U. S. REGIONAL SOYBEAN LABORATORY
URBANA, ILLINOIS

# RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS, 1957 PART II. SOUTHERN STATES


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



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# RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS

## PART II. SOUTHERN STATES

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1957

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## INTRODUCTION

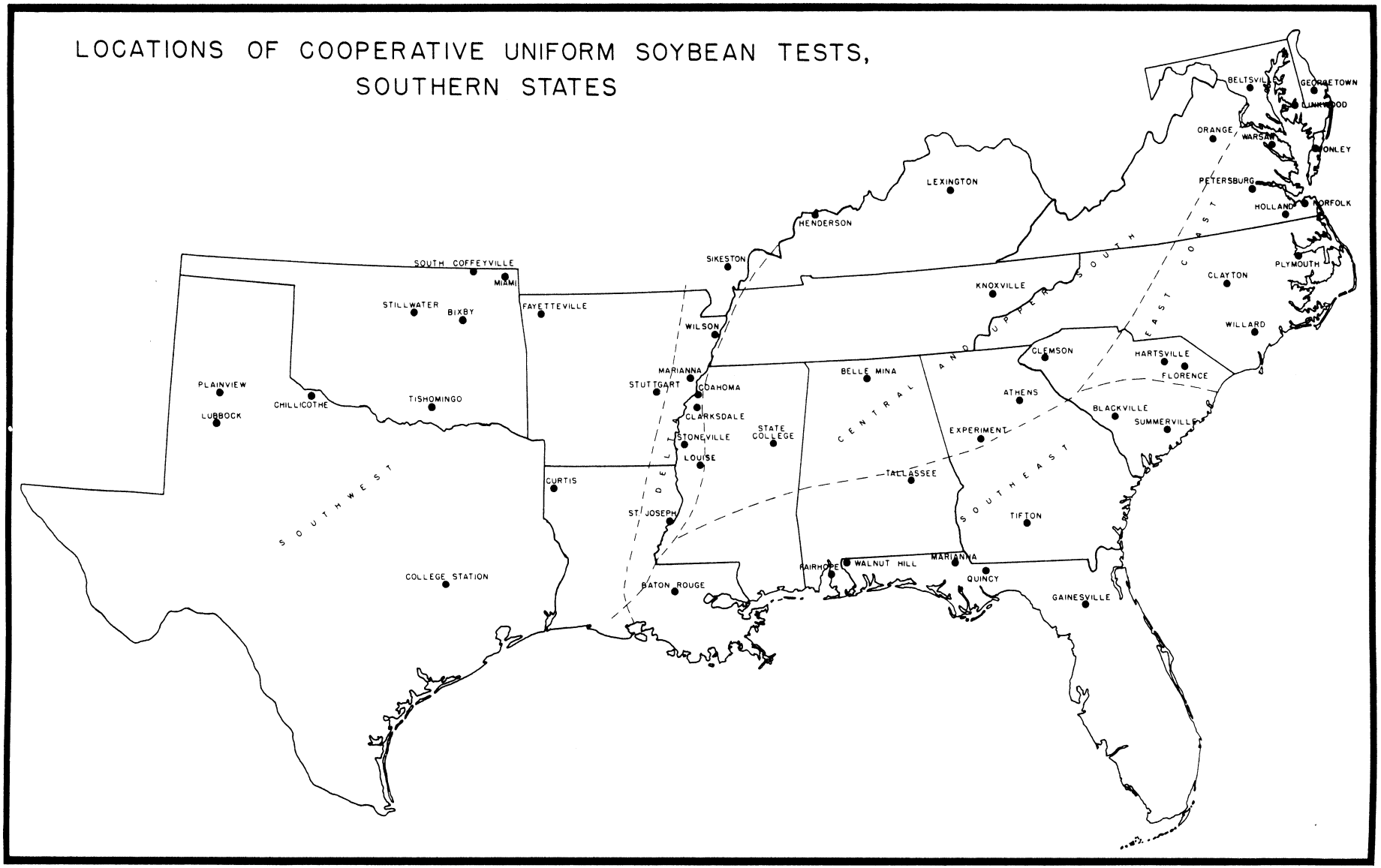
The program of the U. S. Regional Soybean Laboratory has been directed toward the development of improved strains of soybeans and the obtaining of fundamental information necessary to the efficient breeding of strains to meet specific needs. In the Southern Region, fundamental studies and breeding programs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

Nine uniform test groups have been established to evaluate the better strains developed in the breeding programs. The Groups 0 through IV are adapted in the northern part of the United States, and the Groups IV through VIII are grown in the southern part. Within their area of adaptation, there is a maturity range of 12 to 18 days within each maturity class. The best standard variety available of each maturity class is used as a check variety with which to compare new strains as to seed yield, chemical composition, maturity, height, lodging, 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. In the Western area, irrigation is necessary for successful production. A table showing soil types, rate of fertilization and number of irrigations is included.

# LOCATIONS OF COOPERATIVE UNIFORM SOYBEAN TESTS, SOUTHERN STATES



In much of the Eastern area drouth conditions prevailed at planting time and during the early part of the growing season. Early maturing varieties were more adversely influenced than later varieties. Frequent rains late in the season interfered with timely harvesting. In the Delta and West, extremely wet conditions prevailed during planting time and again at harvest time. In general, yields in all areas were good. A few tests were lost because of prolonged wet weather at harvest time.

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 Farm, Plainview, Texas.

## Location of Cooperative Nurseries

| Location | Cooperator | IV | V | VI | VII | VIII | Soil Type | Fertilizer[1] |
|---|---|---|---|---|---|---|---|---|
| | | East Coast | | | | | | |
| Georgetown, Del. | Delaware Agric. Expt. Sta. | 1 | 1 | | | | Norfolk sandy loam | 0-50-50 |
| Linkwood, Md. | J. C. Johnson | 1* | 1* | 1 | | | Sassafras sandy loam | 0-60-60 |
| Warsaw, Va. | Eastern Va. Research Sta. | 1 | 1* | 1* | | | Sassafras sandy loam | 0-90-90 |
| Painter, Va. | Eastern Shore Va. Truck Expt. Sta. | | 1 | 1 | | | Sassafras sandy loam | None |
| Petersburg, Va. | Va. State College Field Sta. | | 1 | 1 | | | Norfolk fine sandy loam | 0-40-80 |
| Norfolk, Va. | Va. Truck Expt. Sta. | | 1 | 1 | | | Woodstown sandy loam | 0-56-56 |
| Holland, Va. | Tidewater Field Sta. | | 1 | 1 | | | Dragston loamy fine sand | 0-50-100 |
| Plymouth, N. C. | Tidewater Research Sta. | | 1* | 1* | 1 | | Bladen fine sandy loam | 0-40-80 |
| Willard, N. C. | Lower Coastal Plain Research Sta. | | | 1 | 1* | | Norfolk sandy loam | 0-40-80 |
| Clayton, N. C.[2] | 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 | 12-36-36 |
| | | Southeast | | | | | | |
| Summerville, S. C. | Coast Expt. Sta. | | | | 1 | | Norfolk fine sandy loam | 16-48-48 |
| 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 | 0-40-80 |
| Quincy, Fla. | North Florida Expt. Sta. | | | 1 | 1* | 1 | Norfolk fine sandy loam | 24-72-72 |
| Marianna, Fla. | Mobile Unit #3 | | | | 1 | | Ruston sandy loam | 24-72-72 |
| 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 | 0-45-45 |
| Baton Rouge, La. | La. Agric. Expt. Sta. | | | 1 | 1 | 1 | Olivier silt loam | 15-60-60 |
| | | Upper and Central South | | | | | | |
| Orange, Va. | Piedmont Field Station | 1 | | | | | Davidson clay loam | 0-84-84 |
| 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 | 24-72-72 |
| Athens, Ga. | University of Georgia | | 1 | 1 | 1 | | Cecil sandy loam | 15-60-60 |
| Experiment, Ga. | Ga. Agric. Expt. Sta. | | 1 | 1 | 1* | 1 | Cecil clay loam | 20-60-60 |
| State College, Miss. | Miss. Agric. Expt. Sta. | | 1 | 1 | 1 | | Verona fine sandy loam | 18-24-24 |

[1] Fertilizer

| Location | Cooperator | IV | V | VI | VII | VIII | Soil Type | Fertilizer[1] |
|---|---|---|---|---|---|---|---|---|
| | | | Delta | | | | | |
| Henderson, Ky. | Ohio Valley Soybean Coop. | 1 | 1 | | | | Falaya local alluvium | 0-90-90 |
| Sikeston, Mo. | Missouri Agric. Expt. Sta. | 1* | 1* | 1* | | | Dexter sandy loam | 0-60-60 |
| Bragg City, Mo. | Missouri Agric. Expt. Sta. | 1 | 1 | 1 | | | Sharkey clay | None |
| Wilson, Ark. | Alfalfa Sub-station | 1* | 1* | 1* | | | Sharkey clay | None |
| Marianna, Ark. | Cotton Branch Sta. | 1 | 1 | 1 | | | Richland silt loam | 0-0-40 |
| Coahoma, Miss. | J. M. Slater | 1 | 1 | 1 | | | Sharkey clay | None |
| Clarksdale, Miss. | J. E. Weeks | 1* | 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. | 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 | 15-30-15 |
| 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.[3] | Okla. Veg. Research Sta. | 1 | 1* | 1* | | | Yahola very fine sandy loam | None |
| Perkins, Okla.[3] | Okla. Agric. Expt. Sta. | 1* | 1 | 1 | | | Vanoss very fine sandy loam | 0-20-0 |
| Milburn, Okla. | Murray State Jr. College | | | 1 | 1 | | Ochlocknee -Iuka | None |
| Chillicothe, Texas | Texas Substation No. 12 | | | 1 | 1* | | Abilene loam | None |
| Lubbock, Texas[3] | Texas Substation No. 8 | | | 1 | 1 | | Amarillo fine sandy loam | None |
| Plainview, Texas[3] | Paymaster Farm | 1 | 1* | 1* | 1 | | Amarillo fine clay loam | None |
| College Station, Texas[3] | Texas Agric. Expt. Sta. | | | 1 | 1 | 1 | Miller clay loam | 40-50-0 |

1/ Fertilizer applied converted to pounds of N, $P_2O_5$, $K_2O$; for example, 400 pounds of 2-12-12 equals 8-48-48.
2/ Three irrigations of 1.5 inch each applied by sprinkler system. Water applied July 20, July 30 and Aug. 9.
3/ Irrigated as needed.

* Preliminary nursery grown in addition to uniform nursery.

## METHODS

The uniform nurseries were planted in 4-row plots with three replications. All seed was packeted at Stoneville, Mississippi, for planting 19-foot rows. In most cases a 16-foot section was harvested from each of the two center rows. Randomized block designs are used for all groups. Row widths at the different locations vary from 36 to 40 inches. An attempt is made to follow the best cultural and management practices in conducting these strain comparisons.

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

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

Shattering notes, where taken, are on the border rows, fourteen days after maturity. The estimates are recorded on a scale of 1 to 5 as follows:

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

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

Seed size for each strain was determined from a composite sample from all replications at a location. Seed size is reported for the locations where seed was analyzed for chemical composition and is reported as weight in grams per 100 seeds.

Lodging notes are recorded on a scale of 1 to 5 according to the following criteria:

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

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

Maturity is taken as the date when the pods are dry and most of the leaves have dropped. Under most conditions, the stems are also dry. Maturity in all summaries is expressed as days earlier (-) or later (+) than a standard or reference variety. Reference varieties used for the different Uniform Tests are as follows: Group IV, Perry; Group V, Dorman; Group VI, Ogden; Group VII, Jackson; and Group VIII, 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 brightness. While the seed quality score indicates relative appearance of seed for the several varieties at one location, considerable differences can exist between factors responsible for the poorer grades in different locations.

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

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

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

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

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

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

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

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

UNIFORM GROUP IV

1957

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

Background of strains used as parents:

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

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

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

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Twenty-one Group IV nurseries were planted in the Southern Region. Results of 16 of these nurseries are summarized in tables 1 through 7. Table 1 gives a general summary of the performance for the strains in this group.

The Group IV nursery included the two varieties Perry and Clark and 10 experimental lines. Eight of the experimental lines had been selected for resistance to bacterial pustule, improved seed holding and seed quality. Differences among strains for seed yield were significant in 9 of the 16 nurseries. Yield differences among strains were non-significant for within the Eastern or Western areas, but in the Delta area 9 strains yielded significantly more than Perry. In the Delta area, Perry produced rather low yields at Bragg City and at Coahoma. Loss of stand from seedling diseases contributed to the low yield at Coahoma for both Perry and Clark.

In the East, Group IV lines were probably more adversely influenced than the later maturing lines by the early summer drouth. In the Delta,

several of the plantings were delayed because of extremely wet conditions. Rains in late August and early September after a period without rain favored the later maturing lines. Such a situation is well illustrated by the results from the Coahoma planting where the two lastest maturing lines, C1069 and D54-2437, yielded higher than any of the other lines. The maturity data reported under conditions such as this were the best estimates that could be made, but they do not indicate the differential rates of maturing or drying which occur under conditions such as this.

C1069 has been evaluated for three years. Under favorable conditions this strain yields well and produces fair quality seed. However, under drouth stress the seed quality is poor. It is too susceptible to shattering for production in the Delta or Western areas. Perhaps the greatest value of C1069 will be as a strain to use as a parent.

D53-184 has also been grown in this group for three years. In relation to C1069, D53-184 is resistant to bacterial pustule, is more resistant to shattering, and produces better quality seed. C1069 has slightly higher oil content while D53-184 has higher protein content. In 1957, the difference in purple stain was small between these two strains at Stoneville and Linkwood. However, in 1955, C1069 received a higher rating at Warsaw than did D53-184. C1069 has yielded slightly higher than D53-184 in the East Coast area for the 3-year period while D53-184 has yielded higher than C1069 in the Delta and Western areas. D53-184 is three days earlier than C1069 and three days later than Perry.

The three strains D53-138, D53-190, and D53-354 have been grown in the uniform nursery for two years. All three lines have surpassed Perry in seed yield in all production areas, give better ground cover, produce better quality seed, and are more resistant to shattering. Although the seed yield of D53-354 is somewhat lower than that for D53-184, D53-354 gives better ground cover, stands somewhat better, and produces superior quality seed. D53-354 averages two days earlier than D53-184 and one day later than Perry. In the 31 tests grown in 1956 and 1957, D53-354 has been given a quality score of 3 only two times -- all other ratings being for higher quality seed. It has had less than 5 percent of its seed showing purple stain under conditions where other strains have had as much as 40 percent of their seed showing stain.

Downy mildew ratings are reported for Clarksdale, Mississippi, and Vinson, Missouri. The results suggest that different races of mildew may have been present. In 1956, under conditions where Perry was rated 3, D53-138, D53-190, and D53-354 were given ratings of 1. In 1957, D53-138 and D53-190 were again rated 1 at Clarksdale, but were rated 3 at Vinson.

Table 1. General summary of performance for the strains in Uniform Group IV, 1957

| | Perry | Clark | C1069 | D53-138 | D53-184 | D53-190 |
|---|---|---|---|---|---|---|
| Seed Yield - 1957 | | | | | | |
| East Coast | 28.1 | 27.6 | 33.7 | 28.7 | 30.9 | 30.7 |
| Delta | 29.7 | 31.1 | 39.8+ | 35.1+ | 38.3+ | 33.9 |
| West | 26.2 | 26.7 | 29.6 | 27.2 | 29.3 | 28.0 |
| - 1956-57 | | | | | | |
| East Coast | 29.9 | 31.5 | 36.0 | 31.8 | 33.4 | 31.5 |
| Delta | 28.2 | 28.6 | 34.2 | 31.2 | 33.0 | 31.3 |
| West | 18.8 | 18.9 | 21.0 | 20.0 | 22.0 | 20.8 |
| - 1955-57 | | | | | | |
| East Coast | 30.8 | 31.8 | 35.4 | | 33.5 | |
| Delta | 29.5 | 30.2 | 32.3 | | 33.7 | |
| West | 17.7 | 15.2 | 20.6 | | 21.0 | |
| Oil Content - 1957 | 22.5 | 22.2 | 22.4 | 20.6- | 21.4- | 20.9- |
| - 1956-57 | 22.3 | 22.2 | 22.7 | 20.8 | 21.6 | 21.0 |
| - 1955-57 | 22.3 | 22.3 | 22.6 | | 21.6 | |
| Protein Content - 1957 | 41.5 | 41.3 | 40.9 | 43.3+ | 42.4 | 41.1 |
| - 1956-57 | 41.1 | 41.0 | 40.1 | 42.9 | 41.8 | 41.0 |
| - 1955-57 | 40.9 | 40.6 | 39.6 | | 41.4 | |
| Seed Size | 17.6 | 16.9- | 18.7+ | 14.8- | 14.9- | 13.8- |
| Maturity Index | 9-30 | -7 | +6 | +1 | +3 | +1 |
| Height | 30 | 30 | 37 | 36 | 36 | 34 |
| Seed Quality[1] - 1957 | 62 | 31 | 23 | 8 | 8 | 15 |
| - 1956-57 | 58 | 35 | 29 | 10 | 19 | 16 |
| Shattering | 3.0 | 2.5 | 3.5 | 1.3 | 1.0 | 1.0 |
| Ground Cover[2] | 4.3 | 3.3 | 3.0 | 3.0 | 3.3 | 3.0 |
| Bacterial Pustule | 4.0 | 3.0 | 2.5 | 1.0 | 1.0 | 1.0 |
| Purple Stain[3] | 3.0 | 3.0 | 3.0 | 2.0 | 3.0 | 2.0 |
| Pod and Stem Blight[4] | 1.3 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Downy Mildew[5] | 4.0 | 2.3 | 2.0 | 1.0 | 2.7 | 1.0 |
| Downy Mildew[6] | 4.0 | 3.0 | 4.0 | 3.0 | 4.0 | 3.0 |

1/ Percentage of comparisons receiving a seed quality score of 3 or higher.
2/ Ground cover scores given for growth at Clarksdale, Miss., six weeks after emergence.
3/ Average of percentage of seed stained at Linkwood and Stoneville.

Table 1. (Continued)

| | D53-354 | D53-1254 | D54-2437 | D54-3281 | D52-203 | S2-7158 |
|---|---|---|---|---|---|---|
| Seed Yield - 1957 | | | | | | |
| East Coast | 27.4 | 29.0 | 27.1 | 27.5 | 31.5 | 31.6 |
| Delta | 34.5+ | 39.1+ | 39.5+ | 38.6+ | 38.4+ | 37.6+ |
| West | 25.0 | 29.9 | 27.4 | 32.2 | 29.3 | 31.2 |
| - 1956-57 | | | | | | |
| East Coast | 30.3 | | | | | |
| Delta | 31.0 | | | | | |
| West | 19.5 | | | | | |
| - 1955-57 | | | | | | |
| East Coast | | | | | | |
| Delta | | | | | | |
| West | | | | | | |
| Oil Content - 1957 | 20.9- | 21.9 | 21.0- | 21.3- | 20.6- | 21.6- |
| - 1956-57 | 21.0 | | | | | |
| - 1955-57 | | | | | | |
| Protein Content - 1957 | 41.1 | 40.4 | 40.4 | 41.9 | 41.5 | 39.0- |
| - 1956-57 | 40.6 | | | | | |
| - 1955-57 | | | | | | |
| Seed Size | 13.0- | 14.8- | 14.4- | 14.0- | 15.9- | 15.5- |
| Maturity Index | +1 | +1 | +2 | +1 | +5 | +3 |
| Height | 34 | 34 | 33 | 36 | 36 | 36 |
| Seed Quality[1/] - 1957 | 8 | 15 | 23 | 31 | 38 | 38 |
| - 1956-57 | 6 | | | | | 50 |
| Shattering | 1.0 | 1.0 | 2.3 | 1.0 | 2.0 | 3.0 |
| Ground Cover[2/] | 2.7 | 3.0 | 3.0 | 3.0 | 3.0 | 3.3 |
| Bacterial Pustule | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Purple Stain[3/] | 1.0 | 3.0 | 4.0 | 3.0 | 2.0 | 3.0 |
| Pod and Stem Blight[4/] | 1.0 | 1.0 | 1.0 | 1.0 | 1.7 | 2.3 |
| Downy Mildew[5/] | 3.0 | 1.0 | 2.0 | 3.0 | 4.0 | 3.0 |
| Downy Mildew[6/] | 4.0 | 3.0 | 4.0 | 4.0 | 4.0 | 3.0 |

4/ Pod and stem blight scores based on reaction at Clarksdale, Miss.
5/ Clarksdale, Miss.
6/ Vinson, Missouri

Table 2. Yield, in bushels per acre, for the strains in Uniform Group IV, 1957

| Location | Perry | Clark | C1069 | D53-138 | D53-184 | D53-190 | D53-354 |
|---|---|---|---|---|---|---|---|
| **East Coast** | | | | | | | |
| Linkwood, Md. | 30.6 | 26.6 | 38.7+ | 32.1 | 39.1+ | 30.1 | 29.6 |
| Orange, Va. | 21.0 | 23.4 | 23.1 | 17.4 | 16.5 | 23.0 | 19.5 |
| Warsaw, Va. | 32.6 | 32.7 | 39.2 | 36.5 | 37.0 | 39.0 | 33.2 |
| Mean | 28.1 | 27.6 | 33.7 | 28.7 | 30.9 | 30.7 | 27.4 |
| **Upper and Central South** | | | | | | | |
| Lexington, Ky. | 24.5 | 24.8 | 23.4 | 20.5 | 24.0 | 22.1 | 24.0 |
| **Delta** | | | | | | | |
| Henderson, Ky. | 44.9 | 45.5 | 45.1 | 40.0 | 39.4 | 42.0 | 37.5 |
| Malden, Mo.[1/] | 35.0 | 32.4 | 47.9 | 43.3 | 44.5 | 41.4 | 45.6 |
| Bragg City, Mo.[1/] | 23.1 | 29.1 | 38.0+ | 30.0+ | 36.8+ | 33.9+ | 30.4+ |
| Vinson, Mo.[1/] | 36.1 | 45.6 | 46.3 | 43.3 | 44.1 | 38.3 | 39.0 |
| Marianna, Ark. | 30.1 | 32.3 | 40.5+ | 38.7+ | 33.6 | 31.5 | 34.5 |
| Coahoma, Miss. | 12.2 | 9.2 | 37.5+ | 24.8+ | 27.7+ | 20.3+ | 26.1+ |
| Clarksdale, Miss. | 26.4 | 23.4 | 23.5 | 25.7 | 28.7 | 30.0 | 28.6 |
| Mean | 29.7 | 31.1 | 39.8+ | 35.1+ | 38.3+ | 33.9 | 34.5+ |
| **West** | | | | | | | |
| Mound Valley, Kan.[2/] | 20.2 | 19.6 | 21.7 | 17.1 | 18.2 | 18.9 | 17.2 |
| Columbus, Kan.[2/] | -- | 15.0 | 17.7 | 14.3 | 17.3 | 14.1 | 13.7 |
| Fayetteville, Ark. | 20.4 | 20.9 | 24.7 | 20.8 | 28.2 | 27.6 | 22.0 |
| Perkins, Okla. | 22.3 | 23.1 | 17.3- | 18.0- | 18.9 | 19.5 | 15.5- |
| Plainview, Texas | 35.9 | 36.3 | 46.9 | 42.8 | 40.7 | 37.0 | 37.6 |
| Mean | 26.2 | 26.7 | 29.6 | 27.2 | 29.3 | 28.0 | 25.0 |

1/ Grown in single row plots. 2/ Not in mean.

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

Table 2. (Continued)

| Location | D53-1254 | D54-2437 | D54-3281 | D52-203 | S2-7158 | L.S.D. (.05) | C.V. |
|---|---|---|---|---|---|---|---|
| | | | East Coast | | | | |
| Linkwood, Md. | 35.0+ | 27.0 | 26.7 | 35.9+ | 31.3 | 4.4 | 8% |
| Orange, Va. | 18.9 | 15.1 | 18.9 | 16.4 | 27.5 | N.S. | 30% |
| Warsaw, Va. | 33.0 | 39.1 | 36.8 | 42.0 | 39.3 | N.S. | 10% |
| Mean | 29.0 | 27.1 | 27.5 | 31.5 | 31.6 | N.S. | |
| | | | Upper and Central South | | | | |
| Lexington, Ky. | 22.8 | 22.7 | 22.5 | 24.5 | 20.9 | N.S. | 13% |
| | | | Delta | | | | |
| Henderson, Ky. | 45.0 | 37.9 | 38.9 | 40.2 | 38.9 | 5.3 | 8% |
| Malden, Mo.[1/] | 52.2 | 48.5 | 47.9 | 48.9 | 50.0 | N.S. | 17% |
| Bragg City, Mo.[1/] | 35.2+ | 35.3+ | 35.8+ | 39.5+ | 34.3+ | 6.1 | 13% |
| Vinson, Mo.[1/] | 44.9 | 44.9 | 46.3 | 46.4 | 49.3 | N.S. | 11% |
| Marianna, Ark. | 40.6+ | 38.8+ | 38.4+ | 42.4+ | 39.9+ | 6.8 | 11% |
| Coahoma, Miss. | 25.3+ | 41.4+ | 33.5+ | 23.1+ | 25.6+ | 5.0 | 12% |
| Clarksdale, Miss. | 30.1 | 29.8 | 31.0+ | 28.5 | 25.0 | 4.2 | 10% |
| Mean | 39.1+ | 39.5+ | 38.6+ | 38.4+ | 37.6+ | 4.6 | |
| | | | West | | | | |
| Mound Valley, Kan.[2/] | 18.7 | 24.7 | 18.0 | 16.5 | 21.7 | - | -- |
| Columbus, Kan.[2/] | 15.0 | 16.0 | 15.1 | 16.3 | 14.9 | 2.6 | 12% |
| Fayetteville, Ark. | 23.6 | 22.1 | 29.7+ | 34.9+ | 28.3 | 8.4 | 20% |
| Perkins, Okla. | 23.5 | 18.0- | 24.8 | 15.5- | 21.8 | 4.1 | 12% |
| Plainview, Texas | 42.6 | 42.0 | 42.0 | 37.6 | 43.6 | N.S. | 13% |
| Mean | 29.9 | 27.4 | 32.2 | 29.3 | 31.2 | N.S. | |

Table 3. Chemical composition and seed size for the strains in Uniform Group IV, 1957

| Location | Perry | Clark | C1069 | D53-138 | D53-184 | D53-190 |
|---|---|---|---|---|---|---|
| | | | Oil Percentage | | | |
| Linkwood, Md. | 23.0 | 23.1 | 23.4 | 21.9 | 22.4 | 21.7 |
| Warsaw, Va. | 21.6 | 21.4 | 21.8 | 20.1 | 20.4 | 20.3 |
| Henderson, Ky. | 21.5 | 20.8 | 22.4 | 19.8 | 20.7 | 20.3 |
| Marianna, Ark. | 23.4 | 22.7 | 23.9 | 21.7 | 22.5 | 21.6 |
| Coahoma, Miss. | 24.4 | 23.9 | 23.6 | 22.3 | 23.1 | 22.4 |
| Perkins, Okla. | 20.9 | 21.1 | 19.5 | 17.9 | 19.3 | 18.8 |
| Mean | 22.5 | 22.2 | 22.4 | 20.6- | 21.4- | 20.9- |
| | | | Protein Percentage | | | |
| Linkwood, Md. | 41.3 | 40.6 | 40.0 | 41.5 | 41.0 | 38.3 |
| Warsaw, Va. | 43.8 | 45.7 | 44.4 | 46.3 | 45.4 | 43.4 |
| Henderson, Ky. | 41.2 | 41.9 | 41.7 | 43.4 | 43.0 | 41.6 |
| Marianna, Ark. | 40.9 | 40.3 | 38.4 | 42.4 | 41.4 | 42.5 |
| Coahoma, Miss. | 38.5 | 36.9 | 37.3 | 38.9 | 38.3 | 37.1 |
| Perkins, Okla. | 43.1 | 42.4 | 43.8 | 47.5 | 45.2 | 43.9 |
| Mean | 41.5 | 41.3 | 40.9 | 43.3+ | 42.4 | 41.1 |
| | | | Grams Per 100 Seeds | | | |
| Linkwood, Md. | 21.9 | 20.6 | 22.9 | 16.8 | 16.9 | 14.9 |
| Warsaw, Va. | 21.7 | 22.3 | 22.8 | 19.0 | 19.1 | 17.2 |
| Henderson, Ky. | 18.3 | 17.6 | 19.5 | 14.9 | 14.9 | 14.3 |
| Marianna, Ark. | 15.0 | 14.0 | 17.0 | 14.3 | 12.7 | 13.0 |
| Coahoma, Miss. | 15.6 | 12.9 | 15.8 | 13.5 | 14.2 | 13.2 |
| Perkins, Okla. | 12.9 | 13.9 | 14.2 | 10.1 | 11.5 | 10.0 |
| Mean | 17.6 | 16.9- | 18.7+ | 14.8- | 14.9- | 13.8- |

Table 3. (Continued)

| Location | D53-354 | D53-1254 | D54-2437 | D54-3281 | D52-203 | S2-7158 | L.S.D. (.05) |
|---|---|---|---|---|---|---|---|
| | | | Oil Percentage | | | | |
| Linkwood, Md. | 22.4 | 23.3 | 23.2 | 22.1 | 21.3 | 22.9 | |
| Warsaw, Va. | 19.3 | 20.5 | 21.1 | 20.1 | 20.3 | 20.7 | |
| Henderson, Ky. | 19.9 | 20.9 | 21.2 | 20.5 | 20.1 | 20.5 | |
| Marianna, Ark. | 21.5 | 22.8 | 21.3 | 22.4 | 22.2 | 22.6 | |
| Coahoma, Miss. | 23.0 | 23.7 | 22.4 | 23.2 | 22.2 | 23.1 | |
| Perkins, Okla. | 19.0 | 20.2 | 17.0 | 19.7 | 17.7 | 19.8 | |
| Mean | 20.9- | 21.9 | 21.0- | 21.3- | 20.6- | 21.6- | 0.6 |
| | | | Protein Percentage | | | | |
| Linkwood, Md. | 38.6 | 39.1 | 37.8 | 40.7 | 41.9 | 37.6 | |
| Warsaw, Va. | 43.4 | 42.3 | 41.3 | 45.9 | 43.3 | 41.4 | |
| Henderson, Ky. | 42.4 | 42.0 | 40.8 | 42.6 | 43.3 | 39.8 | |
| Marianna, Ark. | 41.1 | 40.3 | 40.2 | 41.0 | 40.5 | 37.3 | |
| Coahoma, Miss. | 36.5 | 36.3 | 37.0 | 37.5 | 37.9 | 36.3 | |
| Perkins, Okla. | 44.3 | 42.2 | 45.2 | 43.6 | 42.3 | 41.4 | |
| Mean | 41.1 | 40.4 | 40.4 | 41.9 | 41.5 | 39.0- | 1.1 |
| | | | Grams Per 100 Seeds | | | | |
| Linkwood, Md. | 14.4 | 17.5 | 15.9 | 15.8 | 20.1 | 16.9 | |
| Warsaw, Va. | 16.1 | 18.7 | 17.9 | 17.6 | 19.5 | 19.9 | |
| Henderson, Ky. | 13.0 | 15.3 | 15.1 | 15.0 | 16.3 | 15.1 | |
| Marianna, Ark. | 13.0 | 13.0 | 14.3 | 12.3 | 14.7 | 14.0 | |
| Coahoma, Miss. | 11.7 | 12.7 | 13.3 | 12.5 | 14.5 | 14.3 | |
| Perkins, Okla. | 9.7 | 11.8 | 9.6 | 10.9 | 10.4 | 12.8 | |
| Mean | 13.0- | 14.8- | 14.4- | 14.0- | 15.9- | 15.5- | 0.4 |

Table 4. Relative maturity data, days earlier (-) or later (+) than Perry, for the strains in Uniform Group IV, 1957

| Location | Date Planted | Perry Matured | Clark | C1069 | D53-138 | D53-184 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 5-16 | 10-9 | -12 | +1 | -6 | -2 |
| Orange, Va. | 5-11 | 10-5 | -22 | +10 | 0 | 0 |
| Warsaw, Va. | 6-10 | 10-13 | - 5 | +9 | +1 | +1 |
| Mean | | 10-9 | -13 | +7 | -2 | -1 |
| | | | Upper and Central South | | | |
| Lexington, Ky. | 5-28 | 9-28 | -8 | +8 | +7 | +7 |
| | | | Delta | | | |
| Henderson, Ky. | 6-4 | 10-10 | -4 | +10 | +8 | +8 |
| Malden, Mo. | 5-6 | 9-20 | -11 | +12 | +5 | +9 |
| Bragg City, Mo. | 6-10 | 10-2 | -4 | + 4 | +1 | +2 |
| Vinson, Mo. | 6-20 | 10-9 | -7 | + 1 | +2 | +2 |
| Coahoma, Miss. | 5-10 | 9-5 | -4 | +11 | +6 | +8 |
| Clarksdale, Miss. | 5-10 | 8-24 | -4 | + 6 | +5 | +6 |
| Mean | | 9-22 | -6 | + 7 | +5 | +6 |
| | | | West | | | |
| Mound Valley, Kan. | 6-28 | 10-9 | -5 | + 4 | -5 | -4 |
| Columbus, Kan. | 6-29 | 10-13 | -5 | +10 | -1 | +1 |
| Fayetteville, Ark. | 5-29 | 9-28 | -2 | + 3 | 0 | +3 |
| Plainview, Texas | 6-11 | 10-1 | -7 | - 1 | +2 | +2 |
| Mean | | 10-5 | -5 | + 4 | -1 | +1 |

Table 4. (Continued)

| Location | D53-190 | D53-354 | D53-1254 | D54-2437 | D54-3281 | D52-203 | S2-7158 |
|---|---|---|---|---|---|---|---|
| | | | East Coast | | | | |
| Linkwood, Md. | +2 | -2 | -2 | -6 | -1 | +3 | +2 |
| Orange, Va. | -3 | -2 | -1 | -1 | -1 | 0 | +10 |
| Warsaw, Va. | -2 | -1 | -3 | 0 | -1 | +8 | 0 |
| Mean | -1 | -2 | -2 | -2 | -1 | +4 | +4 |
| | | | Upper and Central South | | | | |
| Lexington, Ky. | -1 | +5 | +4 | +5 | +4 | +8 | +5 |
| | | | Delta | | | | |
| Henderson, Ky. | +3 | +6 | +5 | +7 | +5 | +8 | +7 |
| Malden, Mo. | +1 | +6 | +3 | +9 | +5 | +12 | +6 |
| Bragg City, Mo. | 0 | +1 | +1 | 0 | +1 | +3 | +1 |
| Vinson, Mo. | 0 | 0 | +1 | +1 | +1 | +3 | +1 |
| Coahoma, Miss. | +4 | +5 | +5 | +9 | +5 | +6 | +7 |
| Clarksdale, Miss. | +4 | +4 | +4 | +6 | +5 | +6 | +5 |
| Mean | +2 | +4 | +3 | +5 | +4 | +6 | +5 |
| | | | West | | | | |
| Mound Valley, Kan. | -3 | -4 | -5 | -4 | -5 | -2 | -4 |
| Columbus, Kan. | 0 | 0 | 0 | 0 | -2 | +4 | 0 |
| Fayetteville, Ark. | 0 | -2 | 0 | 0 | 0 | +3 | 0 |
| Plainview, Texas | +2 | 0 | +2 | +1 | +3 | +2 | -2 |
| Mean | 0 | -2 | -1 | -1 | 0 | +2 | -1 |

Table 5. Height data for the strains in Uniform Group IV, 1957

| Location | Perry | Clark | C1069 | D53-138 | D53-184 | D53-190 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 28 | 27 | 32 | 30 | 31 | 30 |
| Orange, Va. | 34 | 32 | 38 | 34 | 36 | 36 |
| Warsaw, Va. | 25 | 25 | 32 | 31 | 32 | 28 |
| Mean | 29 | 28 | 34 | 32 | 33 | 31 |
| | | | Upper and Central South | | | |
| Lexington, Ky. | 32 | 30 | 38 | 37 | 40 | 38 |
| | | | Delta | | | |
| Henderson, Ky. | 39 | 44 | 51 | 51 | 50 | 46 |
| Malden, Mo. | 38 | 36 | 44 | 43 | 42 | 38 |
| Bragg City, Mo. | 23 | 27 | 35 | 30 | 33 | 31 |
| Vinson, Mo. | 40 | 40 | 45 | 46 | 43 | 40 |
| Marianna, Ark. | 38 | 39 | 47 | 48 | 45 | 44 |
| Coahoma, Miss. | 19 | 19 | 29 | 23 | 24 | 23 |
| Clarksdale, Miss. | 32 | 33 | 45 | 43 | 41 | 42 |
| Mean | 33 | 34 | 42 | 41 | 40 | 38 |
| | | | West | | | |
| Mound Valley, Kan. | 22 | 22 | 28 | 27 | 25 | 23 |
| Fayetteville, Ark. | 27 | 30 | 33 | 32 | 32 | 35 |
| Perkins, Okla. | 27 | 26 | 33 | 32 | 35 | 32 |
| Plainview, Texas | 24 | 25 | 29 | 31 | 30 | 27 |
| Mean | 25 | 26 | 31 | 30 | 30 | 29 |

Table 5. (Continued)

| Location | D53-354 | D53-1254 | D54-2437 | D54-3281 | D52-203 | S2-7158 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 28 | 31 | 25 | 31 | 32 | 33 |
| Orange, Va. | 34 | 34 | 29 | 40 | 35 | 40 |
| Warsaw, Va. | 30 | 28 | 29 | 31 | 32 | 31 |
| Mean | 31 | 31 | 28 | 34 | 33 | 35 |
| | | | Upper and Central South | | | |
| Lexington, Ky. | 37 | 36 | 34 | 40 | 38 | 39 |
| | | | Delta | | | |
| Henderson, Ky. | 45 | 47 | 45 | 47 | 49 | 47 |
| Malden, Mo. | 41 | 45 | 43 | 41 | 46 | 43 |
| Bragg City, Mo. | 31 | 28 | 31 | 31 | 32 | 34 |
| Vinson, Mo. | 42 | 45 | 40 | 45 | 44 | 43 |
| Marianna, Ark. | 45 | 43 | 41 | 42 | 46 | 43 |
| Coahoma, Miss. | 28 | 23 | 29 | 27 | 26 | 22 |
| Clarksdale, Miss. | 39 | 41 | 41 | 41 | 41 | 42 |
| Mean | 39 | 39 | 39 | 39 | 41 | 39 |
| | | | West | | | |
| Mound Valley, Kan. | 24 | 24 | 22 | 26 | 25 | 24 |
| Fayetteville, Ark. | 34 | 31 | 29 | 36 | 35 | 32 |
| Perkins, Okla. | 32 | 33 | 30 | 34 | 32 | 33 |
| Plainview, Texas | 27 | 25 | 25 | 30 | 29 | 29 |
| Mean | 29 | 28 | 27 | 32 | 30 | 30 |

Table 6. Lodging scores for the strains in Uniform Group IV, 1957

| Location | Perry | Clark | C1069 | D53-138 | D53-184 | D53-190 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Orange, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Warsaw, Va. | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.0 |
| | | | Upper and Central South | | | |
| Lexington, Ky. | 1.0 | 1.0 | 1.0 | 1.0 | 1.7 | 1.7 |
| | | | Delta | | | |
| Henderson, Ky. | 2.3 | 2.3 | 2.3 | 2.7 | 2.0 | 2.7 |
| Malden, Mo. | 1.2 | 1.2 | 1.6 | 1.4 | 2.0 | 2.0 |
| Bragg City, Mo. | 1.0 | 1.0 | 1.0 | 1.0 | 1.2 | 1.2 |
| Vinson, Mo. | 1.0 | 1.3 | 1.5 | 1.3 | 2.0 | 3.0 |
| Marianna, Ark. | 1.7 | 2.0 | 3.0 | 3.3 | 3.3 | 3.0 |
| Coahoma, Miss. | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 1.0 |
| Clarksdale, Miss. | 1.3 | 1.3 | 2.3 | 1.8 | 2.7 | 2.7 |
| | | | West | | | |
| Fayetteville, Ark. | 1.0 | 1.3 | 1.3 | 1.3 | 1.7 | 1.7 |
| Perkins, Okla. | 1.0 | 1.0 | 1.0 | 1.3 | 1.3 | 1.3 |
| Plainview, Texas | 1.0 | 1.3 | 2.3 | 1.7 | 2.0 | 2.0 |

Table 6. (Continued)

| Location | D53-354 | D53-1254 | D54-2437 | D54-3281 | D52-203 | S2-7158 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Orange, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Warsaw, Va. | 1.0 | 1.0 | 1.0 | 1.2 | 1.2 | 1.2 |
| | | | Upper and Central South | | | |
| Lexington, Ky. | 1.3 | 1.0 | 1.0 | 1.3 | 1.3 | 1.0 |
| | | | Delta | | | |
| Henderson, Ky. | 2.3 | 1.7 | 2.7 | 3.3 | 3.0 | 3.0 |
| Malden, Mo. | 1.5 | 1.5 | 1.4 | 1.8 | 1.8 | 1.6 |
| Bragg City, Mo. | 1.0 | 1.0 | 1.0 | 1.2 | 1.0 | 1.0 |
| Vinson, Mo. | 1.7 | 1.5 | 1.5 | 2.2 | 1.3 | 1.5 |
| Marianna, Ark. | 3.0 | 2.3 | 3.7 | 3.0 | 3.7 | 4.0 |
| Coahoma, Miss. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Clarksdale, Miss. | 1.3 | 2.2 | 2.5 | 2.7 | 1.5 | 2.3 |
| | | | West | | | |
| Fayetteville, Ark. | 1.3 | 1.0 | 1.0 | 1.0 | 2.0 | 1.3 |
| Perkins, Okla. | 1.0 | 1.0 | 1.0 | 1.3 | 1.0 | 1.3 |
| Plainview, Texas | 2.3 | 1.3 | 1.0 | 2.3 | 1.0 | 1.7 |

Table 7. Seed quality scores for the strains in Uniform Group IV, 1957

| Location | Perry | Clark | C1069 | D53-138 | D53-184 | D53-190 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 3.0 | 3.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Orange, Va. | 4.0 | 2.0 | 2.0 | 3.0 | 3.0 | 2.0 |
| Warsaw, Va. | 3.5 | 4.0 | 1.5 | 2.0 | 2.0 | 2.0 |
| | | | Upper and Central South | | | |
| Lexington, Ky. | 3.0 | 1.7 | 2.0 | 2.0 | 2.0 | 2.0 |
| | | | Delta | | | |
| Henderson, Ky. | 2.0 | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 |
| Malden, Mo. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Bragg City, Mo. | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Vinson, Mo. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Marianna, Ark. | 4.7 | 2.0 | 2.0 | 2.3 | 2.0 | 3.3 |
| Coahoma, Miss. | 3.3 | 3.7 | 3.0 | 2.0 | 2.7 | 2.7 |
| Clarksdale, Miss. | 2.3 | 2.7 | 3.3 | 2.0 | 2.0 | 2.0 |
| | | | West | | | |
| Fayetteville, Ark. | 4.7 | 3.3 | 2.3 | 2.7 | 2.7 | 3.3 |
| Perkins, Okla. | 4.6 | 2.3 | 3.6 | 2.3 | 2.3 | 1.6 |

Table 7. (Continued)

| Location | D53-354 | D53-1254 | D54-2437 | D54-3281 | D52-203 | S2-7158 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Orange, Va. | 1.0 | 4.0 | 4.0 | 3.0 | 5.0 | 3.0 |
| Warsaw, Va. | 2.0 | 2.5 | 2.0 | 2.5 | 1.5 | 2.5 |
| | | | Upper and Central South | | | |
| Lexington, Ky. | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 2.0 |
| | | | Delta | | | |
| Henderson, Ky. | 2.0 | 1.0 | 2.0 | 2.0 | 3.0 | 2.0 |
| Malden, Mo. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Bragg City, Mo. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Vinson, Mo. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Marianna, Ark. | 2.7 | 3.0 | 3.0 | 3.0 | 3.0 | 3.7 |
| Coahoma, Miss. | 2.0 | 2.7 | 2.7 | 3.0 | 3.0 | 4.0 |
| Clarksdale, Miss. | 2.0 | 2.0 | 2.0 | 2.0 | 2.3 | 3.0 |
| | | | West | | | |
| Fayetteville, Ark. | 3.0 | 2.0 | 3.0 | 3.3 | 2.7 | 3.7 |
| Perkins, Okla. | 2.0 | 2.0 | 2.0 | 2.0 | 3.6 | 2.3 |

## PRELIMINARY GROUP IV

### 1957

Sixteen experimental strains along with Perry and Clark were planted at five locations with 4-row plots and two replications and at four locations in southeast Missouri in single-row plots and no replication. Parentage of these lines is reported in table 8. Table 9 gives a general summary of agronomic, disease, and chemical qualities, while agronomic and chemical data are reported by locations in tables 10 through 13.

Incomplete stands were obtained for the two locations Wilson and Stoneville, and these locations were not harvested. Differences among strains were significant at each of the three locations Linkwood, Clarksdale, and Perkins and for the means of the plantings at the four locations in southeastern Missouri. The combined analysis of seed yield data for the three locations Linkwood, Clarksdale and Perkins showed strain differences to be non-significant.

Thirteen of the lines were resistant to bacterial pustule and five of these also received low ratings for purple seed stain. Three lines, D52-3378, D54-3261, and D54-3270, again demonstrated rather high susceptibility to pod and stem blight in the Clarksdale planting. All three of these lines had made less growth prior to the time stem lesions appeared than had non-susceptible, closely related lines.

The most promising appearing lines in this group were D54-2314 and D54-2483. However, both received higher scores for purple stain than did D53-354. D53-2314 was included in the Preliminary Group V nursery in 1956. In that test it gave reasonably good performance except that it produced rather poor quality seed in the Eastern locations. D54-2483 was tested in the Preliminary Group IV nursery in 1955. Its performance was good except that it also produced seed of lower quality than is desired.

Table 8. Parentage of the strains in Preliminary Group IV, 1957

| | Strain | Parentage | Generation Composited |
|---|---|---|---|
| 1. | Perry | Patoka x L7-1355 | $F_7$ |
| 2. | Clark | Lincoln (2) x Richland | $F_8$ |
| 3. | D52-193 | N48-1248 x Perry | $F_5$ |
| 4. | D52-204 | N48-1248 x Perry | $F_5$ |
| 5. | D52-212 | N48-1248 x Perry | $F_5$ |
| 6. | D52-3378 | Selection from L6-5679 | $F_8$ |
| 7. | D53-354 | D49-2525 x L6-5679 | $F_5$ |
| 8. | D53-556 | D49-2570 x C490 | $F_5$ |
| 9. | D54-2314 | Wabash x D49-2573 | $F_5$ |
| 10. | D54-2483 | D49-2573 x L6-5679 | $F_5$ |
| 11. | D54-3261 | D49-2525 x L6-5679 | $F_7$ |
| 12. | D54-3269 | D49-2525 x L6-5679 | $F_7$ |
| 13. | D54-3270 | D49-2525 x L6-5679 | $F_7$ |
| 14. | D54-3287 | D49-2525 x L6-5679 | $F_7$ |
| 15. | D54-3317 | D49-2525 x L6-5679 | $F_7$ |
| 16. | D54-3322 | D49-2525 x L6-5679 | $F_7$ |
| 17. | D54-3325 | D49-2525 x L6-5679 | $F_7$ |
| 18. | D54-3348 | D632-15 x L65-5679 | $F_7$ |

Table 9. General summary of the performance of the strains in Preliminary Group IV, 1957

| Strain | Seed Yield 1/ | Maturity Index | Height | Percent Oil | Percent Protein |
|---|---|---|---|---|---|
| Perry | 25.0 | 9-17 | 31 | 22.2 | 41.8 |
| Clark | 24.6 | -5 | 31 | 22.6 | 40.3 |
| D52-193 | 27.6 | +7 | 36 | 21.2 | 42.2 |
| D52-204 | 28.1 | +8 | 36 | 19.0 | 44.3 |
| D52-212 | 28.4 | +4 | 35 | 20.4 | 43.3 |
| D52-3378 | 21.6 | +4 | 35 | 21.3 | 39.4 |
| D53-354 | 25.4 | +2 | 35 | 21.4 | 39.4 |
| D53-556 | 24.3 | +4 | 42 | 19.1 | 44.9 |
| D54-2314 | 31.1 | +1 | 40 | 21.6 | 41.2 |
| D54-2483 | 27.2 | +4 | 31 | 20.8 | 43.7 |
| D54-3261 | 23.2 | +4 | 34 | 20.0 | 41.9 |
| D54-3269 | 27.9 | +3 | 40 | 20.4 | 42.4 |
| D54-3270 | 24.8 | +3 | 35 | 21.9 | 41.9 |
| D54-3287 | 25.2 | +3 | 34 | 20.6 | 39.3 |
| D54-3317 | 25.4 | +3 | 36 | 20.7 | 38.0 |
| D54-3322 | 24.0 | +3 | 35 | 21.2 | 38.6 |
| D54-3325 | 23.9 | +5 | 36 | 20.5 | 39.0 |
| D54-3348 | 29.2 | +3 | 32 | 21.3 | 37.3 |
| L.S.D. (.05) | N.S. | | | | |

1/ Average of Linkwood, Clarksdale and Perkins.

2/ Average of Linkwood and Stoneville.

Table 9. (Continued)

| Strain | Downy Mildew | | Bacterial Pustule | Purple Stain[2/] | Pod & Stem Blight |
|---|---|---|---|---|---|
| | Vinson | Clarksdale | | | |
| Perry | 4.0 | 4.0 | 4.0 | 3.0 | 1.5 |
| Clark | 3.0 | 2.5 | 3.0 | 3.0 | 1.0 |
| D52-193 | 2.0 | 1.0 | 2.0 | 3.0 | 1.0 |
| D52-204 | 3.0 | 3.5 | 3.0 | 1.0 | 1.0 |
| D52-212 | 3.0 | 4.0 | 1.0 | 1.0 | 1.0 |
| D52-3378 | 3.0 | 2.5 | 3.0 | 3.0 | 3.0 |
| D53-354 | 4.0 | 3.0 | 1.0 | 2.0 | 1.0 |
| D53-556 | 5.0 | 2.0 | 1.0 | 3.0 | 1.0 |
| D54-2314 | 3.0 | 3.0 | 1.0 | 3.0 | 1.0 |
| D54-2483 | 5.0 | 3.0 | 1.0 | 3.0 | 1.0 |
| D54-3261 | 3.0 | 1.0 | 1.0 | 4.0 | 2.5 |
| D54-3269 | 3.0 | 1.5 | 1.0 | 3.0 | 1.5 |
| D54-3270 | 3.0 | 2.0 | 1.0 | 2.0 | 4.0 |
| D54-3287 | 3.0 | 1.0 | 1.0 | 4.0 | 1.0 |
| D54-3317 | 3.0 | 3.0 | 1.0 | 3.0 | 1.0 |
| D54-3322 | 3.0 | 3.0 | 1.0 | 2.0 | 1.0 |
| D54-3325 | 3.0 | 1.0 | 1.0 | 4.0 | 1.0 |
| D54-3348 | 3.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| L.S.D. (.05) | | | | | |

Table 10. Seed yield, in bushels per acre, for the strains in Preliminary Group IV, 1957

| Strain | Linkwood, Md. | Sikeston, Mo. 1/ | Clarksdale, Miss. | Perkins, Okla. | Mean |
|---|---|---|---|---|---|
| Perry | 24.9 | 35.8 | 26.4 | 23.6 | 27.7 |
| Clark | 24.6 | 35.1 | 24.4 | 24.7 | 27.2 |
| D52-193 | 29.4 | 35.7 | 28.2 | 25.2 | 29.6 |
| D52-204 | 41.2+ | 33.0 | 27.9 | 15.3- | 29.4 |
| D52-212 | 37.2+ | 48.8+ | 25.9 | 22.2 | 33.5 |
| D52-3378 | 28.2 | 41.6 | 19.4 | 17.2- | 26.6 |
| D53-354 | 26.6 | 47.1+ | 28.7 | 21.2 | 30.9 |
| D53-556 | 31.8+ | 38.8 | 23.5 | 17.5- | 27.9 |
| D54-2314 | 35.6+ | 37.0 | 31.6 | 26.1 | 32.6 |
| D54-2483 | 27.7 | 43.3+ | 29.5 | 24.4 | 31.2 |
| D54-3261 | 31.0 | 41.0 | 18.1- | 20.6 | 27.7 |
| D54-3269 | 33.2+ | 42.3 | 29.8 | 20.6 | 31.5 |
| D54-3270 | 33.4+ | 40.8 | 18.1- | 23.0 | 28.8 |
| D54-3287 | 30.4 | 44.4+ | 25.7 | 19.3 | 30.0 |
| D54-3317 | 28.6 | 40.9 | 25.3 | 22.5 | 29.3 |
| D54-3322 | 25.4 | 38.9 | 23.2 | 23.5 | 27.5 |
| D54-3325 | 29.1 | 44.2+ | 22.3 | 20.3 | 29.0 |
| D54-3348 | 34.8 | -- | 28.8 | 24.2 | -- |
| L.S.D. (.05) | 6.4 | 7.0 | 7.2 | 4.3 | |
| C.V. | 10% | 11% | 14% | 9% | |

1/ Average of Vinson, Sikeston, Bragg City, and Malden.

Table 11. Chemical composition for the strains in Preliminary Group IV, 1957

| Strain | Linkwood, Md. | Perkins Okla. | Mean |
|---|---|---|---|
| | | Oil Percentage | |
| Perry | 23.0 | 21.4 | 22.2 |
| Clark | 24.0 | 21.2 | 22.6 |
| D52-193 | 22.1 | 20.2 | 21.2 |
| D52-204 | 21.2 | 16.8 | 19.0 |
| D52-212 | 22.2 | 18.6 | 20.4 |
| D52-3378 | 22.9 | 19.6 | 21.3 |
| D53-354 | 22.4 | 20.4 | 21.4 |
| D53-556 | 20.9 | 17.2 | 19.1 |
| D54-2314 | 23.1 | 20.1 | 21.6 |
| D54-2483 | 21.1 | 20.5 | 20.8 |
| D54-3261 | 22.2 | 17.8 | 20.0 |
| D54-3269 | 22.1 | 18.7 | 20.4 |
| D54-3270 | 22.9 | 20.8 | 21.9 |
| D54-3287 | 22.3 | 18.9 | 20.6 |
| D54-3317 | 22.3 | 19.1 | 20.7 |
| D54-3322 | 22.2 | 20.1 | 21.2 |
| D54-3325 | 23.0 | 18.0 | 20.5 |
| D54-3348 | 22.7 | 19.8 | 21.3 |
| | | Protein Percentage | |
| Perry | 40.8 | 42.7 | 41.8 |
| Clark | 38.5 | 42.0 | 40.3 |
| D52-193 | 41.7 | 42.7 | 42.2 |
| D52-204 | 41.5 | 47.1 | 44.3 |
| D52-212 | 42.5 | 44.1 | 43.3 |
| D52-3378 | 36.7 | 42.0 | 39.4 |
| D53-354 | 39.1 | 39.6 | 39.4 |
| D53-556 | 43.4 | 46.4 | 44.9 |
| D54-2314 | 39.7 | 42.7 | 41.2 |
| D54-2483 | 43.1 | 44.2 | 43.7 |
| D54-3261 | 38.5 | 45.2 | 41.9 |
| D54-3269 | 38.7 | 46.0 | 42.4 |
| D54-3270 | 39.9 | 43.9 | 41.9 |
| D54-3287 | 38.0 | 40.5 | 39.3 |
| D54-3317 | 37.6 | 38.4 | 38.0 |
| D54-3322 | 39.0 | 38.2 | 38.6 |
| D54-3325 | 37.1 | 40.9 | 39.0 |
| D54-3348 | 37.0 | 37.6 | 37.3 |

Table 12. Height data for the strains in Preliminary Group IV, 1957

| Strain | Linkwood, Md. | Sikeston, Mo.1/ | Clarksdale, Miss. | Perkins, Okla. |
|---|---|---|---|---|
| Perry | 26 | 36 | 33 | 28 |
| Clark | 26 | 35 | 35 | 27 |
| D52-193 | 30 | 40 | 41 | 34 |
| D52-204 | 30 | 41 | 39 | 34 |
| D52-212 | 30 | 42 | 36 | 32 |
| D52-3378 | 28 | 42 | 37 | 34 |
| D53-354 | 28 | 40 | 41 | 32 |
| D53-556 | 38 | 47 | 48 | 33 |
| D54-2314 | 34 | 45 | 44 | 35 |
| D54-2483 | 24 | 35 | 33 | 30 |
| D54-3261 | 28 | 40 | 36 | 31 |
| D54-3269 | 36 | 43 | 46 | 34 |
| D54-3270 | 32 | 42 | 32 | 34 |
| D54-3287 | 28 | 39 | 36 | 32 |
| D54-3317 | 29 | 42 | 43 | 31 |
| D54-3322 | 28 | 39 | 39 | 35 |
| D54-3325 | 30 | 41 | 40 | 34 |
| D54-3348 | 34 | 31 | 34 | 27 |

1/ Average of Vinson, Sikeston, Bragg City, and Malden.

Table 13. Seed quality scores for the strains in Preliminary Group IV, 1957

| Strain | Linkwood, Md. | Sikeston, Mo.1/ | Clarksdale, Miss. | Perkins, Okla. |
|---|---|---|---|---|
| Perry | 2.0 | 2.0 | 2.0 | 2.5 |
| Clark | 2.0 | 2.3 | 3.0 | 2.5 |
| D52-193 | 2.0 | 2.3 | 3.0 | 2.5 |
| D52-204 | 2.0 | 1.8 | 2.0 | 3.5 |
| D52-212 | 2.0 | 1.8 | 2.5 | 2.5 |
| D52-3378 | 2.0 | 1.8 | 2.5 | 2.0 |
| D53-354 | 2.0 | 1.8 | 2.0 | 1.0 |
| D53-556 | 2.0 | 1.8 | 2.0 | 1.0 |
| D54-2314 | 2.0 | 1.5 | 2.0 | 2.5 |
| D54-2483 | 3.0 | 2.3 | 2.5 | 2.5 |
| D54-3261 | 2.0 | 2.5 | 2.5 | 1.0 |
| D54-3269 | 2.0 | 2.0 | 2.0 | 2.0 |
| D54-3270 | 2.0 | 2.0 | 4.0 | 1.0 |
| D54-3287 | 2.0 | 2.3 | 3.0 | 3.0 |
| D54-3317 | 2.0 | 2.3 | 2.5 | 1.0 |
| D54-3322 | 2.0 | 1.8 | 2.0 | 1.0 |
| D54-3325 | 2.0 | 2.3 | 4.0 | 1.0 |
| D54-3348 | 2.0 | 2.0 | 2.0 | 1.5 |

1/ Average of Vinson, Sikeston, Bragg City, and Malden.

UNIFORM GROUP V

1957

| Variety or Strain | Parentage | Generation Composited |
|---|---|---|
| 1. Dorman | Dunfield x Arksoy | $F_6$ |
| 2. Dortchsoy 67 | Macoupin selection x Ogden | |
| 3. D53-492 | D632-15 x D49-2525 | $F_5$ |
| 4. D53-526 | D632-15 x D49-2525 | $F_5$ |
| 5. D53-142 | D49-2525 x L6-5679 | $F_5$ |
| 6. D53-697 | L7-163 x D49-2573 | $F_5$ |
| 7. D54-2213 | Wabash x D49-2573 | $F_5$ |
| 8. D54-3310 | D49-2525 x L6-5679 | $F_7$ |
| 9. D54-3340 | D632-15 x D49-2525 | $F_7$ |
| 10. D54-3350 | D632-15 x D49-2525 | $F_7$ |
| 11. D54-3362 | D632-15 x D49-2525 | $F_7$ |
| 12. D54-3416 | Wabash x D49-2573 | $F_7$ |

Background of strains used as parents:

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

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

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

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

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

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Thirty-two Uniform Group V nurseries were planted. Results of 26 nurseries are summarized in tables 14 through 20. Seed yields were good in most tests in the East Coast, Delta, and Western areas. Yields were low for the four locations in the Upper and Central South. Differences among strains were significant in 13 of the 26 locations summarized. Differences among strains were significant within each of the four areas, East Coast, Upper and Central South, Delta, and West.

This group included the two named varieties Dorman and Dortchsoy 67, the two strains D53-492 and D53-526 which were being evaluated for the third year, and eight strains which were being tested on a regional basis for the first year.

A rather heavy and uniform natural infection of bacterial blight developed in the Stoneville planting in late June and ratings were given. These ratings agreed with observations on some of these strains in other years and at other locations. For example, Dortchsoy 67 and D53-492 had previously been observed to be more susceptible than Dorman and D53-526. Downy mildew ratings are reported for Clarksdale and Vinson. Dorman and D53-526 have been free from mildew at most locations in the South where the Group V nursery has been grown during the past three years. The results at Vinson would suggest that a different race of mildew was present at that location. D54-3310 was given a rating of 4.5 in the Preliminary Group V nursery in 1956, a rating of 4.3 at Clarksdale, and 4.0 at Vinson.

The two strains tested three years, D53-526 and D53-492, are very similar in most characters but D53-526 is superior in oil percentage and in reaction to bacterial blight. D53-492 has a slightly higher protein percentage. Both strains produce very good quality seed and hold their seed extremely well. D53-526 is resistant to bacterial pustule, target spot, frog-eye, pod and stem blight, and purple seed stain. It has appeared to have a moderate degree of resistance to root knot nematodes at several locations in the Southeast. It has appeared to be resistant to the race or races of downy mildew present at most locations in the South during the past three years. D53-526 does not increase in height as it is moved north in the manner that Dorman does. Therefore, D53-526 should be less subject to lodging than is Dorman. At Plymouth, where many of the early maturing strains have a tendency for the stems to remain green after seed is mature, stems of D53-526 have dried uniformly at maturity. D53-526 is being increased for release in Delaware, Maryland, Virginia, North Carolina, Missouri, Arkansas, and Mississippi.

Seven of the eight new lines gave very good performances. D54-3340 yielded significantly less than Dorman in the East Coast and Delta areas. It is of interest that this strain had the lowest average yield of the eight new lines in the 1956 Preliminary Group V plantings. It had, however, been one of the highest yielding lines at Plainview, Texas. In the 1957 planting at Plainview, D54-3340 was the lowest ranking strain in yield, although the yield differences were non-significant.

The yield performance of D53-697 is very interesting, since this line has deciduous pubescence. Deciduous pubescence does not give as good protection from the potato leaf hopper when it is present. Leaf hoppers may have been a factor at Linkwood, Maryland, where D53-697 was the lowest yielding strain. The average yield of D53-697 was slightly below that of Dorman in the East Coast area but was significantly higher in each of the other areas. D53-697 produces good quality seed but does not appear to be superior to D53-526 in this respect.

Table 14. General summary of performance of the strains in Uniform Group V, 1957

| | Dorman | Dortch-soy 67 | D53-492 | D53-526 | D53-142 | D53-697 |
|---|---|---|---|---|---|---|
| Seed Yield - 1957 | | | | | | |
| East Coast | 39.1 | 39.1 | 38.1 | 39.2 | 38.9 | 37.8 |
| Upper & Central South | 17.9 | 21.8+ | 19.9 | 17.0 | 19.3 | 21.0+ |
| Delta | 32.9 | 35.1 | 32.6 | 35.9 | 32.3 | 37.2+ |
| West | 31.2 | 35.1 | 33.6 | 34.6 | 34.7 | 38.4+ |
| - 1956-57 | | | | | | |
| East Coast | 34.6 | 35.4 | 34.4 | 35.1 | | |
| Upper & Central South | 22.6 | 23.7 | 23.0 | 22.1 | | |
| Delta | 28.3 | 30.4 | 29.0 | 31.1 | | |
| West | 22.5 | 24.9 | 24.9 | 25.1 | | |
| - 1955-57 | | | | | | |
| East Coast | 33.5 | 33.8 | 33.7 | 33.4 | | |
| Upper & Central South | 21.7 | 23.1 | 21.6 | 21.1 | | |
| Delta | 30.2 | 32.2 | 31.5 | 32.2 | | |
| West | 22.2 | 25.3 | 24.9 | 24.2 | | |
| Oil Content - 1957 | 21.8 | 21.8 | 20.5- | 21.7 | 21.4 | 21.3 |
| - 1955-57 | 21.4 | 21.2 | 20.0 | 21.2 | | |
| Protein Content - 1957 | 38.2 | 38.5 | 39.1+ | 38.1 | 39.0 | 39.1 |
| - 1955-57 | 38.6 | 39.0 | 40.5 | 39.0 | | |
| Seed Size | 15.2 | 13.5- | 13.6- | 13.5- | 14.8 | 14.3- |
| Maturity Index | 10-5 | +4 | +1 | 0 | +2 | +4 |
| Height | 32 | 30 | 28 | 28 | 26 | 32 |
| Seed Holding | 1.5 | 2.5 | 1.0 | 1.0 | 1.0 | 1.5 |
| Bacterial Pustule | 3.3 | 4.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Bacterial Blight | 2.0 | 4.0 | 3.0 | 1.7 | 2.0 | 3.0 |
| Downy Mildew 1/ | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Downy Mildew 2/ | 3.0 | 1.0 | 3.0 | 3.0 | 3.0 | 2.0 |

1/ Clarksdale, Miss.
2/ Vinson, Missouri

Table 14. (Continued)

| | D54-2213 | D54-3310 | D54-3340 | D54-3350 | D54-3362 | D54-3416 |
|---|---|---|---|---|---|---|
| Seed Yield - 1957 | | | | | | |
| East Coast | 38.4 | 35.9- | 35.1- | 36.5- | 38.6 | 37.3 |
| Upper & Central South | 16.2 | 18.1 | 18.0 | 18.3 | 20.3 | 18.7 |
| Delta | 32.7 | 30.5 | 29.1- | 32.2 | 33.3 | 30.6 |
| West | 35.6+ | 32.0 | 28.8 | 34.0 | 34.3 | 36.1+ |
| - 1956-57 | | | | | | |
| East Coast | | | | | | |
| Upper & Central South | | | | | | |
| Delta | | | | | | |
| West | | | | | | |
| - 1955-57 | | | | | | |
| East Coast | | | | | | |
| Upper & Central South | | | | | | |
| Delta | | | | | | |
| West | | | | | | |
| Oil Content - 1957 | 21.7 | 21.3 | 20.3- | 22.4+ | 21.8 | 21.9 |
| - 1955-57 | | | | | | |
| Protein Content - 1957 | 38.9 | 39.0 | 41.3+ | 37.2 | 38.2 | 38.4 |
| - 1955-57 | | | | | | |
| Seed Size | 14.2- | 13.8- | 14.1- | 13.3- | 13.2- | 14.7 |
| Maturity Index | +2 | -1 | 0 | +2 | -1 | +2 |
| Height | 31 | 27 | 27 | 30 | 27 | 30 |
| Seed Holding | 1.5 | 1.5 | 1.5 | 1.0 | 1.0 | 1.0 |
| Bacterial Pustule | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Bacterial Blight | 2.3 | 3.7 | 4.0 | 1.0 | 1.0 | 1.3 |
| Downy Mildew 1/ | 3.0 | 4.3 | 1.0 | 2.3 | 1.0 | 3.0 |
| Downy Mildew 2/ | 3.0 | 4.0 | 3.0 | 4.0 | 3.0 | 3.0 |

Table 15. Seed yield, in bushels per acre, for the strains in Uniform Group V, 1957

| Location | Dorman | Dortchsoy 67 | D53-492 | D53-526 | D53-.142 | D53-.697 | D54-2213 |
|---|---|---|---|---|---|---|---|
| | | | East Coast | | | | |
| Georgetown, Del.[2] | 7.2 | 7.8 | 8.4 | 8.4 | 7.2 | 9.8 | 3.9 |
| Linkwood, Md. | 37.2 | 37.0 | 35.3 | 39.0 | 41.1 | 32.6 | 40.9 |
| Warsaw, Va. | 25.8 | 27.0 | 28.5 | 27.9 | 27.7 | 26.7 | 26.3 |
| Painter, Va. | 50.6 | 50.9 | 44.7 | 49.6 | 47.1 | 47.5 | 44.9 |
| Petersburg, Va. | 51.5 | 49.3 | 48.7 | 49.2 | 49.2 | 50.0 | 49.3 |
| Norfolk, Va. | 28.7 | 28.5 | 28.3 | 22.3 | 26.1 | 24.9 | 27.6 |
| Holland, Va. | 43.9 | 43.8 | 42.9 | 44.0 | 42.9 | 47.7 | 45.0 |
| Plymouth, N. C. | 35.8 | 37.2 | 38.1 | 42.5+ | 37.8 | 35.4 | 34.5 |
| Mean | 39.1 | 39.1 | 38.1 | 39.2 | 38.9 | 37.8 | 38.4 |
| | | | Upper and Central South | | | | |
| Lexington, Ky. | 18.8 | 22.0 | 23.4+ | 19.1 | 20.9 | 23.1+ | 16.6 |
| Belle Mina, Ala. | 19.5 | 22.3 | 18.9 | 18.2 | 20.4 | 20.0 | 17.3 |
| Athens, Ga. | 9.4 | 9.1 | 11.3 | 10.0 | 9.8 | 9.3 | 9.1 |
| State College, Miss. | 24.1 | 33.3+ | 26.2 | 20.8 | 26.2 | 31.5+ | 21.7 |
| Mean | 17.9 | 21.8+ | 19.9 | 17.0 | 19.3 | 21.0+ | 16.2 |
| | | | Delta | | | | |
| Henderson, Ky. | 40.5 | 39.8 | 40.5 | 43.3 | 39.0 | 36.5 | 38.6 |
| Vinson, Mo.[1] | 34.1 | 38.6 | 32.5 | 39.1 | 39.1 | 36.4 | 35.6 |
| Bragg City, Mo.[1] | 29.0 | 29.1 | 28.8 | 29.8 | 27.6 | 27.4 | 30.8 |
| Wilson, Ark.[2] | 28.7 | 30.9 | 33.3 | 32.7 | 26.5 | 31.4 | 28.7 |
| Marianna, Ark. | 43.0 | 47.7 | 40.1 | 43.5 | 40.6 | 51.2+ | 42.5 |
| Coahoma, Miss. | 33.5 | 36.7 | 31.0 | 37.1 | 21.8 | 35.4 | 26.6 |
| Clarksdale, Miss. | 22.5 | 23.5 | 25.2 | 24.4 | 23.4 | 23.2 | 22.3 |
| Stoneville(A), Miss. | 23.7 | 24.1 | 26.2 | 28.1 | 29.7 | 41.0 | 30.3 |
| Mean | 32.9 | 35.1 | 32.6 | 35.9 | 32.3 | 37.2+ | 32.7 |
| | | | West | | | | |
| Stuttgart, Ark. | 29.9 | 32.9 | 30.9 | 34.4 | 31.9 | 33.3 | 32.7 |
| Curtis, La. | 24.9 | 46.1+ | 35.0+ | 33.9+ | 39.0+ | 41.5+ | 46.3+ |
| Fayetteville, Ark. | 26.8 | 29.9 | 23.2 | 29.3 | 32.0 | 33.3 | 30.9 |
| Bixby, Okla. | 41.0 | 41.2 | 43.4 | 38.4 | 36.6 | 45.1 | 44.2 |
| Perkins, Okla. | 27.2 | 28.8 | 32.5 | 31.2 | 28.2 | 34.9 | 27.7 |
| Plainview, Texas | 37.5 | 32.7 | 36.2 | 40.7 | 40.4 | 42.4 | 32.0 |
| Mean | 31.2 | 35.1 | 33.6 | 34.6 | 34.7 | 38.4+ | 35.6+ |

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

Table 15. (Continued)

| Location | D54-3310 | D54-3340 | D54-3350 | D54-3362 | D54-3416 | L.S.D. (.05) | C.V. |
|---|---|---|---|---|---|---|---|
| | | | East Coast | | | | |
| Georgetown, Del.2/ | 6.5 | 7.9 | 7.9 | 6.3 | 6.7 | - | - |
| Linkwood, Md. | 35.9 | 35.2 | 38.2 | 38.1 | 38.4 | 6.8 | 11% |
| Warsaw, Va. | 27.1 | 25.3 | 27.7 | 25.8 | 25.7 | N.S. | 8% |
| Painter, Va. | 43.5 | 45.1 | 43.6 | 46.5 | 43.2 | N.S. | 7% |
| Petersburg, Va. | 47.8 | 42.8- | 47.5- | 47.2- | 50.4 | 3.8 | 5% |
| Norfolk, Va. | 25.5 | 19.0 | 24.4 | 26.8 | 21.2 | N.S. | 18% |
| Holland, Va. | 38.6 | 43.5 | 39.3 | 44.5 | 46.2 | N.S. | 9% |
| Plymouth, N. C. | 32.5 | 35.1 | 34.6 | 41.2+ | 36.3 | 3.8 | 6% |
| Mean | 35.9- | 35.1- | 36.5- | 38.6 | 37.3 | 2.4 | |
| | | | Upper and Central South | | | | |
| Lexington, Ky. | 20.5 | 22.3+ | 21.4 | 22.6+ | 20.5 | 3.4 | 10% |
| Belle Mina, Ala. | 19.6 | 19.1 | 19.2 | 21.3 | 18.7 | N.S. | 9% |
| Athens, Ga. | 9.4 | 8.6 | 7.9 | 12.0 | 8.8 | N.S. | 22% |
| State College, Miss. | 23.0 | 22.0 | 24.8 | 25.1 | 26.6 | 7.2 | 17% |
| Mean | 18.1 | 18.0 | 18.3 | 20.3 | 18.7 | 2.8 | |
| | | | Delta | | | | |
| Henderson, Ky. | 34.0 | 39.0 | 37.5 | 40.8 | 35.2 | 4.7 | 7% |
| Vinson, Mo.1/ | 36.4 | 34.5 | 34.7 | 37.0 | 31.9 | N.S. | 9% |
| Bragg City, Mo.1/ | 26.3 | 22.5 | 21.8 | 20.9 | 20.8 | N.S. | 11% |
| Wilson, Ark.2/ | 25.3 | 21.6 | 29.2 | 28.8 | 24.0 | - | - |
| Marianna, Ark. | 38.7 | 39.9 | 41.2 | 39.3 | 43.4 | 7.1 | 10% |
| Coahoma, Miss. | 22.9 | 23.2 | 27.4 | 31.7 | 26.3 | 4.1 | 8% |
| Clarksdale, Miss. | 17.8 | 12.7 | 20.5 | 22.9 | 19.4 | 4.3 | 12% |
| Stoneville(A), Miss. | 33.8 | 25.5 | 31.7 | 28.2 | 27.4 | 7.0 | 14% |
| Mean | 30.5 | 29.1- | 32.2 | 33.3 | 30.6 | 3.5 | |
| | | | West | | | | |
| Stuttgart, Ark. | 29.3 | 25.3 | 29.2 | 29.3 | 34.5 | N.S. | 12% |
| Curtis, La. | 32.4+ | 31.8+ | 38.0+ | 39.6+ | 45.6+ | 6.7 | 11% |
| Fayetteville, Ark. | 27.7 | 28.5 | 31.0 | 32.0 | 33.0 | N.S. | 15% |
| Bixby, Okla. | 36.9 | 31.0- | 37.7 | 38.9 | 42.6 | 6.6 | 10% |
| Perkins, Okla. | 28.7 | 26.3 | 31.5 | 29.9 | 26.0 | 10.8 | 22% |
| Plainview, Texas | 36.2 | 30.2 | 36.5 | 36.5 | 34.8 | N.S. | 13% |
| Mean | 32.0 | 28.8 | 34.0 | 34.3 | 36.1+ | 4.0 | |

1/ Single-row plots.
2/ Not in combined analysis.

Table 16. Chemical composition and seed size for the strains in Uniform Group V, 1957

| Location | Dorman | Dortchsoy 67 | D53-492 | D53-526 | D53-142 | D53-697 |
|---|---|---|---|---|---|---|
| | | | Oil Percentage | | | |
| Linkwood, Md. | 21.5 | 22.4 | 20.6 | 22.0 | 22.1 | 22.0 |
| Warsaw, Va. | 21.7 | 22.3 | 21.4 | 21.4 | 21.8 | 21.0 |
| Plymouth, N. C. | 22.0 | 22.3 | 20.7 | 22.5 | 22.2 | 22.0 |
| Henderson, Ky. | 19.3 | 19.7 | 19.0 | 20.0 | 19.3 | 20.3 |
| Marianna, Ark. | 22.7 | 22.4 | 20.1 | 22.0 | 21.8 | 21.9 |
| Coahoma, Miss. | 22.6 | 20.8 | 20.1 | 21.2 | 21.7 | 20.6 |
| Stuttgart, Ark. | 22.0 | 21.2 | 20.2 | 21.1 | 21.2 | 20.3 |
| Bixby, Okla. | 22.8 | 22.7 | 22.0 | 23.0 | 21.2 | 21.9 |
| Mean | 21.8 | 21.8 | 20.5- | 21.7 | 21.4 | 21.3 |
| | | | Protein Percentage | | | |
| Linkwood, Md. | 38.7 | 38.6 | 41.1 | 38.3 | 37.6 | 40.6 |
| Warsaw, Va. | 36.7 | 36.5 | 36.8 | 37.2 | 35.1 | 38.7 |
| Plymouth, N. C. | 40.1 | 40.1 | 39.6 | 37.3 | 39.0 | 40.0 |
| Henderson, Ky. | 40.9 | 41.2 | 43.0 | 41.2 | 42.3 | 40.8 |
| Marianna, Ark. | 38.0 | 38.7 | 39.9 | 38.1 | 38.1 | 39.4 |
| Coahoma, Miss. | 36.0 | 36.3 | 38.2 | 36.8 | 40.0 | 36.0 |
| Stuttgart, Ark. | 39.5 | 41.0 | 36.8 | 40.2 | 40.7 | 39.2 |
| Bixby, Okla. | 35.4 | 35.7 | 37.1 | 35.5 | 39.0 | 37.9 |
| Mean | 38.2 | 38.5 | 39.1+ | 38.1 | 39.0 | 39.1 |
| | | | Grams Per 100 Seeds | | | |
| Linkwood, Md. | 19.2 | 15.2 | 14.8 | 15.1 | 15.4 | 15.6 |
| Warsaw, Va. | 15.5 | 13.5 | 13.6 | 13.4 | 14.6 | 14.1 |
| Plymouth, N. C. | 17.2 | 16.7 | 13.4 | 14.4 | 15.3 | 15.4 |
| Henderson, Ky. | 13.5 | 12.8 | 13.7 | 13.3 | 14.8 | 13.3 |
| Marianna, Ark. | 14.7 | 13.0 | 14.0 | 14.3 | 16.0 | 15.3 |
| Coahoma, Miss. | 13.0 | 11.5 | 12.8 | 12.2 | 13.9 | 12.3 |
| Stuttgart, Ark. | 14.0 | 12.0 | 13.3 | 12.3 | 14.0 | 13.3 |
| Bixby, Okla. | 14.3 | 13.2 | 13.4 | 12.8 | 14.5 | 15.0 |
| Mean | 15.2 | 13.5- | 13.6- | 13.5- | 14.8 | 14.3- |

Table 16. (Continued)

| Location | D54-2213 | D54-3310 | D54-3340 | D54-3350 | D54-3362 | D54-3416 | L.S.D. (.05) |
|---|---|---|---|---|---|---|---|
| | | | Oil Percentage | | | | |
| Linkwood, Md. | 21.8 | 22.6 | 20.8 | 23.0 | 23.0 | 22.1 | |
| Warsaw, Va. | 21.9 | 20.9 | 21.1 | 22.1 | 21.6 | 22.4 | |
| Plymouth, N. C. | 22.2 | 22.8 | 21.8 | 23.0 | 22.3 | 22.5 | |
| Henderson, Ky. | 20.3 | 19.2 | 18.2 | 21.1 | 20.8 | 19.6 | |
| Marianna, Ark. | 22.2 | 21.5 | 20.6 | 21.4 | 22.1 | 22.8 | |
| Coahoma, Miss. | 21.6 | 21.8 | 21.1 | 22.8 | 21.0 | 21.7 | |
| Stuttgart, Ark. | 21.5 | 20.9 | 19.4 | 22.5 | 21.0 | 21.9 | |
| Bixby, Okla. | 21.8 | 21.0 | 19.6 | 22.9 | 22.2 | 21.8 | |
| Mean | 21.7 | 21.3 | 20.3- | 22.4+ | 21.8 | 21.9 | 0.5 |
| | | | Protein Percentage | | | | |
| Linkwood, Md. | 40.6 | 39.7 | 41.5 | 38.0 | 37.1 | 39.4 | |
| Warsaw, Va. | 38.5 | 37.8 | 39.7 | 34.7 | 37.1 | 33.9 | |
| Plymouth, N. C. | 38.1 | 39.4 | 40.0 | 37.5 | 38.3 | 38.8 | |
| Henderson, Ky. | 41.9 | 42.6 | 45.6 | 39.3 | 40.0 | 42.4 | |
| Marianna, Ark. | 38.5 | 38.2 | 40.5 | 38.6 | 38.6 | 38.0 | |
| Coahoma, Miss. | 34.4 | 37.5 | 38.2 | 35.4 | 35.1 | 34.8 | |
| Stuttgart, Ark. | 41.1 | 37.7 | 43.3 | 38.1 | 40.2 | 40.9 | |
| Bixby, Okla. | 38.1 | 39.4 | 40.8 | 35.8 | 38.8 | 39.2 | |
| Mean | 38.9 | 39.0 | 41.3+ | 37.2 | 38.2 | 38.4 | 1.3 |
| | | | Grams Per 100 Seeds | | | | |
| Linkwood, Md. | 16.5 | 15.9 | 16.6 | 15.2 | 15.4 | 16.2 | |
| Warsaw, Va. | 14.0 | 13.6 | 15.0 | 12.6 | 12.9 | 14.2 | |
| Plymouth, N. C. | 13.6 | 13.6 | 13.9 | 13.3 | 14.0 | 14.1 | |
| Henderson, Ky. | 14.4 | 13.2 | 15.0 | 12.3 | 13.5 | 14.4 | |
| Marianna, Ark. | 14.7 | 15.0 | 15.3 | 13.3 | 13.3 | 16.0 | |
| Coahoma, Miss. | 11.8 | 12.6 | 12.6 | 13.3 | 11.8 | 12.2 | |
| Stuttgart, Ark. | 13.0 | 13.0 | 12.7 | 12.3 | 11.7 | 14.3 | |
| Bixby, Okla. | 15.2 | 13.4 | 11.7 | 13.7 | 12.6 | 15.8 | |
| Mean | 14.2- | 13.8- | 14.1- | 13.3- | 13.2- | 14.7 | 0.8 |

Table 17. Relative maturity data, days earlier (-) or later (+) than Dorman, for the strains in Uniform Group V, 1957

| Location | Date Planted | Dorman Matured | Dortch-soy 67 | D53-492 | D53-526 | D53-142 |
|---|---|---|---|---|---|---|
| | | East Coast | | | | |
| Linkwood, Md. | 5-16 | 10-12 | +1 | -3 | -3 | +2 |
| Warsaw, Va. | 6-10 | 10-31 | -4 | -2 | -3 | -5 |
| Petersburg, Va. | 5-16 | 10-16 | 0 | -3 | -3 | +5 |
| Holland, Va. | 5-23 | 10-19 | 0 | -7 | -2 | -2 |
| Plymouth, N. C. | 5-14 | 10-5 | +3 | +1 | -1 | 0 |
| Mean | | 10-17 | 0 | -3 | -2 | +1 |
| | | Upper and Central South | | | | |
| Lexington, Ky. | 5-29 | 10-24 | 0 | 0 | -4 | +5 |
| Belle Mina, Ala. | 5-29 | 10-10 | +8 | +10 | 0 | +2 |
| Mean | | 10-17 | +4 | +5 | -2 | +4 |
| | | Delta | | | | |
| Henderson, Ky. | 6-4 | 10-23 | +8 | +5 | +3 | -1 |
| Vinson, Mo. | 6-20 | 10-18 | +3 | +1 | +1 | +3 |
| Wilson, Ark. | 5-9 | 10-6 | +4 | +2 | -7 | +4 |
| Marianna, Ark. | 5-17 | 9-25 | +8 | +7 | +6 | +8 |
| Coahoma, Miss. | 5-10 | 9-24 | +4 | 0 | -1 | -1 |
| Clarksdale, Miss. | 5-10 | 9-7 | +6 | 0 | 0 | 0 |
| Stoneville(A), Miss. | 5-7 | 9-12 | +3 | -1 | 0 | -2 |
| Mean | | 9-29 | +5 | +2 | 0 | +2 |
| | | West | | | | |
| Curtis, La. | 5-15 | 9-11 | +16 | +7 | +7 | +14 |
| Fayetteville, Ark. | 5-29 | 10-5 | +2 | 0 | +1 | +1 |
| Bixby, Okla. | 5-29 | 10-3 | +2 | -3 | -1 | 0 |
| Perkins, Okla. | 5-27 | 10-9 | +2 | +1 | 0 | +2 |
| Plainview, Texas | 6-11 | 10-14 | +1 | +4 | +2 | +4 |
| Mean | | 10-2 | +5 | +2 | +2 | +4 |

Table 17. (Continued)

| Location | D53-697 | D54-2213 | D54-3310 | D54-3340 | D54-3350 | D54-3362 | D54-3416 |
|---|---|---|---|---|---|---|---|
| | | | East Coast | | | | |
| Linkwood, Md. | +1 | -1 | +1 | -2 | +1 | -3 | +2 |
| Warsaw, Va. | -2 | -2 | -5 | -5 | -1 | -5 | -4 |
| Petersburg, Va. | +6 | +1 | +2 | +1 | -3 | -8 | +2 |
| Holland, Va. | -5 | +1 | -2 | -2 | -2 | -8 | -1 |
| Plymouth, N. C. | +3 | 0 | -3 | -2 | +1 | -3 | +2 |
| Mean | +1 | 0 | +1 | -2 | -1 | -5 | +1 |
| | | | Upper and Central South | | | | |
| Lexington, Ky. | +2 | -6 | -3 | -7 | +1 | -3 | -4 |
| Belle Mina, Ala. | +2 | +4 | -1 | +2 | +1 | -2 | +5 |
| Mean | +2 | -1 | -2 | -3 | +1 | -3 | +1 |
| | | | Delta | | | | |
| Henderson, Ky. | +11 | +1 | 0 | +2 | +4 | +3 | +7 |
| Vinson, Mo. | +4 | +2 | +2 | 0 | +1 | 0 | +4 |
| Wilson, Ark. | +4 | +4 | +4 | +2 | +4 | +4 | +2 |
| Marianna, Ark. | +7 | +7 | +4 | +6 | +6 | +5 | +9 |
| Coahoma, Miss. | +4 | -1 | -1 | 0 | -1 | -1 | 0 |
| Clarksdale, Miss. | +6 | +2 | -2 | -2 | 0 | 0 | +2 |
| Stoneville(A), Miss. | +7 | +3 | -2 | +1 | +1 | 0 | +1 |
| Mean | +6 | +3 | +1 | +1 | +2 | +1 | +4 |
| | | | West | | | | |
| Curtis, La. | +7 | +9 | +14 | +14 | +16 | 0 | +7 |
| Fayetteville, Ark. | +3 | +3 | +2 | +1 | 0 | +2 | +1 |
| Bixby, Okla. | +5 | 0 | -1 | -4 | -1 | -4 | +2 |
| Perkins, Okla. | +1 | +2 | +2 | 0 | +1 | 0 | +3 |
| Plainview, Texas | +4 | -1 | +4 | -1 | +3 | +3 | +4 |
| Mean | +4 | +3 | +4 | +2 | +4 | 0 | +3 |

Table 18. Height data for the strains in Uniform Group V, 1957

| Location | Dorman | Dortchsoy 67 | D53-492 | D53-526 | D53-142 | D53-697 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 37 | 33 | 32 | 29 | 31 | 36 |
| Warsaw, Va. | 31 | 28 | 29 | 28 | 26 | 29 |
| Painter, Va. | 33 | 31 | 27 | 26 | 25 | 31 |
| Petersburg, Va. | 33 | 34 | 26 | 24 | 29 | 36 |
| Norfolk, Va. | 30 | 23 | 28 | 23 | 23 | 29 |
| Holland, Va. | 43 | 38 | 33 | 33 | 28 | 43 |
| Plymouth, N. C. | 40 | 39 | 34 | 35 | 29 | 39 |
| Mean | 31 | 32 | 30 | 28 | 27 | 35 |
| | | | Upper and Central South | | | |
| Lexington, Ky. | 43 | 34 | 35 | 34 | 35 | 35 |
| Belle Mina, Ala. | 38 | 30 | 32 | 31 | 26 | 38 |
| Athens, Ga. | 22 | 15 | 18 | 17 | 15 | 17 |
| Mean | 34 | 26 | 28 | 27 | 25 | 30 |
| | | | Delta | | | |
| Henderson, Ky. | 44 | 42 | 38 | 40 | 42 | 44 |
| Vinson, Mo. | 34 | 36 | 33 | 37 | 35 | 43 |
| Bragg City, Mo. | 27 | 26 | 25 | 23 | 22 | 28 |
| Wilson, Ark. | 23 | 21 | 19 | 17 | 16 | 21 |
| Marianna, Ark. | 35 | 35 | 30 | 29 | 25 | 38 |
| Coahoma, Miss. | 23 | 19 | 19 | 23 | 15 | 24 |
| Clarksdale, Miss. | 35 | 35 | 33 | 35 | 33 | 37 |
| Stoneville(A), Miss. | 33 | 32 | 30 | 34 | 29 | 37 |
| Mean | 32 | 31 | 28 | 30 | 27 | 34 |
| | | | West | | | |
| Stuttgart, Ark. | 28 | 24 | 22 | 22 | 21 | 28 |
| Curtis, La. | 18 | 23 | 20 | 21 | 16 | 22 |
| Fayetteville, Ark. | 35 | 26 | 26 | 27 | 27 | 33 |
| Bixby, Okla. | 32 | 36 | 28 | 26 | 31 | 35 |
| Perkins, Okla. | 20 | 21 | 17 | 22 | 19 | 25 |
| Plainview, Texas | 27 | 30 | 25 | 27 | 23 | 29 |
| Mean | 27 | 27 | 23 | 24 | 23 | 29 |

Table 18. (Continued)

| Location | D54-2213 | D54-3310 | D54-3340 | D54-3350 | D54-3362 | D54-3416 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 36 | 35 | 31 | 36 | 30 | 36 |
| Warsaw, Va. | 29 | 27 | 26 | 30 | 27 | 27 |
| Painter, Va. | 34 | 27 | 32 | 29 | 25 | 30 |
| Petersburg, Va. | 35 | 29 | 26 | 33 | 24 | 34 |
| Norfolk, Va. | 31 | 31 | 21 | 31 | 27 | 29 |
| Holland, Va. | 40 | 33 | 34 | 40 | 31 | 37 |
| Plymouth, N. C. | 37 | 30 | 32 | 39 | 34 | 37 |
| Mean | 35 | 30 | 29 | 34 | 28 | 33 |
| | | | Upper and Central South | | | |
| Lexington, Ky. | 40 | 38 | 35 | 39 | 35 | 38 |
| Belle Mina, Ala. | 38 | 26 | 30 | 34 | 31 | 38 |
| Athens, Ga. | 18 | 16 | 17 | 19 | 19 | 17 |
| Mean | 32 | 27 | 27 | 31 | 28 | 31 |
| | | | Delta | | | |
| Henderson, Ky. | 48 | 42 | 39 | 41 | 38 | 47 |
| Vinson, Mo. | 36 | 36 | 40 | 37 | 37 | 35 |
| Bragg City, Mo. | 28 | 23 | 23 | 25 | 24 | 26 |
| Wilson, Ark. | 16 | 17 | 19 | 19 | 17 | 16 |
| Marianna, Ark. | 32 | 27 | 28 | 33 | 30 | 32 |
| Coahoma, Miss. | 18 | 15 | 17 | 21 | 21 | 16 |
| Clarksdale, Miss. | 33 | 29 | 34 | 33 | 35 | 31 |
| Stoneville(A), Miss. | 34 | 31 | 31 | 35 | 33 | 30 |
| Mean | 31 | 28 | 29 | 31 | 30 | 29 |
| | | | West | | | |
| Stuttgart, Ark. | 29 | 23 | 23 | 22 | 22 | 24 |
| Curtis, La. | 20 | 16 | 17 | 21 | 19 | 19 |
| Fayetteville, Ark. | 33 | 25 | 28 | 30 | 26 | 25 |
| Bixby, Okla. | 36 | 34 | 30 | 33 | 27 | 35 |
| Perkins, Okla. | 25 | 22 | 18 | 22 | 18 | 25 |
| Plainview, Texas | 27 | 22 | 23 | 29 | 23 | 24 |
| Mean | 28 | 24 | 23 | 26 | 22 | 25 |

Table 19. Lodging scores for the strains in Uniform Group V, 1957

| Location | Dorman | Dortch-soy 67 | D53-492 | D53-526 | D53-142 | D53-697 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 3.0 |
| Warsaw, Va. | 1.7 | 1.0 | 1.3 | 1.2 | 1.0 | 1.0 |
| Painter, Va. | 4.0 | 4.0 | 2.5 | 3.5 | 2.0 | 4.0 |
| Petersburg, Va. | 2.0 | 2.0 | 1.0 | 2.0 | 1.0 | 2.0 |
| Norfolk, Va. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Holland, Va. | 4.0 | 4.0 | 3.0 | 2.7 | 1.5 | 3.0 |
| Plymouth, N. C. | 3.0 | 2.0 | 3.0 | 2.0 | 2.0 | 4.0 |
| | | | Upper and Central South | | | |
| Lexington, Ky. | 4.0 | 2.7 | 2.7 | 3.0 | 2.0 | 2.7 |
| Belle Mina, Ala. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.7 |
| Athens, Ga. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | | | Delta | | | |
| Henderson, Ky. | 2.7 | 3.7 | 2.3 | 2.3 | 1.0 | 4.0 |
| Vinson, Mo. | 2.2 | 2.3 | 2.3 | 2.2 | 1.5 | 1.7 |
| Bragg City, Mo. | 1.5 | 1.3 | 1.3 | 1.0 | 1.0 | 1.0 |
| Wilson, Ark. | 2.0 | 1.7 | 1.0 | 1.0 | 1.0 | 1.0 |
| Marianna, Ark. | 4.0 | 4.7 | 1.0 | 2.0 | 1.0 | 3.3 |
| Coahoma, Miss. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Clarksdale, Miss. | 2.0 | 3.0 | 2.3 | 1.7 | 1.7 | 2.0 |
| Stoneville(A), Miss. | 2.3 | 2.7 | 2.0 | 2.0 | 2.0 | 2.3 |
| | | | West | | | |
| Stuttgart, Ark. | 2.0 | 2.3 | 1.7 | 2.0 | 1.0 | 2.0 |
| Curtis, La. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Fayetteville, Ark. | 3.3 | 2.0 | 1.0 | 1.7 | 1.3 | 2.3 |
| Bixby, Okla. | 2.3 | 3.7 | 1.0 | 1.0 | 1.3 | 2.7 |
| Perkins, Okla. | 1.3 | 1.0 | 1.2 | 1.0 | 1.0 | 1.0 |
| Plainview, Texas | 2.3 | 1.3 | 1.3 | 1.3 | 1.0 | 2.0 |

Table 19. (Continued)

| Location | D54-2213 | D54-3310 | D54-3340 | D54-3350 | D54-3362 | D54-3416 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 | 3.0 |
| Warsaw, Va. | 1.5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.2 |
| Painter, Va. | 4.0 | 2.5 | 3.5 | 3.0 | 3.0 | 3.0 |
| Petersburg, Va. | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 |
| Norfolk, Va. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Holland, Va. | 3.2 | 2.5 | 3.0 | 3.3 | 3.2 | 2.5 |
| Plymouth, N. C. | 3.0 | 2.0 | 2.0 | 3.0 | 2.0 | 3.0 |
| | | | Upper and Central South | | | |
| Lexington, Ky. | 2.7 | 2.0 | 2.0 | 3.0 | 2.7 | 2.3 |
| Belle Mina, Ala. | 1.0 | 1.0 | 1.0 | 1.0 | 1.3 | 1.3 |
| Athens, Ga. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | | | Delta | | | |
| Henderson, Ky. | 3.3 | 1.3 | 2.3 | 2.0 | 2.0 | 4.7 |
| Vinson, Mo. | 2.7 | 1.5 | 2.0 | 2.0 | 2.2 | 2.2 |
| Bragg, City, Mo. | 1.5 | 1.0 | 1.0 | 1.0 | 1.3 | 1.5 |
| Wilson, Ark. | 1.7 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Marianna, Ark. | 2.7 | 1.3 | 1.0 | 1.3 | 1.3 | 2.7 |
| Coahoma, Miss. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Clarksdale, Miss. | 2.0 | 1.3 | 1.7 | 2.0 | 1.7 | 2.0 |
| Stoneville(A), Miss. | 3.0 | 1.7 | 3.0 | 2.3 | 1.7 | 2.3 |
| | | | West | | | |
| Stuttgart, Ark. | 2.0 | 2.0 | 1.7 | 2.0 | 1.7 | 1.7 |
| Curtis, La. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Fayetteville, Ark. | 2.3 | 1.3 | 1.7 | 1.3 | 2.0 | 1.3 |
| Bixby, Okla. | 3.0 | 1.5 | 1.0 | 1.0 | 1.5 | 2.0 |
| Perkins, Okla. | 1.5 | 1.0 | 1.0 | 1.3 | 1.0 | 1.3 |
| Plainview, Texas | 2.3 | 1.3 | 1.0 | 2.0 | 1.6 | 2.3 |

Table 20. Seed quality scores for the strains in Uniform Group V, 1957

| Location | Dorman | Dortch-soy 67 | D53-492 | D53-526 | D53-142 | D53-697 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Georgetown, Del. | 1.7 | 1.3 | 1.3 | 1.0 | 1.0 | 1.0 |
| Linkwood, Md. | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Warsaw, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Painter, Va. | 1.5 | 1.0 | 1.5 | 1.0 | 1.0 | 1.0 |
| Petersburg, Va. | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Holland, Va. | 1.5 | 1.0 | 1.3 | 1.0 | 1.7 | 1.3 |
| Plymouth, N. C. | 2.5 | 2.0 | 1.5 | 1.5 | 1.5 | 2.5 |
| | | | Upper and Central South | | | |
| Lexington, Ky. | 1.0 | 2.0 | 1.0 | 2.0 | 1.0 | 2.0 |
| | | | Delta | | | |
| Henderson, Ky. | 1.0 | 3.0 | 2.0 | 2.0 | 2.0 | 3.0 |
| Vinson, Mo. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Bragg City, Mo. | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 2.0 |
| Wilson, Ark. | 2.0 | 2.0 | 1.7 | 1.7 | 2.0 | 1.3 |
| Marianna, Ark. | 2.7 | 1.7 | 2.7 | 2.0 | 4.0 | 2.0 |
| Coahoma, Miss. | 2.0 | 2.0 | 2.0 | 2.0 | 2.7 | 2.0 |
| Clarksdale, Miss. | 2.3 | 3.0 | 2.3 | 2.0 | 3.0 | 2.0 |
| Stoneville(A), Miss. | 3.3 | 3.3 | 3.3 | 3.0 | 3.7 | 2.0 |
| | | | West | | | |
| Stuttgart, Ark. | 1.3 | 1.0 | 1.7 | 2.0 | 2.7 | 2.0 |
| Curtis, La. | 3.0 | 2.0 | 3.0 | 3.0 | 4.0 | 2.0 |
| Fayetteville, Ark. | 2.7 | 1.7 | 2.0 | 2.0 | 3.0 | 2.0 |
| Bixby, Okla. | 1.3 | 1.7 | 1.0 | 1.7 | 2.3 | 1.3 |
| Perkins, Okla. | 1.0 | 1.3 | 1.0 | 1.0 | 2.0 | 1.0 |

Table 20. (Continued)

| Location | D54-2213 | D54-3310 | D54-3340 | D54-3350 | D54-3362 | D54-3416 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Georgetown, Del. | 1.7 | 1.3 | 1.0 | 1.3 | 1.3 | 2.0 |
| Linkwood, Md. | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 |
| Warsaw, Va. | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.0 |
| Painter, Va. | 1.0 | 1.5 | 2.0 | 2.5 | 1.5 | 1.0 |
| Petersburg, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Holland, Va. | 1.7 | 2.0 | 1.0 | 2.3 | 2.3 | 2.3 |
| Plymouth, N. C. | 2.0 | 1.5 | 1.0 | 2.0 | 1.0 | 2.0 |
| | | | Upper and Central South | | | |
| Lexington, Ky. | 2.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 |
| | | | Delta | | | |
| Henderson, Ky. | 2.0 | 3.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Vinson, Mo. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Bragg City, Mo. | 2.0 | 2.0 | 2.0 | 1.0 | 2.0 | 1.0 |
| Wilson, Ark. | 3.0 | 3.0 | 2.0 | 3.5 | 2.0 | 3.0 |
| Marianna, Ark. | 3.0 | 3.3 | 1.7 | 3.3 | 1.7 | 3.0 |
| Coahoma, Miss. | 2.0 | 2.0 | 2.0 | 2.3 | 2.0 | 2.0 |
| Clarksdale, Miss. | 3.0 | 3.7 | 4.0 | 2.3 | 2.0 | 2.0 |
| Stoneville(A), Miss. | 2.7 | 3.3 | 3.7 | 3.0 | 3.0 | 3.0 |
| | | | West | | | |
| Stuttgart, Ark. | 3.3 | 2.3 | 3.7 | 2.7 | 2.3 | 2.7 |
| Curtis, La. | 2.0 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 |
| Fayetteville, Ark. | 2.3 | 2.0 | 2.3 | 2.0 | 2.3 | 1.7 |
| Bixby, Okla. | 2.0 | 2.0 | 1.3 | 1.7 | 1.7 | 2.0 |
| Perkins, Okla. | 1.3 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |

## PRELIMINARY GROUP V

### 1957

Eight preliminary Group V nurseries were planted. Incomplete stands were obtained at Stoneville, Wilson, and Bixby. An excellent nursery was grown at Plainview, Texas, but results were not available for including in the regional summary. A single plot of each strain was grown at Malden and Vinson, Missouri, and results are treated as one location. Data from the various nurseries are summarized in tables 22 through 27.

Dorman and D53-526 were grown as check strains along with 34 new experimental lines. Insufficient seed was available for the lines S4-7273, S4-7302, S4-7311, S4-7312, and S4-7412 to permit these strains being included in all plantings. These lines were not included at Linkwood.

Nineteen of the experimental lines were resistant to bacterial pustule. Thirteen of the lines resistant to bacterial pustule also received low scores for purple stain under conditions where two lines had over 50 percent of their seed showing purple stain.

D53-526 yielded significantly more than Dorman. Three other lines yielded significantly more than Dorman and one line yielded significantly less.

D56-1 and D56-2 are both bulk $F_3$ populations from the cross D53-500 x D53-492. D56-1 is a composite of short, determinate $F_2$ plants, while D56-2 is a composite of tall, indeterminate $F_2$ plants. This composite would be expected to include approximately 16 percent determinate types. The composite of determinate types averaged 2.6 bushels higher in yield than the indeterminate types.

Table 21. Parentage of the strains in Preliminary Group V, 1957

| | Strain | Parentage | Generation Composited |
|---|---|---|---|
| 1. | Dorman | Dunfield x Arksoy | $F_6$ |
| 2. | D53-526 | D632-15 x D49-2525 | $F_5$ |
| 3. | D53-352 | D632-15 x D49-2525 | $F_5$ |
| 4. | D53-8109 | Dorman x N48-1515 | $F_5$ |
| 5. | D53-8121 | Dorman x N48-1515 | $F_5$ |
| 6. | D53-8144 | Dorman x N48-1515 | $F_5$ |
| 7. | D53-8155 | Dorman x N48-1515 | $F_5$ |
| 8. | D53-8182 | Dorman x N48-1515 | $F_5$ |
| 9. | D53-8188 | Dorman x N48-1515 | $F_5$ |
| 10. | D53-8191 | Dorman x N48-1515 | $F_5$ |
| 11. | D53-8243 | Dorman x N48-1515 | $F_5$ |
| 12. | D53-8256 | Dorman x N48-1515 | $F_5$ |
| 13. | D53-8258 | Dorman | |
| 14. | D53-8260 | Dorman | |
| 15. | D54-3336 | D632-15 x D49-2525 | $F_7$ |
| 16. | D54-3337 | D632-15 x D49-2525 | $F_7$ |
| 17. | D54-3338 | D632-15 x D49-2525 | $F_7$ |
| 18. | D54-3344 | D632-15 x D49-2525 | $F_7$ |
| 19. | D54-3346 | D632-15 x D49-2525 | $F_7$ |
| 20. | D54-3351 | D632-15 x D49-2525 | $F_7$ |
| 21. | D54-3354 | D632-15 x D49-2525 | $F_7$ |
| 22. | D56-1 | D53-500 x D54-492 | $F_2$ (short) |
| 23. | D56-2 | D53-500 x D54-492 | $F_2$ (tall) |
| 24. | Md 55-49 | Wabash x Ogden | |
| 25. | Md 55-54 | Wabash x Ogden | |
| 26. | P52-1-2 | D49-2570 x L3-2010 | $F_5$ |
| 27. | P52-1-5 | D49-2570 x L3-2010 | $F_5$ |
| 28. | R54-26 | Dorman x D49-2477 | |
| 29. | R54-36 | Dorman x D49-2477 | |
| 30. | S4-7174 | Ogden x L6-1503 | |
| 31. | S4-7273 | Ogden x L6-5679 | |
| 32. | S4-7302 | Ogden x L6-5679 | |
| 33. | S4-7311 | Ogden x L6-5679 | |
| 34. | S4-7312 | Ogden x L6-5679 | |
| 35. | S4-7412 | Adams x Roanoke | |
| 36. | Blend 1 | D53-526 (50%) - D53-354(50%) | |

Table 22. General summary of the performance of strains in Preliminary Group V, 1957

| Strain | Seed Yield | Maturity Index | Height | Percent Oil | Percent Protein | Bacterial Pustule | Purple Stain |
|---|---|---|---|---|---|---|---|
| Dorman | 32.4 | 10-11 | 36 | 22.5 | 38.3 | 3.0 | 2.0 |
| D53-526 | 37.4+ | -1 | 40 | 22.1 | 38.0 | 1.0 | 1.0 |
| D53-352 | 30.3 | +1 | 26 | 22.1 | 37.7 | 1.0 | 2.0 |
| D53-8109 | 38.4 | +4 | 35 | 23.4 | 38.1 | 1.0 | 2.0 |
| D53-8121 | 35.8 | +1 | 33 | 21.1- | 37.2 | 1.0 | 1.0 |
| D53-8144 | 39.0+ | +4 | 35 | 23.2 | 37.1 | 1.0 | 3.0 |
| D53-8155 | 32.0 | +6 | 35 | 24.2 | 36.9 | 1.0 | 3.0 |
| D53-8182 | 32.4 | +1 | 33 | 23.0 | 37.8 | 3.0 | 2.0 |
| D53-8188 | 30.9 | +9 | 42 | 21.5 | 37.6 | 1.0 | 3.0 |
| D53-8191 | 31.5 | +2 | 31 | 23.0 | 38.7 | 1.0 | 2.0 |
| D53-8243 | 36.2+ | +4 | 37 | 22.9 | 37.0 | 1.0 | 3.0 |
| D53-8256 | 32.5 | +7 | 36 | 21.3 | 39.1 | 1.0 | 3.0 |
| D53-8258 | 35.0 | -1 | 35 | 22.0 | 37.7 | 3.0 | 1.0 |
| D53-8260 | 33.6 | -1 | 37 | 21.8 | 38.6 | 3.0 | 3.0 |
| D54-3336 | 32.2 | 0 | 35 | 21.2- | 39.9 | 1.0 | 1.0 |
| D54-3337 | 35.4 | +1 | 41 | 21.9 | 39.7 | 1.0 | 1.0 |
| D54-3338 | 30.5 | 0 | 34 | 22.7 | 38.1 | 1.0 | 1.0 |
| D54-3344 | 34.5 | +2 | 39 | 21.6 | 39.9 | 1.0 | 1.0 |
| D54-3346 | 32.9 | +2 | 43 | 20.5- | 39.6 | 1.0 | 1.0 |
| D54-3351 | 30.7 | -4 | 30 | 22.5 | 38.0 | 1.0 | 2.0 |
| D54-3354 | 33.8 | -1 | 32 | 21.0- | 39.3 | 1.0 | 1.0 |
| D56-1 | 34.9 | -2 | 35 | 22.0 | 38.4 | 1.0 | 1.0 |
| D56-2 | 32.3 | -1 | 40 | 21.8 | 37.8 | 1.0 | 1.0 |
| Md 55-49 | 35.7 | -1 | 39 | 23.7 | 37.1 | 3.0 | 3.0 |
| Md 55-54 | 36.8+ | 0 | 38 | 23.2 | 36.5 | 3.0 | 5.0 |
| P52-1-2 | 31.5 | 0 | 38 | 21.5 | 43.7 | 3.0 | 5.0 |
| P52-1-5 | 32.7 | -1 | 41 | 22.0 | 44.0 | 3.0 | 4.0 |
| R54-26 | 33.8 | -3 | 32 | 23.0 | 38.2 | 5.0 | 1.0 |
| R54-36 | 31.8 | -1 | 38 | 21.6 | 39.1 | 5.0 | 1.0 |
| S4-7174 | 34.6 | +5 | 31 | 24.0 | 37.6 | 3.0 | 4.0 |
| S4-7273 | 30.9 | +2 | 35 | 22.4 | 38.4 | 3.0 | 3.0 |
| S4-7302 | 32.9 | 0 | 33 | 22.2 | 38.4 | 3.0 | 1.0 |
| S4-7311 | 33.2 | +2 | 35 | 23.2 | 36.6 | 3.0 | 2.0 |
| S4-7312 | 36.0 | -1 | 36 | 22.7 | 36.9 | 3.0 | 2.0 |
| S4-7412 | 28.7- | +1 | 34 | 22.9 | 39.1 | 4.0 | 4.0 |
| Blend 1 | 30.2 | 0 | 31 | 22.3 | 37.0 | 1.0 | 2.0 |
| L.S.D. (.05) | 3.7 | | | 1.3 | 3.6 | | |

Table 23. Seed yield, in bushels per acre, for the strains in Preliminary Group V, 1957

| Strain | Linkwood, Md. | Warsaw, Va. | Plymouth, N. C. | Vinson, Mo. |
|---|---|---|---|---|
| Dorman | 37.6 | 30.2 | 31.4 | 30.7 |
| D53-526 | 40.8 | 32.3 | 38.8+ | 37.5 |
| D53-352 | 30.9 | 27.7 | 27.2 | 35.4 |
| D53-8109 | 39.8 | 30.9 | 30.0 | 32.9 |
| D53-8121 | 38.8 | 31.5 | 36.8+ | 36.1 |
| D53-8144 | 42.2 | 29.0 | 41.5+ | 43.3 |
| D53-8155 | 32.4 | 27.3 | 35.4 | 32.8 |
| D53-8182 | 33.3 | 31.4 | 31.9 | 32.9 |
| D53-8188 | 29.9 | 28.0 | 29.9 | 35.6 |
| D53-8191 | 35.0 | 29.3 | 30.0 | 31.6 |
| D53-8243 | 37.7 | 33.6 | 33.9 | 39.6 |
| D53-8256 | 34.2 | 31.1 | 30.8 | 33.8 |
| D53-8258 | 42.4 | 30.2 | 34.0 | 33.4 |
| D53-8260 | 37.4 | 30.2 | 30.8 | 36.0 |
| D54-3336 | 36.4 | 30.0 | 28.4 | 33.8 |
| D54-3337 | 39.5 | 29.1 | 32.0 | 41.1 |
| D54-3338 | 32.4 | 25.7 | 28.4 | 35.5 |
| D54-3344 | 38.2 | 29.0 | 31.3 | 39.3 |
| D54-3346 | 36.0 | 26.9 | 30.4 | 38.5 |
| D54-3351 | 33.4 | 25.4 | 33.4 | 30.7 |
| D54-3354 | 39.8 | 26.3 | 32.4 | 36.6 |
| D56-1 | 39.0 | 28.2 | 34.8 | 37.4 |
| D56-2 | 35.8 | 28.4 | 31.9 | 33.0 |
| Md 55-49 | 42.2 | 25.7 | 33.0 | 42.0 |
| Md 55-54 | 38.4 | 31.7 | 35.3 | 41.8 |
| P52-1-2 | 35.8 | 27.6 | 26.9 | 35.6 |
| P52-1-5 | 33.6 | 30.9 | 27.7 | 38.5 |
| R54-26 | 37.3 | 28.7 | 36.6+ | 32.4 |
| R54-36 | 35.8 | 26.4 | 31.3 | 33.5 |
| S4-7174 | 36.8 | 27.7 | 34.2 | 39.7 |
| S4-7273 | -- | 27.5 | 27.4 | 37.7 |
| S4-7302 | -- | 27.3 | 35.4 | 36.0 |
| S4-7311 | -- | 26.9 | 33.8 | 38.8 |
| S4-7312 | -- | 28.3 | 36.4 | 43.2 |
| S4-7412 | -- | 32.8 | 20.2- | 33.2 |
| Blend 1 | 30.6 | 27.9 | 31.6 | 30.5 |
| L.S.D. (.05) | 9.5 | N.S. | 5.1 | N.S. |
| C.V. | 13% | 9% | 8% | 16% |

Table 24. Oil percentages for the strains in Preliminary Group V, 1957

| Strain | Warsaw, Va. | Plymouth, N. C. |
|---|---|---|
| Dorman | 22.0 | 22.9 |
| D53-526 | 21.3 | 22.9 |
| D53-352 | 21.7 | 22.4 |
| D53-8109 | 22.5 | 24.2 |
| D53-8121 | 21.2 | 21.0 |
| D53-8144 | 22.7 | 23.7 |
| D53-8155 | 23.0 | 25.4 |
| D53-8182 | 22.6 | 23.4 |
| D53-8188 | 20.4 | 22.5 |
| D53-8191 | 21.7 | 24.3 |
| D53-8243 | 22.6 | 23.2 |
| D53-8256 | 21.5 | 21.0 |
| D53-8258 | 21.9 | 22.1 |
| D53-8260 | 21.7 | 21.9 |
| D54-3336 | 21.1 | 21.2 |
| D54-3337 | 21.9 | 21.8 |
| D54-3338 | 22.1 | 23.3 |
| D54-3344 | 21.0 | 22.1 |
| D54-3346 | 20.2 | 20.8 |
| D54-3351 | 22.8 | 22.2 |
| D54-3354 | 20.3 | 21.2 |
| D56-1 | 22.2 | 21.8 |
| D56-2 | 21.6 | 21.9 |
| Md 55-49 | 23.3 | 24.0 |
| Md 55-54 | 23.1 | 23.3 |
| P52-1-2 | 22.3 | 20.6 |
| P52-1-5 | 22.7 | 21.3 |
| R54-26 | 22.9 | 23.1 |
| R54-36 | 21.5 | 21.6 |
| S4-7174 | 23.4 | 24.6 |
| S4-7273 | 22.1 | 22.6 |
| S4-7302 | 21.7 | 22.7 |
| S4-7311 | 22.9 | 23.4 |
| S4-7312 | 22.1 | 23.3 |
| S4-7412 | 22.5 | 23.2 |
| Blend 1 | 21.8 | 22.8 |

Table 25. Protein percentages of the strains in Preliminary Group V, 1957

| Strain | Warsaw, Va. | Plymouth, N. C. |
|---|---|---|
| Dorman | 36.8 | 39.8 |
| D53-526 | 37.4 | 38.6 |
| D53-352 | 36.0 | 39.4 |
| D53-8109 | 38.6 | 37.6 |
| D53-8121 | 35.4 | 38.9 |
| D53-8144 | 34.7 | 39.5 |
| D53-8155 | 37.3 | 36.5 |
| D53-8182 | 37.0 | 38.6 |
| D53-8188 | 35.7 | 39.4 |
| D53-8191 | 40.5 | 36.8 |
| D53-8243 | 39.1 | 34.9 |
| D53-8256 | 38.4 | 39.8 |
| D53-8258 | 35.8 | 39.5 |
| D53-8260 | 37.1 | 40.0 |
| D54-3336 | 37.4 | 42.3 |
| D54-3337 | 38.3 | 41.0 |
| D54-3338 | 37.5 | 38.6 |
| D54-3344 | 39.4 | 40.4 |
| D54-3346 | 37.2 | 41.9 |
| D54-3351 | 37.3 | 38.7 |
| D54-3354 | 39.4 | 39.2 |
| D56-1 | 38.1 | 38.7 |
| D56-2 | 37.0 | 38.5 |
| Md 55-49 | 36.1 | 38.0 |
| Md 55-54 | 38.0 | 34.9 |
| P52-1-2 | 41.0 | 46.4 |
| P52-1-5 | 40.9 | 47.1 |
| R54-26 | 36.5 | 39.8 |
| R54-36 | 37.5 | 40.7 |
| S4-7174 | 35.0 | 40.1 |
| S4-7273 | 36.7 | 40.1 |
| S4-7302 | 37.4 | 39.3 |
| S4-7311 | 35.9 | 37.2 |
| S4-7312 | 36.4 | 37.4 |
| S4-7412 | 39.4 | 38.8 |
| Blend 1 | 36.7 | 37.2 |

Table 26. Plant height of the strains in Preliminary Group V, 1957

| Strain | Linkwood, Md. | Warsaw, Va. | Plymouth, N. C. | Vinson, Mo. |
|---|---|---|---|---|
| Dorman | 40 | 31 | 38 | 35 |
| D53-526 | 32 | 30 | 35 | 33 |
| D53-352 | 28 | 27 | 24 | 26 |
| D53-8109 | 33 | 30 | 35 | 40 |
| D53-8121 | 32 | 28 | 35 | 36 |
| D53-8144 | 35 | 28 | 42 | 33 |
| D53-8155 | 36 | 32 | 36 | 37 |
| D53-8182 | 34 | 33 | 34 | 36 |
| D53-8188 | 42 | 36 | 42 | 46 |
| D53-8191 | 30 | 27 | 32 | 33 |
| D53-8243 | 40 | 33 | 36 | 40 |
| D53-8256 | 38 | 33 | 38 | 36 |
| D53-8258 | 34 | 32 | 38 | 34 |
| D53-8260 | 36 | 33 | 40 | 38 |
| D54-3336 | 38 | 33 | 36 | 34 |
| D54-3337 | 43 | 36 | 47 | 39 |
| D54-3338 | 35 | 31 | 35 | 34 |
| D54-3344 | 42 | 36 | 40 | 40 |
| D54-3346 | 45 | 36 | 46 | 45 |
| D54-3351 | 30 | 28 | 26 | 35 |
| D54-3354 | 34 | 27 | 32 | 34 |
| D56-1 | 36 | 28 | 38 | 37 |
| D56-2 | 41 | 35 | 44 | 40 |
| Md 55-49 | 38 | 28 | 40 | 49 |
| Md 55-54 | 34 | 29 | 38 | 50 |
| P52-1-2 | 40 | 28 | 42 | 41 |
| P52-1-5 | 40 | 32 | 45 | 48 |
| R54-26 | 36 | 27 | 34 | 32 |
| R54-36 | 42 | 30 | 39 | 40 |
| S4-7174 | 34 | 29 | 29 | 32 |
| S4-7273 | -- | 31 | 39 | 36 |
| S4-7302 | -- | 29 | 33 | 38 |
| S4-7311 | -- | 31 | 38 | 36 |
| S4-7312 | -- | 32 | 39 | 37 |
| S4-7412 | -- | 30 | 36 | 37 |
| Blend 1 | -- | 23 | 31 | 40 |

Table 27. Seed quality scores for the strains in Preliminary Group V, 1957

| Strain | Linkwood, Md. | Warsaw, Va. | Plymouth, N. C. | Vinson, Mo. |
|---|---|---|---|---|
| Dorman | 2.0 | 1.0 | 2.0 | 2.0 |
| D53-526 | 2.0 | 1.0 | 1.5 | 2.0 |
| D53-352 | 2.0 | 1.0 | 2.0 | 2.0 |
| D53-8109 | 2.0 | 1.5 | 1.5 | 2.0 |
| D53-8121 | 1.0 | 1.0 | 1.5 | 2.0 |
| D53-8144 | 2.0 | 1.5 | 3.0 | 2.0 |
| D53-8155 | 2.0 | 1.5 | 2.5 | 2.0 |
| D53-8182 | 2.0 | 1.5 | 3.0 | 2.0 |
| D53-8188 | 2.0 | 1.0 | 2.5 | 2.0 |
| D53-8191 | 2.0 | 2.0 | 2.5 | 1.0 |
| D53-8243 | 2.0 | 1.0 | 2.0 | 2.0 |
| D53-8256 | 2.0 | 1.0 | 2.5 | 1.0 |
| D53-8258 | 2.0 | 1.5 | 2.0 | 1.0 |
| D53-8260 | 2.0 | 1.0 | 3.0 | 2.0 |
| D54-3336 | 2.0 | 1.0 | 1.5 | 2.0 |
| D54-3337 | 2.0 | 1.0 | 1.5 | 2.0 |
| D54-3338 | 2.0 | 1.5 | 2.0 | 1.0 |
| D54-3344 | 2.0 | 1.0 | 1.5 | 1.0 |
| D54-3346 | 2.0 | 1.0 | 2.0 | 2.0 |
| D54-3351 | 2.0 | 1.0 | 2.5 | 2.0 |
| D54-3354 | 2.0 | 2.0 | 2.0 | 2.0 |
| D56-1 | 2.0 | 1.5 | 1.5 | 2.0 |
| D56-2 | 2.0 | 1.0 | 2.0 | 2.0 |
| Md 55-49 | 2.0 | 1.5 | 2.5 | 1.0 |
| Md 55-54 | 2.0 | 1.0 | 3.0 | 1.0 |
| P52-1-2 | 2.0 | 1.5 | 4.0 | 2.0 |
| P52-1-5 | 2.0 | 1.5 | 4.0 | 2.0 |
| R54-26 | 2.0 | 1.0 | 1.5 | 2.0 |
| R54-36 | 2.0 | 1.0 | 2.5 | 2.0 |
| S4-7174 | 2.0 | 1.5 | 3.0 | 2.0 |
| S4-7273 | -- | 1.0 | 3.5 | 2.0 |
| S4-7302 | -- | 1.0 | 2.0 | 1.0 |
| S4-7311 | -- | 1.5 | 3.0 | 2.0 |
| S4-7312 | -- | 1.0 | 3.0 | 2.0 |
| S4-7412 | -- | 3.0 | 4.0 | 2.0 |
| Blend 1 | -- | 1.5 | 2.5 | 2.0 |

UNIFORM GROUP VI

1957

| | Variety or Strain | Parentage | Generation Composited |
|---|---|---|---|
| 1. | Ogden | Tokyo x PI 54610 | |
| 2. | Lee | S-100 x CNS | $F_6$ |
| 3. | D51-4888 | Roanoke x N45-745 | $F_6$ |
| 4. | D51-5100 | Roanoke x N45-745 | $F_6$ |
| 5. | D51-4969 | Roanoke x N45-745 | $F_6$ |
| 6. | D53-1301 | D632-15 x D49-2525 | $F_5$ |
| 7. | D53-1569 | N46-1703 x D49-2525 | $F_5$ |
| 8. | N51-1403 | N48-1248 x Perry | $F_5$ |
| 9. | N53-3592 | N46-1703 x D49-2525 | $F_5$ |
| 10. | N53-3599 | N46-1703 x D49-2525 | $F_5$ |
| 11. | N53-3646 | N46-1703 x D49-2525 | $F_5$ |
| 12. | N53-5263 | N46-1703 x N45-2994 | $F_5$ |

Background of strains used as parents:

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

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

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

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

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

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

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Results of 34 Group VI nurseries are summarized in tables 28 through 34. This group included the two named varieties Ogden and Lee and 10 experimental lines. Of the experimental lines, D51-4888 has been tested on a regional basis for five years and D51-5100 has been tested four years. The other eight lines had all been grown in the Preliminary Group VI nursery.

Good yields were obtained in all areas. Differences among strains were significant in 20 of the 34 comparisons. Strain differences were significant for within all areas except the Western area.

For the 5-year period 1953-1957, Lee has averaged somewhat higher in yield in all areas than has Ogden. Lee has shown its largest advantage over Ogden in the Delta area. However, the greatest advantage of Lee over Ogden is in seed holding and in seed quality. Lee has equalled Ogden in oil content and has averaged 0.8 percent higher in protein.

D51-4888 is being increased as a yellow seeded replacement for Ogden in the Northern range of where Group VI varieties are grown and where Lee is too late in maturity. Seed yield for D51-4888 has averaged slightly higher than Lee in the Eastern and Western areas and only slightly below Lee in the other areas. In relation to Ogden for the 5-year period, 1953-1957, D51-4888 averages six percent higher in the East Coast area, four percent lower in the Southeast, three percent higher in the Upper and Central South, nine percent higher in the Delta and nine percent higher in the West. Oil content averages 0.7 percent higher than Ogden and protein averages 0.3 percent lower than Ogden. In addition to having a yellow seed coat, D51-4888 has a buff hilum. It is superior to Ogden in seed holding but does not hold its seed as well as Lee.

D51-5100 and D51-4969 were the two tallest lines in the group averaging four and five inches taller than Lee. Both lines stand very well at most locations and produced good yields. Stands for N51-1403 were somewhat thin in several of the nurseries. With a good stand this strain would be nearly as tall as Ogden.

Four lines, D53-1569, N53-3592, N53-3599 and N53-3646, are from the same cross, N46-1703 x D49-2525. These lines average three to five days earlier in maturity than Ogden. D53-1569 averaged significantly higher in both oil and protein than Ogden.

D53-1301 is similar in type to Lee and is also similar in maturity. N53-5263 ranked highest in oil content as it had done in the preliminary nursery.

Bacterial blight ratings were made in the nursery at Stoneville. Ratings ranged from 2.3 for D51-4888 to 3.7 for N53-3799. None of the lines in this group showed any appreciable target spot development under conditions where some of the Group VII lines were heavily infected.

Table 28. General summary of the performance for strains in Uniform Group VI, 1957

| | Ogden | Lee | D51-4888 | D51-5100 | D51-4969 | D53-1301 |
|---|---|---|---|---|---|---|
| Seed Yield - 1957 | | | | | | |
| East Coast | 37.7 | 36.4 | 39.5 | 38.8 | 37.9 | 36.0 |
| Southeast | 31.4 | 34.2 | 31.5 | 32.6 | 36.0 | 38.2+ |
| Upper & Central South | 26.5 | 27.8 | 25.9 | 27.2 | 27.9 | 29.5 |
| Delta | 33.6 | 37.9 | 36.6 | 40.3+ | 41.4+ | 36.8 |
| West | 35.6 | 37.9 | 37.4 | 36.6 | 37.8 | 37.3 |
| - 1953-57 | | | | | | |
| East Coast | 30.9 | 31.5 | 32.7 | | | |
| Southeast | 29.2 | 30.3 | 28.1 | | | |
| Upper & Central South | 19.5 | 20.2 | 20.1 | | | |
| Delta | 30.1 | 33.8 | 32.9 | | | |
| West | 25.1 | 25.3 | 27.3 | | | |
| Oil Percentage - 1957 | 21.0 | 21.2 | 22.0+ | 21.3 | 21.2 | 21.5+ |
| - 1953-57 | 21.1 | 21.1 | 21.8 | | | |
| Protein Percentage - 1957 | 39.9 | 41.4+ | 39.6 | 40.3 | 40.3 | 40.6 |
| - 1953-57 | 40.5 | 41.3 | 40.0 | | | |
| Seed Size | 17.2 | 14.9- | 16.6 | 15.2- | 14.7- | 14.0- |
| Maturity Index | 10-18 | +5 | -2 | 0 | -1 | +5 |
| Height | 29 | 29 | 28 | 33 | 34 | 30 |
| Bacterial Pustule | 3.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Bacterial Blight | 2.7 | 3.0 | 2.3 | 2.7 | 2.7 | 3.0 |

Table 28. (Continued)

| | D53-1569 | N51-1403 | N53-3592 | N53-3599 | N53-3646 | N53-5263 |
|---|---|---|---|---|---|---|
| Seed Yield - 1957 | | | | | | |
| East Coast | 37.2 | 35.8 | 38.6 | 38.2 | 35.2 | 38.8 |
| Southeast | 26.8 | 28.6 | 28.8 | 31.4 | 28.9 | 28.9 |
| Upper & Central South | 23.1 | 23.8 | 23.4 | 23.5 | 22.6 | 20.2- |
| Delta | 36.4 | 32.5 | 34.9 | 35.5 | 35.3 | 34.0 |
| West | 35.4 | 37.1 | 36.0 | 36.9 | 34.8 | 37.3 |
| - 1953-57 | | | | | | |
| East Coast | | | | | | |
| Southeast | | | | | | |
| Upper & Central South | | | | | | |
| Delta | | | | | | |
| West | | | | | | |
| Oil Percentage - 1957 | 21.5+ | 22.2+ | 21.2 | 20.9 | 20.9 | 22.4+ |
| - 1953-57 | | | | | | |
| Protein Percentage - 1957 | 40.9+ | 39.2 | 40.4 | 41.1+ | 40.7 | 40.6 |
| - 1953-57 | | | | | | |
| Seed Size | 15.3- | 14.7- | 13.8- | 15.1- | 13.1- | 15.9- |
| Maturity Index | -5 | -2 | -5 | -3 | -4 | -7 |
| Height | 30 | 23 | 29 | 28 | 29 | 29 |
| Bacterial Pustule | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 |
| Bacterial Blight | 3.0 | 3.3 | 3.0 | 3.7 | 2.7 | 2.7 |

Table 29. Seed yield, in bushels per acre, for the strains in Uniform Group VI, 1957

| Location | Ogden | Lee | D51-4888 | D51-5100 | D51-4969 | D53-1301 | D53-1569 |
|---|---|---|---|---|---|---|---|
| | | | East Coast | | | | |
| Linkwood, Md. 1/ | 29.4 | 26.8 | 29.3 | 30.5 | 30.0 | 25.8 | 32.4 |
| Warsaw, Va. | 27.5 | 29.3 | 30.5+ | 30.4+ | 32.0+ | 31.4+ | 28.8 |
| Painter, Va. | 37.8 | 39.7 | 38.8 | 40.9 | 38.9 | 38.3 | 39.3 |
| Petersburg, Va. | 47.8 | 42.9 | 49.2 | 46.1 | 45.2 | 46.6 | 49.1 |
| Norfolk, Va. | 19.3 | 15.9 | 19.6 | 13.4- | 18.6 | 14.3- | 18.4 |
| Holland, Va. | 40.1 | 43.1 | 48.0+ | 43.6 | 40.4 | 40.9 | 39.1 |
| Plymouth, N. C. | 34.6 | 36.1 | 33.3 | 33.6 | 30.4 | 32.8 | 34.7 |
| Willard, N. C. | 42.7 | 39.1 | 43.5 | 43.0 | 46.2 | 41.1 | 40.4 |
| Clayton, N. C. | 47.7 | 40.7 | 53.1 | 53.7 | 48.0 | 40.5 | 44.4 |
| Hartsville, S. C. | 41.7 | 40.3 | 40.0 | 44.3 | 41.7 | 38.3 | 40.9 |
| Mean | 37.7 | 36.4 | 39.5 | 38.8 | 37.9 | 36.0 | 37.2 |
| | | | Southeast | | | | |
| Tallassee, Ala. | 31.5 | 32.0 | 27.4 | 33.6 | 50.6 | 49.0 | 28.4 |
| Gainesville, Fla. | 33.9 | 26.7- | 30.1 | 34.6 | 35.8 | 29.1 | 28.9 |
| Quincy, Fla. | 31.8 | 32.5 | 26.7 | 26.7 | 29.0 | 33.3 | 26.0 |
| Walnut Hill, Fla. | 37.1 | 46.0+ | 39.5 | 35.8 | 35.8 | 44.4+ | 29.9- |
| Fairhope, Ala. | 34.2 | 35.1 | 37.2 | 33.7 | 35.9 | 35.4 | 29.8 |
| Baton Rouge, La. | 20.1 | 33.2+ | 28.2+ | 31.1+ | 29.1+ | 38.2+ | 18.1 |
| Mean | 31.4 | 34.2 | 31.5 | 32.6 | 36.0 | 38.2+ | 26.8 |
| | | | Upper and Central South | | | | |
| Belle Mina, Ala. | 20.7 | 23.7 | 24.9 | 19.9 | 25.4+ | 25.9+ | 20.2 |
| Athens, Ga. | 14.1 | 16.9 | 11.3 | 13.6 | 13.1 | 15.0 | 10.4 |
| State College, Miss. | 44.6 | 42.7 | 41.6 | 48.1 | 45.3 | 47.6 | 42.1 |
| Mean | 26.5 | 27.8 | 25.9 | 27.2 | 27.9 | 29.5 | 23.1 |
| | | | Delta | | | | |
| Vinson, Mo. | 31.3 | 27.6 | 32.6 | 36.7+ | 39.1+ | 28.4 | 31.4 |
| Bragg City, Mo. | 27.1 | 30.3 | 34.7 | 34.6 | 38.0 | 33.6 | 35.9 |
| Wilson, Ark. 1/ | 41.4 | 39.7 | 40.3 | 43.0 | 49.8 | 33.2 | 34.3 |
| Marianna, Ark. | 50.3 | 51.1 | 50.2 | 54.5 | 58.7 | 50.7 | 49.3 |
| Coahoma, Miss. | 47.0 | 50.8 | 53.0 | 53.6 | 51.4 | 48.4 | 42.7 |
| Clarksdale, Miss. | 19.0 | 28.8+ | 20.7 | 20.1 | 22.3 | 28.8+ | 22.8+ |
| Stoneville(A), Miss. | 36.3 | 43.2 | 42.9 | 40.8 | 49.8 | 36.4 | 52.1 |
| Louise, Miss. | 24.1 | 33.6+ | 22.2 | 38.0+ | 30.6 | 31.3 | 20.6 |
| Mean | 33.6 | 37.9+ | 36.6 | 40.3+ | 41.4+ | 36.8 | 36.4 |
| | | | West | | | | |
| Stuttgart, Ark. | 38.3 | 43.5 | 37.4 | 43.8 | 47.3+ | 42.0 | 45.3 |
| Fayetteville, Ark. | 26.8 | 30.4 | 29.0 | 32.6+ | 33.0+ | 22.8 | 27.7 |
| Bixby, Okla. | 43.8 | 48.9 | 49.2+ | 46.0 | 45.0 | 47.3 | 45.0 |
| Milburn, Okla. | 34.8 | 34.1 | 31.6 | 30.1 | 35.4 | 38.9 | 28.4 |
| Chillicothe, Texas 1/ | 5.3 | 7.5 | 4.7 | 5.5 | 5.0 | 5.9 | 5.0 |
| Plainview, Texas | 37.2 | 33.2 | 36.5 | 32.5 | 34.1 | 34.1 | 30.8 |
| Lubbock, Texas | 18.9 | 21.3 | 23.0 | 21.0 | 18.4 | 21.8 | 22.7 |
| College Station, Texas | 49.4 | 54.2 | 55.4 | 50.1 | 51.3 | 54.4 | 48.6 |
| Mean | 35.6 | 37.9 | 37.4 | 36.6 | 37.8 | 37.3 | 35.4 |

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

Table 29. (Continued)

| Location | N51-1403 | N53-3592 | N53-3599 | N53-3646 | N53-5263 | L.S.D. (.05) | C.V. |
|---|---|---|---|---|---|---|---|
| | | | East Coast | | | | |
| Linkwood, Md.[1/] | 28.6 | 30.8 | 30.7 | 28.9 | 31.7 | 5.2 | 10% |
| Warsaw, Va. | 28.4 | 28.3 | 28.2 | 26.5 | 28.7 | 2.0 | 4% |
| Painter, Va. | 43.3+ | 42.5+ | 43.3+ | 32.5- | 45.2+ | 4.0 | 6% |
| Petersburg, Va. | 48.6 | 49.8 | 44.4 | 48.1 | 49.4 | N.S. | 6% |
| Norfolk, Va. | 16.4 | 21.0 | 20.8 | 16.9 | 24.0+ | 4.7 | 15% |
| Holland, Va. | 40.7 | 37.8 | 37.7 | 35.0 | 41.1 | 5.4 | 8% |
| Plymouth, N. C. | 29.2 | 35.3 | 33.3 | 33.1 | 34.1 | N.S. | 7% |
| Willard, N. C. | 38.2 | 38.6 | 40.4 | 37.9 | 41.2 | N.S. | 8% |
| Clayton, N. C. | 41.0 | 51.1 | 50.8 | 50.5 | 45.8 | 8.8 | 11% |
| Hartsville, S. C. | 36.5- | 42.5 | 45.0 | 35.8- | 41.8 | 3.7 | 5% |
| Mean | 35.8 | 38.6 | 38.2 | 35.2 | 38.8 | 2.6 | |
| | | | Southeast | | | | |
| Tallassee, Ala. | 20.9 | 30.2 | 28.6 | 24.3 | 29.0 | N.S. | 38% |
| Gainesville, Fla. | 27.9 | 29.7 | 35.9 | 34.1 | 27.9 | 6.4 | 12% |
| Quincy, Fla. | 30.5 | 24.4 | 27.8 | 23.4 | 26.0 | N.S. | 15% |
| Walnut Hill, Fla. | 33.1 | 30.4 | 34.4 | 32.1 | 29.1- | 6.8 | 11% |
| Fairhope, Ala. | 31.5 | 34.4 | 35.5 | 32.0 | 35.7 | N.S. | 8% |
| Baton Rouge, La. | 27.9+ | 24.2 | 26.2+ | 27.3+ | 25.6+ | 4.6 | 10% |
| Mean | 28.6 | 28.8 | 31.4 | 28.9 | 28.9 | 5.1 | |
| | | | Upper and Central South | | | | |
| Belle Mina, Ala. | 19.5 | 18.2 | 19.2 | 22.5 | 20.0 | 4.3 | 12% |
| Athens, Ga. | 13.6 | 11.8 | 10.8 | 11.3 | 11.9 | 3.7 | 17% |
| State College, Miss. | 38.1- | 40.1 | 40.4 | 34.1- | 28.8- | 5.1 | 7% |
| Mean | 23.8 | 23.4 | 23.5 | 22.6 | 20.2- | 5.1 | |
| | | | Delta | | | | |
| Vinson, Mo. | 32.6 | 31.2 | 31.4 | 33.1 | 35.6 | 4.7 | 8% |
| Bragg City, Mo. | 30.7 | 34.9 | 35.0 | 32.5 | 35.3 | N.S. | 11% |
| Wilson, Ark.[1/] | 36.1 | 37.6 | 38.6 | 41.7 | 44.7 | - | - |
| Marianna, Ark. | 50.5 | 46.9 | 49.4 | 48.7 | 46.6 | N.S. | 10% |
| Coahoma, Miss. | 38.8- | 41.8 | 45.4 | 44.5 | 40.1 | 7.0 | 9% |
| Clarksdale, Miss. | 16.6 | 20.6 | 22.8+ | 20.0 | 22.1 | 3.2 | 9% |
| Stoneville(A), Miss. | 38.8 | 46.8 | 40.7 | 44.1 | 34.3 | N.S. | 15% |
| Louise, Miss. | 19.6 | 21.9 | 23.5 | 24.4 | 23.9 | 9.3 | 21% |
| Mean | 32.5 | 34.9 | 35.5 | 35.3 | 34.0 | 4.0 | |
| | | | West | | | | |
| Stuttgart, Ark. | 40.4 | 43.0 | 45.9+ | 32.5 | 42.0 | 7.4 | 11% |
| Fayetteville, Ark. | 20.3- | 29.5 | 27.2 | 29.2 | 29.1 | 5.6 | 12% |
| Bixby, Okla. | 55.1+ | 49.3+ | 50.0+ | 43.4 | 45.8 | 5.3 | 7% |
| Milburn, Okla. | 29.0 | 32.2 | 28.7 | 40.8 | 38.8 | N.S. | 19% |
| Chillicothe, Texas[1/] | 5.5 | 3.7 | 5.9 | 4.6 | 3.6 | N.S. | 30% |
| Plainview, Texas | 37.1 | 26.1 | 35.2 | 33.1 | 33.8 | N.S. | 20% |
| Lubbock, Texas | 23.1 | 20.9 | 20.3 | 18.9 | 20.9 | N.S. | 12% |
| College Station, Texas | 54.8 | 50.9 | 51.0 | 45.9 | 50.5 | N.S. | 8% |
| Mean | 37.1 | 36.0 | 36.9 | 34.8 | 37.3 | N.S. | |

1/ Not included in mean.

Table 30. Chemical composition and seed size for the strain in Uniform Group VI, 1957

| Location | Ogden | Lee | D51-4388 | D51-5100 | D51-4969 | D53-1301 |
|---|---|---|---|---|---|---|
| | | | Oil Percentage | | | |
| Warsaw, Va. | 18.6 | 20.3 | 20.5 | 19.8 | 19.5 | 19.6 |
| Plymouth, N. C. | 21.7 | 21.9 | 22.5 | 22.1 | 22.2 | 22.3 |
| Clayton, N. C. | 21.7 | 22.0 | 22.9 | 21.9 | 22.1 | 21.9 |
| Tallassee, Ala. | 21.4 | 20.3 | 22.3 | 21.6 | 22.1 | 21.6 |
| Walnut Hill, Fla. | 22.5 | 21.7 | 23.0 | 22.8 | 22.8 | 22.2 |
| Marianna, Ark. | 20.8 | 20.8 | 21.2 | 21.2 | 20.3 | 21.9 |
| Coahoma, Mississippi | 20.8 | 21.0 | 21.6 | 20.6 | 20.7 | 21.2 |
| Stoneville(A), Miss. | 21.3 | 22.0 | 21.8 | 21.6 | 20.9 | 22.1 |
| Stuttgart, Ark. | 20.6 | 20.3 | 21.5 | 20.4 | 20.3 | 20.4 |
| Mean | 21.0 | 21.2 | 22.0+ | 21.3 | 21.2 | 21.5+ |
| | | | Protein Percentage | | | |
| Warsaw, Va. | 36.2 | 39.0 | 38.0 | 39.1 | 39.7 | 38.7 |
| Plymouth, N. C. | 38.1 | 39.0 | 39.6 | 39.3 | 40.4 | 38.3 |
| Clayton, N. C. | 39.8 | 40.7 | 39.1 | 41.0 | 40.5 | 41.0 |
| Tallassee, Ala. | 42.7 | 42.5 | 40.1 | 42.7 | 41.3 | 42.5 |
| Walnut Hill, Fla. | 41.9 | 44.2 | 40.9 | 41.2 | 41.8 | 42.4 |
| Marianna, Ark. | 40.8 | 42.3 | 39.5 | 39.1 | 39.7 | 39.3 |
| Coahoma, Miss. | 39.0 | 42.7 | 39.4 | 39.5 | 39.6 | 40.5 |
| Stoneville (A), Miss. | 39.2 | 39.9 | 39.0 | 39.5 | 39.0 | 40.1 |
| Stuttgart, Ark. | 41.0 | 42.3 | 41.0 | 41.1 | 40.9 | 42.4 |
| Mean | 39.9 | 41.4+ | 39.6 | 40.3 | 40.3 | 40.6 |
| | | | Grams Per 100 Seeds | | | |
| Warsaw, Va. | 15.5 | 13.3 | 16.1 | 14.5 | 14.6 | 12.9 |
| Plymouth, N. C. | 16.9 | 13.7 | 17.3 | 15.2 | 14.6 | 12.3 |
| Clayton, N. C. | 17.0 | 15.4 | 17.4 | 16.1 | 14.8 | 14.0 |
| Tallassee, Ala. | 18.0 | 14.6 | 17.2 | 15.2 | 14.7 | 13.9 |
| Walnut Hill, Fla. | 18.3 | 15.2 | 14.2 | 15.0 | 14.2 | 14.8 |
| Marianna, Ark. | 17.3 | 15.0 | 16.7 | 15.0 | 15.0 | 15.0 |
| Coahoma, Miss. | 16.3 | 15.7 | 16.6 | 14.6 | 13.9 | 13.6 |
| Stoneville(A), Miss. | 17.5 | 16.2 | 17.1 | 15.5 | 14.8 | 14.3 |
| Stuttgart, Ark. | 17.7 | 15.0 | 16.7 | 15.7 | 15.7 | 15.3 |
| Mean | 17.2 | 14.9- | 16.6 | 15.2- | 14.7- | 14.0- |

Table 30. (Continued)

| Location | D53-1569 | N51-1403 | N53-3592 | N53-3599 | N53-3646 | N53-5263 | L.S.D. (.05) |
|---|---|---|---|---|---|---|---|
| | | | Oil Percentage | | | | |
| Warsaw, Va. | 19.2 | 20.6 | 19.9 | 19.8 | 19.6 | 20.7 | |
| Plymouth, N. C. | 23.3 | 22.3 | 22.0 | 22.0 | 21.6 | 23.1 | |
| Clayton, N. C. | 22.3 | 22.9 | 21.5 | 21.3 | 21.3 | 22.8 | |
| Tallassee, Ala. | 22.9 | 22.9 | 22.7 | 22.3 | 21.4 | 23.4 | |
| Walnut Hill, Fla. | 22.3 | 23.5 | 22.7 | 22.7 | 22.3 | 23.9 | |
| Marianna, Ark. | 21.5 | 22.2 | 20.6 | 20.4 | 20.8 | 22.9 | |
| Coahoma, Miss. | 20.7 | 21.2 | 20.2 | 20.1 | 20.8 | 22.2 | |
| Stoneville(A), Miss. | 21.1 | 22.8 | 21.0 | 21.2 | 21.4 | 21.8 | |
| Stuttgart, Ark. | 20.0 | 21.0 | 19.3 | 19.1 | 19.6 | 21.1 | |
| Mean | 21.5+ | 22.2+ | 21.2 | 20.9 | 20.9 | 22.4+ | 0.4 |
| | | | Protein Percentage | | | | |
| Warsaw, Va. | 36.3 | 38.9 | 39.7 | 38.0 | 39.1 | 36.3 | |
| Plymouth, N. C. | 40.3 | 40.6 | 39.9 | 40.9 | 40.9 | 40.3 | |
| Clayton, N. C. | 41.9 | 38.0 | 39.7 | 41.5 | 41.5 | 41.9 | |
| Tallassee, Ala. | 44.2 | 41.7 | 42.3 | 43.9 | 44.1 | 44.6 | |
| Walnut Hill, Fla. | 42.0 | 40.6 | 41.4 | 41.5 | 42.1 | 41.8 | |
| Marianna, Ark. | 40.7 | 38.2 | 40.5 | 40.7 | 39.5 | 40.1 | |
| Coahoma, Miss. | 40.8 | 37.8 | 39.7 | 41.5 | 39.5 | 39.2 | |
| Stoneville(A), Miss. | 40.5 | 37.1 | 40.3 | 40.2 | 38.6 | 39.4 | |
| Stuttgart, Ark. | 41.7 | 40.3 | 40.0 | 41.7 | 41.3 | 41.5 | |
| Mean | 40.9+ | 39.2 | 40.4 | 41.1+ | 40.7 | 40.6 | 0.9 |
| | | | Grams Per 100 Seeds | | | | |
| Warsaw, Va. | 15.3 | 14.4 | 14.0 | 14.0 | 13.0 | 15.7 | |
| Plymouth, N. C. | 15.7 | 14.1 | 15.2 | 16.4 | 14.1 | 18.3 | |
| Clayton, N. C. | 16.2 | 15.5 | 14.4 | 16.6 | 13.7 | 16.7 | |
| Tallassee, Ala. | 15.8 | 13.5 | 13.6 | 14.8 | 12.5 | 14.9 | |
| Walnut Hill, Fla. | 12.2 | 13.4 | 12.1 | 13.2 | 12.0 | 14.5 | |
| Marianna, Ark. | 16.0 | 16.0 | 14.7 | 15.7 | 14.0 | 17.3 | |
| Coahoma, Miss. | 15.3 | 14.8 | 14.2 | 14.8 | 13.2 | 15.9 | |
| Stoneville(A), Miss. | 15.6 | 14.5 | 13.3 | 16.6 | 12.4 | 13.9 | |
| Stuttgart, Ark. | 15.3 | 15.7 | 13.0 | 13.7 | 13.0 | 15.7 | |
| Mean | 15.3- | 14.7- | 13.8- | 15.1- | 13.1- | 15.9- | 0.7 |

Table 31. Relative maturity data, days earlier (-) or later (+) than Ogden, for the strains in Uniform Group VI, 1957

| Location | Date Planted | Ogden Matured | Lee | D51-4888 | D51-5100 | D51-4969 |
|---|---|---|---|---|---|---|
| | | East Coast | | | | |
| Linkwood, Md. | 5-17 | 10-28 | +1 | -1 | -1 | -2 |
| Warsaw, Va. | 6-10 | 11-8 | -4 | 0 | 0 | 0 |
| Petersburg, Va. | 4-16 | 11-6 | +6 | +4 | +5 | +2 |
| Plymouth, N. C. | 5-14 | 10-16 | +7 | 0 | -1 | -2 |
| Willard, N. C. | 5-22 | 10-18 | +5 | 0 | 0 | -4 |
| Clayton, N. C. | 5-1 | 10-17 | +7 | -5 | -3 | -5 |
| Hartsville, S. C. | 5-19 | 10-16 | +8 | -1 | -2 | -3 |
| Mean | | 10-24 | +4 | 0 | 0 | -2 |
| | | Southeast | | | | |
| Tallassee, Ala. | 5-22 | 10-5 | +7 | -9 | +10 | +2 |
| Gainesville, Fla. | 5-31 | 10-7 | +4 | -7 | -1 | -4 |
| Walnut Hill, Fla. | 6-8 | 10-4 | +6 | -4 | +1 | -3 |
| Fairhope, Ala. | 6-11 | 10-6 | +9 | 0 | 0 | 0 |
| Baton Rouge, La. | 5-17 | 10-5 | +10 | 0 | +5 | +5 |
| Mean | | 10-5 | +5 | -4 | +3 | 0 |
| | | Upper and Central South | | | | |
| Belle Mina, Ala. | 5-29 | 10-30 | +4 | -2 | +1 | 0 |
| Athens, Ga. | 6-3 | 10-24 | -1 | -4 | -3 | -4 |
| Mean | | 10-27 | +2 | -3 | -1 | -2 |
| | | Delta | | | | |
| Bragg City, Mo. | 6-10 | 10-21 | -1 | -2 | -2 | -2 |
| Wilson, Ark. | 5-9 | 10-28 | +4 | -2 | 0 | +2 |
| Marianna, Ark. | 5-17 | 10-21 | +4 | -2 | -2 | -1 |
| Coahoma, Miss. | 5-10 | 10-12 | +6 | -2 | 0 | -1 |
| Clarksdale, Miss. | 5-10 | 10-5 | +10 | -6 | +1 | +1 |
| Stoneville(A), Miss. | 5-7 | 10-8 | +10 | -2 | 0 | -2 |
| Louise, Miss. | 5-14 | 10-4 | +12 | -7 | +6 | -1 |
| Mean | | 10-14 | +6 | -3 | 0 | -1 |
| | | West | | | | |
| Stuttgart, Ark. | 6-17 | 11-1 | 0 | 0 | 0 | 0 |
| Fayetteville, Ark. | 5-29 | 10-28 | 0 | -6 | -2 | -5 |
| Bixby, Okla. | 5-29 | 10-23 | +5 | 0 | 0 | 0 |
| Milburn, Okla. | 6-11 | 10-24 | +5 | -1 | 0 | 0 |
| Lubbock, Texas | 6-8 | 10-27 | -3 | -3 | -10 | -3 |
| College Station, Texas | 5-30 | 10-9 | +14 | +6 | 0 | 0 |
| Mean | | 10-24 | +4 | -1 | -2 | -1 |

Table 31. (Continued)

| Location | D53-1301 | D53-1569 | N51-1403 | N53-3592 | N53-3599 | N53-3646 | N53-5263 |
|---|---|---|---|---|---|---|---|
| | | | East Coast | | | | |
| Linkwood, Md. | 0 | -6 | -1 | -8 | -5 | -4 | -8 |
| Warsaw, Va. | -7 | -11 | -3 | -11 | -8 | -6 | -12 |
| Petersburg, Va. | +6 | +1 | -1 | -6 | +1 | 0 | -5 |
| Plymouth, N. C. | +7 | -3 | -1 | -2 | -2 | 0 | -3 |
| Willard, N. C. | +4 | -6 | 0 | 0 | -2 | -10 | -2 |
| Clayton, N. C. | +7 | -7 | -7 | -7 | -5 | -6 | -7 |
| Hartsville, S. C. | +9 | -6 | -1 | -7 | -5 | -4 | -4 |
| Mean | +4 | -5 | -2 | -6 | -4 | -4 | -6 |
| | | | Southeast | | | | |
| Tallassee, Ala. | +17 | -4 | -3 | -8 | +2 | -8 | -8 |
| Gainesville, Fla. | +3 | -7 | -3 | -9 | -2 | -6 | -10 |
| Walnut Hill, Fla. | +7 | -6 | -4 | -7 | -5 | -9 | -8 |
| Fairhope, Ala. | +9 | 0 | 0 | 0 | 0 | 0 | 0 |
| Baton Rouge, La. | +10 | +4 | 0 | +2 | +2 | -2 | -10 |
| Mean | +9 | -3 | -2 | -4 | -1 | -5 | -7 |
| | | | Upper and Central South | | | | |
| Belle Mina, Ala. | +5 | -8 | -5 | -3 | 0 | -3 | -6 |
| Athens, Ga. | -9 | -3 | -4 | -2 | 0 | 0 | -8 |
| Mean | -2 | -6 | -5 | -3 | 0 | -2 | -7 |
| | | | Delta | | | | |
| Bragg City, Mo. | -1 | -6 | -5 | -7 | -6 | -6 | -6 |
| Wilson, Ark. | +4 | +2 | +2 | +2 | +2 | +4 | +2 |
| Marianna, Ark. | +5 | -11 | -2 | -12 | -11 | -8 | -11 |
| Coahoma, Miss. | +6 | -6 | -4 | -6 | -4 | -6 | -9 |
| Clarksdale, Miss. | +11 | -8 | -6 | -9 | -5 | -8 | -9 |
| Stoneville(A), Miss | +10 | -4 | -3 | -2 | 0 | -3 | -13 |
| Louise, Miss. | +12 | -9 | -8 | -10 | -9 | -8 | -9 |
| Mean | +7 | -6 | -4 | -6 | -5 | -5 | -8 |
| | | | West | | | | |
| Stuttgart, Ark. | 0 | -4 | 0 | -4 | -4 | -4 | -4 |
| Fayetteville, Ark. | 0 | -7 | -5 | -9 | -8 | -6 | -9 |
| Bixby, Okla. | +5 | -5 | -5 | -6 | -4 | -4 | -6 |
| Milburn, Okla. | +5 | 0 | -1 | -1 | -1 | -2 | -2 |
| Lubbock, Texas | -3 | -10 | -3 | -10 | -10 | -3 | -10 |
| College Station, Texas | +14 | -4 | +6 | 0 | 0 | -6 | - 6 |
| Mean | +4 | -5 | -1 | -5 | -4 | -4 | -6 |

Table 32. Plant height of the strains in Uniform Group VI, 1957

| Location | Ogden | Lee | D51-4888 | D51-5100 | D51-4969 | D53-1301 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 38 | 35 | 33 | 40 | 42 | 36 |
| Warsaw, Va. | 31 | 29 | 31 | 34 | 33 | 30 |
| Painter, Va. | 31 | 29 | 31 | 34 | 32 | 28 |
| Petersburg, Va. | 36 | 33 | 33 | 37 | 37 | 32 |
| Norfolk, Va. | 30 | 29 | 26 | 29 | 29 | 31 |
| Holland, Va. | 33 | 40 | 36 | 41 | 42 | 33 |
| Plymouth, N. C. | 37 | 36 | 34 | 40 | 42 | 36 |
| Willard, N. C. | 37 | 33 | 34 | 41 | 42 | 34 |
| Clayton, N. C. | 24 | 30 | 28 | 36 | 34 | 30 |
| Hartsville, S. C. | 37 | 37 | 33 | 39 | 42 | 37 |
| Mean | 33 | 33 | 32 | 37 | 37 | 32 |
| | | | Southeast | | | |
| Tallassee, Ala. | 34 | 32 | 26 | 36 | 42 | 34 |
| Gainesville, Fla. | 21 | 21 | 22 | 30 | 28 | 22 |
| Quincy, Fla. | 19 | 24 | 22 | 20 | 29 | 23 |
| Walnut Hill, Fla. | 33 | 31 | 33 | 37 | 36 | 32 |
| Fairhope, Ala. | 23 | 21 | 23 | 28 | 32 | 24 |
| Baton Rouge, La. | 16 | 22 | 18 | 20 | 20 | 23 |
| Mean | 24 | 25 | 24 | 29 | 31 | 26 |
| | | | Upper and Central South | | | |
| Belle Mina, Ala. | 31 | 34 | 29 | 36 | 38 | 36 |
| Athens, Ga. | 22 | 23 | 18 | 21 | 23 | 22 |
| Mean | 27 | 29 | 24 | 29 | 31 | 28 |
| | | | Delta | | | |
| Vinson, Mo. | 42 | 40 | 41 | 45 | 44 | 40 |
| Bragg City, Mo. | 27 | 32 | 29 | 34 | 34 | 34 |
| Wilson, Ark. | 26 | 24 | 23 | 25 | 27 | 20 |
| Marianna, Ark. | 34 | 30 | 36 | 37 | 42 | 32 |
| Coahoma, Miss. | 22 | 25 | 23 | 30 | 25 | 26 |
| Clarksdale, Miss. | 35 | 36 | 35 | 42 | 43 | 37 |
| Stoneville(A), Miss. | 31 | 31 | 31 | 40 | 37 | 30 |
| Louise, Miss. | 26 | 29 | 26 | 35 | 32 | 29 |
| Mean | 30 | 31 | 31 | 36 | 36 | 31 |
| | | | West | | | |
| Stuttgart, Ark. | 26 | 26 | 26 | 32 | 32 | 27 |
| Fayetteville, Ark. | 23 | 26 | 26 | 31 | 30 | 24 |
| Bixby, Okla. | 36 | 31 | 36 | 39 | 45 | 36 |
| Milburn, Okla. | 25 | 27 | 25 | 38 | 36 | 31 |
| Chillicothe, Texas | 11 | 12 | 15 | 12 | 13 | 14 |
| Lubbock, Texas | 24 | 26 | 24 | 29 | 28 | 29 |
| College Station, Texas | 31 | 31 | 32 | 36 | 37 | 30 |
| Mean | 25 | 26 | 26 | 31 | 32 | 27 |

Table 32. (Continued)

| Location | D53-1569 | N51-1403 | N53-3592 | N53-3599 | N53-3646 | N53-5263 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 37 | 28 | 34 | 34 | 36 | 35 |
| Warsaw, Va. | 29 | 25 | 27 | 27 | 30 | 30 |
| Painter, Va. | 29 | 22 | 29 | 28 | 34 | 27 |
| Petersburg, Va. | 32 | 26 | 32 | 33 | 34 | 32 |
| Norfolk, Va. | 29 | 23 | 23 | 21 | 24 | 26 |
| Holland, Va. | 37 | 26 | 36 | 34 | 34 | 36 |
| Plymouth, N. C. | 39 | 28 | 36 | 34 | 34 | 35 |
| Willard, N. C. | 35 | 25 | 33 | 34 | 34 | 34 |
| Clayton, N. C. | 26 | 23 | 32 | 34 | 35 | 29 |
| Hartsville, S. C. | 38 | 26 | 38 | 38 | 39 | 36 |
| Mean | 33 | 25 | 32 | 31 | 33 | 32 |
| | | | Southeast | | | |
| Tallassee, Ala. | 36 | 26 | 28 | 34 | 26 | 36 |
| Gainesville, Fla. | 23 | 17 | 18 | 18 | 21 | 22 |
| Quincy, Fla. | 22 | 14 | 24 | 23 | 20 | 19 |
| Walnut Hill, Fla. | 34 | 26 | 34 | 33 | 34 | 34 |
| Fairhope, Ala. | 27 | 20 | 22 | 21 | 25 | 27 |
| Baton Rouge, La. | 22 | 18 | 20 | 20 | 21 | 24 |
| Mean | 27 | 20 | 24 | 25 | 25 | 27 |
| | | | Upper and Central South | | | |
| Belle Mina, Ala. | 33 | 26 | 30 | 30 | 34 | 32 |
| Athens, Ga. | 21 | 18 | 20 | 19 | 22 | 21 |
| Mean | 27 | 22 | 25 | 25 | 28 | 27 |
| | | | Delta | | | |
| Vinson, Mo. | 38 | 39 | 37 | 38 | 38 | 37 |
| Bragg City, Mo. | 32 | 26 | 28 | 31 | 33 | 29 |
| Wilson, Ark. | 21 | 17 | 24 | 22 | 23 | 21 |
| Marianna, Ark. | 32 | 26 | 34 | 35 | 38 | 29 |
| Coahoma, Miss. | 24 | 18 | 24 | 23 | 26 | 23 |
| Clarksdale, Miss. | 37 | 30 | 36 | 35 | 36 | 33 |
| Stoneville(A), Miss. | 33 | 29 | 35 | 37 | 36 | 33 |
| Louise, Miss. | 25 | 23 | 26 | 25 | 27 | 26 |
| Mean | 30 | 26 | 31 | 31 | 32 | 29 |
| | | | West | | | |
| Stuttgart, Ark. | 27 | 22 | 24 | 27 | 25 | 23 |
| Fayetteville, Ark. | 27 | 19 | 24 | 23 | 28 | 29 |
| Bixby, Okla. | 37 | 28 | 38 | 33 | 37 | 38 |
| Milburn, Okla. | 29 | 25 | 36 | 25 | 27 | 29 |
| Chillicothe, Texas | 10 | 11 | 9 | 17 | 12 | 13 |
| Lubbock, Texas | 27 | 20 | 24 | 21 | 24 | 23 |
| College Station, Texas | 32 | 27 | 30 | 31 | 27 | 27 |
| Mean | 27 | 22 | 26 | 25 | 26 | 26 |

Table 33. Lodging scores for the strains in Uniform Group VI, 1957

| Location | Ogden | Lee | D51-4888 | D51-5100 | D51-4969 | D53-1301 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 2.0 | 2.0 | 3.0 | 2.0 | 2.0 | 3.0 |
| Warsaw, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 |
| Painter, Va. | 4.0 | 4.0 | 4.5 | 4.0 | 3.0 | 4.0 |
| Petersburg, Va. | 3.0 | 4.0 | 3.0 | 2.0 | 2.0 | 3.0 |
| Norfolk, Va. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Holland, Va. | 2.2 | 2.8 | 3.0 | 2.2 | 2.2 | 2.8 |
| Plymouth, N. C. | 2.0 | 3.0 | 2.0 | 2.0 | 2.0 | 3.0 |
| Willard, N. C. | 1.0 | 3.0 | 2.5 | 2.0 | 2.0 | 3.0 |
| Clayton, N. C. | 1.0 | 2.5 | 1.0 | 2.0 | 1.0 | 2.5 |
| Hartsville, S. C. | 1.3 | 1.7 | 2.7 | 2.0 | 2.0 | 1.7 |
| | | | Southeast | | | |
| Tallassee, Ala. | 1.5 | 1.5 | 1.0 | 1.0 | 1.0 | 2.0 |
| Gainesville, Fla. | 1.0 | 1.0 | 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. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Fairhope, Ala. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Baton Rouge, La. | 1.0 | 2.0 | 1.0 | 2.0 | 1.0 | 2.0 |
| | | | Upper and Central South | | | |
| Belle Mina, Ala. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Athens, Ga. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | | | Delta | | | |
| Vinson, Mo. | 1.2 | 2.7 | 1.8 | 1.8 | 1.5 | 2.2 |
| Bragg City, Mo. | 1.0 | 1.5 | 1.1 | 1.3 | 1.3 | 1.5 |
| Wilson, Ark. | 2.0 | 1.0 | 1.7 | 1.0 | 2.0 | 1.0 |
| Marianna, Ark. | 3.7 | 2.3 | 4.0 | 4.0 | 5.0 | 3.0 |
| Coahoma, Miss. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Clarksdale, Miss. | 2.0 | 2.0 | 1.3 | 2.0 | 2.0 | 2.0 |
| Stoneville(A), Miss. | 2.0 | 2.0 | 2.0 | 2.0 | 1.7 | 2.3 |
| Louise, Miss. | 1.3 | 1.7 | 1.3 | 1.7 | 1.7 | 2.3 |
| | | | West | | | |
| Stuttgart, Ark. | 1.7 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Fayetteville, Ark. | 1.0 | 2.0 | 1.0 | 1.7 | 1.0 | 1.7 |
| Bixby, Okla. | 2.8 | 2.5 | 2.5 | 1.8 | 1.5 | 2.7 |
| Milburn, Okla. | 1.0 | 1.5 | 1.3 | 1.7 | 1.5 | 2.2 |
| Chillicothe, Texas | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| College Station, Texas | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |

Table 33. (Continued)

| Location | D53-1569 | N51-1403 | N53-3592 | N53-3599 | N53-3646 | N53-5263 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Linkwood, Md. | 3.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.0 |
| Warsaw, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Painter, Va. | 4.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.0 |
| Petersburg, Va. | 3.0 | 1.0 | 2.0 | 2.0 | 2.0 | 4.0 |
| Norfolk, Va. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Holland, Va. | 2.8 | 1.0 | 2.8 | 1.8 | 3.0 | 3.3 |
| Plymouth, N. C. | 2.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 |
| Willard, N. C. | 2.0 | 1.0 | 1.0 | 1.5 | 1.5 | 2.0 |
| Clayton, N. C. | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 |
| Hartsville, S. C. | 1.0 | 1.0 | 1.7 | 1.3 | 1.7 | 2.3 |
| | | | Southeast | | | |
| Tallassee, Ala. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.5 |
| Gainesville, Fla. | 1.0 | 1.0 | 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. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Fairhope, Ala. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Baton Rouge, La. | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 |
| | | | Upper and Central South | | | |
| Belle Mina, Ala. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Athens, Ga. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | | | Delta | | | |
| Vinson, Mo. | 1.5 | 1.3 | 1.7 | 1.5 | 1.3 | 1.8 |
| Bragg City, Mo. | 1.5 | 1.0 | 1.3 | 1.0 | 1.0 | 1.3 |
| Wilson, Ark. | 1.0 | 1.0 | 1.7 | 1.0 | 1.7 | 1.7 |
| Marianna, Ark. | 2.7 | 1.7 | 3.3 | 3.3 | 4.3 | 4.7 |
| Coahoma, Miss. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Clarksdale, Miss. | 1.7 | 1.0 | 2.0 | 1.7 | 1.3 | 2.0 |
| Stoneville (A), Miss. | 1.7 | 1.7 | 2.0 | 2.0 | 2.7 | 3.0 |
| Louise, Miss. | 1.0 | 1.0 | 1.7 | 1.0 | 2.0 | 1.3 |
| | | | West | | | |
| Stuttgart, Ark. | 2.0 | 1.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Fayetteville, Ark. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.3 |
| Bixby, Okla. | 1.5 | 1.5 | 1.5 | 1.8 | 1.5 | 1.8 |
| Milburn, Okla. | 1.0 | 1.0 | 1.1 | 1.0 | 1.7 | 2.0 |
| Chillicothe, Texas | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| College Station, Texas | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |

Table 34. Seed quality scores for the strains in Uniform Group VI, 1957

| Location | Ogden | Lee | D51-4838 | D51-5100 | D51-4969 | D53-1301 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Warsaw, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Painter, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Petersburg, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Norfolk, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Holland, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Plymouth, N. C. | 2.0 | 1.5 | 2.0 | 2.0 | 1.5 | 1.5 |
| Willard, N. C. | 2.5 | 1.5 | 2.0 | 2.0 | 2.0 | 1.5 |
| Clayton, N. C. | 1.0 | 1.0 | 1.5 | 1.0 | 1.5 | 1.0 |
| | | | Southeast | | | |
| Tallassee, Ala. | 2.0 | 1.0 | 3.0 | 2.0 | 1.5 | 1.0 |
| Gainesville, Fla. | 3.0 | 2.0 | 3.0 | 2.0 | 2.7 | 2.0 |
| Quincy, Fla. | 3.0 | 2.0 | 4.0 | 2.0 | 3.0 | 2.0 |
| Walnut Hill, Fla. | 3.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 |
| Fairhope, Ala. | 2.3 | 1.3 | 2.6 | 2.1 | 2.1 | 1.3 |
| Baton Rouge, La. | 2.0 | 1.0 | 3.0 | 1.0 | 1.0 | 1.0 |
| | | | Upper and Central South | | | |
| Athens, Ga. | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 2.0 |
| | | | Delta | | | |
| Vinson, Mo. | 2.0 | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 |
| Bragg City, Mo. | 2.0 | 2.0 | 1.0 | 1.0 | 2.0 | 2.0 |
| Wilson, Ark. | 2.0 | 2.0 | 1.3 | 2.0 | 2.0 | 1.7 |
| Marianna, Ark. | 2.3 | 1.3 | 2.0 | 2.0 | 2.0 | 1.7 |
| Coahoma, Miss. | 2.0 | 1.0 | 2.0 | 1.0 | 1.7 | 1.0 |
| Clarksdale, Miss. | 2.7 | 2.0 | 2.7 | 2.0 | 2.3 | 2.0 |
| Stoneville(A), Miss. | 2.0 | 1.0 | 2.7 | 2.0 | 1.7 | 1.0 |
| Louise, Miss. | 2.3 | 1.3 | 2.7 | 2.0 | 2.0 | 2.0 |
| | | | West | | | |
| Stuttgart, Ark. | 1.7 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Fayetteville, Ark. | 2.0 | 1.7 | 1.7 | 1.7 | 1.0 | 1.7 |
| Bixby, Okla. | 1.3 | 1.0 | 1.0 | 1.3 | 1.7 | 1.5 |
| Milburn, Okla. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Chillicothe, Texas | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lubbock, Texas | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| College Station, Texas | 1.0 | 1.0 | 3.0 | 1.0 | 1.0 | 1.0 |

Table 34. (Continued)

| Location | D53-1569 | N51 1403 | N53-3592 | N53-3599 | N53-3646 | N53-5263 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Warsaw, Va. | 1.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 |
| Painter, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Petersburg, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Norfolk, Va. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Holland, Va. | 2.0 | 1.5 | 1.5 | 1.5 | 2.0 | 1.5 |
| Plymouth, N. C. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 |
| Willard, N. C. | 3.0 | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 |
| Clayton, N. C. | 2.0 | 1.0 | 2.0 | 2.0 | 2.0 | 2.5 |
| | | | Southeast | | | |
| Tallassee, Ala. | 5.0 | 3.0 | 4.0 | 3.5 | 5.0 | 4.5 |
| Gainesville, Fla. | 3.7 | 3.0 | 3.3 | 2.7 | 3.3 | 4.3 |
| Quincy, Fla. | 4.0 | 3.0 | 4.0 | 3.0 | 3.0 | 3.0 |
| Walnut Hill, Fla. | 3.0 | 2.0 | 3.0 | 2.0 | 3.0 | 3.0 |
| Fairhope, Ala. | 2.6 | 3.0 | 2.0 | 2.0 | 3.0 | 2.6 |
| Baton Rouge, La. | 3.0 | 2.0 | 2.0 | 3.0 | 3.0 | 2.0 |
| | | | Upper and Central South | | | |
| Athens, Ga. | 3.0 | 1.0 | 3.0 | 1.0 | 3.0 | 2.0 |
| | | | Delta | | | |
| Vinson, Mo. | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 2.0 |
| Bragg City, Mo. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Wilson, Ark. | 3.0 | 2.0 | 2.7 | 3.0 | 2.3 | 2.0 |
| Marianna, Ark. | 2.7 | 2.0 | 3.0 | 2.0 | 2.0 | 3.7 |
| Coahoma, Miss. | 2.0 | 2.0 | 1.7 | 2.0 | 1.7 | 2.0 |
| Clarksdale, Miss. | 2.7 | 3.0 | 2.7 | 2.7 | 3.0 | 3.0 |
| Stoneville,(A), Miss. | 2.0 | 1.7 | 2.0 | 3.0 | 2.3 | 2.0 |
| Louise, Miss. | 3.3 | 3.3 | 4.0 | 3.3 | 4.0 | 3.0 |
| | | | West | | | |
| Stuttgart, Ark. | 1.3 | 1.0 | 2.7 | 2.0 | 2.0 | 1.0 |
| Fayetteville, Ark. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.3 |
| Bixby, Okla. | 1.7 | 1.2 | 1.0 | 1.7 | 1.5 | 1.7 |
| Milburn, Okla. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Chillicothe, Texas | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lubbock, Texas | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| College Station, Texas | 1.0 | 3.0 | 2.0 | 2.0 | 1.0 | 2.0 |

## PRELIMINARY GROUP VI

### 1957

Eight preliminary Group VI nurseries were planted. Heavy rains immediately after planting at Stoneville and Wilson caused incomplete stands. Stands were incomplete for several of the lines at Walnut Hill, Florida, so results of this location are not included in the regional summary. An excellent nursery was grown at Plainview, Texas, but results were not available to include in the regional summary. Results of the plantings at Warsaw, Plymouth, Bixby, and Southeast Missouri are summarized in tables 36 through 41.

Thirty-four experimental lines were grown along with Ogden and Lee. On the basis of the mean yield for the three locations Warsaw, Plymouth and Bixby, Lee ranked highest in yield, but the differences among lines were non-significant. There was a highly significant variety x location interaction.

Sixteen lines were significantly higher in oil content than Ogden. Five of these lines were significantly higher in oil content than Lee. These five lines had significantly lower protein content.

At Plymouth, four of the lines from D49-507(2) x D49-2510 showed loss of stand during the growing season. These lines yielded highly significantly less than Ogden. Other lines of similar parentage to these had shown severe killing from pod and stem blight at Stoneville in 1956.

Table 35. Parentage of strains in Preliminary Group VI, 1957

| | Strain | Parentage | Generation Composited |
|---|---|---|---|
| 1. | Ogden | | |
| 2. | Lee | S-100 x CNS | $F_6$ |
| 3. | D53-1626 | N46-1703 x D49-2525 | $F_5$ |
| 4. | D53-2125 | N46-1703 x N45-2994 | $F_5$ |
| 5. | D53-8181 | Dorman x N48-1515 | $F_5$ |
| 6. | D55-1127 | (Adams x Ogden) x D50-203 | $F_5$ |
| 7. | D55-1224 | D49-507 (2) x D49-2510 | $F_4$ |
| 8. | D55-1239 | D49-507 (2) x D49-2510 | $F_4$ |
| 9. | D55-1256 | D49-507 (2) x D49-2510 | $F_4$ |
| 10. | D55-1283 | D49-507 (2) x D49-2510 | $F_4$ |
| 11. | D55-1533 | D49-507 (2) x D49-2510 | $F_4$ |
| 12. | D55-2080 | D49-2573 (2) x L7-163 | $F_4$ |
| 13. | D55-2128 | D50-203 x D49-757 | $F_5$ |
| 14. | D55-2167 | D50-203 x D49-1066 | $F_5$ |
| 15. | D55-4054 | D50-203 x D49-757 | $F_5$ |
| 16. | D55-4059 | D50-203 x D49-757 | $F_5$ |
| 17. | N53-3494 | N46-1703 x D49-2525 | $F_5$ |
| 18. | N53-3601 | N46-1703 x D49-2525 | $F_5$ |
| 19. | N53-3655 | N46-1703 x D49-2525 | $F_5$ |
| 20. | N53-5129 | N48-1248 x Perry | $F_7$ |
| 21. | N53-5085 | D49-2570 x N45-3799 | $F_5$ |
| 22. | N53-5146 | N48-1248 x Perry | $F_7$ |
| 23. | N53-5236 | N46-1703 x N45-2994 | $F_5$ |
| 24. | N55-3714 | (N45-2994 x Ogden) x (N44-92 x N48-1867) | $F_5$ |
| 25. | N55-3753 | (N45-2994 x Ogden) x(N44-92 x N48-1867) | $F_5$ |
| 26. | N55-3778 | (N45-2994 x Ogden) x (N44-92 x N48-1867) | $F_5$ |
| 27. | N55-3818 | (N45-2994 x Ogden) x (N44-92 x N48-1867) | $F_5$ |
| 28. | N55-3828 | (N45-2994 x Ogden) x (N44-92 x N48-1867) | $F_5$ |
| 29. | N55-3830 | (N45-2994 x Ogden) x (N44-92 x N48-1867) | $F_5$ |
| 30. | N55-3833 | (N45-2994 x Ogden) x (N44-92 x N48-1867) | $F_5$ |
| 31. | N55-3843 | (N45-2994 x Ogden) x (N44-92 x N48-1867) | $F_5$ |
| 32. | N55-3851 | (N45-2994 x Ogden) x (N44-92 x N48-1867) | $F_5$ |
| 33. | N55-5032 | (N45-2994 x Ogden) x (N44-92 x N48-1867) | $F_5$ |
| 34. | R54-168 | D49-2573 x N45-1497 | $F_5$ |
| 35. | S3-7094 | N48-1248 x Perry | $F_6$ |
| 36. | S5-7092 | N48-1248 x Perry | $F_8$ |

Table 36. General summary of the performance of strains grown in Preliminary Group VI, 1957

| Strain | Seed Yield | Maturity Index | Height | Percent Oil | Percent Protein | Bacterial Pustule |
|---|---|---|---|---|---|---|
| Ogden | 37.4 | 10-26 | 34 | 20.6 | 39.8 | 3.0 |
| Lee | 41.5 | +3 | 34 | 21.3 | 39.3 | 1.0 |
| D53-1626 | 33.1 | -10 | 30 | 21.3 | 40.5 | 1.0 |
| D53-2125 | 31.9 | +6 | 39 | 19.7 | 40.5 | 3.0 |
| D53-8181 | 38.8 | +4 | 39 | 20.1 | 40.4 | 2.0 |
| D55-1127 | 33.6 | -7 | 29 | 22.2+ | 39.0 | 2.0 |
| D55-1224 | 32.2 | +3 | 32 | 20.5 | 40.0 | 1.0 |
| D55-1239 | 32.5 | +3 | 35 | 20.2 | 41.3 | 1.0 |
| D55-1256 | 33.6 | +3 | 34 | 20.6 | 40.1 | 1.0 |
| D55-1283 | 33.2 | +4 | 39 | 20.7 | 40.5 | 1.0 |
| D55-1533 | 36.9 | -8 | 33 | 20.2 | 39.7 | 1.0 |
| D55-2080 | 34.1 | 0 | 38 | 19.0- | 41.8 | 1.0 |
| D55-2128 | 36.4 | -4 | 39 | 20.3 | 40.6 | 1.0 |
| D55-2167 | 38.5 | -7 | 39 | 20.0 | 41.5 | 1.0 |
| D55-4054 | 36.1 | -4 | 46 | 20.2 | 42.1+ | 1.0 |
| D55-4059 | 38.4 | -4 | 40 | 20.2 | 38.7 | 1.0 |
| N53-3494 | 40.4 | -7 | 32 | 22.1+ | 41.3 | 1.0 |
| N53-3601 | 37.9 | -4 | 39 | 22.0+ | 38.2 | 1.0 |
| N53-3655 | 37.3 | -9 | 34 | 21.0 | 39.2 | 1.0 |
| N53-5129 | 37.8 | -3 | 36 | 21.7+ | 38.8 | 1.0 |
| N53-5085 | 37.5 | -5 | 32 | 20.2 | 40.8 | 1.0 |
| N53-5146 | 38.1 | -6 | 30 | 22.3+ | 37.1- | 1.0 |
| N53-5236 | 35.9 | -3 | 32 | 20.6 | 41.1 | 3.0 |
| N55-3714 | 34.7 | -2 | 40 | 22.5+ | 37.6- | 3.0 |
| N55-3753 | 38.1 | -4 | 38 | 22.5+ | 36.5- | 1.0 |
| N55-3778 | 35.8 | -2 | 37 | 21.0 | 39.5 | 1.0 |
| N55-3818 | 40.8 | -4 | 33 | 22.3+ | 39.6 | 1.0 |
| N55-3828 | 37.6 | -1 | 32 | 22.5+ | 37.5- | 1.0 |
| N55-3830 | 37.5 | -6 | 30 | 23.2+ | 36.6- | 1.0 |
| N55-3833 | 36.4 | -5 | 37 | 22.5+ | 36.0- | 1.0 |
| N55-3843 | 38.5 | -5 | 33 | 22.3+ | 36.4- | 1.0 |
| N55-3851 | 38.2 | -4 | 31 | 22.2+ | 36.6- | 1.0 |
| N55-5032 | 35.1 | -2 | 38 | 22.2+ | 38.8 | 1.0 |
| R54-168 | 40.5 | -1 | 39 | 22.1+ | 39.0 | 1.0 |
| S3-7094 | 38.9 | -5 | 32 | 21.6 | 39.3 | 1.0 |
| S5-7092 | 38.4 | -2 | 31 | 21.9+ | 39.0 | 1.0 |
| L.S.D. (.05) | N.S. | | | 1.1 | 2.1 | |

Table 37. Seed yield, in bushels per acre, for the strains in Preliminary Group VI, 1957

| Strain | Warsaw, Va. | Plymouth, N. C. | Sikeston, Mo.1/ | Bixby, Okla. |
|---|---|---|---|---|
| Ogden | 25.0 | 41.4 | 39.7 | 45.8 |
| Lee | 25.9 | 43.4 | 34.4 | 55.4+ |
| D53-1626 | 25.4 | 42.6 | -- | 31.3- |
| D53-2125 | 25.3 | 34.1- | 32.0 | 36.4- |
| D53-8181 | 28.9+ | 42.6 | 36.4 | 44.9 |
| D55-1127 | 21.3 | 33.3- | -- | -- |
| D55-1224 | 29.8+ | 23.4- | 30.7 | 43.4 |
| D55-1239 | 27.6 | 29.0- | 34.9 | 40.9 |
| D54-1256 | 28.3 | 19.5- | 32.9 | 53.2+ |
| D55-1283 | 31.2+ | 25.6- | -- | 42.7 |
| D55-1533 | 30.3+ | 36.5 | 39.5 | 44.0 |
| D55-2080 | 27.6 | 33.4- | 29.5 | 41.2 |
| D55-2128 | 30.9+ | 33.1- | 33.3 | 45.2 |
| D55-2167 | 28.8+ | 35.1 | 38.0 | 51.6 |
| D55-4054 | 28.3 | 31.4- | 37.3 | 51.2 |
| D55-4059 | 31.3+ | 33.8- | 37.9 | 50.3 |
| N53-3494 | 30.8+ | 37.6 | 34.6 | 52.8 |
| N53-3601 | 27.2 | 39.2 | 33.5 | 47.4 |
| N53-3655 | 25.7 | 39.6 | -- | 46.6 |
| N53-5129 | 28.2 | 39.8 | 42.5 | 45.4 |
| N53-5085 | 25.6 | 41.7 | 37.7 | 45.3 |
| N53-5146 | 28.3 | 36.9 | 34.2 | 48.9 |
| N53-5236 | 29.4+ | 32.3- | 34.6 | 45.3 |
| N55-3714 | 25.7 | 36.0 | 37.6 | 42.4 |
| N55-3753 | 28.3 | 39.7 | 34.5 | 46.4 |
| N55-3778 | 27.1 | 37.4 | -- | 43.1 |
| N55-3818 | 27.3 | 39.6 | 38.2 | 55.4+ |
| N55-3828 | 28.5 | 36.3 | 35.0 | 47.6 |
| N55-3830 | 28.3 | 38.0 | -- | 46.1 |
| N55-3833 | 30.7+ | 33.3- | 36.0 | 44.7 |
| N55-3843 | 26.0 | 40.9 | 37.3 | 48.7 |
| N55-3851 | 29.3+ | 39.2 | 38.8 | 46.1 |
| N55-5032 | 26.5 | 35.0 | 40.2 | 43.8 |
| R54-168 | 31.3+ | 43.7 | 36.5 | 46.7 |
| S3-7094 | 31.9+ | 41.3 | 42.4 | 43.4 |
| S5-7092 | 30.5+ | 41.9 | 39.7 | 42.9 |
| L.S.D. (.05) | 3.6 | 7.0 | 7.7 | 7.1 |
| C.V. | 6% | 10% | 11% | 9% |

1/ Average of Malden, Sikeston, Vinson and Bragg City.

Table 38. Oil percentages for the strains in Preliminary Group VI, 1957

| Strain | Warsaw, Va. | Plymouth, N. C. | Bixby, Okla. |
|---|---|---|---|
| Ogden | 19.2 | 21.9 | 20.6 |
| Lee | 20.6 | 22.3 | 21.0 |
| D53-1626 | 20.9 | 21.9 | 21.1 |
| D53-2125 | 18.7 | 21.0 | 19.5 |
| D53-8181 | 18.8 | 22.1 | 19.3 |
| D55-1127 | 22.4 | 23.3 | -- |
| D55-1224 | 20.1 | 21.1 | 20.4 |
| D55-1239 | 19.9 | 21.3 | 19.3 |
| D55-1256 | 20.4 | 21.3 | 20.0 |
| D55-1283 | 19.7 | 21.8 | 20.5 |
| D55-1533 | 20.7 | 22.3 | 17.7 |
| D55-2080 | 17.8 | 20.1 | 19.1 |
| D55-2128 | 19.3 | 21.8 | 19.8 |
| D55-2167 | 19.0 | 21.5 | 19.5 |
| D55-4054 | 19.6 | 21.3 | 19.7 |
| D55-4059 | 20.1 | 20.7 | 19.7 |
| N53-3494 | 21.4 | 22.5 | 22.3 |
| N53-3601 | 21.1 | 22.8 | 22.1 |
| N53-3655 | 20.5 | 21.1 | 21.4 |
| N53-5129 | 21.2 | 22.3 | 21.6 |
| N53-5085 | 19.2 | 20.2 | 21.2 |
| N53-5146 | 21.1 | 23.0 | 22.9 |
| N53-5236 | 20.1 | 21.6 | 20.2 |
| N55-3714 | 21.6 | 24.5 | 21.5 |
| N55-3753 | 21.9 | 23.8 | 21.9 |
| N55-3778 | 19.4 | 22.7 | 21.0 |
| N55-3818 | 21.0 | 23.4 | 22.5 |
| N55-3828 | 22.0 | 23.3 | 22.1 |
| N55-3830 | 22.3 | 24.4 | 22.8 |
| N55-3833 | 21.5 | 24.1 | 21.8 |
| N55-3843 | 20.9 | 23.8 | 22.2 |
| N55-3851 | 21.8 | 23.2 | 21.7 |
| N55-5032 | 21.5 | 23.9 | 21.3 |
| R54-168 | 20.1 | 23.5 | 22.8 |
| S3-7094 | 20.5 | 22.6 | 21.6 |
| S5-7092 | 21.5 | 22.1 | 22.0 |

Table 39. Protein percentages for the strains in Preliminary Group VI, 1957

| Strain | Warsaw, Va. | Plymouth, N. C. | Bixby, Okla. |
|---|---|---|---|
| Ogden | 39.5 | 40.5 | 39.3 |
| Lee | 39.1 | 39.9 | 38.9 |
| D53-1626 | 40.7 | 40.9 | 39.9 |
| D53-2125 | 38.9 | 42.1 | 40.4 |
| D53-8181 | 40.7 | 40.3 | 40.1 |
| D55-1127 | 38.0 | 40.9 | -- |
| D55-1224 | 41.4 | 40.6 | 37.9 |
| D55-1239 | 41.2 | 41.6 | 41.0 |
| D55-1256 | 39.5 | 41.3 | 39.6 |
| D55-1283 | 40.0 | 41.4 | 40.1 |
| D55-1533 | 38.3 | 40.5 | 40.4 |
| D55-2080 | 42.6 | 44.3 | 38.6 |
| D55-2128 | 40.2 | 41.1 | 40.6 |
| D55-2167 | 40.6 | 42.6 | 41.4 |
| D55-4054 | 41.0 | 42.3 | 43.5 |
| D55-4059 | 39.4 | 41.8 | 34.8 |
| N53-3494 | 41.9 | 42.0 | 39.9 |
| N53-3601 | 38.9 | 40.2 | 35.5 |
| N53-3655 | 39.4 | 41.0 | 37.3 |
| N53-5129 | 37.6 | 40.5 | 38.3 |
| N53-5085 | 41.5 | 43.1 | 37.7 |
| N53-5146 | 36.8 | 39.6 | 34.8 |
| N53-5236 | 40.6 | 42.9 | 39.7 |
| N55-3714 | 37.7 | 38.8 | 36.2 |
| N55-3753 | 35.1 | 37.3 | 37.2 |
| N55-3778 | 39.6 | 39.8 | 39.0 |
| N55-3818 | 39.1 | 40.8 | 38.9 |
| N55-3828 | 38.2 | 39.3 | 34.9 |
| N55-3830 | 36.3 | 38.5 | 34.9 |
| N55-3833 | 37.1 | 38.0 | 33.0 |
| N55-3843 | 36.9 | 38.4 | 33.9 |
| N55-3851 | 37.3 | 38.6 | 34.8 |
| N55-5032 | 38.1 | 40.1 | 38.2 |
| R54-168 | 41.3 | 41.1 | 34.6 |
| S3-7094 | 39.5 | 39.6 | 38.8 |
| S5-7092 | 39.8 | 41.5 | 35.5 |

Table 40. Height data for the strains in Preliminary Group VI, 1957

| Strain | Warsaw, Va. | Plymouth, N. C. | Sikeston, Mo.1/ | Bixby, Okla. |
|---|---|---|---|---|
| Ogden | 30 | 37 | 38 | 29 |
| Lee | 29 | 36 | 36 | 36 |
| D53-1626 | 29 | 31 | 32 | 27 |
| D53-2125 | 35 | 46 | 44 | 29 |
| D53-8181 | 31 | 41 | 40 | 42 |
| D55-1127 | 27 | 31 | 30 | -- |
| D55-1224 | 27 | 30 | 35 | 34 |
| D55-1239 | 29 | 36 | 37 | 39 |
| D55-1256 | 27 | 35 | 36 | 41 |
| D55-1283 | 32 | 40 | 41 | 44 |
| D55-1533 | 29 | 36 | 36 | 30 |
| D55-2080 | 31 | 44 | 38 | 37 |
| D55-2128 | 33 | 43 | 43 | 35 |
| D55-2167 | 33 | 41 | 40 | 40 |
| D55-4054 | 36 | 55 | 46 | 47 |
| D55-4059 | 33 | 44 | 42 | 41 |
| N53-3494 | 28 | 33 | 32 | 33 |
| N53-3601 | 30 | 38 | 43 | 44 |
| N53-3655 | 31 | 36 | 34 | 34 |
| N53-5129 | 29 | 40 | 37 | 39 |
| N53-5085 | 26 | 34 | 34 | 33 |
| N53-5146 | 27 | 32 | 35 | 27 |
| N53-5236 | 29 | 32 | 34 | 32 |
| N55-3714 | 32 | 42 | 40 | 45 |
| N55-3753 | 32 | 43 | 38 | 37 |
| N55-3778 | 31 | 39 | 39 | 37 |
| N55-3818 | 26 | 36 | 38 | 33 |
| N55-3828 | 30 | 32 | 36 | 31 |
| N55-3830 | 18 | 32 | 35 | 33 |
| N55-3833 | 32 | 40 | 40 | 37 |
| N55-3843 | 29 | 37 | 34 | 32 |
| N55-3851 | 28 | 32 | 32 | 31 |
| N55-5032 | 32 | 46 | 40 | 35 |
| R54-168 | 32 | 44 | 40 | 39 |
| S3-7094 | 28 | 34 | 35 | 31 |
| S5-7092 | 27 | 32 | 32 | 32 |

1/ Average of Malden, Sikeston, Vinson and Bragg City.

Table 41. Seed quality scores for strains in Preliminary Group VI, 1957

| Strain | Warsaw, Va. | Plymouth, N. C. | Sikeston, Mo.1/ | Bixby, Okla. |
|---|---|---|---|---|
| Ogden | 1.0 | 2.5 | 2.0 | 1.0 |
| Lee | 1.0 | 1.5 | 1.0 | 1.0 |
| D53-1626 | 1.0 | 3.0 | -- | 3.0 |
| D53-2125 | 1.0 | 1.0 | 2.0 | 2.5 |
| D53-8181 | 1.0 | 1.5 | 1.0 | 2.5 |
| D55-1127 | 1.0 | 3.5 | -- | -- |
| D55-1224 | 1.0 | 1.5 | 2.0 | 1.0 |
| D55-1239 | 1.0 | 1.5 | 1.0 | 2.0 |
| D54-1256 | 1.0 | 2.0 | 2.0 | 1.0 |
| D55-1283 | 1.0 | 1.5 | 2.0 | 2.0 |
| D55-1533 | 1.0 | 2.0 | 1.0 | 2.0 |
| D55-2080 | 1.0 | 3.0 | 2.0 | 2.0 |
| D55-2128 | 1.0 | 3.0 | 2.0 | 2.0 |
| D55-2167 | 1.0 | 3.0 | 1.0 | 2.0 |
| D55-4054 | 1.0 | 3.0 | 2.0 | 2.0 |
| D55-4059 | 1.0 | 3.0 | 2.0 | 2.5 |
| N53-3494 | 1.0 | 3.0 | 1.0 | 1.5 |
| N53-3601 | 1.0 | 1.5 | 2.0 | 1.0 |
| N53-3655 | 1.0 | 2.0 | 2.0 | 2.0 |
| N53-5129 | 1.0 | 3.0 | 2.0 | 2.0 |
| N53-5085 | 1.0 | 2.0 | 1.0 | 1.0 |
| N53-5146 | 1.0 | 3.0 | 1.0 | 1.0 |
| N53-5236 | 1.0 | 3.0 | 1.0 | 2.0 |
| N55-3714 | 1.0 | 2.0 | 2.0 | 1.5 |
| N55-3753 | 1.0 | 2.0 | 1.0 | 1.5 |
| N55-3778 | 1.0 | 2.5 | 1.0 | 2.0 |
| N55-3818 | 1.0 | 3.0 | 2.0 | 1.5 |
| N55-3828 | 1.0 | 3.0 | 2.0 | 2.0 |
| N55-3830 | 1.0 | 3.0 | 1.0 | 2.0 |
| N55-3833 | 1.0 | 3.0 | 2.0 | 1.5 |
| N55-3843 | 1.0 | 2.5 | 2.0 | 1.5 |
| N55-3851 | 1.0 | 2.5 | 2.0 | 2.0 |
| N55-5032 | 1.0 | 3.0 | 2.0 | 2.0 |
| R54-168 | 1.0 | 2.0 | 1.0 | 2.0 |
| S3-7094 | 1.0 | 2.5 | 1.0 | 2.0 |
| S5-7092 | 1.0 | 3.0 | 1.0 | 1.5 |

1/ Average of Malden, Sikeston, Vinson and Bragg City.

UNIFORM GROUP VII

1957

| | Variety or Strain | 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. | D51-5091 | Roanoke x N45-745 | $F_6$ |
| 5. | D52-834 | Roanoke x N45-745 | $F_7$ |
| 6. | D53-1664 | N46-1703 x D49-2525 | $F_5$ |
| 7. | N51-2302 | Roanoke x N45-745 | $F_6$ |
| 8. | N51-2764 | Roanoke x N45-1128 | $F_5$ |
| 9. | N51-3185 | Roanoke x N45-1128 | $F_5$ |
| 10. | N52-3908 | Roanoke x N45-745 | $F_7$ |
| 11. | N54-1748 | Roanoke x N48-1394 | $F_5$ |
| 12. | N54-1842 | Roanoke x N48-1394 | $F_5$ |

Background of strains used as parents:

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

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

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

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

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

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Results of 27 Group VII nurseries are summarized in tables 42 through 48. This group included the three named varieties Jackson, Roanoke and Lee, and nine experimental lines. Good yields were obtained in all areas. Differences among strains were significant in 13 of the 27 tests which were summarized. Strain differences were significant for within the East Coast, Southeast and Delta regions. Over the 4-year period, Lee has averaged higher in yield than Jackson in the East, Upper and Central South, Delta and Western regions. Jackson has averaged slightly higher in yield than Lee in the Southeast where material of Group VII maturity appears to be best adapted. In the Southeast, D51-5091 has yielded very well and its greater height is of value.

All lines except Jackson and Roanoke are resistant to bacterial pustule. Bacterial blight developed rather uniformly over the Stoneville nursery in late June and strains were rated. Jackson and Roanoke were given the lowest ratings. D53-834 was given the lowest rating of the pustule resistant lines. The four lines N51-2302, N51-3185, N54-1748, and N54-1842 have a fairly high degree of susceptibility to target spot.

The two lines D52-834 and N51-2764 are of a similar type and resemble Roanoke. Both lodge more than is desired in the more northern tests but make very good growth and stand well in the Southeast. N51-2764 equals Roanoke in oil content while D52-834 averages 1.6 percent lower. D52-834 was given a slightly lower rating for bacterial blight at Stoneville, but both were given low ratings for target spot. N52-3908 produced well in all areas. This strain is good in all attributes but averaged lower in both oil and protein than Lee, but was higher in protein than Jackson. N51-3185 yielded well in most areas, has very high oil content along with good protein content, but has high susceptibility to target spot.

N51-2302 appeared to be the poorest performing line. It yielded significantly lower than Jackson in seven nurseries and averaged significantly lower in the East and Southeast. D53-1664 yielded significantly less than Jackson in four Southeast nurseries and for the Southeast region but yielded significantly higher than Jackson in four Western nurseries.

Table 42. General summary of the performance for the strains in Uniform Group VII, 1957

| | Jackson | Roanoke | Lee | D51-5091 | D52-834 | D53-1664 |
|---|---|---|---|---|---|---|
| Seed Yield - 1957 | | | | | | |
| East Coast | 36.7 | 34.1 | 39.3 | 32.1- | 35.9 | 36.6 |
| Southeast | 36.8 | 34.3 | 33.4- | 35.1 | 36.4 | 32.4- |
| Upper & Central South | 31.4 | 31.0 | 32.5 | 28.9 | 30.7 | 29.4 |
| Delta | 39.0 | 34.6 | 40.9 | 37.7 | 43.4 | 41.6 |
| West | 31.8 | 30.9 | 35.5 | 32.3 | 35.2 | 37.2 |
| - 1954-57 | | | | | | |
| East Coast | 30.5 | 29.4 | 33.2 | 26.9 | | |
| Southeast | 32.3 | 30.4 | 31.5 | 32.4 | | |
| Upper & Central South | 23.2 | 23.1 | 26.6 | 22.3 | | |
| Delta | 30.3 | 29.8 | 33.5 | 30.4 | | |
| West | 23.4 | 23.5 | 27.2 | 24.7 | | |
| Oil Percentage - 1957 | 22.2 | 22.4 | 21.9 | 21.2- | 20.8- | 21.4- |
| - 1954-57 | 21.8 | 22.0 | 21.3 | 21.2 | | |
| Protein Percentage - 1957 | 39.6 | 39.0 | 41.2+ | 39.2 | 40.5+ | 41.3+ |
| - 1954-57 | 40.2 | 39.9 | 41.9 | 40.0 | | |
| Seed Size | 16.2 | 17.0+ | 14.7- | 14.6- | 14.5- | 15.5 |
| Maturity Index | 10-28 | -2 | -8 | -1 | -6 | -5 |
| Height | 36 | 35 | 27 | 43 | 37 | 32 |
| Shattering | 1.5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Bacterial Pustule | 3.0 | 4.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Bacterial Blight | 1.0 | 1.7 | 3.0 | 3.0 | 2.0 | 2.7 |
| Target Spot | 1.0 | 2.2 | 1.0 | 1.0 | 1.0 | 1.0 |

Table 42. (Continued)

| | N51-2302 | N51-2764 | N51-3185 | N52-3908 | N54-1748 | N54-1842 |
|---|---|---|---|---|---|---|
| Seed Yield - 1957 | | | | | | |
| East Coast | 31.8- | 34.5 | 37.9 | 36.7 | 34.5 | 32.6- |
| Southeast | 32.5- | 34.8 | 35.6 | 38.6 | 36.7 | 34.1 |
| Upper & Central South | 30.0 | 32.1 | 30.3 | 29.6 | 29.5 | 30.1 |
| Delta | 33.5 | 43.0 | 37.4 | 46.1 | 35.7 | 32.7 |
| West | 29.9 | 33.4 | 33.6 | 37.4 | 34.2 | 33.5 |
| - 1954-57 | | | | | | |
| East Coast | | | | | | |
| Southeast | | | | | | |
| Upper & Central South | | | | | | |
| Delta | | | | | | |
| West | | | | | | |
| Oil Percentage - 1957 | 21.8 | 22.4 | 23.0+ | 21.4- | 21.5- | 21.4- |
| - 1954-57 | | | | | | |
| Protein Percentage - 1957 | 41.3+ | 38.6- | 39.5 | 40.3+ | 40.2 | 39.9 |
| - 1954-57 | | | | | | |
| Seed Size | 18.1+ | 16.2 | 16.4 | 18.1+ | 16.9 | 16.8 |
| Maturity Index | -9 | -4 | -3 | -4 | -2 | -3 |
| Height | 28 | 37 | 35 | 30 | 31 | 26 |
| Shattering | 1.5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Bacterial Pustule | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Bacterial Blight | 3.7 | 3.3 | 3.7 | 3.0 | 3.3 | 3.0 |
| Target Spot | 3.3 | 1.5 | 3.5 | 1.0 | 3.3 | 3.3 |

Table 43. Seed yield, in bushels per acre, for the strains in Uniform Group VII, 1957

| Location | Jackson | Roanoke | Lee | D51-5091 | D52-834 | D53-1664 |
|---|---|---|---|---|---|---|
| | | East Coast | | | | |
| Plymouth, N. C. | 34.4 | 27.8- | 38.5+ | 22.9- | 30.9- | 34.3 |
| Willard, N. C. | 45.8 | 40.3- | 42.8 | 34.5- | 43.9 | 44.7 |
| Clayton, N. C. | 40.0 | 37.9 | 40.1 | 38.3 | 38.6 | 37.7 |
| Florence, S. C. | 30.8 | 26.4 | 32.6 | 28.9 | 33.0 | 32.8 |
| Hartsville, S. C. | 32.5 | 37.9 | 42.2+ | 35.7 | 33.0 | 33.3 |
| Mean | 36.7 | 34.1 | 39.3 | 32.1- | 35.9 | 36.6 |
| | | Southeast | | | | |
| Summerville, S. C. | 35.7 | 33.5 | 28.5 | 36.0 | 40.9 | 26.9- |
| Blackville, S. C. 1/ | 23.3 | 8.1- | 9.8- | 21.6 | 16.8 | 13.0- |
| Tallassee, Ala. | 42.0 | 35.4 | 32.6 | 33.1 | 37.7 | 37.2 |
| Tifton, Ga. | 31.1 | 28.4 | 32.1 | 35.3+ | 35.5+ | 29.6 |
| Gainesville, Fla. | 36.5 | 34.5 | 26.5- | 38.9 | 30.5 | 28.4- |
| Marianna, Fla. | 41.7 | 36.6- | 42.3 | 39.7 | 36.0- | 43.0 |
| Quincy, Fla. | 39.1 | 34.5 | 30.2- | 30.5- | 33.5 | 29.2- |
| Walnut Hill, Fla. | 42.5 | 40.4 | 41.1 | 34.2 | 40.4 | 38.2 |
| Fairhope, Ala. | 35.0 | 34.7 | 33.4 | 37.2 | 34.1 | 32.5 |
| Baton Rouge, La. | 27.9 | 30.7 | 34.0+ | 30.7 | 39.3+ | 26.2 |
| Mean | 36.8 | 34.3 | 33.4- | 35.1 | 36.4 | 32.4- |
| | | Upper and Central South | | | | |
| Clemson, S. C. | 35.8 | 40.6 | 36.8 | 38.0 | 35.5 | 35.3 |
| Athens, Ga. | 18.8 | 12.4- | 17.9 | 12.0- | 13.7- | 13.6- |
| State College, Miss. | 39.7 | 40.1 | 42.7 | 36.8 | 42.8 | 39.3 |
| Mean | 31.4 | 31.0 | 32.5 | 28.9 | 30.7 | 29.4 |
| | | Delta | | | | |
| Stoneville(A), Miss. | 45.2 | 36.7- | 46.0 | 45.3 | 51.3 | 44.8 |
| Louise, Miss. | 32.8 | 32.5 | 35.8 | 30.2 | 35.5 | 38.5 |
| Mean | 39.0 | 34.6 | 40.9 | 37.7 | 43.4 | 41.6 |
| | | West | | | | |
| Stuttgart, Ark. | 34.5 | 34.4 | 44.7+ | 45.6+ | 48.1+ | 45.8+ |
| Curtis, La. 1/ | 52.0 | 46.1 | 48.6 | 50.6 | 51.2 | -- |
| Milburn, Okla. | 42.3 | 42.8 | 31.6 | 34.4 | 37.2 | 43.4 |
| Chillicothe, Texas 1/ | 3.5 | 4.1 | 7.0+ | 3.7 | 3.3 | 6.7+ |
| Plainview, Texas | 18.2 | 16.0 | 35.3+ | 22.3 | 22.6 | 27.4+ |
| Lubbock, Texas | 19.4 | 20.7 | 21.4 | 21.1 | 20.2 | 22.8+ |
| College Station, Texas | 44.7 | 40.7 | 44.5 | 38.1 | 47.8 | 47.1 |
| Mean | 31.8 | 30.9 | 35.5 | 32.3 | 35.2 | 37.2 |

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

Table 43. (Continued)

| Location | N51-2302 | N51-2764 | N51-3185 | N52-3908 | N54-1748 | N54-1842 | L.S.D. (.05) | C.V. |
|---|---|---|---|---|---|---|---|---|
| | | | East Coast | | | | | |
| Plymouth, N. C. | 27.1- | 25.5- | 30.6- | 27.1- | 26.9- | 25.9- | 3.4 | 7% |
| Willard, N. C. | 37.7- | 41.1- | 41.6- | 45.5 | 42.5- | 38.5- | 3.2 | 4% |
| Clayton, N. C. | 36.5 | 42.5 | 44.0 | 41.6 | 39.4 | 38.2 | N.S. | 9% |
| Florence, S. C. | 24.4 | 27.6 | 31.1 | 33.4 | 29.8 | 26.1 | N.S. | 13% |
| Hartsville, S. C. | 33.4 | 35.9 | 42.1+ | 35.7 | 33.7 | 34.0 | 5.7 | 9% |
| Mean | 31.8- | 34.5 | 37.9 | 36.7 | 34.5 | 32.6- | 3.5 | |
| | | | Southeast | | | | | |
| Summerville, S. C. | 35.3 | 34.5 | 40.4 | 42.2 | 38.2 | 38.8 | 8.2 | 13% |
| Blackville, S. C. 1/ | 18.3 | 21.9 | 16.9 | 26.4 | 15.7 | 23.2 | 8.2 | 27% |
| Tallassee, Ala. | 36.1 | 37.7 | 40.6 | 41.5 | 40.1 | 36.7 | N.S. | 14% |
| Tifton, Ga. | 25.4- | 32.9 | 32.3 | 33.2 | 33.8 | 30.2 | 4.0 | 8% |
| Gainesville, Fla. | 30.0- | 35.2 | 30.4- | 39.1 | 32.2 | 30.1- | 4.6 | 8% |
| Marianna, Fla. | 35.7- | 40.6 | 35.5- | 43.3 | 41.9 | 39.0 | 4.2 | 6% |
| Quincy, Fla. | 25.9- | 32.5- | 29.7- | 31.8- | 35.3 | 31.5- | 5.6 | 10% |
| Walnut Hill, Fla. | 37.6 | 38.7 | 39.5 | 42.3 | 37.4 | 39.3 | N.S. | 10% |
| Fairhope, Ala. | 34.9 | 32.5 | 37.0 | 39.6+ | 33.8 | 33.8 | 3.5 | 6% |
| Baton Rouge, La. | 31.1 | 28.9 | 35.2+ | 34.4+ | 37.6+ | 27.6 | 3.7 | 7% |
| Mean | 32.5- | 34.8 | 35.6 | 38.6 | 36.7 | 34.1 | 2.8 | |
| | | | Upper and Central South | | | | | |
| Clemson, S. C. | 37.8 | 36.9 | 36.6 | 35.6 | 35.9 | 37.1 | N.S. | 9% |
| Athens, Ga. | 14.6 | 15.1 | 14.1- | 11.2- | 11.3- | 12.9- | 4.2 | 18% |
| State College, Miss. | 37.6 | 44.2 | 40.1 | 41.8 | 41.2 | 40.4 | N.S. | 10% |
| Mean | 30.0 | 32.1 | 30.3 | 29.6 | 29.5 | 30.1 | N.S. | |
| | | | Delta | | | | | |
| Stoneville(A), Miss. | 37.7 | 51.2 | 42.8 | 49.8 | 39.6 | 42.3 | 8.3 | 11% |
| Louise, Miss. | 29.3 | 34.9 | 31.9 | 42.4+ | 31.7 | 23.0- | 8.2 | 15% |
| Mean | 33.5 | 43.0 | 37.4 | 46.1 | 35.7 | 32.7 | 7.2 | |
| | | | West | | | | | |
| Stuttgart, Ark. | 36.2 | 43.6+ | 48.1+ | 45.9+ | 49.9+ | 38.9 | 9.0 | 12% |
| Curtis, La. 1/ | 53.3 | 53.1 | 52.6 | 45.6 | 49.6 | 51.2 | N.S. | 12% |
| Milburn, Okla. | 40.0 | 37.1 | 32.9 | 38.0 | 35.8 | 36.8 | N.S. | 11% |
| Chillicothe, Texas 1/ | 2.3 | 4.3 | 5.1 | 3.5 | 3.6 | 3.0 | 2.3 | 33% |
| Plainview, Texas | 7.0- | 23.5 | 19.4 | 31.6+ | 17.4 | 25.4 | 9.0 | 24% |
| Lubbock, Texas | 22.6+ | 15.7- | 22.8+ | 26.9+ | 22.4+ | 23.0+ | 2.7 | 7% |
| College Station, Texas | 43.8 | 44.1 | 44.7 | 44.3 | 45.5 | 43.4 | N.S. | 9% |
| Mean | 29.9 | 33.4 | 33.6 | 37.4 | 34.2 | 33.5 | N.S. | |

1/ Not included in the mean.

Table 44. Chemical composition and seed size for the strains in Uniform Group VII, 1957

| Location | Jackson | Roanoke | Lee | D51-5091 | D52-834 | D53-1664 |
|---|---|---|---|---|---|---|
| | | | Oil Percentage | | | |
| Clayton, N. C. | 22.3 | 22.3 | 22.0 | 20.2 | 20.5 | 21.3 |
| Hartsville, S. C. | 22.3 | 22.4 | 21.4 | 21.0 | 20.7 | 21.2 |
| Tallassee, Ala. | 21.6 | 21.2 | 21.6 | 20.8 | 20.1 | 20.7 |
| Gainesville, Fla. | 23.0 | 24.2 | 22.1 | 22.5 | 21.7 | 21.6 |
| Marianna, Fla. | 23.6 | 24.3 | 24.0 | 22.5 | 22.5 | 22.2 |
| Clemson, S. C. | 21.5 | 21.3 | 21.9 | 19.9 | 19.4 | 21.6 |
| Stoneville(A), Miss. | 22.3 | 22.3 | 22.4 | 21.5 | 21.5 | 22.2 |
| Stuttgart, Ark. | 21.1 | 22.0 | 20.7 | 20.1 | 19.4 | 20.2 |
| College Station, Texas | 22.4 | 21.8 | 20.7 | 22.3 | 21.8 | 21.9 |
| Mean | 22.2 | 22.4 | 21.9 | 21.2- | 20.8- | 21.4- |
| | | | Protein Percentage | | | |
| Clayton, N. C. | 38.5 | 38.5 | 41.9 | 39.3 | 41.1 | 41.5 |
| Hartsville, S. C. | 39.4 | 39.1 | 41.0 | 39.3 | 39.9 | 41.0 |
| Tallassee, Ala. | 41.0 | 41.1 | 42.7 | 39.7 | 42.9 | 42.8 |
| Gainesville, Fla. | 40.8 | 39.7 | 44.2 | 40.3 | 41.9 | 41.5 |
| Marianna, Fla. | 37.4 | 36.5 | 38.5 | 36.6 | 36.3 | 38.5 |
| Clemson, S. C. | 40.5 | 39.3 | 37.7 | 39.0 | 41.0 | 40.3 |
| Stoneville(A), Miss. | 39.3 | 39.3 | 41.9 | 40.0 | 38.9 | 41.8 |
| Stuttgart, Ark. | 41.4 | 39.5 | 42.1 | 40.2 | 41.7 | 43.9 |
| College Station, Texas | 38.1 | 38.2 | 41.2 | 37.6 | 40.4 | 40.7 |
| Mean | 39.6 | 39.0 | 41.2+ | 39.2 | 40.5+ | 41.3+ |
| | | | Grams Per 100 Seeds | | | |
| Clayton, N. C. | 16.1 | 16.5 | 14.4 | 13.7 | 14.0 | 15.9 |
| Hartsville, S. C. | 14.7 | 15.3 | 13.0 | 13.0 | 12.3 | 13.7 |
| Tallassee, Ala. | 14.8 | 16.6 | 14.0 | 13.5 | 12.6 | 16.0 |
| Gainesville, Fla. | 16.0 | 17.4 | 13.8 | 14.8 | 13.0 | 14.1 |
| Marianna, Fla. | 15.0 | 16.1 | 14.0 | 14.6 | 12.2 | 14.3 |
| Clemson, S. C. | 19.9 | 21.2 | 16.4 | 16.7 | 17.5 | 17.8 |
| Stoneville(A), Miss. | 16.3 | 16.7 | 16.3 | 15.6 | 17.9 | 16.1 |
| Stuttgart, Ark. | 16.3 | 17.0 | 15.3 | 14.3 | 15.0 | 16.7 |
| College Station, Texas | 16.8 | 16.2 | 15.2 | 14.3 | 15.8 | 15.1 |
| Mean | 16.2 | 17.0+ | 14.7- | 14.6- | 14.5- | 15.5 |

Table 44. (Continued)

| Location | N51-2302 | N51-2764 | N51-3185 | N52-3908 | N54-1748 | N54-1842 | L.S.D. (.05) |
|---|---|---|---|---|---|---|---|
| | | | Oil Percentage | | | | |
| Clayton, N. C. | 21.7 | 22.1 | 22.7 | 21.2 | 20.2 | 20.4 | |
| Hartsville, S. C. | 21.4 | 22.3 | 23.4 | 21.6 | 21.4 | 21.5 | |
| Tallassee, Ala. | 21.0 | 21.2 | 22.2 | 20.8 | 21.1 | 21.4 | |
| Gainesville, Fla. | 22.4 | 23.9 | 23.9 | 22.8 | 22.8 | 22.2 | |
| Marianna, Fla. | 23.8 | 24.0 | 24.3 | 23.0 | 23.3 | 22.9 | |
| Clemson, S. C. | 21.1 | 21.4 | 22.3 | 19.9 | 20.4 | 20.7 | |
| Stoneville(A), Miss. | 21.8 | 22.4 | 23.5 | 21.3 | 21.8 | 21.7 | |
| Stuttgart, Ark. | 20.5 | 21.4 | 21.9 | 20.3 | 20.2 | 19.8 | |
| College Station, Texas | 22.4 | 22.7 | 23.2 | 21.8 | 22.1 | 22.4 | |
| Mean | 21.8 | 22.4 | 23.0+ | 21.4- | 21.5- | 21.4- | 0.4 |
| | | | Protein Percentage | | | | |
| Clayton, N. C. | 41.3 | 37.6 | 39.1 | 41.9 | 40.5 | 40.1 | |
| Hartsville, S. C. | 41.4 | 38.4 | 39.7 | 41.3 | 40.0 | 39.6 | |
| Tallassee, Ala. | 42.3 | 41.8 | 40.1 | 41.7 | 43.0 | 41.6 | |
| Gainesville, Fla. | 43.4 | 40.8 | 41.7 | 42.1 | 41.8 | 41.7 | |
| Marianna, Fla. | 38.1 | 36.0 | 36.5 | 37.2 | 35.7 | 36.2 | |
| Clemson, S. C. | 41.7 | 37.8 | 39.2 | 41.5 | 38.8 | 39.2 | |
| Stoneville(A), Miss. | 41.7 | 38.6 | 40.6 | 40.4 | 40.7 | 40.3 | |
| Stuttgart, Ark. | 42.0 | 39.0 | 39.4 | 41.5 | 41.6 | 42.5 | |
| College Station, Texas | 40.1 | 37.1 | 38.8 | 39.5 | 39.4 | 37.9 | |
| Mean | 41.3+ | 38.6- | 39.5 | 40.8+ | 40.2 | 39.9 | 0.8 |
| | | | Grams Per 100 Seeds | | | | |
| Clayton, N. C. | 18.6 | 15.7 | 14.4 | 17.3 | 15.9 | 16.0 | |
| Hartsville, S. C. | 18.0 | 14.7 | 15.7 | 16.3 | 16.3 | 15.7 | |
| Tallassee, Ala. | 17.3 | 14.8 | 15.6 | 16.5 | 15.6 | 16.2 | |
| Gainesville, Fla. | 16.7 | 16.2 | 16.1 | 17.9 | 16.9 | 16.0 | |
| Marianna, Fla. | 16.4 | 14.4 | 14.8 | 17.3 | 16.6 | 15.9 | |
| Clemson, S. C. | 21.9 | 19.0 | 19.6 | 23.9 | 18.3 | 19.9 | |
| Stoneville(A), Miss. | 19.0 | 19.0 | 17.9 | 19.1 | 17.1 | 18.0 | |
| Stuttgart, Ark. | 18.3 | 16.3 | 17.0 | 17.3 | 18.0 | 16.7 | |
| College Station, Texas | 16.4 | 16.1 | 16.6 | 17.1 | 17.6 | 16.9 | |
| Mean | 18.1+ | 16.2 | 16.4 | 18.1+ | 16.9 | 16.8 | 0.8 |

Table 45. Relative maturity data, days earlier (-) or later (+) than Jackson, for strains in Uniform Group VII, 1957

| Location | Date Planted | Jackson Matured | Roanoke | Lee | D51-5091 | D52-834 |
|---|---|---|---|---|---|---|
| | | East Coast | | | | |
| Plymouth, N. C. | 5-14 | 10-28 | -3 | -5 | 0 | -5 |
| Willard, N. C. | 5-22 | 10-25 | 0 | -3 | +1 | -2 |
| Clayton, N. C. | 5-1 | 11-2 | -1 | -7 | 0 | -8 |
| Florence, S. C. | 5-20 | 11-1 | -2 | -8 | +1 | -3 |
| Hartsville, S. C. | 5-19 | 11-1 | -2 | -8 | -2 | -9 |
| Mean | | 10-29 | -2 | -6 | 0 | -5 |
| | | Southeast | | | | |
| Tallassee, Ala. | 5-22 | 10-28 | -6 | -7 | -4 | -6 |
| Gainesville, Fla. | 5-31 | 10-24 | -1 | -14 | -1 | -14 |
| Marianna, Fla. | 5-28 | 10-27 | -6 | -7 | 0 | -13 |
| Walnut Hill, Fla. | 6-8 | 10-10 | -5 | -10 | -7 | -10 |
| Fairhope, Ala. | 6-11 | 10-28 | -10 | -10 | 0 | -10 |
| Baton Rouge, La. | 5-17 | 10-25 | -2 | -10 | -2 | -12 |
| Mean | | 10-25 | -5 | -10 | -2 | -10 |
| | | Upper and Central South | | | | |
| Clemson, S. C. | 5-17 | 11-3 | +2 | -10 | -3 | -2 |
| Athens, Ga. | 6-1 | 11-3 | -3 | -8 | -1 | -2 |
| Mean | | 11-3 | -1 | -9 | -4 | -2 |
| | | Delta | | | | |
| Stoneville(A), Miss. | 5-8 | 10-28 | -3 | -10 | 0 | -7 |
| Louise, Miss. | 5-14 | 10-25 | 0 | -9 | 0 | -3 |
| Mean | | 10-27 | -2 | -10 | 0 | -5 |
| | | West | | | | |
| Curtis, La. | 5-15 | 11-1 | 0 | -7 | 0 | -7 |
| Lubbock, Texas | 6-8 | 10-27 | 0 | -3 | -3 | 0 |
| College Station, Texas | 5-30 | 10-25 | 0 | -2 | 0 | 0 |
| Mean | | 10-28 | 0 | -4 | -1 | -2 |

Table 45. (Continued)

| Location | D53-1664 | N51-2302 | N51-2764 | N51-3185 | N52-3908 | N54-1748 | N54-1842 |
|---|---|---|---|---|---|---|---|
| | | | East Coast | | | | |
| Plymouth, N. C. | -7 | -9 | -5 | -3 | -9 | 0 | -3 |
| Willard, N. C. | 0 | -2 | 0 | +3 | -2 | +3 | +3 |
| Clayton, N. C. | -7 | -7 | -5 | -2 | -5 | -5 | -4 |
| Florence, S. C. | -3 | -2 | -3 | -2 | -2 | +1 | +1 |
| Hartsville, S. C. | -5 | -1 | -3 | -1 | -2 | -1 | -1 |
| Mean | -4 | -4 | -3 | -1 | -4 | 0 | -1 |
| | | | Southeast | | | | |
| Tallassee, Ala. | -7 | -9 | -4 | -4 | -5 | 0 | -2 |
| Gainesville, Fla. | -10 | -7 | -9 | -5 | -4 | -7 | -4 |
| Marianna, Fla. | -4 | -11 | -9 | -7 | -5 | -3 | -5 |
| Walnut Hill, Fla. | -5 | -3 | -2 | -4 | -6 | -2 | -5 |
| Fairhope, Ala. | -10 | -10 | -10 | -10 | -10 | -10 | -10 |
| Baton Rouge, La. | -7 | -10 | -5 | 0 | -7 | +3 | -2 |
| Mean | -7 | -8 | -7 | -5 | -6 | -5 | -5 |
| | | | Upper and Central South | | | | |
| Clemson, S. C. | -8 | -3 | -2 | -3 | +2 | -1 | -1 |
| Athens, Ga. | -8 | -10 | -2 | -4 | -1 | +1 | -1 |
| Mean | -8 | -6 | -2 | -4 | +1 | 0 | -1 |
| | | | Delta | | | | |
| Stoneville(A), Miss. | -3 | -6 | 0 | -5 | -5 | -3 | -4 |
| Louise, Miss. | -3 | -3 | 0 | -3 | 0 | -3 | -3 |
| Mean | -3 | -5 | 0 | -4 | -3 | -3 | -4 |
| | | | West | | | | |
| Curtis, La. | 0 | -7 | -7 | 0 | 0 | 0 | -4 |
| Lubbock, Texas | -10 | -10 | 0 | 0 | -10 | 0 | 0 |
| College Station, Texas | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mean | -3 | -6 | -2 | 0 | -3 | 0 | -1 |

Table 46. Plant height for the strains in Uniform Group VII, 1957

| Location | Jackson | Roanoke | Lee | D51-5091 | D52-834 | D53-1664 |
|---|---|---|---|---|---|---|
| | | East Coast | | | | |
| Plymouth, N. C. | 48 | 46 | 34 | 60 | 46 | 48 |
| Willard, N. C. | 46 | 45 | 32 | 58 | 43 | 38 |
| Clayton, N. C. | 38 | 34 | 25 | 45 | 38 | 31 |
| Florence, S. C. | 39 | 42 | 31 | 36 | 40 | 39 |
| Hartsville, S. C. | 41 | 44 | 35 | 40 | 42 | 41 |
| Mean | 42 | 42 | 31 | 48 | 42 | 29 |
| | | Southeast | | | | |
| Summerville, S. C. | 35 | 35 | 39 | 43 | 37 | 31 |
| Tallassee, Ala. | 42 | 40 | 32 | 47 | 42 | 36 |
| Tifton, Ga. | 28 | 22 | 17 | 33 | 32 | 21 |
| Gainesville, Fla. | 31 | 27 | 17 | 32 | 30 | 26 |
| Marianna, Fla. | 39 | 33 | 24 | 46 | 36 | 31 |
| Quincy, Fla. | 25 | 19 | 17 | 27 | 24 | 22 |
| Walnut Hill, Fla. | 41 | 42 | 32 | 51 | 43 | 39 |
| Fairhope, Ala. | 32 | 30 | 26 | 35 | 33 | 29 |
| Baton Rouge, La. | 25 | 31 | 20 | 40 | 27 | 25 |
| Mean | 33 | 31 | 25 | 39 | 34 | 29 |
| | | Upper and Central South | | | | |
| Clemson, S. C. | 43 | 42 | 30 | 48 | 38 | 36 |
| Athens, Ga. | 33 | 31 | 28 | 36 | 32 | 27 |
| Mean | 38 | 37 | 29 | 42 | 35 | 32 |
| | | Delta | | | | |
| Stoneville(A), Miss. | 41 | 38 | 33 | 53 | 41 | 40 |
| Louise, Miss. | 42 | 37 | 29 | 54 | 41 | 33 |
| Mean | 42 | 38 | 31 | 54 | 41 | 37 |
| | | West | | | | |
| Stuttgart, Ark. | 31 | 34 | 23 | 41 | 37 | 27 |
| Curtis, La. | 40 | 36 | 24 | 52 | 38 | 32 |
| Milburn, Okla. | 38 | 34 | 28 | 51 | 41 | 34 |
| Chillicothe, Texas | 21 | 20 | 16 | 20 | 22 | 17 |
| Plainview, Texas | 38 | 34 | 34 | 40 | 37 | 34 |
| Lubbock, Texas | 36 | 39 | 28 | 42 | 38 | 38 |
| College Station, Texas | 37 | 37 | 27 | 44 | 37 | 31 |
| Mean | 34 | 33 | 26 | 41 | 36 | 30 |

Table 46. (Continued)

| Location | N51-2302 | N51-2764 | N51-3185 | N52-3908 | N54-1748 | N54-1842 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Plymouth, N. C. | 34 | 46 | 48 | 38 | 36 | 32 |
| Willard, N. C. | 31 | 44 | 44 | 33 | 44 | 32 |
| Clayton, N. C. | 30 | 36 | 39 | 36 | 33 | 26 |
| Florence, S. C. | 34 | 40 | 41 | 36 | 36 | 30 |
| Hartsville, S. C. | 34 | 39 | 41 | 37 | 35 | 29 |
| Mean | 33 | 41 | 43 | 36 | 37 | 30 |
| | | | Southeast | | | |
| Summerville, S. C. | 29 | 38 | 37 | 27 | 29 | 24 |
| Tallassee, Ala. | 34 | 42 | 38 | 32 | 28 | 26 |
| Tifton, Ga. | 22 | 30 | 25 | 23 | 22 | 18 |
| Gainesville, Fla. | 23 | 27 | 23 | 26 | 23 | 20 |
| Mairanna, Fla. | 26 | 34 | 31 | 30 | 31 | 24 |
| Quincy, Fla. | 17 | 25 | 26 | 26 | 24 | 18 |
| Walnut Hill, Fla. | 34 | 43 | 43 | 35 | 36 | 32 |
| Fairhope, Ala. | 22 | 30 | 31 | 23 | 24 | 23 |
| Baton Rouge, La. | 22 | 27 | 30 | 24 | 25 | 22 |
| Mean | 25 | 33 | 32 | 27 | 27 | 23 |
| | | | Upper and Central South | | | |
| Clemson, S. C. | 34 | 42 | 38 | 35 | 36 | 32 |
| Athens, Ga. | 25 | 37 | 29 | 25 | 24 | 23 |
| Mean | 30 | 40 | 34 | 30 | 30 | 28 |
| | | | Delta | | | |
| Stoneville(A), Miss. | 35 | 39 | 37 | 37 | 37 | 31 |
| Louise, Miss. | 34 | 39 | 37 | 35 | 35 | 29 |
| Mean | 35 | 39 | 37 | 36 | 36 | 30 |
| | | | West | | | |
| Stuttgart, Ark. | 26 | 33 | 31 | 28 | 31 | 25 |
| Curtis, La. | 30 | 38 | 30 | 28 | 38 | 25 |
| Milburn, Okla. | 30 | 40 | 38 | 30 | 32 | 30 |
| Chillicothe, Texas | 18 | 24 | 23 | 17 | 14 | 19 |
| Plainview, Texas | 29 | 36 | 34 | 34 | 33 | 35 |
| Lubbock, Texas | 31 | 44 | 37 | 31 | 30 | 27 |
| College Station, Texas | 27 | 38 | 34 | 30 | 32 | 28 |
| Mean | 27 | 36 | 32 | 28 | 30 | 27 |

Table 47. Lodging scores for the strains in Uniform Group VII, 1957

| Location | Jackson | Roanoke | Lee | D51-5091 | D52-834 | D53-1664 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Plymouth, N. C. | 2.0 | 2.0 | 3.0 | 4.0 | 2.0 | 3.0 |
| Willard, N. C. | 2.0 | 4.0 | 3.5 | 4.0 | 3.5 | 3.0 |
| Clayton, N. C. | 1.0 | 3.0 | 1.5 | 4.0 | 2.5 | 1.5 |
| Florence, S. C. | 2.0 | 3.0 | 2.0 | 3.7 | 3.0 | 3.0 |
| Hartsville, S. C. | 3.0 | 2.7 | 2.0 | 3.7 | 2.7 | 2.0 |
| | | | Southeast | | | |
| Summerville, S. C. | 1.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 |
| Tallassee, Ala. | 1.0 | 2.5 | 1.0 | 2.0 | 1.5 | 1.0 |
| Tifton, Ga. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Gainesville, Fla. | 1.0 | 1.0 | 1.0 | 1.7 | 1.0 | 1.0 |
| Marianna, Fla. | 2.0 | 1.3 | 1.0 | 2.5 | 1.0 | 1.0 |
| Quincy, Fla. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Fairhope, Ala. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Baton Rouge, La. | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 2.0 |
| | | | Upper and Central South | | | |
| Clemson, S. C. | 2.0 | 4.0 | 2.0 | 4.0 | 2.0 | 1.0 |
| Athens, Ga. | 1.0 | 2.0 | 2.0 | 3.0 | 2.0 | 1.0 |
| | | | Delta | | | |
| Stoneville(A), Miss. | 3.0 | 3.3 | 3.0 | 3.3 | 3.0 | 2.3 |
| Louise, Miss. | 2.3 | 3.0 | 2.0 | 3.7 | 3.0 | 2.0 |
| | | | West | | | |
| Stuttgart, Ark. | 1.0 | 2.3 | 2.0 | 3.0 | 2.7 | 2.0 |
| Curtis, La. | 1.0 | 2.0 | 1.0 | 3.0 | 2.0 | 1.0 |
| Milburn, Okla. | 1.3 | 1.5 | 1.5 | 3.0 | 2.7 | 1.5 |
| Chillicothe, Texas | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Plainview, Texas | 2.3 | 3.6 | 2.3 | 3.3 | 2.3 | 2.3 |
| College Station, Texas | 1.0 | 2.0 | 1.0 | 3.0 | 2.0 | 1.0 |

Table 47. (Continued)

| Location | N51-2302 | N51-2764 | N51-3185 | N52-3908 | N54-1748 | N54-1842 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Plymouth, N. C. | 2.0 | 3.0 | 2.5 | 2.0 | 2.0 | 3.5 |
| Willard, N. C. | 3.5 | 4.0 | 3.5 | 2.5 | 2.5 | 2.5 |
| Clayton, N. C. | 2.0 | 3.0 | 3.0 | 1.0 | 2.5 | 2.5 |
| Florence, S. C. | 3.5 | 3.5 | 3.5 | 2.5 | 2.5 | 3.0 |
| Hartsville, S. C. | 3.3 | 3.7 | 3.0 | 2.3 | 3.3 | 4.0 |
| | | | Southeast | | | |
| Summerville, S. C. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Tallassee, Ala. | 1.0 | 2.5 | 1.5 | 1.5 | 1.0 | 1.0 |
| Tifton, Ga. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Gainesville, Fla. | 1.0 | 1.7 | 1.0 | 1.0 | 1.0 | 1.0 |
| Marianna, Fla. | 1.0 | 1.0 | 1.0 | 1.3 | 1.0 | 1.0 |
| Quincy, Fla. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Fairhope, Ala. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Baton Rouge, La. | 1.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| | | | Upper and Central South | | | |
| Clemson, S. C. | 1.0 | 3.0 | 3.0 | 2.0 | 2.0 | 2.0 |
| Athens, Ga. | 1.0 | 3.0 | 2.0 | 1.0 | 1.0 | 1.0 |
| | | | Delta | | | |
| Stoneville (A), Miss. | 3.0 | 3.0 | 3.3 | 2.3 | 3.3 | 3.0 |
| Louise, Miss. | 3.0 | 3.3 | 3.7 | 2.3 | 3.0 | 3.3 |
| | | | West | | | |
| Stuttgart, Ark. | 1.7 | 3.0 | 3.0 | 1.7 | 1.7 | 2.3 |
| Curtis, La. | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | 1.0 |
| Milburn, Okla. | 2.2 | 2.3 | 3.0 | 1.8 | 3.3 | 2.5 |
| Chillicothe, Texas | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Plainview, Texas | 1.3 | 3.3 | 4.0 | 2.3 | 1.0 | 2.6 |
| College Station, Texas | 1.0 | 2.0 | 1.0 | 1.0 | 2.0 | 1.0 |

Table 48. Seed quality scores for the strains in Group VII, 1957

| Location | Jackson | Roanoke | Lee | D51-5091 | D52-834 | D53-1664 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Plymouth, N. C. | 1.5 | 1.0 | 1.0 | 1.5 | 1.0 | 2.0 |
| Willard, N. C. | 1.5 | 1.0 | 1.0 | 1.5 | 1.0 | 2.0 |
| Clayton, N. C. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Florence, S. C. | 1.5 | 1.5 | 1.0 | 1.5 | 1.0 | 1.0 |
| | | | Southeast | | | |
| Tallassee, Ala. | 2.0 | 2.5 | 1.0 | 1.5 | 1.0 | 2.0 |
| Gainesville, Fla. | 2.0 | 2.0 | 2.3 | 1.7 | 2.0 | 1.7 |
| Marianna, Fla. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Quincy, Fla. | 2.0 | 3.0 | 2.0 | 2.0 | 2.0 | 3.0 |
| Walnut Hill, Fla. | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 | 2.0 |
| Fairhope, Ala. | 2.0 | 2.0 | 2.0 | 2.0 | 1.3 | 2.3 |
| Baton Rouge, La. | 1.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 |
| | | | Upper and Central South | | | |
| Athens, Ga. | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 | 1.0 |
| | | | Delta | | | |
| Stoneville(A), Miss. | 2.7 | 3.3 | 2.7 | 2.7 | 3.3 | 3.0 |
| Louise, Miss. | 1.3 | 1.3 | 1.7 | 1.3 | 1.0 | 1.7 |
| | | | West | | | |
| Stuttgart, Ark. | 1.0 | 1.3 | 1.3 | 2.0 | 1.0 | 1.7 |
| Curtis, La. | 3.0 | 2.0 | 2.0 | 3.0 | 3.0 | 5.0 |
| Milburn, Okla. | 2.0 | 2.3 | 1.3 | 2.3 | 2.0 | 1.0 |
| Chillicothe, Texas | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| College Station, Texas | 2.0 | 3.0 | 1.0 | 1.0 | 1.0 | 2.0 |

Table 48. (Continued)

| Location | N51-2302 | N51-2764 | N51-3185 | N52-3908 | N54-1748 | N54-1842 |
|---|---|---|---|---|---|---|
| | | | East Coast | | | |
| Plymouth, N. C. | 1.0 | 1.0 | 1.0 | 1.5 | 1.5 | 1.0 |
| Willard, N. C. | 1.5 | 1.5 | 1.5 | 1.0 | 1.5 | 2.0 |
| Clayton, N. C. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Florence, S. C. | 1.5 | 1.5 | 1.0 | 1.5 | 1.0 | 1.0 |
| | | | Southeast | | | |
| Tallassee, Ala. | 1.5 | 1.5 | 2.0 | 1.0 | 1.5 | 2.0 |
| Gainesville, Fla. | 2.0 | 1.7 | 2.0 | 1.0 | 2.0 | 2.0 |
| Marianna, Fla. | 2.5 | 2.0 | 2.0 | 2.0 | 2.5 | 2.0 |
| Quincy, Fla. | 3.0 | 2.0 | 3.0 | 3.0 | 3.0 | 2.0 |
| Walnut Hill, Fla. | 2.0 | 2.0 | 2.0 | 1.0 | 2.0 | 1.0 |
| Fairhope, Ala. | 2.6 | 2.3 | 2.3 | 1.6 | 3.3 | 2.0 |
| Baton Rouge, La. | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 | 1.0 |
| | | | Upper and Central South | | | |
| Athens, Ga. | 1.0 | 2.0 | 1.0 | 1.0 | 2.0 | 2.0 |
| | | | Delta | | | |
| Stoneville(A), Miss. | 3.7 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Louise, Miss. | 2.0 | 1.7 | 2.0 | 1.0 | 1.7 | 1.7 |
| | | | West | | | |
| Stuttgart, Ark. | 3.0 | 1.3 | 1.0 | 1.0 | 1.3 | 2.0 |
| Curtis, La. | 2.0 | 3.0 | 3.0 | 4.0 | 2.0 | 2.0 |
| Milburn, Okla. | 2.0 | 2.0 | 1.7 | 2.7 | 4.0 | 3.0 |
| Chillicothe, Texas | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| College Station, Texas | 2.0 | 2.0 | 3.0 | 2.0 | 3.0 | 2.0 |

## PRELIMINARY GROUP VII

### 1957

Eight preliminary Group VII nurseries were planted. Stands were incomplete for the Experiment, Georgia, planting and yields were low in the Chillicothe, Texas, planting. Seed yields were very good in the other six nurseries.

Thirty-four experimental lines were grown along with Jackson and Lee. Ten lines that had been selected at Stoneville for high protein content were included to observe their behavior and to observe their protein content under different environments. Five of these are susceptible to bacterial pustule. All other lines included in this group are resistant to bacterial pustule.

Of the 34 experimental lines, two yielded significantly less than Jackson. There were not any that yielded significantly higher than Jackson. The chemical composition of the high protein lines did not appear to be influenced by environment to any greater extent than is the composition of high oil lines. Although the high protein lines as a group averaged lower in yield than the high oil selections, this should not be attributed to the fact that they are high protein lines but to the fact that they are from first cycle crosses while the high oil lines are from second or third cycle crosses.

One of the best appearing lines is N55-5931 from the cross Roanoke x D49-2491. This line equalled Jackson in protein content and had one percent higher oil content. N55-2908 and N55-2934 from Jackson x D49-2491 both produced well but are not homozygous for flower color or pubescence. N55-2934 had an average oil content of 23.7 percent and a protein content of 40 percent. N55-5787 was one of the better performing lines. This line was given the lowest rating for bacterial blight of the experimental lines and was rated only slightly higher than Jackson.

Table 49. Parentage of strains in Preliminary Group VII, 1957

| | Strain | Parentage | Generation Composited |
|---|---|---|---|
| 1. | Jackson | Volstate (2) x Palmetto | $F_4$ |
| 2. | Lee | S-100 x CNS | $F_6$ |
| 3. | Ga 53-5-4 | Roanoke x N45-1128 | $F_7$ |
| 4. | Ga 53-9-1 | Acadian x PC 31592 | $F_5$ |
| 5. | D55-4079 | Volstate x Biloxi | $F_7$ |
| 6. | D55-4080 | Volstate x Biloxi | $F_7$ |
| 7. | D55-4090 | Ogden x CNS | $F_7$ |
| 8. | D55-4092 | Ogden x CNS | $F_7$ |
| 9. | D55-4102 | Ogden x CNS | $F_7$ |
| 10. | D55-4103 | Ogden x CNS | $F_7$ |
| 11. | D55-4110 | Ogden x CNS | $F_7$ |
| 12. | D55-4159 | Ogden x Biloxi | $F_7$ |
| 13. | D55-4168 | Ogden x Biloxi | $F_7$ |
| 14. | D55-4170 | Ogden x Biloxi | $F_7$ |
| 15. | D55-4218 | Volstate x CNS | $F_7$ |
| 16. | N51-2607 | N42-26 x N45-1004 | $F_6$ |
| 17. | N51-3120 | Roanoke x N45-1128 | $F_5$ |
| 18. | N53-3307 | N46-1703 x D49-2525 | $F_5$ |
| 19. | N53-3310 | N46-1703 x D49-2525 | $F_5$ |
| 20. | N54-1795 | Roanoke x N48-1394 | $F_5$ |
| 21. | N54-1923 | N47-309 x N46-2845 | $F_5$ |
| 22. | N54-1935 | N47-309 x N46-2845 | $F_5$ |
| 23. | N54-1952 | N47-309 x N46-2845 | $F_5$ |
| 24. | N55-2908 | Jackson x D49-2491 | $F_4$ |
| 25. | N55-2934 | Jackson x D49-2491 | $F_4$ |
| 26. | N55-5559 | Roanoke x N48-1394 | $F_7$ |
| 27. | N55-5563 | Roanoke x N48-1394 | $F_7$ |
| 28. | N55-5757 | (N46-1703 x N48-2089) x N48-1574 | $F_6$ |
| 29. | N55-5787 | (N46-1703 x N48-2089) x N48-1574 | $F_6$ |
| 30. | N55-5793 | (N46-1703 x N48-2089) x N48-1574 | $F_6$ |
| 31. | N55-5814 | (N46-1703 x N48-2089) x N48-1574 | $F_6$ |
| 32. | N55-5862 | N47-3545 x N48-1835 | $F_6$ |
| 33. | N55-5870 | N47-3545 x N48-1835 | $F_6$ |
| 34. | N55-5877 | N47-3545 x N48-1835 | $F_6$ |
| 35. | N55-5931 | Roanoke x Lee | $F_6$ |
| 36. | N55-5946 | N48-4860 x Lee | $F_6$ |

Table 50. General summary of the performance of strains grown in Preliminary Group VII, 1957

| Strain | Seed Yield | Maturity | Height | Percent Oil | Percent Protein | Bacterial Pustule | Target Spot |
|---|---|---|---|---|---|---|---|
| Jackson | 35.2 | 10-28 | 34 | 22.2 | 39.5 | 3.0 | 1.0 |
| Lee | 34.7 | -10 | 26 | 22.1 | 41.9+ | 1.0 | 1.0 |
| Ga 53-5-4 | 35.0 | -4 | 31 | 22.3 | 41.1+ | 1.0 | 2.5 |
| Ga 53-9-1 | 31.4 | -4 | 34 | 22.2 | 40.3 | 1.0 | 2.5 |
| D55-4079 | 29.3 | -4 | 30 | 18.3- | 47.6+ | 4.0 | 1.5 |
| D55-4080 | 28.3- | -7 | 26 | 18.6- | 47.1+ | 4.0 | 1.5 |
| D55-4090 | 31.0 | +2 | 29 | 18.6- | 46.6+ | 1.0 | 1.5 |
| D55-4092 | 33.4 | 0 | 32 | 19.0- | 46.9+ | 1.0 | 2.0 |
| D55-4102 | 32.6 | +1 | 34 | 19.2- | 47.0+ | 1.0 | 1.5 |
| D55-4103 | 31.9 | -6 | 26 | 20.0- | 45.5+ | 1.0 | 2.0 |
| D55-4110 | 33.1 | +1 | 31 | 19.4- | 46.8+ | 1.0 | 1.5 |
| D55-4159 | 29.3 | -3 | 33 | 18.5- | 46.6+ | 3.0 | 1.5 |
| D55-4168 | 30.7 | -8 | 34 | 19.9- | 46.5+ | 3.5 | 2.0 |
| D55-4170 | 30.8 | -3 | 37 | 18.8- | 46.8+ | 3.5 | 2.0 |
| D55-4218 | 32.1 | -7 | 35 | 21.4- | 43.3+ | 1.0 | 1.0 |
| N51-2607 | 37.9 | -6 | 33 | 21.7 | 40.2 | 1.0 | 1.5 |
| N51-3120 | 35.8 | -4 | 35 | 22.2 | 40.0 | 1.0 | 2.5 |
| N53-3307 | 36.9 | -7 | 32 | 21.2- | 42.3+ | 1.0 | 2.0 |
| N53-3310 | 33.4 | -8 | 29 | 21.8 | 41.5 | 1.0 | 1.5 |
| N54-1795 | 34.7 | +1 | 37 | 22.6 | 40.1 | 1.0 | 3.0 |
| N54-1923 | 37.0 | 0 | 31 | 20.0- | 42.4 | 1.0 | 1.5 |
| N54-1935 | 38.3 | -7 | 28 | 22.3 | 40.6 | 1.0 | 2.0 |
| N54-1952 | 33.0 | -3 | 30 | 20.6- | 42.4+ | 1.0 | 3.0 |
| N55-2908 | 39.2 | -8 | 34 | 22.8 | 40.7+ | 1.0 | 1.0 |
| N55-2934 | 35.9 | -4 | 35 | 23.7 | 40.0 | 1.0 | 1.5 |
| N55-5559 | 34.2 | -3 | 35 | 22.5 | 40.2 | 1.0 | 3.0 |
| N55-5563 | 35.0 | -3 | 31 | 22.8 | 39.2 | 1.0 | 3.5 |
| N55-5757 | 28.7- | -9 | 32 | 22.5 | 38.9 | 1.0 | 1.0 |
| N55-5787 | 36.5 | -4 | 28 | 22.0 | 39.7 | 1.0 | 2.0 |
| N55-5793 | 34.3 | -3 | 34 | 21.4- | 41.3+ | 1.0 | 2.5 |
| N55-5814 | 33.8 | -2 | 30 | 21.4- | 41.2+ | 1.0 | 2.0 |
| N55-5862 | 34.5 | -5 | 32 | 23.1+ | 40.2 | 1.0 | 2.0 |
| N55-5870 | 34.5 | -8 | 28 | 23.1+ | 40.1 | 1.0 | 4.0 |
| N55-5877 | 36.3 | -4 | 39 | 22.6 | 40.1 | 1.0 | 1.0 |
| N55-5931 | 38.4 | -3 | 31 | 23.3+ | 39.3 | 1.0 | 1.0 |
| N55-5946 | 34.4 | -9 | 36 | 22.8 | 40.4 | 1.0 | 1.5 |
| L.S.D. (.05) | 6.3 | | | 0.61 | 1.2 | | |
| (.01) | 6.7 | | | 0.80 | 1.6 | | |

Table 51. Seed yield, in bushels per acre, for strains in Preliminary Group VII, 1957

| Strain | Willard, N. C. | Tallas-see, Ala. | Gaines-ville, Fla. | Quincy, Fla. | Walnut Hill, Fla. | Stone-ville, Miss. | Chilli-cothe, Texas |
|---|---|---|---|---|---|---|---|
| Jackson | 42.0 | 30.3 | 36.0 | 31.8 | 30.3 | 41.2 | 1.8 |
| Lee | 46.0 | 31.7 | 22.3- | 27.6 | 29.1 | 51.5+ | 5.8 |
| Ga 53-5-4 | 38.8 | 39.1 | 31.5 | 35.2 | 14.1- | 51.4+ | 3.1 |
| Ga 53-9-1 | 35.8 | 23.2 | 31.7 | 38.2 | 19.8- | 39.9 | 3.8 |
| D55-4079 | 32.7- | 31.7 | 23.7- | 26.1 | 28.7 | 32.7- | 2.8 |
| D55-4080 | 35.8 | 33.3 | 24.9- | 24.2- | 16.6- | 35.0 | 5.1 |
| D55-4090 | 37.2 | 30.0 | 27.4- | 31.4 | 29.9 | 30.3- | 2.6 |
| D55-4092 | 41.0 | 31.3 | 30.1- | 30.6 | 29.9 | 37.7 | 1.8 |
| D55-4102 | 35.9 | 38.1 | 29.3- | 23.9- | 32.7 | 35.7 | 2.6 |
| D55-4103 | 39.0 | 24.9 | 31.0 | 28.4 | 30.7 | 37.8 | 2.7 |
| D55-4110 | 39.2 | 34.4 | 28.8- | 32.5 | 30.7 | 33.2- | 2.3 |
| D55-4159 | 36.6 | 26.9 | 23.5- | 26.9 | 29.5 | 32.3- | 2.9 |
| D55-4168 | 36.6 | 29.0 | 28.8- | -- | 22.6 | 37.3 | 2.8 |
| D55-4170 | 34.4- | 34.7 | 25.9- | 31.8 | 31.9 | 26.2- | 4.4 |
| D55-4218 | 38.8 | 32.0 | 27.6- | 27.2 | 27.1 | 40.3 | 4.2 |
| N51-2607 | 46.4 | 35.4 | 39.1 | 32.9 | 31.5 | 42.0 | 4.6 |
| N51-3120 | 44.1 | 30.7 | 34.8 | 25.7- | 29.5 | 50.2+ | 4.4 |
| N53-3307 | 44.0 | 34.7 | 31.1 | 30.3 | 34.3 | 46.9 | 4.8 |
| N53-3310 | 39.7 | 39.2 | 24.0- | 26.1 | 31.5 | 40.2 | 2.8 |
| N54-1795 | 36.8 | 41.9 | 34.7 | 29.5 | 18.6- | 46.8 | 6.5 |
| N54-1923 | 38.4 | 42.9 | 31.0 | 30.3 | 32.7 | 46.8 | 3.8 |
| N54-1935 | 45.7 | 34.0 | 35.3 | 31.0 | 34.8 | 49.0+ | 5.4 |
| N54-1952 | 40.2 | 36.8 | 20.7- | 30.6 | 35.1 | 34.8 | 3.5 |
| N55-2908 | 47.3 | 32.3 | 41.9 | 29.1 | 33.1 | 51.6+ | 6.8 |
| N55-2934 | 39.8 | 32.7 | 38.5 | 30.3 | 27.5 | 46.5 | 5.6 |
| N55-5559 | 38.4 | 30.6 | 32.4 | 28.7 | 25.0 | 50.0+ | 4.3 |
| N55-5563 | 39.1 | 37.8 | 31.3 | 29.5 | 30.7 | 41.8 | 4.4 |
| N55-5757 | 32.5- | 23.5 | 23.1- | 27.6 | 28.3 | 37.4 | 4.9 |
| N55-5787 | 38.6 | 35.8 | 30.6 | 33.3 | 35.1 | 45.7 | 6.5 |
| N55-5793 | 36.9 | 30.6 | 36.0 | 29.5 | 24.6 | 48.5 | 5.0 |
| N55-5814 | 38.6 | 31.7 | 29.1- | 31.0 | 29.5 | 42.9 | 3.6 |
| N55-5862 | 39.8 | 38.1 | 32.5 | 27.3 | 23.4 | 45.9 | 5.6 |
| N55-5870 | 43.0 | 37.8 | 28.8- | 30.7 | 26.3 | 40.4 | 6.4 |
| N55-5877 | 42.7 | 35.4 | 37.7 | 32.9 | 32.7 | 36.4 | 6.1 |
| N55-5931 | 45.6 | 39.2 | 26.7- | 34.1 | 34.0 | 50.9+ | 4.5 |
| N55-5946 | 45.6 | 29.6 | 26.6- | 28.7 | 31.5 | 44.5 | 4.6 |
| L.S.D. (.05) | 6.4 | N.S. | 5.7 | 6.1 | 8.1 | 7.7 | 2.4 |
| C.V. | 8% | 18% | 9% | 10% | 14% | 9% | 28% |

Tabe 52. Oil percentages for the strains in Preliminary Group VII, 1957

| Strain | Willard N. C. | Tallassee, Ala. | Gainesville Fla. | Walnut Hill, Fla. | Stoneville, Miss. |
|---|---|---|---|---|---|
| Jackson | 21.4 | 21.8 | 22.4 | 23.0 | 22.4 |
| Lee | 22.3 | 21.3 | 21.6 | 22.4 | 22.7 |
| Ga 53-5-4 | 22.2 | 21.0 | 23.0 | 22.7 | 22.4 |
| Ga 53-9-1 | 22.4 | 21.1 | 22.9 | 22.4 | 22.0 |
| D55-4079 | 18.4 | 17.6 | 18.7 | 18.9 | 18.2 |
| D55-4080 | 13.9 | 17.9 | 18.6 | 18.4 | 19.0 |
| D55-4090 | 18.3 | 17.6 | 19.5 | 19.1 | 18.5 |
| D55-4092 | 19.0 | 17.6 | 20.0 | 19.6 | 18.6 |
| D55-4102 | 18.8 | 17.4 | 19.9 | 19.8 | 20.0 |
| D55-4103 | 20.0 | 19.3 | 21.7 | 20.1 | 18.8 |
| D55-4110 | 18.7 | 18.2 | 20.4 | 20.7 | 19.0 |
| D55-4159 | 17.6 | 17.5 | 19.0 | 19.5 | 19.0 |
| D55-4168 | 20.1 | 18.9 | 20.3 | 20.3 | 19.8 |
| D55-4170 | 18.0 | 18.0 | 19.2 | 20.0 | 18.8 |
| D55-4218 | 20.9 | 20.4 | 22.9 | 21.9 | 21.1 |
| N51-2607 | 21.4 | 21.4 | 22.4 | 21.5 | 21.7 |
| N51-3120 | 21.6 | 21.3 | 22.9 | 23.0 | 22.0 |
| N53-3307 | 21.1 | 20.5 | 21.5 | 21.8 | 21.0 |
| N53-3310 | 21.6 | 21.7 | 22.0 | 22.1 | 21.6 |
| N54-1795 | 22.3 | 21.6 | 24.0 | 22.9 | 22.2 |
| N54-1923 | 19.6 | 19.3 | 20.6 | 20.6 | 20.0 |
| N54-1935 | 22.2 | 20.7 | 23.6 | 22.7 | 22.2 |
| N54-1952 | 20.4 | 19.5 | 21.0 | 21.5 | 20.6 |
| N55-2908 | 22.7 | 22.2 | 23.9 | 22.1 | 22.9 |
| N55-2934 | 24.2 | 23.5 | 23.8 | 23.2 | 23.6 |
| N55-5559 | 22.1 | 21.3 | 23.4 | 22.9 | 22.6 |
| N55-5563 | 22.2 | 22.1 | 23.8 | 23.5 | 22.4 |
| N55-5757 | 22.2 | 22.3 | 22.6 | 22.8 | 22.7 |
| N55-5787 | 21.3 | 20.9 | 23.4 | 23.2 | 21.4 |
| N55-5793 | 20.3 | 21.0 | 22.5 | 22.6 | 20.7 |
| N55-5814 | 20.6 | 21.0 | 21.6 | 23.0 | 20.9 |
| N55-5862 | 22.9 | 22.8 | 23.7 | 23.1 | 23.0 |
| N55-5870 | 22.9 | 22.4 | 23.6 | 23.8 | 22.8 |
| N55-5877 | 22.8 | 21.2 | 24.1 | 23.0 | 21.7 |
| N55-5931 | 23.0 | 22.5 | 24.0 | 23.7 | 23.2 |
| N55-5946 | 23.2 | 21.6 | 23.1 | 23.3 | 22.9 |

Table 53. Protein percentages for the strains in Preliminary Group VII, 1957

| Strain | Willard, N. C. | Tallassee, Ala. | Gainesville, Fla. | Walnut Hill Fla. | Stoneville, Miss. |
|---|---|---|---|---|---|
| Jackson | 37.7 | 41.2 | 40.7 | 39.7 | 38.3 |
| Lee | 40.1 | 42.5 | 44.5 | 43.0 | 39.6 |
| Ga 53-5-4 | 39.6 | 41.0 | 43.6 | 40.8 | 40.4 |
| Ga 53-9-1 | 40.3 | 41.2 | 40.2 | 40.5 | 39.2 |
| D55-4079 | 49.4 | 46.1 | 47.8 | 47.1 | 47.5 |
| D55-4080 | 47.1 | 46.6 | 45.8 | 47.3 | 48.6 |
| D55-4090 | 47.4 | 45.4 | 47.9 | 46.3 | 46.0 |
| D55-4092 | 47.0 | 46.0 | 47.9 | 46.5 | 47.1 |
| D55-4102 | 46.3 | 47.3 | 47.8 | 46.5 | 46.9 |
| D55-4103 | 44.1 | 45.1 | 46.3 | 46.2 | 45.6 |
| D55-4110 | 47.8 | 47.1 | 46.6 | 45.6 | 47.1 |
| D55-4159 | 47.2 | 46.0 | 48.0 | 46.3 | 45.3 |
| D55-4168 | 46.6 | 45.7 | 47.8 | 47.1 | 45.5 |
| D55-4170 | 48.8 | 45.9 | 46.3 | 46.4 | 46.4 |
| D55-4218 | 41.6 | 43.6 | 45.3 | 43.3 | 42.7 |
| N51-2607 | 39.8 | 41.0 | 40.6 | 40.0 | 39.7 |
| N51-3120 | 38.9 | 40.4 | 41.3 | 39.6 | 40.0 |
| N53-3307 | 41.0 | 42.5 | 43.5 | 41.7 | 42.6 |
| N53-3310 | 40.0 | 41.7 | 44.2 | 40.9 | 40.9 |
| N54-1795 | 39.0 | 39.9 | 41.4 | 40.4 | 39.7 |
| N54-1923 | 41.9 | 40.1 | 43.4 | 43.7 | 42.7 |
| N54-1935 | 39.4 | 41.9 | 41.3 | 40.0 | 40.2 |
| N54-1952 | 41.6 | 42.8 | 44.3 | 41.2 | 42.1 |
| N55-2908 | 38.9 | 41.2 | 42.2 | 41.1 | 40.3 |
| N55-2934 | 37.9 | 40.6 | 42.2 | 39.9 | 39.4 |
| N55-5559 | 38.8 | 41.2 | 41.6 | 39.8 | 39.7 |
| N55-5563 | 39.0 | 39.3 | 40.4 | 38.5 | 38.7 |
| N55-5757 | 38.1 | 39.6 | 41.8 | 37.2 | 37.6 |
| N55-5787 | 39.4 | 39.6 | 41.1 | 38.0 | 40.4 |
| N55-5793 | 41.2 | 42.6 | 42.5 | 38.8 | 41.4 |
| N55-5814 | 41.7 | 42.4 | 41.7 | 39.3 | 40.7 |
| N55-5862 | 38.9 | 40.0 | 41.7 | 39.9 | 40.4 |
| N55-5870 | 38.4 | 39.9 | 41.9 | 39.8 | 40.7 |
| N55-5877 | 39.6 | 39.8 | 40.5 | 40.0 | 40.6 |
| N55-5931 | 39.8 | 38.3 | 41.6 | 39.2 | 39.9 |
| N55-5946 | 39.3 | 39.6 | 42.6 | 40.2 | 40.4 |

Table 54. Height data for the strains in Preliminary Group VII, 1957

| Strain | Willard, N. C. | Tallas-see, Ala. | Gaines-ville, Fla. | Quincy, Fla. | Walnut Hill, Fla. | Stone-ville, Miss. | Chilli-cothe, Texas |
|---|---|---|---|---|---|---|---|
| Jackson | 44 | 40 | 33 | 25 | 25 | 38 | 19 |
| Lee | 32 | 32 | 21 | 21 | 18 | 34 | 12 |
| Ga 53-5-4 | 37 | 42 | 27 | 20 | 21 | 40 | 13 |
| Ga 53-9-1 | 42 | 36 | 32 | 28 | 20 | 43 | 14 |
| D55-4079 | 34 | 30 | 28 | 21 | 26 | 38 | 13 |
| D55-4080 | 29 | 28 | 25 | 20 | 17 | 34 | 14 |
| D55-4090 | 38 | 40 | 23 | 20 | 20 | 35 | 17 |
| D55-4092 | 40 | 36 | 26 | 26 | 24 | 42 | 16 |
| D55-4102 | 41 | 38 | 29 | 24 | 18 | 41 | 15 |
| D55-4103 | 34 | 28 | 23 | 19 | 19 | 33 | 12 |
| D55-4110 | 39 | 36 | 23 | 25 | 24 | 38 | 12 |
| D55-4159 | 39 | 34 | 33 | 24 | 24 | 41 | 15 |
| D55-4168 | 35 | 38 | 33 | - | 24 | 41 | 16 |
| D55-4170 | 44 | 44 | 35 | 25 | 30 | 42 | 18 |
| D55-4218 | 42 | 38 | 29 | 32 | 24 | 43 | 16 |
| N51-2607 | 39 | 39 | 35 | 22 | 22 | 39 | 17 |
| N51-3120 | 46 | 42 | 35 | 22 | 22 | 42 | 17 |
| N53-3307 | 39 | 36 | 27 | 24 | 27 | 37 | 12 |
| N53-3310 | 33 | 34 | 27 | 21 | 23 | 34 | 17 |
| N54-1795 | 50 | 45 | 34 | 28 | 23 | 44 | 17 |
| N54-1923 | 39 | 39 | 26 | 25 | 21 | 37 | 15 |
| N54-1935 | 34 | 34 | 26 | 19 | 20 | 37 | 17 |
| N54-1952 | 38 | 34 | 26 | 26 | 20 | 34 | 16 |
| N55-2908 | 44 | 33 | 32 | 27 | 25 | 40 | 14 |
| N55-2934 | 37 | 42 | 36 | 27 | 24 | 43 | 17 |
| N55-5559 | 44 | 42 | 31 | 27 | 24 | 43 | 18 |
| N55-5563 | 36 | 39 | 30 | 20 | 22 | 38 | 18 |
| N55-5757 | 40 | 40 | 30 | 19 | 24 | 40 | 15 |
| N55-5787 | 36 | 33 | 22 | 18 | 18 | 38 | 17 |
| N55-5793 | 41 | 42 | 30 | 21 | 22 | 47 | 18 |
| N55-5814 | 44 | 33 | 27 | 20 | 17 | 41 | 16 |
| N55-5862 | 40 | 44 | 26 | 18 | 22 | 40 | 18 |
| N55-5870 | 34 | 32 | 24 | 26 | 16 | 34 | 12 |
| N55-5877 | 54 | 46 | 34 | 26 | 19 | 52 | 21 |
| N55-5931 | 40 | 34 | 28 | 23 | 20 | 40 | 13 |
| N55-5946 | 48 | 42 | 30 | 27 | 31 | 40 | 13 |

Table 55. Seed quality scores for the strains in Preliminary Group VII, 1957

| Strain | Willard, N. C. | Tallas-see, Ala. | Gaines-ville, Fla. | Quincy, Fla. | Walnut Hill, Fla. | Stone-ville, Miss. | Chilli-cothe, Texas |
|---|---|---|---|---|---|---|---|
| Jackson | 1.5 | 1.5 | 1.0 | 3.0 | 1.0 | 2.5 | 1.0 |
| Lee | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 2.8 | 1.0 |
| Ga 53-5-4 | 2.0 | 1.5 | 1.0 | 2.0 | 1.0 | 3.0 | 1.0 |
| Ga 53-9-1 | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 | 3.0 | 1.0 |
| D55-4079 | 1.5 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 1.0 |
| D55-4080 | 1.0 | 1.5 | 1.5 | 1.0 | 2.0 | 3.0 | 1.0 |
| D55-4090 | 1.5 | 1.5 | 1.5 | 1.0 | 1.0 | 1.5 | 1.0 |
| D55-4092 | 1.0 | 1.5 | 1.0 | 1.0 | 1.0 | 2.5 | 1.0 |
| D55-4102 | 1.0 | 1.5 | 1.5 | 2.0 | 1.0 | 1.5 | 1.0 |
| D55-4103 | 1.0 | 1.5 | 1.0 | 2.0 | 1.0 | 2.5 | 1.0 |
| D55-4110 | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 |
| D55-4159 | 2.0 | 1.5 | 1.5 | 2.0 | 2.0 | 3.0 | 1.0 |
| D55-4168 | 1.5 | 1.0 | 1.0 | - | 2.0 | 3.0 | 1.0 |
| D55-4170 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 3.5 | 1.0 |
| D55-4218 | 1.0 | 1.5 | 2.0 | 2.0 | 1.0 | 3.0 | 1.0 |
| N51-2607 | 1.5 | 2.0 | 1.0 | 2.0 | 1.0 | 2.5 | 1.0 |
| N51-3120 | 2.0 | 1.5 | 2.0 | 3.0 | 2.0 | 4.0 | 1.0 |
| N53-3307 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 3.0 | 1.0 |
| N53-3310 | 1.5 | 1.5 | 1.5 | 1.0 | 1.0 | 3.0 | 1.0 |
| N54-1795 | 2.0 | 2.0 | 2.0 | 3.0 | 2.0 | 2.5 | 1.0 |
| N54-1923 | 1.5 | 1.5 | 1.0 | 2.0 | 2.0 | 3.0 | 1.0 |
| N54-1935 | 1.5 | 2.0 | 1.0 | 2.0 | 1.0 | 2.5 | 1.0 |
| N54-1952 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 3.5 | 1.0 |
| N55-2908 | 2.0 | 2.0 | 1.0 | 3.0 | 1.0 | 3.0 | 1.0 |
| N55-2934 | 1.5 | 1.5 | 2.0 | 3.0 | 2.0 | 3.0 | 1.0 |
| N55-5559 | 2.0 | 2.0 | 1.5 | 3.0 | 2.0 | 3.0 | 1.0 |
| N55-5563 | 2.0 | 1.5 | 2.0 | 3.0 | 2.0 | 3.5 | 1.0 |
| N55-5757 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.5 | 1.0 |
| N55-5787 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 3.0 | 1.0 |
| N55-5793 | 1.0 | 1.5 | 1.0 | 2.0 | 2.0 | 2.5 | 1.0 |
| N55-5814 | 2.5 | 1.5 | 2.0 | 3.0 | 2.0 | 2.5 | 1.0 |
| N55-5862 | 3.0 | 3.5 | 2.0 | 3.0 | 2.0 | 4.0 | 1.0 |
| N55-5870 | 1.5 | 1.5 | 1.5 | 3.0 | 2.0 | 3.0 | 1.0 |
| N55-5877 | 1.0 | 1.5 | 1.0 | 3.0 | 2.0 | 3.0 | 1.0 |
| N55-5931 | 1.0 | 1.5 | 2.0 | 3.0 | 2.0 | 3.0 | 1.0 |
| N55-5946 | 1.0 | 1.5 | 1.0 | 3.0 | 1.0 | 3.0 | 1.0 |

UNIFORM GROUP VIII

1957

| | Variety or Strain | Parentage |
|---|---|---|
| 1. | Improved Pelican | Tanloxi x PI 60,406 |
| 2. | J.E.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 Jackson |
| 6. | La 49-1-4 | Pelican #2 x Ogden |
| 7. | La 49-2-4 | Creole x Ogden |
| 8. | La 49-11-6 | Pelican #2 x Ogden |
| 9. | La 53-97-1 | Pelican #2 x Ogden |
| 10. | Bienville (La 53-99) | Pelican #2 x Ogden |
| 11. | F55-310 | D49-772 x Improved Pelican |
| 12. | F55-1766 | Jackson x D49-2491 |

Results of 11 Uniform Group VIII nurseries are summarized in tables 56 through 62. This group included the three named varieties Improved Pelican, J.E.W. 45 and Jackson, and nine experimental lines. Five of these lines have been tested three years, two have been tested two years, and two were tested for the first time.

Seed yields were good in most of the nurseries. Differences among strains were significant in 10 of the 11 nurseries. In the Southeast, nine lines yielded significantly higher than Improved Pelican, while in the Delta and West, all lines yielded significantly higher than Improved Pelican. In the Southeast, three lines yielded significantly less than Jackson, while in the Delta and West, four lines yielded significantly less.

The line La 53-99, which has been tested the past two years, is being increased and released by the Louisiana Agricultural Experiment Station and has been named Bienville. This strain has averaged four days earlier than Improved Pelican and two days later than Jackson. It has averaged 19 inches shorter than Improved Pelican and three inches taller than Jackson. Seed yield has been comparable to Jackson, oil content is slightly lower, and protein content slightly higher. Under conditions where heavy growth is made, Bienville does not stand as well as Jackson. However, lodging is usually not a problem in the lower Southeast.

J.E.W. 45 is perhaps the most widely grown of the Group VIII maturity lines. Under most conditions, J.E.W. 45 has averaged somewhat lower in yield than Jackson. In 1957, J.E.W. 45 averaged significantly lower than Jackson for the Southeast and Delta and West areas. Its three-year average yield is 5.7 bushels per acre lower than for Jackson. Majos 52-87 is one of the latest maturing lines in the group. Its mean yield for both areas was slightly higher than that of J.E.W. 45. Its three-year average yield is 1.3 bushels per acre higher than that of J.E.W. 45 and 4.4 bushels lower than that of Jackson. However, because of its later maturity and somewhat taller growth, Majos 52-87 could most likely be planted successfully somewhat later than Jackson.

La 49-1-4 has given good performance in these tests. This line appears very similar to Bienville.

Two lines F55-310 and F55-1766 are the first lines resistant to bacterial pustule to be included in Group VIII. Both gave good performance, but their average yield for each area did not differ significantly from that for Jackson. F55-310 was outstanding at College Station, Texas.

Table 56. General summary of the performance of the strains in Uniform Group VIII, 1957

| | Improved Pelican | J.B.W. 45 | Majos 52-87 | Yelnanda 53-116 | Jackson | La 49-1-4 |
|---|---|---|---|---|---|---|
| Seed Yield - 1957 | | | | | | |
| Southeast | 25.2 | 28.6 | 30.6+ | 26.5 | 33.6+ | 35.8+ |
| Delta & West | 25.2 | 30.9+ | 33.7+ | 30.6+ | 39.2+ | 41.4+ |
| Southeast - 1956-57 | 26.0 | 28.9 | 30.2 | 28.0 | 34.4 | 35.2 |
| - 1955-57 | 26.1 | 29.2 | 30.5 | 29.0 | 34.9 | 36.3 |
| Oil Content - 1957 | 20.1 | 20.2 | 20.7+ | 19.5- | 22.3+ | 21.4+ |
| - 1956-57 | 20.4 | 20.1 | 20.7 | 19.3 | 22.0 | 21.1 |
| - 1955-57 | 20.4 | 20.1 | 20.4 | 19.3 | 22.0 | 21.0 |
| Protein Content - 1957 | 43.7 | 42.7 | 40.0- | 45.0+ | 41.2- | 42.0- |
| - 1956-57 | 43.1 | 42.7 | 40.5 | 46.1 | 40.9 | 42.0 |
| - 1955-57 | 43.1 | 42.4 | 40.3 | 45.0 | 40.9 | 42.5 |
| Seed Size | 13.3 | 20.5+ | 19.3+ | 19.9+ | 17.9+ | 17.8+ |
| Maturity Index | 11-5 | -5 | -1 | -2 | -6 | -4 |
| Height | 58 | 41 | 41 | 46 | 36 | 40 |
| Bacterial Pustule | 3.7 | 3.0 | 5.0 | 3.0 | 3.0 | 3.0 |
| Bacterial Blight | 3.0 | 3.0 | 2.0 | 4.0 | 1.0 | 3.0 |
| Target Spot | 2.0 | 2.0 | 2.0 | 3.5 | 1.0 | 2.0 |

Table 56. (Continued)

| | La 49-2-4 | La 49-11-6 | La 53-97-1 | (La 53-99) Bienville | F55-310 | F55-1766 |
|---|---|---|---|---|---|---|
| Seed Yield - 1957 | | | | | | |
| Southeast | 30.5+ | 32.2+ | 36.1+ | 34.4+ | 31.5+ | 33.0+ |
| Delta & West | 36.2+ | 37.4+ | 37.2+ | 37.6+ | 42.1+ | 41.7+ |
| Southeast - 1956-57 | 31.4 | 31.6 | 34.5 | 34.9 | | |
| - 1955-57 | 31.8 | 33.4 | | | | |
| Oil Content - 1957 | 22.1+ | 22.1+ | 21.7+ | 21.7+ | 21.1+ | 22.1+ |
| - 1956-57 | 21.9 | 21.8 | 21.4 | 21.5 | | |
| - 1955-57 | 22.0 | 21.8 | | | | |
| Protein Content - 1957 | 42.2- | 41.6- | 42.6 | 41.9- | 42.3- | 42.2- |
| - 1956-57 | 42.3 | 41.7 | 42.2 | 41.7 | | |
| - 1955-57 | 42.0 | 41.3 | | | | |
| Seed Size | 17.6+ | 17.7+ | 16.4+ | 17.6+ | 15.2+ | 15.8+ |
| Maturity Index | -10 | -10 | -3 | -4 | -3 | -6 |
| Height | 39 | 38 | 42 | 39 | 41 | 41 |
| Bacterial Pustule | 3.3 | 3.3 | 3.0 | 3.0 | 1.0 | 1.0 |
| Bacterial Blight | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 |
| Target Spot | 2.0 | 2.0 | 2.0 | 1.5 | 2.0 | 1.0 |

Table 57. Seed yield, in bushels per acre, for the strains in Uniform Group VIII, 1957

| Location | Improved Pelican | J.E.W. 45 | Majos 52-87 | Yelnanda 53-116 | Jackson | La 49-1-4 | La 49-2-4 |
|---|---|---|---|---|---|---|---|
| | | | Southeast | | | | |
| Hartsville, S. C. | 20.4 | 26.6+ | 28.6+ | 26.8+ | 32.2+ | 32.6+ | 34.6+ |
| Experiment, Ga. | 16.5 | 18.7 | 18.5 | 6.7 | 22.1 | 23.3 | 20.0 |
| Tallassee, Ala. | 26.6 | 32.9 | 27.4 | 27.7 | 38.6+ | 33.8+ | 27.2 |
| Tifton, Ga. | 30.5 | 36.8+ | 38.5+ | 34.5+ | 33.3 | 34.6+ | 34.5+ |
| Gainesville, Fla. | 15.1 | 18.4 | 27.6+ | 21.2+ | 35.0+ | 35.6+ | 31.6+ |
| Quincy, Fla. | 26.9 | 31.5 | 39.1+ | 28.2 | 34.3+ | 38.8+ | 31.3 |
| Walnut Hill, Fla. | 36.6 | 34.2 | 39.3 | 38.5 | 43.0 | 47.4 | 33.7 |
| Baton Rouge, La. | 28.9 | 29.5 | 25.6 | 28.2 | 30.7 | 40.1 | 31.5 |
| Mean | 25.2 | 28.6 | 30.6+ | 26.5 | 33.6+ | 35.8+ | 30.5+ |
| | | | Delta and West | | | | |
| Stoneville, Miss. | 18.0 | 28.2+ | 25.7+ | 27.2+ | 37.6+ | 38.9+ | 33.2+ |
| Curtis, La. | 21.6 | 31.2 | 35.8 | 28.8 | 40.7 | 43.1 | 33.7 |
| College Station, Texas | 36.0 | 33.4 | 39.6 | 36.0 | 39.2 | 42.2 | 41.7 |
| Mean | 25.2 | 30.9+ | 33.7+ | 30.6+ | 39.2+ | 41.4+ | 36.2+ |

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

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

Table 57. (Continued)

| Location | La 49-11-6 | La 53-97-1 | Bienville (La 53-99) | F55-310 | F55-1766 | L.S.D. (.05) | C.V. |
|---|---|---|---|---|---|---|---|
| | | | Southeast | | | | |
| Hartsville, S. C. | 32.4+ | 29.5+ | 30.9+ | 37.3+ | 41.6+ | 5.2 | 10% |
| Experiment, Ga. | 20.8 | 27.0 | 19.4 | 15.6 | 18.3 | 7.1 | 25% |
| Tallassee, Ala. | 34.2+ | 36.5+ | 32.0 | 31.1 | 27.5 | 7.6 | 14% |
| Tifton, Ga. | 31.3 | 39.5+ | 35.5+ | 34.6+ | 36.7+ | 3.9 | 7% |
| Gainesville, Fla. | 33.8+ | 34.3+ | 34.4+ | 37.4+ | 37.8+ | 4.6 | 9% |
| Quincy, Fla. | 30.0 | 38.8+ | 38.3+ | 29.7 | 32.3+ | 5.4 | 10% |
| Walnut Hill, Fla. | 44.9 | 45.5 | 46.0 | 41.7 | 43.1 | N.S. | 15% |
| Baton Rouge, La. | 30.1 | 37.4 | 38.6 | 24.4 | 27.1 | 3.4 | 7% |
| Mean | 32.2+ | 36.1+ | 34.4+ | 31.5+ | 33.0+ | 4.0 | |
| | | | Delta and West | | | | |
| Stoneville, Miss. | 35.0+ | 34.1+ | 31.8+ | 35.1+ | 44.4+ | 7.7 | 14% |
| Curtis, La. | 40.2 | 37.6 | 41.2 | 42.2 | 39.6 | 6.7 | 11% |
| College Station, Texas | 37.1 | 39.9 | 39.8 | 49.2+ | 41.1 | 7.6 | 11% |
| Mean | 37.4+ | 37.2+ | 37.6+ | 42.1+ | 41.7+ | 3.9 | |

Table 58. Chemical composition and seed size for the strains in Uniform Group VIII, 1957

| Location | Improved Pelican | J.E.W. 45 | Majos 52-87 | Yelnanda 53-116 | Jackson | La 49-1-4 |
|---|---|---|---|---|---|---|
| | | | Oil Percentage | | | |
| Hartsville, S. C. | 19.1 | 19.6 | 18.1 | 19.5 | 22.5 | 21.0 |
| Tallassee, Ala. | 20.4 | 19.5 | 20.4 | 19.0 | 21.3 | 20.8 |
| Gainesville, Fla. | 20.1 | 20.4 | 23.0 | 19.7 | 23.4 | 21.4 |
| Quincy, Fla. | 20.0 | 20.1 | 20.2 | 18.9 | 21.4 | 22.1 |
| Baton Rouge, La. 1/ | 21.4 | 19.7 | 21.0 | 21.7 | 22.9 | 24.1 |
| College Station, Texas | 21.0 | 21.5 | 21.9 | 20.3 | 22.7 | 21.7 |
| Mean | 20.1 | 20.2 | 20.7+ | 19.5- | 22.3+ | 21.4+ |
| | | | Protein Percentage | | | |
| Hartsville, S. C. | 42.5 | 41.4 | 39.8 | 45.4 | 41.5 | 43.0 |
| Tallassee, Ala. | 43.6 | 42.1 | 40.2 | 45.2 | 41.6 | 38.9 |
| Gainesville, Fla. | 46.8 | 45.2 | 40.0 | 47.4 | 41.5 | 42.8 |
| Quincy, Fla. | 44.9 | 44.3 | 42.3 | 46.9 | 42.9 | 43.7 |
| Baton Rouge, La. 1/ | 40.9 | 39.3 | 37.0 | 41.3 | 35.9 | 38.3 |
| College Station, Texas | 40.9 | 40.5 | 37.6 | 40.1 | 38.3 | 41.5 |
| Mean | 43.7 | 42.7 | 40.0- | 45.0+ | 41.2- | 42.0- |
| | | | Grams Per 100 Seeds | | | |
| Hartsville, S. C. | 11.0 | 20.0 | 21.7 | 20.0 | 15.7 | 17.3 |
| Tallassee, Ala. | 13.1 | 20.1 | 16.8 | 19.9 | 16.3 | 17.5 |
| Gainesville, Fla. | 12.3 | 16.4 | 18.6 | 16.9 | 16.3 | 16.5 |
| Quincy, Fla. | 17.1 | 27.0 | 26.3 | 24.5 | 25.0 | 22.3 |
| Baton Rouge, La. | 13.5 | 21.0 | 17.0 | 19.0 | 17.0 | 16.5 |
| College Station, Texas | 13.0 | 18.6 | 18.1 | 18.8 | 17.1 | 16.5 |
| Mean | 13.3 | 20.5+ | 19.8+ | 19.9+ | 17.9+ | 17.8+ |

1/ Not included in mean.

Table 56. (Continued)

| Location | La 49-2-4 | La 49-11-6 | La 53-97-1 | Bienville (La 53-99) | F55-310 | F55-1766 | L.S.D. (.05) |
|---|---|---|---|---|---|---|---|
| | | | Oil Percentage | | | | |
| Hartsville, S. C. | 21.8 | 21.8 | 21.1 | 21.4 | 20.8 | 22.7 | |
| Tallassee, Ala. | 20.7 | 21.0 | 20.8 | 21.0 | 20.7 | 21.2 | |
| Gainesville, Fla. | 23.3 | 23.9 | 22.3 | 22.1 | 21.3 | 22.1 | |
| Quinch, Fla. | 22.4 | 21.2 | 21.7 | 21.8 | 21.8 | 20.9 | |
| Baton Rouge, La. 1/ | 24.1 | 24.3 | 23.4 | 23.6 | 21.5 | 24.0 | |
| College Station, Texas | 22.1 | 22.5 | 22.4 | 22.4 | 20.9 | 23.6 | |
| Mean | 22.1+ | 22.1+ | 21.7+ | 21.7+ | 21.1+ | 22.1+ | 0.3 |
| | | | Protein Percentage | | | | |
| Hartsville, S. C. | 41.8 | 40.6 | 42.1 | 41.6 | 42.1 | 40.9 | |
| Tallassee, Ala. | 42.4 | 42.0 | 42.8 | 42.1 | 41.7 | 42.3 | |
| Gainesville, Fla. | 42.3 | 42.8 | 43.3 | 42.4 | 43.5 | 45.0 | |
| Quincy, Fla. | 44.1 | 43.7 | 44.1 | 43.4 | 44.1 | 45.2 | |
| Baton Rouge, La. 1/ | 37.4 | 34.0 | 35.9 | 38.1 | 38.0 | 38.4 | |
| College Station, Texas | 40.5 | 39.0 | 40.0 | 40.2 | 40.0 | 37.8 | |
| Mean | 42.2- | 41.6- | 42.6 | 41.9- | 42.3- | 42.2- | 1.3 |
| | | | Grams Per 100 Seeds | | | | |
| Hartsville, S. C. | 16.7 | 16.0 | 17.0 | 16.7 | 15.7 | 17.0 | |
| Tallassee, Ala. | 16.2 | 15.7 | 16.9 | 15.6 | 13.9 | 15.4 | |
| Gainesville, Fla. | 16.4 | 18.0 | 16.0 | 15.4 | 14.8 | 16.7 | |
| Quincy, Fla. | 22.1 | 23.5 | 13.5 | 22.5 | 18.6 | 13.3 | |
| Baton Rouge, La. | 16.5 | 17.0 | 17.0 | 17.5 | 14.0 | 17.0 | |
| College Station, Texas | 15.8 | 15.9 | 17.0 | 16.2 | 14.3 | 15.3 | |
| Mean | 17.6+ | 17.7+ | 16.4+ | 17.6+ | 15.2+ | 15.8+ | 1.6 |

Table 59. Relative maturity data, days earlier (-) or later (+) than Improved Pelican, for the strains in Uniform Group VIII, 1957

| Location | Date Planted | Improved Pelican Matured | J.E.W. 45 | Majos 52-87 | Yelnanda 53-116 | Jackson |
|---|---|---|---|---|---|---|
| | | | Southeast | | | |
| Hartsville, S. C. | 5-19 | 11-8 | -6 | +2 | -4 | -8 |
| Experiment, Ga. | 5-24 | 11-12 | -4 | -2 | +1 | -3 |
| Tallassee, Ala. | 5-22 | 11-1 | 0 | 0 | 0 | -1 |
| Gainesville, Fla. | 5-31 | 10-27 | -5 | +6 | -8 | -3 |
| Walnut Hill, Fla. | 6-8 | 10-18 | -10 | -3 | +2 | -9 |
| Baton Rouge, La. | 5-17 | 11-7 | -13 | -4 | -6 | -13 |
| Mean | | 11-5 | -5 | 0 | -2 | -5 |
| | | | Delta and West | | | |
| Stoneville, Miss. | 5-8 | 11-6 | -2 | -2 | 0 | -8 |
| Curtis, La. | 5-15 | 11-5 | -4 | -2 | 0 | -4 |
| College Station, Texas | 5-30 | 11-1 | -4 | 0 | -4 | -7 |
| Mean | | 11-4 | -3 | -1 | -1 | -6 |

Table 59. (Continued)

| Location | La 49-1-4 | La 49-2-4 | La 49-11-6 | La 53-97-1 | Bienville (La 53-99) | F55-310 | F55-1766 |
|---|---|---|---|---|---|---|---|
| | | | Southeast | | | | |
| Hartsville, S. C. | -6 | -12 | -13 | -6 | -6 | -4 | -8 |
| Experiment, Ga. | -5 | -4 | -4 | -4 | -4 | -3 | -5 |
| Tallassee, Ala. | 0 | -6 | -8 | 0 | 0 | 0 | -5 |
| Gainesville, Fla. | -2 | -10 | -9 | -2 | -3 | -1 | -2 |
| Walnut Hill, Fla. | -4 | -14 | -15 | -5 | -7 | -3 | -3 |
| Baton Rouge, La. | -13 | -23 | -18 | -10 | -10 | -8 | -13 |
| Mean | -4 | -9 | -10 | -4 | -4 | -3 | -5 |
| | | | Delta and West | | | | |
| Stoneville, Miss. | -2 | -13 | -12 | +1 | -2 | -2 | -8 |
| Curtis, La. | 0 | -11 | -16 | -4 | -4 | -4 | -4 |
| College Station, Texas | -7 | -7 | - 4 | -0 | 0 | 0 | -7 |
| Mean | -5 | -10 | -10 | -1 | -2 | -2 | -6 |

Table 60. Height data for the strains in Uniform Group VIII, 1957

| Location | Improved Pelican | J.E.W. 45 | Majos 52-87 | Yelnanda 53-116 | Jackson | La. 49-1-4 |
|---|---|---|---|---|---|---|
| | | | Southeast | | | |
| Hartsville, S. C. | 59 | 46 | 44 | 50 | 47 | 45 |
| Tallassee, Ala. | 70 | 46 | 42 | 48 | 44 | 42 |
| Tifton, Ga. | 48 | 32 | 35 | 36 | 28 | 33 |
| Gainesville, Fla. | 56 | 36 | 37 | 41 | 31 | 37 |
| Quincy, Fla. | 49 | 31 | 35 | 39 | 30 | 38 |
| Walnut Hill, Fla. | 64 | 46 | 49 | 54 | 43 | 47 |
| Baton Rouge, La. | 62 | 36 | 42 | 44 | 25 | 38 |
| Mean | 58 | 39 | 41 | 45 | 35 | 40 |
| | | | Delta and West | | | |
| Stoneville, Miss. | 56 | 48 | 48 | 56 | 40 | 46 |
| Curtis, La. | 66 | 48 | 40 | 53 | 36 | 38 |
| College Station, Texas | 53 | 37 | 40 | 39 | 37 | 39 |
| Mean | 58 | 44 | 43 | 49 | 38 | 41 |

Table 60. (Continued)

| Location | La 49-2-4 | La 49-11-6 | La 53-97-1 | Bienville (La 53-99) | F55-310 | F55-1766 |
|---|---|---|---|---|---|---|
| | | | Southeast | | | |
| Hartsville, S. C. | 47 | 45 | 44 | 44 | 44 | 49 |
| Tallassee, Ala. | 42 | 40 | 46 | 42 | 48 | 43 |
| Tifton, Ga. | 26 | 27 | 34 | 29 | 33 | 34 |
| Gainesville, Fla. | 35 | 36 | 39 | 39 | 40 | 40 |
| Quincy, Fla. | 29 | 33 | 37 | 32 | 39 | 38 |
| Walnut Hill, Fla. | 48 | 47 | 54 | 48 | 48 | 46 |
| Baton Rouge, La. | 38 | 36 | 37 | 34 | 36 | 34 |
| Mean | 38 | 38 | 42 | 38 | 41 | 41 |
| | | | Delta and West | | | |
| Stoneville, Miss. | 50 | 36 | 46 | 46 | 38 | 48 |
| Curtis, La. | 40 | 42 | 40 | 44 | 48 | 42 |
| College Station, Texas | 35 | 36 | 38 | 36 | 40 | 37 |
| Mean | 41 | 38 | 41 | 42 | 42 | 42 |

Table 61. Lodging scores for the strains in Uniform Group VIII, 1957

| Location | Improved Pelican | J.B.W. 45 | Majos 52-87 | Yelnanda 53-116 | Jackson | La 49-1-4 |
|---|---|---|---|---|---|---|
| | | | Southeast | | | |
| Hartsville, S. C. | 3.3 | 3.3 | 2.0 | 3.1 | 2.3 | 2.7 |
| Experiment, Ga. | 1.3 | 1.0 | 3.0 | 2.0 | 1.3 | 1.3 |
| Tallassee, Ala. | 4.0 | 3.0 | 3.0 | 3.0 | 1.0 | 2.0 |
| Tifton, Ga. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Gainesville, Fla. | 2.0 | 1.3 | 2.7 | 2.0 | 1.0 | 2.0 |
| Quincy, Fla. | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 1.0 |
| Walnut Hill, Fla. | 3.0 | 2.0 | 3.0 | 3.0 | 1.0 | 2.0 |
| Baton Rouge, La. | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 |
| | | | Delta and West | | | |
| Stoneville, Miss. | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 |
| Curtis, La. | 5.0 | 5.0 | 5.0 | 5.0 | 1.0 | 4.0 |
| College Station, Texas | 4.0 | 4.0 | 4.0 | 3.0 | 1.0 | 2.0 |

Table 61. (Continued)

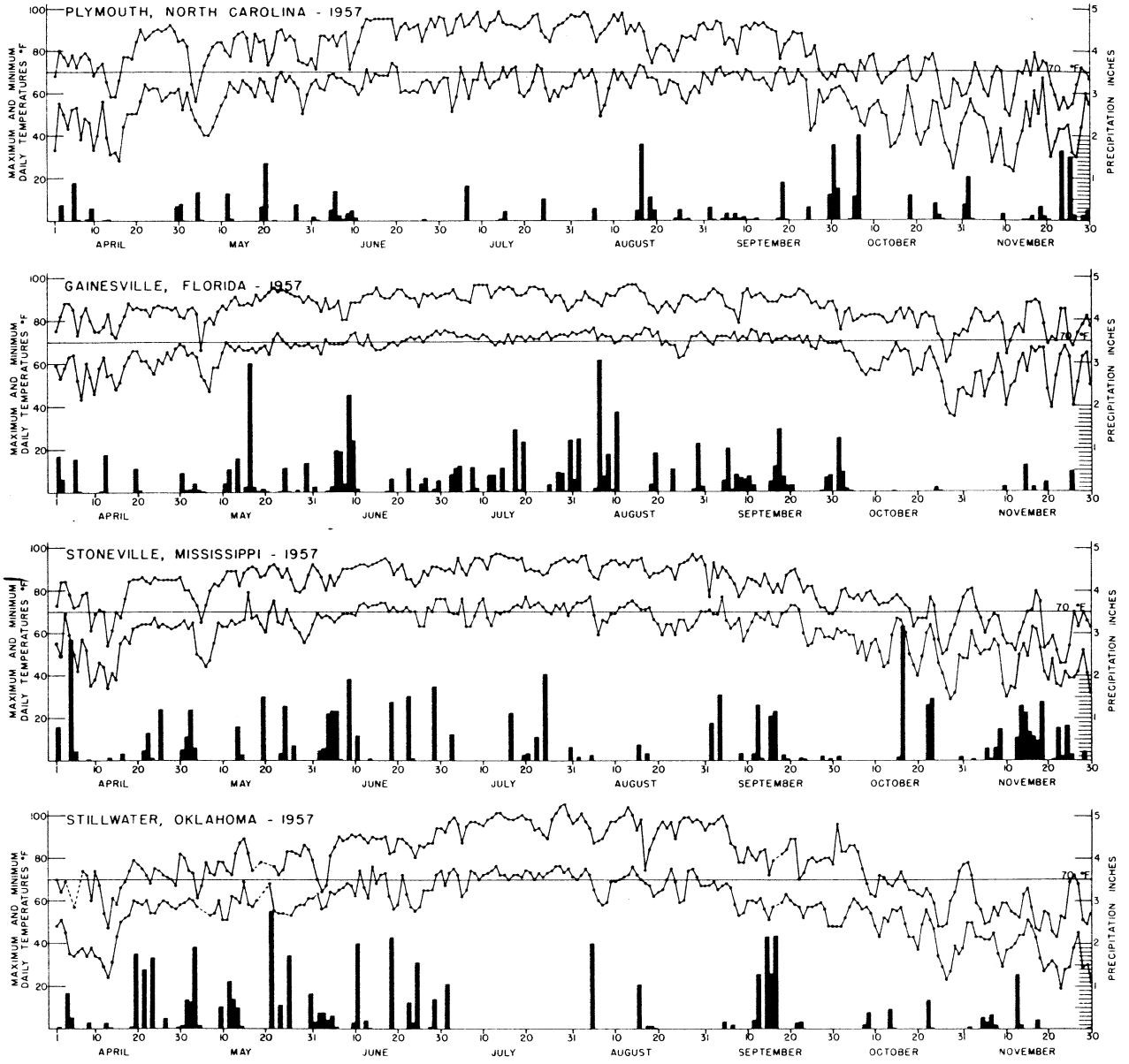
| Location | La 49-2-4 | La 49-11-6 | La 53-97-1 | Bienville (La 53-99) | F55-310 | F55-1766 |
|---|---|---|---|---|---|---|
| | | | Southeast | | | |
| Hartsville, S. C. | 2.7 | 3.3 | 2.4 | 2.3 | 3.0 | 4.0 |
| Experiment, Ga. | 1.3 | 2.6 | 3.0 | 1.0 | 1.3 | 1.0 |
| Tallassee, Ala. | 1.0 | 1.0 | 3.0 | 2.0 | 2.0 | 1.0 |
| Tifton, Ga. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Gainesville, Fla. | 1.3 | 1.0 | 1.7 | 1.7 | 1.7 | 1.3 |
| Quincy, Fla. | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 | 1.0 |
| Walnut Hill, Fla. | 2.0 | 2.0 | 2.0 | 2.0 | 1.5 | 1.5 |
| Baton Rouge, La. | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| | | | Delta and West | | | |
| Stoneville, Miss. | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 |
| Curtis, La. | 5.0 | 5.0 | 3.0 | 4.0 | 5.0 | 3.0 |
| College Station, Texas | 1.0 | 1.0 | 3.0 | 3.0 | 4.0 | 2.0 |

Table 62. Seed quality scores for the strains in Uniform Group VIII, 1957

| Location | Improved Pelican | J.E.W. 45 | Majos 52-87 | Yelnanda 53-116 | Jackson | La 49-1-4 |
|---|---|---|---|---|---|---|
| | | | Southeast | | | |
| Experiment, Ga. | 1.3 | 1.0 | 1.5 | 1.5 | 2.0 | 1.5 |
| Tallassee, Ala. | 1.0 | 1.5 | 2.0 | 1.0 | 1.5 | 1.0 |
| Gainesville, Fla. | 1.7 | 1.7 | 2.0 | 1.7 | 1.3 | 1.3 |
| Quincy, Fla. | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 |
| Walnut Hill, Fla. | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 |
| Baton Rouge, La. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | | | Delta and West | | | |
| Stoneville, Miss. | 4.0 | 3.0 | 3.7 | 3.0 | 2.0 | 2.0 |
| Curtis, La. | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 1.0 |
| College Station, Texas | 2.0 | 4.0 | 2.0 | 4.0 | 3.0 | 3.0 |

Table 62. (Continued)

| Location | La 49-2-4 | La 49-11-6 | La 53-97-1 | Bienville (La 53-99) | F55-310 | F55-1766 |
|---|---|---|---|---|---|---|
| | | | Southeast | | | |
| Experiment, Ga. | 1.0 | 1.5 | 1.5 | 1.0 | 1.5 | 1.0 |
| Tallassee, Ala. | 2.0 | 1.5 | 1.0 | 1.5 | 1.5 | 1.5 |
| Gainesville, Fla. | 1.3 | 1.3 | 1.0 | 1.7 | 1.0 | 2.0 |
| Quincy, Fla. | 4.0 | 3.0 | 2.0 | 2.0 | 3.0 | 3.0 |
| Walnut Hill, Fla. | 1.0 | 1.0 | 2.0 | 2.0 | 1.5 | 1.5 |
| Baton Rouge, La. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | | | Delta and West | | | |
| Stoneville, Miss. | 2.3 | 2.7 | 2.0 | 2.0 | 2.3 | 2.3 |
| Curtis, La. | 3.0 | 2.0 | 1.0 | 2.0 | 2.0 | 2.0 |
| College Station, Texas | 3.0 | 2.0 | 1.0 | 4.0 | 1.0 | 3.0 |


PLYMOUTH, NORTH CAROLINA - 1957
GAINESVILLE, FLORIDA - 1957
STONEVILLE, MISSISSIPPI - 1957
STILLWATER, OKLAHOMA - 1957
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
70 °F
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER