U. S. REGIONAL SOYBEAN LABORATORY
URBANA, ILLINOIS

RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS, 1956 PART II. SOUTHERN STATES

UNITED STATES DEPARTMENT OF AGRICULTURE
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FIELD CROPS RESEARCH BRANCH
COOPERATING WITH
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RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS

PART II. SOUTHERN STATES

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1956

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INTRODUCTION

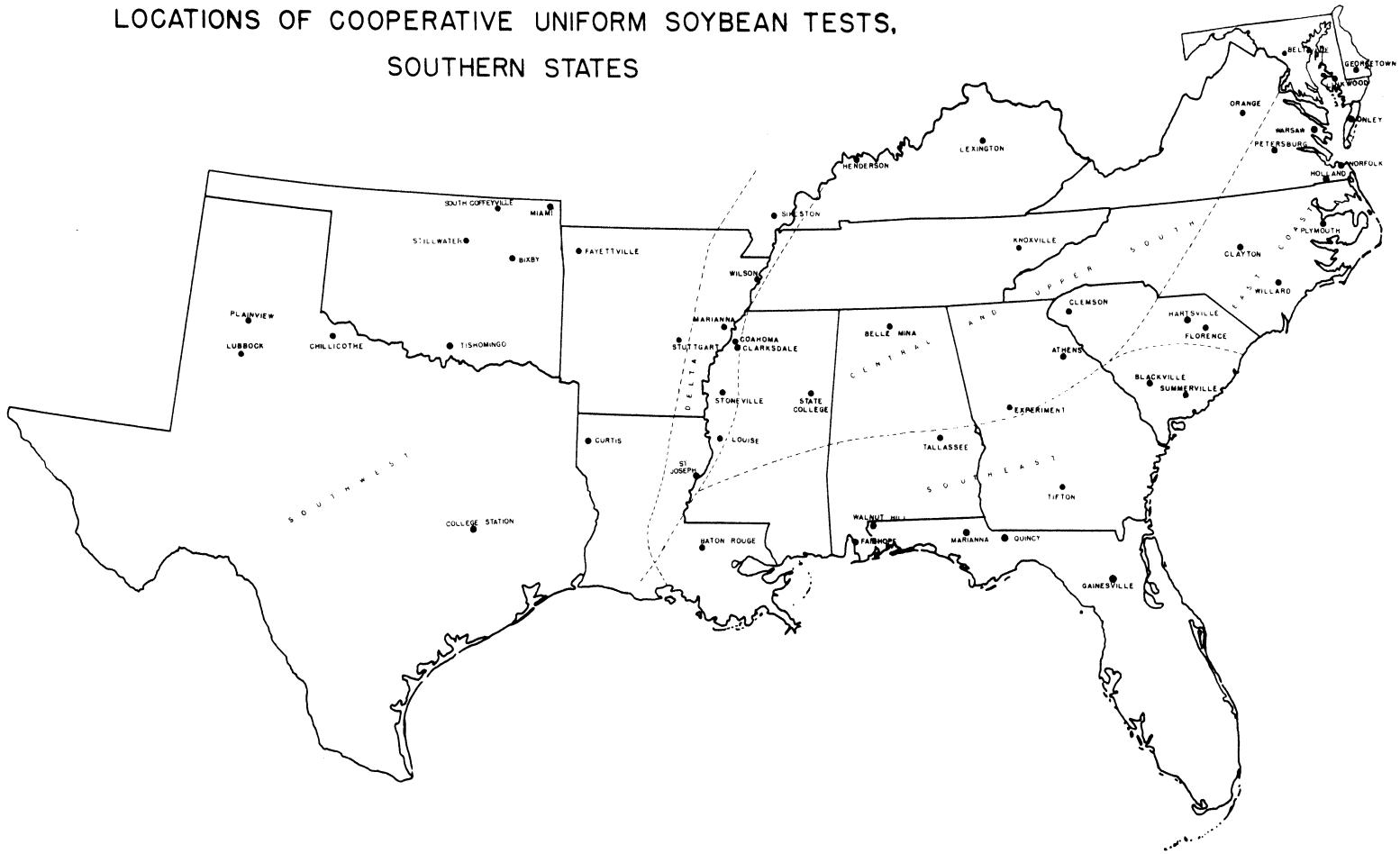
The program of the U. S. Regional Soybean Laboratory has been directed toward the development of improved strains of soybeans and the obtaining of fundamental information necessary to the efficient breeding of strains to meet specific needs. In the Southern Region, fundamental studies and breeding programs are conducted at the two research centers, Stoneville, Mississippi, and Raleigh, North Carolina. A new location, Gainesville, Florida, has been added for breeding and genetic studies. After promising new strains are developed at these breeding centers, they are advanced to the 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, and seed quality. For the groups grown in the southern area, the check varieties are Perry, Dorman, Ogden, Jackson, and Improved Pelican. 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 Improved Pelican, November 8.

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, most of the potential soybean-growing areas are on the alluvial river valley soils. The high plains of Texas are an important potential area. 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. A table showing soil types and rate of fertilization is included.

LOCATIONS OF COOPERATIVE UNIFORM SOYBEAN TESTS, SOUTHERN STATES



Seed yields were good in the East Coast and Southeast areas, but a very wet October in the East Coast area delayed harvest and reduced seed quality. In other areas rainfall was deficient during the latter part of the growing season and resulted in reduced yields in many of the tests. In the Western area only those tests which had been irrigated produced satisfactory yields.

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.
D - Delta Branch Expt. Station and U. S. Regional Soybean Laboratory.
L - Illinois Agric. Expt. Station and U. S. Regional Soybean Laboratory.
La - Louisiana Agric. Expt. Station
N - North Carolina Agric. Expt. Station and U.S. Regional Soybean Laboratory.
S - Missouri Agric. Expt. Station and U. S. Regional Soybean Laboratory.
P - Paymaster Farms, Plainview, Texas

Location of Cooperative Nurseries

Location	Cooperator	IV	V	VI	VII	VIII	Soil Type	Fertilizer[1]
			East Coast					
Georgetown, Del.	Delaware Agric. Expt. St.	1	1				Norfolk loamy sand	20-40-40
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	None
Onley, Va.	Eastern Shore Va. Truck Expt. Sta.		1	1	1		Sassafras sandy loam	0-56-56
Petersburg, Va.	Virginia State College Field Sta.		1	1	1		Norfolk fine sandy loam	0-30-60
Norfolk, Va.	Virginia Truck Expt. Sta.		1	1	1		Woodstown sandy loam	8-48-48
Holland, Va.	Tidewater Field Sta.		1	1	1		Woodstown loamy fine sand	0-60-120
Plymouth, N. C.	Tidewater Research Sta.		1*	1*	1		Bladen fine sandy loam	0-40-80
Willard, N. C.	Lower Coastal Plain Research 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		Dunbar fine sandy loam	0-40-80
Hartsville, S. C.	Coker Pedigreed Seed Co.			1	1	1	Norfolk sandy loam	9-27-54
			Southeast					
Summerville, S. C.	Coast Expt. Sta.				1		Norfolk fine sandy loam	12-36-36
Blackville, S. C.	Edisto Expt. Sta.				1		Norfolk sandy loam	15-60-60
Tallassee, Ala.	Alabama Agric. Expt. Sta.			1	1*	1	Cahaba loamy fine sand	0-56-56
Tifton, Ga.	Georgia Coastal Plain Expt. Sta.				1	1	Tifton Pebbly loam	0-40-80
Gainesville, Fla.	Fla. Agric. Expt. Sta.			1	1*	1	Arredondo sandy loam	18-72-120
Quincy, Fla.	North Florida Expt. Sta.			1	1*	1	Norfolk fine sandy loam	20-60-60
Marianna, Fla.	Mobile Unit #3			1	1		Ruston sandy loam	20-60-60
Walnut Hill, Fla.	W. Fla. Expt. Sta.			1*	1*	1	Tifton fine sandy loam	24-60-42
Fairhope, Ala.	Gulf Coast Substation			1	1		Marlboro fine sandy loam	0-42-42
Baton Rouge, La.	La. Agric. Expt. Sta.			1	1	1	Olivier silt loam	15-60-60
			Upper and Central South					
Orange, Va.	Piedmont Field Station	1					Davidson clay loam	100-100-100
Lexington, Ky.	Ky. Agric. Expt. Sta.	1	1				Maury silt loam	30-60-60
Belle Mina, Ala.	Tenn. Valley Substation		1	1			Decatur sandy loam	0-42-42
Clemson, S. C.	S. C. Agric. Expt. Sta.				1		Lloyds sandy loam	15-60-60
Athens, Ga.	University of Georgia		1	1	1		Cecil sandy loam	25-50-25
Experiment, Ga.	Ga. Agric. Expt. Sta.		1	1	1	1	Cecil clay loam	16-48-48
State College, Miss.	Miss. Agric. Expt. Sta.		1	1	1		Verona fine sandy loam	18-24-24

Location	Cooperator	IV	V	VI	VII	VIII	Soil Type	Fertilizer 1/
		Delta						
Henderson, Ky.	Ohio Valley Soybean Coop.	1	1	1			Falaya local alluvium	0-60-60
Sikeston, Mo.	Missouri Agric. Expt. Sta.	1*	1*	1*			Dexter sandy loam	0-60-60
Wilson, Ark.	Alfalfa Sub-station	1*	1*	1*			Sharkey clay	None
Marianna, Ark. 2/	Cotton Branch Sta.	1	1	1			Richland silt loam	0-50-50
Coahoma, Miss.	J. M. Slater	1	1	1			Sharkey clay	None
Clarksdale, Miss.	J. B. Weeks	1*	1				Sharkey clay	None
Stoneville, Miss. (A)	Delta Branch Expt. Sta.		1	1	1*	1	Bosket fine sandy loam	None
Stoneville, Miss. (B)	Delta Branch Expt. Sta.	1*	1*	1*	1		Sharkey clay	None
Louise, Miss.	Stoner Brothers			1	1		Dundee silt loam	None
St. Joseph, La.	N.E. La. Expt. Sta.		1	1	1	1	Sarpy clay loam	None
		West						
Stuttgart, Ark. 3/	Rice Branch Expt. Sta.		1	1	1		Crowley silt loam	0-60-60
Curtis, La.	Red River Valley Expt. Sta.		1	1	1	1	Miller very fine sandy loam	None
Fayetteville, Ark.	Ark. Agric. Expt. Sta.	1	1	1			Centerton silt loam	0-40-40
Miami, Okla.	N. E. A & M College	1	1				Persons silt loam	None
South Coffeyville, Okla.	Mungles and Chessmore	1	1				Verdigris silt loam	None
Bixby, Okla.	Okla. Veg. Research Sta.	1*	1*	1*			Yahola very fine sandy loam	15-25-0
Stillwater, Okla.	Okla. Agric. Expt. Sta.	1*	1*	1			Vanoss very fine sandy loam	
Milburn, Okla.	Murray State Jr. College			1	1		Ochlocknee-Iuka	None
Chillicothe, Texas	Texas Substation No. 12	1	1	1	1		Abilene loam	None
Lubbock, Texas 4/	Texas Substation No. 8	1	1	1	1		Amarillo fine sandy loam	None
Plainview, Texas 4/	Paymaster Farm	1	1*	1			Amarillo sandy clay loam	None

1/ Fertilizer applied converted to pounds of N, P_2O_5, K_2C, for example, 400 pounds of 2-12-12 equals 8-48-48.
2/ Three irrigations applied by sprinkler system. Water applied June 11, July 10, and August 1.
3/ Flood irrigated 8/3, 8/29, and 9/17 with approximately 2 inches of water per irrigation.
4/ Irrigated.

*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 - 225 seeds; VI - 200 seeds; VII - 170 seeds; and VIII - 170 seeds. This gave a planting rate of 12 seeds per foot for Groups IV and V, 10½ for 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 has 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 for Groups IV, V, and VIII. For Groups VI and VII, samples were analyzed from each plot at each location. 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 in Groups IV, V, and VIII was determined from a composite sample from all replications at a location. Seed size for strains in Groups VI and VII was determined by replication at each location. Seed size is reported as weight in grams per 100 seeds.

Lodging notes were 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 was 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, Improved Pelican.

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 brighteness. 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 eight 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 were 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 were 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 were not included in calculating averages.

UNIFORM GROUP IV

1956

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. D52-212	N43-1243 x Perry	F_5
5. D53-138	D49-2525 x L6-5679	F_5
6. D53-184	D49-2525 x L6-5679	F_5
7. D53-190	D49-2525 x L6-5679	F_5
8. D53-206	D49-2525 x L6-5679	F_5
9. D53-229	D49-2525 x L6-5679	F_5
10. D53-233	D49-2525 x L6-5679	F_5
11. D53-239	D49-2525 x L6-5679	F_5
12. D53-354	D49-2525 x L6-5679	F_5

N43-1243 is a pustule resistant line of VI maturity selected from Roanoke x N45-745 (Ogden x CNS selection).

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 tested in Group IV for the years 1949-1953.

Twenty-one Group IV nurseries were planted in the Southern Region. Results of 19 of these nurseries are summarized in tables 1 through 8.

Two named varieties, Perry and Clark, were evaluated along with 10 experimental lines. In 1956, the mean yield of the Group IV nurseries in the East and Delta areas compared very favorably with the mean yields for the later groups. The Group IV varieties, Perry and Clark, give less ground cover than the later varieties and tend to produce seed of poor quality , when grown in areas south of the area for which they were selected. Considerable emphasis has been given in the breeding program toward developing types of this maturity with heavier foilage and which will consistantly produce good quality seed.

One strain,D53-212, has been evaluated three years. This strain has shown some yield advantage over Perry, gives better ground cover, and is more resistant to shattering. It also shows some superiority in seed quality, but is still deficient in this character.

C1069 has been evaluated two years. It has yielded very well in the East Coast area and has high oil content. This strain is somewhat weak in seed quality, and in 1955 had a rather high percentage of purple stained seed at Warsaw, Virginia. Under dry atmospheric conditions at harvest time, such as occurs in the Delta, C1069 is susceptible to shattering.

D53-184 has also been evaluated two years. It has yielded slightly less than C1069 in the East but is superior in Delta tests. D52-184 is superior to Perry and C1069 in seed quality, seed holding, ground cover, and resistance to bacterial pustule.

D53-354, tested in the uniform group for the first time, has outstanding field appearance and excellent quality seed. Although its ground cover rating is no better than D53-184, it is somewhat better in this respect. At Henderson Kentucky, where growth was very heavy, it stood better than nearly all other strains. This strain has consistantly produced good quality seed. Its parent line, D52-1177, tested in a Preliminary IV nursery in 1954, also produced excellent quality seed.

The strain D53-229 suffered from what appeared to be pod and stem blight at Wilson, Arkansas; Coahoma and Clarksdale, Mississippi. It was the lowest yielding strain in Delta tests.

The three strains D53-206, D53-229, and D53-239 did not produce as good quality seed as is desired. D53-233 was weak in seed holding.

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

	Perry	Clark	C1069	D52-212	D53-138	D53-184
Seed Yield - 1956						
East	31.6	35.4	38.3	34.5	34.8	35.9
Delta	26.7	26.1	28.7	27.2	27.2	27.7
West	11.4	11.2	12.5	12.8	12.7	14.6
- 1955-56						
East	32.1	33.9	36.2	35.0	-	34.8
Upper & Central South	25.9	29.0	24.6	27.0	-	24.0
Delta	29.4	29.8	28.5	29.7	-	31.4
West	13.4	13.4	16.1	16.0	-	16.9
- 1954-56						
East	29.1	30.6	-	31.2		
Delta	27.2	27.3	-	27.8		
West	10.4	10.5	-	12.3		
Oil Content - 1956	22.1	22.3	23.1	21.4	20.9	21.8
- 1955-56	22.2	22.3	22.7	21.3	-	21.7
- 1954-56	22.3	22.5	-	21.3		
Protein Content - 1956	40.7	40.7	39.2	41.4	42.4	41.1
- 1955-56	40.6	40.3	39.4	40.8		
- 1954-56	40.6	40.0	-	40.4		
Maturity Index	9-22	-8	+6	+4	+3	+4
Height	35	35	40	38	41	40
Seed Quality 1/ - 1956	56	38	31	50	13	25
- 1955-56	71	47	43	43	17	27
Shattering	3.0	2.5	3.2	1.0	1.8	1.0
Ground Cover	3.0	2.7	1.7	2.0	2.0	1.0
Downy Mildew	3.0	2.0	2.0	2.0	1.0	2.0
Bacterial Pustule	3.0	4.0	3.0	1.0	1.0	1.0
Pod and Stem Blight	1.7	1.3	1.0	1.0	1.3	1.0

1/ Percentage of comparisons scoring 3 or higher.

Table 1. (Continued)

	D53-190	D53-206	D53-229	D53-233	D53-239	D53-354
Seed Yield - 1956						
East	32.2	34.0	34.3	34.5	35.7	33.1
Delta	28.7	25.3	23.2	25.2	25.5	27.5
West	13.5	13.7	12.6	14.4	14.0	13.9
- 1955-56						
East						
Upper & Central South						
Delta						
West						
- 1954-56						
East						
Delta						
West						
Oil Content - 1956	21.1	21.3	20.6	20.7	21.4	21.1
- 1955-56						
- 1954-56						
Protein Content - 1956	40.8	39.8	41.2	40.7	40.4	40.0
- 1955-56						
- 1954-56						
Maturity Index	-1	+1	+5	+3	+1	+1
Height	40	39	40	40	40	39
Seed Quality [1/] - 1956	13	44	44	25	31	6
- 1955-56	17	54	42	29	42	12
Shattering	1.0	2.2	1.5	3.0	2.5	1.0
Ground Cover	2.0	1.0	1.3	1.3	1.5	1.0
Downy Mildew	1.0	1.0	2.0	1.0	1.0	1.0
Bacterial Pustule	1.0	1.0	1.0	1.0	1.0	1.0
Pod and Stem Blight	1.3	1.3	2.3	1.3	1.3	1.0

Table 2. Yield, in bushels per acre, for the strains in Uniform Group IV, 1956

Location	Perry	Clark	C1069	D52-212	D53-138	D53-184	D53-190
			East Coast				
Georgetown, Del.	16.1	32.4+	32.1+	25.0+	30.4+	31.0+	28.0+
Linkwood, Md.	35.3	37.2	42.3+	35.8	33.4	37.2	30.6-
Orange, Va.	42.4	43.2	46.2	43.2	43.5	41.4	40.0
Warsaw, Va.	32.7	29.0	32.7	34.1	31.8	33.9	30.2
Mean	31.6	35.4	38.3	34.5	34.8	35.9	32.2
			Upper & Central South				
Lexington, Ky.	34.7	36.0	31.7-	33.1	25.3-	31.9	29.2-
			Delta				
Henderson, Ky.	41.8	47.6	37.8	35.9	35.8-	34.1-	39.7
Sikeston, Mo.	27.0	19.4	24.6	25.2	22.0	24.1	24.8
Wilson, Ark.	9.0	8.9	14.1+	12.7+	9.3	11.1	13.5+
Marianna, Ark.	27.8	22.0	22.8	28.4	29.4	29.3	25.5
Coahoma, Miss.	19.3	25.6	32.4+	23.6	31.2+	32.7+	34.4+
Clarksdale, Miss.	17.3	15.1	18.2	18.7	18.7	17.0	17.1
Stoneville, Miss. (B)	44.6	44.1	51.1+	45.6	44.1	45.9	46.3
Mean	26.7	26.1	28.7	27.2	27.2	27.7	28.7
			West				
Mound Valley, Kan. 1/	7.5	6.6	6.8	4.5	8.1	7.0	6.8
Columbus, Kan.	9.7	14.4+	11.6	11.8	9.1	12.9+	11.6
Fayetteville, Ark.	15.3	18.2	13.3	11.9	12.9	15.5	18.1
Miami, Okla.	5.6	4.5	5.0	3.7	4.9	4.2	5.5
South Coffeyville, Okla.	4.6	2.5-	3.4	4.9	5.4	4.9	4.7
Chillicothe, Texas	6.0	5.2	6.1	6.8	6.6	7.3	7.5
Lubbock, Texas	10.6	12.6	15.6	19.3	13.0	21.4	23.0
Plainview, Texas	27.1	24.4	31.9	30.6	33.1	34.4	25.5
Mean	11.4	11.2	12.5	12.8	12.7	14.6	13.5

1/ Not included in mean.

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

Table 2. (Continued)

Location	D53-206	D53-229	D53-233	D53-239	D53-354	L.S.D. (.05)	C.V.
			East Coast				
Georgetown, Del.	28.0+	33.2+	32.9+	30.5+	26.7+	3.9	8%
Linkwood, Md.	33.0	30.2-	31.8	35.0	33.0	3.5	6%
Orange, Va.	44.1	43.5	41.8	44.4	40.6	N.S.	9%
Warsaw, Va.	31.0	30.2	31.4	32.9	30.6	N.S.	6%
Mean	34.0	34.3	34.5	35.7	33.1	N.S.	
			Upper & Central South				
Lexington, Ky.	30.3-	25.5-	29.6-	30.3-	28.3-	3.0	5%
			Delta				
Henderson, Ky.	39.4	36.3	35.7-	40.7	35.9	5.9	9%
Sikeston, Mo.	23.3	23.2	22.8	22.7	23.8	N.S.	11%
Wilson, Ark.	9.1	8.4	10.6	9.9	13.0+	3.6	21%
Marianna, Ark.	27.8	23.9	26.6	27.7	25.2	N.S.	19%
Coahoma, Miss.	23.7	18.9	26.8	27.1	29.6+	8.2	18%
Clarksdale, Miss.	12.7-	10.9-	14.8	14.5	18.8	3.6	13%
Stoneville, Miss. (B)	41.2	43.9	39.1	35.6-	46.3	5.8	8%
Mean	25.3	23.2	25.2	25.5	27.5	N.S.	
			West				
Mound Valley, Kan. 1/	5.6	4.7	5.9	6.2	6.2	1.7	15%
Columbus, Kan.	12.2+	10.4	11.0	11.2	10.3	2.4	12%
Fayetteville, Ark.	14.6	11.9	12.6	17.2	16.5	3.7	15%
Miami, Okla.	5.9	4.6	4.2	3.7	6.3	N.S.	36%
South Coffeyville, Okla.	4.4	5.6	4.3	3.8	4.5	1.6	22%
Chillicothe, Texas	5.1	6.6	7.0	7.5	5.5	N.S.	15%
Lubbock, Texas	19.0	18.1	20.8	19.3	19.0	N.S.	32%
Plainview, Texas	33.2	29.1	37.4	32.4	31.4	N.S.	17%
Mean	13.7	12.6	14.4	14.0	13.9	N.S.	

Table 3. Chemical composition for the strains in Uniform Group IV, 1956

Location	Perry	Clark	C1069	D52-212	D53-138	D53-184
			Oil Percentage			
Georgetown, Del.	21.0	21.2	21.8	20.4	20.0	20.7
Linkwood, Md.	23.7	23.6	23.5	21.7	21.2	22.3
Warsaw, Va.	21.8	22.5	23.8	21.7	20.4	22.2
Henderson, Ky.	21.0	21.8	22.8	20.4	19.8	20.6
Marianna, Ark.	22.1	21.6	23.4	21.4	21.0	22.5
Coahoma, Miss.	22.4	22.4	23.0	21.5	21.1	22.1
Stoneville, Miss. (B)	22.7	22.6	23.4	21.5	22.8	23.1
Plainview, Texas	22.4	22.9	23.3	22.9	21.1	20.8
Mean	22.1	22.3	23.1	21.4	20.9	21.8
			Protein Percentage			
Georgetown, Del.	42.5	42.7	40.1	42.4	44.2	43.8
Linkwood, Md.	41.0	40.1	40.5	42.2	43.6	41.8
Warsaw, Va.	40.8	41.6	40.2	40.6	43.2	40.9
Henderson, Ky.	42.2	41.9	39.7	42.8	43.2	42.1
Marianna, Ark.	41.0	43.1	39.5	43.2	42.4	39.7
Coahoma, Miss.	39.4	39.8	38.8	41.0	41.7	41.2
Stoneville, Miss. (B)	40.5	38.9	38.0	41.1	40.2	39.6
Plainview, Texas	38.0	37.5	36.5	37.5	40.3	39.5
Mean	40.7	40.7	39.2	41.4	42.4	41.1

Table 3. (Continued)

Location	D53-190	D53-206	D53-229	D53-233	D53-239	D53-354
			Oil Percentage			
Georgetown, Del.	20.3	19.9	20.4	19.8	20.5	19.9
Linkwood, Md.	22.1	22.3	20.7	21.3	21.9	21.8
Warsaw, Va.	21.3	21.0	19.9	21.6	21.4	21.7
Henderson, Ky.	19.8	20.5	19.7	19.9	20.0	19.6
Marianna, Ark.	21.1	20.4	20.5	19.2	20.4	20.8
Coahoma, Miss.	21.9	21.4	21.3	21.2	22.1	21.7
Stoneville, Miss. (B)	21.8	22.8	21.3	21.1	22.8	22.5
Plainview, Texas	20.8	21.9	20.6	21.2	21.8	20.8
Mean	21.1	21.3	20.6	20.7	21.4	21.1
			Protein Percentage			
Georgetown, Del.	42.6	41.5	42.5	42.0	42.1	41.8
Linkwood, Md.	40.5	40.5	41.8	41.6	40.5	40.7
Warsaw, Va.	40.2	40.2	41.1	41.0	40.8	40.1
Henderson, Ky.	41.1	40.5	41.9	41.1	42.0	41.1
Marianna, Ark.	41.6	40.8	41.6	43.3	42.7	41.7
Coahoma, Miss.	41.3	39.9	42.0	40.3	40.3	39.8
Stoneville, Miss.(B)	39.7	37.6	39.9	39.0	37.9	38.5
Plainview, Texas	39.2	37.0	38.4	37.3	37.0	36.1
Mean	40.8	39.8	41.2	40.7	40.4	40.0

Table 4. Relative maturity data, days earlier (-) or later (+) than Perry, for the strains in Uniform Group IV, 1956

Location	Date Planted	Perry	Clark	C1069	D52-212	D53-138
			East Coast			
Georgetown, Del.	5-24	10-2	-10	+3	+3	0
Linkwood, Md.	5-15	9-19	-7	+9	+2	+1
Orange, Va.	5-5	10-10	-20	0	0	0
Warsaw, Va.	5-30	10-3	-14	+5	+4	+1
Mean		10-1	-13	+4	+2	0
			Upper & Central South			
Lexington, Ky.	6-5	10-10	-15	+8	+5	0
			Delta			
Henderson, Ky.	5-30	9-26	-4	+14	+15	+14
Sikeston, Mo.	5-21	9-12	-6	+9	+8	+6
Wilson, Ark.	5-8	9-24	-1	+2	-1	+4
Marianna, Ark.	5-13	9-14	-4	+3	0	0
Coahoma, Miss.	5-14	9-7	-6	+5	+3	+3
Stoneville, Miss. (3)	5-7	9-4	-14	+5	+3	+2
Mean		9-15	-6	+6	+5	+5
			West			
Mound Valley, Kan. 1/	5-18	9-21	-2	+9	+9	+3
Fayetteville, Ark.	5-11	9-15	-4	+9	+7	+6
Miami, Okla.	5-4	9-20	+4	+3	+2	+2
Plainview, Texas	5-24	9-24	0	0	0	0
Mean		9-20	0	+4	+3	+3

1/ Not included in mean.

Table 4. (Continued)

Location	D53-184	D53-190	D53-206	D53-229	D53-233	D53-239	D53-354
			East Coast				
Georgetown, Del.	+3	-2	-1	+3	+2	+1	-3
Linkwood, Md.	+8	-1	+1	+9	+3	+1	-1
Orange, Va.	-3	-9	-3	+3	-3	-7	-3
Warsaw, Va.	+4	-7	-5	+5	+4	-3	-5
Mean	+3	-5	-2	+5	+2	-2	-3
			Upper & Central South				
Lexington, Ky.	+1	0	+1	+8	+1	+2	-1
			Delta				
Henderson, Ky.	+14	+5	+4	+13	+11	+9	+14
Sikeston, Mo.	+8	+2	+3	+9	+6	+5	+2
Wilson, Ark.	+1	+1	0	-1	-1	-3	+3
Marianna, Ark.	+2	-4	0	+3	0	0	0
Coahoma, Miss.	+4	+2	+1	+3	+4	+1	+3
Stoneville, Miss. (B)	+2	+1	+1	+3	+1	+2	+2
Mean	+5	+1	+2	+5	+4	+2	+4
			West				
Mound Valley, Kan. 1/	+4	+4	+4	+7	+2	+3	+3
Fayetteville, Ark.	+8	+1	+6	+7	+7	+3	+5
Miami, Okla.	+5	+2	+2	+2	+2	+2	+1
Plainview, Texas	0	0	0	0	0	0	0
Mean	+5	+1	+3	+3	+3	+2	+2

Table 5. Height data for strains in Uniform Group IV, 1956

Location	Perry	Clark	C1069	D52-212	D53-138	D53-184
			East Coast			
Georgetown, Del.	39	38	44	42	44	44
Linkwood, Md.	39	41	47	42	46	47
Orange, Va.	44	41	47	48	46	41
Warsaw, Va.	38	36	42	40	42	41
Mean	40	39	45	43	45	43
			Upper & Central South			
Lexington, Ky.	43	38	42	43	48	45
			Delta			
Henderson, Ky.	48	48	60	57	59	56
Sikeston, Mo.	45	46	48	47	53	49
Wilson, Ark.	21	23	26	23	28	25
Marianna, Ark.	31	30	36	35	35	35
Coahoma, Miss.	29	34	41	33	40	38
Clarksdale, Miss.	36	35	40	36	43	39
Stoneville, Miss. (B)	41	40	49	45	45	45
Mean	36	37	43	39	43	41
			West			
Mound Valley, Kan. 1/	25	26	30	28	28	31
Fayetteville, Ark.	30	29	31	30	35	36
Miami, Okla.	24	25	27	25	29	27
South Coffeyville, Okla.	26	26	30	29	31	34
Plainview, Texas	28	28	30	32	34	36
Mean	27	27	30	29	32	33

1/ Not included in mean.

Table 5. (Continued)

Location	D53-190	D53-206	D53-229	D53-233	D53-239	D53-354
			East Coast			
Georgetown, Del.	42	41	44	42	40	43
Linkwood, Md.	44	46	46	47	42	44
Orange, Va.	54	44	48	49	47	48
Warsaw, Va.	42	42	42	42	40	40
Mean	46	43	45	45	42	44
			Upper & Central South			
Lexington, Ky.	46	45	52	51	43	46
			Delta			
Henderson, Ky.	56	58	59	60	56	55
Sikeston, Mo.	49	51	50	49	49	47
Wilson, Ark.	25	24	23	23	21	27
Marianna, Ark.	33	32	33	33	33	32
Coahoma, Miss.	39	37	34	37	34	38
Clarksdale, Miss.	40	38	41	40	38	39
Stoneville, Miss. (B)	46	42	46	47	38	45
Mean	41	40	41	41	38	40
			West			
Mound Valley, Kan. 1/	26	30	30	30	29	30
Fayetteville, Ark.	32	34	36	33	32	32
Miami, Okla.	27	30	29	27	25	27
South Coffeyville, Okla.	27	27	30	29	26	30
Plainview, Texas	31	35	34	35	32	34
Mean	27	32	32	31	29	31

Table 6. Lodging scores for strains in Uniform Group IV, 1956

Location	Perry	Clark	C1069	D52-212	D53-138	D53-184
			East Coast			
Georgetown, Del.	1.3	2.0	1.7	2.3	2.7	2.7
Linkwood, Md.	1.3	1.7	1.3	2.3	1.3	2.0
Orange, Va.	4.0	2.7	3.3	4.0	3.3	4.0
Warsaw, Va.	1.0	1.5	1.5	1.0	1.0	1.5
			Upper & Central South			
Lexington, Ky.	3.3	2.7	4.0	3.7	2.0	2.7
			Delta			
Henderson, Ky.	2.7	3.3	3.7	4.0	3.0	3.7
Sikeston, Mo.	1.2	1.1	1.3	1.4	1.1	1.4
Wilson, Ark.	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, Ark.	1.3	1.3	2.3	1.7	2.0	1.7
Coahoma, Miss.	2.0	2.3	3.0	2.7	2.3	2.3
Clarksdale, Miss.	2.0	2.0	2.0	2.0	1.7	2.3
Stoneville, Miss. (B)	2.3	2.3	3.7	2.7	2.0	2.3
			West			
Fayetteville, Ark.	1.0	1.0	1.3	1.3	1.3	2.0
Miami, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
South Coffeyville, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
Lubbock, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Plainview, Texas	1.0	1.7	1.0	1.7	1.0	2.0

Table 6. (Continued)

Location	D53-190	D53-206	D53-229	D53-233	D53-239	D53-354
			East Coast			
Georgetown, Del.	3.3	2.0	3.7	3.7	3.7	2.7
Linkwood, Md.	2.0	1.3	2.0	1.7	1.7	1.7
Orange, Va.	3.3	2.7	3.3	3.3	3.0	3.3
Warsaw, Va.	1.0	1.0	2.0	2.0	2.0	1.0
			Upper & Central South			
Lexington, Ky.	3.0	3.0	4.0	4.7	4.7	2.0
			Delta			
Henderson, Ky.	2.3	2.7	3.7	4.0	3.5	2.3
Sikeston, Mo.	1.1	1.1	1.5	1.5	1.5	1.0
Wilson, Ark.	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, Ark.	1.7	1.3	2.3	2.3	2.3	1.7
Coahoma, Miss.	2.3	2.0	2.7	2.7	2.0	1.7
Clarksdale, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, Miss. (B)	2.7	2.0	3.3	3.0	2.0	2.0
			West			
Fayetteville, Ark.	1.0	1.0	1.7	2.0	1.3	1.0
Miami, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
South Coffeyville, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
Lubbock, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Plainview, Texas	1.7	1.3	2.0	2.0	1.7	1.7

Table 7. Seed quality scores for strain in Uniform Group IV, 1956

Location	Perry	Clark	C1069	D52-212	D53-138	D53-184
			East Coast			
Georgetown, Del.	3.3	3.0	2.3	3.0	2.0	2.7
Linkwood, Md.	2.3	2.0	2.0	2.0	1.0	1.3
Orange, Va.	1.0	2.0	1.0	2.3	1.7	2.0
Warsaw, Va.	1.5	1.5	1.5	1.0	1.0	1.0
			Upper & Central South			
Lexington, Ky.	1.0	1.0	1.7	3.0	1.0	2.7
			Delta			
Henderson, Ky.	3.0	2.0	2.3	2.3	1.0	2.0
Sikeston, Mo.	2.0	2.0	2.0	2.0	2.0	2.0
Wilson, Ark.	4.7	4.3	3.3	3.3	3.0	3.0
Marianna, Ark.	2.7	2.3	1.7	2.0	1.3	1.7
Coahoma, Miss.	3.7	2.7	2.7	2.3	1.3	2.0
Clarksdale, Miss.	4.0	4.0	4.7	4.0	2.3	3.3
Stoneville, Miss. (B)	2.7	3.0	2.7	2.3	2.7	2.7
			West			
Mound Valley, Kan.	4.0	5.0	5.0	5.0	2.0	3.0
Columbus, Kan.	3.0	1.0	3.0	3.0	1.0	2.0
Fayetteville, Ark.	3.3	2.3	2.7	4.3	3.0	2.7
Miami, Okla.	3.5	4.3	4.0	4.0	2.7	3.0
South Coffeyville, Okla.	4.6	4.0	5.0	3.3	2.0	3.3
Plainview, Texas	2.0	1.5	2.0	1.5	2.0	2.0

Table 7. (Continued)

Location	D53-190	D53-206	D53-229	D53-233	D53-239	D53-354
			East Coast			
Georgetown, Del.	2.3	3.3	2.3	2.7	2.7	2.3
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	1.7
Orange, Va.	1.0	2.0	2.3	2.0	2.0	1.7
Warsaw, Va.	1.0	1.5	2.0	3.0	1.5	1.0
			Upper & Central South			
Lexington, Ky.	2.0	1.7	2.0	2.0	2.0	2.0
			Delta			
Henderson, Ky.	1.3	1.3	1.7	1.7	2.0	1.7
Sikeston, Mo.	1.0	2.0	2.0	2.0	2.0	2.0
Wilson, Ark.	2.3	3.0	3.3	2.0	3.0	2.7
Marianna, Ark.	1.0	2.3	2.0	2.0	2.3	2.0
Coahoma, Miss.	2.0	3.0	4.0	1.7	2.0	2.0
Clarksdale, Miss.	5.0	4.0	5.0	3.7	4.0	3.0
Stoneville, Miss. (B)	2.7	4.0	3.7	3.0	3.0	2.3
			West			
Mound Valley, Kan.	3.0	4.0	4.0	3.0	3.0	2.0
Columbus, Kan.	1.0	2.0	2.0	1.0	2.0	1.0
Fayetteville, Ark.	2.3	3.0	3.3	2.7	3.3	2.7
Miami, Okla.	3.0	3.0	3.7	3.7	4.3	2.7
South Coffeyville, Okla.	2.6	2.0	3.3	2.0	2.0	2.0
Plainview, Texas	2.0	1.5	1.5	2.5	2.0	2.0

Table 8. Seed weight, in grams per 100 seeds, for strains in Uniform Group IV, 1956

Location	Perry	Clark	C1069	D52-212	D53-138	D53-184
			East Coast			
Georgetown, Del.	18.4	18.5	18.1	15.9	15.3	15.5
Linkwood, Md.	18.1	16.8	18.2	16.5	14.9	15.5
Orange, Va.	19.0	17.3	18.7	16.3	15.3	14.3
Warsaw, Va.	15.5	13.9	17.0	14.4	14.2	13.7
Mean	17.8	16.6	18.0	15.8	14.9	14.8
			Upper & Central South			
Lexington, Ky.	14.0	13.5	13.7	12.7	10.7	11.7
			Delta			
Henderson, Ky.	15.2	17.2	17.3	14.0	13.3	13.8
Wilson, Ark.	15.0	10.7	14.0	13.7	9.7	12.3
Marianna, Ark.	15.7	14.0	14.3	12.7	11.7	12.7
Coahoma, Miss.	14.3	14.3	13.7	11.3	11.8	12.2
Stoneville, Miss. (B)	15.0	15.3	14.5	12.2	12.1	11.7
Mean	15.0	14.4	14.8	12.6	11.7	12.5
			West			
Columbus, Kan.	14.0	13.8	14.2	12.3	11.4	12.5
Fayetteville, Ark.	14.0	14.3	14.3	12.0	11.3	12.7
Miami, Okla.	10.1	9.5	11.0	8.7	8.6	9.2
South Coffeyville, Okla.	9.3	9.6	11.0	9.9	9.0	10.3
Plainview, Texas	17.9	15.6	17.6	15.2	14.7	14.8
Mean	13.1	12.6	13.6	11.6	11.0	11.9

Table 8. (Continued)

Location	D53-190	D53-206	D53-229	D53-233	D53-239	D53-354
			East Coast			
Georgetown, Del.	13.9	15.4	14.6	15.1	16.2	13.4
Linkwood, Md.	14.5	16.3	14.8	15.1	16.2	13.5
Orange, Va.	14.3	15.7	14.0	14.7	15.3	13.0
Warsaw, Va.	12.0	14.0	12.9	13.5	13.5	11.9
Mean	13.7	15.4	14.1	14.6	15.3	13.0
			Upper & Central South			
Lexington, Ky.	11.7	12.0	11.0	11.5	12.0	10.0
			Delta			
Henderson, Ky.	13.0	13.5	12.7	14.0	14.7	11.7
Wilson, Ark.	13.3	12.7	11.3	12.0	12.0	10.0
Marianna, Ark.	10.7	11.7	11.7	11.3	12.7	10.0
Coahoma, Miss.	12.2	11.9	12.2	12.4	12.4	11.1
Stoneville, Miss. (B)	12.3	13.4	11.5	11.4	11.9	11.4
Mean	12.3	12.6	11.9	12.2	12.7	10.8
			West			
Columbus, Kan.	11.0	13.6	11.6	11.7	12.5	10.5
Fayetteville, Ark.	11.3	12.7	12.0	12.3	12.7	10.3
Miami, Okla.	7.7	9.2	9.1	7.6	8.7	7.9
South Coffeyville, Okla.	9.5	9.8	9.2	9.9	10.1	9.3
Plainview, Texas	13.4	15.5	13.9	15.7	15.3	13.3
Mean	10.6	12.2	11.2	11.4	11.9	10.3

PRELIMINARY GROUP IV

1956

Thirty-four new strains were grown along with Perry and Clark at eight locations. Parentage of these lines is reported in table 9. Agronomic, disease and chemical data are reported in tables 10 through 15 for the six locations at which tests were harvested.

Differences in mean seed yield for the six locations were non-significant. There was a highly significant variety x location interaction. Thirty of the lines were superior to Perry in seed holding. Twenty-five lines were resistant to bacterial pustule, and nearly all were free from downy mildew, or had only a light infection. In 1955, Perry received a score of 2.5 for downy mildew while in 1956 it received a score of 1. This may indicate that a different physiologic strain of downy mildew was most prevalent in each of the two years.

Pod and stem blight ratings were made at Wilson, Arkansas, and Clarksdale, Mississippi. Killing was rather severe in some lines by mid-July. The two lines D54-3470 and D54-3282, which showed the most severe killing, are sublines from lines which showed severe killing at Wilson, Arkansas, in 1955.

Some of the better lines from this group will be advanced to the Uniform Group IV nursery.

Table 9. Parentage of the strains in Preliminary IV, 1956

	Strain	Parentage	Generation Composited
1.	Perry	Patoka x L7-1355	F_7
2.	Clark	Lincoln (2) x Richland	F_8
3.	C1068	Lincoln x Ogden	F_7
4.	D52-50	N48-1248 x Adams	F_5
5.	D52-107	N48-1248 x Perry	F_5
6.	D52-193	N48-1248 x Perry	F_5
7.	D52-201	N48-1248 x Perry	F_5
8.	D52-203	N48-1248 x Perry	F_5
9.	D52-204	N48-1248 x Perry	F_5
10.	D52-3378	Selection from L6-5679	-
11.	D53-167	D49-2525 x L6-5679	F_5
12.	D53-262	D49-2525 x L6-5679	F_5
13.	D53-371	D49-2525 x L6-5679	F_5
14.	D53-398	D632-15 x D49-2525	F_5
15.	D53-556	D49-2570 x C490	F_5
16.	D53-1254	D49-2525 x L6-5679	F_5
17.	D54-2437	N48-1394 x L6-5679	F_5
18.	D54-2483	D49-2573 x L6-5679	F_5
19.	D54-3261	D49-2525 x L6-5679	F_7
20.	D54-3265	D49-2525 x L6-5679	F_7
21.	D54-3267	D49-2525 x L6-5679	F_7
22.	D54-3269	D49-2525 x L6-5679	F_7
23.	D54-3270	D49-2525 x L6-5679	F_7
24.	D54-3281	D49-2525 x L6-5679	F_7
25.	D54-3282	D49-2525 x L6-5679	F_7
26.	D54-3287	D49-2525 x L6-5679	F_7
27.	D54-3289	D49-2525 x L6-5679	F_7
28.	D54-3294	D49-2525 x L6-5679	F_7
29.	D54-3297	D49-2525 x L6-5679	F_7
30.	D54-3312	D49-2525 x L6-5679	F_7
31.	D54-3313	D49-2525 x L6-5679	F_7
32.	D54-3317	D49-2525 x L6-5679	F_7
33.	D54-3322	D49-2525 x L6-5679	F_7
34.	D54-3325	D49-2525 x L6-5679	F_7
35.	D54-3348	D632-15 x D49-2525	F_7
36.	S2-7160	D49-2525 x L6-5679	F_4

Table 10. General summary of the performance of the strains in Preliminary Group IV, 1956

Strain	Seed Yield	Maturity Index	Height	Percent Oil	Percent Protein
Perry	24.5	9-18	36	22.0	40.8
Clark	24.4	-9	37	22.2	41.0
C1063	24.1	0	38	22.3	40.7
D52-50	23.3	+1	44	22.4	39.0-
D52-107	27.2	+6	40	21.3	42.0
D52-193	25.3	+8	40	21.4	42.1
D52-201	24.9	+3	40	21.0-	41.7
D52-203	27.0	+5	39	20.7-	41.7
D52-204	26.8	+5	40	21.1	41.8
D52-3378	21.4	+3	41	21.3	40.1
D53-167	21.1	+2	38	20.9-	41.5
D53-262	24.6	-5	36	21.7	39.7
D53-371	24.5	+1	40	21.6	39.3
D53-398	23.9	+11	45	20.6-	40.7
D53-556	23.1	+5	48	19.4-	44.0+
D53-1254	25.4	0	38	22.0	40.4
D54-2437	26.6	+4	38	21.9	39.9
D54-2483	24.0	-2	32	21.0-	41.8
D54-3261	23.8	0	40	20.6-	41.4
D54-3265	23.1	0	40	21.8	40.1
D54-3267	20.7	-1	36	21.3	41.3
D54-3269	25.9	+3	44	20.7-	41.1
D54-3270	21.9	-2	40	21.8	41.3
D54-3281	25.4	0	40	22.3	41.0
D54-3282	21.1	+2	40	20.7-	41.4
D54-3287	23.5	0	40	21.4	40.8
D54-3289	24.7	+2	35	20.3-	42.0
D54-3294	24.6	+3	38	20.8-	41.7
D54-3297	24.9	-1	40	22.3	40.7
D54-3312	21.9	+11	31	20.3-	41.9
D54-3313	23.0	0	39	21.2	41.3
D54-3317	24.1	0	41	20.9-	39.4
D54-3322	23.0	-1	39	21.2	40.3
D54-3325	25.2	+5	40	21.3	39.1-
D54-3348	23.8	+4	40	20.8-	40.8
S2-7160	23.6	0	41	21.3	39.5
L.S.D. (.05)	N.S.			0.9	1.5

1/ Stoneville data.
2/ Reported in actual percentage, Linkwood, Maryland, data.
3/ Based upon ratings made at Wilson, Arkansas, and Clarksdale, Mississippi.

Table 10. (Continued)

Strain	Shattering[1]	Downy Mildew[1]	Bacterial Pustule[1]	Purple Stain[2]	Pod and Stem Blight[3]
Perry	3.0	1.0	3.0	4.0	2.5
Clark	2.0	1.0	4.0	3.0	1.0
C1068	4.0	1.5	3.0	4.5	1.0
D52-50	1.3	1.0	1.0	0.0	1.5
D52-107	2.0	1.0	2.0	0.0	1.0
D52-193	2.0	1.5	1.0	2.0	1.0
D52-201	1.0	1.5	1.0	0.5	1.0
D52-203	1.5	1.0	1.0	0.5	1.0
D52-204	1.0	1.0	3.0	0.5	1.0
D52-3378	1.0	1.0	2.5	1.0	3.0
D53-167	2.0	1.0	3.0	1.0	2.0
D53-262	1.7	1.5	1.0	0.5	2.0
D53-371	1.5	1.0	1.0	1.5	1.0
D53-398	3.0	1.0	1.0	2.5	1.0
D53-556	1.7	1.5	1.0	3.0	1.0
D53-1254	1.0	2.5	1.0	2.0	1.0
D54-2437	2.3	1.0	1.0	2.5	1.0
D54-2483	1.0	2.0	1.0	1.5	1.0
D54-3261	2.0	1.0	1.0	3.5	2.0
D54-3265	1.3	2.5	1.0	1.0	2.0
D54-3267	1.0	2.0	1.0	0.0	2.0
D54-3269	1.7	1.5	1.0	1.0	1.5
D54-3270	1.0	2.5	1.0	1.0	3.0
D54-3281	1.0	2.5	1.0	1.5	1.0
D54-3282	1.0	2.5	1.0	1.0	3.5
D54-3287	2.0	1.5	1.0	13.5	1.0
D54-3289	1.3	1.0	3.0	2.0	1.0
D54-3294	2.0	1.0	1.0	10.5	1.5
D54-3297	1.0	1.0	3.0	0.5	1.5
D54-3312	1.3	1.0	1.0	0.0	1.5
D54-3313	1.7	2.5	2.0	0.0	1.0
D54-3317	2.3	1.5	1.0	4.0	1.0
D54-3322	1.0	2.0	1.0	1.5	1.0
D54-3325	1.3	1.0	1.0	3.5	1.0
D54-3348	2.7	1.0	1.0	1.5	1.0
S2-7160	2.7	1.0	2.0	2.5	3.0
L.S.D. (.05)					

Table 11. Seed yield, in bushels per acre, for the strains in Preliminary Group IV, 1956

Strain	Linkwood, Md.	Warsaw, Va.	Sikeston, Mo.	Wilson, Ark.	Clarksdale, Miss.	Stoneville, Miss.
Perry	35.5	31.0	22.6	10.5	16.0	29.5
Clark	33.0	25.6	22.1	11.7	17.9+	33.9
C1068	38.9	31.5	19.9	6.4	15.7	28.2
D52-50	30.6	30.3	21.1	13.2	16.2	26.1
D52-107	36.5	30.9	24.2	16.6+	20.4+	31.4
D52-193	34.2	31.8	21.5	14.6	18.7+	29.9
D52-201	30.0	36.2	25.1	9.1	18.1+	31.0
D52-203	38.3	32.6	24.5	14.3	18.3+	31.5
D52-204	35.6	33.8	22.2	17.7+	19.4+	27.3
D52-3378	30.0	28.2	21.3	12.8	12.6-	23.2-
D53-167	28.4	27.5	22.1	5.8	12.9-	31.0
D53-262	30.9	30.5	24.0	7.4	13.7-	40.4+
D53-371	34.7	31.7	22.6	8.5	15.4	32.0
D53-398	28.9	30.6	17.7	17.9+	17.9+	24.0-
D53-556	25.6	31.8	18.7	17.0+	17.0	24.3-
D53-1254	32.0	32.1	22.8	7.8	19.3+	36.0+
D54-2437	30.2	31.8	18.9	17.1+	23.6+	30.6
D54-2483	27.0	29.0	22.4	6.2	19.1+	38.5+
D54-3261	29.4	32.8	25.0	10.2	15.9	30.5
D54-3265	36.7	31.5	23.5	7.6	12.6-	26.9
D54-3267	31.2	24.7	23.5	5.4	14.2	28.2
D54-3269	31.2	35.0	23.3	14.0	17.9+	31.1
D54-3270	28.6	29.1	20.6	4.7-	14.0-	33.1
D54-3281	36.8	31.7	25.3	7.1	17.9+	33.5
D54-3282	31.8	30.8	22.4	9.0	9.9-	23.9-
D54-3287	32.7	27.1	21.7	7.8	15.5	34.6+
D54-3289	31.4	31.2	21.3	13.8	18.3+	28.7
D54-3294	27.0	30.9	21.0	18.2+	16.0	30.8
D54-3297	32.0	31.1	24.7	7.9	16.0	37.6+
D54-3312	33.9	29.8	22.5	13.0	11.0-	22.0-
D54-3313	25.8	28.4	18.6	9.4	22.4+	29.0
D54-3317	30.2	32.1	25.0	9.9	18.1	30.5
D54-3322	30.4	28.3	20.7	10.3	17.0	28.5
D54-3325	36.4	32.7	23.8	11.0	16.1	29.9
D54-3348	31.5	31.4	19.9	14.5	19.3+	22.2-
S2-7160	32.6	34.0	24.3	7.0	12.4-	32.1
L.S.D. (.05)	N.S.	N.S.	N.S.	5.5	1.9	4.9
C.V.	12%	9%	13%	24%	6%	8%

Table 12. Oil percentages for the strains in Preliminary Group IV, 1956

Strain	Linkwood, Md.	Warsaw Va.	Stoneville, Miss.
Perry	22.8	22.0	21.2
Clark	23.0	21.6	22.0
C1068	23.4	22.3	21.7
D52-50	23.4	21.6	22.1
D52-107	21.7	21.5	20.6
D52-193	21.5	21.5	21.3
D52-201	22.0	21.0	20.1
D52-203	21.8	20.8	19.6
D52-204	21.3	21.0	21.1
D52-3378	21.8	20.9	21.2
D53-167	21.0	20.8	20.8
D53-262	23.1	20.6	21.3
D53-371	23.0	21.2	20.5
D53-398	20.6	20.3	20.8
D53-556	20.0	19.6	18.6
D53-1254	22.2	21.7	22.2
D54-2437	22.3	21.2	22.3
D54-2483	20.9	20.5	21.5
D54-3261	21.7	19.6	20.5
D54-3265	22.1	21.5	21.7
D54-3267	22.0	20.9	20.9
D54-3269	21.2	20.2	20.7
D54-3270	22.7	21.1	21.7
D54-3281	22.7	22.2	22.1
D54-3282	21.0	20.5	20.6
D54-3287	22.2	21.4	20.7
D54-3289	20.8	20.4	19.6
D54-3294	21.3	20.6	20.4
D54-3297	23.2	21.8	22.0
D54-3312	22.2	19.7	19.0
D54-3313	22.3	20.8	20.5
D54-3317	21.4	20.7	20.5
D54-3322	21.8	20.3	21.4
D54-3325	22.2	21.6	20.2
D54-3348	21.3	21.3	19.3
S2-7160	21.9	21.1	20.9

Table 13. Protein percentages for the strains in Preliminary Group IV, 1956

Strain	Linkwood Md.	Warsaw, Va.	Stoneville, Miss.
Perry	40.9	39.7	41.9
Clark	41.6	41.1	40.3
C1068	41.2	40.3	40.5
D52-50	38.9	38.2	40.0
D52-107	42.7	42.1	41.2
D52-193	43.7	40.9	41.7
D52-201	42.9	39.8	42.4
D52-203	42.4	40.0	42.7
D52-204	42.8	40.9	41.8
D52-3378	40.6	40.1	39.5
D53-167	43.3	40.7	40.5
D53-262	39.4	40.0	39.8
D53-371	39.4	39.2	39.3
D53-398	41.6	40.5	40.1
D53-556	44.9	42.8	44.4
D53-1254	40.2	40.2	40.9
D54-2437	40.3	39.9	39.6
D54-2483	42.4	40.3	42.2
D54-3261	41.4	41.5	41.3
D54-3265	41.7	39.5	39.0
D54-3267	41.2	41.4	41.4
D54-3269	41.3	41.2	40.7
D54-3270	42.3	40.7	40.9
D54-3281	41.8	40.6	40.6
D54-3282	42.2	41.3	40.7
D54-3287	40.6	42.0	39.8
D54-3289	42.5	41.2	42.3
D54-3294	42.0	41.5	41.7
D54-3297	40.7	39.5	41.9
D54-3312	40.6	41.8	43.3
D54-3313	39.6	42.0	42.4
D54-3317	38.1	39.6	40.5
D54-3322	40.4	40.2	40.2
D54-3325	38.6	38.1	40.6
D54-3348	40.6	39.5	42.2
S2-7160	39.7	39.2	39.6

Table 14. Height data for strains in Preliminary Group IV, 1956

Strain	Linkwood, Md.	Warsaw, Va.	Sikeston, Mo.	Wilson, Ark.	Clarksdale, Miss.	Stoneville, Miss.
Perry	40	36	44	22	31	42
Clark	40	34	44	25	34	44
C1068	42	40	45	25	32	43
D52-50	48	44	53	28	41	49
D52-107	44	39	47	27	36	46
D52-193	42	40	48	28	38	46
D52-201	42	41	48	24	35	49
D52-203	42	39	47	24	36	47
D52-204	42	38	48	29	36	49
D52-3378	48	42	50	22	33	49
D53-167	40	37	49	21	34	47
D53-262	36	35	45	19	29	50
D53-371	45	38	52	24	36	47
D53-398	49	42	55	36	37	50
D53-556	46	46	56	30	48	61
D53-1254	36	38	49	22	35	50
D54-2437	36	38	46	24	37	45
D54-2483	32	32	43	19	27	40
D54-3261	41	40	52	23	36	48
D54-3265	46	38	51	24	36	47
D54-3267	39	35	46	20	33	45
D54-3269	47	42	51	29	39	54
D54-3270	44	42	52	19	36	49
D54-3281	44	40	50	23	34	49
D54-3282	45	40	49	23	37	48
D54-3287	46	39	48	23	35	48
D54-3289	40	36	47	23	38	45
D54-3294	42	36	47	28	31	46
D54-3297	44	42	53	24	31	48
D54-3312	38	30	42	21	22	35
D54-3313	37	37	50	23	36	49
D54-3317	42	40	52	25	40	47
D54-3322	42	38	47	25	34	47
D54-3325	44	40	50	25	31	50
D54-3348	46	39	48	29	36	43
S2-7160	44	40	51	25	33	51

Table 15. Seed quality scores for the strains in Preliminary Group IV, 1956

Strain	Linkwood, Md.	Warsaw, Va.	Sikeston, Mo	Wilson, Ark.	Clarksdale, Miss.	Stoneville, Miss.
Perry	2.5	2.0	2.0	4.5	5.0	3.5
Clark	2.0	1.5	2.0	3.5	5.0	3.0
C1068	2.0	2.0	2.0	4.0	5.0	3.0
D52-50	2.0	1.0	2.0	3.0	5.0	3.5
D52-107	2.0	3.5	2.0	3.0	3.0	2.0
D52-193	2.0	2.5	3.0	2.5	4.0	3.0
D52-201	2.5	2.0	2.0	3.5	4.0	2.5
D52-203	2.0	2.0	2.0	3.5	3.5	2.5
D52-204	2.0	2.0	2.0	3.0	4.0	3.0
D52-3378	2.5	2.5	2.0	3.5	5.0	4.0
D53-167	3.0	2.0	2.0	4.0	5.0	3.5
D53-262	2.0	1.0	1.0	3.0	4.0	3.0
D53-371	1.0	2.0	2.0	4.0	4.5	4.0
D53-398	1.5	3.0	2.0	2.0	3.5	2.0
D53-556	2.0	2.0	2.0	4.0	3.0	2.0
D53-1254	2.0	1.5	2.0	3.5	3.5	2.5
D54-2437	2.0	2.0	2.0	2.5	3.0	2.5
D54-2483	3.0	1.5	2.0	3.5	4.0	3.0
D54-3261	2.0	1.5	2.0	3.0	4.0	2.5
D54-3265	2.0	2.0	2.0	3.0	5.0	3.0
D54-3267	2.0	1.5	2.0	3.5	5.0	3.0
D54-3269	2.0	3.5	2.0	3.5	3.5	2.5
D54-3270	3.0	2.0	2.0	3.0	4.5	2.5
D54-3281	1.0	1.0	2.0	3.0	3.0	2.0
D54-3282	2.0	3.0	2.0	3.5	5.0	3.0
D54-3287	2.0	4.0	2.0	4.0	5.0	3.0
D54-3289	2.5	2.0	2.0	3.5	4.0	3.0
D54-3294	2.5	2.5	2.0	3.5	4.0	3.0
D54-3297	2.0	1.5	1.0	4.0	3.5	2.0
D54-3312	1.5	2.0	1.0	3.0	4.0	3.5
D54-3313	1.5	1.0	2.0	3.0	4.0	3.5
D54-3317	2.0	1.0	2.0	4.0	3.0	3.0
D54-3322	2.0	2.0	1.0	4.0	3.0	2.0
D54-3325	2.0	2.5	2.0	3.5	5.0	4.0
D54-3343	1.0	2.0	1.0	3.0	4.0	3.0
S2-7160	2.0	1.5	2.0	3.5	4.0	2.0

UNIFORM GROUP V

1956

	Variety or Strain	Parentage	Generation Composited
1.	Dorman	Dunfield x Arksoy	F_6
2.	S-100	Rogue in Illini	
3.	Dortchsoy 67	Macoupin selection x Ogden	
4.	D52-13	N48-1248 x Adams	F_5
5.	D53-429	D632-15 x D49-2525	F_5
6.	D53-492	D632-15 x D49-2525	F_5
7.	D53-526	D632-15 x D49-2525	F_5
8.	D53-481	D632-15 x D49-2525	F_5
9.	D53-518	D632-15 x D49-2525	F_5
10.	D53-542	D632-15 x D49-2525	F_5
11.	D53-640	D49-2570 x L3-2010	F_5
12.	S2-7158	D49-2525 x L6-5679	F_4

N48-1243 is a pustule-resistant line of VI maturity selected from Roanoke x N45-745 (Ogden x CNS selection).

D632-15 is a selection from Dunfield x Haberlandt, which was included in Group V for the years 1950 to 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 tested in Group IV for the years 1949 to 1953.

D49-2570 is a sub-line of N48-1248.

L3-2010 is a high oil line of Wabash maturity.

Thirty-four Uniform Group V nurseries were planted. Results of 26 nurseries were summarized in tables 16 through 23. Seed yields were very good in the East Coast area but were more variable in other areas, because of eratic rainfall in the latter part of the growing season. Three nurseries, Stuttgart, Lubbock, and Plainview, received supplemental irrigation. Differences among strains were significant in 17 of the 26 nurseries summarized.

Three named varieties, Dorman, S-100, and Dortchsoy 67, were evaluated along with 9 experimental lines. The experimental lines were all selections from crosses made to combine resistance to the major diseases with good agronomic qualities.

The disease Sclerotium rolfsii caused killing at Holland, Virginia, and permitted strain evaluation. Approximately 33 percent of the plot area

of S-100 was destoryed. The high susceptibility of S-100 to S. rolfsii had previously been demonstrated in 1943 when it showed severe killing at McCullers and Windsor, North Carolina. S2-7153 with 45 percent killing and D51-481 with 13 percent killing were other highly susceptible lines at Holland.

Killing from what appeared to be pod and stem blight was observed at Wilson, Arkansas, Coahoma and Clarksdale, Mississippi. S-100, D53-640, and S2-7158 were the most susceptible lines in this group. All three had demonstrated their susceptible reaction in 1955.

The line D52-18 has been tested three years. It has yielded well in the East Coast area, but has yielded less than Dorman in the Delta. D52-18 has usually been slightly inferior to Dorman in seed quality. Under good growing conditions, D52-18 will average 48 to 60 inches in height.

The six lines, D53-429, D53-492, D53-526, D53-481, D53-518, and D53-542, are all from the same cross, but represent two distinct growth types. D53-429 and D53-542 are tall somewhat indeterminate types, while the other four strains are short, bushy types. The two tall types have lodged more than the short types where they made heavy growth. D53-429 is a sub-line of D52-1776 which was grown in 1955. The data for the parent line and sub-line are combined in the two-year table. D53-481 was one of the lowest yielding lines in all four production areas. However, D53-518 ranked high in the East Coast area and low in the Delta. The rather high susceptibility of D53-492 to bacterial blight was again observed at several locations in 1956.

D53-526 appears to be the most promising strain in this group. Although the two-year mean yield for D53-526 has not differed appreciably from Dorman, it does appear to have several advantages. D53-526 does not show as much increase in height as it moved north as Dorman. For this reason, it should be less subject to lodging. In 1955, D53-526 equalled Dorman in oil content and was .8% higher in protein. However, in 1956, D53-526 was .4% lower in oil and .7% higher in protein. It is resistant to bacterial pustule, bacterial blight, target spot, purple stain, and the race or races of downy mildew that have been common to the area in recent years. It has suffered very little loss in stand from what appears to be pod and stem blight or Sclerotium rolfsii. D53-526 holds its seed very well, especially when plants have adequate moisture to reach full maturity.

Table 16. General summary of performance of the strains in Uniform Group V, 1956

	Dorman	S-100	Dortch-soy 67	D52-18	D53-429	D53-492
Seed Yield - 1956						
East Coast	30.1	27.2	31.7	31.9	30.4	30.6
Upper & Central South	27.2	28.4	25.6	27.2	26.7	26.0
Delta	23.6	21.7	25.8	22.5	22.9	25.4
West	13.6	13.7	14.6	13.9	14.4	16.2
-1955-56						
East Coast	30.7	26.5	31.2	32.9	31.5	31.5
Upper & Central South	23.5	25.3	23.7	23.3	22.8	22.4
Delta	28.9	26.7	30.7	27.6	27.2	30.5
West	17.6	17.4	20.4	18.9	18.5	20.5
-1954-56						
East Coast	27.5	24.7	29.0	29.8		
Upper & Central South	19.6	21.4	19.9	22.3		
Delta	26.7	25.1	27.9	25.0		
West	13.5	13.6	16.1	15.5		
Oil Content - 1956	21.1	19.5	20.9	22.0	20.1	19.7
- 1955-56	21.2	19.2	21.0	21.7	20.0	19.8
- 1954-56	21.4	19.3	21.4	21.9		
Protein Content - 1956	39.1	42.7	39.7	40.2	40.2	41.1
- 1955-56	38.8	42.7	39.3	40.5	40.1	41.2
- 1954-56	39.2	42.7	39.3	40.4		
Maturity Index	9-30	-1	+4	+5	+5	+1
Height	36	43	36	45	43	32
Shattering 1/	1.0	2.0	2.0	1.0	1.0	1.0
Bacterial Pustule 1/	3.0	4.0	4.5	1.0	1.0	1.0
Target Spot 1/	2.0	1.0	3.0	1.0	1.0	1.0
Sclerotium rolfsii 2/	1.0	4.0	1.0	1.0	1.0	1.0
Pod and Stem Blight 3/	1.0	3.0	1.5	1.0	1.0	1.0

1/ Stoneville data.
2/ Holland, Virginia data.
3/ Wilson, Arkansas, and Coahoma and Clarksdale, Mississippi, data.

Table 16. (Continued)

	D53-526	D53-481	D53-518	D53-542	D53-640	S2-7158
Seed Yield - 1956						
East Coast	30.9	26.9	31.9	31.0	28.7	28.6
Upper & Central South	27.2	26.0	26.1	28.0	22.4	28.8
Delta	26.2	21.4	22.6	22.0	20.7	21.5
West	15.5	14.6	14.6	14.5	14.4	14.6
- 1955-56						
East Coast	30.5					
Upper & Central South	23.1					
Delta	30.4					
West	18.9					
- 1954-56						
East Coast						
Upper & Central South						
Delta						
West						
Oil Content - 1956	20.7	21.3	19.9	20.9	19.2	21.5
- 1955-56	21.0					
- 1954-56						
Protein Content - 1956	39.8	40.1	41.1	39.2	40.6	39.2
- 1955-56	39.5					
- 1954-56						
Maturity Index	0	-3	+1	-2	+8	-5
Height	33	31	32	41	38	37
Shattering [1]	1.0	2.0	1.0	1.0	1.0	2.0
Bacterial Pustule [1]	1.0	1.0	1.0	1.0	1.0	1.0
Target Spot [1]	1.0	1.0	1.5	1.0	1.0	1.0
Sclerotium rolfsii [2]	1.0	3.0	1.0	1.0	1.0	4.0
Pod and Stem Blight [3]	1.0	1.0	1.0	1.0	2.5	3.0

Table 17. Yield, in bushels per acre, for the strains in Uniform Group V, 1956

Location	Dorman	S-100	Dortch-soy 67	D52-18	D53-429	D53-492
			East Coast			
Georgetown, Del.	31.2	33.8	30.9	29.2	29.2	31.3
Linkwood, Md.	30.3	24.3-	36.6+	35.2+	31.2	31.9
Warsaw, Va.	35.8	32.1-	34.4	36.1	34.1	35.3
Onley, Va.	22.3	19.9	21.2	19.0	21.6	21.2
Norfolk, Va.	22.5	30.6	27.0	29.9	32.1	28.8
Petersburg, Va.	37.1	32.0-	34.9	30.4-	30.4	33.9
Holland, Va.	26.6	12.5-	29.6	33.1+	25.8	24.9
Plymouth, N. C.	34.9	32.7	30.3-	41.9+	31.2	37.6
Mean	30.1	27.2	31.7	31.9	30.4	30.6
			Upper and Central South			
Lexington, Ky.	29.5	27.5	20.9-	26.1	26.1	30.5
Belle Mina, Ala.	15.1	17.2	15.7	17.5	17.0	15.3
State College, Miss.	36.9	40.5	40.2	38.1	37.1	32.2
Mean	27.2	28.4	25.6	27.2	26.7	26.0
			Delta			
Henderson, Ky.	37.0	31.3	38.2	33.3	29.2-	34.4
Sikeston, Mo.	17.2	21.0	18.2	18.9	16.4	18.1
Wilson, Ark.	19.8	14.5	25.2	29.5+	20.7	26.2
Marianna, Ark.	21.8	21.5	28.2+	24.6	26.5+	23.6
Coahoma, Miss.	34.9	31.3	35.6	31.1	40.2	39.7
Clarksdale, Miss.	14.9	13.2	16.5	13.8	8.7-	17.6
Stoneville, Miss. (A)	18.6	19.4	20.9	14.5	17.1	16.4
Stoneville, Miss. (B)	24.4	21.4	23.5	14.4-	17.2-	27.0
Mean	23.6	21.7	25.8	22.5	22.0	25.4
			West			
Stuttgart, Ark.	24.2	22.6	24.5	27.2	29.5+	29.4+
Fayetteville, Ark.	8.3	9.7	9.3	8.0	5.9	9.9
Miami, Okla.	7.4	10.1	7.8	8.2	7.3	9.8
South Coffeyville, Okla.	4.5	6.4	6.7	4.4	3.7	5.7
Chillicothe, Texas	4.5	4.0	4.8	5.9	8.0	5.5
Lubbock, Texas	15.2	13.4	15.8	13.8	15.9	15.6
Plainview, Texas	31.1	29.3	33.4	30.1	30.3	37.9
Mean	13.6	13.7	14.6	13.9	14.4	16.2

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

Table 17. (Continued)

Location	D53-526	D53-481	D53-518	D53-542	D53-640	S2-7158	L.S.D. (5%)	C.V.
			East Coast					
Georgetown, Del.	29.3	23.5	30.4	29.0	23.5	32.7	3.2	6%
Linkwood, Md.	33.2	29.1	32.0	28.8	28.1	23.0-	3.7	7%
Warsaw, Va.	34.6	31.2-	33.5	33.4	31.2-	29.3-	2.6	5%
Onley, Va.	20.7	19.3	25.7	25.3	19.9	21.4	N.S.	15%
Norfolk, Va.	29.2	26.6	32.9	30.6	28.1	38.1	N.S.	28%
Petersburg, Va.	34.9	30.1-	36.0	35.2	29.1-	33.6	4.9	9%
Holland, Va.	24.0	15.0-	27.9	23.3	23.1	9.2-	5.9	15%
Plymouth, N. C.	41.3+	35.7	37.2	42.6+	41.6+	41.9+	4.2	6%
Mean	30.9	26.9	31.9	31.0	28.7	28.6	3.5	
			Upper and Central South					
Lexington, Ky.	31.8	30.8	26.8	30.9	19.7-	29.1	3.8	7%
Belle Mina, Ala.	17.6	16.1	16.5	15.8	19.6	16.4	N.S.	17%
State College, Miss.	32.1	31.1	35.1	37.2	28.0-	41.0	6.1	10%
Mean	27.2	26.0	26.1	28.0	22.4	28.8	N.S.	
			Delta					
Henderson, Ky.	34.0	29.2-	30.2-	33.3	24.1-	32.9	6.4	10%
Sikeston, Mo.	20.5	18.2	20.2	14.7	17.3	19.1	N.S.	13%
Wilson, Ark.	27.7+	16.9	18.2	23.8	23.0	13.0	7.6	21%
Marianna, Ark.	24.7	22.8	23.0	18.1	30.4+	19.6	4.7	12%
Coahoma, Miss.	41.2	35.5	35.9	37.0	31.0	30.4	6.4	11%
Clarksdale, Miss.	16.9	11.9	13.9	13.2	9.6-	13.6	4.9	12%
Stoneville, Miss. (A)	19.6	20.2	15.7	15.6	16.1	19.9	N.S.	16%
Stoneville, Miss. (B)	25.4	16.6-	23.7	20.6-	14.2-	24.2	3.4	9%
Mean	26.2	21.4	22.6	22.0	20.7	21.5	3.3	
			West					
Stuttgart, Ark.	31.2+	28.4+	28.5+	30.6+	31.7+	29.9+	3.7	8%
Fayetteville, Ark.	9.0	9.0	9.3	8.7	8.2	10.4	N.S.	21%
Miami, Okla.	7.8	9.7	6.9	9.1	7.2	10.5	N.S.	20%
South Coffeyville, Okla.	6.5	3.8	6.1	4.0	5.3	5.8	1.8	20%
Chillicothe, Texas	6.1	4.4	5.4	6.2	4.2	6.4	1.1	12%
Lubbock, Texas	14.5	12.1	13.5	13.0	14.7	7.8	N.S.	44%
Plainview, Texas	33.3	35.3	32.2	29.7	29.7	31.2	N.S.	11%
Mean	15.5	14.6	14.6	14.5	14.4	14.6	N.S.	

Table 18. Chemical composition for the strains in Uniform Group V, 1956

Location	Dorman	S-100	Dortch-soy 67	D52-18	D53-429	D53-492
			OIL PERCENTAGE			
Georgetown, Del.	19.0	18.9	19.1	20.0	18.9	18.5
Linkwood, Md.	21.8	19.8	21.4	23.2	21.8	21.1
Warsaw, Va.	21.5	20.3	21.0	22.1	20.4	20.7
Plymouth, N. C.	20.7	18.7	21.3	22.0	20.0	19.6
Henderson, Ky.	21.0	19.5	20.9	21.4	19.9	18.8
Coahoma, Miss.	21.8	18.9	21.8	23.2	19.9	20.5
Stoneville, Miss. (B)	21.3	19.8	20.0	20.8	19.5	18.8
Plainview, Texas	21.5	20.4	21.8	23.1	20.0	19.8
Mean	21.1	19.5	20.9	22.0	20.1	19.7
			PROTEIN PERCENTAGE			
Georgetown, Del.	40.9	40.8	40.2	40.8	40.9	41.4
Linkwood, Md.	39.7	43.7	39.9	39.8	39.1	40.6
Warsaw, Va.	40.4	43.5	41.4	40.8	39.7	41.4
Plymouth, N. C.	41.0	45.0	42.4	43.0	44.1	44.2
Henderson, Ky.	39.6	43.7	40.4	40.3	40.1	41.8
Coahoma, Miss.	38.3	43.3	38.3	39.8	40.2	40.6
Stoneville, Miss. (B)	38.2	42.0	40.0	40.7	39.3	41.5
Plainview, Texas	34.9	39.8	35.2	36.3	37.9	37.2
Mean	39.1	42.7	39.7	40.2	40.2	41.1

Table 13. (Continued).

Location	D53-526	D53-481	D53-513	D53-542	D53-640	S2-7158
			OIL PERCENTAGE			
Georgetown, Del.	18.7	20.0	18.6	19.2	17.9	20.7
Linkwood, Md.	22.4	22.5	21.2	22.1	19.0	22.6
Warsaw, Va.	21.9	22.4	20.5	22.0	19.1	22.2
Plymouth, N. C.	20.9	21.1	19.8	20.9	19.0	21.6
Henderson, Ky.	19.9	20.5	19.3	19.8	18.7	20.2
Coahoma, Miss.	20.7	21.5	20.2	21.4	19.7	21.2
Stoneville, Miss. (B)	19.7	20.4	19.6	21.3	19.6	21.9
Plainview, Texas	21.5	21.7	20.0	20.4	20.3	21.6
Mean	20.7	21.3	19.9	20.9	19.2	21.5
			PROTEIN PERCENTAGE			
Georgetown, Del.	40.1	40.2	42.5	41.0	39.7	40.5
Linkwood, Md.	39.8	40.6	41.0	37.5	41.3	39.6
Warsaw, Va.	39.4	40.2	40.9	39.5	41.6	39.0
Plymouth, N. C.	41.4	41.9	42.4	41.3	43.9	41.6
Henderson, Ky.	40.5	41.6	41.8	40.0	41.7	39.1
Coahoma, Miss.	38.7	39.6	40.1	38.1	40.4	39.0
Stoneville, Miss. (B)	42.1	40.1	42.0	39.4	39.6	37.7
Plainview, Texas	36.3	36.5	37.7	35.9	36.7	37.1
Mean	39.8	40.1	41.1	39.2	40.6	39.2

Table 19. Relative maturity data, days earlier (-) or later (+) than Dorman, for the strains in Uniform Group V, 1956

Location	Date Planted	Dorman Matured	S-100	Dortch-soy 67	D52-18	D53-429	D53-492
			East Coast				
Georgetown, Del.	5-24	10-10	-5	0	-2	+3	-2
Linkwood, Md.	5-15	10-6	-7	+3	+2	+5	-2
Warsaw, Va.	5-30	10-17	-10	+1	-1	0	-7
Petersburg, Va.	5-9	9-30	+10	+7	+14	+16	+4
Holland, Va.	5-21	10-12	-4	0	-2	0	0
Plymouth, N. C.	5-3	10-1	-6	+2	+2	+3	-6
Mean		10-8	-4	+2	+2	+5	-2
			Upper and Central South				
Lexington, Ky.	6-5	10-22	0	+10	+2	-1	-4
Belle Mina, Ala.	5-23	10-7	+2	-1	+2	+2	+1
State College, Miss.	5-22	9-17	0	+1	+9	+9	+2
Mean		10-5	+1	+3	+4	+3	0
			Delta				
Henderson, Ky.	5-30	10-16	+4	+8	+4	+10	-6
Sikeston, Mo.	5-21	9-30	-7	+8	+11	+10	0
Wilson, Ark.	5-8	10-4	+5	+5	+2	+5	+5
Marianna, Ark.	5-18	9-16	+2	+7	+15	+11	+4
Coahoma, Miss.	5-14	9-19	0	+2	+5	+3	0
Clarksdale, Miss.	4-27	9-1	0	+4	+6	+2	+2
Stoneville, Miss. (A)	5-30	9-16	0	+2	+2	0	0
Stoneville, Miss. (B)	5-7	9-8	-2	+4	+6	+4	+3
Mean		9-21	0	+5	+6	+6	+1
			West				
Stuttgart, Ark.	5-18	9-28	0	0	0	0	0
Fayetteville, Ark.	5-11	10-3	+2	0	+3	+3	-2
Miami, Okla.	5-4	9-22	+2	+20	+20	+20	+20
South Coffeyville, Okla.	5-9	10-8	-1	+2	+2	+2	0
Plainview, Texas	5-24	10-10	0	0	+2	+2	+3
Mean		10-2	+1	+4	+5	+5	+4

Table 19. (Continued)

Location	D53-526	D53-481	D53-518	D53-542	D53-640	S2-7158
			East Coast			
Georgetown, Del.	-2	-6	0	-5	+10	-7
Linkwood, Md.	-3	-9	-1	-?	+7	-15
Warsaw, Va.	-7	-8	-7	-8	+11	-13
Petersburg, Va.	+2	0	+5	+3	+14	+4
Holland, Va.	-8	-11	-8	-4	0	-11
Plymouth, N. C.	-6	-6	-3	-6	+7	-6
Mean	-4	-7	-2	-5	+8	-8
			Upper and Central South			
Lexington, Ky.	-2	-4	-2	-3	+15	-5
Belle Mina, Ala.	+2	0	0	0	+1	+1
State College, Miss.	+1	-3	+1	-3	+10	-3
Mean	0	-2	0	-2	+9	-2
			Delta			
Henderson, Ky.	-4	-8	+2	+2	+12	-10
Sikeston, Mo.	+1	-2	+2	-4	+10	-7
Wilson, Ark.	+3	-2	+1	+1	+1	-3
Marianna, Ark.	+3	-1	+2	+1	+17	+1
Coahoma, Miss.	0	0	+2	0	+7	-7
Clarksdale, Miss.	+4	-1	+2	0	+7	-3
Stoneville, Miss. (A)	0	0	0	0	+2	-4
Stoneville, Miss. (B)	+1	-7	-1	-2	+6	-7
Mean	+1	-3	+1	0	+8	-5
			West			
Stuttgart, Ark.	0	0	0	0	0	0
Fayetteville, Ark.	-1	-5	-1	-2	+4	-5
Miami, Okla.	+20	0	+20	0	+20	0
South Coffeyville, Okla.	0	-2	-1	-2	+3	-3
Plainview, Texas	0	0	0	0	+10	-16
Mean	+4	-1	+4	-1	+7	-5

Table 20. Height data for the strains in Uniform Group V, 1956

Location	Dorman	S-100	Dortch-soy 67	D52-18	D53-429	D53-492
			East Coast			
Georgetown, Del.	44	43	41	48	48	40
Linkwood, Md.	43	46	41	50	56	38
Warsaw, Va.	43	49	38	53	51	36
Onley, Va.	27	30	35	34	37	26
Norfolk, Va.	34	44	33	52	47	27
Petersburg, Va.	34	42	41	54	45	34
Holland, Va.	37	49	37	36	47	36
Plymouth, N. C.	38	51	40	56	43	35
Mean	38	45	33	48	47	34
			Upper and Central South			
Lexington, Ky.	37	46	51	31	32	33
Belle Mina, Ala.	36	37	35	41	39	32
Mean	37	42	43	36	36	33
			Delta			
Henderson, Ky.	43	57	47	61	54	38
Sikeston, Mo.	48	53	42	52	54	43
Wilson, Ark.	28	30	24	32	32	27
Marianna, Ark.	28	40	33	41	37	24
Coahoma, Miss.	33	44	33	49	40	30
Clarksdale, Miss.	35	43	30	47	42	31
Stoneville, Miss. (A)	35	47	33	53	47	33
Stoneville, Miss. (B)	37	54	38	57	49	36
Mean	36	46	35	49	44	33
			West			
Fayetteville, Ark.	33	34	28	37	39	29
Miami, Okla.	33	34	27	32	36	26
South Coffeyville, Okla.	34	33	26	34	34	28
Plainview, Texas	29	38	33	41	38	31
Mean	32	35	29	36	37	29

Table 20. (Continued)

Location	D53-526	D53-481	D53-513	D53-542	D53-640	S2-7153
			East Coast			
Georgetown, Del.	40	40	42	47	42	42
Linkwood, Md.	37	37	39	48	40	42
Warsaw, Va.	38	36	38	46	44	45
Onley, Va.	30	23	35	34	35	34
Norfolk, Va.	30	28	29	41	40	34
Petersburg, Va.	35	32	34	42	40	43
Holland, Va.	34	32	33	39	40	40
Plymouth, N. C.	36	33	32	41	39	45
Mean	35	33	35	42	40	41
			Upper and Central South			
Lexington, Ky.	35	33	34	43	43	44
Belle Mina, Ala.	34	31	34	37	39	32
Mean	35	32	34	40	41	38
			Delta			
Henderson, Ky.	42	37	40	51	52	56
Sikeston, Mo.	42	40	43	51	47	45
Wilson, Ark.	25	21	22	31	22	19
Marianna, Ark.	23	24	24	34	28	31
Coahoma, Miss.	31	31	30	35	34	32
Clarksdale, Miss.	32	30	30	43	37	34
Stoneville, Miss. (A)	31	33	35	42	37	45
Stoneville, Miss. (B)	37	34	32	49	41	43
Mean	33	31	32	42	37	38
			West			
Fayetteville, Ark.	30	30	30	37	32	29
Miami, Okla.	25	26	30	36	32	25
South Coffeyville, Okla.	30	26	29	34	31	30
Plainview, Texas	30	26	26	35	36	33
Mean	29	27	29	36	33	29

Table 21. Lodging scores for the strains in Uniform Group V, 1956

Location	Dorman	S-100	Dortch-soy 67	D52-13	D53-429	D53-492
			East Coast			
Georgetown, Del.	4.0	3.0	2.7	2.0	3.3	3.3
Linkwood, Md.	3.0	2.0	3.0	2.0	3.0	2.0
Warsaw, Va.	1.0	1.5	1.5	1.0	1.5	1.0
Onley, Va.	2.0	2.0	1.7	1.7	2.0	1.7
Norfolk, Va.	3.0	3.7	3.0	3.3	3.3	3.0
Petersburg, Va.	2.3	2.3	4.0	3.0	4.0	1.0
Holland, Va.	2.3	2.3	2.7	3.0	3.0	1.3
Plymouth, N. C.	4.3	4.0	3.7	3.7	4.5	3.7
Mean	2.7	2.6	2.8	2.5	3.1	2.1
			Upper and Central South			
Lexington, Ky.	3.3	3.7	5.0	3.0	3.7	1.3
Belle Mina, Ala.	1.7	1.0	2.0	1.0	1.7	1.7
State College, Miss.	1.0	1.0	1.0	2.0	1.0	1.0
Mean	2.0	1.9	2.7	2.0	2.1	1.3
			Delta			
Henderson, Ky.	3.3	2.0	3.6	3.0	3.7	3.2
Wilson, Ark.	1.3	1.0	1.0	2.0	2.0	1.7
Marianna, Ark.	3.0	2.7	3.3	4.0	3.7	1.7
Coahoma, Miss.	2.3	3.3	3.3	3.3	3.0	2.0
Clarksdale, Miss.	2.3	2.0	2.0	2.0	2.7	1.7
Stoneville, Miss. (A)	2.7	3.7	3.3	3.7	3.3	2.7
Stoneville, Miss. (B)	3.0	2.7	3.0	3.0	3.0	2.0
Mean	2.6	2.6	2.3	3.0	3.1	2.1
			West			
Stuttgart, Ark.	2.3	2.7	2.0	4.0	3.0	1.3
Fayetteville, Ark.	2.0	1.0	1.0	1.3	1.7	1.0
Miami, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
South Coffeyville, Okla.	2.0	1.3	1.0	1.3	2.0	1.3
Plainview, Texas	2.0	1.3	1.6	2.0	2.0	2.0
Mean	1.9	1.5	1.3	1.9	1.9	1.3

Table 21. (Continued)

Location	D53-526	D53-481	D53-518	D53-542	D53-640	S2-7158
			East Coast			
Georgetown, Del.	2.7	3.3	2.7	4.0	3.3	3.0
Linkwood, Md.	2.7	2.0	2.0	3.0	2.3	2.0
Warsaw, Va.	1.0	1.0	1.0	1.5	2.0	1.0
Onley, Va.	1.0	1.7	1.7	1.3	1.0	1.3
Norfolk, Va.	3.0	3.0	3.3	3.0	3.0	3.0
Petersburg, Va.	1.0	1.0	1.0	3.0	2.0	2.0
Holland, Va.	1.7	1.7	2.0	2.7	2.7	1.7
Plymouth, N. C.	3.7	4.0	3.3	4.6	3.2	3.2
Mean	2.1	2.2	2.1	2.9	2.4	2.2
			Upper and Central South			
Lexington, Ky.	2.7	2.0	2.7	4.3	3.7	2.7
Belle Mina, Ala.	1.3	1.3	1.0	1.3	1.7	1.0
State College, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
Mean	1.7	1.4	1.6	2.2	2.1	1.6
			Delta			
Henderson, Ky.	2.3	2.3	2.7	4.2	3.7	2.3
Wilson, Ark.	1.0	1.0	1.0	1.7	1.0	1.0
Marianna, Ark.	1.0	1.0	1.3	2.3	1.3	1.7
Coahoma, Miss.	2.0	1.7	2.0	3.0	3.0	2.0
Clarksdale, Miss.	2.0	2.0	2.0	2.7	2.0	2.0
Stoneville, Miss. (A)	2.7	2.7	3.0	3.3	3.0	3.3
Stoneville, Miss. (B)	2.0	2.0	2.0	2.7	2.0	2.0
Mean	1.9	1.8	2.0	2.8	2.3	2.0
			West			
Stuttgart, Ark.	1.3	1.0	1.0	2.7	1.0	2.0
Fayetteville, Ark.	1.0	1.0	1.3	2.0	1.0	1.0
Miami, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
South Coffeyville, Okla.	1.3	1.6	2.0	1.0	2.0	1.3
Plainview, Texas	2.0	1.6	1.3	2.0	1.6	1.6
Mean	1.3	1.2	1.3	1.7	1.3	1.4

Table 22. Seed quality scores for the strains in Uniform Group V, 1956

Location	Dorman	S-100	Dortch-soy 67	D52-18	D53-429	D53-492
East Coast						
Georgetown, Del.	2.0	3.0	2.0	2.3	1.7	2.0
Linkwood, Md.	2.3	3.0	2.0	3.0	2.0	3.0
Warsaw, Va.	1.0	2.5	1.0	2.0	2.0	1.5
Petersburg, Va.	1.3	3.0	2.3	3.0	1.3	1.3
Holland, Va.	4.5	3.3	4.0	3.3	3.5	4.5
Plymouth, N. C.	**2.0**	**3.0**	**2.5**	**3.0**	**2.0**	**1.5**
Upper and Central South						
Lexington, Ky.	1.0	2.0	2.0	1.0	2.0	1.0
Delta						
Henderson, Ky.	1.0	3.0	2.0	1.5	2.0	2.0
Sikeston, Mo.	2.0	2.0	2.0	2.0	1.0	2.3
Wilson, Ark.	2.0	2.3	1.0	1.7	1.3	1.3
Marianna, Ark.	2.3	2.0	1.3	2.0	1.3	2.0
Coahoma, Miss.	1.3	3.0	2.0	2.7	2.0	1.0
Clarksdale, Miss.	2.7	4.7	5.0	4.0	3.3	3.0
Stoneville, Miss. (A)	2.3	3.3	3.0	3.7	2.0	2.0
Stoneville, Miss. (B)	2.7	4.0	4.0	3.7	3.0	2.3
West						
Stuttgart, Ark.	1.7	1.7	1.3	1.0	1.3	1.7
Fayetteville, Ark.	4.0	3.3	4.0	4.3	3.0	3.3
Miami, Okla.	2.7	3.0	2.7	2.0	2.0	2.7
South Coffeyville, Okla.	2.3	3.0	3.0	2.3	1.3	2.3

Table 22. (Continued)

Location	D53-526	D53-481	D53-518	D53-542	D53-640	S2-7158
			East Coast			
Georgetown, Del.	1.3	1.7	1.7	2.0	2.0	3.7
Linkwood, Md.	2.7	3.0	2.0	3.0	2.0	4.0
Warsaw, Va.	1.5	3.0	1.5	2.5	2.0	4.0
Petersburg, Va.	1.0	1.0	1.0	1.3	3.0	2.3
Holland, Va.	4.5	4.5	3.2	4.5	3.0	5.0
Plymouth, N. C.	1.5	3.0	2.0	1.5	3.0	3.0
			Upper and Central South			
Lexington, Ky.	2.0	1.7	1.0	1.3	2.7	2.7
			Delta			
Henderson, Ky.	2.0	2.0	2.0	2.0	3.0	2.0
Sikeston, Mo.	2.0	1.0	2.0	2.0	2.0	2.0
Wilson, Ark.	2.3	1.3	2.7	2.0	2.0	2.0
Marianna, Ark.	2.0	2.0	1.7	1.7	2.3	2.7
Coahoma, Miss.	1.0	1.7	2.0	2.0	1.7	4.0
Clarksdale, Miss.	2.0	3.0	2.7	3.3	4.0	4.3
Stoneville, Miss. (A)	2.0	2.0	2.3	2.7	2.0	3.7
Stoneville, Miss. (B)	2.0	3.0	2.0	3.3	2.3	4.0
			West			
Stuttgart, Ark.	2.0	2.0	1.3	1.0	1.7	2.3
Fayetteville, Ark.	3.3	2.7	2.7	4.3	2.7	4.3
Miami, Okla.	2.0	1.3	2.3	4.0	1.6	2.0
South Coffeyville, Okla.	1.6	2.0	2.3	4.0	2.0	3.3

Table 23. Seed weight, in grams per 100 seeds, for the strains in Uniform Group V, 1956.

Location	Dorman	S-100	Dortch-soy 67	D52-18	D53-429	D53-492
East Coast						
Georgetown, Del.	14.2	16.0	12.0	13.3	13.5	12.8
Linkwood, Md.	16.3	16.2	14.0	14.3	14.9	14.1
Warsaw, Va.	15.8	16.0	13.3	15.0	13.8	13.3
Petersburg, Va.	15.7	16.3	13.8	15.3	11.5	14.3
Holland, Va.	12.6	12.6	11.3	13.6	12.6	11.6
Plymouth, N. C.	11.4	14.1	11.3	12.4	13.4	10.5
Mean	14.3	15.2	12.6	14.0	13.3	12.8
Upper and Central South						
Lexington, Ky.	11.0	12.7	10.3	11.7	10.3	11.3
Delta						
Henderson, Ky.	13.0	14.2	11.7	12.2	11.7	12.2
Wilson, Ark.	13.7	13.0	13.0	12.3	11.7	12.0
Marianna, Ark.	13.7	13.7	12.7	13.3	12.7	12.3
Coahoma, Miss.	12.6	13.7	11.7	12.8	12.4	11.9
Stoneville, Miss. (B)	10.3	11.2	10.0	9.6	9.1	10.0
Mean	12.8	13.2	11.8	12.0	11.5	11.7
West						
Stuttgart, Ark.	13.3	14.0	11.3	13.7	13.7	14.3
Fayetteville, Ark.	11.3	11.7	10.3	11.3	10.7	11.3
Miami, Okla.	10.5	10.3	8.6	11.0	10.1	9.5
South Coffeyville, Okla.	10.4	10.3	9.2	10.9	9.8	9.0
Plainview, Texas	13.6	16.1	12.3	12.2	12.8	13.2
Mean	11.8	12.6	10.4	11.8	11.4	11.5

Table 23. (Continued)

Location	D53-526	D53-481	D53-518	D53-542	D53-640	S2-7158
			East Coast			
Georgetown, Del.	12.4	11.8	15.3	12.7	10.5	14.4
Linkwood, Md.	14.1	12.3	15.3	13.4	12.1	15.5
Warsaw, Va.	13.0	12.5	14.7	13.7	12.5	14.0
Petersburg, Va.	14.3	14.3	15.1	13.8	12.7	15.1
Holland, Va.	11.2	11.1	13.5	11.3	10.5	12.4
Plymouth, N. C.	10.5	10.4	12.3	11.4	11.0	13.9
Mean	12.6	12.2	14.4	12.7	11.6	14.2
			Upper and Central South			
Lexington, Ky.	11.7	10.0	13.3	11.0	8.7	13.0
			Delta			
Henderson, Ky.	11.0	10.7	13.2	11.0	9.7	13.7
Wilson, Ark.	12.3	9.7	12.3	12.3	10.0	12.7
Marianna, Ark.	12.0	11.7	13.7	12.3	13.3	13.3
Coahoma, Miss.	11.7	10.5	13.1	11.5	10.9	13.5
Stoneville, Miss. (B)	9.5	8.3	10.4	9.7	8.0	10.1
Mean	11.3	10.2	12.5	11.4	10.4	12.7
			West			
Stuttgart, Ark.	13.3	11.3	14.7	13.0	12.0	14.3
Fayetteville, Ark.	10.7	10.3	11.3	10.7	9.7	11.3
Miami, Okla.	9.8	8.4	10.8	10.1	9.2	10.6
South Coffeyville, Okla.	8.7	7.6	9.5	8.5	9.9	11.2
Plainview, Texas	12.7	12.6	13.9	12.5	11.9	14.6
Mean	11.0	10.0	12.0	11.0	10.5	12.4

PRELIMINARY GROUP V

1956

Thirty-four new lines along with Dorman and D53-526 were planted at eight locations. Parentage of these lines is reported in table 24. Results of seven of the nurseries are summarized in tables 25 through 30.

Not any of the new lines yielded significantly higher than Dorman. Seven lines gave significantly lower seed yields. Nine additional lines, or a total of 16, yielded significantly less than D53-526. One line, D53-2314, averaged 11 days earlier than Dorman and should perhaps be classified as Group IV maturity.

There were three lines having significantly higher oil content than Dorman and three lines with significantly lower oil content. Thirteen lines had a significantly higher protein content. Therefore, several of the lines produced a greater amount of oil and protein than Dorman.

Seed quality was in general good for the lines included in this group. The three lines selected from the cross D49-2570 x C490 produced poor quality seed at nearly all locations. D54-2314, a selection from the cross Wabash x D49-2573, produced very poor quality seed in the East Coast area.

Twenty-nine of the new lines were resistant to bacterial pustule and all had low target spot ratings. Pod and stem blight caused severe killing in four lines, D53-111, D53-154, D53-250, and D53-352, in the nursery at Wilson, Arkansas. Three additional lines, D54-3339, D54-3342, and D54-3343, had moderate killing.

The top performing strains from this group will replace the poorer strains now in Uniform Group V. Among the more promising appearing lines are: D53-142, D53-697, D54-2213, D54-3310, D54-3336, D54-3337, D54-3344, D54-3345, D54-3350, D54-3362, and D54-3416.

Table 24. Parentage of the strains in Preliminary Group V, 1956

	Strain	Parentage	Generation Composited
1.	Dorman	Dunfield x Arksoy	F_6
2.	D52-220	N48-1243 x Perry	F_5
3.	D53-111	D49-2525 x L6-5679	F_5
4.	D53-142	D49-2525 x L6-5679	F_5
5.	D53-154	D49-2525 x L6-5679	F_5
6.	D53-250	D49-2525 x L6-5679	F_5
7.	D53-352	D49-2525 x L6-5679	F_5
8.	D53-526	D632-15 x D49-2525	F_5
9.	D53-533	D632-15 x D49-2525	F_5
10.	D53-550	D49-2570 x C490	F_5
11.	D53-584	D49-2570 x C490	F_5
12.	D53-605	D49-2570 x C490	F_5
13.	D53-697	L7-163 x D49-2573	F_5
14.	D54-2213	Wabash x D49-2573	F_5
15.	D54-2314	Wabash x D49-2573	F_5
16.	D54-2319	Wabash x D49-2573	F_5
17.	D54-3310	D49-2525 x L6-5679	F_7
18.	D54-3336	D632-15 x D49-2525	F_7
19.	D54-3337	D632-15 x D49-2525	F_7
20.	D54-3338	D632-15 x D49-2525	F_7
21.	D54-3339	D632-15 x D49-2525	F_7
22.	D54-3340	D632-15 x D49-2525	F_7
23.	D54-3342	D632-15 x D49-2525	F_7
24.	D54-3343	D632-15 x D49-2525	F_7
25.	D54-3344	D632-15 x D49-2525	F_7
26.	D54-3345	D632-15 x D49-2525	F_7
27.	D54-3346	D632-15 x D49-2525	F_7
28.	D54-3350	D632-15 x D49-2525	F_7
29.	D54-3351	D632-15 x D49-2525	F_7
30.	D54-3352	D632-15 x D49-2525	F_7
31.	D54-3354	D632-15 x D49-2525	F_7
32.	D54-3362	D632-15 x D49-2525	F_7
33.	D54-3416	Wabash x D49-2573	F_6
34.	D623-33	Dunfield x Arksoy	F_6
35.	P52-1-2	D49-2570 x L3-2010	F_5
36.	P52-1-5	D49-2570 x L3-2010	F_5

Table 25. General summary of the performance of strains in Preliminary Group V, 1956

Strain	Seed Yield	Maturity Index	Height	Percent Oil	Percent Protein
Dorman	28.4	10-3	39	21.1	38.8
D52-220	25.9 1/	+3	38	21.4	38.8
D53-111	26.3	-3	30	20.9	40.7+
D53-142	28.3	+1	30	21.1	38.5
D53-154	26.5	-3	31	21.4	40.2
D53-250	24.1-	-1	30	20.5	41.1+
D53-352	24.7-	0	29	20.2	40.1
D53-526	30.3	0	36	20.9	39.0
D53-533	28.8	-2	44	21.4	38.7
D53-550	23.9-	-3	36	20.2	43.0+
D53-584	24.1- 1/	+3	36	20.1	43.0+
D53-605	24.7-	-4	39	20.8	42.9+
D53-697	29.4	+3	36	20.7	39.4
D54-2213	30.5	0	35	21.6	40.0
D54-2314	27.3	-11	43	22.6+	40.5
D54-2319	25.0 1/	+1	35	22.7+	39.9
D54-3310	26.9	-2	36	20.8	40.7+
D54-3336	26.6	+1	38	20.1	41.6+
D54-3337	26.4	0	42	21.0	40.4
D54-3338	26.1	-1	37	21.4	39.4
D54-3339	23.8-	-5	33	20.3	41.4+
D54-3340	25.9	-3	34	20.3	41.7+
D54-3342	27.7	-4	35	20.4	41.2+
D54-3343	27.0	+2	35	20.1	39.1
D54-3344	28.7	+1	44	21.5	38.9
D54-3345	27.8	+1	44	21.4	40.1
D54-3346	27.0	+1	46	20.0-	40.5
D54-3350	29.4	-1	38	22.4+	37.5
D54-3351	26.7	-6	33	21.3	39.4
D54-3352	26.4	-5	34	20.9	40.0
D54-3354	30.0	-1	38	19.4-	40.3
D54-3362	30.0	-1	34	20.7	39.2
D54-3416	30.4	0	34	21.3	39.1
D623-33	23.5-	-2	44	21.7	41.3+
P52-1-2	22.9-	+1	45	19.9-	43.2+
P52-1-5	22.8-	-1	42	20.6	43.0+
L.S.D. (.05)	3.5			1.0	1.3
(.01)	4.6			1.3	2.4

1/ Mean of 6 locations, Plymouth not included.

Table 25. (Continued)

Strain	Shattering	Bacterial Pustule	Target Spot	Pod and Stem Blight	Downy Mildew
Dorman	1.0	3.0	3.0	1.0	1.0
D52-220	1.0	1.0	1.0	1.0	1.5
D53-111	1.0	1.0	1.0	4.0	3.0
D53-142	1.0	1.0	1.0	1.0	1.0
D53-154	1.0	1.0	1.0	4.0	1.0
D53-250	1.0	1.0	1.0	4.0	1.0
D53-352	1.0	1.0	1.0	4.0	1.5
D53-526	1.0	1.0	1.0	1.0	1.0
D53-533	1.0	1.0	1.0	1.0	1.0
D53-550	1.0	1.0	1.0	1.0	1.5
D53-584	1.5	1.0	1.0	1.0	2.0
D53-605	1.0	3.0	1.0	1.0	1.0
D53-697	1.0	1.0	1.0	1.0	1.0
D54-2213	1.0	1.0	2.0	1.0	1.5
D54-2314	1.0	1.0	1.0	1.0	1.0
D54-2319	1.0	2.0	1.5	1.0	1.0
D54-3310	1.0	1.0	1.0	1.0	4.5
D54-3336	1.5	1.0	1.0	1.0	1.0
D54-3337	1.0	1.0	1.0	1.0	1.0
D54-3338	1.5	1.0	1.0	1.0	1.5
D54-3339	1.0	1.0	1.0	2.0	1.5
D54-3340	1.5	1.0	1.0	1.0	1.5
D54-3342	1.5	1.0	1.0	2.0	1.5
D54-3343	1.0	1.0	1.5	2.0	1.0
D54-3344	1.0	1.0	1.0	1.0	2.0
D54-3345	1.0	1.0	1.0	1.0	2.0
D54-3346	1.0	1.0	1.0	1.0	1.0
D54-3350	1.0	1.0	1.0	1.0	2.0
D54-3351	1.0	1.0	1.0	1.0	1.5
D54-3352	1.0	1.0	1.0	1.0	2.0
D54-3354	1.0	1.0	1.0	1.0	1.5
D54-3362	1.0	1.0	1.0	1.0	1.0
D54-3416	1.0	1.0	1.0	1.0	2.0
D623-33	1.0	4.0	1.0	1.0	1.0
P52-1-2	1.0	3.0	1.0	1.0	1.0
P52-1-5	1.0	3.0	1.0	1.0	1.0
L.S.D. (.05)					
(.01)					

Table 26. Seed yield, in bushels per acre, for the strains in Preliminary Group V, 1956

Strain	Link-wood, Md.	Warsaw, Va.	Ply-mouth, N. C.	Sikes-ton, Mo.	Wilson Ark.	Stone-ville, Miss.(B)	Plain-view, Texas
Dorman	31.4	34.2	39.0	16.5	15.4	28.0	35.1
D52-220	38.6+	33.7	-	14.3	15.1	22.6	31.3
D53-111	27.2-	30.1	31.4	17.6	10.2	29.2	33.3
D53-142	32.0	33.9	35.0	16.2	19.2	29.1	32.4
D53-154	32.0	30.4	37.1	15.3	10.7	30.3	29.7
D53-250	24.6-	31.7	29.9-	16.3	6.7-	27.7	32.0
D53-352	26.1-	31.0	26.9-	13.3	12.0	27.6	36.0
D53-526	34.0	34.4	39.8	14.7	24.6+	31.2	33.1
D53-533	35.4	29.7-	38.1	15.0	19.3	31.8	32.5
D53-550	28.6	29.7	27.9-	14.2	16.6	25.2	25.0-
D53-584	27.0-	31.0	-	14.2	18.9	23.8	29.4
D53-605	30.6	30.7	29.9-	18.0	16.0	23.7	24.3-
D53-697	25.6-	33.9	37.1	17.0	23.1+	33.2	36.0
D54-2213	35.4	33.2	41.6	17.0	17.6	33.2	36.7
D54-2314	31.2	30.2	32.1	14.8	23.5+	34.7	24.3-
D54-2319	34.0	28.0	-	15.2	15.6	32.2	24.8-
D54-3310	27.1-	30.4	28.0	12.9	22.6+	29.1	38.3
D54-3336	27.6	29.7-	32.8	18.2	19.5	25.9	32.5
D54-3337	31.6	30.1-	36.8	12.3-	19.1	26.4	28.6
D54-3338	30.2	33.1	32.6	13.7	16.4	26.1	30.3
D54-3339	26.5-	30.5	28.7-	13.8	8.8-	23.9	34.2
D54-3340	27.2-	30.2	35.5	10.3-	10.6	28.1	39.3
D54-3342	26.7-	30.5	37.4	15.6	17.8	31.1	34.8
D54-3343	31.4	29.8-	38.3	13.8	15.1	26.1	34.8
D54-3344	32.6	31.6	39.3	13.9	24.1+	25.6	33.8
D54-3345	33.4	30.8	38.7	11.0-	20.3	25.3	34.9
D54-3346	26.4-	34.2	34.2	16.6	21.9+	25.2	30.4
D54-3350	30.4	31.0	42.6	15.7	25.0+	31.9	30.1
D54-3351	25.4-	30.2	33.3	17.3	11.3	32.2	37.3
D54-3352	26.6-	31.9	28.2-	19.5	11.9	28.7	43.4+
D54-3354	32.0	35.3	39.6	19.3	16.7	28.8	37.6
D54-3362	33.8	33.7	36.2	19.9	23.5+	28.9	34.3
D54-3416	30.4	35.5	35.4	20.2	18.8	34.9+	38.4
D623-33	22.6-	26.9-	31.6	16.2	17.1	21.6	28.2-
P52-1-2	23.0-	30.7	30.4	12.6-	17.7	20.1-	25.9-
P52-1-5	25.0-	31.3	34.1	12.1-	11.7	19.7-	25.8-
L.S.D. (.05)	4.2	4.1	8.6	3.9	6.1	6.9	6.6
C.V.	7%	6%	12%	13%	22%	18%	10%

Table 27. Oil percentages of the strains in Preliminary Group V, 1956

Strain	Link-wood, Md.	Ply-mouth, N. C.	Stone-ville, Miss.(B)	Plain-view, Texas
Dorman	21.4	21.2	20.9	20.9
D52-220	21.3	-	21.4	21.4
D53-111	22.1	20.9	20.3	20.4
D53-142	22.3	20.9	20.5	20.7
D53-154	22.2	21.5	19.6	22.3
D53-250	21.4	20.0	19.5	21.2
D53-352	21.0	20.1	19.1	20.7
D53-526	21.7	21.0	19.6	21.4
D53-533	21.1	21.1	22.2	21.3
D53-550	21.1	19.0	21.6	19.2
D53-584	20.7	-	20.7	18.8
D53-605	21.3	20.5	20.8	19.9
D53-697	20.9	20.3	20.5	21.2
D54-2213	21.7	20.6	22.1	22.1
D54-2314	23.5	22.4	22.6	21.8
D54-2319	22.3	-	23.3	22.5
D54-3310	21.5	20.4	19.8	21.4
D54-3336	21.6	19.3	20.6	18.5
D54-3337	21.9	19.9	21.2	21.1
D54-3338	22.6	20.9	20.3	21.9
D54-3339	21.1	19.1	19.4	21.5
D54-3340	20.7	19.5	20.1	21.0
D54-3342	20.9	19.5	20.4	20.9
D54-3343	21.2	20.0	19.6	19.7
D54-3344	22.0	20.3	21.5	22.1
D54-3345	22.0	20.5	22.2	20.9
D54-3346	20.7	19.2	20.2	19.8
D54-3350	23.3	22.1	22.7	21.4
D54-3351	22.2	21.0	20.3	21.2
D54-3352	21.5	20.3	20.5	20.6
D54-3354	20.2	19.6	18.5	19.3
D54-3362	20.2	20.9	20.2	21.6
D54-3416	23.0	21.0	19.7	21.6
D623-33	22.3	21.0	21.3	21.6
P52-1-2	19.7	20.1	19.6	20.3
P52-1-5	21.0	20.4	19.9	20.9

Table 28. Protein percentages of the strains in Preliminary Group V, 1956

Strain	Link-wood, Md.	Ply-mouth, N. C.	Stone-ville, Miss.(B)	Plain-view, Texas
Dorman	38.9	41.5	38.0	36.8
D52-220	41.1	-	37.9	37.5
D53-111	39.8	43.0	42.0	38.0
D53-142	38.6	40.6	39.1	35.5
D53-154	40.7	42.9	42.0	35.3
D53-250	41.4	43.4	42.6	36.8
D53-352	40.5	41.6	41.5	36.9
D53-526	39.4	40.1	41.1	35.3
D53-533	38.3	42.6	39.0	34.8
D53-550	43.0	46.4	40.4	42.0
D53-584	44.8	-	42.8	41.3
D53-605	43.2	45.9	41.5	40.8
D53-697	40.2	41.6	38.7	37.2
D54-2213	39.7	44.1	39.4	35.5
D54-2314	41.0	44.4	40.6	35.8
D54-2319	40.8	-	41.8	37.0
D54-3310	40.7	42.4	42.4	37.1
D54-3336	40.2	44.6	42.4	39.0
D54-3337	39.5	44.3	41.9	35.7
D54-3338	38.7	43.5	41.7	33.5
D54-3339	40.5	43.8	42.7	38.6
D54-3340	42.2	44.3	43.2	37.0
D54-3342	40.9	44.2	43.9	35.8
D54-3343	37.9	40.4	40.9	37.3
D54-3344	38.5	43.4	39.7	34.0
D54-3345	40.4	42.9	40.2	37.0
D54-3346	39.6	44.2	41.5	36.6
D54-3350	37.6	40.1	39.3	32.9
D54-3351	39.6	41.6	40.9	35.5
D54-3352	39.5	42.1	42.2	36.3
D54-3354	40.0	44.0	42.6	34.5
D54-3362	38.7	41.3	42.0	34.8
D54-3416	39.4	41.3	40.3	35.4
D623-33	42.2	44.7	40.4	38.0
P52-1-2	44.7	46.0	43.2	39.0
P52-1-5	44.4	45.7	42.5	39.4

Table 29. Plant height of strains in Preliminary Group V, 1956

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N. C.	Sikeston, Mo.	Wilson, Ark.	Stoneville, Miss.(B)	Plainview, Texas
Dorman	44	45	41	48	28	38	30
D52-220	44	40	-	40	25	48	33
D53-111	28	42	32	37	17	34	22
D53-142	31	40	30	40	16	28	23
D53-154	32	42	34	37	17	30	28
D53-250	34	38	32	42	18	33	22
D53-352	32	36	31	36	18	27	25
D53-526	38	39	36	42	25	38	31
D53-533	50	44	46	52	33	43	37
D53-550	38	35	42	41	22	46	29
D53-584	38	41	-	34	25	45	32
D53-605	44	42	42	44	25	47	32
D53-697	35	35	40	46	25	43	31
D54-2213	38	42	37	45	22	33	29
D54-2314	51	44	49	47	26	50	34
D54-2319	35	41	-	45	20	38	30
D54-3310	39	40	38	44	26	36	29
D54-3336	43	38	39	47	30	40	31
D54-3337	46	42	46	52	30	44	37
D54-3338	40	39	36	46	25	39	31
D54-3339	36	37	35	41	20	35	30
D54-3340	36	41	35	42	22	34	30
D54-3342	36	38	38	43	24	38	29
D54-3343	38	40	39	42	23	32	28
D54-3344	52	46	44	50	29	40	48
D54-3345	51	48	44	44	27	40	43
D54-3346	52	46	44	46	32	51	48
D54-3350	39	40	41	44	29	42	29
D54-3351	32	37	34	38	24	36	27
D54-3352	34	44	36	37	25	34	27
D54-3354	38	37	39	43	29	38	40
D54-3362	37	37	36	40	26	34	27
D54-3416	40	37	31	42	20	42	24
D623-33	48	43	46	46	34	54	37
P52-1-2	47	44	48	50	35	54	36
P52-1-5	47	36	45	48	31	53	37

Table 30. Seed quality scores for strains in Preliminary Group V, 1956

Strain	Link-wood, Md.	Warsaw, Va.	Ply-mouth, N. C.	Sikes-ton, Mo.	Wilson, Ark.	Stone-ville, Miss.(B)	Plain-view, Texas
Dorman	2.5	3.0	2.0	2.0	1.0	2.0	1.5
D52-220	2.0	1.5	-	3.0	3.0	2.5	2.0
D53-111	3.0	2.5	1.5	2.0	2.0	2.0	2.5
D53-142	2.5	2.5	2.0	2.0	2.0	2.0	2.0
D53-154	3.0	2.0	2.0	2.0	2.0	2.0	1.5
D53-250	3.0	2.0	2.0	2.0	3.0	2.5	2.0
D53-352	3.0	2.5	2.0	1.0	1.5	2.5	1.5
D53-526	3.0	1.5	2.0	2.0	2.0	2.0	2.0
D53-533	3.0	2.0	1.0	2.0	1.5	2.0	1.5
D53-550	4.0	3.0	5.0	2.0	3.5	2.0	2.0
D53-584	3.0	2.0	-	3.0	3.0	2.5	2.5
D53-605	3.0	1.5	4.0	2.0	3.5	2.0	2.5
D53-697	3.0	1.5	2.0	2.0	2.0	1.5	1.5
D54-2213	3.0	2.0	3.0	2.0	2.0	2.0	2.0
D54-2314	4.0	4.0	5.0	2.0	2.0	3.0	2.0
D54-2319	3.0	1.5	-	3.0	2.0	2.0	2.0
D54-3310	3.0	2.0	2.0	2.0	2.0	2.0	1.5
D54-3336	3.0	2.5	1.5	2.0	2.0	2.0	2.0
D54-3337	3.0	2.5	1.0	2.0	2.0	2.0	2.0
D54-3338	2.5	1.5	1.5	2.0	1.0	2.0	1.5
D54-3339	4.0	2.5	1.5	2.0	2.0	3.0	1.5
D54-3340	3.0	2.5	1.5	2.0	2.0	2.5	1.5
D54-3342	3.0	1.5	1.5	2.0	1.5	2.0	1.5
D54-3343	3.0	1.5	2.0	2.0	2.0	2.0	2.0
D54-3344	1.5	1.5	1.0	3.0	1.5	2.5	2.0
D54-3345	2.0	1.5	1.5	2.0	1.5	2.0	2.0
D54-3346	2.0	2.5	2.0	2.0	2.0	2.0	2.0
D54-3350	2.0	2.0	2.0	2.0	2.0	2.0	1.5
D54-3351	3.5	2.5	2.5	2.0	1.5	2.0	1.5
D54-3352	3.0	4.0	3.0	1.0	1.5	2.0	1.5
D54-3354	2.5	2.0	1.5	2.0	1.5	2.0	1.5
D54-3362	3.0	1.5	1.5	2.0	2.0	2.0	1.5
D54-3416	2.0	1.5	2.0	2.0	1.5	2.0	1.5
D623-33	3.0	4.0	3.0	2.0	2.0	2.0	1.5
P52-1-2	3.0	2.0	2.5	2.0	2.0	3.5	1.5
P52-1-5	3.0	4.0	3.0	2.0	2.0	3.5	2.0

UNIFORM GROUP VI

1956

	Variety or Strain	Parentage	Generation Composited
1.	Ogden	Tokyo x P.I. 54610	
2.	Lee	S-100 x CNS	F_6
3.	N51-1971	Roanoke x Ogden	F_6
4.	N51-2043	Roanoke x Ogden	F_6
5.	N51-2140	Roanoke x N45-745	F_6
6.	D51-4839	Roanoke x N45-745	F_6
7.	D51-4863	Roanoke x N45-745	F_6
8.	D51-4871	Roanoke x N45-745	F_6
9.	D51-4888	Roanoke x N45-745	F_6
10.	D51-4891	Roanoke x N45-745	F_6
11.	D51-4977	Roanoke x N45-745	F_6
12.	D51-5100	Roanoke x N45-745	F_6

Thirty-nine Group VI nurseries were planted. Results of 31 nurseries are summarized in tables 31 through 39. The same 12 varieties and strains have been included in the Group VI nursery for the past three years. A more complete study of variety x year x location interaction for all characters will be made during the next year. A general summary of the three-year performance for seed yield, oil and protein percentages, maturity, and height is given in table 31.

In 1956, Ogden was no longer the major variety in the South, but was replaced by Lee. In some Delta counties of Mississippi as much as 85 percent of the acreage was planted to Lee. Lee is superior to Ogden in seed holding, seed quality, and resistance to the major diseases. Lee has yellow seed coats in contrast to the green seed coats of Ogden. For the three-year period 1954-56, Lee has averaged four percent higher in yield than Ogden in the East Coast area and 15 percent higher than Ogden in the Delta area.

The 10 experimental strains are all excellent lines and all surpass Ogden in one or more qualities. All but N51-2140 are superior to Ogden in seed holding, all but N51-1971 and N51-2043 are resistant to bacterial pustule, and all but N51-2140 have low target spot ratings.

The two tallest strains, D51-4871 and D51-4891, were among the lowest ranking lines for yield in the East Coast area for the three-year period because of lodging. However, in the Southeast where all strains make less growth these two strains ranked among the highest yielding lines. It is of interest that the three-year mean yields for the tallest and shortest strains in the Southeast, D51-4891 and D51-4863, differed by only 0.7 bushel.

D51-4888 has the highest average yield for the three-year period in the East Coast and West areas, and in the Delta it ranked second to Lee. In the East Coast tests, D51-4888 yielded seven percent more than Ogden and in the Delta it averaged 10 percent higher in yield than Ogden. D51-4888 has averaged one to two days earlier in maturity than Ogden, and one to three inches shorter in height. In the East Coast area, D51-4888 has averaged .7 percent higher in oil and .1 percent lower in protein. It has a yellow seed coat with a buff hilum. D51-4888 is superior to Ogden in seed holding, but does not hold its seed as well as Lee. For 109 comparisons made during the past four years, Ogden has been given a seed quality score of three or higher in 28 percent of the comparisons and D51-4888 in 19 percent.

Table 31. General summary of the performance for strains in Uniform Group VI, 1956

	Ogden	Lee	N51-1971	N51-2043	N51-2140	D51-4839
Seed Yield - 1956						
East	32.5	33.4	32.4	34.7	33.5	27.4-
Southeast	31.5	31.1	33.6	31.9	31.7	25.9-
Upper & Cen. South	15.0	14.4	14.9	17.2	13.8	14.0
Delta	27.3	31.0	26.9	26.3	26.9	28.4
West	26.2	26.8	24.3	28.6	28.1	25.5
- 1954-56						
East	29.0	30.1	29.2	30.6	29.6	27.3
Southeast	29.0	29.5	29.7	27.6	27.9	25.6
Upper & Cen. South	16.7	16.2	18.2	18.2	17.6	15.6
Delta	29.8	34.4	29.1	30.2	27.7	30.6
West	20.5	21.2	18.0	20.9	20.1	19.2
Oil - 1956						
East	20.4	20.5	21.5	21.3	21.8	20.7
Southeast	21.7	21.8	23.0+	22.6+	23.0+	22.2+
Delta	21.1	20.7	21.7	21.0	21.7	21.1
West	21.8	21.2	22.1	21.7	22.9+	21.8
Regional	21.1	21.1	22.0+	21.7+	22.2+	21.3
- 1954-56						
East	20.1	20.0	21.2	20.9	21.2	20.1
Southeast	21.6	21.4	22.7	22.2	22.4	21.8
Delta	21.1	21.1	22.0	21.4	21.8	20.9
West	21.9	21.1	21.5	21.1	21.5	20.9
Regional	20.9	20.8	21.8	21.4	21.8	20.9
Protein - 1956						
East	41.7	42.2	41.8	42.3	42.6+	42.9+
Southeast	41.8	42.6	41.3	41.5	41.5	41.5
Delta	41.1	42.0	40.6	41.5	40.9	41.2
West	37.1	37.7	37.4	36.6	36.2	37.1
Regional	40.4	41.1+	40.3	40.5	40.3	40.7
- 1954-56						
East	42.3	43.2	41.8	42.5	42.3	42.9
Southeast	41.6	42.4	40.9	41.4	41.3	41.4
Delta	40.8	41.2	39.8	41.0	40.7	41.3
West	40.0	39.5	39.4	39.5	39.9	40.1
Regional	41.2	41.9	40.6	41.2	41.1	41.6

Table 31. (Continued)

	D51-4863	D51-4871	D51-4888	D51-4891	D51-4977	D51-5100
Seed Yield - 1956						
East	29.1-	32.8	34.0	30.2	30.8	32.7
Southeast	32.0	32.5	28.6	31.4	29.3	34.2
Upper & Cen. South	15.2	14.1	15.4	15.2	15.6	15.2
Delta	29.2	27.9	32.1	26.0	27.4	28.2
West	23.6	17.7	30.8+	23.0	24.6	25.5
- 1954-56						
East	27.4	27.7	31.0	26.9	27.8	28.7
Southeast	29.0	29.7	26.9	29.7	28.6	30.5
Upper & Cen. South	15.7	16.0	16.9	15.4	16.9	17.8
Delta	30.1	30.7	32.8	29.9	29.3	31.6
West	18.8	15.9	22.5	17.6	19.3	18.8
Oil - 1956						
East	20.8	20.8	21.0	20.8	20.6	20.4
Southeast	22.3+	22.2+	22.7+	22.2+	22.0	21.9
Delta	21.2	21.6	21.7	21.4	21.6	21.1
West	20.7	20.9	23.0+	21.6	21.1	21.4
Regional	21.3	21.4+	21.8+	21.4+	21.3	21.1
- 1954-56						
East	20.6	20.7	20.8	20.5	20.3	20.1
Southeast	21.6	22.3	22.2	22.1	22.0	21.9
Delta	21.0	21.8	21.6	21.6	21.4	21.4
West	20.6	20.6	21.6	20.8	20.7	20.8
Regional	21.1	21.3	21.5	21.2	21.0	21.0
Protein - 1956						
East	41.5	41.7	41.6	41.8	41.8	42.3
Southeast	40.6-	41.5	40.7-	41.5	40.9	41.0
Delta	40.5	39.8-	39.7-	40.4	39.8-	40.5
West	36.9	37.4	35.7	35.4	37.9	38.0
Regional	39.9	40.1	39.4-	39.8-	40.1	40.5
- 1954-56						
East	41.8	42.0	42.2	42.4	42.1	42.5
Southeast	40.9	41.1	40.8	41.5	40.6	40.8
Delta	40.9	39.6	39.8	40.3	40.0	40.1
West	39.2	39.2	39.0	39.3	39.8	40.0
Regional	40.7	40.6	40.6	41.0	40.8	41.0

Table 31. (Continued)

	Ogden	Lee	N51-1971	N51-2043	N51-2140	D51-4839
Maturity Index - 1954-56						
East	10-17	+7	+1	-3	-4	-3
Southeast	10-6	+10	+3	-1	0	-1
Upper & Cen. South	10-7	+12	-1	-1	-3	0
Delta	10-8	+11	0	-1	-2	-1
West	10-23	+7	-2	-3	-4	-2
Height - 1954-56						
East	37	35	39	35	38	32
Southeast	23	25	25	22	25	19
Upper & Cen. South	31	33	36	29	35	29
Delta	35	32	39	32	37	30
West	28	29	31	27	31	24
Shattering 1/	3.0	1.0	2.0	1.0	3.0	1.0
Bacterial Pustule 1/	2.5	1.0	3.0	3.0	1.0	1.0
Target Spot 1/	1.5	1.0	1.5	1.5	3.5	1.0

1/ Stoneville data.

Table 31. (Continued)

	D51-4863	D51-4871	D51-4888	D51-4891	D51-4977	D51-5100
Maturity Index - 1954-56						
East	0	+7	-2	+5	+2	0
Southeast	-2	+8	-1	+3	+2	+2
Upper & Cen. South	+1	+8	-3	+6	+3	+3
Delta	0	+4	-1	+2	0	0
West	-1	+5	0	+3	0	0
Height - 1954-56						
East	29	46	34	46	44	40
Southeast	18	32	21	34	34	30
Upper & Cen. South	26	40	31	41	40	35
Delta	30	48	34	45	44	42
West	22	37	27	36	36	32
Shattering 1/	2.0	1.0	1.0	1.0	1.0	1.0
Bacterial Pustule 1/	1.0	1.0	1.0	1.0	1.0	1.0
Target Spot 1/	1.0	1.0	1.0	1.5	1.5	2.0

Table 32. Seed yield, in bushels per acre, for the strains in Uniform Group VI, 1956

Location	Ogden	Lee	N51-1971	N51-2043	N51-2140	N51-4839	D51-4363
			East Coast				
Linkwood, Md.	37.3	34.3	31.5-	38.0	36.1	33.2-	29.4-
Warsaw, Va.	37.6	44.7+	40.3	42.1	41.2	32.6-	33.9
Onley, Va.	22.3	21.2	21.6	21.8	18.4	19.9	20.4
Norfolk, Va.	25.9	34.3	30.7	32.9	40.3	29.5	29.2
Petersburg, Va.	34.9	33.6	37.9	37.3	38.7	31.2	30.1
Holland, Va.	35.2	34.8	30.7-	32.6-	32.7-	26.5-	26.0-
Plymouth, N. C.	35.3	32.7	33.3	35.0	30.4	22.0-	27.3-
Willard, N. C.	32.4	28.8	29.7	40.1+	33.3	27.8	30.2
Clayton, N. C.	34.9	32.6	30.1	32.6	33.0	29.2	31.6
Hartsville, S. C.	29.0	37.3+	37.6+	34.5	31.1	22.2	32.5
Mean	32.5	33.4	32.4	34.7	33.5	27.4-	29.1-
			Southeast				
Tallassee, Ala.	41.7	36.8	43.5	35.7	42.5	27.9	40.1
Gainesville, Fla.	25.4	21.4	23.6	21.0	28.7	19.8	23.0
Marianna, Fla.	20.7	27.1	25.9	29.2	23.6	24.0	24.6
Quincy Fla.	21.9	21.9	27.8	31.0	29.3	19.7	32.3
Walnut Hill, Fla.	45.7	48.7	46.5	48.0	41.7	43.2	45.7
Fairhope, Ala.	30.8	35.7	33.0	31.2	32.6	26.3	30.8
Baton Rouge, La.	34.1	26.1	35.1	27.2	23.2	20.7	27.3
Mean	31.5	31.1	33.6	31.9	31.7	25.9-	32.0
			Upper and Central South				
Belle Mina, Ala.	12.1	15.3	14.4	16.9	13.6	15.4	14.3
Athens, Ga.	9.3	7.4	7.8	10.4	7.5	9.0	8.4
State College, Miss.	23.6	20.5	22.6	24.4	20.2	17.7	22.8
Mean	15.0	14.4	14.9	17.2	13.8	14.0	15.2
			Delta				
Sikeston, Mo.	45.7	39.4	39.4	41.7	40.8	39.7	34.8
Wilson, Ark.	23.4	31.2	25.9	18.9	24.8	24.0	29.4
Marianna, Ark.	30.6	31.6	32.2	30.1	30.8	36.3	39.0
Coahoma, Miss.	32.5	39.9	37.4	27.5	30.1	34.5	33.4
Stoneville, Miss.(A)	17.0	18.1	12.9	19.0	17.1	14.0	21.1
Stoneville, Miss.(B)	19.2	26.8	21.0	22.2	22.6	21.9	23.7
Louise, Miss.	22.8	29.8	19.5	25.0	21.9	28.2	23.2
Mean	27.3	31.0	26.9	26.3	26.9	28.4	29.2
			West				
Stuttgart, Ark.	35.4	35.0	32.5	32.9	35.5	35.7	34.7
Fayetteville, Ark. 1/	7.4	8.8	6.9	7.9	9.0	12.4	10.5
Lubbock, Texas	17.0	19.4	16.3	20.1	16.4	14.0	12.5
Plainview, Texas	26.1	26.0	24.1	32.9	32.6	26.8	23.5
Mean	26.2	26.8	24.3	28.6	28.1	25.5	23.6

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

Table 32. (Continued)

Location	D51-4871	D51-4888	D51-4891	D51-4977	D51-5100	L.S.D. (.05)	C.V.
			East Coast				
Linkwood, Md.	29.3-	34.6	29.8-	33.8	31.7-	3.9	7%
Warsaw, Va.	33.1	37.0	35.7	38.7	38.1	4.6	7%
Onley, Va.	21.6	20.3	20.1	17.5	19.0	N.S.	10%
Norfolk, Va.	38.4	32.1	22.9	25.9	30.0	N.S.	24%
Petersburg, Va.	32.0	35.2	28.5-	36.5	38.7	5.3	9%
Holland, Va.	32.2-	37.3+	32.6-	29.2-	31.9-	1.5	3%
Plymouth, N. C.	36.0	35.4	30.5	34.8	33.5	7.0	13%
Willard, N. C.	32.4	29.9	31.7	30.2	32.9	5.5	10%
Clayton, N. C.	34.0	37.4	34.5	28.8	35.6	N.S.	11%
Hartsville, S. C.	39.3+	40.5+	35.8	32.5	35.7	7.1	12%
Mean	32.3	34.0	30.2	30.8	32.7	3.1	
			Southeast				
Tallassee, Ala.	40.2	35.4	37.2	32.7	44.1	N.S.	25%
Gainesville, Fla.	25.5	24.6	20.4	23.0	24.0	3.3	8%
Marianna, Fla.	23.8	27.3	23.1	23.8	26.5	N.S.	15%
Quincy, Fla.	30.3	19.7	26.8	26.7	32.3	4.0	9%
Walnut Hill, Fla.	45.7	43.7	46.7	41.7	49.8	2.6	6%
Fairhope, Ala.	33.9	29.6	29.6	32.0	35.4	3.4	7%
Baton Rouge, La.	27.8	20.2	36.0	24.9	27.1	3.3	8%
Mean	32.5	28.6	31.4	29.3	34.2	3.4	
			Upper and Central South				
Belle Mina, Ala.	12.8	12.7	14.5	14.3	12.6	N.S.	12%
Athens, Ga.	7.1	10.4	7.5	10.8	7.1	2.6	13%
State College, Miss.	22.4	23.2	23.5	21.6	26.0	N.S.	21%
Mean	14.1	15.4	15.2	15.6	15.2	N.S.	
			Delta				
Sikeston, Mo.	40.4	44.6	35.0	34.5	40.8	5.9	9%
Wilson, Ark.	28.0	26.7	24.6	22.6	21.7	4.4	10%
Marianna, Ark.	33.6	35.4	37.2	34.3	32.2	N.S.	17%
Coahoma, Miss.	38.8	34.6	32.7	35.2	33.0	N.S.	14%
Stoneville, Miss. (A)	15.0	22.4	11.8	14.4	14.2	N.S.	30%
Stoneville, Miss. (B)	17.4	27.3	22.5	21.7	23.4	N.S.	15%
Louise, Miss.	22.3	33.5	17.9	28.8	32.2	7.3	17%
Mean	27.9	32.1	26.0	27.4	28.2	N.S.	
			West				
Stuttgart, Ark.	26.7	42.4	35.4	34.2	34.7	3.6	6%
Fayetteville, Ark. 1/	4.6	11.1	4.9	4.7	7.7	3.2	24%
Lubbock, Texas	10.0	17.8	14.8	15.0	12.6	N.S.	25%
Plainview, Texas	16.7	32.0	18.8	24.8	29.3	5.7	13%
Mean	17.7	30.8+	23.0	24.6	25.5	4.6	

Table 33. Oil percentages of the strains in Uniform Group VI, 1956

Location	Ogden	Lee	N51-1971	N51-2043	N51-2140	D51-4839
			East Coast			
Warsaw, Va.	20.0	19.4	20.8	19.9	21.3	19.1
Onley, Va.	17.7	18.8	19.2	19.8	18.5	19.1
Norfolk, Va.	19.5	20.0	20.2	20.2	20.2	20.1
Petersburg, Va.	19.9	20.6	21.1	20.6	20.9	19.2
Plymouth, N. C.	20.6	21.0	22.3	22.2	23.3	22.2
Willard, N. C.	21.8	20.7	22.9	22.6	23.4	21.8
Clayton, N. C.	21.4	21.6	22.7	22.3	23.7	21.9
Hartsville, S. C.	22.2	21.8	22.9	23.1	22.7	22.3
Mean	20.4	20.5	21.5	21.3	21.8	20.7
			Southeast			
Tallassee, Ala.	22.3	22.4	23.7	22.6	23.8	22.8
Gainesville, Fla.	22.2	21.7	23.7	23.0	22.3	22.5
Marianna, Fla.	19.3	19.8	20.2	20.8	21.0	20.2
Walnut Hill, Fla.	22.4	21.8	23.5	23.5	24.3	23.2
Fairhope, Ala.	22.7	23.2	23.8	23.5	24.6	22.3
Baton Rouge, La.	21.5	22.1	23.0	22.2	22.0	22.2
Mean	21.7	21.8	23.0+	22.6+	23.0+	22.2+
			Delta			
Marianna, Ark.	20.8	20.6	22.4	21.1	22.5	22.2
Coahoma, Miss.	21.4	20.6	22.1	21.7	23.1	21.7
Stoneville, Miss. (A)	20.4	20.4	20.6	20.5	20.1	20.0
Stoneville, Miss. (B)	21.7	21.1	21.6	20.8	21.0	20.3
Mean	21.1	20.7	21.7	21.0	21.7	21.1
			West			
Plainview, Texas	22.4	22.0	22.7	22.9	23.4	22.1
Lubbock, Texas	21.2	20.3	21.4	20.5	22.3	21.5
Mean	21.8	21.2	22.1	21.7	22.9+	21.8

Table 33. (Continued)

Location	D51-4863	D51-4871	D51-4888	D51-4891	D51-4977	D51-5100	L.S.D. (.05)
			East Coast				
Warsaw, Va.	20.2	19.9	20.1	20.4	20.2	19.2	0.7
Onley, Va.	18.7	19.2	19.1	19.5	19.4	18.6	N.S.
Norfolk, Va.	19.7	19.9	19.7	18.7	19.3	19.7	0.7
Petersburg, Va.	19.7	20.6	20.4	20.5	20.5	19.5	0.7
Plymouth, N. C.	21.6	21.5	22.0	20.7	20.9	21.1	0.6
Willard, N. C.	22.1	21.9	21.7	22.1	21.2	21.2	0.8
Clayton, N. C.	21.8	21.8	22.4	22.5	21.9	22.0	0.5
Hartsville, S. C.	22.5	21.6	22.3	22.3	21.5	21.5	0.6
Mean	20.8	20.8	21.0	20.8	20.6	20.4	N.S.
			Southeast				
Tallassee, Ala.	23.1	22.8	22.8	23.2	22.5	22.7	N.S.
Gainesville, Fla.	22.8	22.5	22.6	22.4	22.0	21.8	0.6
Marianna, Fla.	19.7	19.4	20.8	19.4	19.9	19.4	N.S.
Walnut Hill, Fla.	22.9	22.5	23.4	22.5	22.3	22.8	1.0
Fairhope, Ala.	23.1	23.2	23.7	23.5	23.3	23.1	0.6
Baton Rouge, La.	22.1	22.7	22.9	22.3	21.9	21.6	N.S.
Mean	22.3+	22.2+	22.7+	22.2+	22.0	21.9	0.5
			Delta				
Marianna, Ark.	22.6	21.5	22.8	21.8	21.6	21.7	0.8
Coahoma, Miss.	21.7	22.1	22.3	21.9	21.9	21.4	0.7
Stoneville, Miss. (A)	19.9	20.9	20.3	19.9	21.0	20.0	N.S.
Stoneville, Miss. (B)	20.6	22.0	21.3	21.8	22.0	21.5	1.0
Mean	21.2	21.6	21.7	21.4	21.6	21.1	N.S.
			West				
Plainview, Texas	21.4	21.1	22.9	21.9	21.6	21.7	0.7
Lubbock, Texas	19.9	20.7	23.1	21.3	20.5	21.0	1.5
Mean	20.7	20.9	23.0+	21.6	21.1	21.4	0.7

Table 34. Protein percentages of the strains in Uniform Group VI, 1956

Location	Ogden	Lee	N51-1971	N51-2043	N51-2140	D51-4839
			East Coast			
Warsaw, Va.	39.4	40.9	39.2	40.5	38.9	40.7
Onley, Va.	43.4	43.7	44.1	41.9	43.9	43.4
Norfolk, Va.	42.4	43.6	43.8	44.4	45.0	44.0
Petersburg, Va.	42.5	42.1	43.1	42.8	43.9	43.1
Plymouth, N. C.	42.4	42.5	42.3	43.6	43.9	44.3
Willard, N. C.	40.3	42.3	40.1	41.7	41.7	42.6
Clayton, N. C.	42.5	41.4	41.2	42.5	41.5	43.5
Hartsville, S. C.	40.2	40.6	40.2	40.9	41.7	41.2
Mean	41.7	42.2	41.8	42.3	42.6+	42.9+
			Southeast			
Tallassee, Ala.	41.2	42.0	41.1	41.2	40.8	40.7
Gainesville, Fla.	41.5	44.1	40.7	40.9	42.6	40.6
Marianna, Fla.	43.9	44.4	43.9	42.8	43.1	42.7
Walnut Hill, Fla.	41.9	42.5	41.5	40.0	40.5	41.8
Fairhope, Ala.	40.0	40.6	39.6	40.9	39.3	41.7
Baton Rouge, La.	42.2	42.2	40.9	43.3	42.7	41.2
Mean	41.8	42.6	41.3	41.5	41.5	41.5
			Delta			
Marianna, Ark.	42.8	42.0	41.1	42.1	41.1	39.8
Coahoma, Miss.	39.7	41.1	39.2	40.1	38.6	39.7
Stoneville, Miss. (A)	43.1	43.0	43.0	42.8	43.8	44.4
Stoneville, Miss. (B)	38.7	41.9	39.1	40.9	40.1	40.9
Mean	41.1	42.0	40.6	41.5	40.9	41.2
			West			
Plainview, Texas	34.7	34.9	34.4	32.8	33.9	35.4
Lubbock, Texas	39.5	40.4	40.4	40.4	38.5	38.8
Mean	37.1	37.7	37.4	36.6	36.2	37.1

Table 34. (Continued)

Location	D51-4863	D51-4871	D51-4888	D51-4891	D51-4977	D51-5100	L.S.D. (.05)
			East Coast				
Warsaw, Va.	38.6	39.4	39.5	38.9	38.6	40.4	1.1
Onley, Va.	42.7	43.0	43.7	42.6	41.9	43.1	N.S.
Norfolk, Va.	44.1	43.5	43.9	44.2	44.1	44.4	N.S.
Petersburg, Va.	43.0	41.9	42.4	42.3	42.5	43.0	1.3
Plymouth, N. C.	42.4	42.8	42.4	43.7	42.9	43.1	1.1
Willard, N. C.	39.6	41.2	40.7	40.6	41.9	41.6	1.5
Clayton, N. C.	41.3	41.3	40.5	40.9	40.8	41.2	1.0
Hartsville, S. C.	40.3	40.6	40.0	41.2	41.4	41.3	N.S.
Mean	41.5	41.7	41.6	41.8	41.8	42.3	0.7
			Southeast				
Tallassee, Ala.	40.5	40.9	40.8	40.6	41.4	40.4	N.S.
Gainesville, Fla.	40.2	41.9	42.3	41.9	41.7	42.4	1.3
Marianna, Fla.	41.9	43.7	41.4	42.8	42.1	42.4	N.S.
Walnut Hill, Fla.	40.4	41.2	40.4	40.8	40.6	40.0	1.0
Fairhope, Ala.	39.6	40.0	40.2	40.6	38.7	38.7	1.1
Baton Rouge, La.	41.1	41.2	39.1	42.0	40.6	41.9	1.8
Mean	40.6-	41.5	40.7-	41.5	40.9	41.0	0.9
			Delta				
Marianna, Ark.	39.0	40.1	39.5	39.8	39.9	39.9	1.5
Coahoma, Miss.	38.5	38.5	38.7	38.9	37.8	38.8	1.2
Stoneville, Miss. (A)	43.8	41.8	41.6	43.5	42.6	43.6	N.S.
Stoneville, Miss. (B)	40.7	38.8	39.0	39.4	38.8	39.5	1.7
Mean	40.5	39.8-	39.7-	40.4	39.8-	40.5	1.2
			West				
Plainview, Texas	34.9	34.4	33.8	33.2	34.7	35.8	1.0
Lubbock, Texas	39.8	40.3	37.6	39.9	41.0	40.1	N.S.
Mean	36.9	37.4	35.7	35.4	37.9	38.0	N.S.

Table 35. Relative maturity data, days earlier (-) or later (+) than Ogden, for the strains in Uniform Group VI, 1956

Location	Date Planted	Ogden	Lee	N51-1971	N51-2043	N51-2140
			East Coast			
Linkwood, Md.	5-14	10-21	+1	-2	-7	-9
Warsaw, Va.	5-21	10-26	+9	+2	-1	-8
Petersburg, Va.	5-9	10-21	+8	+1	+1	-10
Plymouth, N. C.	5-3	10-13	+6	-2	-2	-2
Willard, N. C.	5-17	10-14	+5	-2	-4	-5
Clayton, N. C.	5-9	10-14	+10	-1	-6	-6
Hartsville, S. C.	5-25	10-15	+9	+3	-1	-2
Mean		10-18	+7	0	-3	-6
			Southeast			
Tallassee, Ala.	6-6	10-2	+16	+5	+1	+1
Gainesville, Fla.	6-19	10-[illegible]	+7	+2	-2	+1
Marianna, Fla.	6-19	10-[illegible]	+1	+9	0	-3
Quincy, Fla.	6-13	10-[illegible]	+2	0	0	0
Walnut Hill, Fla.	6-15	10-2	+5	-1	-5	-7
Fairhope, Ala.	6-24	10-12	+4	+4	-4	-4
Baton Rouge, La.	5-15	10-4	+9	+2	-1	-3
Mean		10-6	+6	+3	-2	-2
			Upper and Central South			
Belle Mina, Ala.	5-23	10-15	+18	-1	-5	-5
Athens, Ga.	5-9	10-3	+6	-4	-4	-6
Mean		10-12	+12	-3	-5	-6
			Delta			
Sikeston, Mo.	4-27	10-13	+7	+3	+2	0
Wilson, Ark.	5-8	10-16	+15	+3	+3	-1
Marianna, Ark.	5-13	10-5	+12	+2	+2	+1
Coahoma, Miss.	5-14	10-9	+2	-2	-2	-2
Stoneville, Miss.(A)	5-30	9-27	+15	+1	-1	-1
Stoneville, Miss.(B)	5-7	9-25	+14	-1	-1	-1
Louise, Miss.	5-12	9-24	+12	-1	0	0
Mean		10-4	+11	0	0	0
			West			
Stuttgart, Ark.	5-13	10-19	+19	0	0	-4
Fayetteville, Ark.	5-11	10-15	+9	+4	0	+2
Lubbock, Texas	6-11	10-27	0	-2	+3	-10
Mean		10-20	+9	0	+1	-4

Table 35. (Continued)

Location	D51-4839	D51-4863	D51-4871	D51-4888	D51-4891	D51-4977	D51-5100
			East Coast				
Linkwood, Md.	-10	0	+3	-6	+3	+1	+3
Warsaw, Va.	-8	+2	+9	-2	+5	+2	+4
Petersburg, Va.	-5	-1	+15	+1	+13	+2	-1
Plymouth, N. C.	-4	-2	+2	0	+1	+2	0
Willard, N. C.	-5	-4	+2	-2	+1	+1	0
Clayton, N. C.	-6	-2	+3	-3	-2	0	-2
Hartsville, S. C.	-3	-1	+7	-2	+2	+5	+1
Mean	-6	-1	+6	-2	+3	+2	0
			Southeast				
Tallassee, Ala.	-1	0	+17	0	+7	+5	+2
Gainesville, Fla.	-4	-3	0	0	-1	-2	0
Marianna, Fla.	-1	-4	+11	0	0	-2	-2
Quincy, Fla.	0	0	0	0	0	0	0
Walnut Hill, Fla.	-5	-5	+3	-3	+2	-1	+3
Fairhope, Ala.	-3	-4	+1	-3	-3	-4	-4
Baton Rouge, La.	-6	-2	+3	-3	+3	+3	-2
Mean	-3	-3	+5	-1	+1	0	0
			Upper and Central South				
Belle Mina, Ala.	+1	+1	+13	+1	+13	+6	+7
Athens, Ga.	-5	-1	+6	-7	+2	+4	+1
Mean	-2	0	+12	-3	+10	+5	+4
			Delta				
Sikeston, Mo.	+1	+2	+4	+2	+2	+3	+1
Wilson, Ark.	0	0	+4	+1	+4	+1	+2
Marianna, Ark.	0	0	+3	+1	+2	+1	-1
Coahoma, Miss.	-2	-3	+1	-3	0	0	-2
Stoneville, Miss.(A)	-3	-1	+3	-1	+1	+1	+1
Stoneville, Miss.(B)	-1	-1	+7	-1	+3	+1	-1
Louise, Miss.	0	0	+2	0	+1	0	0
Mean	0	0	+3	0	+2	0	0
			West				
Stuttgart, Ark.	0	0	+19	0	0	0	0
Fayetteville, Ark.	+1	+4	+7	0	+6	+5	+3
Lubbock, Texas	-7	+9	+9	-2	-5	-7	-7
Mean	-2	+4	+12	0	0	0	-1

Table 36. Plant height of strains in Uniform Group VI, 1956

Location	Ogden	Lee	N51-1971	N51-2043	N51-2140	D51-4839
			East Coast			
Linkwood, Md.	43	42	46	44	46	36
Warsaw, Va.	41	41	44	41	42	33
Onley, Va.	29	35	35	34	35	24
Norfolk, Va.	38	40	41	38	41	30
Petersburg, Va.	40	35	37	39	39	32
Holland, Va.	42	39	40	41	46	30
Plymouth, N. C.	41	33	41	37	40	30
Willard, N. C.	35	35	37	35	35	28
Clayton, N. C.	33	31	35	34	36	27
Hartsville, S. C.	24	28	29	25	28	20
Mean	37	36	39	37	39	29
			Southeast			
Tallassee, Ala.	35	38	39	34	38	28
Gainesville, Fla.	18	18	19	17	23	13
Marianna, Fla.	20	22	30	23	25	14
Quincy, Fla.	19	24	28	25	26	15
Walnut Hill, Fla.	29	26	31	27	27	23
Fairhope, Ala.	16	23	19	17	20	11
Baton Rouge, La.	17	23	19	16	17	11
Mean	22	25	26	23	25	16
			Upper and Central South			
Belle Mina, Ala.	34	34	37	32	35	25
Athens, Ga.	18	25	25	18	24	24
Mean	26	30	31	25	30	25
			Delta			
Sikeston, Mo.	46	35	50	43	44	36
Wilson, Ark.	28	31	32	27	31	20
Marianna, Ark.	30	31	37	29	38	25
Coahoma, Miss.	30	31	33	30	29	23
Stoneville, Miss.(A)	37	37	40	37	40	28
Stoneville, Miss.(B)	38	35	43	38	41	32
Louise, Miss.	40	34	41	37	39	33
Mean	36	33	39	34	37	28
			West			
Stuttgart, Ark.	30	32	36	31	37	22
Fayetteville, Ark.	33	33	36	31	37	23
Lubbock, Texas	27	31	30	29	31	22
Plainview, Texas	29	31	28	30	33	26
Mean	30	32	33	30	35	23

Table 36. (Continued)

Location	D51-4863	D51-4871	D51-4888	D51-4891	D51-4977	D51-5100
			East Coast			
Linkwood, Md.	32	54	40	51	47	46
Warsaw, Va.	31	53	38	51	50	42
Onley, Va.	27	45	30	44	44	35
Norfolk, Va.	30	49	41	46	42	40
Petersburg, Va.	30	49	42	47	46	38
Holland, Va.	31	48	37	51	46	43
Plymouth, N. C.	29	48	37	48	45	45
Willard, N. C.	25	46	32	45	46	40
Clayton, N. C.	26	44	33	44	44	36
Hartsville, S. C.	21	37	26	35	37	28
Mean	28	47	36	46	45	39
			Southeast			
Tallassee, Ala.	30	50	34	48	48	41
Gainesville, Fla.	15	30	18	29	35	30
Marianna, Fla.	18	34	18	35	34	31
Quincy, Fla.	17	37	20	36	38	32
Walnut Hill, Fla.	24	32	26	35	35	33
Fairhope, Ala.	14	28	16	32	26	27
Baton Rouge, La.	11	21	16	31	27	21
Mean	18	33	21	35	35	32
			Upper and Central South			
Belle Mina, Ala.	28	45	31	42	43	38
Athens, Ga.	15	31	22	35	36	24
Mean	22	38	27	39	40	31
			Delta			
Sikeston, Mo.	37	54	43	53	55	47
Wilson, Ark.	24	40	27	36	37	33
Marianna, Ark.	23	51	31	42	42	39
Coahoma, Miss.	26	46	29	39	37	35
Stoneville, Miss. (A)	30	54	35	51	47	47
Stoneville, Miss. (B)	35	52	39	49	51	45
Louise, Miss.	33	47	38	47	47	45
Mean	30	49	35	45	45	42
			West			
Stuttgart, Ark.	26	39	30	39	40	37
Fayetteville, Ark.	25	44	30	44	40	37
Lubbock, Texas	25	38	26	37	39	32
Plainview, Texas	25	41	31	39	41	36
Mean	25	41	29	40	40	36

Table 37. Lodging scores for strains in Uniform Group VI, 1956

Location	Ogden	Lee	N51-1971	N51-2043	N51-2140	D51-4839
			East Coast			
Linkwood, Md.	1.7	3.0	2.3	2.7	2.7	2.0
Warsaw, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Onley, Va.	1.3	2.0	1.7	2.0	1.7	2.7
Norfolk, Va.	2.7	2.7	2.7	2.0	1.7	3.7
Petersburg, Va.	2.0	3.0	1.7	2.0	2.0	2.0
Holland, Va.	1.7	3.0	2.0	2.0	1.3	3.0
Plymouth, N. C.	3.0	2.8	3.2	3.0	3.3	3.3
Willard, N. C.	1.8	1.3	1.3	1.0	1.0	1.7
Clayton, N. C.	1.2	2.7	1.2	1.0	1.2	1.0
Hartsville, S. C.	1.0	2.0	1.0	1.0	1.3	1.0
			Southeast			
Tallassee, Ala.	2.7	2.7	2.3	1.3	1.3	1.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, Fla.	1.0	2.0	1.3	1.3	1.0	1.0
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	2.0	2.0	1.0	1.0	1.0
Baton Rouge, La.	1.0	1.0	1.0	1.0	1.0	1.0
			Upper and Central South			
Belle Mina, Ala.	1.0	2.0	2.0	1.3	1.7	1.3
Athens, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
			Delta			
Sikeston, Mo.	1.4	1.2	1.3	1.2	1.2	2.3
Wilson, Ark.	1.3	2.0	2.0	1.3	1.3	1.0
Marianna, Ark.	1.0	2.7	2.0	1.7	1.3	1.0
Coahoma, Miss.	2.0	2.0	2.0	2.0	2.0	1.3
Stoneville, Miss. (A)	2.0	3.0	3.0	2.7	3.0	2.0
Stoneville, Miss. (B)	2.0	2.0	3.0	2.7	2.7	2.3
Louise, Miss.	2.7	2.0	2.3	2.3	2.3	2.3
			West			
Stuttgart, Ark.	1.7	2.0	1.7	2.0	2.0	1.0
Fayetteville, Ark.	1.0	2.0	1.3	1.3	1.7	1.0
Lubbock, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Plainview, Texas	1.3	1.7	1.3	1.0	1.7	1.0

Table 37. (Continued)

Location	D51-4863	D51-4871	D51-4888	D51-4891	D51-4977	D51-5100
			East Coast			
Linkwood, Md.	2.0	2.3	2.3	2.3	2.7	2.0
Warsaw, Va.	1.0	1.2	1.0	1.2	1.0	1.0
Onley, Va.	1.3	1.3	2.7	1.7	2.0	2.0
Norfolk, Va.	2.7	1.7	3.7	2.0	3.3	2.0
Petersburg, Va.	1.7	2.7	2.0	3.3	2.3	2.0
Holland, Va.	1.7	1.7	3.0	2.0	2.3	1.7
Plymouth, N. C.	2.2	3.8	3.2	4.0	3.7	3.5
Willard, N. C.	1.0	2.3	1.3	1.7	2.0	1.3
Clayton, N. C.	1.0	2.3	1.2	3.2	2.2	1.2
Hartsville, S. C.	1.0	2.0	1.0	2.7	2.0	1.3
			Southeast			
Tallassee, Ala.	1.7	2.3	1.3	2.7	2.3	2.7
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, Fla.	1.0	1.7	1.0	2.0	2.0	1.7
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	2.0	1.0	2.0	1.3	2.0
Baton Rouge, La.	1.0	1.0	1.0	2.0	1.0	1.0
			Upper and Central South			
Belle Mina, Ala.	1.0	1.7	1.3	2.0	1.7	1.3
Athens, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
			Delta			
Sikeston, Mo.	3.2	1.6	2.2	1.8	1.6	1.2
Wilson, Ark.	1.0	2.3	1.0	2.3	2.0	1.3
Marianna, Ark.	1.0	2.7	1.3	3.0	2.7	2.0
Coahoma, Miss.	2.3	2.3	2.0	2.0	2.7	2.0
Stoneville, Miss. (A)	2.0	3.0	2.0	3.0	2.7	3.0
Stoneville, Miss. (B)	2.0	3.0	2.7	3.0	3.0	2.3
Louise, Miss.	2.0	2.7	2.3	3.0	3.0	2.3
			West			
Stuttgart, Ark.	1.0	2.0	1.0	2.0	2.0	2.0
Fayetteville, Ark.	1.0	1.7	1.0	2.3	1.7	1.3
Lubbock, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Plainview, Texas	1.0	2.0	1.3	2.0	2.0	1.7

Table 38. Seed quality scores for the strains in Uniform Group VI, 1956

Location	Ogden	Lee	N51-1971	N51-2043	N51-2140	D51-4839
			East Coast			
Linkwood, Md.	3.0	2.0	3.0	2.0	2.0	3.0
Warsaw, Va.	2.0	1.5	2.0	2.0	1.5	1.5
Onley, Va.	3.0	2.7	3.0	2.7	2.7	2.7
Norfolk, Va.	3.7	3.3	3.7	4.0	3.7	3.3
Petersburg, Va.	2.3	2.7	1.7	2.0	3.0	2.0
Holland, Va.	2.5	3.0	3.0	2.7	2.7	3.7
Plymouth, N. C.	4.0	3.2	3.8	3.7	4.8	5.0
Willard, N. C.	2.5	1.2	1.7	2.0	2.3	2.2
Clayton, N. C.	2.0	1.0	2.0	2.5	3.2	3.3
Hartsville, S. C.	2.3	2.0	2.5	2.7	2.2	2.7
			Southeast			
Tallassee, Ala.	1.7	1.0	3.3	4.0	2.0	1.7
Gainesville, Fla.	2.0	1.3	2.3	2.0	2.0	1.0
Marianna, Fla.	2.3	2.3	3.0	3.0	2.7	2.3
Quincy, Fla.	2.0	2.0	3.0	2.0	2.0	2.0
Walnut Hill, Fla.	2.7	1.3	2.0	2.3	2.0	2.0
Fairhope, Ala.	2.0	2.0	2.3	2.3	1.7	1.7
Baton Rouge, La.	1.0	1.0	1.0	2.0	2.0	1.0
			Upper and Central South			
Athens, Ga.	1.0	1.3	1.7	1.0	2.0	1.3
			Delta			
Sikeston, Mo.	2.0	2.0	2.0	2.0	2.0	2.0
Wilson, Ark.	2.0	1.0	2.0	2.0	1.0	2.0
Marianna, Ark.	1.3	1.0	2.0	1.7	2.0	2.0
Coahoma, Miss.	2.0	1.0	2.0	2.0	2.0	1.3
Stoneville, Miss. (A)	2.3	2.0	2.7	2.0	2.7	2.7
Stoneville, Miss. (B)	3.0	2.0	3.0	2.0	2.3	2.3
Louise, Miss.	2.7	1.7	3.0	2.7	2.0	2.0
			West			
Stuttgart, Ark.	2.7	2.0	1.7	2.3	2.7	2.0
Fayetteville, Ark.	3.3	3.3	4.0	4.0	4.3	3.0
Lubbock, Texas	2.3	2.3	2.3	2.0	2.3	2.3
Plainview, Texas	1.5	1.5	2.0	1.8	1.8	2.0

Table 38. Continued

Location	D51-4863	D51-4871	D51-4888	D51-4891	D51-4977	D51-5100
			East Coast			
Linkwood, Md.	3.0	3.0	2.0	3.0	3.0	3.0
Warsaw, Va.	2.5	2.0	1.5	3.0	2.5	2.0
Onley, Va.	3.0	2.7	2.3	3.0	3.0	3.3
Norfolk, Va.	4.3	3.3	3.7	3.3	3.7	4.0
Petersburg, Va.	2.3	2.7	2.0	3.3	2.3	2.0
Holland, Va.	3.0	2.7	2.8	2.5	3.0	3.3
Plymouth, N. C.	4.3	3.2	4.5	4.0	4.0	3.8
Willard, N. C.	1.7	1.7	2.2	2.0	1.7	2.0
Clayton, N. C.	1.8	1.7	3.0	2.2	2.2	2.2
Hartsville, S. C.	2.0	2.8	2.5	3.3	2.3	2.5
			Southeast			
Tallassee, Ala.	2.0	3.3	2.7	3.7	2.3	2.3
Gainesville, Fla.	1.3	2.7	2.0	2.0	1.7	1.3
Marianna, Fla.	2.3	3.0	2.7	2.0	2.0	2.0
Quincy, Fla.	2.0	3.0	2.0	3.0	2.0	1.0
Walnut Hill, Fla.	2.0	2.0	2.0	2.0	2.0	2.0
Fairhope, Ala.	2.7	2.0	2.3	3.0	1.3	2.3
Baton Rouge, La.	1.0	1.0	1.0	1.0	2.0	1.0
			Upper and Central South			
Athens, Ga.	1.3	1.3	2.0	1.7	1.0	1.3
			Delta			
Sikeston, Mo.	2.0	2.0	1.0	2.0	2.0	2.0
Wilson, Ark.	1.0	1.7	2.0	2.0	3.0	2.7
Marianna, Ark.	1.7	2.0	2.0	2.0	1.7	2.0
Coahoma, Miss.	1.3	2.0	1.7	2.0	2.0	1.0
Stoneville, Miss. (A)	2.0	3.0	2.3	3.0	2.7	2.7
Stoneville, Miss. (B)	2.0	3.0	3.0	3.0	2.0	2.0
Louise, Miss.	2.0	2.7	2.0	2.7	2.0	1.7
			West			
Stuttgart, Ark.	1.0	3.0	2.3	1.7	2.0	2.7
Fayetteville, Ark.	3.3	4.0	3.3	3.7	3.7	3.0
Lubbock, Texas	3.3	3.3	2.0	2.3	2.0	2.0
Plainview, Texas	2.2	2.2	1.8	2.2	1.8	1.8

Table 39. Seed weight, in grams per 100 seeds, for the strains in Uniform Group VI, 1956

Location	Ogden	Lee	N51-1971	N51-2043	N51-2140	D51-4839
			East Coast			
Linkwood, Md.	15.1	12.3	17.0	19.1	17.1	15.2
Warsaw, Va.	15.7	12.8	16.8	18.3	14.8	14.0
Onley, Va.	14.5	15.8	13.7	16.3	13.3	14.4
Norfolk, Va.	13.1	11.7	13.6	14.1	15.9	13.3
Petersburg, Va.	15.8	14.2	17.8	18.9	15.8	15.7
Holland, Va.	15.1	12.6	15.3	15.2	14.6	13.6
Plymouth, N. C.	14.7	12.3	15.2	16.0	15.5	13.8
Willard, N. C.	13.2	10.8	13.7	14.8	14.4	13.0
Clayton, N. C.	14.9	12.3	15.4	15.9	14.6	14.3
Hartsville, S. C.	18.3	15.7	19.3	18.0	19.0	16.7
Mean	15.0	13.1	15.8	16.7	15.5	14.4
			Southeast			
Tallassee, Ala.	18.6	15.9	17.7	16.6	16.6	15.2
Gainesville, Fla.	17.0	14.7	16.9	17.2	17.8	15.0
Marianna, Fla.	14.0	11.8	13.8	15.3	14.3	13.5
Quincy, Fla.	14.3	11.6	15.5	16.6	17.7	15.5
Walnut Hill, Fla.	16.8	14.7	17.2	17.8	16.9	15.5
Baton Rouge, La.	15.7	14.1	17.1	17.8	15.9	13.7
Mean	16.1	13.8	16.4	16.9	16.5	14.7
			Upper and Central South			
Athens, Ga.	14.2	12.8	12.7	13.4	12.3	13.8
			Delta			
Wilson, Ark.	13.7	12.3	13.7	13.7	13.3	13.3
Marianna, Ark.	16.3	14.0	18.7	19.3	16.3	17.0
Coahoma, Miss.	15.1	12.1	16.1	16.1	15.3	14.1
Stoneville, Miss. (A)	12.2	10.6	12.9	12.4	10.8	12.6
Stoneville, Miss. (B)	12.6	12.0	13.0	12.1	12.0	12.0
Mean	14.0	12.2	14.9	14.7	13.5	13.8
			West			
Stuttgart, Ark.	14.7	13.7	15.0	16.0	16.0	14.3
Fayetteville, Ark.	14.0	11.7	13.0	13.0	13.3	14.0
Lubbock, Texas	13.3	10.9	16.2	15.3	10.3	13.7
Plainview, Texas	14.5	10.3	14.9	14.6	13.6	15.9
Mean	14.3	11.7	14.8	14.7	13.4	14.5

Table 39. (Continued)

Location	D51-4863	D51-4871	D51-4888	D51-4891	D51-4977	D51-5100
			East Coast			
Linkwood, Md.	14.4	16.2	15.6	15.1	13.4	13.8
Warsaw, Va.	13.8	16.0	15.5	15.8	13.5	14.2
Onley, Va.	13.0	15.5	15.0	16.0	14.2	13.1
Norfolk, Va.	12.3	16.0	14.3	13.8	12.8	12.9
Petersburg, Va.	16.0	19.2	17.6	18.0	15.8	15.1
Holland, Va.	12.2	15.5	14.4	15.2	13.2	13.2
Plymouth, N. C.	12.9	15.8	14.5	15.7	13.0	13.1
Willard, N. C.	11.4	14.3	13.3	13.7	11.4	11.4
Clayton, N. C.	11.8	15.8	14.2	14.7	12.6	12.1
Hartsville, S. C.	16.7	20.3	17.3	19.0	17.0	16.3
Mean	13.5	16.5	15.2	15.7	13.7	13.5
			Southeast			
Tallassee, Ala.	14.0	18.8	15.5	17.8	15.1	15.3
Gainesville, Fla.	13.3	16.8	16.1	15.1	12.6	13.2
Marianna, Fla.	11.2	13.5	15.6	13.2	11.4	11.0
Quincy, Fla.	13.3	15.5	15.5	16.3	14.4	12.5
Walnut Hill, Fla.	13.9	17.5	15.7	16.5	14.3	13.8
Baton Rouge, La.	13.1	14.9	13.9	16.7	13.6	12.6
Mean	13.1	16.2	15.4	15.9	13.6	13.1
			Upper and Central South			
Athens, Ga.	12.5	15.3	13.2	14.7	14.5	12.2
			Delta			
Wilson, Ark.	12.3	15.0	14.7	14.0	11.7	12.7
Marianna, Ark.	14.0	18.0	17.3	17.0	15.3	15.3
Coahoma, Miss.	12.8	15.8	14.3	14.6	12.5	13.4
Stoneville, Miss. (A)	10.4	12.8	11.4	11.0	11.2	10.4
Stoneville, Miss. (B)	11.5	14.6	11.9	14.1	11.8	11.8
Mean	12.2	15.2	13.9	14.1	12.5	12.7
			West			
Stuttgart, Ark.	12.0	17.3	15.0	15.7	13.3	14.0
Fayetteville, Ark.	12.0	14.0	13.3	15.0	12.7	11.7
Lubbock, Texas	13.0	14.0	14.6	12.7	13.1	11.9
Plainview, Texas	14.7	14.8	15.0	14.1	13.3	13.9
Mean	12.9	15.0	14.5	14.4	13.1	12.9

PRELIMINARY GROUP VI

1956

Thirty-three new lines along with Ogden, Lee, and Arksoy were planted at eight locations. Parentage of these lines is reported in table 40. Agronomic and chemical data for the six nurseries harvested are reported in tables 41 through 46.

Arksoy was included for further evaluation along with the newer lines. The high susceptibility of Arksoy to bacterial pustule and target spot was very well demonstrated at Stoneville. As in previous tests, Arksoy yielded significantly less than Ogden in those tests where Ogden yielded 30 bushels or more per acre.

Not any of the new lines yielded significantly higher than Ogden, based upon the mean yield for the six locations. One strain yielded significantly less than Ogden and four strains yielded significantly less than Lee. Thirty lines were resistant to bacterial pustule and all had low target spot ratings.

Twenty-seven lines were slightly earlier in maturity than Ogden. Special emphasis had been given to earlier maturing lines, since Lee is somewhat late in maturity for production in the Northern area which has been growing Ogden.

The lines D51-4969, D53-1301, D53-1569, and N51-1403 have given good performance in the Preliminary VI nursery in each of the past two years. In general, the lines selected from the cross N46-1703 x D49-2525 have appeared to be superior to lines selected from the other crosses.

Four lines suffered loss of stand from what appeared to be pod and stem blight at Wilson, Arkansas. These were D53-1260, D53-1334, N51-1675, and N52-4378.

The performance of the line D54-1102 is of interest, since it is glabrous. Its average maturity was slightly later than expected, since D49-2510 is a sister line of Lee. D54-1102 yielded significantly less than Lee at Warsaw, Virginia, but produced yields very similar to Lee in all other tests.

Seed quality was poor for the earlier maturing lines at Clayton, because of a prolonged rainy period in October.

The better lines from this group will be advanced to the Uniform Group VI nursery.

Table 40. Parentage of strains in Preliminary Group VI, 1956

Strain	Parentage	Generation Composited
1. Ogden	Tokyo x PI 54610	
2. Lee	S-100 x CNS	F_6
3. Arksoy	PI 37335	
4. D49-2477	S-100 x CNS	F_6
5. D51-4969	Roanoke x N45-745	F_6
6. D53-1260	D49-2525 x L6-5679	F_5
7. D53-1301	D632-15 x D49-2525	F_5
8. D53-1334	D632-15 x D49-2525	F_5
9. D53-1340	D632-15 x D49-2525	F_5
10. D53-1569	N46-1703 x D49-2525	F_5
11. D53-1590	N46-1703 x D49-2525	F_5
12. D53-1611	N46-1703 x D49-2525	F_5
13. D53-2174	N46-1703 x N45-2994	F_5
14. D53-2264	N46-1703 x N45-2994	F_5
15. D54-1102	D49-2510 (2) x $\frac{\text{PI 181,537}}{\text{Roanoke}}$	F_3
16. N51-1403	N48-1248 x Adams	F_5
17. N51-1467	N48-1248 x Adams	F_5
18. N51-1675	N48-1248 x Perry	F_5
19. N52-4342	Roanoke x N45-745	F_7
20. N52-4378	N45-745 x Preston	F_5
21. N53-3494	N46-1703 x D49-2525	F_5
22. N53-3551	N46-1703 x D49-2525	F_5
23. N53-3559	N46-1703 x D49-2525	F_5
24. N53-3592	N46-1703 x D49-2525	F_5
25. N53-3599	N46-1703 x D49-2525	F_5
26. N53-3601	N46-1703 x D49-2525	F_5
27. N53-3646	N46-1703 x D49-2525	F_5
28. N53-3655	N46-1703 x D49-2525	F_5
29. N53-5129	N48-1248 x Perry	F_7
30. N53-5144	N48-1248 x Perry	F_7
31. N53-5146	N48-1248 x Perry	F_7
32. N53-5072	D49-2570 x N45-3799	F_5
33. N53-5085	D49-2570 x N45-3799	F_5
34. N53-5094	D49-2570 x N45-3799	F_5
35. N53-5236	N46-1703 x N45-2994	F_5
36. N53-5263	N46-1703 x N45-2994	F_5

Table 41. General summary of the performance of strains grown in Preliminary Group VI, 1956

Strain	Seed Yield	Maturity Index	Height	Percent Oil	Percent Protein	Shattering	Bacterial Pustule	Target Spot
Ogden	28.1	10-12	35	21.2	41.4	3.0	2.5	1.5
Lee	30.2	+9	35	21.3	41.6	1.0	1.0	1.0
Arksoy	25.2	0	39	20.1-	44.0+	1.0	4.0	4.0
D49-2477	28.4	+3	36	20.1-	42.7+	1.0	1.0	1.0
D51-4969	29.0	-2	39	20.7	41.3	1.0	1.0	1.0
D53-1260	24.6	-7	32	21.6	41.6	1.0	1.0	1.0
D53-1301	30.0	+9	34	21.5	41.6	1.0	1.0	1.0
D53-1334	23.2-	-4	32	21.2	40.3	1.0	1.0	2.0
D53-1340	25.4	-2	36	20.9	39.7	1.0	1.0	1.0
D53-1569	30.9	-4	32	21.4	42.2	1.0	1.0	1.5
D53-1590	26.5	+3	33	20.8	41.2	1.0	1.0	1.0
D53-1611	26.9	-6	30	21.5	41.3	1.0	1.0	1.5
D53-2174	28.6	-2	33	21.9	40.6	1.0	3.0	2.0
D53-2264	29.3	-3	31	21.8	41.1	1.0	3.0	1.5
D54-1102	28.6	+12	31	20.8	40.7	1.0	1.0	1.0
N51-1403	28.1	-1	30	21.5	40.5	1.5	1.0	1.5
N51-1467	27.4	-1	31	21.9	41.0	1.5	1.0	2.5
N51-1675	26.7	-1	33	21.5	42.4	2.0	1.0	1.0
N52-4342	26.5	-2	33	21.5	40.7	1.0	1.0	1.0
N52-4378	26.2	+4	34	21.5	39.9	2.0	1.0	1.0
N53-3494	29.4	-4	32	22.2+	42.4	2.0	1.0	1.0
N53-3551	29.4	-4	33	21.6	42.1	3.0	1.0	1.5
N53-3559	28.8	-5	36	21.8	42.2	2.0	1.0	2.0
N53-3592	29.3	-5	34	21.0	41.8	2.0	1.0	2.0
N53-3599	31.8	-3	33	20.5	42.4	1.0	1.0	1.5
N53-3601	26.5	-5	39	21.3	41.4	2.0	1.0	2.0
N53-3646	29.1	-3	36	21.4	42.4	2.0	1.0	1.0
N53-3655	28.9	-5	33	21.1	41.8	2.0	1.0	1.0
N53-5129	29.3	-4	35	22.3+	41.6	3.0	1.0	1.0
N53-5144	27.3	0	36	20.8	41.3	2.0	1.0	1.0
N53-5146	27.6	-2	32	21.6	41.2	1.0	1.0	1.0
N53-5072	26.2	-1	35	21.6	41.7	2.0	1.0	1.0
N53-5085	29.6	-4	32	19.9-	43.5+	3.0	1.0	1.0
N53-5094	26.7	-1	37	21.2	42.2	3.0	1.0	1.0
N53-5236	29.1	-2	32	21.3	43.3+	3.0	3.0	2.5
N53-5263	30.7	-3	31	22.8+	41.0	4.0	2.0	2.0
L.S.D.(.05)	4.1			0.8	1.3			
(.01)				1.1	1.7			

Table 42. Seed yield, in bushels per acre, for the strains in Preliminary Group VI, 1956

Strain	Warsaw Va.	Clayton, N. C.	Walnut Hill, Fla.	Sikeston, Mo.	Wilson, Ark.	Stoneville, Miss.(B)
Ogden	33.6	30.8	43.2	13.8	20.9	26.3
Lee	35.0	27.7	50.4+	13.0	26.4	28.7
Arksoy	28.7-	22.5-	37.1-	13.7	25.6	23.9
D49-2477	32.8	27.4	42.8	18.0	21.8	27.6
D51-4969	36.8+	28.4	45.5	15.7	16.9	30.8
D53-1260	31.3	16.7-	38.3	22.1	10.0	29.1
D53-1301	34.1	31.7	46.9	14.7	26.6	26.0
D53-1334	28.4-	17.6-	41.7	16.2	11.7	23.4
D53-1340	30.6	20.8-	43.2	13.1	18.5	26.1
D53-1569	35.9	26.8	48.9+	17.4	26.1	30.4
D53-1590	30.1-	27.5	45.1	13.7	14.4	28.2
D53-1611	31.4	25.6	32.9	19.7	18.6	33.4+
D53-2174	32.4	35.3	29.6	17.4	25.8	30.9+
D53-2264	32.1	33.6	39.4	17.4	23.2	30.3
D54-1102	28.8-	31.3	48.5	13.2	21.7	28.5
N51-1403	34.3	24.6	42.0	20.6	17.1	30.0
N51-1467	31.5	29.6	34.9-	18.1	23.1	27.0
N51-1675	34.6	26.8	37.9	21.8	13.2	25.7
N52-4342	34.9	23.6-	33.3-	14.4	19.5	33.3+
N52-4378	29.8-	25.9	47.0	15.9	19.3	19.3-
N53-3494	35.1	26.7	48.5	16.5	19.3	30.4
N53-3551	35.1	28.0	49.3+	13.0	22.8	28.6
N53-3559	33.8	25.2	48.5	13.0	24.4	27.9
N53-3592	36.4	22.8-	45.5	13.4	23.1	34.8+
N53-3599	34.7	29.0	46.9	17.9	28.9	33.1+
N53-3601	33.1	26.3	42.0	11.5	21.9	24.0
N53-3646	33.7	26.9	44.4	14.4	28.2	27.4
N53-3655	35.6	25.4	47.0	11.8	21.0	32.5+
N53-5129	38.7+	28.6	41.7	20.4	21.0	25.3
N53-5144	35.0	26.8	43.2	14.1	19.9	24.8
N53-5146	34.1	25.0	41.3	15.3	20.6	29.5
N53-5072	32.9	24.6	43.6	17.0	15.2	23.8
N53-5085	36.5	24.6	48.5	19.7	18.8	29.7
N53-5094	32.9	27.4	42.4	15.4	20.9	21.5-
N53-5236	32.4	28.6	50.4+	15.5	20.2	27.7
N53-5263	35.5	28.4	44.3	20.9	24.4	30.6
L.S.D. (.05)	3.0	6.8	5.5	N.S.	N.S.	4.6
C.V.	4%	13%	9%	25%	23%	8%

Table 43. Oil percentages for strains in Preliminary Group VI, 1956

Strain	Clayton, N. C.	Walnut Hill, Fla.	Stone-ville, Miss. (B)	Wilson Ark.
Ogden	20.8	21.7	22.0	20.2
Lee	21.0	22.3	20.8	21.1
Arksoy	19.4	22.2	19.1	19.6
D49-2477	19.7	21.3	20.3	18.9
D51-4969	19.9	21.6	20.8	20.3
D53-1260	21.2	23.2	20.9	21.2
D53-1301	21.4	22.4	20.9	21.1
D53-1334	22.2	22.5	19.8	20.4
D53-1340	19.8	23.4	20.0	20.3
D53-1569	21.6	23.1	19.8	20.9
D53-1590	21.5	22.2	20.0	19.5
D53-1611	22.1	22.7	20.4	20.9
D53-2174	21.8	22.3	22.2	21.4
D53-2264	21.8	23.1	21.9	20.3
D54-1102	20.3	21.7	19.3	20.4
N51-1403	21.6	23.1	20.6	20.7
N51-1467	22.0	23.0	21.2	21.3
N51-1675	21.0	22.2	21.7	21.2
N52-4342	21.0	22.4	21.4	21.1
N52-4378	20.8	22.9	20.7	21.6
N53-3494	21.8	23.9	21.9	21.1
N53-3551	20.9	23.4	21.0	20.9
N53-3559	21.4	23.2	21.4	21.0
N53-3592	21.0	22.5	20.0	20.3
N53-3599	20.1	22.0	19.3	20.6
N53-3601	21.3	22.7	20.1	20.9
N53-3646	20.6	23.3	20.7	20.9
N53-3655	21.1	22.3	20.4	20.4
N53-5129	23.7	24.2	20.2	20.9
N53-5144	20.9	22.7	19.1	20.6
N53-5146	21.7	23.5	20.8	20.2
N53-5072	21.5	22.8	20.9	21.0
N53-5085	20.0	21.5	18.8	19.4
N53-5094	21.1	22.6	20.6	20.4
N53-5236	21.1	22.2	21.5	20.5
N53-5263	23.1	24.0	22.3	21.7

Table 44. Protein percentages for strains in Preliminary Group VI, 1956

Strain	Clayton, N. C.	Walnut Hill, Fla.	Stone-ville, Miss. (B)	Wilson, Ark.
Ogden	42.1	40.3	39.7	43.4
Lee	41.6	42.7	41.3	40.8
Arksoy	45.7	42.9	44.1	43.3
D49-2477	43.0	42.4	43.2	42.2
D51-4969	43.4	40.5	40.1	41.1
D53-1260	42.6	41.1	40.8	41.8
D53-1301	42.0	42.0	41.2	41.1
D53-1334	41.3	39.3	40.5	40.0
D53-1340	41.6	39.2	39.1	39.0
D53-1569	42.8	41.3	42.1	42.6
D53-1590	41.0	40.6	40.2	42.8
D53-1611	42.9	40.1	40.7	41.5
D53-2174	41.7	40.9	38.6	41.2
D53-2264	42.5	40.4	40.0	41.4
D54-1102	42.2	39.7	40.9	39.9
N51-1403	41.1	40.0	41.2	39.8
N51-1467	41.6	40.6	40.8	41.1
N51-1675	44.1	41.9	40.1	43.4
N52-4342	42.6	40.6	38.1	41.3
N52-4378	39.9	37.8	39.6	42.2
N53-3494	45.0	41.6	40.8	42.3
N53-3551	42.7	41.0	41.8	43.0
N53-3559	43.7	40.8	41.6	42.6
N53-3592	44.8	39.9	40.0	42.3
N53-3599	43.7	40.8	41.8	43.1
N53-3601	40.7	41.5	41.5	41.9
N53-3646	43.7	41.5	40.6	43.8
N53-3655	43.2	40.6	40.4	43.1
N53-5129	42.7	40.5	41.1	42.2
N53-5144	41.3	40.6	40.2	43.2
N53-5146	42.7	39.9	40.6	41.4
N53-5072	42.6	41.6	40.9	41.7
N53-5085	43.8	43.0	44.6	42.7
N53-5094	42.3	42.5	41.2	42.6
N53-5236	44.5	43.1	41.8	43.7
N53-5263	42.9	40.2	38.4	42.4

Table 45. Height data for strains in Preliminary Group VI, 1956

Strain	Warsaw, Va.	Clayton, N. C.	Walnut Hill, Fla.	Sikeston, Mo.	Wilson, Ark.	Stoneville, Miss.(B)
Ogden	41	32	23	44	27	38
Lee	42	34	27	39	31	36
Arksoy	46	38	32	46	31	39
D49-2477	42	38	26	42	29	38
D51-4969	48	34	32	49	34	42
D53-1260	42	31	24	39	22	36
D53-1301	40	34	28	38	29	34
D53-1334	42	29	22	44	24	33
D53-1340	46	38	26	41	28	34
D53-1569	45	38	30	40	30	42
D53-1590	42	30	24	43	26	35
D53-1611	36	32	18	34	24	34
D53-2174	41	30	23	42	27	33
D53-2264	38	30	22	39	23	33
D54-1102	30	32	30	29	24	39
N51-1403	38	26	23	34	21	37
N51-1467	39	28	22	37	24	35
N51-1675	38	32	28	40	22	37
N52-4342	48	40	25	50	28	39
N52-4378	41	38	24	37	28	35
N53-3494	38	28	25	40	24	37
N53-3551	38	31	26	39	28	38
N53-3559	42	33	32	43	26	41
N53-3592	38	31	28	39	29	41
N53-3599	34	30	27	41	28	38
N53-3601	44	34	31	48	28	48
N53-3646	44	30	26	46	28	41
N53-3655	41	29	24	40	26	36
N53-5129	42	32	25	49	25	35
N53-5144	44	30	32	42	26	39
N53-5146	37	30	27	37	24	37
N53-5072	42	36	30	41	28	34
N53-5085	40	30	24	40	22	33
N53-5094	44	34	32	43	30	39
N53-5236	42	28	28	35	21	35
N53-5263	38	27	23	36	25	37

Table 46. Seed quality scores for strains in Preliminary Group VI, 1956

Strain	Warsaw, Va.	Clayton, N. C.	Walnut Hill, Fla.	Sikeston, Mo.	Wilson, Ark.	Stoneville, Miss.(B)
Ogden	3.0	3.0	2.0	2.5	2.5	2.0
Lee	2.0	1.5	1.0	2.0	1.5	1.5
Arksoy	2.5	3.5	2.0	2.0	1.0	2.5
D49-2477	2.5	3.0	2.0	2.0	3.0	1.0
D51-4969	3.0	2.0	2.0	1.5	2.0	2.0
D53-1260	2.0	3.5	1.0	1.5	1.5	1.5
D53-1301	2.0	1.5	2.0	2.0	1.0	1.0
D53-1334	2.0	5.0	1.0	1.0	2.0	2.0
D53-1340	1.5	3.5	2.0	2.0	2.0	1.5
D53-1569	1.5	4.0	2.0	2.0	2.0	2.0
D53-1590	2.5	5.0	2.0	2.0	2.5	1.0
D53-1611	2.5	5.0	2.0	1.5	2.0	2.0
D53-2174	2.0	4.0	2.0	2.0	2.5	3.0
D53-2264	1.5	3.5	2.0	2.5	2.5	2.0
D54-1102	3.0	2.0	2.0	2.0	2.0	1.5
N51-1403	2.0	3.0	2.0	1.5	2.5	2.0
N51-1467	2.5	3.0	2.0	2.0	2.0	2.0
N51-1675	2.0	2.0	2.0	2.0	3.0	3.0
N52-4342	2.0	4.0	2.0	2.0	1.5	2.0
N52-4378	2.5	1.5	1.0	2.0	2.0	2.0
N53-3494	2.0	4.5	2.0	2.0	3.0	2.0
N53-3551	2.0	4.5	1.0	2.0	2.0	2.0
N53-3559	1.5	4.0	2.0	2.5	2.0	3.0
N53-3592	2.0	3.5	2.0	2.0	2.0	2.0
N53-3599	1.5	3.5	1.0	1.5	2.0	2.0
N53-3601	2.0	4.0	2.0	2.0	1.5	2.0
N53-3646	1.5	5.0	2.0	2.0	2.0	2.0
N53-3655	2.0	5.0	3.0	2.0	2.5	2.0
N53-5129	1.0	5.0	3.0	2.0	3.5	2.5
N53-5144	1.5	2.0	2.0	2.0	3.0	2.0
N53-5146	1.5	4.0	2.0	2.5	3.0	2.0
N53-5072	2.5	3.0	2.0	2.0	3.0	3.0
N53-5085	1.5	3.0	2.0	2.0	1.5	2.0
N53-5094	3.0	3.0	2.0	2.0	2.0	2.0
N53-5236	3.5	3.5	2.0	2.0	2.5	2.0
N53-5263	1.5	3.5	2.0	2.0	1.5	2.0

UNIFORM GROUP VII

1956

Strain or Variety	Parentage	Generation Composited
1. Jackson	Volstate (2) x Palmetto	F_4
2. Roanoke	Selection from mixed seed lot	
3. Lee	S-100 x CNS	F_6
4. N50-2217	Volstate x Mamotan 6640	F_6
5. N50-2542	Ogden x Biloxi	F_8
6. N51-2186	Roanoke x N45-745	F_6
7. N51-2220	Roanoke x N45-745	F_6
8. N51-2638	N42-26 x N45-1004	F_6
9. N51-3527	Volstate (2) x Palmetto	F_8
10. D51-4877	Roanoke x N45-745	F_6
11. D51-5052	Roanoke x N45-745	F_6
12. D51-5091	Roanoke x N45-745	F_6

Thirty-two Group VII nurseries were planted. Results of 26 nurseries are summarized in tables 47 through 55. As with Group VI, the same 12 varieties and strains have been included in the Group VII nursery for the past three years. A general summary of the three-year performance of these strains is given in table 47.

For the three-year period, Jackson has yielded less than Lee in all areas except the Southeast. It is in the Southeast that varieties of Group VII maturity appear to be best adapted and the greater height of Jackson is an advantage from the standpoint of harvesting. In this area, N50-2542, D51-4877, and D51-5091 show slight superiority over Jackson. The similarity in performance of D51-4877 and D51-5091 is of interest, since these two lines are the shortest and the tallest in the group. D51-5091 has ranked rather low in the East Coast area, because of its height and lodging.

D51-4877 has given good yields in all areas, but its yield performance in the Delta and West has been outstanding. This line should be of considerable value as a parent. Its high target spot susceptibility excludes the possibility of considering it for release as a variety.

N51-3527, a subline of Jackson, has proved to be very similar to Jackson for seed yield in each production area. However, it has averaged consistantly higher in oil content in the East Coast and Southeast areas in each of the three years. For the three-year period in the Southeast, N51-3527 has average one bushel less per acre than Jackson, has had an oil content of .8 percent higher, protein content of .6 percent lower, and has slightly

larger seed. N51-3527 was selected in North Carolina for its higher oil content. In the Delta tests, its average oil and protein content have been similar to Jackson. The higher degree of homozygosity of N51-3527 does not appear to have restricted its range of adaptation.

Table 47. General summary of the performance for strains in Uniform Group VII, 1956

	Jackson	Roanoke	Lee	N50-2217	N50-2542	N51-2186
Seed Yield - 1956						
East	31.0	29.2	31.3	30.6	30.3	31.3
Southeast	30.8	29.4	30.2	29.3	31.0	30.6
Upper & Cen. South	27.4	29.0	32.7	27.1	26.2	29.7
Delta	16.2	17.8	22.2	15.8	16.8	20.0
West	25.4	25.3	27.2	26.2	27.6	27.5
- 1954-56						
East	28.4	27.8	31.1	27.8	27.5	31.0
Southeast	30.8	29.1	30.9	29.8	31.5	28.6
Upper & Cen. South	20.5	20.4	24.6	20.3	21.6	21.8
Delta	27.4	28.2	31.0	26.4	27.7	29.6
West	20.6	21.1	24.4	22.4	22.9	22.8
Oil - 1956						
East	20.5	20.9+	20.6	20.1-	20.4	20.6
Southeast	22.7	23.2+	22.3	22.6	22.7	23.2+
Upper & Cen. South	21.9	22.2	22.1	22.6	22.2	22.0
Delta	22.0	22.3	21.2	21.0	22.0	21.8
Regional	21.8	22.2+	21.6	21.6	21.8	21.9
-1954-56						
East	20.6	21.0	20.1	19.9	20.0	20.5
Southeast	22.7	22.9	22.0	22.1	22.4	22.8
Upper & Cen. South	21.9	21.5	21.3	21.6	21.4	21.2
Delta	21.9	22.0	21.1	20.7	21.4	21.2
Regional	21.7	21.9	21.1	21.0	21.2	21.5
Protein - 1956						
East	41.7	41.5	42.9+	41.3	43.1+	41.4
Southeast	40.1	39.6	41.9+	39.2	41.2+	38.7-
Upper & Cen. South	38.4	37.8	38.1	37.4	39.8	38.2
Delta	40.1	40.7	42.3	40.8	42.0	40.3
Regional	40.1	39.9	41.3+	39.7	41.0+	39.7
-1954-56						
East	41.5	41.3	43.4	41.6	42.9	41.7
Southeast	40.0	39.9	41.8	39.7	41.5	39.2
Upper & Cen. South	38.2	38.2	39.6	39.7	40.6	38.5
Delta	40.1	40.0	42.1	40.2	41.9	40.2
Regional	40.4	40.2	42.1	40.4	42.0	40.3

Table 47. (Continued)

	N51-2220	N51-2638	N51-3527	D51-4877	D51-5052	D51-5091
Seed Yield - 1956						
East	30.5	30.7	32.3	30.8	30.8	27.4-
Southeast	29.2	26.7	29.1	30.0	29.1	30.1
Upper & Cen. South	33.1	26.1	30.6	29.9	26.6	28.9
Delta	18.6	20.4	17.7	21.8	21.0	19.1
West	26.3	26.2	26.5	32.7	27.0	25.3
- 1954-56						
East	28.7	28.1	29.2	30.4	29.8	25.1
Southeast	31.1	28.5	29.8	31.6	31.2	31.5
Upper & Cen. South	23.0	21.1	21.7	23.2	19.8	20.1
Delta	28.9	29.0	27.7	34.4	28.8	27.9
West	21.7	21.3	20.6	26.3	23.0	22.8
Oil - 1956						
East	21.2+	20.7	21.7+	20.4	20.9+	19.7-
Southeast	23.5+	22.4	23.8+	22.5	22.8	22.1
Upper & Cen. South	21.7	21.3	22.4	22.1	21.6	21.4
Delta	22.6	21.1	22.1	21.4	22.1	21.4
Regional	22.3+	21.4-	22.5+	21.6	21.9	21.2-
- 1954-56						
East	20.7	20.1	21.5	20.2	20.5	19.4
Southeast	23.1	21.9	23.5	22.2	22.6	21.8
Upper & Cen. South	21.9	20.9	22.1	21.4	21.1	21.1
Delta	21.9	20.7	22.0	20.8	21.3	20.9
Regional	21.8	20.8	22.3	21.1	21.4	20.7
Protein - 1956						
East	40.3-	41.1	40.9-	41.5	40.6-	41.5
Southeast	39.1-	40.0	39.5	39.8	39.2	39.7
Upper & Cen. South	37.3	38.7	37.9	38.5	37.8	38.0
Delta	39.9	41.2	40.9	40.3	40.6	40.1
Regional	39.2-	40.2	39.8	40.0	39.6-	39.8
- 1954-56						
East	41.4	41.7	41.0	41.8	41.5	42.0
Southeast	39.3	40.2	39.4	39.7	39.2	39.6
Upper & Cen. South	37.6	39.3	38.7	38.7	39.0	38.1
Delta	40.2	40.7	40.4	40.2	40.5	40.0
Regional	40.1	40.7	40.1	40.4	40.3	40.3

Table 47. (Continued)

		Jackson	Roanoke	Lee	N50-2217	N50-2542	N51-2186
Maturity Index - 1954-56							
	East	10-30	-2	-8	-2	-2	-6
	Southeast	10-25	-4	-7	-3	-3	-6
	Delta	10-23	0	-7	-2	-3	-6
Height - 1954-56							
	East	45	45	34	44	35	32
	Southeast	33	28	25	31	27	21
	Delta	47	45	32	46	35	33
	West	35	34	28	35	27	25
Shattering - 1955-56		1.5	1.0	1.0	2.0	1.0	1.0
Bacterial Pustule-1954-56		2.7	3.0	1.0	3.0	3.0	1.0
Target Spot - 1955-56		1.0	2.3	1.0	1.2	2.3	1.0

Table 47. (Continued)

	N51-2220	N51-2638	N51-3527	D51-4877	D51-5052	D51-5091
Maturity Index - 1954-56						
East	-6	-8	-2	-6	-6	-3
Southeast	-6	-5	-2	-5	-5	-3
Delta	-4	-5	-1	-6	-6	-1
Height - 1954-56						
East	39	37	44	32	33	47
Southeast	28	26	29	21	22	34
Delta	42	36	46	35	35	53
West	31	30	32	24	25	40
Shattering - 1955-56	1.5	1.5	1.5	1.0	1.5	1.0
Bacterial Pustule-1954-56	1.0	1.0	3.0	1.0	1.0	1.0
Target Spot - 1955-56	1.3	1.3	1.2	3.0	1.0	1.0

Table 4[illegible]. Seed yield, in bushels per acre, for strains in Uniform Group VII, 1956

Location	Jackson	Roanoke	Lee	N50-2217	N50-2542	N51-2186
			East Coast			
Onley, Va.	17.3	21.2+	19.0	19.3	22.3+	22.7+
Norfolk, Va.	21.8	14.4	26.2	17.7	23.3	18.4
Petersburg, Va.	33.1	28.8	33.9	30.7	28.5	32.8
Holland, Va.	31.8	35.0	31.1	32.2	28.2	31.9
Plymouth, N. C.	32.9	31.5	31.6	32.4	29.0	31.2
Willard, N. C.	34.2	32.2	32.9	36.6	37.1	38.1+
Clayton, N. C.	38.7	38.0	40.4	39.7	39.1	41.0
Florence, S. C.	29.2	28.6	30.6	29.3	29.0	28.1
Hartsville, S. C.	39.6	33.1	35.6	37.4	36.0	37.4
Mean	31.0	29.2	31.3	30.6	30.3	31.3
			Southeast			
Blackville, S. C.	14.0	10.3-	11.0-	8.2-	13.3	8.8-
Tallassee, Ala.	48.2	46.6	47.6	45.4	49.4	47.4
Tifton, Ga.	19.9	20.2	20.5	19.8	25.6+	19.8
Gainesville, Fla.	26.7	20.2-	17.4-	22.5-	26.9	24.3
Marianna, Fla.	25.6	25.1	26.0	26.1	26.0	25.3
Quincy, Fla.	26.2	24.2	28.5	22.2	23.7	25.2
Walnut Hill, Fla.	46.2	44.5	47.0	49.7	45.7	47.5
Fairhope, Ala.	32.0	35.0	36.2+	35.3	35.2	38.0+
Baton Rouge, La.	38.2	38.4	37.3	34.7	33.5-	39.4
Mean	30.8	29.4	30.2	29.3	31.0	30.6
			Upper & Central South			
Clemson, S. C.	29.6	28.4	30.8	26.7	27.1	27.6
Athens, Ga. 1/	10.3	10.3	10.6	9.9	10.6	11.3
State College, Miss.	25.3	29.6	34.6	27.4	25.3	31.8
Mean	27.5	29.0	32.7	27.1	26.2	29.7
			Delta			
Stoneville, Miss. (A)	13.1	10.3	16.5	10.9	16.7	20.4
Stoneville, Miss. (B)	21.0	21.7	28.6+	20.9	19.2	22.7
Louise, Miss.	14.5	21.3+	21.4+	15.7	14.5	16.9
Mean	16.2	17.8	22.2	15.8	16.8	20.0
			West			
Stuttgart, Ark.	33.7	32.7	35.0	35.5	35.0	33.8
Lubbock, Texas	17.1	17.8	19.4	16.3	20.2	21.2
Mean	25.4	25.3	27.2	26.2	27.6	27.5

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

Table 48. (Continued)

Location	N51-2220	N51-2638	N51-3527	D51-4877	D51-5052	D51-5091	L.S.D. (.05)	C.V.
			East Coast					
Onley, Va.	21.8+	19.3	18.8	24.4+	20.5	17.8	3.7	11%
Norfolk, Va.	19.6	23.6	21.8	17.4	22.5	18.4	N.S.	28%
Petersburg, Va.	32.0	34.4	36.0	33.3	35.5	28.0-	5.1	9%
Holland, Va.	32.6	30.7	34.1	36.3	31.0	28.7	N.S.	10%
Plymouth, N.C.	33.4	30.2	33.0	29.1	33.2	27.7	N.S.	7%
Willard, N. C.	36.0	33.1	36.3	34.9	32.5	28.4-	3.7	6%
Clayton, N. C.	36.3	41.3	42.3	37.6	41.0	34.5	N.S.	9%
Florence, S.C.	29.8	30.7	32.2	30.3	25.3	27.7	N.S.	10%
Hartsville, S. C.	33.4	33.5	36.2	34.1	35.8	35.6	N.S.	10%
Mean	30.5	30.7	32.3	30.8	30.8	27.4-	2.0	
			Southeast					
Blackville, S. C.	13.3	10.1-	11.3	9.4-	11.3	17.5+	3.0	15%
Tallassee, Ala.	44.1	37.1-	46.8	52.8	47.0	46.7	6.0	8%
Tifton, Ga.	20.4	19.4	22.4	21.2	19.7	21.9	2.8	8%
Gainesville, Fla.	27.8	22.3-	24.5	25.0	26.1	28.1	2.9	7%
Marianna, Fla.	29.0	25.6	22.3	25.9	27.4	25.6	N.S.	18%
Quincy, Fla.	19.9-	22.9	22.7	24.7	14.9-	13.9-	5.6	15%
Walnut Hill, Fla.	46.2	43.9	46.2	48.2	44.9	42.2	N.S.	7%
Fairhope, Ala.	29.3	30.9	34.1	34.7	35.7	36.3+	3.8	7%
Baton Rouge, La.	33.0-	28.5-	32.1-	28.3-	35.1	33.4-	3.8	7%
Mean	29.2	26.7	29.1	30.0	29.1	30.1	N.S.	
			Upper and Central South					
Clemson, S. C.	29.2	22.2	32.3	29.7	25.3	29.3	N.S.	24%
Athens, Ga. 1/	11.1	10.3	12.5	12.6	13.7	13.0	N.S.	14%
State College, Miss.	37.1	30.0	29.0	30.1	27.8	28.5	N.S.	24%
Mean	33.2	26.1	30.7	29.9	26.6	28.9	N.S.	
			Delta					
Stoneville, Miss. (A)	16.7	10.7	15.0	15.9	19.9	16.9	N.S.	26%
Stoneville, Miss. (B)	23.2	27.4+	22.9	24.6	23.9	20.8	4.2	11%
Louise, Miss.	15.9	22.9+	15.3	25.0+	19.2	19.5	6.5	20%
Mean	18.6	20.4	17.7	21.8	21.0	19.1	N.S.	
			West					
Stuttgart, Ark.	33.6	35.3	32.2	36.7	33.2	36.2	N.S.	7%
Lubbock, Texas	19.0	17.2	20.8	28.7+	20.7	14.4	6.5	20%
Mean	26.3	26.2	26.5	32.7+	27.0	25.3	3.6	

Table 49. Oil percentages for strains in Uniform Group VII, 1956

Location	Jackson	Roanoke	Lee	N50-2217	N50-2542	N51-2136
			East Coast			
Onley, Va.	19.1	19.7	18.4	18.2-	18.4	18.5
Norfolk, Va.	19.9	18.9	20.0	18.4	19.5	18.5
Petersburg, Va.	19.8	20.7+	20.6+	19.9	19.9	20.8+
Plymouth, N. C.	21.1	21.9+	21.6+	20.8	20.9	21.8+
Willard, N. C.	21.8	22.5+	20.5	21.3	21.2-	21.3
Clayton, N. C.	20.8	20.9	21.2	21.2	21.4	21.6+
Florence, S. C.	21.1	21.4	20.8	20.7	21.0	20.1-
Hartsville, S. C.	20.7	21.2	22.0+	20.7	20.3	21.9+
Mean	20.5	20.9+	20.6	20.2	20.4	20.6
			Southeast			
Tallassee, Ala.	22.0	23.1+	22.7+	22.7+	21.9	22.9+
Gainesville, Fla.	23.7	24.3+	21.9-	23.4	23.1-	24.4+
Walnut Hill, Fla.	22.1	22.5	22.3	22.5	22.3	22.6
Fairhope, Ala.	23.8	23.8	23.5	22.7-	24.1	23.8
Baton Rouge, La.	21.9	22.0	21.4	21.7	22.1	22.4
Mean	22.7	23.2	22.3	22.6	22.7	23.2
			Upper and Central South			
Clemson, S. C.	21.9	22.2	22.1	22.6	22.2	22.0
			Delta			
Stoneville, Miss. (A)	21.8	21.2	20.3	20.7	21.2	22.2
Stoneville, Miss. (B)	22.1	23.5+	21.6	21.2	22.8	21.5
Mean	22.0	22.4	21.2	21.0	22.0	21.9

Table 49. (Continued)

Location	N51-2220	N51-2638	N51-3527	D51-4877	D51-5052	D51-5091	L.S.D. (.05)
			East Coast				
Onley, Va.	19.3	18.3-	20.1+	18.8	19.3	17.9-	0.8
Norfolk, Va.	20.5	20.0	20.4	18.4	20.2	18.2	1.4
Petersburg, Va.	20.8+	21.0+	21.4+	20.6+	20.6+	19.8	0.7
Plymouth, N. C.	21.4	21.9+	22.3+	20.9	21.1	20.6-	0.4
Willard, N. C.	21.8	21.6	23.0+	21.2-	21.7	20.6-	0.6
Clayton, N. C.	22.2+	21.7+	22.2+	21.3	21.6+	20.1-	0.7
Florence, S. C.	21.7	20.4-	21.7	20.6	21.0	20.6	0.7
Hartsville, S. C.	21.7+	21.1	22.4+	21.2	21.5+	19.9-	0.6
Mean	21.2+	20.8	21.7+	20.4	20.9+	19.7-	0.4
			Southeast				
Tallassee, Ala.	22.8+	23.2+	23.4+	22.0	22.6+	21.8	0.6
Gainesville, Fla.	23.9	22.7-	24.6+	23.7	23.3	23.0-	0.6
Walnut Hill, Fla.	23.5+	22.3	23.4+	22.3	22.0	22.1	0.6
Fairhope, Ala.	24.4	22.9-	24.5	22.4-	23.9	22.7-	0.8
Baton Rouge, La.	22.7+	21.3	22.9+	21.9	22.5	20.8	0.7
Mean	23.5	22.4	23.8	22.5	22.8	22.1	0.5
			Upper and Central South				
Clemson, S. C.	21.7	21.3	22.4	22.1	21.6	21.4	N.S.
			Delta				
Stoneville, Miss. (A)	22.3	20.7	21.3	21.2	21.3	20.6	N.S.
Stoneville, Miss. (B)	23.0	21.6	22.8	21.7	22.8	22.2	1.0
Mean	22.6	21.2	22.1	21.5	22.1	21.4	N.S.

Table 50. Protein percentages for strains in Uniform Group VII, 1956

Location	Jackson	Roanoke	Lee	N50-2217	N50-2542	N51 2186
			East Coast			
Onley, Va.	41.2	40.3	43.5	41.8	43.8	41.5
Norfolk, Va.	43.5	46.5	46.2	44.1	46.4	45.8
Petersburg, Va.	41.8	41.6	42.1	39.7	43.3	40.1
Plymouth, N. C.	42.6	42.2	42.9	42.3	42.4	42.0
Willard, N. C.	40.6	39.5-	43.3+	40.3	42.3	40.2
Clayton, N. C.	42.0	40.8-	41.7	40.6-	41.9	40.1-
Florence, S. C.	41.1	39.9	42.6+	40.9	42.4	40.8
Hartsville, S. C.	40.7	40.9	40.6	40.4	42.4+	40.3
Mean	41.7	41.5	42.9+	41.3	43.1+	41.4
			Southeast			
Tallassee, Ala.	40.4	39.2-	42.3+	38.5-	42.4+	39.2-
Gainesville, Fla.	39.7	39.2	43.3+	39.5	42.4+	38.9
Walnut Hill, Fla.	40.3	40.0	40.5	39.1-	41.3+	39.2-
Fairhope, Ala.	39.6	39.4	40.6	38.6	39.0	36.6-
Baton Rouge, La.	40.5	40.1	42.9+	40.3	41.0	39.7
Mean	40.1	39.6	41.9	39.2	41.2	38.7
			Upper and Central South			
Clemson, S. C.	38.4	37.8	38.1	37.4	39.8	38.2
			Delta			
Stoneville, Miss. (A)	41.6	42.3	42.9	43.0	44.0	40.9
Stoneville, Miss. (B)	38.7	39.1	41.7	38.5	39.9	39.7
Mean	40.2	40.7	42.3	40.8	42.0	40.3

Table 50. (Continued)

Location	N51-2220	N51-2638	N51-3527	D51-4877	D51-5052	D51 5091	L.S.D. (.05)
			East Coast				
Onley, Va.	40.1	42.0	41.8	40.3	40.8	42.1	1.4
Norfolk, Va.	43.6	43.8	44.2	46.6	43.5	43.4	2.2
Petersburg, Va.	40.0	40.5	40.6	41.6	40.6	40.5	1.3
Plymouth, N. C.	41.4-	40.8-	41.2-	42.3	41.9	42.0	1.0
Willard, N. C.	39.1-	40.3	39.2-	40.1	38.9-	40.8	0.9
Clayton, N. C.	38.7-	40.0-	40.3-	40.1-	39.8-	41.1	1.0
Florence, S. C.	40.2	40.7	39.7	40.0	39.9	41.4	1.5
Hartsville, S. C.	39.1-	40.2	40.3	40.8	39.4-	40.4	1.0
Mean	40.3-	41.0-	40.9-	41.5	40.6-	41.5	0.7
			Southeast				
Tallassee, Ala.	39.7	41.0	40.0	40.9	41.3	40.2	1.2
Gainesville, Fla.	39.7	39.8	38.4-	40.6	39.6	40.5	1.0
Walnut Hill, Fla.	39.0-	40.1	40.3	39.7	39.0-	39.9	1.0
Fairhope, Ala.	37.7-	37.6-	38.4	37.3-	36.4-	37.3-	1.3
Baton Rouge, La.	39.6	41.4	40.4	40.5	40.0	40.6	1.1
Mean	39.1	40.0	39.5	39.8	39.2	39.7	1.0
			Upper and Central South				
Clemson, S. C.	37.3	38.7	37.9	38.5	37.8	38.0	N.S.
			Delta				
Stoneville, Miss. (A)	41.2	42.8	43.3	41.7	42.9	42.1	N.S.
Stoneville, Miss. (B)	38.5	39.5	38.5	38.9	38.2	38.1	1.7
Mean	39.9	41.2	40.9	40.3	40.6	40.1	N.S.

Table 51. Relative maturity data, days earlier (-) or later (+) than Jackson, for strain in Uniform Group VII, 1956

Location	Date Planted	Jackson	Roanoke	Lee	N50-2217	N50-2542
			East Coast			
Petersburg, Va.	5-9	11-3	+3	-8	+5	+4
Plymouth, N. C.	5-3	10-23	-2	-5	-1	-1
Willard, N. C.	5-17	10-28	-9	-11	-2	-2
Clayton, N. C.	5-9	10-30	-3	-5	-3	-4
Florence, S. C.	5-21	10-24	-5	-8	-4	-3
Hartsville, S. C.	5-25	11-3	-1	-9	+1	-5
Mean		10-28	-3	-8	0	-2
			Southeast			
Blackville, S. C.	6-4	11-3	-3	-3	-5	+4
Tallassee, Ala.	6-6	10-29	-8	-11	-2	-11
Tifton, Ga.	6-5	11-2	-1	-2	+2	-2
Gainesville, Fla.	6-19	10-18	+1	-4	0	+2
Marianna, Fla.	6-19	10-24	-5	-7	-5	-5
Walnut Hill, Fla.	6-15	10-15	-6	-8	-4	-4
Fairhope, Ala.	6-24	10-20	0	-4	0	0
Baton Rouge, La.	5-15	10-20	-8	-7	-6	-7
Mean		10-25	-4	-6	-3	-3
			Delta			
Stoneville, Miss. (A)	5-30	10-23	+1	-11	+1	+1
Stoneville, Miss. (B)	5-3	10-22	0	-13	-3	-2
Louise, Miss.	5-12	10-8	0	-1	-3	-4
Mean		10-18	0	-8	-2	-2
			West			
Stuttgart, Ark.	5-13	11-9	0	0	0	0
Lubbock, Texas	6-11	10-30	+6	-5	-5	0
Mean		11-5	+3	-3	-3	0

Table 51. (Continued)

Location	N51-2186	N51-2220	N51-2638	N51-3527	D51-4877	D51-5052	D51-5091
			East Coast				
Petersburg, Va.	+2	-1	-2	+4	+2	+2	+2
Plymouth, N. C.	-5	-8	-10	-3	-5	-6	-4
Willard, N. C.	-9	-8	-9	-8	-8	-5	-6
Clayton, N. C.	-8	-10	-9	-1	-6	-5	0
Florence, S. C.	-6	-6	-4	-2	-6	-6	-3
Hartsville, S. C.	-7	-8	-7	-1	-7	-7	+1
Mean	-6	-7	-7	-2	-5	-5	-2
			Southeast				
Blackville, S. C.	-3	+2	-4	-4	-4	0	+4
Tallassee, Ala.	-9	-8	-9	-2	-13	-5	+1
Tifton, Ga.	-2	-2	-2	-1	-1	-2	-1
Gainesville, Fla.	-1	-2	-3	-1	0	-2	-1
Marianna, Fla.	-7	-5	-7	-6	-9	-5	-5
Walnut Hill, Fla.	-8	-7	-6	-2	-6	-8	-6
Fairhope, Ala.	0	0	0	0	0	0	0
Baton Rouge, La.	-9	-9	-7	-5	-6	-7	-7
Mean	-5	-4	-5	-3	-5	-4	-2
			Delta				
Stoneville, Miss. (A)	-4	0	-6	0	-4	-3	+2
Stoneville, Miss. (B)	-6	-6	-7	0	-7	-7	0
Louise, Miss.	-4	-4	-4	-1	-4	-4	0
Mean	-5	-3	-6	0	-5	-5	0
			West				
Stuttgart, Ark.	0	0	0	0	0	0	0
Lubbock, Texas	+6	+6	-5	+6	+6	+6	+6
Mean	+3	+3	-3	+3	+3	+3	+3

Table 52. Plant height for strains in Uniform Group VII, 1956

Location	Jackson	Roanoke	Lee	N50-2217	N50-2542	N51-2186
			East Coast			
Onley, Va.	45	41	29	40	35	33
Norfolk, Va.	43	47	37	41	32	33
Petersburg, Va.	45	48	33	48	37	35
Holland, Va.	51	48	39	49	41	38
Plymouth, N. C.	53	53	38	53	43	40
Willard, N. C.	45	43	33	46	38	31
Clayton, N. C.	42	37	31	43	32	32
Florence, S. C.	41	38	31	44	30	25
Hartsville, S. C.	38	32	28	35	26	24
Mean	45	43	33	44	35	32
			Southeast			
Blackville, S. C.	29	34	26	30	28	22
Tallassee, Ala.	49	44	35	47	38	33
Tifton, Ga.	40	30	26	35	24	24
Gainesville, Fla.	28	19	17	21	21	15
Marianna, Fla.	29	24	25	30	22	21
Quincy, Fla.	32	29	22	27	24	20
Walnut Hill, Fla.	35	28	27	36	31	23
Fairhope, Ala.	24	20	21	19	18	15
Baton Rouge, La.	33	24	21	27	24	19
Mean	33	28	24	30	26	21
			Upper and Central South			
Clemson, S. C.	37	35	26	37	26	27
Athens, Ga.	36	34	28	35	28	25
Mean	37	35	27	36	27	26
			Delta			
Stoneville, Miss. (A)	48	47	36	49	40	41
Stoneville, Miss. (B)	52	48	31	49	42	37
Louise, Miss.	45	42	29	46	43	35
Mean	48	46	32	48	42	38
			West			
Stuttgart, Ark.	40	41	32	42	34	29
Lubbock, Texas	43	39	35	42	31	28
Mean	42	40	34	42	33	29

Table 52. (Continued)

Location	N51-2220	N51-2638	N51-3527	D51-4877	D51-5052	D51-5091
			East Coast			
Onley, Va.	39	34	40	32	27	45
Norfolk, Va.	33	36	43	30	29	46
Petersburg, Va.	35	37	51	34	36	44
Holland, Va.	43	47	49	35	37	55
Plymouth, N. C.	46	41	51	44	41	49
Willard, N. C.	39	40	43	31	30	47
Clayton, N. C.	34	33	41	30	27	44
Florence, S. C.	32	33	40	22	21	48
Hartsville, S. C.	30	29	33	26	28	41
Mean	37	37	43	32	31	47
			Southeast			
Blackville, S. C.	28	27	32	22	25	38
Tallassee, Ala.	36	37	39	33	31	42
Tifton, Ga.	24	28	29	24	26	40
Gainesville, Fla.	21	19	21	14	15	25
Marianna, Fla.	26	27	28	19	17	28
Quincy, Fla.	23	24	27	18	16	26
Walnut Hill, Fla.	29	31	33	25	24	35
Fairhope, Ala.	14	16	20	12	13	26
Baton Rouge, La.	23	19	24	13	13	31
Mean	25	25	28	20	20	32
			Upper and Central South			
Clemson, S. C.	33	29	36	26	26	40
Athens, Ga.	29	30	31	20	22	35
Mean	31	30	34	23	24	33
			Delta			
Stoneville, Miss. (A)	43	43	45	37	36	51
Stoneville, Miss. (B)	48	36	53	35	35	57
Louise, Miss.	43	32	44	42	35	46
Mean	45	37	47	38	35	51
			West			
Stuttgart, Ark.	36	35	40	30	29	41
Lubbock, Texas	32	32	36	30	27	43
Mean	34	34	38	30	28	42

Table 53. Lodging scores for strains in Uniform Group VII, 1956

Location	Jackson	Roanoke	Lee	N50-2217	N50-2542	N51-2136
East Coast						
Onley, Va.	1.0	1.7	1.0	1.0	1.0	1.7
Norfolk, Va.	1.0	2.0	2.7	2.3	1.7	2.3
Petersburg, Va.	2.7	4.0	2.7	3.3	2.3	3.3
Holland, Va.	1.3	2.3	2.3	2.3	2.0	3.0
Plymouth, N. C.	3.5	3.8	3.5	4.3	2.0	4.7
Willard, N. C.	2.7	2.3	1.3	1.3	1.0	3.5
Clayton, N. C.	2.5	3.5	2.3	2.7	1.0	2.5
Florence, S. C.	1.3	2.3	1.3	1.3	1.0	1.0
Hartsville, S. C.	2.0	2.7	2.0	2.0	-	1.0
Southeast						
Blackville, S. C.	1.0	2.0	1.0	1.3	1.0	1.0
Tallassee, Ala.	3.0	3.0	2.7	3.0	3.0	3.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, Fla.	1.3	1.7	1.7	1.0	1.0	1.0
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	2.0	2.0	2.0	2.0	1.0
Baton Rouge, La.	2.0	2.0	1.0	1.0	1.0	1.0
Upper and Central South						
Clemson, S. C.	1.8	2.2	1.8	2.5	1.2	1.6
Delta						
Stoneville, Miss. (A)	2.7	3.3	3.0	2.7	2.3	2.7
Stoneville, Miss. (B)	2.0	3.0	1.0	2.0	1.7	2.3
Louise, Miss.	3.0	3.3	1.3	2.7	2.3	3.0
West						
Stuttgart, Ark.	2.0	3.0	2.0	2.0	1.0	2.0
Lubbock, Texas	1.0	1.0	1.0	1.0	1.0	1.0

Table 53. (Continued)

Location	N51-2220	N51-2638	N51-3527	D51-4877	D51-5052	D51-5091
			East Coast			
Onley, Va.	1.0	2.0	1.3	2.0	1.3	1.7
Norfolk, Va.	1.3	3.0	1.7	1.3	1.7	2.3
Petersburg, Va.	2.0	2.7	1.7	2.7	2.7	3.7
Holland, Va.	1.3	2.3	1.0	1.7	3.0	3.0
Plymouth, N. C.	4.2	3.2	3.2	3.7	3.?	4.5
Willard, N. C.	1.5	1.7	1.0	1.3	1.3	3.2
Clayton, N. C.	1.5	2.5	2.9	1.5	1.2	3.2
Florence, S. C.	1.0	1.0	1.0	1.0	1.0	2.0
Hartsville, S. C.	1.3	1.3	1.7	1.0	1.0	2.7
			Southeast			
Blackville, S. C.	1.0	1.0	1.0	1.0	1.0	1.3
Tallassee, Ala.	2.7	3.0	2.7	3.0	2.0	2.7
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, Fla.	1.3	1.3	1.0	1.0	1.0	1.0
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	2.0	1.3	1.7	1.0	1.0	1.7
Baton Rouge, La.	1.0	1.0	1.0	1.0	1.0	1.0
			Upper and Central South			
Clemson, S. C.	1.2	1.5	2.0	1.2	1.0	3.7
			Delta			
Stoneville, Miss. (A)	3.0	3.0	2.7	1.3	1.3	2.3
Stoneville, Miss. (B)	2.0	2.3	2.0	1.0	1.3	3.0
Louise, Miss.	2.0	2.3	3.0	2.0	2.0	3.3
			West			
Stuttgart, Ark.	2.0	2.0	1.3	2.0	1.7	3.3
Lubbock, Texas	1.0	1.0	1.0	1.0	1.0	1.0

Table 54. Seed quality scores for strains in Group VII, 1956

Location	Jackson	Roanoke	Lee	N50-2217	N50-2542	N51-2136
East Coast						
Onley, Va.	2.3	2.3	2.7	2.7	3.0	3.0
Norfolk, Va.	3.0	3.0	3.3	3.3	3.0	3.7
Petersburg, Va.	1.3	2.3	3.0	2.0	1.0	2.3
Holland, Va.	1.5	2.0	2.8	2.3	1.0	2.5
Plymouth, N. C.	3.7	3.3	3.3	3.8	4.7	4.7
Willard, N. C.	1.7	1.0	1.0	1.7	1.5	1.8
Clayton, N. C.	1.5	1.3	1.0	1.5	1.5	1.7
Florence, S. C.	1.0	1.0	1.0	1.3	1.2	1.2
Hartsville, S. C.	1.3	1.5	1.3	1.8	1.7	2.0
Southeast						
Tallassee, Ala.	2.7	2.0	1.0	3.0	1.0	3.0
Gainesville, Fla.	1.7	2.0	1.7	2.0	2.0	2.0
Quincy, Fla.	3.0	3.0	2.0	2.0	3.0	2.0
Walnut Hill, Ala.	2.0	1.7	2.0	2.3	1.7	2.0
Fairhope, Ala.	2.0	2.0	1.3	4.7	2.0	1.7
Baton Rouge, La.	1.0	1.0	1.0	2.0	1.0	1.0
Upper and Central South						
Clemson, S. C.	2.2	2.3	1.8	2.6	2.6	2.3
Athens, Ga.	1.7	1.3	1.7	1.7	1.0	1.0
Delta						
Stoneville, Miss. (A)	2.7	2.7	2.7	3.0	2.7	2.3
Stoneville, Miss. (B)	3.0	3.0	2.0	3.0	3.0	3.0
Louise, Miss.	3.0	2.7	2.0	3.3	3.0	3.0
West						
Stuttgart, Ark.	1.3	2.7	1.7	2.7	1.0	2.3
Lubbock, Texas	2.0	2.7	2.0	2.0	2.3	2.3

Table 54. (Continued)

Location	N51-2220	N51-2638	N51-3527	D51-4877	D51-5052	D51-5091
			East Coast			
Onley, Va.	3.0	3.0	2.3	3.0	3.0	3.0
Norfolk, Va.	3.7	3.0	3.7	3.7	3.7	3.3
Petersburg, Va.	3.3	1.7	2.3	1.3	1.3	2.7
Holland, Va.	3.0	2.5	1.3	1.7	2.0	2.3
Plymouth, N. C.	4.0	3.8	3.2	3.2	3.2	4.5
Willard, N. C.	1.3	1.2	1.0	1.3	1.2	1.8
Clayton, N. C.	1.2	1.0	1.3	1.5	1.3	2.0
Florence, S. C.	1.5	1.0	1.0	1.3	1.0	1.2
Hartsville, S. C.	2.2	1.5	1.0	1.8	2.0	1.7
			Southeast			
Tallassee, Ala.	2.0	2.3	2.0	1.0	2.0	2.7
Gainesville, Fla.	2.0	2.0	2.0	2.0	1.3	1.0
Quincy, Fla.	2.0	3.0	3.0	2.0	3.0	3.0
Walnut Hill, Ala.	2.0	2.0	2.0	2.0	2.0	1.7
Fairhope, Ala.	2.0	2.3	2.3	2.7	2.0	1.7
Baton Rouge, La.	1.0	1.0	1.0	1.0	1.0	1.0
			Upper and Central South			
Clemson, S. C.	2.6	2.5	2.3	2.0	2.3	2.5
Athens, Ga.	1.7	2.0	1.7	2.3	1.3	1.3
			Delta			
Stoneville, Miss. (A)	2.7	3.0	2.3	3.0	2.0	3.0
Stoneville, Miss. (B)	2.7	2.7	3.0	2.0	2.0	2.3
Louise, Miss.	2.3	2.0	2.7	2.3	2.3	2.3
			West			
Stuttgart, Ark.	2.3	1.7	2.0	2.3	2.0	1.3
Lubbock, Texas	2.0	2.3	2.0	2.0	2.0	2.7

Table 55. Seed weight, in grams per 100 seeds, for strains in Uniform Group VII, 1956

Location	Jackson	Roanoke	Lee	N50-2217	N50-2542	N51-2186
			East Coast			
Onley, Va.	16.4	15.9	14.1	17.7	18.3	14.4
Norfolk, Va.	16.0	12.8	12.7	15.6	17.3	12.2
Petersburg, Va.	17.7	16.9	14.0	20.0	19.1	16.2
Holland, Va.	15.1	15.3	12.3	18.2	16.2	14.2
Plymouth, N. C.	14.5	15.1	12.9	16.8	14.3	13.7
Willard, N. C.	13.9	13.8	11.6	17.8	16.2	13.2
Clayton, N. C.	16.6	15.4	12.7	18.6	16.9	13.4
Florence, S. C.	12.3	11.7	10.5	14.0	14.3	10.7
Hartsville, S. C.	18.7	19.7	16.3	22.6	22.0	18.3
Mean	15.7	15.1	13.0	17.9	17.2	14.0
			Southeast			
Blackville, S. C.	17.3	18.4	16.4	19.3	21.7	16.8
Tallassee, Ala.	16.9	17.5	15.5	20.5	20.3	17.1
Gainesville, Fla.	14.3	15.8	13.9	18.3	16.7	14.9
Quincy, Fla.	12.7	13.4	12.0	14.2	15.4	11.8
Walnut Hill, Fla.	15.7	16.7	14.2	19.7	19.1	14.4
Baton Rouge, La.	14.4	15.9	13.3	18.0	16.9	14.0
Mean	15.2	16.1	14.2	18.3	18.4	14.8
			Upper and Central South			
Clemson, S. C.	16.9	19.2	15.9	18.1	19.4	19.2
Athens, Ga.	14.7	15.2	13.2	15.7	20.0	15.0
Mean	15.8	17.2	14.6	16.9	19.7	17.1
			Delta			
Stoneville, Miss. (A)	14.9	14.3	11.3	17.4	18.6	13.8
Stoneville, Miss. (B)	11.8	14.1	12.1	12.1	17.2	12.1
Mean	13.4	14.2	11.7	14.8	17.9	13.0
			West			
Stuttgart, Ark.	14.7	15.0	14.3	13.0	16.0	15.0
Lubbock, Texas	11.8	13.2	10.1	12.4	14.3	14.0
Mean	13.3	14.1	12.2	15.2	15.2	15.0

Table 55. (Continued)

Location	N51 2220	N51- 2638	N51- 3527	D51- 4877	D51- 5052	D51- 5091
			East Coast			
Onley, Va.	16.1	13.2	18.0	14.7	16.0	14.5
Norfolk, Va.	14.1	12.0	15.3	11.9	14.2	12.4
Petersburg, Va.	17.7	14.4	19.3	15.8	18.5	16.0
Holland, Va.	14.9	13.0	18.1	14.7	14.7	13.3
Plymouth, N. C.	14.5	13.0	16.1	13.5	13.9	12.5
Willard, N. C.	13.9	13.1	14.6	13.3	13.7	12.2
Clayton, N. C.	13.6	13.8	17.3	13.6	15.4	14.3
Florence, S. C.	11.7	11.7	13.2	10.4	11.5	11.1
Hartsville, S. C.	19.7	17.0	21.3	18.0	18.3	18.0
Mean	15.1	13.5	17.0	14.0	15.1	13.8
			Southeast			
Blackville, S. C.	19.5	23.0	18.7	19.1	18.2	17.1
Tallassee, Ala.	18.3	15.5	19.6	15.6	16.8	17.0
Gainesville, Fla.	16.0	13.0	16.5	14.5	15.6	14.4
Quincy, Fla.	12.3	13.6	14.0	12.1	12.1	10.2
Walnut Hill, Fla.	16.1	15.1	17.7	14.8	14.5	13.2
Baton Rouge, La.	14.5	12.2	15.9	14.0	14.8	11.6
Mean	16.2	15.4	17.1	15.0	15.3	13.9
			Upper and Central South			
Clemson, S. C.	17.1	15.5	17.5	18.6	18.2	16.1
Athens, Ga.	15.7	10.3	15.0	18.2	17.2	14.2
Mean	16.4	12.8	16.4	18.4	17.7	15.4
			Delta			
Stoneville, Miss. (A)	15.1	11.2	15.1	15.0	15.2	14.4
Stoneville, Miss. (B)	13.4	11.3	14.9	12.8	13.0	12.7
Mean	14.3	11.3	15.0	13.9	14.1	13.6
			West			
Stuttgart, Ark.	15.0	14.7	15.7	14.3	15.0	13.7
Lubbock, Texas	13.1	11.0	13.2	12.9	11.9	11.0
Mean	14.1	12.9	14.5	13.6	13.5	12.4

PRELIMINARY GROUP VII

1956

Preliminary Group VII nurseries were grown at eight locations. Thirty-one experimental lines were grown along with Jackson, Roanoke, Lee, and bulk F_4 composites of Roanoke x D49-2491 and Jackson x D49-2491. Parentage of each of the strains is reported in table 56. Agronomic and chemical data are summarized in tables 57 through 62.

Not any of the new lines had a higher average yield for the six locations summarized than Jackson. Seven lines yielded within the range of experimental error of Jackson, were superior in seed holding and resistance to bacterial pustule, and equal to Jackson in resistance to target spot.

In each of the past two years, the bulk hybrid populations of Roanoke x D49-2491 and Jackson x D49-2491 have yielded well, but have not been superior to Jackson.

N52-3903 had the highest average yield in 1955 and was again among the highest yielding lines. It is good in all respects and has a very good field appearance. Other top ranking lines from 1955, N51-2764, D52-834 and D53-1664, again gave good performances. The average yield of D53-1664 was significantly less than Jackson as a result of a low yield in a rather variable test at Stoneville. N51-3185 was significantly higher in oil contnet than Jackson in each of the two years tested and similar in protein content. N53-2302 equalled Jackson in oil content in each of the two years and was significantly higher in protein content.

PC 33244 and D49-2491 were included for identification purposes. PC-33244 was similar in all respects to D49-2491.

Several of the lines from Roanoke x N48-1394 yielded very well, but appeared to be rather susceptible to target spot.

The better lines from this group will replace lines now included in the Uniform Group VII nursery.

Table 56. Parentage of strains in Preliminary Group VII, 1956

	Strain	Parentage	Generation Composited
1.	Jackson		
2.	Roanoke		
3.	Lee	S-100 x CNS	F_6
4.	D49-2491	S-100 x CNS	F_6
5.	FC 33244		
6.	D51-5034	Roanoke x N45-745 (N48-1289)	F_6
7.	D52-834	Roanoke x N45-745 (D49-537)	F_7
8.	D53-1664	N46-1703 x D49-2525	F_5
9.	Ga 53-4-3	N42-26 x N45-1004	F_8
10.	Ga 53-5-1	Roanoke x N45-1128	F_7
11.	Ga 53-5-4	Roanoke x N45-1128	F_7
12.	Ga 53-7-1	Roanoke x N45-1004	F_7
13.	Ga 53-9-1	Acadian x FC 31592	F_5
14.	Ga 53-10-1	Acadian x FC 31592	F_5
15.	Ga 53-11-4	Acadian x FC 31592	F_5
16.	N48-4046	Missoy x Ogden (N44-774)	F_7
17.	N51-2302	Roanoke x N45-745	F_6
18.	N51-2607	N42-26 x N45-1004	F_6
19.	N51-2764	Roanoke x N45-1128	F_5
20.	N51-3185	Roanoke x N45-1128	F_5
21.	N51-3308	Roanoke x N45-1004	F_5
22.	N52-3908	Roanoke x N45-745 (N48-1574)	F_7
23.	N53-3307	N46-1703 x D49-2525	F_5
24.	N54-1738	Roanoke x N48-1394	F_5
25.	N54-1748	Roanoke x N48-1394	F_5
26.	N54-1755	Roanoke x N48-1394	F_5
27.	N54-1795	Roanoke x N48-1394	F_5
28.	N54-1830	Roanoke x N48-1394	F_5
29.	N54-1842	Roanoke x N48-1394	F_5
30.	N54-1853	Roanoke x N48-1394	F_5
31.	N54-1861	Roanoke x N48-1394	F_5
32.	N54-1923	N47-309 x N46-2845	F_5
33.	N54-1935	N47-309 x N46-2845	F_5
34.	N54-1952	N47-309 x N46-2845	F_5
35.	Roanoke x D49-2491	Bulk F_4	
36.	Jackson x D49-2491	Bulk F_4	

Table 57. General summary of the performance of strains grown in Preliminary Group VII, 1956

Strain	Seed Yield	Maturity Index	Height	Percent Oil	Percent Protein	Shattering	Bac. Pustule	Target Spot
Jackson	38.6	10-25	37	22.0	39.2	2.0	2.5	1.0
Roanoke	35.1	-2	33	22.6+	39.1	1.0	3.0	2.0
Lee	34.1-	-6	27	21.6	41.4+	1.0	1.0	1.0
D49-2491	34.1-	-6	27	21.8	40.1	1.0	1.0	1.0
PC 33244	35.0	-7	27	22.0	40.0	1.0	1.0	1.0
D51-5034	33.9-	-3	26	22.6+	39.5	1.0	1.0	3.0
D52-834	37.4	-5	34	21.1-	40.1	1.0	1.0	1.0
D53-1664	33.2-	-4	32	21.7	41.7+	1.0	1.0	1.0
Ga 53-4-3	33.9-	-5	36	20.8-	41.2	2.0	1.0	2.0
Ga 53-5-1	34.1-	-3	33	22.5	40.1	1.0	1.0	3.5
Ga 53-5-4	33.2-	-2	35	22.6+	39.9	1.0	1.0	2.0
Ga 53-7-1	30.7-	-2	35	21.6	40.9	1.0	1.0	1.0
Ga 53-9-1	34.9	-4	34	22.3	39.9	1.0	1.0	2.0
Ga 53-10-1	37.3	0	35	22.5	40.0	1.0	1.0	3.5
Ga 53-11-4	33.8-	+1	34	22.5	40.4	1.0	1.0	3.0
N48-4046	32.3-	-2	34	20.4-	41.9+	1.0	3.0	1.5
N51-2302	36.0	-5	29	22.0	41.5+	1.0	1.0	3.0
N51-2607	36.9	-6	35	21.3-	39.5	3.0	1.0	1.0
N51-2764	35.2	-4	33	23.5+	38.0-	1.0	1.0	1.5
N51-3135	36.7	-1	31	22.8+	39.1	1.0	1.0	2.0
N51-3308	35.2	-4	35	22.6	39.0	1.0	1.0	2.5
N52-3908	38.2	-3	29	21.3-	40.5	1.0	1.0	1.0
N53-3307	34.9	-5	30	21.8	41.6+	2.0	1.0	2.0
N54-1738	32.0-	-2	32	22.1	39.2	1.0	1.0	3.5
N54-1748	38.5	-2	30	22.0	39.9	1.0	1.0	4.0
N54-1755	33.8-	-2	35	22.1	40.3	1.0	1.0	4.0
N54-1795	38.4	+3	37	22.5	39.3	3.0	1.0	2.5
N54-1830	31.9-	-7	32	22.6+	38.4	3.0	1.0	2.0
N54-1842	37.1	-2	27	21.6	40.3	1.0	1.0	3.0
N54-1853	34.3	-2	29	21.1-	41.2	3.0	1.0	2.0
N54-1861	31.9-	-7	26	21.1-	41.3	3.0	1.0	3.0
N54-1923	35.9	+2	31	20.6-	41.8+	2.0	1.0	1.5
N54-1935	37.2	-4	30	21.1-	39.6	3.0	1.0	1.0
N54-1952	35.9	0	29	21.1-	41.2	2.0	1.0	1.5
Roanoke x D49-2491	35.9	0	30	22.3	39.2	1.0	-	-
Jackson x D49-2491	35.4	0	35	21.8	40.1	1.0	-	-
L.S.D. (.05)	4.4			0.6	1.2			
(.01)	5.8			0.8	1.6			

Table 58. Seed yield, in bushels per acre, for strains in Preliminary Group VII, 1956

Strain	Clayton, N. C.	Talla-see, Ala.	Gaines-ville, Fla.	Quincy, Fla.	Walnut Hill, Fla.	Stone-ville, Miss.(A)
Jackson	36.4	51.4	25.0	27.6	50.8	40.3
Roanoke	39.3	41.2	21.3	28.5	47.0	33.6
Lee	40.3	42.3	22.2	25.8	45.1	29.2
D49-2491	36.5	41.1	21.3	24.2	51.1	30.3
PC 33244	38.3	44.2	17.9-	29.2	51.1	29.7
D51-5034	34.4	38.1	24.3	27.3	49.7	30.0
D52-834	43.4	42.9	27.7	23.1	48.2	39.3
D53-1664	41.2	41.3	23.2	27.3	45.1	21.3
Ga 53-4-3	36.4	35.3	30.8	26.9	45.1	29.2
Ga 53-5-1	36.6	43.4	22.0	25.0	45.5	32.6
Ga 53-5-4	38.6	39.3	30.6	20.8	45.5	24.5
Ga 53-7-1	33.6	28.9	26.7	23.9	41.3-	30.3
Ga 53-9-1	38.4	39.8	27.9	26.4	44.3	32.5
Ga 53-10-1	39.5	46.6	27.4	31.8	48.1	30.2
Ga 53-11-4	40.2	36.8	23.9	26.9	46.6	28.2
N48-4046	36.9	37.0	22.9	20.8	42.4-	33.9
N51-2302	36.3	40.0	25.3	30.7	45.1	38.6
N51-2607	39.3	28.5	30.6	31.1	52.3	39.2
N51-2764	44.0	36.1	25.2	27.3	39.0-	39.2
N51-3185	40.2	44.2	25.6	27.7	45.9	36.6
N51-3308	36.5	44.4	24.8	24.2	44.0-	37.3
N52-3908	41.4	47.0	32.1+	28.4	53.0	27.7
N53-3307	43.6	40.8	24.8	25.7	42.4	31.9
N54-1738	34.1	37.2	29.5	23.1	43.6-	24.7
N54-1748	38.9	48.1	32.4+	29.9	48.1	33.7
N54-1755	35.1	36.6	32.3	28.8	45.8	24.4
N54-1795	38.7	49.1	32.1	31.8	51.1	27.3
N54-1830	35.1	38.9	20.8	28.4	41.3-	26.9
N54-1842	41.9	47.2	25.2	26.5	50.8	31.2
N54-1853	38.1	37.8	22.2	28.4	48.9	30.5
N54-1861	37.5	34.7	23.7	26.5	46.6	22.6
N54-1923	41.4	39.8	25.0	33.3	47.8	28.4
N54-1935	36.8	41.2	26.4	29.6	49.3	39.9
N54-1952	42.2	39.2	26.6	28.4	48.9	30.2
Roanoke x D49-2491	37.3	41.7	22.5	24.6	48.5	40.8
Jackson x D49-2491	37.6	41.9	25.6	24.2	50.4	37.8
L.S.D. (.05)	N.S.	N.S.	7.0	N.S.	6.7	N.S.
C.V.	9%	14%	13%	14%	7%	26%

Table 59. Oil percentages for strains in Preliminary Group VII, 1956

Strain	Clayton, N. C.	Tallassee, Ala.	Walnut Hill, Fla.	Stoneville, Miss. (A)
Jackson	21.2	22.3	22.6	21.9
Roanoke	21.7	23.7	22.6	22.5
Lee	21.2	22.7	21.8	21.1
D49-2491	21.2	22.9	21.7	21.2
FC 33244	21.4	22.3	22.3	22.1
D51-5034	21.2	23.5	23.5	22.0
D52-834	20.4	21.7	21.1	21.6
D53-1664	21.0	21.9	21.6	22.1
Ga 53-4-3	20.2	20.8	21.8	20.4
Ga 53-5-1	21.6	22.0	22.9	23.3
Ga 53-5-4	21.9	22.6	22.6	23.2
Ga 53-7-1	21.0	22.2	21.8	21.2
Ga 53-9-1	21.8	22.5	22.9	22.0
Ga 53-10-1	21.4	22.6	22.1	23.9
Ga 53-11-4	21.6	22.2	22.7	23.5
N48-4046	19.0	19.9	20.5	22.2
N51-2302	21.1	22.2	21.8	23.0
N51-2607	20.2	21.8	21.7	21.4
N51-2764	20.9	23.1	22.5	23.4
N51-3185	21.9	23.4	22.8	23.0
N51-3303	21.4	23.5	22.4	23.2
N52-3908	20.6	21.4	21.8	21.4
N53-3307	21.0	22.0	22.3	21.9
N54-1738	21.2	21.5	22.4	23.4
N54-1748	20.9	22.2	22.5	22.2
N54-1755	21.4	22.4	22.6	21.9
N54-1795	21.1	23.0	22.7	23.0
N54-1830	21.8	23.1	22.7	22.9
N54-1842	20.6	22.2	21.9	21.7
N54-1853	20.7	21.5	20.9	21.3
N54-1861	20.4	21.7	21.1	21.3
N54-1923	20.3	20.4	20.8	20.7
N54-1935	21.4	21.9	22.7	22.5
N54-1952	20.2	20.7	21.6	21.9
Roanoke x D49-2491	21.0	22.9	22.3	22.0
Jackson x D49-2491	20.7	21.9	22.6	22.1

Table 60. Protein percentages for strains in Preliminary Group VII, 1956

Strain	Clayton, N. C.	Tallassee, Ala.	Walnut Hill, Fla.	Stoneville, Miss. (A)
Jackson	39.6	40.1	39.8	37.2
Roanoke	40.0	39.5	38.6	38.3
Lee	41.7	40.9	41.6	41.2
D49-2491	40.6	39.1	40.8	39.9
FC 33244	40.7	41.4	40.9	37.0
D51-5034	40.3	38.6	40.3	38.6
D52-834	40.7	39.9	40.7	38.9
D53-1664	41.2	41.9	41.6	41.9
Ga 53-4-3	41.8	41.6	40.7	40.7
Ga 53-5-1	41.1	41.0	40.0	38.3
Ga 53-5-4	40.0	39.3	40.7	39.4
Ga 53-7-1	41.8	41.7	40.6	39.4
Ga 53-9-1	40.0	40.7	40.3	38.5
Ga 53-10-1	40.5	40.7	41.1	37.7
Ga 53-11-4	40.3	41.0	41.2	39.2
N48-4046	43.1	42.6	43.4	38.3
N51-2302	41.6	43.1	42.2	38.9
N51-2607	40.6	40.2	39.4	37.6
N51-2764	39.2	39.0	38.6	35.1
N51-3185	39.3	39.8	39.5	37.6
N51-3308	40.5	39.0	39.8	36.5
N52-3908	40.1	40.0	40.5	41.5
N53-3307	41.4	41.4	42.8	40.8
N54-1738	40.5	39.6	40.3	36.2
N54-1748	40.8	40.9	40.3	37.6
N54-1755	41.1	40.4	40.0	39.6
N54-1795	41.1	38.6	40.0	37.5
N54-1830	39.7	38.9	39.1	35.7
N54-1842	41.4	39.4	41.0	39.3
N54-1853	41.9	41.2	41.9	39.8
N54-1861	41.8	41.7	40.9	40.9
N54-1923	42.1	42.4	41.8	40.7
N54-1935	40.1	40.7	39.5	38.1
N54-1952	41.9	42.3	42.0	38.4
Roanoke x D49-2491	40.9	40.1	39.7	35.9
Jackson x D49-2491	41.2	40.0	39.5	39.5

Table 61. Height data for strains in Preliminary Group VII, 1956

Strain	Clayton, N. C.	Talla-see, Ala.	Gaines-ville, Fla.	Quincy, Fla.	Walnut Hill, Fla.	Stone-ville, Miss.(A)
Jackson	42	47	22	30	34	46
Roanoke	41	38	18	26	26	46
Lee	29	36	13	21	27	36
D49-2491	32	36	15	20	26	35
PC 33244	30	36	12	23	27	36
D51-5034	29	32	14	20	24	37
D52-834	39	44	21	28	32	40
D53-1664	37	42	17	23	29	42
Ga 53-4-3	38	45	21	28	39	45
Ga 53-5-1	38	33	18	28	33	45
Ga 53-5-4	42	46	20	29	33	42
Ga 53-7-1	41	42	19	28	32	46
Ga 53-9-1	40	46	18	23	29	46
Ga 53-10-1	44	42	18	30	32	46
Ga 53-11-4	40	43	16	30	33	44
N48-4046	37	33	20	32	39	44
N51-2302	35	36	17	22	24	38
N51-2607	39	46	23	26	34	40
N51-2764	39	42	22	25	28	40
N51-3185	37	43	17	23	30	38
N51-3308	42	43	21	27	31	45
N52-3908	34	36	14	23	27	38
N53-3307	33	33	17	24	28	42
N54-1738	32	42	17	26	29	48
N54-1748	32	34	19	26	27	43
N54-1755	34	43	23	30	31	46
N54-1795	42	48	23	32	35	43
N54-1830	37	42	15	28	27	44
N54-1842	30	36	12	21	27	38
N54-1853	32	34	11	39	25	33
N54-1861	33	32	13	18	25	37
N54-1923	34	43	16	28	26	39
N54-1935	35	36	18	28	25	37
N54-1952	34	32	21	23	26	36
Roanoke x D49-2491	38	40	19	25	30	--
Jackson x D49-2491	39	47	19	34	36	--

Table 62. Seed quality scores for strains in Preliminary Group VII, 1956

Strain	Clayton, N. C.	Talla-see, Ala.	Gaines-ville, Fla.	Quincy, Fla.	Walnut Hill, Fla.	Stone-ville, Miss.(A)
Jackson	1.5	2.0	2.0	3.0	2.0	2.0
Roanoke	1.5	2.0	2.0	2.0	2.0	2.0
Lee	1.5	1.0	2.0	1.0	2.0	2.0
D49-2491	1.5	1.0	1.5	2.0	2.0	2.0
PC 33244	1.5	1.0	1.0	2.0	2.0	2.0
D51-5034	1.5	2.0	2.0	2.0	2.0	2.0
D52-834	2.0	1.0	1.0	1.0	2.0	2.0
D53-1664	2.0	3.0	2.0	3.0	3.0	2.5
Ga 53-4-3	2.0	3.0	2.0	2.0	2.0	2.5
Ga 53-5-1	1.5	1.0	2.0	3.0	2.0	1.5
Ga 53-5-4	2.0	1.0	1.0	2.0	2.0	2.0
Ga 53-7-1	1.5	3.0	2.0	2.0	2.0	1.5
Ga 53-9-1	1.5	2.0	1.5	2.0	2.0	3.0
Ga 53-10-1	1.5	2.0	2.0	1.0	2.0	2.0
Ga 53-11-4	1.5	1.0	2.0	2.0	2.0	2.5
N48-4046	1.5	4.0	2.0	1.0	2.0	2.0
N51-2302	2.0	2.0	1.5	2.0	2.0	2.0
N51-2607	2.0	3.0	1.5	1.0	2.0	2.0
N51-2764	1.5	2.0	1.5	2.0	2.0	2.0
N51-3185	1.5	3.0	2.0	2.0	2.0	2.0
N51-3308	1.5	2.0	2.0	3.0	2.0	2.0
N52-3908	1.5	1.0	2.0	3.0	2.0	2.5
N53-3307	1.5	1.0	1.0	3.0	2.0	2.0
N54-1738	1.5	1.0	2.0	2.0	2.0	2.5
N54-1748	1.5	2.0	2.0	3.0	2.0	2.0
N54-1755	2.0	3.0	1.0	2.0	2.0	2.5
N54-1795	2.0	3.0	2.0	4.0	3.0	2.5
N54-1830	2.0	2.0	2.0	2.0	3.0	3.0
N54-1842	1.5	2.0	2.0	2.0	2.0	2.0
N54-1853	1.5	2.0	2.0	1.0	2.0	2.0
N54-1861	1.5	3.0	2.0	3.0	2.0	2.5
N54-1923	1.5	2.0	1.5	3.0	2.0	2.0
N54-1935	1.5	1.0	1.5	1.0	2.0	2.0
N54-1952	1.5	1.0	1.5	1.0	2.0	2.0
Roanoke x D49-2491	1.5	2.0	2.0	2.0	2.0	2.0
Jackson x D49-2491	1.5	1.0	1.0	3.0	2.0	2.5

UNIFORM GROUP VIII

1956

Strain or Variety	Parentage
1. Improved Pelican	Tanloxi x PI 60,406
2. J.B.W. 45	Selection from mixed seed lot
3. Majos 52-87	Tokyo x Yelredo
4. Yelnanda 53-116	Nanda x Yelredo
5. Jackson	Volstate (2) x Palmetto
6. Yellow Gatan	Selection from Gatan
7. La 49-1-4	Pelican #2 x Ogden
8. La 49-2-4	Creole x Ogden
9. La 49-11-6	Pelican #2 x Volstate
10. La 53-50-9	Pelican #2 x Ogden
11. La 53-97-1	Pelican #2 x Ogden
12. La 53-99	Pelican #2 x Ogden

Twelve Group VIII nurseries were planted. Results of eight of these are summarized in tables 63 through 70. Two- and three-year yield and chemical composition summaries are included in table 63.

Group VIII includes the three named varieties: Improved Pelican, J.B.W. 45, and Yellow Gatan. Of these varieties, J.B.W. 45 is perhaps the most widely grown. Jackson, which is of Group VII maturity, was included for comparison with the later maturing strains. Also included were two experimental strains from the Coker Pedigreed Seed Company, Hartsville, South Carolina, and six experimental lines from the Louisiana Agricultural Experiment Station.

For the Southeast region where Group VIII strains would appear to be best suited, the three-year average yields of Improved Pelican and Yellow Gatan are 78 percent of that for Jackson, and J.B.W. 45 has yielded 83 percent as much as Jackson. La 49-1-4 has averaged .7 bushel higher than Jackson for the three-year period, has had 1.3 percent lower oil content, and 1.6 percent higher protein. Under conditions of heavy growth, La 49-1-4 has lodged more than Jackson.

Table 63. General summary of the performance of the strains in Uniform Group VIII, 1956

	Improved Pelican	J.S.M. 45	Majos 52-87	Yelnanda 53-116	Jackson	Yellow Gatan
Seed Yield						
Southeast - 1956	26.7	29.1	29.9	29.6	35.1	29.9
- 1955-56	26.6	29.5	30.5	30.2	35.6	27.9
- 1954-56	24.8	26.3	27.3	25.7	31.7	24.6
Oil Content						
Regional - 1956	20.8	20.0	20.8	19.1	21.7	17.5
- 1955-56	20.6	20.1	20.3	19.2	21.9	17.7
- 1954-56	20.7	20.3	20.6	19.4	22.3	18.1
Protein Content						
Regional - 1956	42.6	42.7	41.0	47.2	40.6	43.8
- 1955-56	42.8	42.3	40.4	45.0	40.7	43.3
- 1954-56	42.6	41.8	40.5	44.9	40.6	42.7
Maturity Index	11-2	-3	0	0	-5	-1
Height	54	40	40	45	41	49
Bacterial Pustule	4.0	3.0	4.0	3.0	3.0	4.0
Target Spot	1.0	3.0	1.0	4.0	1.0	3.0

Table 63. (Continued)

	La 49-1-4	La 49-2-4	La 49-11-6	La 53-50-9	La 53-97-1	La 53-99
Seed Yield						
Southeast - 1956	34.7	32.4	30.9	34.8	33.0	35.4
- 1955-56	36.6	32.4	34.0	-	-	-
- 1954-56	32.4	28.8	30.8	-	-	-
Oil Content						
Regional - 1956	20.8	21.8	21.5	21.6	21.1	21.3
- 1955-56	20.8	21.9	21.7	-	-	-
- 1954-56	20.5	22.2	22.0	-	-	-
Protein Content						
Regional - 1956	41.9	42.5	41.9	41.7	41.9	41.5
- 1955-56	42.7	41.9	41.1	-	-	-
- 1954-56	42.2	41.7	40.4	-	-	-
Maturity Index	-3	-9	-10	-5	-3	-4
Height	41	39	41	41	40	40
Bacterial Pustule	3.5	3.0	3.0	3.0	3.0	3.0
Target Spot	1.0	1.0	3.0	1.0	1.0	1.0

Table 64. Yield, in bushels per acre, for the strains in Uniform Group VIII, 1956

Location	Improved Pelican	J.B.W. 45	Majos 52-87	Yelnanda 53-116	Jackson	Yellow Gatan	La 49-1-4
			Southeast				
Hartsville, S. C.	26.3-	31.9-	30.0-	31.3-	38.4	30.4-	37.0
Tallassee, Ala.	32.3-	33.6-	33.6-	28.6-	39.8	37.7	33.9-
Tifton, Ga.	20.7	23.4	23.1	20.6	23.9	23.3	24.2
Gainesville, Fla.	13.5-	12.9-	22.3	18.8	20.8	21.8	26.5
Quincy, Fla. 1/	15.2	24.5	20.7	23.0	27.5	22.2	29.7
Walnut Hill, Fla.	36.8-	45.2-	38.6-	43.2-	49.2	39.4-	47.0
Baton Rouge, La.	30.6-	27.3-	31.5-	35.3	38.2	26.5-	39.4
Mean	26.7-	29.1-	29.9-	29.6-	35.1	29.9-	34.7
			Delta				
Stoneville, Miss.	17.7	13.7	11.6	7.1	19.0	16.5	25.9+

1/ Not included in mean.

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

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

Table 64. (Continued)

Location	La 49-2-4	La 49-11-6	La 53-50-9	La 53-97-1	La 53-99	L.S.D. (.05)	C.V.
			Southeast				
Hartsville, S. C.	31.4-	30.7-	28.3-	17.0-	33.3	5.5	11%
Tallassee, Ala.	35.6	32.7-	42.4	33.7-	40.0	5.2	9%
Tifton, Ga.	20.8	19.2	23.0	23.4	23.8	N.S.	9%
Gainesville, Fla.	22.9	24.1	31.0+	39.8+	24.3	6.3	16%
Quincy, Fla. 1/	21.9	20.9	32.8	-	31.3	N.S.	29%
Walnut Hill, Fla.	44.2-	42.4-	44.9-	43.2-	47.2	3.3	8%
Baton Rouge, La.	38.0	36.3	39.2	40.8	43.6+	3.5	6%
Mean	32.4	30.9	34.8	33.0	35.4	5.0	
			Delta				
Stoneville, Miss.	17.0	16.7	25.2+	17.0	27.1+	4.5	26%

Table 65. Chemical composition for the strains in Uniform Group VIII, 1956

Location	Improved Pelican	J.B.N. 45	Majos 52-87	Yelnanda 53-116	Jackson	Yellow Gatan
			Oil Percentage			
Hartsville, S. C.	19.8	19.1	19.0	18.5	20.9	16.3
Tallassee, Ala.	21.5	20.4	20.6	20.0	22.9	18.1
Gainesville, Fla.	21.5	20.7	22.2	20.1	23.1	18.6
Quincy, Fla.	19.1	18.2	20.3	16.8	19.8	16.5
Walnut Hill, Fla.	21.0	21.3	22.0	19.9	22.2	18.2
Baton Rouge, La.	21.0	20.8	21.6	19.3	21.5	17.5
Stoneville, Miss.	21.7	19.3	19.8	19.0	21.5	17.1
Mean	20.8	20.0	20.8	19.1	21.7	17.5
			Protein Percentage			
Hartsville, S. C.	41.6	40.9	40.0	45.9	40.7	44.1
Tallassee, Ala.	40.6	40.1	39.3	45.5	39.0	41.7
Gainesville, Fla.	43.9	44.4	39.5	45.0	41.7	42.0
Quincy, Fla.	45.6	45.0	42.0	44.3	44.1	46.7
Walnut Hill, Fla.	42.6	40.7	38.9	43.6	39.4	42.5
Baton Rouge, La.	41.8	41.2	39.0	45.3	40.8	42.6
Stoneville, Miss.	41.9	42.7	41.0	47.2	40.6	43.8
Mean	42.6	42.1	40.0	45.3	40.9	43.3

Table 65. (Continued)

Location	La 49-1-4	La 49-2-4	La 49-11-6	La 53-50-9	La 53-97-1	La 53-99
			Oil Percentage			
Hartsville, S. C.	19.2	20.0	19.7	19.7	19.8	20.3
Tallassee, Ala.	21.5	22.4	22.6	21.2	21.2	21.7
Gainesville, Fla.	21.6	23.8	23.4	22.0	22.0	22.0
Quincy, Fla.	19.1	20.3	19.3	21.1	-	20.2
Walnut Hill, Fla.	21.7	22.1	22.2	22.6	21.7	21.7
Baton Rouge, La.	20.9	21.8	21.6	22.5	20.6	22.2
Stoneville, Miss.	21.5	22.0	21.8	22.2	21.3	21.1
Mean	20.8	21.8	21.5	21.6	21.1	21.3
			Protein Percentage			
Hartsville, S. C.	43.4	41.8	42.2	43.4	42.5	41.4
Tallassee, Ala.	41.9	41.1	41.1	41.1	41.4	41.4
Gainesville, Fla.	42.8	40.1	40.8	42.0	42.5	41.5
Quincy, Fla.	46.0	45.1	46.0	44.2	-	44.6
Walnut Hill, Fla.	40.6	41.1	40.9	40.8	40.5	39.8
Baton Rouge, La.	41.0	41.4	40.7	40.4	41.1	40.5
Stoneville, Miss.	41.9	42.5	41.9	41.7	41.9	41.4
Mean	42.5	41.9	41.9	41.9	41.7	41.5

Table 66. Relative maturity data, days earlier (-) or later (+) than Improved Pelican, for the strains in Uniform Group VIII, 1956

Location	Date Planted	Improved Pelican Matured	J.B.M. 45	Majos 52-87	Yelnanda 53-116	Jackson	Yellow Gatan
			Southeast				
Hartsville, S. C.	5-25	11-7	-4	+1	+5	-3	-1
Tallassee, Ala.	6-6	10-30	-3	+1	0	-1	+1
Tifton, Ga.	6-5	11-7	0	+6	+6	-2	0
Gainesville, Fla.	6-19	10-27	-3	+4	-3	-8	+3
Quincy, Fla.	6-13	11-6	0	0	0	0	0
Walnut Hill, Fla.	6-15	10-24	-9	-4	-1	-10	-3
Baton Rouge, La.	5-15	11-3	-4	-5	-9	-10	-6
Mean	6-5	11-2	-3	0	0	-5	-1

Table 66. (Continued)

Location	La 49-1-4	La 49-2-4	La 49-11-6	La 53-50-9	La 53-97-1	La 53-99
			Southeast			
Hartsville, S. C.	0	-8	-7	-2	+2	-2
Tallassee, Ala.	-3	-3	-3	0	-2	-1
Tifton, Ga.	0	-5	-5	-3	-2	-3
Gainesville, Fla.	-2	-9	-8	-2	-1	-2
Quincy, Fla.	0	0	-13	-13	-	0
Walnut Hill, Fla.	-6	-16	-16	-6	-6	-8
Baton Rouge, La.	-9	-22	-20	-11	-9	-9
Mean	-3	-9	-10	-5	-3	-4

Table 67. Height data for strains in Uniform Group VIII, 1956

Location	Improved Pelican	J.B.N. 45	Majos 52-87	Yelnanda 53-116	Jackson	Yellow Gatan
			Southeast			
Hartsville, S. C.	58	36	33	42	39	47
Tallassee, Ala.	64	46	47	50	48	56
Tifton, Ga.	49	38	37	40	37	46
Gainesville, Fla.	40	24	31	35	26	43
Quincy, Fla.	54	38	39	40	27	51
Walnut Hill, Fla.	48	37	42	38	34	36
Baton Rouge, La.	65	44	46	50	36	60
Mean	54	38	39	42	35	49
			Delta			
Stoneville, Miss.	54	42	40	48	46	48

Table 67. (Continued

Location	La 49-1-4	La 49-2-4	La 49-11-6	La 53-50-9	La 53-97-1	La 53-99
			Southeast			
Hartsville, S. C.	36	35	35	35	34	35
Tallassee, Ala.	52	48	42	48	48	50
Tifton, Ga.	37	36	35	37	36	40
Gainesville, Fla.	30	26	24	26	23	29
Quincy, Fla.	34	28	31	28	-	36
Walnut Hill, Fla.	34	38	36	35	38	37
Baton Rouge, La.	36	36	40	36	36	38
Mean	37	35	35	35	36	38
			Delta			
Stoneville, Miss.	44	42	46	46	44	42

Table 68. Lodging scores for strain Uniform Group VIII, 1956

Location	Improved Pelican	J.E.W. 45	Majos 52-87	Yelnanda 53-116	Jackson	Yellow Gatan
			Southeast			
Hartsville, S. C.	3.0	2.0	2.0	3.0	2.0	5.0
Tallassee, Ala.	4.0	3.0	4.0	2.0	1.0	4.0
Gainesville, Fla.	2.7	1.0	2.3	2.3	1.0	4.3
Quincy, Fla.	2.0	1.0	2.0	1.7	1.0	3.0
Walnut Hill, Fla.	4.0	2.0	3.0	3.0	1.0	5.0
Baton Rouge, La.	4.0	2.0	3.0	3.0	2.0	4.0

Table 68. (Continued)

Location	La 49-1-4	La 49-2-4	La 49-11-6	La 53-50-9	La 53-97-1	La 53-99
			Southeast			
Hartsville, S. C.	2.0	1.0	1.0	2.0	2.0	2.0
Tallassee, Ala.	3.0	3.0	2.0	4.0	3.0	3.0
Gainesville, Fla.	1.3	1.0	1.0	1.0	1.0	1.0
Quincy, Fla.	1.0	1.0	1.0	1.0	-	1.3
Walnut Hill, Fla.	2.0	2.0	2.0	2.0	2.0	2.0
Baton Rouge, La.	2.0	3.0	2.0	2.0	2.0	2.0

Table 69. Seed quality scores for the strains in Uniform Group VIII, 1956

Location	Improved Pelican	J.B.W. 45	Majos 52-87	Yelnanda 53-116	Jackson	Yellow Gatan
			Southeast			
Hartsville, S. C.	1.0	1.0	2.0	1.0	2.0	1.5
Tallassee, Ala.	1.0	2.0	2.0	2.0	2.0	1.0
Gainesville, Fla.	2.0	2.0	2.0	2.0	2.0	2.0
Quincy, Fla.	3.0	2.0	2.0	3.0	2.0	3.0
Walnut Hill, Fla.	1.0	2.0	2.0	2.0	2.0	2.0
Baton Rouge, La.	1.0	1.0	1.0	1.0	1.0	1.0
			Delta			
Stoneville, Miss.	2.0	2.7	2.7	3.0	2.7	2.7

Table 69. (Continued)

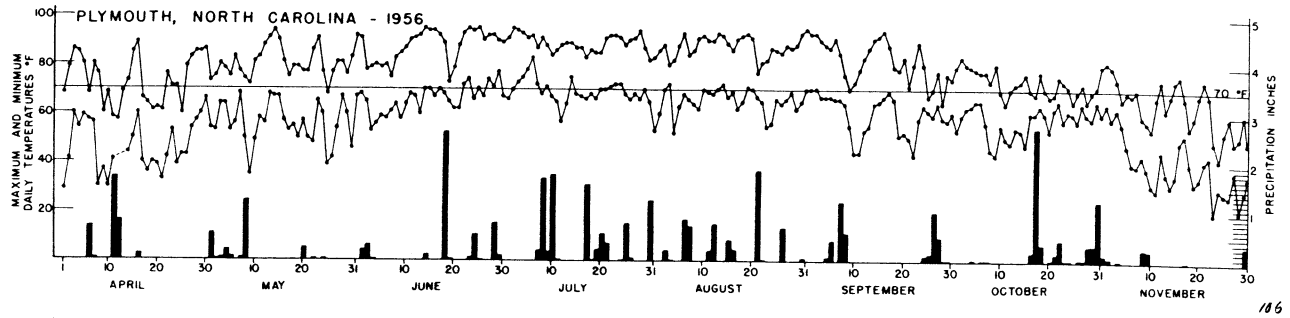
Location	La 49-1-4	La 49-2-4	La 49-11-6	La 53-50-9	La 53-97-1	La 53-99
			Southeast			
Hartsville, S. C.	1.5	2.5	2.0	1.5	1.5	1.0
Tallassee, Ala.	1.0	4.0	4.0	1.0	1.0	1.0
Gainesville, Fla.	1.7	2.0	2.0	1.3	1.0	2.0
Quincy, Fla.	2.0	2.0	3.0	2.0	-	2.0
Walnut Hill, Fla.	2.0	2.0	2.0	2.0	2.0	2.0
Baton Rouge, La.	1.0	1.0	1.0	1.0	1.0	1.0
			Delta			
Stoneville, Miss.	2.0	3.0	2.7	2.0	2.3	2.0

Table 70. Seed weight, in grams per 100 seeds, for the strains in Uniform Group VIII, 1956

Location	Improved Pelican	J.E.M. 45	Majos 52-87	Yelnanda 53-116	Jackson	Yellow Gatan
			Southeast			
Hartsville, S. C.	14.0	21.3	23.0	21.0	18.3	12.0
Tallassee, Ala.	14.3	23.3	20.4	22.0	17.7	11.7
Gainesville, Fla.	10.8	16.3	16.3	15.8	16.5	9.6
Quincy, Fla.	12.2	18.8	20.1	17.1	13.8	11.3
Walnut Hill, Fla.	13.9	20.9	18.7	20.7	16.3	11.9
Baton Rouge, La.	10.8	16.0	16.4	17.4	14.5	9.2
Mean	12.7	19.4	19.2	19.0	16.2	11.0
			Delta			
Stoneville, Miss.	10.6	17.7	17.6	17.5	14.3	9.6

Table 70. (Continued)

Location	La 49-1-4	La 49-2-4	La 49-11-6	La 53-50-9	La 53-97-1	La 53-99
			Southeast			
Hartsville, S. C.	20.0	18.7	19.0	18.3	21.3	19.0
Tallassee, Ala.	21.1	19.2	18.7	19.4	20.1	20.6
Gainesville, Fla.	13.8	15.5	15.5	13.4	16.5	13.8
Quincy, Fla.	17.2	13.3	12.2	16.5	-	17.5
Walnut Hill, Fla.	17.1	15.6	15.1	16.0	16.8	17.0
Baton Rouge, La.	15.3	13.5	12.9	14.3	17.1	15.3
Mean	17.4	16.0	15.6	15.9	18.3	17.2
			Delta			
Stoneville, Miss.	15.6	14.0	14.6	14.0	15.4	15.5



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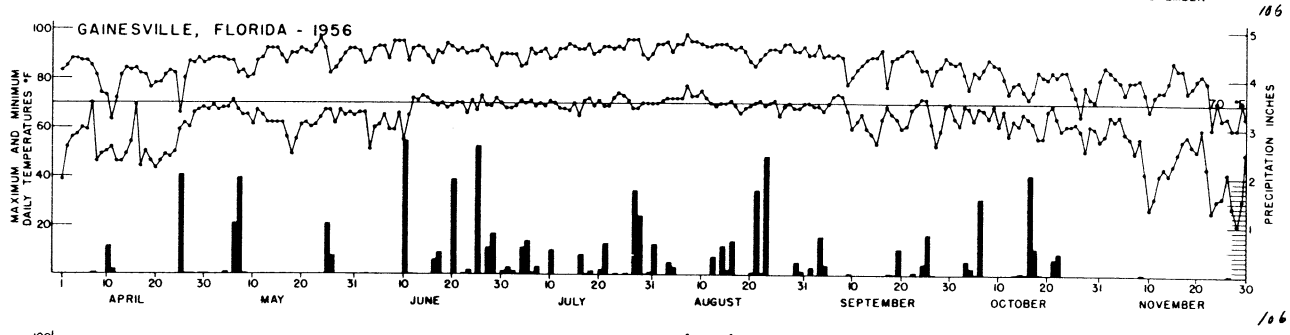

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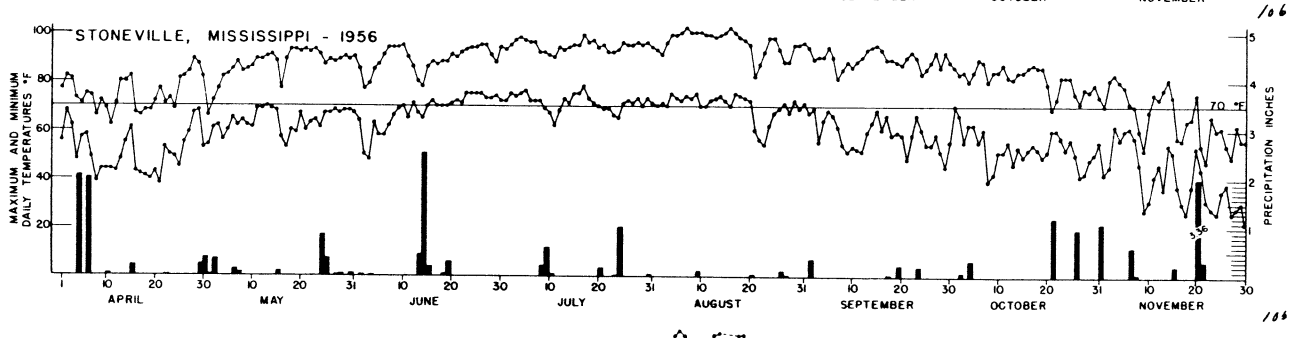

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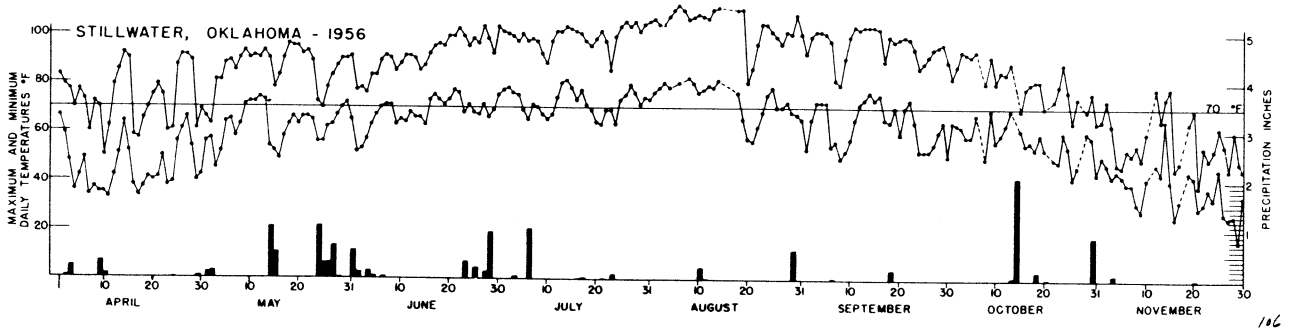

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