.	1.0	1.0	2.0	1.0	2.0	1.0
Fayetteville, Ark.	2.3	2.3	2.0	1.7	3.0	1.3
Bixby, Okla.	1.3	1.0	1.0	1.0	1.7	1.0
Perkins, Okla.	1.2	1.0	1.0	1.0	1.0	1.0
Plainview, Texas	1.0	1.3	1.0	1.3	1.7	1.0

Table 35. Seed quality scores for the strains in Uniform Group VI, 1958

Location	Ogden	Lee	Hood	D51-4969	D53-1569	N53-3592
			East Coast			
Linkwood, Md.	2.0	2.0	2.3	2.3	2.0	2.3
Warsaw, Va.	2.5	1.0	1.0	1.5	1.0	1.0
Painter, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	3.0
Holland, Va.	1.0	1.0	1.5	1.0	1.0	1.0
Plymouth, N. C.	3.0	1.5	2.5	2.0	3.0	2.5
Willard, N. C.	1.5	1.0	1.5	1.0	1.0	1.5
Clayton, N. C.	1.0	1.0	1.5	1.5	1.0	1.0
Hartsville, S. C.	1.0	1.0	1.0	1.0	1.0	2.0
			Southeast			
Tallassee, Ala.	2.0	1.0	2.0	2.0	1.0	2.0
Gainesville, Fla.	2.0	1.0	1.0	1.0	1.5	1.5
Walnut Hill, Fla.	2.0	1.0	1.0	2.0	2.0	2.0
Baton Rouge, La.	2.0	2.0	2.0	2.0	3.0	2.0
			Upper and Central South			
Experiment, Ga.	2.7	1.7	2.0	2.0	2.0	2.0
State College, Miss.	2.0	1.0	2.0	1.0	2.0	2.0
			Delta			
Sikeston, Mo.	2.3	1.7	1.3	1.3	1.3	1.5
Marianna, Ark.	2.0	1.3	2.0	2.3	2.3	2.3
Coahoma, Miss.	2.0	1.0	1.3	2.0	1.3	2.0
Clarksdale, Miss.	2.3	2.0	2.3	2.0	2.0	3.0
Stoneville (A), Miss.	2.0	2.0	2.0	1.0	2.0	2.3
Stoneville (B), Miss.	1.7	1.0	1.7	1.0	1.0	1.0
St. Joseph, La.	1.0	1.0	4.0	2.0	4.0	5.0
			West			
Stuttgart, Ark.	1.7	1.7	2.0	1.7	2.0	3.0
Curtis, La.	2.0	1.0	2.0	2.0	2.0	2.0
Fayetteville, Ark.	2.0	1.7	1.7	2.3	1.7	2.0
Bixby, Okla.	1.0	1.0	1.0	1.3	1.0	1.0
Perkins, Okla.	1.2	1.0	1.0	1.0	1.0	1.0
Plainview, Texas	1.0	1.5	1.0	1.5	1.5	1.5

Table 35. (Continued)

Location	N53-3599	N53-3494	N53-5146	N55-3843	R54-168	S3-7094
			East Coast			
Linkwood, Md.	2.3	2.3	2.3	3.0	2.0	2.6
Warsaw, Va.	1.5	2.5	1.5	1.5	2.5	1.5
Painter, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Petersburg, Va.	1.0	2.0	1.0	1.0	1.0	1.0
Holland, Va.	1.0	2.0	1.5	1.5	1.0	1.5
Plymouth, N. C.	2.5	3.0	3.0	3.0	2.0	3.0
Willard, N. C.	1.5	1.5	1.5	1.5	1.5	1.0
Clayton, N. C.	1.0	1.5	1.5	1.5	1.5	1.0
Hartsville, S. C.	1.0	2.0	1.0	2.0	1.0	2.0
			Southeast			
Tallassee, Ala.	2.0	3.0	3.0	3.0	2.0	3.0
Gainesville, Fla.	1.0	2.0	1.0	2.0	1.5	2.0
Walnut Hill, Fla.	2.0	3.0	1.0	2.0	1.0	2.0
Baton Rouge, La.	2.0	3.0	2.0	2.0	2.0	4.0
			Upper and Central South			
Experiment, Ga.	2.0	2.0	2.0	2.3	2.0	2.0
State College, Miss.	2.0	2.0	3.0	2.0	2.0	2.0
			Delta			
Sikeston, Mo.	1.8	1.7	1.8	4.3	2.0	1.5
Marianna, Ark.	2.3	2.3	3.0	2.3	2.3	3.0
Ccahoma, Miss.	1.3	2.0	2.0	2.0	2.0	2.7
Clarksdale, Miss.	2.0	3.0	3.0	2.0	2.0	3.0
Stoneville (A), Miss.	2.0	3.0	2.0	2.3	2.0	2.7
Stoneville (B), Miss.	1.0	2.0	2.0	2.0	1.7	2.0
St. Joseph, La.	4.0	5.0	4.0	4.0	2.0	4.0
			West			
Stuttgart, Ark.	2.0	3.0	3.0	2.0	2.0	3.7
Curtis, La.	1.0	4.0	2.0	3.0	3.0	2.0
Fayetteville, Ark.	2.3	3.7	2.7	2.0	2.0	2.7
Bixby, Okla.	1.0	1.0	1.0	1.0	1.2	1.0
Perkins, Okla.	1.0	1.0	1.0	1.0	1.0	1.5
Plainview, Texas	1.0	1.5	1.0	1.5	1.5	1.5

PRELIMINARY GROUP VI

1958

Eight Preliminary Group VI nurseries were planted. This group included Hood and Lee as check varieties and 34 experimental lines. Results from 6 of these locations are summarized in tables 37 through 42. Table 37 gives a summary of data for seed yield, relative maturity, height, oil and protein percentages, reaction to bacterial pustule and Phytophthora infection, and development of rhizobium induced chlorosis. Productivity of these lines was excellent. The mean yield for all lines for the 6 widely separated locations was 39.3 bushels per acre.

Only two lines ranked above Hood in seed yield but not any yielded significantly higher. There were 10 lines which averaged significantly lower in seed yield. There were 3 lines which were segregating for pubescence color and 2 lines which were segregating for flower color.

There were 5 lines having significantly higher oil content than Hood. One of these lines, S5-7754, was also higher in protein content. When compared with Lee, 20 of the lines had significantly higher oil content. However, there were 16 lines which had significantly lower protein content. There were 2 lines having significantly higher protein content than Lee. One of these lines, N56-4071, also averaged slightly higher in oil.

Twenty-eight of the lines were resistant to bacterial pustule. Not any of the lines showed any appreciable development of target spot. Four lines showed killing,or stunting, from Phytophthora infection. Only one line, S5-7074, was rated a 3 for shattering.

In the planting at Stoneville, several lines showed considerable development of rhizobium induced chlorosis. All of these lines later developed a normal green color.

Lodging is frequently rather excessive in the Warsaw, Virginia area. The selections from Perry x Lee appeared outstanding in lodging resistance at Warsaw, especially the line D56-1192.

Among the more promising appearing lines, which appear to merit testing in Uniform Group VI, are N56-4202, S5-7075, N56-4141, N56-4071, D56-1192, D56-1241, and D56-1102.

Table 36. Parentage of the strains in Preliminary Group VI, 1958

	Strain	Parentage	Generation Composited
1.	Hood (D51-4888)	Roanoke x N45-745	F_6
2.	Lee	S-100 x CNS	F_6
3.	D55-1533	D49-507(2) x D49-2510	F_4
4.	D56-566	Dorman(2) x N48-1515	F_4
5.	D56-634	D49-507(2) x D49-2510	F_4
6.	D56-997	PI 179,826 x D49-772	F_5
7.	D56-1023	Ogden x Hawkeye	F_5
8.	D56-1102	D51-5108 x Dorman	F_5
9.	D56-1175	Perry x Lee	F_5
10.	D56-1192	Perry x Lee	F_5
11.	D56-1197	Perry x Lee	F_5
12.	D56-1241	Hawkeye x Lee	F_5
13.	R54-157	D49-2573 x N45-1497	
14.	R54-199	D49-507 x D49-2510	
15.	N55-1852	N48-1289 x N48-4860	F_5
16.	N55-1895	N48-1289 x N48-4860	F_5
17.	N55-2242	N48-4860 x N47-309	F_5
18.	N55-3753	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
19.	N55-3818	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
20.	N55-3828	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
21.	N55-3830	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
22.	N55-3833	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
23.	N55-3851	(N45-2994 x Ogden) x (N44-92 x N48-1867)	F_5
24.	N56-4071	N46-1703 x D49-2525	F_6
25.	N56-4141	N46-1703 x D49-2525	F_6
26.	N56-4179	N46-1703 x D49-2525	F_6
27.	N56-4202	N46-1703 x D49-2525	F_6
28.	N56-4587	N46-1703 x D49-2525	F_7
29.	N56-4588	N46-1703 x D49-2525	F_7
30.	S4-7142	Ogden x L6-5679	F_4
31.	S5-7074	N48-1248 x Perry	F_8
32.	S5-7075	N48-1248 x Perry	F_8
33.	S5-7092	N48-1248 x Perry	F_8
34.	S5-7495	Ogden x Dorman	F_5
35.	S5-7619	Adams x Roanoke	F_5
36.	S5-7754	L9-1003 x Roanoke	F_5

Table 37. General summary of performance for the strains grown in Preliminary Group VI, 1958

Strain	Seed Yield	Maturity Index	Ht.	Percent Oil	Percent Protein	Bact. Pustule	Phytoph-thora	Chlorosis
Hood	42.9	10-13	34	22.0	39.4	1.0	1.0	2.0
Lee	40.1	+7	32	21.0-	41.3+	1.0	1.0	1.0
D55-1533	38.8	-5	33	21.4	39.9	1.0	2.0	2.0
D56-566	37.8-	-2	35	22.9+	37.4-	1.0	1.0	1.0
D56-634	37.6-	-5	35	21.9	40.5	1.0	1.0	2.0
D56-997	39.7	+1	34	22.3	38.9	1.0	1.0	2.0
D56-1023	37.8-	+2	33	21.7	39.9	3.0	1.0	1.0
D56-1102	40.2	+1	40	21.3-	39.5	1.0	1.0	1.0
D56-1175	37.0-	+3	32	21.0-	40.7+	1.0	1.0	2.0
D56-1192	38.6	+1	31	20.3-	40.9+	1.0	1.0	1.0
D56-1197	36.4	+4	34	20.7-	41.9+	1.0	1.0	2.0
D56-1241	39.5	+1	29	21.1-	42.5+	1.0	1.0	1.0
R54-157	40.1	+3	36	22.1	39.2	1.0	1.0	1.0
R54-199	39.3	-7	32	22.2	39.8	3.0	1.0	2.0
N55-1852	33.8-	+7	38	20.7-	40.5	1.0	1.0	1.0
N55-1895	38.8	+7	34	21.3-	39.4	1.0	1.0	3.0
N55-2242	37.9-	+7	33	21.0-	41.3+	1.0	1.0	3.0
N55-3753	41.7	+2	34	23.3+	38.0-	1.0	1.0	2.0
N55-3818	39.1	-2	32	22.6	40.4	1.0	2.0	3.0
N55-3828	38.0-	-5	33	22.4	39.0	1.0	1.0	1.0
N55-3830	40.5	-2	32	23.2+	38.6	1.0	3.0	3.0
N55-3833	39.4	-2	35	23.4+	38.3	1.0	1.0	4.0
N55-3851	40.0	-2	32	22.6	39.2	1.0	2.0	4.0
N56-4071	39.2	+1	31	21.5	42.9+	1.0	1.0	2.0
N56-4141	40.8	-1	34	21.4	40.2	1.0	1.0	1.0
N56-4179	39.9	+1	39	22.1	39.1	1.0	1.0	1.0
N56-4202	45.0	-1	29	20.8-	41.9+	1.0	1.0	1.0
N56-4587	37.5-	+2	31	20.8-	42.7+	1.0	1.0	2.0
N56-4588	38.7	+1	30	20.8-	42.1+	1.0	1.0	1.0
S4-7142	38.0-	-5	31	22.3	40.3	3.0	1.0	1.0
S5-7074	39.7	-6	29	21.9	40.5	1.0	1.0	1.0
S5-7075	44.1	-1	33	21.9	39.9	1.0	1.0	2.0
S5-7092	40.1	-2	29	21.9	40.7+	3.0	1.0	2.0
S5-7495	39.0	-3	37	21.8	38.8	1.0	1.0	2.0
S5-7619	39.7	+1	35	21.8	41.1+	3.0	1.0	2.0
S5-7754	38.0-	-2	41	22.8+	40.5	3.0	1.0	1.0
L.S.D. (.05)	4.7			0.7	1.3			
L.S.D. (.01)				0.9	1.7			

Table 38. Seed yield, in bushels per acre, for the strains in Preliminary Group VI, 1958

Strain	Warsaw, Va.	Plymouth, N.C.	Walnut Hill, Fla.	Stoneville (B), Miss.	Bixby, Okla.	Plainview, Texas
Hood	41.4	44.6	41.7	51.4	45.5	32.9
Lee	37.4	43.8	43.6	45.9	37.7	32.1
D55-1533	42.4	41.4	31.8-	41.0-	42.0	34.1
D56-566	38.8	41.0	34.9	44.9	33.2-	33.4
D56-634	38.0	39.2	30.3-	42.7-	44.0	31.5
D56-997	37.8	36.8-	47.8	44.7-	43.7	27.5
D56-1023	34.7	43.4	43.2	42.8-	37.6	24.9-
D56-1102	41.2	37.5	46.2	48.2	39.5	29.0
D56-1175	38.3	36.0-	46.2	39.3-	31.2-	30.7
D56-1192	36.1	31.8-	46.2	43.0-	40.6	33.9
D56-1197	33.5	32.9-	38.3	40.6-	37.2	36.2
D56-1241	37.3	40.8	47.7	41.3-	43.3	26.9
R54-157	33.1	43.5	43.6	51.4	38.7	30.6
R54-199	39.7	43.2	34.9	43.1-	35.8	36.5
N55-1852	29.0-	35.0-	45.5	41.4-	29.2-	22.5-
N55-1895	36.6	39.0	41.7	45.5	37.0	32.9
N55-2242	37.8	36.4-	42.1	45.2	39.6	26.7
N55-3753	42.6	43.0	44.7	48.4	46.6	24.6-
N55-3818	39.8	48.4	38.3	43.2-	39.8	24.9-
N55-3828	36.9	41.3	40.9	44.8	32.6-	31.4
N55-3830	39.7	42.3	47.4	37.1-	41.4	30.0
N55-3833	38.2	43.9	36.4	44.7-	45.0	28.7
N55-3851	38.7	41.9	39.8	45.2	38.4	35.7
N56-4071	39.1	39.1	37.5	44.1-	40.0	35.4
N56-4141	42.0	39.7	37.5	52.1	38.2	35.3
N56-4179	41.0	39.2	38.3	45.2	46.8	29.1
N56-4202	44.0+	44.7	36.7	52.4	52.9	39.3
N56-4587	35.8	40.0	39.4	42.2-	42.9	25.0-
N56-4588	35.2	36.4-	42.1	46.1	41.6	30.8
S4-7142	41.6	41.2	40.9	44.8	27.6-	31.5
S5-7074	42.9	51.4+	34.1	47.4	33.9-	28.4
S5-7075	43.0	43.7	44.0	55.4+	44.0	34.3
S5-7092	43.3+	48.8+	34.5	45.2	43.9	24.9-
S5-7495	37.6	42.0	38.3	48.1	34.9-	33.3
S5-7619	37.4	41.0	48.5	44.0-	34.3-	33.3
S5-7754	39.3	37.4-	36.0	50.7	32.5-	32.0
L.S.D.(.05)	5.8	6.6	8.9	6.7	10.0	6.8
C.V.	7%	8%	11%	7%	12%	11%

Table 39. Oil percentages for the strains in Preliminary Group VI, 1958

Strain	Warsaw, Va.	Plymouth, N.C.	Walnut Hill, Fla.	Stoneville (B), Miss.	Bixby, Okla.	Plainview, Texas
Hood	20.1	21.1	23.1	23.2	22.2	22.4
Lee	19.2	20.0	22.2	22.0	21.5	21.1
D55-1533	19.2	20.2	22.8	23.6	21.6	20.8
D56-566	20.3	22.2	25.0	24.8	23.5	21.7
D56-634	19.5	20.5	23.5	23.5	22.3	22.1
D56-997	19.7	21.4	24.4	24.5	22.8	21.2
D56-1023	19.2	20.1	24.4	22.4	22.8	21.0
D56-1102	17.3	20.1	22.6	23.7	22.6	21.5
D56-1175	17.8	20.4	23.1	23.7	20.2	20.8
D56-1192	18.6	18.8	21.7	22.8	20.6	19.0
D56-1197	17.8	19.3	22.8	22.9	21.1	20.5
D56-1241	18.4	19.8	22.6	23.1	22.2	20.7
R54-157	20.6	20.9	22.5	23.3	22.3	22.7
R54-199	19.7	21.5	23.6	24.0	21.2	22.9
N55-1852	19.2	19.4	22.7	21.5	20.5	20.7
N55-1895	19.2	20.1	23.4	22.9	21.5	20.6
N55-2242	19.6	20.0	21.9	21.9	21.0	21.3
N55-3753	20.9	21.4	24.9	25.2	24.4	23.2
N55-3818	20.3	21.3	23.9	24.3	24.1	21.8
N55-3828	20.6	20.9	24.1	24.3	21.5	23.2
N55-3830	20.7	22.0	24.4	25.3	23.7	23.1
N55-3833	20.2	22.6	25.0	25.4	24.0	22.9
N55-3851	20.7	21.7	24.1	24.1	23.1	22.1
N56-4071	20.3	20.3	23.0	22.3	21.4	21.7
N56-4141	19.9	20.4	22.3	22.5	21.9	21.5
N56-4179	20.3	20.4	23.0	24.4	22.5	21.8
N56-4202	19.3	19.3	21.5	22.4	21.6	20.8
N56-4587	19.3	19.4	21.7	22.2	21.1	21.2
N56-4588	19.1	19.8	22.0	21.7	21.1	21.1
S4-7142	20.9	21.5	23.8	23.7	21.2	22.4
S5-7074	20.4	21.3	23.3	23.6	19.8	22.7
S5-7075	20.2	20.6	22.7	23.8	21.3	22.7
S5-7092	20.2	21.5	23.4	23.7	21.5	21.1
S5-7495	19.7	20.5	23.4	23.5	21.7	21.9
S5-7619	20.7	20.0	22.7	22.8	22.0	22.4
S5-7754	21.3	21.6	23.8	24.1	22.6	23.3

Table 40. Protein Percentages for the strains in Preliminary Group VI, 1958

Strain	Warsaw, Va.	Plymouth, N.C.	Walnut Hill, Fla.	Stoneville (B), Miss.	Bixby, Okla.	Plainview, Texas
Hood	40.3	42.1	39.3	38.7	39.8	35.9
Lee	42.5	43.0	42.7	41.6	40.5	37.2
D55-1533	40.8	42.5	41.4	38.7	38.8	37.0
D56-566	38.3	38.2	38.7	36.6	36.7	36.0
D56-634	42.0	43.0	42.7	39.6	40.0	35.6
D56-997	40.3	40.6	40.2	36.4	37.5	38.1
D56-1023	42.0	42.4	39.6	39.2	38.9	37.0
D56-1102	41.1	43.0	40.8	37.1	38.3	36.5
D56-1175	41.3	42.4	40.5	38.8	42.1	38.8
D56-1192	43.7	43.0	40.4	38.5	41.2	38.8
D56-1197	45.7	44.1	41.6	40.1	41.7	38.2
D56-1241	46.1	44.4	42.7	40.5	41.5	39.8
R54-157	39.6	40.0	41.7	38.2	39.7	35.9
R54-199	41.9	40.6	41.4	39.4	39.7	35.5
N55-1852	41.8	42.4	41.8	38.8	39.9	38.4
N55-1895	40.8	41.9	40.1	37.4	38.8	37.4
N55-2242	41.9	43.4	43.1	41.5	40.4	37.5
N55-3753	38.3	40.3	39.5	38.0	36.9	35.2
N55-3818	41.9	42.5	41.4	38.8	38.3	39.7
N55-3828	38.8	40.6	39.5	37.4	40.9	36.6
N55-3830	39.5	40.8	39.3	36.4	39.0	36.8
N55-3833	40.1	39.2	39.2	38.0	37.2	35.8
N55-3851	40.0	41.5	40.3	37.3	38.7	37.2
N56-4071	43.4	45.6	43.2	42.7	43.1	39.5
N56-4141	41.5	42.3	43.0	40.2	39.7	34.7
N56-4179	40.6	41.4	40.4	36.2	38.2	37.8
N56-4202	42.5	45.6	43.8	40.9	40.5	37.9
N56-4587	43.2	46.0	43.8	40.4	42.3	40.4
N56-4588	43.1	44.3	44.3	41.6	41.6	37.8
S4-7142	40.1	41.7	42.3	39.8	40.3	37.6
S5-7074	41.7	40.2	43.0	38.9	41.1	38.0
S5-7075	41.9	42.2	41.4	38.1	40.4	35.6
S5-7092	38.4	41.7	42.5	39.7	40.7	40.9
S5-7495	39.7	41.9	37.2	38.8	39.0	36.3
S5-7619	41.3	43.9	43.4	40.5	40.9	36.3
S5-7754	42.0	43.3	44.1	39.3	37.2	36.8

Table 41. Height data for the strains in Preliminary Group VI, 1958

Strain	Warsaw, Va.	Plymouth, N.C.	Walnut Hill, Fla.	Stoneville (B), Miss.	Bixby, Okla.	Plainview, Texas
Hood	38	42	27	31	39	27
Lee	38	36	24	32	35	29
D55-1533	42	43	25	23	40	28
D56-566	44	44	26	35	31	28
D56-634	42	39	24	33	40	31
D56-997	39	41	27	37	36	26
D56-1023	40	43	26	33	40	28
D56-1102	43	47	30	34	54	30
D56-1175	40	37	24	28	33	27
D56-1192	40	35	23	27	36	24
D56-1197	45	38	24	32	37	29
D56-1241	37	33	24	25	32	23
R54-157	46	41	27	32	39	29
R54-199	40	37	23	33	33	27
N55-1852	45	41	27	32	45	33
N55-1895	41	40	29	32	39	26
N55-2242	40	38	25	31	36	27
N55-3753	44	40	27	33	34	27
N55-3818	40	33	26	28	41	24
N55-3828	41	41	27	33	35	24
N55-3830	38	41	26	26	37	26
N55-3833	43	45	28	32	36	29
N55-3851	38	39	26	29	34	24
N56-4071	39	36	24	28	35	26
N56-4141	41	40	26	34	36	29
N56-4179	48	44	28	33	50	28
N56-4202	38	36	23	24	35	20
N56-4587	40	43	22	24	36	23
N56-4588	40	33	22	28	31	26
S4-7142	35	41	25	28	34	21
S5-7074	35	38	20	30	31	21
S5-7075	38	43	25	30	36	24
S5-7092	37	37	20	27	32	21
S5-7495	43	45	27	29	43	32
S5-7619	45	43	24	32	42	24
S5-7754	44	46	33	37	55	31

Table 42. Seed quality scores for the strains in Preliminary Group VI, 1958

Strain	Warsaw, Va.	Plymouth, N.C.	Walnut Hill, Fla.	Stoneville (B), Miss.	Bixby, Okla.	Plainview, Texas
Hood	1.5	2.5	1.0	2.0	1.0	1.5
Lee	1.5	1.5	1.0	1.5	1.0	2.0
D55-1533	2.0	3.0	2.0	2.0	1.0	2.0
D56-566	1.5	3.0	1.0	2.0	1.0	2.0
D56-634	1.5	3.0	2.0	2.0	1.0	1.5
D56-997	3.5	3.0	1.0	2.0	2.0	2.0
D56-1023	2.0	2.5	3.0	2.0	1.5	2.0
D56-1102	2.0	2.5	1.0	2.0	1.5	2.5
D56-1175	1.0	1.5	3.0	1.0	1.0	1.5
D56-1192	1.0	1.5	1.0	1.0	1.0	1.5
D56-1197	1.0	1.5	1.0	1.5	1.0	1.0
D56-1241	1.5	1.5	2.0	1.5	1.0	1.5
R54-157	2.0	3.0	1.0	1.0	1.0	1.0
R54-199	1.5	3.0	1.0	2.0	1.0	1.5
N55-1852	2.0	2.5	2.0	2.0	1.5	2.0
N55-1895	2.0	2.0	2.0	2.0	1.0	1.5
N55-2242	1.5	1.5	1.0	2.0	1.0	1.5
N55-3753	2.0	2.0	3.0	2.0	1.0	1.5
N55-3818	2.0	2.5	2.0	1.5	1.0	2.0
N55-3828	1.5	2.5	2.0	2.0	1.0	2.0
N55-3830	1.5	3.0	1.0	2.0	1.0	1.5
N55-3833	3.0	3.0	3.0	2.0	1.0	1.5
N55-3851	1.5	2.5	2.0	2.0	1.2	1.5
N56-4071	1.5	2.5	1.0	2.0	1.2	1.5
N56-4141	1.5	2.5	2.0	2.0	1.0	1.5
N56-4179	1.0	2.0	1.0	2.0	1.2	1.0
N56-4202	1.0	2.5	1.0	2.0	1.0	1.5
N56-4587	1.0	2.0	1.0	2.0	1.0	1.5
N56-4588	1.0	2.0	1.0	1.0	1.0	1.5
S4-7142	3.0	3.5	3.0	2.0	1.2	2.0
S5-7074	1.5	3.0	2.0	1.0	1.5	1.5
S5-7075	1.5	2.5	1.0	1.0	1.0	1.5
S5-7092	1.5	2.5	1.0	2.0	1.0	1.5
S5-7495	1.0	3.5	2.0	2.0	1.5	1.5
S5-7619	2.0	2.0	1.0	1.0	1.5	1.5
S5-7754	1.5	3.0	3.0	2.0	1.5	1.5

UNIFORM GROUP VII

1958

	Variety or Strain	Parentage	Generation Composited
1.	Jackson	Volstate(2) x Palmetto	F_4
2.	Lee	S-100 x CNS	F_6
3.	D52-834	Roanoke x N45-745	F_7
4.	N51-2764	Roanoke x N45-1128	F_5
5.	N51-3185	Roanoke x N45-1128	F_5
6.	N52-3908	Roanoke x N45-745	F_7
7.	N54-1748	Roanoke x N48-1394	F_5
8.	N55-2908	Jackson x D49-2491	F_4
9.	N55-5787	(N46-1703 x N48-2089) x N48-1574	F_6
10.	N55-5877	N47-3545 x N48-1835	F_6
11.	N55-5931	Roanoke x D49-2491	F_5
12.	D55-4110	Ogden x CNS	F_7

Background of strains used as parents:

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

N45-1128 is a selection from Volstate x CNS which is resistant to bacterial pustule.

N48-1394 is a selection from Roanoke x N45-745.

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

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

N48-2089, N48-1574, and N48-1835 are selections from Roanoke x N45-745.

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

Twenty-eight Uniform Group VII nurseries were planted. Results of 24 nurseries are summarized in tables 43 through 49. A general summary of the performance of these lines is given in table 43 along with 2-year mean yields and oil and protein percentages. Seven-year seed yield and oil and protein percentages are reported for Jackson and Lee.

Differences among strains were significant in 16 of the 24 comparisons. On the basis of the combined analysis by production areas, differences among strains were significant only in the East Coast and Delta areas. In the East Coast area, N51-2764, N54-1748, N55-5787, and D55-4110 yielded significantly less than Jackson. In the Delta, N51-3185 and N54-1748 yielded significantly less than Jackson. Both of these lines are highly susceptible to target spot.

Lee has averaged two percent lower in oil than Jackson (21.4 vs. 21.8 percent) and four percent higher in protein (41.5 vs. 39.9 percent) for the 7-year comparison. D55-4110 was selected as a high protein line. Oil content was 87 percent of that for Jackson, while protein content was 116 percent of Jackson. D55-4110 yielded significantly less than Jackson in the East Coast area. It was the latest maturing line in the group.

Over the 2-year period, not any of the lines have demonstrated a consistent advantage over the two check varieties. N52-3908 is one of the better appearing lines. Its best average performance is in the Western area tests. N51-3185 yields well when target spot is not a factor and has very high oil content. However, it is very susceptible to target spot and has shown rhizobium induced chlorosis in the Delta nurseries in both 1957 and 1958.

Table 43. General summary of performance for the strains in Uniform Group VII, 1958

	Jackson	Lee	D52-834	N51-2764	N51-3185	N52-3908
Seed Yield - 1958						
East Coast	40.4	41.5	37.6	35.7-	39.7	38.3
Southeast	34.9	31.8	34.5	32.9	33.9	34.3
Upper & Central South	31.3	33.4	32.0	35.0	31.7	33.9
Delta	42.0	47.4	38.2	42.7	31.6-	43.4
West	38.5	38.4	40.1	40.9	41.1	40.6
-1957-58						
East Coast	38.6	40.4	36.8	35.1	38.8	37.5
Southeast	35.9	32.6	35.4	33.8	34.8	36.4
Upper & Central South	31.4	33.0	31.3	33.6	31.0	31.8
Delta	40.5	44.2	40.8	42.8	34.5	44.7
West	35.2	37.0	37.6	37.1	37.3	39.0
-1952-58						
East	31.5	33.7				
Southeast	32.3	30.6				
Upper & Central South	24.8	27.1				
Delta	32.0	35.5				
West	24.5	27.9				
Oil Percentage - 1958	22.3	21.6-	21.1-	22.7	23.0+	21.9
- 1957-58	22.2	21.8	21.0	22.6	23.0	21.7
- 1952-58	21.8	21.4				
Protein Percentage - 1958	39.4	41.3+	40.7+	38.9	39.9	40.3+
- 1957-58	39.5	41.5	40.6	38.8	39.7	40.6
- 1952-58	39.9	41.5				
Seed Size	15.6	14.2-	14.0-	15.6	15.6	16.6+
Maturity Index	10-28	-8	-8	-5	-5	-5
Height	41	31	39	37	36	33
Shattering[1/]	1.0	1.0	1.0	1.0	1.0	1.0
Bacterial Pustule[1/]	3.0	1.0	1.0	1.0	1.0	1.0
Target Spot[1/]	1.0	1.0	1.3	1.3	4.3	1.0
Target Spot[2/]	2.0	1.5	1.0	1.0	3.0	1.5
Chlorosis[1/]	1.0	1.0	1.0	1.3	2.7	1.0

1/ Stoneville data. 2/ Gainesville data.

Table 43. (Continued)

	N54-1748	N55-2908	N55-5787	N55-5877	N55-5931	D55-4110
Seed Yield - 1958						
East Coast	34.8-	38.9	35.2-	37.7	39.2	35.7-
Southeast	32.5	34.4	31.9	33.5	31.5	32.0
Upper & Central South	28.9	32.4	30.5	33.2	31.4	30.9
Delta	24.9-	41.3	37.5	45.5	44.3	37.2
West	36.3	37.3	38.3	39.0	38.8	35.5
-1957-58						
East Coast	34.6					
Southeast	34.6					
Upper & Central South	29.2					
Delta	30.3					
West	35.2					
-1952-58						
East Coast						
Southeast						
Upper & Central South						
Delta						
West						
Oil Percentage - 1958	22.0	22.1	21.7-	22.6	23.0+	19.5-
- 1957-58	21.8					
- 1952-58						
Protein Percentage - 1958	40.0	39.8	40.2	39.3	39.3	45.6+
- 1957-58	40.1					
- 1952-58						
Seed Size	15.1	15.7	16.3	16.7+	15.4	17.5+
Maturity Index	-6	-4	-4	-4	-5	+1
Height	36	36	33	42	35	35
Shattering[1/]	1.7	1.0	2.0	1.0	1.0	1.0
Bacterial Pustule[1/]	1.0	1.0	1.0	1.0	1.0	1.0
Target Spot[1/]	4.3	1.5	3.0	1.3	1.3	1.0
Target Spot[2/]	3.5	1.5	4.0	1.5	1.0	2.0
Chlorosis[1/]	1.7	1.0	1.0	2.7	1.0	1.0

Table 44. Seed yield, in bushels per acre, for the strains in Uniform Group VII, 1958

Location	Jackson	Lee	D52-834	N51-2764	N51-3185	N52-3908	N54-1748
			East Coast				
Plymouth, N. C.	35.5	39.0	36.6	32.0	36.0	34.4	29.4-
Willard, N. C.	44.5	44.8	38.4	42.6	44.1	40.0	38.9
Clayton, N. C.	38.5	43.3+	38.8	34.5	38.1	36.3	34.5
Florence, S. C.	30.8	35.7	29.9	24.5	31.2	33.6	31.7
Hartsville, S. C.	52.8	44.6-	44.4-	44.9-	49.1	47.3-	39.4-
Mean	40.4	41.5	37.6	35.7-	39.7	38.3	34.8-
			Southeast				
Blackville, S. C.	27.8	32.7	29.3	28.3	32.3	27.0	27.2
Tallassee, Ala.	45.1	36.6	42.8	42.3	47.7	39.8	39.8
Tifton, Ga.	13.2	15.3+	14.3	13.0	13.2	15.8+	13.7
Gainesville, Fla.	35.9	25.9-	37.0	37.9	28.8-	37.0	31.8
Marianna, Fla.	37.4	34.6	35.1	33.1	34.5	31.5	32.0
Quincy, Fla.	18.1	25.7+	15.5-	19.6	21.4+	21.7+	17.6
Walnut Hill, Fla.	55.3	48.5	50.8	46.7	50.2	56.0	48.7
Fairhope, Ala.	44.5	34.3-	46.6	48.5	48.8	49.4	46.0
Baton Rouge, La.	36.4	32.3-	36.0	26.8-	28.5-	30.5-	36.0
Mean	34.9	31.8	34.5	32.9	33.9	34.3	32.5
			Upper and Central South				
Clemson, S. C.	28.2	29.9	31.4	32.3+	32.9+	30.7	27.8
Experiment, Ga.	18.4	22.1	22.5	26.2	24.1	22.6	20.0
State College, Miss.	47.5	48.1	42.0	46.5	38.0-	48.4	38.8-
Mean	31.3	33.4	32.0	35.0	31.7	33.9	28.9
			Delta				
Stoneville (A), Miss.	36.8	44.2+	40.5	43.9+	26.7-	45.9+	23.2-
Stoneville (B), Miss.	46.5	49.6	47.2	40.5	37.4-	47.2	28.7-
St. Joseph, La.	42.8	48.3	26.8-	43.7	30.6-	37.1	22.6-
Mean	42.0	47.4	38.2	42.7	31.6-	43.4	24.9-
			West				
Stuttgart, Ark.	33.3	35.1	37.7	29.6	36.2	36.5	33.4
Curtis, La.	52.6	48.9	52.6	59.5+	54.2	51.9	45.9-
Chillicothe, Texas[1/]	7.2	8.5	3.5	8.9	7.0	6.4	6.5
Plainview, Texas	29.7	31.2	30.2	33.2	32.8	33.5	29.6
Mean	38.5	38.4	40.1	40.9	41.1	40.6	36.3

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

Table 44. (Continued)

Location	N55-2908	N55-5787	N55-5877	N55-5931	D55-4110	L.S.D. (.05)	C.V.
		East Coast					
Plymouth, N. C.	37.9	30.0-	35.8	36.6	32.5	4.2	7%
Willard, N. C.	40.2	38.4	43.0	43.5	39.1	N.S.	7%
Clayton, N. C.	40.9	33.8-	36.7	38.8	34.0	4.6	7%
Florence, S. C.	30.4	26.9	28.2	30.5	31.2	N.S.	13%
Hartsville, S. C.	45.0-	46.7-	44.5-	46.9-	41.4-	4.7	6%
Mean	38.9	35.2-	37.7	39.2	35.7-	2.9	
		Southeast					
Blackville, S. C..	27.0	31.1	29.9	26.5	28.5	N.S.	13%
Tallassee, Ala.	42.1	41.9	43.8	44.9	39.1	N.S.	9%
Tifton, Ga.	13.8	10.5-	11.2	12.1	14.3	2.0	9%
Gainesville, Fla.	36.5	33.0	39.7	33.5	34.2	4.9	8%
Marianna, Fla.	34.3	32.7	32.8	32.7	34.3	N.S.	11%
Quincy, Fla.	19.4	16.1-	18.1	19.2	20.2+	1.6	15%
Walnut Hill, Fla.	51.3	53.0	50.0	48.0	45.2	N.S.	10%
Fairhope, Ala.	49.3	40.0	45.1	38.3	44.1	6.8	9%
Baton Rouge, La.	36.2	28.5-	31.1-	28.1-	27.9-	3.5	7%
Mean	34.4	31.9	33.5	31.5	32.0	N.S.	
		Upper and Central South					
Clemson, S. C.	28.6	31.5	31.3	26.1	27.0	3.9	8%
Experiment, Ga.	21.5	15.3	24.9	21.9	20.9	N.S.	28%
State College, Miss.	47.1	44.7	43.5	46.3	44.9	6.4	8%
Mean	32.4	30.5	33.2	31.4	30.9	N.S.	
		Delta					
Stoneville (A), Miss.	37.4	33.9	41.7+	42.2+	31.9-	4.8	8%
Stoneville (B), Miss.	45.4	38.2-	43.0	49.6	41.7	6.8	9%
St. Joseph, La.	41.1	42.2	51.7	42.7	37.8	11.4	17%
Mean	41.3	37.5	45.5	44.8	37.2	7.1	
		West					
Stuttgart, Ark.	33.2	34.1	33.0	34.4	36.6	N.S	13%
Curtis, La.	48.1	51.7	55.1	51.1	47.4	5.6	6%
Chillicothe, Texas[1/]	6.7	7.0	8.9	7.7	5.2	2.2	14%
Plainview, Texas	30.7	29.0	28.9	30.8	22.6-	4.3	8%
Mean	37.3	38.3	39.0	38.8	35.5	N.S.	

1/ Not included in the mean.

Table 45. Chemical composition and seed size for the strains in Uniform Group VII, 1958

Location	Jackson	Lee	D52-834	N51-2764	N51-3185	N52-3908
			Oil Percentage			
Clayton, N. C.	20.6	20.6	19.4	21.2	21.9	20.2
Hartsville, S. C.	21.5	21.4	20.5	22.8	22.9	21.6
Tallassee, Ala.	23.1	22.4	21.5	23.0	23.7	22.0
Gainesville, Fla.	24.2	22.7	22.9	24.2	24.3	23.5
Walnut Hill, Fla.	23.3	23.0	22.5	24.1	23.8	23.1
Clemson, S. C.	21.5	22.2	20.5	21.9	22.9	22.8
Experiment, Ga.	22.2	20.8	21.2	23.3	23.8	21.8
Stoneville (A), Miss.	22.5	21.1	21.2	23.1	22.2	21.5
Stuttgart, Ark.	21.5	20.3	20.5	21.1	21.8	20.8
Mean	22.3	21.6-	21.1-	22.7	23.0+	21.9
			Protein Percentage			
Clayton, N. C.	41.0	42.1	42.5	38.3	40.6	40.1
Hartsville, S. C.	38.8	41.3	40.5	38.1	40.5	40.0
Tallassee, Ala.	41.0	43.8	39.6	40.3	40.0	41.9
Gainesville, Fla.	39.5	44.8	42.1	40.7	41.9	42.0
Walnut Hill, Fla.	40.1	41.9	41.3	40.5	40.9	40.0
Clemson, S. C.	36.8	36.3	38.3	36.3	35.8	38.5
Experiment, Ga.	40.1	41.2	41.5	39.2	39.1	40.8
Stoneville (A), Miss.	38.3	41.6	39.4	37.7	40.0	39.4
Stuttgart, Ark.	39.0	43.2	40.9	39.3	40.0	40.3
Mean	39.4	41.8+	40.7+	38.9	39.9	40.3+
			Grams Per 100 Seeds			
Clayton, N. C.	15.5	13.3	12.9	13.9	14.9	15.1
Hartsville, S. C.	16.7	13.7	14.0	15.7	16.0	18.0
Tallassee, Ala.	17.4	15.3	14.6	16.4	16.3	17.0
Gainesville, Fla.	16.2	16.4	15.0	17.5	17.2	19.1
Walnut Hill, Fla.	18.5	17.7	17.0	19.8	20.8	19.7
Clemson, S. C.	12.3	11.7	11.0	13.3	12.5	12.9
Experiment, Ga.	15.6	12.9	14.6	16.5	14.4	15.7
Stoneville (A), Miss.	13.4	13.0	12.8	13.9	12.9	15.6
Stuttgart, Ark.	14.7	14.0	13.7	13.3	15.7	16.3
Mean	15.6	14.2-	14.0-	15.6	15.6	16.6+

Table 45. (Continued)

Location	N54-1748	N55-2908	N55-5787	N55-5877	N55-5931	D55-4110	L.S.D. (.05)
			Oil Percentage				
Clayton, N. C.	21.3	21.0	21.0	20.8	21.5	18.0	
Hartsville, S. C.	21.8	21.9	22.0	22.4	22.9	18.6	
Tallassee, Ala.	21.7	22.4	22.5	23.1	23.4	19.5	
Gainesville, Fla.	23.2	22.8	22.1	24.1	24.5	21.0	
Walnut Hill, Fla.	23.2	23.2	23.1	23.0	24.2	20.3	
Clemson, S. C.	21.3	22.2	21.1	22.4	23.1	20.3	
Experiment, Ga.	22.7	22.4	21.7	23.0	22.6	20.4	
Stoneville, (A) Miss.	21.4	21.9	21.0	22.6	22.7	18.7	
Stuttgart, Ark.	21.4	21.3	20.9	21.6	22.3	18.5	
Mean	22.0	22.1	21.7-	22.6	23.0+	19.5-	0.4
			Protein Percentage				
Clayton, N. C.	41.0	40.7	40.0	41.0	40.9	46.9	
Hartsville, S. C.	39.6	39.8	39.2	39.5	38.9	46.8	
Tallassee, Ala.	41.3	31.6	41.6	40.3	38.5	46.0	
Gainesville, Fla.	42.0	40.8	42.9	40.2	41.0	47.5	
Walnut Hill, Fla.	40.7	40.9	40.7	41.0	39.2	46.8	
Clemson, S. C.	37.0	37.1	36.7	35.8	35.3	41.2	
Experiment, Ga.	39.6	38.9	41.2	38.6	39.7	43.9	
Stoneville (A), Miss.	39.9	38.3	40.2	37.2	39.3	45.9	
Stuttgart, Ark.	39.4	40.5	39.4	40.5	40.6	45.1	
Mean	40.0	39.8	40.2+	39.3	39.3	45.6+	0.8
			Grams Per 100 Seeds				
Clayton, N. C.	14.0	15.2	14.9	14.8	13.5	16.7	
Hartsville, S. C.	15.7	16.0	17.3	17.3	15.0	18.0	
Tallassee, Ala.	14.6	16.4	18.2	18.4	15.6	17.7	
Gainesville, Fla.	16.4	17.4	17.6	16.8	17.7	18.4	
Walnut Hill, Fla.	19.0	19.5	22.0	22.5	17.7	20.2	
Clemson, S. C.	12.1	12.8	13.0	13.0	12.5	14.5	
Experiment, Ga.	15.9	14.3	14.1	15.1	15.4	17.1	
Stoneville (A), Miss.	13.2	13.8	13.5	14.7	14.8	15.8	
Stuttgart, Ark.	14.7	15.7	16.0	17.7	16.3	19.0	
Mean	15.1	15.7	16.3	16.7+	15.4	17.5+	0.8

Table 46. Relative maturity date, days earlier (-) or later (+) than Jackson, for the strains in Uniform Group VII, 1958

Location	Date Planted	Jackson Matured	Lee	D52-834	N51-2764	N51-3185
		East Coast				
Plymouth, N. C.	5-19	11-1	-7	-6	-5	-4
Willard, N. C.	5-16	10-30	-10	-10	-6	-6
Clayton, N. C.	5-5	10-26	-9	-8	0	-7
Florence, S. C.	5-28	11-4	-17	-10	-13	-9
Hartsville, S. C.	5-31	11-5	-10	-11	-7	-3
Mean		11-1	-11	-9	-6	-6
		Southeast				
Blackville, S. C.	6-5	11-6	-13	-13	-7	-8
Tallassee, Ala.	5-15	10-21	-9	-6	-6	-6
Gainesville, Fla.	5-26	10-19	-7	-11	-3	-4
Marianna, Fla.	5-28	10-28	-12	-16	-17	-10
Quincy, Fla.	6-30	10-17	-4	-4	-4	-4
Walnut Hill, Fla.	6-4	10-24	-14	-14	-8	-3
Baton Rouge, La.	5-27	10-27	-7	-10	-3	-5
Mean		10-25	-10	-11	-7	-6
		Upper and Central South				
Clemson, S. C.	5-22	10-27	-9	-8	-3	-3
Experiment, Ga.	5-16	10-22	-12	-7	-7	-7
Mean		10-25	-11	-7	-5	-5
		Delta				
Stoneville (A), Miss.	5-8	10-28	-10	-8	0	-8
Stoneville (B), Miss.	5-28	10-28	-3	-5	-3	-3
St. Joseph, La.	5-13	10-25	-2	-10	-5	-10
Mean		10-27	-7	-8	-3	-7
		West				
Stuttgart, Ark.	5-28	10-30	-2	0	-2	+4
Curtis, La.	5-23	10-28	-5	-8	-4	-8
Plainview, Texas	5-28	10-29	-8	-6	-6	-4
Mean		10-29	-5	-5	-4	-3

Table 46. (Continued)

Location	N52-3908	N54-1748	N55-2908	N55-5787	N55-5877	N55-5931	D55-4110
			East Coast				
Plymouth, N. C.	-6	-6	-5	-4	-4	-4	+2
Willard, N. C.	-6	-2	-6	-6	-6	-6	0
Clayton, N. C.	-7	-6	-7	-6	-7	-2	+2
Florence, S. C.	-15	-7	-5	-9	-9	-15	-2
Hartsville, S. C.	-4	-6	-7	-5	-5	-7	+4
Mean	-8	-5	-6	-6	-6	-7	+1
			Southeast				
Blackville, S. C.	-15	-13	-12	-12	-13	-12	0
Tallassee, Ala.	-3	-1	+1	+2	-6	-1	+2
Gainesville, Fla.	-1	-5	-2	-2	-1	0	+5
Marianna, Fla.	-12	-14	-11	-11	-13	-12	0
Quincy, Fla.	-4	-4	-4	0	-4	-1	+6
Walnut Hill, Fla.	-4	-3	-4	-5	-3	-4	+4
Baton Rouge, La.	-5	-6	-6	-5	-3	-3	0
Mean	-6	-7	-5	-5	-6	-5	+2
			Upper and Central South				
Clemson, S. C.	-5	-5	-3	-3	-6	-1	+9
Experiment, Ga.	-10	-7	-7	-6	-7	-10	+3
Mean	-8	-6	-5	-5	-7	-6	+6
			Delta				
Stoneville (A), Miss.	+1	-8	-6	-1	+1	-1	-1
Stoneville (B), Miss.	-3	-3	-3	-3	0	-1	0
St. Joseph, La.	0	-10	-7	-2	-2	-7	-7
Mean	-1	-7	-6	-2	0	-3	-3
			West				
Stuttgart, Ark.	+4	0	0	+4	+2	+2	+8
Curtis, La.	-3	-8	-6	-3	-2	-4	-3
Plainview, Texas	-2	-4	-6	0	-4	-6	-3
Mean	0	-4	-4	0	-1	-3	+1

Table 47. Plant height for the strains in Uniform Group VII, 1958

Location	Jackson	Lee	D52-834	N51-2764	N51-3185	N52-3903
			East Coast			
Plymouth, N. C.	50	41	50	42	48	33
Willard, N. C.	51	35	47	49	49	41
Clayton, N. C.	39	32	40	33	38	34
Florence, S. C.	24	26	24	23	22	19
Hartsville, S. C.	39	29	38	37	35	29
Mean	41	33	40	37	38	32
			Southeast			
Blackville, S. C.	40	29	43	42	34	27
Tallassee, Ala.	46	33	42	38	39	36
Tifton, Ga.	27	25	28	26	25	23
Gainesville, Fla.	38	27	36	30	31	33
Marianna, Fla.	47	34	37	33	36	34
Quincy, Fla.	33	27	35	31	26	27
Walnut Hill, Fla.	34	26	31	28	29	29
Baton Rouge, La.	40	30	40	38	38	32
Mean	38	29	37	33	32	30
			Upper and Central South			
Clemson, S. C.	43	29	36	36	35	33
Experiment, Ga.	48	26	33	34	30	34
State College, Miss.	48	36	48	48	48	42
Mean	46	30	39	39	38	36
			Delta			
Stoneville (A), Miss.	47	34	42	47	46	38
Stoneville (B), Miss.	44	33	41	37	37	35
St. Joseph, La.	42	30	38	33	31	38
Mean	44	32	40	39	38	37
			West			
Stuttgart, Ark.	39	33	39	40	37	30
Curtis, La.	40	28	41	41	37	38
Plainview, Texas	38	29	37	38	36	32
Mean	39	30	39	40	37	33

Table 47. (Continued)

Location	N54-1748	N55-2908	N55-5787	N55-5877	N55-5931	D55-4110
			East Coast			
Plymouth, N. C.	44	46	42	54	41	47
Willard, N. C.	42	46	40	55	46	44
Clayton, N. C.	41	38	34	41	38	36
Florence, S. C.	23	23	17	23	22	24
Hartsville, S. C.	35	36	33	41	34	35
Mean	37	38	33	43	36	37
			Southeast			
Blackville, S. C.	37	38	23	43	37	28
Tallassee, Ala.	35	38	38	46	38	37
Tifton, Ga.	26	25	21	26	23	26
Gainesville, Fla.	32	31	34	39	33	31
Marianna, Fla.	34	37	34	42	40	36
Quincy, Fla.	30	33	20	34	33	26
Walnut Hill, Fla.	30	29	29	35	31	34
Baton Rouge, La.	36	38	38	42	38	34
Mean	33	34	30	38	34	32
			Upper and Central South			
Clemson, S. C.	36	33	33	44	35	35
Experiment, Ga.	35	32	30	45	33	30
State College, Miss.	44	46	38	48	38	40
Mean	38	37	34	46	35	35
			Delta			
Stoneville (A), Miss.	37	40	41	46	41	40
Stoneville (B), Miss.	38	41	35	44	41	38
St. Joseph, La.	32	38	39	43	35	33
Mean	36	40	38	44	39	37
			West			
Stuttgart, Ark.	36	35	30	43	32	36
Curtis, La.	40	34	36	43	40	37
Plainview, Texas	36	33	37	40	33	35
Mean	37	34	34	42	35	36

Table 48. Lodging scores for the strains in Uniform Group VII, 1958

Location	Jackson	Lee	D52-834	N51-2764	N51-3185	N52-3908
			East Coast			
Plymouth, N. C.	4.0	3.0	3.0	4.5	4.0	3.0
Willard, N. C.	5.0	4.0	4.0	5.0	4.0	4.0
Clayton, N. C.	4.0	2.0	2.0	2.0	3.0	3.0
Florence, S. C.	1.3	1.3	1.7	1.0	1.3	1.0
Hartsville, S. C.	1.1	1.4	1.3	1.8	1.8	1.3
			Southeast			
Blackville, S. C.	1.3	1.6	1.6	2.0	2.0	2.3
Tallassee, Ala.	1.0	1.0	1.0	2.0	1.0	1.0
Gainesville, Fla.	1.7	1.0	1.7	1.7	1.7	2.0
Marianna, Fla.	1.7	1.0	1.7	2.0	1.3	1.3
Walnut Hill, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	3.0	2.0	3.0	3.0	3.0	2.0
			Upper and Central South			
Clemson, S. C.	1.7	1.3	1.3	2.5	2.2	1.7
Experiment, Ga.	1.0	2.0	2.0	2.0	2.0	1.0
			Delta			
Stoneville (A), Miss.	3.7	3.0	4.0	4.0	4.3	3.7
Stoneville (B), Miss.	3.0	2.7	3.0	3.0	3.3	2.7
St. Joseph, La.	2.0	2.0	2.0	3.0	3.0	2.0
			West			
Stuttgart, Ark.	1.0	2.0	2.3	2.0	2.3	1.7
Curtis, La.	2.0	1.0	3.0	2.0	2.0	2.0
Plainview, Texas	1.3	1.0	1.0	2.3	2.7	1.3

Table 48. (Continued)

Location	N54-1748	N55-2908	N55-5787	N55-5877	N55-5931	D55-4110
			East Coast			
Plymouth, N. C.	4.0	3.0	4.0	3.5	3.0	4.0
Willard, N. C.	4.0	4.0	5.0	4.0	4.0	5.0
Clayton, N. C.	3.0	3.0	3.0	3.0	2.0	3.0
Florence, S. C.	1.3	1.0	1.0	1.0	1.0	2.0
Hartsville, S. C.	1.7	1.2	1.2	1.8	1.0	1.4
			Southeast			
Blackville, S. C.	1.6	1.3	1.6	2.3	2.0	2.6
Tallassee, Ala.	1.0	1.0	1.0	2.0	2.0	1.0
Gainesville, Fla.	1.0	1.7	1.0	2.0	1.7	1.0
Marianna, Fla.	2.0	1.3	1.0	1.7	1.7	2.0
Walnut Hill, Fla.	1.0	1.0	1.0	2.0	1.0	2.0
Baton Rouge, La.	2.0	2.0	2.0	3.0	3.0	2.0
			Upper and Central South			
Clemson, S. C.	1.3	2.2	1.2	2.5	1.5	2.0
Experiment, Ga.	2.0	2.0	1.0	3.0	2.0	2.0
			Delta			
Stoneville (A), Miss.	4.0	3.0	3.0	4.0	3.0	3.0
Stoneville (B), Miss.	3.3	2.7	3.0	3.0	3.0	3.0
St. Joseph, La.	2.0	2.0	2.0	3.0	2.0	3.0
			West			
Stuttgart, Ark.	2.0	1.7	1.0	2.0	1.7	1.7
Curtis, La.	2.0	2.0	2.0	2.0	2.0	1.0
Plainview, Texas	1.7	2.7	1.0	1.3	2.0	2.7

Table 49. Seed quality scores for the strains in Group VII, 1958

Location	Jackson	Lee	D52-834	N51-2764	N51-3185	N52-3908
			East Coast			
Plymouth, N. C.	1.5	1.0	1.5	1.5	1.5	1.5
Willard, N. C.	1.0	1.0	1.0	1.0	1.0	1.0
Clayton, N. C.	1.0	1.0	1.0	1.0	1.0	1.0
Hartsville, S. C.	1.0	1.0	1.0	1.0	1.0	1.0
			Southeast			
Tallassee, Ala.	1.0	1.0	1.0	1.0	2.0	1.0
Gainesville, Fla.	1.0	2.0	2.7	3.0	2.7	2.3
Walnut Hill, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	2.0	1.0	2.0	2.0	2.0	1.0
			Upper and Central South			
Experiment, Ga.	2.3	1.7	1.3	1.3	2.0	1.7
State College, Miss.	1.0	2.0	1.0	1.0	2.0	2.0
			Delta			
Stoneville (A), Miss.	2.0	1.3	2.0	2.0	2.0	2.0
Stoneville (B), Miss.	2.0	2.0	2.0	2.0	2.0	1.7
St. Joseph, La.	2.0	1.0	1.0	1.0	1.0	1.0
			West			
Stuttgart, Ark.	1.7	2.0	1.3	1.7	1.7	1.3
Curtis, La.	2.0	1.0	2.0	3.0	3.0	1.0

Table 49. (Continued)

Location	N54-1748	N55-2908	N55-5787	N55-5877	N55-5931	D55-4110
			East Coast			
Plymouth, N. C.	1.0	1.5	1.5	1.5	1.0	1.5
Willard, N. C.	1.0	1.5	1.5	1.5	1.5	1.0
Clayton, N. C.	1.0	1.0	1.0	1.0	1.0	1.0
Hartsville, S. C.	1.0	1.0	1.0	1.0	1.0	1.0
			Southeast			
Tallassee, Ala.	2.0	1.0	2.0	1.0	2.0	1.0
Gainesville, Fla.	2.7	2.7	2.0	2.5	1.7	1.0
Walnut Hill, Fla.	2.0	1.0	1.0	2.0	2.0	1.0
Baton Rouge, La.	1.0	1.0	2.0	2.0	2.0	1.0
			Upper and Central South			
Experiment, Ga.	2.0	2.0	1.7	1.7	1.7	1.0
State College, Miss.	2.0	1.0	2.0	2.0	2.0	2.0
			Delta			
Stoneville (A), Miss.	2.7	2.0	2.0	2.0	2.0	1.3
Stoneville (B), Miss.	2.0	2.0	1.7	2.7	2.0	2.0
St. Joseph, La.	1.0	1.0	2.0	2.0	1.0	1.0
			West			
Stuttgart, Ark.	1.7	1.7	1.7	1.3	1.3	1.0
Curtis, La.	2.0	3.0	1.0	3.0	2.0	1.0

PRELIMINARY GROUP VII

1958

Eight Preliminary Group VII nurseries were planted. Differences among lines for seed yield were significant in all but one of the nurseries. Moisture deficiency late in the season resulted in low yields in the plantings at Experiment, Georgia and at Quincy, Florida. Table 50 lists the strains included along with their parentage. Table 51 reports the mean performance for seed yield, maturity, height, oil and protein percentage, and disease reaction. Tables 52 through 56 report agronomic and chemical data by location.

One line, F55-822, was superior to Jackson in both seed yield and protein content. Its superiority in both characters exceeded the differences necessary for odds of 99:1. F55-822 has appeared to be equal to Jackson in resistance to root knot nematodes at Gainesville. This strain lodged badly at Willard, but for much of the Southeast, lodging would not be a problem.

The performance of D54-1102 is of interest, since this is a glabrous line. It appears that a glabrous variety could be grown successfully in the Southeast.

A rather heavy infection of target spot developed on susceptible lines at Stoneville and Gainesville. Ten lines were rated as moderate to high in susceptibility at Stoneville. The three lines rated 4 or 4.5 had a mean yield for the region significantly below the yield of Jackson.

Among the lines which appear to merit testing in the Uniform Group VII nursery are F55-822, F55-861, N55-2934, N56-3901, N56-5249, Co56-262, and D56-1939.

The strain designated as Arthur Hopkins is being increased by the Texas Research Foundation of Renner, Texas. This strain is a selection from an F_4 line furnished them in 1948 from the cooperative Southern Regional breeding program.

Table 50. Parentage of strains in Preliminary Group VII, 1958

	Strain	Parentage	Generation Composited
1.	Jackson	Volstate(2) x Palmetto	F_4
2.	Lee	S-100 x Lee	F_6
3.	D54-1102	D49-2510 x (Roanoke x PI 181,537)	F_6
4.	D55-4099	Ogden x CNS	F_7
5.	D56-1929	Roanoke x D49-2491	F_5
6.	D56-1939	Roanoke x D49-2491	F_5
7.	D56-1972	Roanoke x D49-2491	F_5
8.	D56-1985	Roanoke x D49-2491	F_5
9.	D56-1986	Roanoke x D49-2491	F_5
10.	D56-2049	Roanoke x D49-2491	F_5
11.	F55-822	Jackson x D49-2491	F_4
12.	F55-861	Jackson x D49-2491	F_4
13.	N54-1935	N47-309 x N46-2845	F_5
14.	N55-1483	N48-1867 selection	F_{10}
15.	N55-2934	Jackson x D49-2491	F_4
16.	N56-3652	(N47-2981 x Roanoke) x (N44-92 x N48-1867)	F_5
17.	N56-3680	(N47-2981 x Roanoke) x (N44-92 x N48-1867)	F_5
18.	N56-3741	(N47-2981 x Roanoke) x (N44-92 x N48-1867)	F_5
19.	N56-3748	(N47-2981 x Roanoke) x (N44-92 x N48-1867)	F_5
20.	N56-3869	N48-1574 x (Roanoke x N45-3799)	F_5
21.	N56-3884	N48-1574 x (Roanoke x N45-3799)	F_5
22.	N56-3901	N48-1574 x (Roanoke x N45-3799)	F_5
23.	N56-3918	N48-1574 x (Roanoke x N45-3799)	F_5
24.	N56-3924	N48-1574 x (Roanoke x N45-3799)	F_5
25.	N56-3950	N48-1574 x (Roanoke x N45-3799)	F_5
26.	N56-3979	N48-1574 x (Roanoke x N45-3799)	F_5
27.	N56-4370	N46-1703 x D49-2525	F_7
28.	N56-4373	N46-1703 x D49-2525	F_7
29.	N56-5243	Jackson x D49-2491	F_5
30.	N56-5249	Jackson x D49-2491	F_5
31.	N56-5270	Jackson x D49-2491	F_5
32.	N56-5272	Jackson x D49-2491	F_5
33.	Co56-208	Majos x Lee	F_5
34.	Co56-226	Majos x Lee	F_5
35.	Co56-262	Majos x Lee	F_5
36.	Arthur Hopkins	Palmetto x Ogden	

Table 51. General summary of performance for the strains grown in Preliminary Group VII, 1958

Strain	Seed Yield	Maturity	Ht.	Percent Oil	Percent Protein	Bact. Pustule	Target Spot	Shattering
Jackson	32.3	10-25	38	22.7	40.0	2.0	1.0	1.0
Lee	31.9	-10	28	21.8-	42.4+	1.0	1.0	1.0
D54-1102	35.0	-7	32	21.8-	40.8	1.0	2.0	1.5
D55-4099	29.3	-3	36	20.3-	45.3+	1.0	1.5	1.0
D56-1929	30.1	-8	24	21.8-	42.2+	1.0	1.0	1.0
D56-1939	32.7	-5	31	21.9-	41.4+	1.0	1.5	1.0
D56-1972	28.9	-9	21	21.5-	40.8	1.0	3.0	1.0
D56-1985	26.2-	-6	26	22.5	41.0	1.0	4.0	1.0
D56-1986	29.1	-10	23	22.0	40.9	1.0	3.5	2.0
D56-2049	28.3	-7	25	21.5-	41.6+	1.0	3.5	1.0
F55-822	38.8+	-4	39	22.2	42.1+	1.0	1.0	1.0
F55-861	33.9	-5	39	22.6	40.0	1.0	1.0	1.0
N54-1935	31.4	-7	32	22.3	41.2+	1.0	2.0	1.0
N55-1483	32.5	-9	36	22.3	39.4	1.0	1.0	2.5
N55-2934	33.5	-4	39	23.0	40.9	1.0	1.5	1.5
N56-3652	28.4	-7	38	23.1	40.2	1.0	3.0	1.0
N56-3680	30.4	-7	34	22.8	40.3	1.0	1.5	2.0
N56-3741	26.9-	-6	31	22.3	40.7	1.0	4.5	1.0
N56-3748	27.7-	-7	32	22.5	40.6	2.0	4.5	2.0
N56-3869	27.5-	-7	32	22.5	40.4	1.0	1.0	1.0
N56-3884	35.2	-8	28	22.5	40.1	1.0	2.0	1.0
N56-3901	34.8	-2	32	22.1	40.6	1.0	2.0	1.0
N56-3918	35.1	-1	31	22.6	40.3	1.0	1.0	1.0
N56-3924	33.6	-12	34	20.7-	41.9+	2.0	2.0	2.0
N56-3950	32.8	-4	35	22.4	40.5	1.0	3.0	1.0
N56-3979	33.4	-2	34	21.6-	41.3+	1.0	1.0	1.0
N56-4370	31.2	-9	36	21.3-	42.8+	1.0	3.0	1.0
N56-4373	30.8	-10	35	21.6-	43.2+	1.0	1.0	1.0
N56-5243	30.5	-14	33	21.9-	41.7+	1.0	3.5	1.0
N56-5249	34.6	-5	39	23.0	41.9+	1.0	2.0	1.0
N56-5270	31.9	-5	32	22.1	41.0	1.0	1.0	1.0
N56-5272	34.8	-9	35	23.3	41.3+	2.0	2.5	1.0
Co56-208	29.9	-11	33	21.3-	42.6+	1.0	1.5	1.0
Co56-226	30.4	-6	34	21.8-	41.1+	1.0	1.0	1.0
Co56-262	32.6	-3	34	21.5-	40.9	1.0	2.0	1.0
Arthur Hopkins	28.3	-11	49	21.6-	40.8	2.0	2.0	2.0
L.S.D. (.05)	4.4			0.7	1.1			
L.S.D. (.01)	5.8			0.9	1.4			

Table 52. Seed yield, in bushels per acre, for the strains in Preliminary Group VII, 1958

Strain	Willard, N.C.	Blackville, S.C.	Experiment, Ga.	Tallassee, Ala.	Gainesville, Fla.	Quincy, Fla.	Walnut Hill, Fla.	Stoneville, Miss.
Jackson	44.0	25.5	15.8	34.0	34.5	18.9	47.4	38.5
Lee	40.2	30.8	16.3	37.7	20.4-	25.4+	47.0	37.1
D54-1102	42.4	28.1	10.3-	37.0	42.2	27.3+	53.4	39.5
D55-4099	32.0-	25.9	15.1	33.2	33.6	21.2	44.4	29.5-
D56-1929	38.2	25.6	12.5	28.1	18.2-	23.8+	56.1+	38.3
D56-1939	36.5-	26.7	13.6	37.8	35.6	23.4+	51.9	41.1
D56-1972	33.7-	20.0	14.8	36.1	22.3-	20.4	45.5	38.3
D56-1985	37.2-	24.8	12.6	25.1	16.1-	25.0+	42.8	26.3-
D56-1986	38.6	23.1	17.4	15.5-	36.1	24.2+	46.6	31.2-
D56-2049	34.8-	23.7	17.2	32.8	19.5-	23.1+	45.0	35.4
F55-822	45.8	28.7	15.6	49.1+	44.1+	22.7+	53.1	51.3+
F55-861	39.6	31.5	14.0	36.6	34.3	21.6	53.8	39.9
N54-1935	38.8	32.3	11.3-	32.3	32.1	20.0	48.5	36.3
N55-1483	36.6-	28.0	14.5	35.7	34.2	19.7	55.3	36.4
N55-2934	41.6	23.1	12.1	38.9	37.5	21.2	45.1	48.9+
N56-3652	40.1	23.3	12.4	24.3	31.1	21.2	42.8	32.0
N56-3680	39.2	28.4	12.9	33.2	26.9	23.5+	40.2	38.9
N56-3741	33.8-	28.6	14.3	32.1	22.8-	23.1+	36.0	26.0-
N56-3748	35.4-	26.9	14.8	28.3	23.0-	22.7+	43.2	27.4-
N56-3869	36.2-	27.1	14.6	37.4	36.2	21.6	52.7	44.4
N56-3884	35.8-	27.5	12.4	40.4	35.8	23.8+	58.7+	47.1+
N56-3901	40.8	26.6	14.5	40.2	43.1+	22.7+	53.5	37.4
N56-3918	43.0	25.5	14.0	31.1	44.1+	22.7+	50.0	50.7+
N56-3924	44.3	35.2	12.7	26.4	38.6	18.9	49.7	43.1
N56-3950	38.0	31.6	19.9+	32.3	38.2	22.7+	48.5	31.5-
N56-3979	37.6-	26.4	14.3	38.3	30.4	21.6	52.7	46.4+
N56-4370	35.6-	33.2	13.3	29.6	33.0	25.0+	43.6	36.6
N56-4373	36.2-	34.0	12.2	37.5	27.3	23.5+	40.2	35.8
N56-5243	37.0-	32.5	10.3-	31.0	32.5	15.1-	44.7	41.4
N56-5249	48.4	26.9	13.0	45.3	33.1	17.6	50.4	42.3
N56-5270	41.0	25.8	12.1	28.1	29.0	26.1+	49.3	43.6
N56-5272	44.2	33.8	14.2	30.2	38.6	23.4+	54.9	38.8
Co56-208	38.1	26.2	11.6-	29.4	25.3-	22.0+	46.2	40.5
Co56-226	37.0-	28.8	12.8	22.1	35.4	17.0	49.3	40.9
Co56-262	39.6	26.7	11.4-	40.9	28.5	23.1+	49.6	38.6
Arthur Hopkins	33.5-	23.9	11.0-	37.0	29.0	17.4	45.5	29.4-
L.S.D. (.05)	6.1	N.S.	3.7	12.5	8.3	3.0	8.1	6.8
C.V.	8%	14%	13%	19%	13%	8%	8%	9%

Table 53. Oil percentages for the strains in Preliminary Group VII, 1958

Strain	Willard, N.C.	Experiment, Ga.	Tallassee, Ala.	Gaines-ville, Fla.	Walnut Hill, Fla.	Stone-ville, Miss.
Jackson	21.6	23.6	22.7	23.5	23.1	21.7
Lee	20.8	21.6	22.2	22.4	22.5	21.5
D54-1102	20.9	20.3	22.3	22.9	22.8	21.3
D55-4099	19.7	--	20.2	21.0	21.0	19.5
D56-1929	20.4	22.2	21.5	22.9	22.6	21.2
D56-1939	20.9	21.1	21.9	22.3	23.4	22.0
D56-1972	20.3	20.7	21.7	22.6	22.5	20.9
D56-1985	21.1	22.0	23.6	24.0	23.5	20.7
D56-1986	20.7	22.5	20.9	23.6	23.6	20.7
D56-2049	20.2	22.6	22.1	22.1	21.9	19.5
F55-822	21.3	21.5	22.9	22.5	23.3	21.5
F55-861	21.7	23.4	22.9	22.4	23.1	22.3
N54-1935	21.1	20.5	23.0	23.3	23.5	22.3
N55-1843	20.8	22.2	23.6	23.3	23.0	20.9
N55-2934	22.5	22.7	23.1	23.4	23.4	22.6
N56-3652	21.8	22.2	23.8	24.2	24.2	22.4
N56-3680	22.0	22.7	23.6	23.7	22.5	22.3
N56-3741	20.8	22.8	23.4	23.3	22.9	20.5
N56-3748	21.0	23.2	22.2	24.1	23.4	21.3
N56-3869	20.7	23.3	23.0	24.4	23.1	20.5
N56-3884	21.7	22.7	22.6	23.3	22.9	21.6
N56-3901	20.9	22.9	22.1	23.0	22.5	21.3
N56-3918	21.2	24.1	22.9	23.2	22.6	21.7
N56-3924	19.8	20.3	20.7	21.4	21.2	20.6
N56-3950	21.2	22.8	22.6	23.0	23.0	21.7
N56-3979	20.7	22.1	22.0	22.0	22.1	20.9
N56-4370	20.4	21.4	21.6	22.2	21.4	20.9
N56-4373	20.1	21.8	21.7	22.8	21.6	21.3
N56-5243	21.0	23.2	21.7	22.8	22.2	20.7
N56-5249	21.9	22.9	23.8	23.3	23.4	22.7
N56-5270	21.0	22.2	22.6	21.6	22.6	22.4
N56-5272	21.9	23.3	23.5	24.6	23.8	22.4
Co56-208	19.8	20.7	21.6	21.7	22.4	21.3
Co56-226	20.0	20.3	22.7	23.0	23.1	21.8
Co56-262	19.4	20.6	22.2	22.4	22.7	21.4
Arthur Hopkins	20.1	22.3	22.0	22.3	22.1	21.0

Table 54. Protein percentages for the strains in Preliminary Group VII, 1958

Strain	Willard, N.C.	Experiment, Ga.	Tallassee, Ala.	Gaines-ville, Fla.	Walnut Hill, Fla.	Stone-ville, Miss.
Jackson	41.2	38.3	40.2	42.7	40.1	37.7
Lee	41.8	40.3	41.6	44.8	42.7	42.9
D54-1102	41.4	41.6	40.5	40.2	40.0	41.3
D55-4099	45.4	--	44.5	45.5	45.6	45.8
D56-1929	42.6	39.5	42.9	43.0	42.5	42.5
D56-1939	40.8	40.3	41.8	43.3	40.6	41.3
D56-1972	40.6	41.0	40.4	41.1	40.1	41.8
D56-1985	40.8	40.2	40.5	41.6	40.8	42.2
D56-1986	37.5	38.5	44.0	41.8	40.5	43.0
D56-2049	41.4	40.9	40.6	42.9	40.6	42.9
F55-822	42.3	42.8	41.4	43.2	41.4	41.3
F55-861	41.6	37.8	40.0	40.5	39.5	40.6
N54-1935	41.1	43.5	40.7	41.6	39.7	40.5
N55-1483	40.6	39.3	38.4	39.5	38.4	40.4
N55-2934	41.0	40.0	40.2	43.1	40.5	40.8
N56-3652	40.5	40.7	39.9	41.2	39.2	39.7
N56-3680	40.0	40.3	39.9	40.8	40.6	40.2
N56-3741	40.9	39.7	39.8	41.5	39.6	42.7
N56-3748	40.9	38.7	41.8	41.1	38.8	42.0
N56-3869	41.0	40.2	40.6	41.6	38.3	40.8
N56-3884	42.0	39.8	39.6	41.3	37.7	40.3
N56-3901	41.7	38.8	40.9	41.7	39.5	40.8
N56-3918	41.6	36.9	41.2	41.1	40.0	40.9
N56-3924	42.8	41.3	41.8	42.9	41.7	41.0
N56-3950	41.0	38.8	40.2	41.9	39.8	41.0
N56-3979	41.7	41.0	40.9	43.6	39.5	41.4
N56-4370	43.3	41.6	42.6	45.6	42.8	42.6
N56-4373	44.6	41.4	42.5	45.1	43.0	42.4
N56-5243	41.4	39.1	42.0	45.0	40.5	42.3
N56-5249	42.0	40.4	41.3	44.2	41.4	42.1
N56-5270	40.7	40.6	41.0	43.6	40.4	39.5
N56-5272	42.0	40.4	41.3	42.8	40.4	41.0
Co56-208	42.3	42.9	42.0	45.2	41.0	42.3
Co56-226	42.3	43.0	41.0	40.3	39.7	40.0
Co56-262	42.0	41.5	40.0	43.0	38.8	40.1
Arthur Hopkins	42.0	39.2	39.8	41.8	41.3	40.8

Table 55. Height data for the strain in Preliminary Group VII, 1958

Strain	Willard, N.C.	Black-ville, S.C.	Experi-ment, Ga.	Gaines-ville, Fla.	Quincy, Fla.	Walnut Hill, Fla.	Stone-ville, Miss.
Jackson	46	40	28	37	35	34	46
Lee	28	32	27	24	22	27	35
D54-1102	38	28	28	37	29	30	36
D55-4099	44	33	35	31	30	34	44
D56-1929	28	27	24	18	19	21	32
D56-1939	36	33	25	32	27	27	40
D56-1972	20	23	24	15	17	21	30
D56-1985	35	26	24	18	22	26	29
D56-1986	24	23	23	22	17	22	31
D56-2049	24	28	32	15	14	25	36
F55-822	44	34	37	37	34	34	50
F55-861	44	40	40	38	35	30	50
N54-1935	44	34	27	29	29	27	36
N55-1483	42	42	35	32	27	32	41
N55-2934	46	39	40	40	33	30	49
N56-3652	42	37	36	38	32	34	44
N56-3680	44	36	26	31	25	29	44
N56-3741	38	32	27	30	24	31	38
N56-3748	42	32	27	27	30	30	40
N56-3869	38	31	33	33	25	29	36
N56-3884	30	27	26	29	22	24	38
N56-3901	38	28	30	32	26	28	41
N56-3918	34	34	30	31	20	29	37
N56-3924	40	32	31	36	28	30	43
N56-3950	40	30	34	34	29	32	43
N56-3979	42	32	36	32	21	29	43
N56-4370	40	38	30	33	30	31	48
N56-4373	42	35	30	34	28	30	45
N56-5243	40	37	32	28	29	28	38
N56-5249	48	40	30	35	30	37	50
N56-5270	42	34	28	29	27	29	37
N56-5272	44	34	30	33	28	31	44
Co56-208	38	35	28	31	28	29	40
Co56-226	40	36	30	34	29	29	43
Co56-262	42	33	31	33	27	29	40
Arthur Hopkins	56	42	50	57	32	46	57

Table 56. Seed quality scores for the strains in Preliminary Group VII, 1958

Strain	Willard, N.C.	Experiment, Ga.	Tallassee, Ala.	Gaines-ville, Fla.	Walnut Hill, Fla.	Stone-ville, Miss.
Jackson	1.5	2.0	1.0	1.0	1.0	2.0
Lee	1.0	2.0	1.0	1.5	1.0	1.5
D54-1102	1.5	2.0	2.0	1.5	1.0	2.0
D55-4099	1.5	2.0	1.0	1.0	2.0	2.0
D56-1929	1.0	2.0	2.0	2.0	1.0	2.0
D56-1939	1.5	2.0	2.0	1.0	1.0	2.0
D56-1972	1.5	2.0	1.0	2.0	1.0	1.5
D56-1985	1.0	1.0	1.0	2.5	1.0	2.0
D56-1986	1.0	1.5	2.0	1.5	2.0	2.0
D56-2049	1.5	2.0	2.0	3.0	1.0	2.0
F55-822	1.5	2.0	1.0	1.5	1.0	2.0
F55-861	1.5	2.0	1.0	1.0	1.0	2.0
N54-1935	1.0	1.5	1.0	1.5	1.0	2.0
N55-1483	1.5	2.0	2.0	1.0	2.0	2.5
N55-2934	1.0	3.0	2.0	1.0	1.0	2.0
N56-3652	1.5	2.0	2.0	2.0	2.0	2.0
N56-3680	2.0	2.0	2.0	3.0	2.0	2.5
N56-3741	2.0	2.0	2.0	2.0	2.0	2.5
N56-3748	2.0	2.0	1.0	2.5	2.0	2.0
N56-3869	1.5	1.0	2.0	2.0	1.0	2.0
N56-3884	1.0	2.0	2.0	2.0	1.0	2.0
N56-3901	1.0	2.0	2.0	2.5	1.0	1.5
N56-3918	1.5	1.5	2.0	2.0	3.0	2.0
N56-3924	1.5	1.0	2.0	3.0	1.0	2.0
N56-3950	1.0	2.0	1.0	1.5	2.0	2.0
N56-3979	1.5	2.0	2.0	2.0	1.0	2.0
N56-4370	2.0	2.0	2.0	2.5	2.0	2.0
N56-4373	1.5	2.0	1.0	2.5	1.0	2.0
N56-5243	1.5	2.0	2.0	1.5	1.0	2.0
N56-5249	1.5	1.5	1.0	1.0	2.0	2.0
N56-5270	1.0	2.0	2.0	2.0	1.0	2.0
N56-5272	1.5	2.0	1.0	1.5	2.0	2.0
Co56-208	1.5	2.0	2.0	3.0	2.0	2.0
Co56-226	1.5	2.0	1.0	2.5	1.0	2.0
Co56-262	1.5	2.0	2.0	2.0	1.0	2.0
Arthur Hopkins	1.5	2.0	2.0	1.5	2.0	2.0

UNIFORM GROUP VIII

1958

	Vareity or Strain	Parentage
1.	Bienville	Pelican #2 x Ogden
2.	Improved Pelican	Tanloxi x PI 60406
3.	J.E.W. 45	Selection from mixed seed lot
4.	Yelnanda 53-116	Nanda x Yelredo
5.	Jackson	Volstate(2) x Jackson
6.	La53-97-1	Pelican #2 x Ogden
7.	La56-8-4	Pelican #2 x Ogden
8.	La56-13-4	Pelican #2 x Ogden
9.	F55-217	D49-772 x Improved Pelican
10.	F55-310	D49-772 x Improved Pelican
11.	F55-375	D49-772 x Improved Pelican
12.	F55-1766	Jackson x D49-2491

Sixteen Uniform Group VIII nurseries were planted. Results of 13 of these are summarized in tables 57 through 63. Table 57 gives the general summary of the performance of these lines in 1958, as well as 2- and 3-year means for seed yield and oil and protein percentages.

This group included 5 named varieties, Bienville, Improved Pelican, J.E.W. 45, Yelnanda 53-116, and Jackson, along with 7 experimental lines. Of the named varieties, Bienville and Jackson have consistently out-yielded the other 3 varieties. However, because of their taller growth and later maturity, Improved Pelican and Yelnanda 53-116 may be able to be planted later than the other varieties. At the present time, Improved Pelican is producing excellent yields in south Florida. None of the Group VIII nurseries are planted that far South.

One experimental line, La53-97-1, has been grown for 3 years. Its performance has been good but is no better than that of Bienville.

Two lines, F55-310 and F55-1766, have been grown 2 years. These lines are the first bacterial pustule resistant lines to be included in Group VIII. Neither has appeared to be superior to Bienville or Jackson.

La56-8-4, La56-13-4, F55-217, and F55-375 were tested for the first time. All 4 lines produced very satisfactorily. F55-375 was the highest ranking strain for the 10 Southeast locations but yielded significantly less than Bienville at Baton Rouge.

Table 57. General summary of performance for the strains in Uniform Group VIII, 1958

	Bienville	Improved Pelican	J.E.W. 45	Yelnanda 53-116	Jack-son	La53-97-1
Seed Yield - 1958						
Southeast	30.0	22.6-	25.4	26.5	30.1	30.3
Delta and West	44.2	28.1-	33.2-	24.7-	43.9	46.9
- 1957-58						
Southeast	32.2	23.9	27.0	26.5	31.9	33.2
Delta and West	40.9	26.7	32.0	27.7	41.6	42.0
- 1956-58						
Southeast	33.3	24.8	27.7	27.5	32.9	33.1
Oil Content - 1958	21.5	20.7-	20.4-	20.0-	22.1+	20.9-
- 1957-58	21.6	20.4	20.3	19.8	22.2	21.3
- 1956-58	21.5	20.5	20.3	19.5	22.0	21.2
Protein Content - 1958	41.9	41.3	41.7	45.6+	40.5-	42.0
- 1957-58	41.9	42.5	42.2	45.3	40.9	42.3
- 1956-58	41.8	42.5	42.2	45.3	40.9	42.1
Seed Size	15.5	12.5-	18.2+	17.9+	16.1	16.7+
Maturity Index	10-28	+6	-2	+2	0	-1
Height	39	57	41	43	38	40
Bacterial Pustule	3.0	4.0	3.0	4.0	3.0	3.0
Target Spot	1.7	2.0	2.3	4.0	1.0	1.0
Shattering	1.0	1.0	2.0	1.0	1.0	1.0

Table 57. (Continued)

	La56-8-4	La56-13-4	F55-217	F55-310	F55-375	F55-1766
Seed Yield - 1958						
Southeast	31.5	30.0	30.4	29.0	32.5	29.9
Delta and West	43.7	43.1	40.8	38.2-	44.7	40.3
- 1957-58						
Southeast				30.3		31.4
Delta and West				40.2		41.0
- 1956-58						
Southeast						
Oil Content - 1958	21.3	22.0	21.5	21.1	21.0	21.3
- 1957-58				21.1		22.0
- 1956-58						
Protein Content - 1958	41.6	41.2	41.4	41.2	42.1	42.0
- 1957-58				41.8		42.1
- 1956-58						
Seed Size	16.5	16.7+	16.4	14.0-	17.2+	15.0
Maturity Index	+1	+2	+2	+2	0	0
Height	39	40	45	41	38	42
Bacterial Pustule	3.0	3.0	1.0	1.0	1.0	1.0
Target Spot	1.7	1.0	1.0	1.0	1.0	1.0
Shattering	1.0	1.0	1.0	1.0	1.0	1.0

Table 58. Seed yield, in bushels per acre, for the strains in Uniform Group VIII, 1958

Location	Bienville	Improved Pelican	J.E.W. 45	Yelnanda 53-116	Jackson	La53-97-1	La56-8-4
			Southeast				
Florence, S. C.	28.4	26.6	33.4	32.1	31.6	31.9	34.4
Hartsville, S. C.	43.3	37.2-	40.0	40.4	48.6+	43.4	40.9
Blackville, S. C.	23.0	15.4-	23.5	24.9	27.8	26.7	32.9+
Experiment, Ga.	18.1	15.7	17.0	15.7	19.1	19.8	19.1
Tallassee, Ala.	36.4	28.8	26.1	29.9	30.2	32.5	36.7
Tifton, Ga.	15.3	14.1	13.8	13.0	10.5-	16.1	15.6
Gainesville, Fla.	24.3	12.4-	15.3-	17.2-	26.3	25.8	27.1
Quincy, Fla.	21.4	18.4	18.6	21.4	21.7	25.5+	20.9
Walnut Hill, Fla.	48.7	30.5-	40.9-	38.9-	52.3	41.9-	47.5
Baton Rouge, La.	40.9	27.0-	25.2-	31.5-	33.4-	39.2	39.6
Mean	30.0	22.6-	25.4	26.5	30.1	30.3	31.5
			Delta				
Stoneville, Miss.	41.1	25.0-	30.3-	22.9-	39.5	42.5	42.2
Curtis, La.	47.3	31.2-	36.0-	26.6-	48.3	51.3	45.1
Chillicothe, Texas 1/	6.7	5.3	7.8	4.3	7.2	7.1	7.9
Mean	44.2	28.1-	33.2-	24.7-	43.9	46.9	43.7

1/ Not included in mean.

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

Table 58. (Continued)

Location	La56-13-4	F55-217	F55-310	F55-375	F55-1766	L.S.D. (.05)	C.V.
			Southeast				
Florence, S. C.	32.9	33.5	34.7	35.1	36.2	N.S.	10%
Hartsville, S. C.	41.9	46.0	43.4	47.3	46.7	4.3	6%
Blackville, S. C.	23.6	27.1	25.2	37.1+	24.1	7.4	17%
Experiment, Ga.	19.6	17.9	18.5	19.1	14.9-	3.4	8%
Tallassee, Ala.	37.5	36.8	35.1	36.4	28.9	N.S.	14%
Tifton, Ga.	15.6	12.2-	13.9	13.1	15.4	2.6	11%
Gainesville, Fla.	25.9	32.0+	29.1+	28.9+	31.9+	4.5	11%
Quincy, Fla.	19.7	17.1-	15.1-	23.4	22.2	3.2	9%
Walnut Hill, Fla.	45.4	46.0	40.9-	48.5	45.2	6.2	8%
Baton Rouge, La.	37.4-	35.0-	34.3-	36.6-	33.7-	3.2	5%
Mean	30.0	30.4	29.0	32.5	29.9	4.9	
			Delta				
Stoneville, Miss.	41.1	38.7	37.0	40.0	38.1	5.4	9%
Curtis, La.	45.1	43.0	39.4	49.4	42.5	8.7	12%
Chillicothe, Texas[1/]	7.4	5.3	7.1	5.6	7.4	1.8	16%
Mean	43.1	40.8	38.2-	44.7	40.3	5.0	

Table 59. Chemical composition and seed size for the strains in Uniform Group VIII, 1958

Location	Bienville	Improved Pelican	J.E.W. 45	Yelnanda 53-116	Jackson	La53-97-1
			Oil Percentage			
Florence, S. C.	21.2	19.6	19.2	19.3	20.9	20.5
Hartsville, S. C.	21.5	19.2	19.7	19.5	22.2	21.1
Blackville, S. C.	19.3	19.8	18.2	19.3	20.5	19.3
Experiment, Ga.	22.8	22.1	21.3	20.0	22.8	22.1
Tallassee, Ala.	22.2	22.2	21.7	20.7	22.4	21.2
Gainesville, Fla.	21.2	21.1	21.4	20.1	22.9	20.5
Baton Rouge, La.	22.1	21.1	21.1	21.3	23.2	21.8
Mean	21.5	20.7-	20.4-	20.0-	22.1+	20.9-
			Protein Percentage			
Florence, S. C.	40.9	39.2	41.6	44.9	41.1	41.7
Hartsville, S. C.	40.2	42.0	41.5	45.1	39 3	41.9
Blackville, S. C.	45.1	43.5	43.1	45.3	41.6	41.1
Experiment, Ga.	40.6	36.9	39.1	45.3	40 5	41.8
Tallassee, Ala.	43.0	42.3	41.5	46.6	41.8	42.8
Gainesville, Fla.	44.2	44.3	44.3	49.0	41.2	44.3
Baton Rouge, La.	39.6	40.9	40.5	42.7	38.0	40.7
Mean	41.9	41.3	41.7	45.6+	40.5-	42.0
			Grams Per 100 Seeds			
Florence, S. C.	14.0	13.0	18.0	18.0	16.0	16.0
Hartsville, S. C.	16.0	14.0	21.0	21.0	17.0	18.0
Blackville, S. C.	12.0	12.0	14.1	15.4	12.4	14.1
Experiment, Ga.	18.2	11.6	18.2	18.4	17.0	19.5
Tallassee, Ala.	17.3	13.2	19.9	18.8	18.8	18.6
Gainesville, Fla.	14.8	11.6	17.2	15.4	14.7	14.6
Baton Rouge, La.	16.3	12.3	19.0	18.0	17.0	16.3
Mean	15.5	12.5-	18.2+	17.9+	16.1	16.7+

Table 59. (Continued)

Location	La56-8-4	La56-13-4	F55-217	F55-310	F55-375	F55-1766	L.S.D. (.05)
			Oil Percentage				
Florence, S. C.	21.4	21.7	20.2	20.5	20.7	21.3	
Hartsville, S. C.	21.8	21.8	21.1	21.1	20.8	22.3	
Blackville, S. C.	20.4	20.5	19.9	18.4	19.8	18.5	
Experiment, Ga.	22.6	22.9	22.3	22.2	21.7	22.6	
Tallassee, Ala.	22.6	22.5	22.4	22.1	21.7	22.6	
Gainesville, Fla.	21.7	21.7	22.8	21.8	22.1	22.5	
Baton Rouge, La.	22.4	23.2	21.6	21.6	20.4	22.8	
Mean	21.8	22.0	21.5	21.1	21.0	21.8	0.6
			Protein Percentage				
Florence, S. C.	40.6	39.5	40.5	40.6	40.6	41.5	
Hartsville, S. C.	40.8	40.4	40.8	40.4	41.0	39.6	
Blackville, S. C.	43.8	43.7	42.9	43.5	43.9	44.4	
Experiment, Ga.	40.1	40.0	40.0	40.1	41.0	41.0	
Tallassee, Ala.	42.3	41.5	41.4	41.6	43.1	43.8	
Gainesville, Fla.	44.8	43.5	43.3	44.0	42.9	44.2	
Baton Rouge, La.	39.1	39.8	41.2	38.4	42.0	39.4	
Mean	41.6	41.2	41.4	41.2	42.1	42.0	1.1
			Grams Per 100 Seeds				
Florence, S. C.	15.0	16.0	15.0	13.0	16.0	15.0	
Hartsville, S. C.	17.0	17.0	18.0	15.0	18.0	15.0	
Blackville, S. C.	13.5	14.8	14.6	11.4	16.6	10.8	
Experiment, Ga.	18.6	19.0	17.3	15.6	19.1	16.9	
Tallassee, Ala.	18.1	17.1	17.1	14.6	18.2	14.5	
Gainesville, Fla.	16.6	14.8	16.3	14.7	15.7	16.6	
Baton Rouge, La.	17.0	18.3	16.3	13.5	17.0	16.0	
Mean	16.5	16.7+	16.4	14.0-	17.2+	15.0	1.1

Table 60. Relative maturity data, days earlier (-) or later (+) than Bienville, for the strains in Uniform Group VIII, 1958

Location	Date Planted	Bienville Matured	Improved Pelican	J.E.W. 45	Yelnanda 53-116	Jackson
			Southeast			
Florence, S. C.	5-28	11-6	+3	-4	-3	-2
Hartsville, S. C.	5-31	11-7	+8	-3	+5	-3
Blackville, S. C.	6-5	11-4	+2	-4	+1	+1
Experiment, Ga.	5-16	10-27	-2	-5	+3	0
Tallassee, Ala.	5-15	10-20	+7	-2	+3	+2
Gainesville, Fla.	5-27	10-20	+6	-1	-1	-1
Quincy, Fla.	6-30	10-22	+8	0	+8	+5
Walnut Hill, Fla.	6-4	10-22	+6	-1	+1	-1
Baton Rouge, La.	5-27	10-28	+13	0	+4	-1
Mean		10-28	+6	-2	+2	0
			Delta			
Curtis, La.	5-23	10-30	+8	-2	+3	-2

Table 60. (Continued)

Location	La53-97-1	La56-8-4	La56-13-4	F55-217	F55-310	F55-375	F55-1766
			Southeast				
Florence, S. C.	-3	+1	+3	-1	+1	-2	-1
Hartsville, S. C.	-1	+1	0	-1	+2	-4	-5
Blackville, S. C.	-3	-3	+1	-1	+1	+1	-5
Experiment, Ga.	-2	+1	0	0	-2	-2	0
Tallassee, Ala.	-1	+2	+3	+4	+1	+1	0
Gainesville, Fla.	0	+1	+1	+2	+1	0	-1
Quincy, Fla.	+5	+5	+5	+5	+8	+5	+5
Walnut Hill, Fla.	0	0	0	+1	+2	-1	-1
Baton Rouge, La.	0	-2	+5	+7	+6	+5	+7
Mean	-1	+1	+2	+2	+2	0	0
			Delta				
Curtis, La.	0	0	+2	+5	+5	+4	+6

Table 61. Height data for the strains in Uniform Group VIII, 1958

Location	Bienville	Improved Pelican	J.E.W. 45	Yelnanda 53-116	Jackson	La53-97-1
			Southeast			
Florence, S. C.	25	49	34	37	24	28
Hartsville, S. C.	42	63	41	46	39	42
Blackville, S. C.	44	56	41	44	44	45
Experiment, Ga.	40	42	48	48	36	42
Tallassee, Ala.	48	64	44	54	48	49
Tifton, Ga.	30	41	31	31	25	30
Gainesville, Fla.	43	58	42	46	39	42
Quincy, Fla.	30	46	31	30	28	34
Walnut Hill, Fla.	38	62	40	43	37	42
Baton Rouge, La.	42	65	46	45	40	42
Mean	38	55	40	42	36	40
			Delta			
Stoneville, Miss.	46	60	46	48	46	41
Curtis, La.	46	78	44	48	47	44
Mean	46	69	45	48	47	43

Table 61. (Continued)

Location	La56-8-4	La56-13-4	F55-217	F55-310	F55-375	F55-1766
			Southeast			
Florence, S. C.	29	28	36	29	24	32
Hartsville, S. C.	40	41	46	44	40	43
Blackville, S. C.	40	45	44	45	38	45
Experiment, Ga.	36	42	52	37	34	38
Tallassee, Ala.	48	49	56	50	48	49
Tifton, Ga.	29	30	29	32	28	31
Gainesville, Fa.	45	44	47	40	44	44
Quincy, Fla.	32	32	37	33	30	37
Walnut Hill, Fla.	43	37	42	37	39	42
Baton Rouge, La.	40	40	48	48	42	46
Mean	38	39	44	40	37	41
			Delta			
Stoneville, Miss.	46	48	54	48	46	48
Curtis, La.	44	46	47	43	40	44
Mean	45	47	51	46	43	46

Table 62. Lodging scores for the strains in Uniform Group VIII, 1958

Location	Bienville	Improved Pelican	J.E.W. 45	Yelnanda 53-116	Jackson	La53-97-1
			Southeast			
Florence, S. C.	1.3	4.0	3.0	3.0	1.0	1.3
Hartsville, S. C.	2.8	3.7	3.7	2.9	2.0	3.2
Blackville, S. C.	3.3	2.0	3.3	2.6	2.0	2.3
Experiment, Ga.	2.0	2.0	2.0	2.0	1.0	2.0
Tallassee, Ala.	2.0	3.0	4.0	2.0	1.0	2.0
Gainesville, Fla.	2.0	3.3	4.3	2.7	1.7	2.0
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	2.0	3.0	2.0	3.0	1.0	2.0
Baton Rouge, La.	3.0	4.0	4.0	3.0	3.0	3.0
			Delta			
Stoneville, Miss.	4.0	5.0	4.0	4.0	3.0	4.0
Curtis, La.	3.0	3.0	2.0	3.0	2.0	2.0

Table 62. (Continued)

Location	La56-8-4	La56-13-4	F55-217	F55-310	F55-375	F55-1766
			Southeast			
Florence, S. C.	1.7	1.3	1.0	1.3	1.0	1.0
Hartsville, S. C.	2.9	2.3	2.6	2.0	2.0	2.7
Blackville, S. C.	3.0	3.0	2.0	2.6	2.0	1.6
Experiment, Ga.	2.0	2.0	2.0	2.0	1.0	2.0
Tallassee, Ala.	1.0	2.0	2.0	2.0	1.0	1.0
Gainesville, Fla.	2.3	2.0	2.0	2.7	1.3	2.3
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	1.0	1.0
Baton Rouge, La.	3.0	3.0	3.0	3.0	3.0	3.0
			Delta			
Stoneville, Miss.	3.0	3.0	3.0	3.0	3.0	4.0
Curtis, La.	3.0	3.0	2.0	2.0	3.0	3.0

Table 63. Seed quality scores for the strains in Uniform Group VIII, 1958

Location	Bienville	Improved Pelican	J.E.W. 45	Yelnanda 53-116	Jackson	La53-97-1
			Southeast			
Hartsville, S. C.	1.0	1.0	1.0	1.5	1.0	1.0
Experiment, Ga.	1.3	1.0	1.3	1.7	2.0	1.3
Tallassee, Ala.	1.0	1.0	2.0	1.0	1.0	1.0
Gainesville, Fla.	1.3	1.7	3.0	2.3	2.7	1.3
Quincy, Fla.	1.0	4.0	4.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	2.0	2.0	2.0	1.0	1.0
Baton Rouge, La.	1.0	1.0	2.0	2.0	1.0	1.0
			Delta			
Stoneville, Miss.	2.0	2.0	2.0	2.3	2.0	2.0
Curtis, La.	1.0	2.0	2.0	2.0	3.0	2.0

Table 63. (Continued)

Location	La56-8-4	La56-13-4	F55-217	F55-310	F55-375	F55-1766
			Southeast			
Hartsville, S. C.	1.0	1.0	1.0	1.0	1.0	1.0
Experiment, Ga.	1.3	1.3	1.7	2.0	1.7	2.0
Tallassee, Ala.	1.0	1.0	1.0	1.0	2.0	1.0
Gainesville, Fla.	1.0	1.0	2.7	2.0	2.0	2.7
Quincy, Fla.	4.0	1.0	2.0	1.0	1.0	1.0
Walnut Hill, Fla.	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	2.0
			Delta			
Stoneville, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
Curtis, La.	1.0	1.0	2.0	1.0	3.0	1.0

PRELIMINARY GROUP VIII

1958

The Preliminary Group VIII nursery was grown at 4 locations, plus a single plot of each strain at Stoneville. This was the first Preliminary Group VIII nursery. Stands were somewhat irregular at Florence. A late season drouth reduced the yield at Experiment, Georgia, Gainesville, and Baton Rouge. Table 64 lists the parentage for each strain. The mean performance for the several locations, along with the disease reaction at Stoneville, is summarized in table 65. Seed yield, oil and protein percentage, height, and seed quality data are presented by locations in tables 66 through 70.

The strain x location interaction for seed yield was highly significant. Differences between strains were nonsignificant. Twenty-eight of the lines tested were resistant to bacterial pustule. Twenty-three of these were also low in target spot infection. Nearly all of the lines appeared to hold their seed satisfactorily.

Among the lines which appear to merit testing in the Uniform Group VIII nursery are Co56-247, F55-377, F55-941, F55-978, F56-3460, and F56-3492.

Table 64. Parentage of strains in Preliminary Group VIII, 1958

	Strain	Parentage	Generation Composited
1.	Bienville	Pelican #2 x Ogden	
2.	J.E.W. 45	Selection from mixed seed lot	
3.	Jackson	Volstate(2) x Palmetto	
4.	Nela	Selection from Mamotan 6680	
5.	Co56-215	Majos x Lee	F_5
6.	Co56-247	Majos x Lee	F_5
7.	Co56-253	Majos x Lee	F_5
8.	Co56-280	Majos x Lee	F_5
9.	Co56-281	Majos x Lee	F_5
10.	Co56-289	Majos x Lee	F_5
11.	Co56-308	Majos x D49-772	F_5
12.	F55-106	D49-772 x Improved Pelican	F_4
13.	F55-109	D49-772 x Improved Pelican	F_4
14.	F55-122	D49-772 x Improved Pelican	F_4
15.	F55-204	D49-772 x Improved Pelican	F_4
16.	F55-209	D49-772 x Improved Pelican	F_4
17.	F55-284	D49-772 x Improved Pelican	F_4
18.	F55-377	D49-772 x Improved Pelican	F_4
19.	F55-500	D49-772 x Improved Pelican	F_4
20.	F55-978	D49-772 x D50-1633	F_4
21.	F55-941	D49-772 x D50-1633	F_4
22.	F55-1012	D49-772 x D50-1633	F_4
23.	F55-1027	D49-772 x D50-1633	F_4
24.	F55-1564	Improved Pelican(2) x D49-772	F_4
25.	F56-3223	D49-772 x Improved Pelican	F_5
26.	F56-3226	D49-772 x Improved Pelican	F_5
27.	F56-3316	D49-772 x Improved Pelican	F_5
28.	F56-3460	Jackson x D49-2491	F_5
29.	F56-3492	Jackson x D49-2491	F_5
30.	F56-3570	N42-26 x Seminole	F_6
31.	PI 197,182		
32.	PI 203,405		
33.	PI 219,781		
34.	J.E.W. 57-25	Yelnanda x Roanoke	
35.	J.E.W. 57-42	Yelnanda x Roanoke	
36.	J.E.W. 57-47	Yelnanda x Roanoke	

Table 65. General summary of performance for the strains grown in Preliminary Group VIII, 1958

Strain	Seed Yield	Maturity	Ht.	Percent Oil	Percent Protein	Bact. Pustule	Target Spot	Shattering
Bienville	28.4	10-28	40	21.9	40.9	3.0	2.0	1.0
J.E.W. 45	19.6	+1	40	21.0-	40.9	3.0	2.0	2.0
Jackson	24.8	-1	38	22.6	39.0-	3.0	1.0	1.0
Nela	22.5	0	39	21.4	41.2	3.0	3.0	1.0
Co56-215	21.5	+5	33	20.8-	40.0	1.0	1.0	1.0
Co56-247	25.0	+4	38	20.5-	41.9	1.0	1.0	1.0
Co56-253	21.2	+4	36	20.7-	42.1	1.0	1.0	1.0
Co56-280	18.8	+1	24	21.6	38.0-	1.0	2.0	1.0
Co56-281	22.7	+5	29	20.4-	40.2	1.0	1.0	1.0
Co56-289	19.4	+6	28	20.0-	40.8	1.0	2.0	1.0
Co56-308	21.4	+6	38	20.1-	39.5	1.0	1.0	1.0
F55-106	21.5	+9	55	21.2	39.1	1.0	1.0	1.0
F55-109	20.9	+5	56	20.6-	39.5	1.0	1.0	1.0
F55-122	21.0	+3	54	21.6	42.0	1.0	1.0	1.0
F55-204	22.0	+3	42	22.0	39.5	1.0	2.0	1.0
F55-209	22.9	+2	40	21.1	42.2	1.0	1.0	1.0
F55-284	21.0	+4	48	20.8-	40.1	1.0	1.0	1.0
F55-377	28.8	+6	43	21.5	41.4	1.0	2.0	1.0
F55-500	24.6	0	45	21.1	41.7	1.0	3.0	1.0
F55-978	27.1	+4	41	21.4	41.2	1.0	2.0	1.0
F55-941	26.5	+3	45	20.6-	40.4	1.0	1.0	1.0
F55-1012	22.4	+2	41	21.4	40.1	1.0	2.0	1.0
F55-1027	23.1	+2	44	20.6-	42.3	1.0	2.0	1.0
F55-1564	20.1	0	55	21.1	43.1+	1.0	3.0	1.0
F56-3223	24.2	-3	41	22.4	39.1	1.0	2.0	1.0
F56-3226	21.6	-1	42	21.3	40.4	1.0	1.0	1.0
F56-3316	24.2	+6	44	20.8-	40.8	1.0	1.0	1.0
F56-3460	24.8	+5	43	21.7	40.1	1.0	1.0	1.0
F56-3492	26.9	+3	37	22.8	38.7-	1.0	1.0	1.0
F56-3570	24.0	+3	43	20.1-	42.8	3.0	2.0	1.0
PI 197,182	16.9	+10	53	18.7-	41.1	4.0	2.0	1.0
PI 203,405	21.4	+6	46	19.5-	42.0	3.0	1.0	2.0
PI 219,781	20.7	+3	41	21.6	43.1+	3.0	3.0	3.0
J.E.W. 57-25	20.6	+5	38	20.8-	40.7	1.0	3.0	1.0
J.E.W. 57-42	19.8	+1	43	20.2-	40.5	1.0	4.0	1.0
J.E.W. 57-47	19.8	+3	49	21.0-	40.1	1.0	4.0	1.0
L.S.D. (.05)	N.S.			0.8	1.9			
L.S.D. (.01)				1.1	2.5			

Table 66. Seed yield, in bushels per acre, for the strains in Preliminary Group VIII, 1958

Strain	Florence, S.C.	Experiment, Ga.	Gainesville, Fla.	Baton Rouge, La.	Stoneville, Miss[1/]
Bienville	35.6	13.5	23.2	41.3	32.3
J.E.W. 45	24.0-	16.6	14.8	23.5-	27.3
Jackson	19.3-	16.7	27.0	36.3	36.7
Nela	34.2	13.1	20.5	22.3-	25.9
Co56-215	24.6-	16.3	17.4	27.8-	32.5
Co56-247	28.0	15.4	22.1	34.5-	34.5
Co56-253	23.6-	17.1	21.3	22.9-	35.6
Co56-280	20.9-	15.0	16.3	23.2-	23.7
Co56-281	25.5-	14.0	21.9	29.6-	30.9
Co56-289	22.4-	15.4	14.3	25.7-	24.8
Co56-308	20.8-	15.4	24.8	24.7-	32.2
F55-106	23.3-	15.2	19.1	28.6-	29.6
F55-109	25.4-	14.6	17.6	26.0-	29.1
F55-122	24.6-	17.1	18.1	24.4-	33.0
F55-204	19.7-	15.1	21.3	32.0-	33.3
F55-209	18.4-	15.5	25.7	32.0-	34.2
F55-284	25.2-	15.6	17.8	25.6-	34.9
F55-377	25.5-	18.0	37.2+	34.7-	34.4
F55-500	29.6	18.6	14.5	35.8	29.1
F55-978	27.0	16.7	29.6	35.1	31.3
F55-941	26.6	14.7	27.2	37.4	37.7
F55-1012	18.8-	14.7	30.4	25.6-	35.0
F55-1027	24.9-	12.7	26.1	29.0-	32.1
F55-1564	26.5	10.8	17.0	26.3-	25.3
F56-3223	13.9-	16.0	32.3	34.8-	39.7
F56-3226	17.4-	16.3	22.3	30.5-	38.5
F56-3316	20.5-	14.6	35.0+	26.9-	44.0
F56-3460	28.4	13.4	24.1	33.3-	31.9
F56-3492	29.2	11.8	28.6	37.9	46.0
F56-3570	26.0	17.3	27.1	25.7-	32.7
PI 197,182	14.9-	12.2	11.1-	29.6-	24.4
PI 203,405	22.9-	13.7	21.0	28.1-	27.6
PI 219,781	30.1	13.9	16.4	22.6-	18.7
J.E.W. 57-25	23.7-	11.4	27.7	19.6-	28.2
J.E.W. 57-42	28.4	16.0	14.4	20.5-	26.3
J.E.W. 57-47	19.7-	16.0	18.7	25.0-	25.6
L.S.D. (.05	10.0	N.S.	10.1	6.4	
C.V.	20%	17%	22%	11%	

1/ Not included in combined analysis - only one plot grown of each strain.

Table 67. Oil percentages for the strains in Preliminary Group VIII, 1958

Strain	Florence, S.C.	Experiment, Ga.	Gainesville, Fla.	Baton Rouge, La.
Bienville	21.5	22.7	21.8	21.7
J.E.W. 45	20.1	21.9	20.9	21.2
Jackson	21.4	23.1	22.5	23.3
Nela	20.3	21.8	21.6	22.0
Co56-215	19.8	20.3	20.7	22.3
Co56-247	19.9	19.7	20.9	21.5
Co56-253	19.8	20.5	21.0	21.5
Co56-280	20.2	20.7	22.2	23.1
Co56-281	19.2	19.1	20.7	22.6
Co56-289	18.9	19.0	19.7	22.3
Co56-308	18.8	19.1	21.4	21.3
F55-106	19.8	22.4	21.4	21.4
F55-109	19.2	20.7	21.0	21.4
F55-122	21.5	22.2	20.6	21.9
F55-204	21.4	23.1	20.9	22.5
F55-209	20.7	20.4	21.6	21.5
F55-284	20.3	20.3	21.3	21.1
F55-377	21.0	20.5	22.2	22.2
F55-500	21.4	21.6	20.0	21.4
F55-978	20.6	20.6	22.4	22.1
F55-941	19.5	20.1	21.7	21.0
F55-1012	20.2	20.6	23.1	21.8
F55-1027	19.6	20.1	22.0	20.8
F55-1564	20.6	20.4	21.6	21.6
F56-3223	20.8	23.5	23.2	22.2
F56-3226	20.0	20.3	22.5	22.2
F56-3316	20.0	21.1	21.8	20.3
F56-3460	21.4	21.2	21.5	22.5
F56-3492	22.9	21.6	22.9	23.7
F56-3570	19.0	20.8	20.0	20.5
PI 197,182	17.2	19.1	18.9	19.5
PI 203,405	18.4	20.0	19.1	20.5
PI 219,781	21.2	20.9	21.7	22.7
J.E.W. 57-25	20.7	19.1	21.7	21.8
J.E.W. 57-42	20.4	18.6	20.1	21.7
J.E.W. 57-47	20.5	20.1	21.1	22.4

Table 68. Protein percentages for the strains in Preliminary Group VIII, 1958

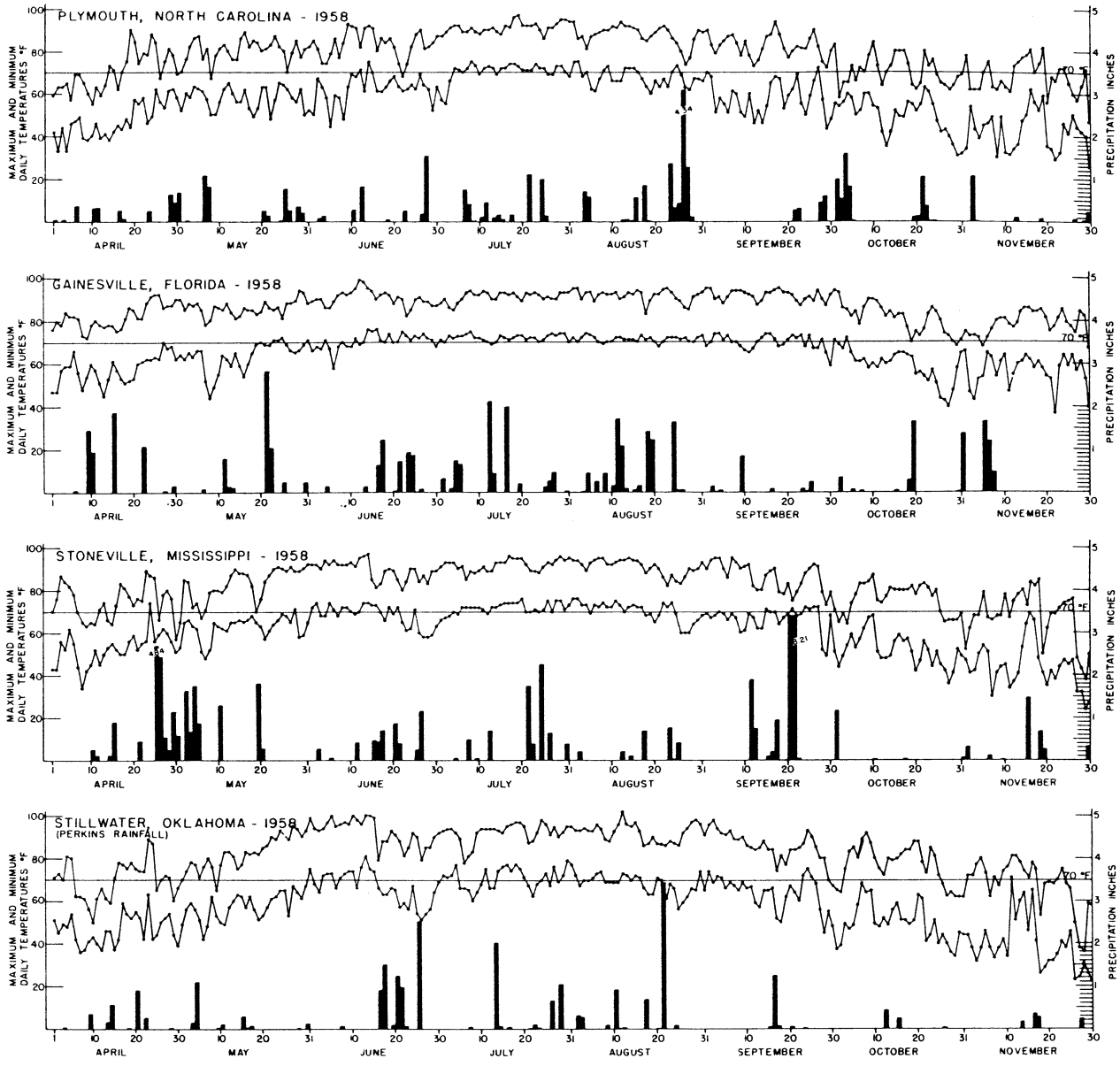
Strain	Florence, S.C.	Experiment, Ga.	Gainesville, Fla.	Baton Rouge, La.
Bienville	39.3	39.8	44.9	39.6
J.E.W. 45	40.4	37.3	45.0	40.7
Jackson	39.4	39.3	39.3	38.0
Nela	39.3	39.9	44.0	41.6
Co56-215	38.2	38.0	44.8	39.1
Co56-247	39.4	41.4	45.2	41.5
Co56-253	40.6	41.3	45.0	41.5
Co56-280	36.7	37.5	41.0	36.8
Co56-281	39.8	37.8	43.4	39.8
Co56-289	38.1	40.1	44.4	40.4
Co56-308	39.4	37.4	42.3	39.0
F55-106	38.2	33.0	44.0	41.0
F55-109	38.6	35.6	42.8	41.1
F55-122	39.4	40.1	46.0	42.5
F55-204	38.1	33.4	45.9	40.7
F55-209	40.1	41.1	45.4	42.2
F55-284	38.6	36.4	44.0	41.3
F55-377	39.5	40.0	43.8	42.1
F55-500	39.4	38.7	46.7	41.8
F55-978	39.5	40.0	43.3	42.1
F55-941	38.9	38.4	43.0	41.4
F55-1012	39.7	39.2	41.6	39.9
F55-1027	41.0	41.0	44.1	42.9
F55-1564	40.3	42.8	45.9	43.3
F56-3223	38.7	35.6	41.6	40.6
F56-3226	38.5	38.5	43.8	40.7
F56-3316	38.8	37.4	42.3	44.6
F56-3460	37.8	37.9	44.5	40.1
F56-3492	36.7	39.5	41.3	37.3
F56-3570	41.0	41.4	45.1	43.6
PI 197,182	40.0	37.9	43.9	42.4
PI 203,405	41.3	38.9	45.6	42.1
PI 219,781	40.9	42.4	46.1	43.1
J.E.W. 57-25	38.4	39.7	43.1	41.4
J.E.W. 57-42	37.9	37.8	46.2	40.3
J.E.W. 57-47	38.5	37.8	43.9	40.2

Table 69. Height data for the strains in Preliminary Group VIII, 1958

Strain	Florence, S.C.	Experiment, Ga.	Gainesville, Fla.	Baton Rouge, La.	Stoneville, Miss.
Bienville	27	41	45	44	48
J.E.W. 45	25	40	41	44	52
Jackson	17	40	37	48	50
Nela	29	40	38	42	48
Co56-215	20	30	35	36	42
Co56-247	23	34	43	42	46
Co56-253	25	36	38	38	42
Co56-280	14	26	21	22	36
Co56-281	17	24	30	36	36
Co56-289	20	26	27	33	36
Co56-308	22	35	42	41	52
F55-106	41	54	55	63	60
F55-109	41	46	62	68	64
F55-122	41	48	60	66	54
F55-204	25	42	42	48	54
F55-209	22	47	41	38	54
F55-284	35	46	47	56	54
F55-377	26	44	47	50	48
F55-500	34	39	45	54	54
F55-978	30	36	46	48	46
F55-941	35	42	45	52	52
F55-1012	19	46	46	44	50
F55-1027	30	44	44	50	54
F55-1564	35	48	65	62	66
F56-3223	20	45	42	46	52
F56-3226	23	45	45	45	54
F56-3316	26	47	45	50	54
F56-3460	27	40	47	52	50
F56-3492	23	38	39	38	46
F56-3570	28	48	41	48	48
PI 197,182	41	46	52	65	62
PI 203,405	34	44	47	50	54
PI 219,781	32	38	41	48	46
J.E.W. 57-25	22	40	39	39	48
J.E.W. 57-42	28	40	43	48	54
J.E.W. 57-47	39	46	47	58	54

Table 70. Seed quality scores for the strains in Preliminary Group VIII, 1958

Strain	Experiment, Ga.	Gainesville, Fla.	Baton Rouge, La.	Stoneville, Miss.
Bienville	1.0	2.5	2.0	2.0
J.E.W. 45	1.0	3.0	1.0	2.0
Jackson	2.0	3.0	2.0	2.0
Nela	1.0	3.0	1.0	2.0
Co56-215	1.0	2.0	2.0	2.0
Co56-247	1.0	3.0	2.0	2.0
Co56-253	2.0	2.5	1.0	2.0
Co56-280	1.5	2.5	1.0	2.0
Co56-281	2.0	3.0	1.0	2.0
Co56-289	1.0	2.5	1.0	2.0
Co56-308	1.5	3.0	2.0	2.0
F55-106	1.0	1.5	2.0	2.0
F55-109	1.0	2.0	1.0	2.0
F55-122	1.0	3.0	3.0	2.0
F55-204	1.0	2.0	1.0	2.0
F55-209	1.5	2.0	1.0	2.0
F55-284	1.0	2.0	3.0	2.0
F55-377	1.0	2.0	1.0	2.0
F55-500	1.0	2.5	2.0	2.0
F55-978	2.0	3.0	2.0	3.0
F55-941	2.0	4.0	3.0	3.0
F55-1012	2.0	3.0	3.0	2.0
F55-1027	2.0	3.0	2.0	2.0
F55-1564	2.0	2.5	1.0	2.0
F56-3223	1.0	3.5	2.0	2.0
F56-3226	1.0	3.0	1.0	2.0
F56-3316	1.0	1.5	2.0	2.0
F56-3460	1.5	3.0	3.0	2.0
F56-3492	2.0	3.0	3.0	2.0
F56-3570	1.0	2.0	2.0	2.0
PI 197,182	1.5	2.0	2.0	3.0
PI 203,405	1.0	2.5	1.0	2.0
PI 219,781	1.5	3.0	1.0	2.0
J.E.W. 57-25	1.5	2.0	1.0	2.0
J.E.W. 57-42	1.5	3.0	2.0	2.0
J.E.W. 57-47	1.0	2.5	1.0	2.0


PLYMOUTH, NORTH CAROLINA - 1958
GAINESVILLE, FLORIDA - 1958
STONEVILLE, MISSISSIPPI - 1958
STILLWATER, OKLAHOMA - 1958
(PERKINS RAINFALL)
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
70 °F
4.34
4.54
3.21
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER