U. S. REGIONAL SOYBEAN LABORATORY
URBANA, ILLINOIS

THE UNIFORM SOYBEAN TESTS

SOUTHERN STATES

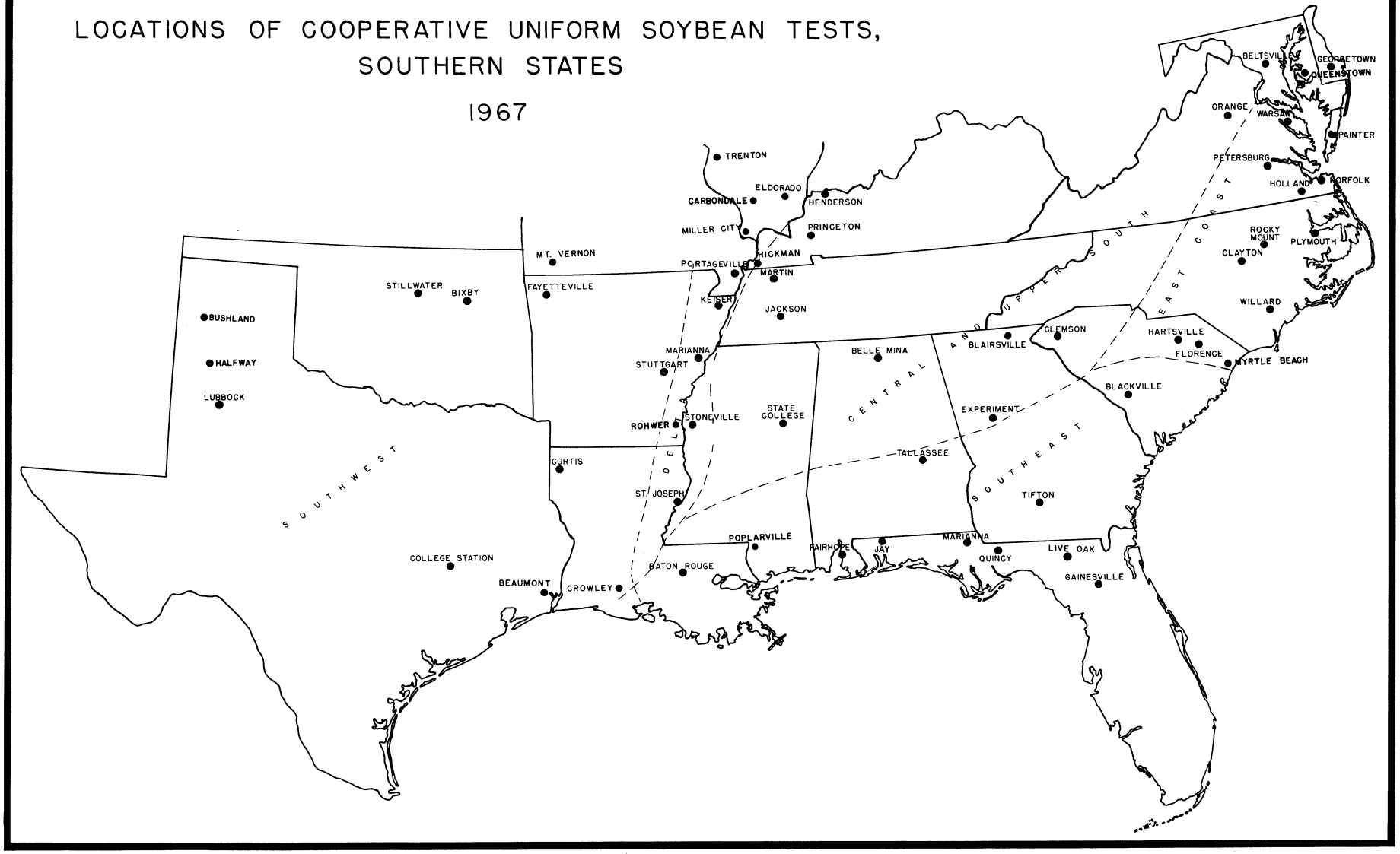
1967

RSLM 234

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

LOCATIONS OF COOPERATIVE UNIFORM SOYBEAN TESTS, SOUTHERN STATES

1967



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INTRODUCTION

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

Ten uniform test groups have been established to evaluate the better strains developed in the breeding programs. The groups 00 through IV are adapted in the Northern part of the United States, and the groups IV-S 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 varieties available of each maturity class are used as check varieties with which to compare new strains as to seed yield, chemical composition, maturity, height, lodging, seed quality, and reaction to disease. For the groups grown in the Southern area, the major check varieties are Kent, Hill, Dare, Hood, Lee, Bragg, and Hampton. At Stoneville, Miss., where all maturity classes will mature, the approximate maturity dates of these varieties, when planted during the first half of May, are: Kent, September 8; Hill, September 20; Dare, October 1; Hood, October 8; Lee, October 16; Bragg, October 22; and Hampton, November 1.

A wide range of soil and climatic conditions exist in the regions. 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 soil from South Carolina southward; (3) the Upper and Central South, including the Piedmont and loessal hill soils east of the Mississippi River; (4) the Delta area, composed of the alluvial soils along the Mississippi River from southern Missouri, southward; and (5) the Southwest, comprising Arkansas and Louisiana (outside the Delta), and Oklahoma and Texas. In the Southwest area, the potential soybean-growing areas would include the alluvial river valley soils, the Gulf Coast of Louisiana and Texas, and the high plains of Texas. In this area, several of the tests receive supplemental irrigation. A map is included to illustrate the five production areas.

On nearly all of the soils other than the alluvial soils along the Mississippi River, fertilization is essential for satisfactory soybean production. In the Western area, irrigation is necessary for successful production. A table showing soil types, soil test information, and rate of fertilization is included.

The soil test information is based upon analyses run by laboratories within the states. Different methods are used for extraction and reporting by the various laboratories. An attempt is being made to report phosphorus and potash on a high, medium and low basis, since pounds per acre may have different meanings in accordance with the methods used. In most cases, soil samples were taken after the soybeans were mature.

STRAIN IDENTIFICATION

The strains designated by number carry a letter prefix. This letter identifies where each strain was selected:

Co - Coker's Pedigreed Seed Co., Hartsville, South Carolina
D - Delta Branch Exp. Sta. and U. S. Regional Soybean Laboratory
F - Florida Agr. Exp. Sta. and U. S. Regional Soybean Laboratory
Ga - Georgia Agricultural Experiment Station
L - Illinois Agr. Exp. Sta. and U. S. Regional Soybean Laboratory
La - Louisiana Agricultural Experiment Station
Md - Maryland Agr. Exp. Sta. and U. S. Regional Soybean Laboratory
N - North Carolina Agr. Exp. Sta. and U. S. Regional Soybean Laboratory
R - Arkansas Agricultural Experiment Station
S - Missouri Agr. Exp. Sta. and U. S. Regional Soybean Laboratory
UD - Delaware Agricultural Experiment Station
V - Virginia Agricultural Experiment Station

Location of soybean nurseries along with soil type, soil analysis, and fertilization

Location	Groups grown IV	V	VI	VII	VIII	Soil type	Soil analyses P_2O_5	K_2O	pH	Fertilizer[1]	Yield-adapted variety[2]
East Coast											
Queenstown, Md.	1	1	1			Mattapex silt loam					40.7 - G
Georgetown, Del.	1	1				Norfolk sandy loam				0-45-90	33.2 - G
Linkwood, Md.	1*	1*	1			Sassafras sandy loam				0-0-0	33.6 - B
Warsaw, Va.	1*	1*	1			Sassafras sandy loam	H	M+	5.7	0-30-60	38.7 - E
Painter, Va.	1	1	1			Sassafras f. sandy loam				0-0-0	42.8 - E
Petersburg, Va.		1	1*			Goldsboro f. sandy loam	VH	M-	6.0	0-0-0	40.6 - E
Norfolk, Va.		1	1			Woodstown sandy loam	VH	H	5.7	0-42-42	42.6 - E
Holland Va.		1	1			Bertie f. sandy loam	H+	H+	5.7	0-0-0	39.9 - B
Plymouth. N.C.	1	1*	1*			Bladen f. sandy loam				0-40-80	37.1 - C
Rocky Mt. N.C.				1		Norfolk sandy loam				0-40-80	37.6 - D
Willard, N.C.			1	1*		Norfolk f. sandy loam				0-40-80	35.9 - C
Clayton, N.C.[3]			1	1		Norfolk sandy loam				0-40-80	50.3 - C
Florence, S.C.			1	1	1	Dunbar f. sandy loam				0-0-0	49.8 - C
Hartsville, S.C.(A)				1	1	Norfolk sandy loam				0-40-80	44.5 - D
Hartsville, S.C.(B)					1	Dunbar sandy loam				0-40-80	41.0 - F
Southeast											
Blackville, S.C.(A)				1*	1	Norfolk sandy loam	H+	M+	6.0	0-60-120	43.3 - D
Blackville, S.C.(B)					1*	Norfolk sany loam	VH	M-	6.1	0-60-120	31.3 - F
Tallassee, Ala.				1*	1	Augusta f. sandy loam				0-42-42	48.4 - D
Tifton, Ga.				1	1	Tifton pebbly loam	H	M	6.5	0-60-120	44.9 - D
Live Oak, Fla.(A)				1*	1*	Klej fine sand	H	M	5.8	0-70-140	40.0 - H
Live Oak, Fla.(B)				1	1	Scranton fine sand	H	M		0-70-140	38.3 - D
Gainesville, Fla.				1	1*	Arredonda fine sand	H	M	5.6	0-40-80	41.7 - H
Quincy, Fla.			1	1	1*	Norfolk loamy f. sand	L	M	5.8	0-70-70	36.2 - F
Marianna, Fla.				1	1	Ruston sandy loam				24-72-72	24.1 - D
Jay, Fla.			1*	1*	1*	Tifton f. sandy loam				0-80-40	46.6 - F
Fairhope, Ala.			1	1	1	Marlboro f. sandy loam				0-42-42	48.1 - F
Poplarville, Miss.				1	1	Pheba f. sandy loam	L-	L-	5.8	0-80-80	56.3 - D
Baton Rouge, La.			1	1	1	Olivier silt loam				0-60-60	43.5 - D
Upper & Central South											
Orange, Va.	1	1				Davidson clay loam				30-60-60	48.4 - G
Trenton, Ill	1									0-0-0	49.5 - G
Eldorado, Ill.	1									0-0-0	45.1 - G
Carbondale, Ill	1					Stoy silt loam				0-90-120	46.8 - G

Location	IV	V	VI	VII	VIII	Soil type	P_2O_5	K_2O	pH	Fertilizer[1]	Yield-adapted variety[2]
Upper & Central South (cont'd.)											
Princeton, Ky.	1	1				Crider silt loam				0-0-0	33.3 - A
Martin, Tenn.	1	1				Collins silt loam				0-80-80	49.9 - A
Jackson, Ten..		1	1			Grenada silt loam	H	H	7.4	0-65-125	43.8 - A
Belle Mina, Ala.		1	1			Humphrey sandy loam				0-35-35	39.4 - A
Blairsville, Ga.	1	1				Hiwassee loam	M	M	6.5	0-70-70	37.5 - G
Clemson, S. C.			1	1		Cecil sandy loam	H-	M+	6.1	0-70-70	53.3 - C
Experiment, Ga.		1	1	1	1	Cecil sandy clay loam				20-60-60	51.1 - C
State College, Miss.		1	1	1		Verona fine sandy loam			7.3	0-60-60	35.9 - C
Delta											
Miller City, Ill.	1	1								0-0-0	42.6 - G
Henderson Ky.	1	1				Wakeland silt loam	L	M	5.6	0-0-0	46.8 - G
Hickman, Ky.		1				Commerce silt loam	H	H	7.3	0-0-0	45.2 - A
Portageville, Mo.(A)	1*	1*	1*			Salix silt loam				0-50-50	34.9 - B
Portageville, Mo.(B)	1*	1*	1*			Sharkey clay	VH	VH	5.8	0-0-0	27.5 - A
Keiser, Ark.	1	1*	1*			Sharkey clay	H	H	6.6	0-0-0	42.7 - C
Marianna, Ark.[3]	1	1	1			Richland silt loam	M	M	6.9	0-30-30	34.2 - C
Stoneville, Miss.(A)[3]		1	1*	1*	1	Bosket f. sandy loam	M-	M-	6.7	0-0-0	53.0 - C
Stoneville, Miss.(B)[3]	1*	1*	1*	1*		Sharkey clay	M	H	6.4	0-0-0	45.1 - C
Rohwer, Ark.				1		Perry clay	H	H	6.1	0-0-0	35.3 - I
St. Joseph, La.		1	1	1	1	Commerce sandy loam				0-0-0	50.8 - C
West											
Mt. Vernon, Mo.	1	1				Huntington silt loam				0-0-0	21.3 - A
Stuttgart, Ark.[3]		1	1	1		Crowley silt loam	VL	L+	6.6	0-48-48	45.9 - C
Curtis, La.		1	1	1	1	Yahola f. sandy loam				0-0-0	39.8 - C
Bixby, Okla.[3]	1	1	1			Lonoke very f. sandy loam			7.4	0-0-0	48.4 - A
Bushland, Texas[3]	1					Pullman silty clay loam				0-0-0	49.0 - J
Halfway, Texas[3]	1	1	1			Amarillo f. sandy loam				0-0-0	41.5 - A
Crowley, La.			1	1	1	Crowley silt loam				0-60-30	33.7 - D
Beaumont, Texas			1	1*	1*	Morrey silt loam	L	M	6.8	15-60-60	45.2 - C

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

2/ A = Hill; B = Dare; C = Lee; D = Bragg; E = York; F = Hampton; G = Kent; H = Hardee; I = Semmes; J = Clark 63

3/ Irrigated as needed.

* Preliminary nursery grown in addition to uniform nursery.

METHODS

The uniform nurseries were planted in 4-row plots with 3 replications. All seed was packeted at Stoneville, Mississippi, for planting 19-foot rows. In most cases a 16-foot section was harvested from each of the two center rows. Randomized block designs are used for groups. Row widths at the different locations vary from 36 to 40 inches. An attempt was made to follow the best cultural and management practices in conducting these strain comparisons.

The preliminary nurseries were planted in 4-row plots with 2 replications at each of 4 to 8 locations.

Planting Rate: All strains were packeted at the rate of 190 seeds for planting a 19-foot row. This gives a planting rate of 10 seeds per foot.

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

Shattering notes, where taken, are on the border rows, 14 days after maturity. The estimates are recorded on a scale of 1 to 5 as follows:

1 - no shattering
2 - 1 to 3% shattered
3 - 4 to 8% shattered
4 - 9 to 19% shattered
5 - over 20% 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, Kent; Group V, Hill; Group VI, Hood; Group VII, Bragg; and Group VIII, Hampton.

Seed quality is rated from 1 to 5 according to the following scale:

(1) very good; (2) good; (3) fair; (4) poor; and (5) very poor

The factors considered in estimating seed quality are development of seed, wrinkling damage, and brightness. While the seed quality score indicates relative appearance of seed for the several varieties at one location, considerable differences can exist between factors responsible for the poorer grades in different locations.

Ground cover scores were given to strains of IV maturity approximately 6 weeks after emergence. The estimates are recorded on a scale of 1 to 5 as follows:

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

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

A. Foliar

1 - immune to highly resistant
2 - lesions small and few in number
3 - lesions moderate in number and size
4 - lesions numerous and necrosis surround lesion
5 - leaves convered with lesions and much necrosis

B. Root and Stem

1 - no plants killed
2 - 1 to 3% of plants killed
3 - 4 to 8% of plants killed
4 - 9 to 19% of plants killed
5 - over 20% of plants killed

In addition to percentage of plants killed, apparent plant vigor is considered in giving ratings for phytophthora rot.

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

1 - no purple staining
2 - 1 to 3% purple staining
3 - 4 to 8% purple staining
4 - 9 to 19% purple staining
5 - over 20% purple staining

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

UNIFORM GROUP IV-S

	Variety or strain	Parentage	Generation composited
1.	Kent	Lincoln x Ogden	F_7
2.	Delmar	C799 x FC 33243	F_6
3.	Custer	Scott type with resistance to C.N. and P.R.	Comp. of 23 F_3 lines
4.	S63-3277	Scott x Hill	F_5
5.	D64-3146	D49-2491(5) x Hawkeye	F_4
6.	D65-2262	D54-2437 x PI 261,467	F_5
7.	D65-2276	D54-2437 x PI 261,467	F_5
8.	D65-2284	D54-2437 x PI 261,467	F_5
9.	D65-2291	D54-2437 x PI 261,467	F_5
10.	D65-2304	D54-2437 x PI 171,450	F_5
11.	D65-2367	D54-2437 x PI 171,450	F_5
12.	D65-2385	D54-2437 x PI 171,450	F_5

Background of strains used as parents:

C799 is a selection from C143 x Lincoln. C143 is a selection from Dunfield x Midwest.

FC 33243 is a type which has proved to be highly resistant to root-knot nematodes in Delaware.

D49-2491 is a sister strain of Lee from the cross S-100 x CNS.

D54-2437 is a selection from N48-1394 x L6-5679 which has a high field type resistance to phytophthora rot. N48-1394 has the same parentage as Hood. L6-5679 is a selection from Lincoln x Richland. D54-2437 was tested in Uniform Group IV, 1957-1961.

PI 171,450 and PI 261,467 are late flowering strains of Group III maturity. These are referred to as "summer types" at 34° latitude in Japan.

Twenty-five Group IV-S nurseries were planted. Results from 24 nurseries are summarized in tables 1 through 7. Table 1 gives a general summary of agronomic qualities, oil and protein content of the seed, and field reaction to disease development. Two- and three-year data are reported for seed yield by production regions. The two check varieties, Kent and Delmar, are the only strains that have been in the test more than two years. Two- and three-year data are also reported for oil and protein.

Differences among strains for seed yield were significant at the 5% level of confidence at 16 of the 24 locations. A combined analysis of variance for seed yields for locations within a production region showed differences among strains to be significant at the 5% level in the East Coast and Delta regions but non-significant in the Upper and Central South and West.

Custer and S63-3277 have been evaluated on a regional basis 2 years. The 2-year mean yield for Custer is below that for Kent in each production region. Custer was selected for resistance to cyst nematodes and phytophthora rot. Custer yielded significantly more than Kent at one location, Keiser, Arkansas, where phytophthora rot development was moderate on susceptible material. Custer has lower oil and protein content than Kent. At Miller City and Portageville, protein level was very low. A root problem, as yet not identified, has been recognized on Custer at Stoneville. This problem may be associated with the low protein level.

S63-3277 ranks well for seed yield in each production region. However, like Custer, seed has been very low in protein content at some of the locations.

Eight strains were advanced from the Preliminary IV-S nursery. D64-3146 failed to give satisfactory stands at several locations. Because of this, it should merit no further consideration for this production area. The other seven strains had been selected as late flowering, determinate growth type material. All made adequate growth. D65-2262 appears to be the most promising of these strains. It yielded significantly better than Kent or Delmar in the Delta region and ranked above these varieties for seed yield in the East Coast and West. Seed quality of Kent averaged fairly good this year, but D65-2262 had an average score of 1.8 as compared with 2.2 for Kent. D65-2262 was considered to be similar to Delmar in maturity. However, in the more northern tests, it was as much as 10 days later in maturity than Delmar. D65-2284 and D65-2291 yielded well in the East Coast and Upper and Central South, but both were weak in seed holding.

Table 1. - General summary of performance for the strains in Uniform Group IV, 1967

	Kent	Delmar	Custer	S63-3277	D64-3146	D65-2262
Seed Yield - 1967						
East Coast	36.6	35.8	35.1	39.5	34.3	38.3
Upper & Central South	43.5	42.1	37.0	41.2	36.8	39.6
Delta	35.8	32.3	34.8	36.7	31.6-	40.0+
West	43.6	44.0	45.7	44.6	40.6	44.4
1966-67						
East Coast	34.0	31.7	32.2	35.4		
Upper & Central South	43.7	41.3	37.2	41.1		
Delta	38.6	34.3	36.4	38.7		
West	35.8	39.5	33.9	36.5		
1965-67						
East Coast	35.3	34.2				
Upper & Central South	42.1	40.5				
Delta	36.7	32.4				
Oil Content - 1967	22.1	22.4	21.7-	21.7-	21.1-	20.1-
- 1966-67	21.9	22.0	21.9	21.9		
- 1965-67	22.0	22.3				
Protein Content - 1967	40.0	38.7-	36.9-	37.7-	40.6	40.8
- 1966-67	40.2	39.6	37.2	37.6		
- 1965-67	40.2	39.7				
Seed Size	18.0	16.9-	14.7-	15.8-	15.5-	14.5-
Maturity Index	9-28	+5	+3	+2	+1	+11
Seed Quality	2.2	2.0	2.6	2.1	2.1	1.8
Height	39	41	44	41	38	34
Shattering[1/]	4.0	1.0	3.0	3.0	2.0	1.5
Bacterial Pustule	3.0	3.0	1.0	1.0	1.0	1.0
Phytophthora Rot	3.0	3.0	1.0	1.0	3.0	1.0
Diaporthe sojae	1.5	1.5	2.0	2.3	1.5	1.0
Seed Coat Mottling (%)[2/]	3.0	5.2	3.0	5.8	10.2	8.6
Flower Color	P	W	P	P	P	W
Pubescence Color	T	G	G	G	G	G
Pod Wall Color	Br	Br	Br	Br	T	T
Growth Type	I	I	I	I	I	D

1/ Orange, Plymouth, Stoneville, Halfway data
2/ Painter, Warsaw, Halfway data

Table 1. - (continued)

	D65-2276	D65-2284	D65-2291	D65-2304	D65-2367	D65-2385
Seed Yield - 1967						
East Coast	35.0	37.6	35.3	33.1	32.2-	33.0
Upper & Central South	34.7	40.8	40.8	36.1	33.3	33.2
Delta	33.3	33.6	33.6	32.1	34.2	34.8
West	38.8	38.8	37.9	37.4	34.8	40.7
1966-67						
East Coast						
Upper & Central South						
Delta						
West						
1965-67						
East Coast						
Upper & Central South						
Delta						
Oil Content - 1967	19.9-	20.3-	20.4-	17.1-	18.2-	18.3
- 1966-67						
- 1965-67						
Protein Content - 1967	40.7	40.5	39.7	42.1+	41.6+	40.9
- 1966-67						
- 1965-67						
Seed Size	12.1-	13.5-	12.9-	11.3-	12.2-	13.8-
Maturity Index	+11	+11	+5	+3	+11	+8
Seed Quality	2.0	1.9	2.0	1.6	1.9	2.0
Height	38	36	35	37	33	34
Shattering[1/]	3.5	2.5	2.5	2.0	3.2	2.8
Bacterial Pustule	1.0	1.0	1.0	1.0	1.0	1.0
Phytophthora Rot	1.0	1.0	1.0	1.0	1.0	1.0
Diaporthe sojae	1.5	1.0	1.0	1.0	1.0	1.3
Seed Coat Mottling (%)[2/]	5.6	4.0	10.3	13.3	27.0	20.0
Flower Color	P	P	W	W	P	P
Pubescence color	G	G	G	T	T	T
Pod Wall Color	T	T	T	T	T	T
Growth Type	D	D	D	D	D	D

Table 2. - Seed yield, in bushels per acre, for the strains in Uniform Group IV, 1967

Location	Kent	Delmar	Custer	S63-3277	D64-3146	D65-2262	D65-2276
			East Coast				
Georgetown, Del.	33.2	36.7	38.7	41.2+	28.1	42.3+	38.4
Queenstown, Md.	40.7	41.1	42.4	41.6	44.1	46.0	37.0
Linkwood, Md.	36.4	34.3	34.6	33.6	30.6-	36.5	33.7
Painter, Va.	43.8	36.2	36.6	39.9	38.5	37.4	37.5
Warsaw, Va.	36.8	31.5-	30.7-	40.0	31.9	36.5	32.0
Plymouth, N. C.	28.4	35.0+	27.3	41.0+	32.5+	31.2	31.4
Mean	36.6	35.8	35.1	39.5	34.3	38.3	35.0
			Upper and Central South				
Orange, Va.	48.4	43.1-	39.3-	42.8-	41.4-	41.9-	36.5-
Blairsville, Ga.	37.5	43.1	34.5	35.4	--	33.6	37.2
Trenton, Ill.	49.5	44.3	37.9-	47.5	27.3-	47.2	39.8-
Eldorado, Ill.	45.1	48.3	43.9	47.0	49.7+	41.7	32.7-
Carbondale, Ill. *	46.8	39.7	37.6	46.3	41.6	39.1	33.9
Princeton, Ky.	36.9	31.9	29.2	33.5	30.0	33.7	27.1
Mean	43.5	42.1	37.0	41.2	36.8	39.6	34.7
			Delta				
Miller City, Ill.	42.6	40.5	39.6	43.0	39.8	40.6	31.2-
Henderson, Ky.	46.8	32.5-	34.5-	35.0-	31.6-	47.4	31.6-
Portageville,Mo.(A)	30.8	27.0	35.9	33.7	31.2	30.0	26.3
Portageville,Mo.(B)	20.3	20.7	21.7	25.5+	17.9	29.4+	29.6+
Martin, Tenn.	42.9	42.3	48.3	45.3	40.8	50.3	39.7
Keiser, Ark.	23.4	25.2	28.2+	31.5+	25.7	39.4+	31.7+
Marianna, Ark.	41.0	39.3	37.7	36.8	30.5-	42.9	36.2
Stoneville,Miss.(B)	38.3	30.6	32.5	43.1	35.4	39.6	40.1
Mean	35.8	32.3	34.8	36.7	31.6-	40.0+	33.3
			West				
Mt. Vernon, Mo*	28.0	22.0	20.4	26.9	25.2	21.0	9.5-
Bixby, Okla.	33.1	40.0	40.3	46.6	36.8	41.2	42.1
Bushland, Texas	46.4	39.6	43.9	49.7	--	43.9	38.0
Halfway, Texas	51.4	52.4	52.8	37.7-	44.3	48.0	36.2-
Mean	43.6	44.0	45.7	44.6	40.6	44.4	38.8

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

Table 2. - (continued)

Location	D65-2284	D65-2291	D65-2304	D65-2367	D65-2385	L.S.D. (.05)	C.V.
			East Coast				
Georgetown, Del.	39.8	41.6+	34.9	33.2	34.6	7.2	12%
Queenstown, Md.	44.2	41.7	38.8	35.0	37.6	6.1	9%
Linkwood, Md.	34.4	31.4-	32.4-	28.1-	30.9-	2.9	5%
Painter, Va.	37.1	38.1	37.1	35.0	34.2	N.S.	8%
Warsaw, Va.	33.8	31.9	28.6-	32.6	29.2-	5.2	9%
Plymouth, N. C.	36.3+	27.2	26.9	29.2	27.4	3.7	7%
Mean	37.6	35.3	33.1	32.2-	33.0-	3.3	
			Upper and Central South				
Orange, Va.	40.5-	36.6-	34.6-	32.0-	31.4-	3.6	5%
Blairsville, Ga.	41.5	37.1	33.0	29.4-	28.3-	7.5	12%
Trenton, Ill.	46.2	51.7	42.9-	39.6-	37.4-	5.7	8%
Eldorado, Ill.	39.6-	44.0	40.2-	35.2-	39.2-	4.0	6%
Carbondale, Ill.*	36.2	34.5	34.7	29.0	34.1	-	-
Princeton, Ky.	36.2	34.7	30.1	30.2	29.6	N.S.	16%
Mean	40.8	40.8	36.1	33.3	33.2	N.S.	
			Delta				
Miller City, Ill.	34.6-	33.0-	34.0-	36.7	38.1	7.2	11%
Henderson, Ky.	33.7-	33.9-	33.8-	36.4-	32.4-	4.9	8%
Portageville, Mo.(A)	26.5	30.7	26.3	31.0	30.5	N.S.	13%
Portageville, Mo.(B)	31.1+	28.3+	22.9	26.7+	29.2+	3.7	9%
Martin, Tenn.	38.5	37.4	42.3	34.2	43.0	N.S.	13%
Keiser, Ark.	30.3+	30.1+	29.1+	33.9+	32.0+	4.3	9%
Marianna, Ark.	35.9-	40.1	35.6-	35.8-	33.6-	4.9	8%
Stoneville, Miss.(B)	38.5	35.0	33.3	38.7	39.8	N.S.	15%
Mean	33.6	33.6	32.1	34.2	34.8	3.9	
			West				
Mt. Vernon, Mo.*	21.3	17.2	20.8	10.8-	16.6	11.9	35%
Bixby, Okla.	40.2	34.6	35.8	42.3	41.4	N.S.	14%
Bushland, Texas	37.3-	40.4	34.4-	37.0-	38.5-	7.8	11%
Halfway, Texas	38.8-	38.6-	42.0-	25.1-	42.2-	8.9	12%
Mean	38.8	37.9	37.4	34.8	40.7	N.S.	

Table 3. - Chemical composition and seed size for the strains in Uniform Group IV, 1967

Location	Kent	Delmar	Custer	S63-3277	D64-3146	D65-2262
			Oil Percentage			
Queenstown, Md.	22.0	20.7	20.4	20.6	20.0	17.9
Warsaw, Va.	21.8	22.0	22.0	21.3	21.0	19.9
Blairsville, Ga.	21.2	21.3	19.8	19.6	--	18.6
Miller City, Ill.	22.5	22.4	22.5	22.4	21.4	21.1
Henderson, Ky.	21.8	20.5	20.5	20.9	20.9	19.3
Portageville, Mo.(B)	22.2	23.6	22.7	22.7	21.9	21.3
Keiser, Ark.	23.3	23.9	22.5	23.1	22.3	20.6
Stoneville, Miss.(B)	23.4	24.0	23.2	23.8	22.6	22.3
Bixby, Okla.	22.3	23.5	22.3	22.6	21.4	20.4
Halfway, Texas	20.9	22.0	20.7	20.3	20.0	19.2
Mean	22.1	22.4+	21.7-	21.7-	21.1-	20.1-
			Protein Percentage			
Queenstown, Md.	42.0	42.8	38.9	39.2	43.6	44.2
Warsaw, Va.	40.0	38.1	36.4	36.7	39.9	39.9
Blairsville, Ga.	41.2	40.5	39.0	38.9	--	43.8
Miller City, Ill.	38.4	37.7	33.8	34.7	39.3	39.7
Henderson, Ky.	39.1	39.8	39.7	44.2	42.4	42.8
Portageville, Mo.(B)	41.1	36.8	33.3	35.5	38.5	38.6
Keiser, Ark.	39.1	35.8	35.7	35.5	39.8	39.5
Stoneville, Miss.(B)	38.5	38.1	37.1	36.4	40.2	38.2
Bixby, Okla.	38.7	38.1	37.5	37.5	39.8	39.5
Halfway, Texas	41.4	39.3	37.4	38.2	42.1	41.5
Mean	40.0	38.7-	36.9-	37.7-	40.6	40.8
			Grams Per 100 Seeds			
Queenstown, Md.	19.6	19.0	17.4	17.4	17.0	15.6
Warsaw, Va.	17.8	16.1	15.7	16.5	16.5	13.6
Blairsville, Ga.	20.9	20.5	16.5	18.2	--	16.3
Miller City, Ill.	16.9	15.7	14.3	15.2	14.1	12.6
Henderson, Ky.	19.4	15.1	13.8	14.0	15.0	14.1
Portageville, Mo. (B)	15.7	13.2	11.6	13.4	12.5	12.9
Keiser, Ark.	17.7	15.0	13.0	15.3	14.0	15.0
Stoneville, Miss. (B)	14.9	14.8	12.1	13.6	15.3	13.8
Bixby, Okla.	16.2	18.9	15.9	16.5	16.3	16.3
Halfway, Texas	21.0	21.0	17.0	18.0	17.0	15.0
Mean	18.0	16.9-	14.7-	15.8-	15.5-	14.5-

Table 3. - Continued

Location	D65-2276	D65-2284	D65-2291	D65-2304	D65-2367	D65-2385	L.S.D. (.05)
			Oil Percentage				
Queenstown, Md.	18.1	18.6	18.7	15.3	18.1	17.0	
Warsaw, Va.	19.4	19.6	20.3	17.6	17.9	19.1	
Blairsville, Ga.	19.4	20.1	19.4	16.3	17.3	17.0	
Miller City, Ill.	21.0	21.1	20.7	16.9	18.0	18.0	
Henderson, Ky.	18.4	19.2	19.4	16.3	17.5	17.5	
Portageville, Mo.(B)	20.8	21.2	21.5	18.5	19.6	19.6	
Keiser, Ark.	21.2	21.2	21.1	18.1	19.5	20.1	
Stoneville, Miss.(B)	21.5	21.6	22.4	18.1	19.0	19.0	
Bixby, Okla.	20.2	21.1	21.1	17.9	17.8	18.4	
Halfway, Texas	19.2	19.6	19.7	16.2	17.6	17.6	
Mean	19.9-	20.3-	20.4-	17.1-	18.2-	18.3-	0.3
			Protein Percentage				
Queenstown, Md.	46.7	44.0	43.1	47.1	44.3	44.3	
Warsaw, Va.	40.4	40.8	39.0	41.2	41.3	39.6	
Blairsville, Ga.	41.5	42.8	41.8	46.7	43.4	42.2	
Miller City, Ill.	37.6	38.0	37.7	40.0	39.6	39.0	
Henderson, Ky.	43.1	41.4	40.5	39.6	41.5	41.1	
Portageville, Mo.(B)	39.6	39.6	38.8	40.0	40.4	40.2	
Keiser, Ark.	39.0	39.4	38.6	40.7	40.3	39.5	
Stoneville, Miss.(B)	39.3	38.5	38.3	40.0	40.5	40.4	
Bixby, Okla.	38.9	39.0	38.8	41.5	41.1	40.5	
Halfway, Texas	40.8	41.5	40.4	43.8	43.3	42.0	
Mean	40.7	40.5	39.7	42.0+	41.6+	40.9	1.0
			Grams per 100 Seeds				
Queenstown, Md.	14.0	15.6	15.5	14.9	14.8	15.7	
Warsaw, Va.	11.7	13.1	12.3	11.6	12.2	13.2	
Blairsville, Ga.	12.4	12.6	14.3	13.2	13.5	13.3	
Miller City, Ill.	10.0	11.9	9.8	9.6	10.5	12.8	
Henderson, Ky.	11.1	12.7	12.0	11.1	11.3	13.1	
Portageville, Mo.(B)	11.1	12.2	11.1	8.8	10.6	12.1	
Keiser, Ark.	11.3	13.3	12.0	11.0	11.7	13.3	
Stoneville, Miss.(B)	12.2	12.9	12.4	8.6	11.1	13.3	
Bixby, Okla.	13.4	15.2	14.6	12.5	13.0	15.3	
Halfway, Texas	14.0	15.0	15.0	12.0	13.0	16.0	
Mean	12.1-	13.5-	12.9-	11.3-	12.2-	13.8-	0.8

Table 4. - Relative maturity data, days earlier (-) or later (+) than Kent, for the strains in Uniform Group IV, 1967

Location	Date planted	Kent	Delmar	Custer	S63-3277	D64-3146	D65-2262
			East Coast				
Georgetown, Del.	5-18	9-30	+6	+1	+2	0	+16
Queenstown, Md.	5-29	10-5	+7	+2	-1	0	+15
Linkwood, Md.	6-6	10-2	+5	+1	+5	+3	+17
Painter, Va.	5-20	10-5	+2	+2	-1	0	+6
Warsaw, Va.	5-24	10-5	+2	-1	0	-1	+1
Plymouth, N. C.	5-17	9-19	+5	0	+5	0	+9
Mean		10-1	+5	0	+2	0	+11
			Upper and Central South				
Orange, Va.	5-24	10-11	+1	-9	-2	0	+10
Trenton, Ill.	5-23	10-1	+5	+1	+4	+2	+15
Eldorado, Ill.	5-24	9-27	+8	+4	+6	+4	+17
Carbondale, Ill.	5-22	9-25	+9	+5	+5	+3	+21
Mean		10-1	+6	0	+3	+2	+16
			Delta				
Miller City, Ill.	5-24	9-26	+6	-1	+3	+2	+8
Henderson, Ky.	5-10	9-26	-2	-3	+4	0	+16
Portageville, Mo.(A)	6-7	9-27	+4	-2	+2	+1	+5
Portageville, Mo.(B)	6-5	10-5	+2	-12	-6	-4	+3
Keiser, Ark.	5-25	10-1	+3	-6	+1	+1	+3
Marianna, Ark.	5-24	9-21	+2	+1	+4	+3	+7
Stoneville, Miss.(B)	5-12	9-12	+4	-1	0	+1	+5
Mean		9-25	+3	-3	+1	0	+7
			West				
Bixby, Okla.	5-17	9-12	+23	+6	+8	+6	+15

Table 4. - (continued)

Location	D65-2276	D65-2284	D65-2291	D65-2304	D65-2367	D65-2385
		East Coast				
Georgetown, Del.	+15	+17	+15	+6	+16	+15
Queenstown, Md.	+14	+17	+12	+7	+16	+11
Linkwood, Md.	+12	+17	+9	+4	+15	+13
Painter, Va.	+6	+8	+5	0	+3	+3
Warsaw, Va.	+2	+4	-2	-3	+2	-3
Plymouth, N. C.	+11	+9	+9	+4	+9	+7
Mean	+10	+12	+8	+3	+10	+8
		Upper and Central South				
Orange, Va.	+8	+10	+4	+4	+8	+6
Trenton, Ill.	+14	+17	+7	+5	+17	+14
Eldorado, Ill.	+22	0	+11	+8	+24	+14
Carbondale, Ill.	+20	+25	+12	+3	+20	+11
Mean	+16	+13	+9	+5	+17	+11
		Delta				
Miller City, Ill.	+8	+10	+1	0	+9	+8
Henderson, Ky.	+16	+16	0	+14	+16	+14
Portageville, Mo.(A)	+6	+5	+2	-1	+6	+3
Portageville, Mo.(B)	+3	+4	-4	-2	+5	0
Keiser, Ark.	+3	+4	0	0	+4	+1
Marianna, Ark.	+7	+5	+4	+1	+6	+8
Stoneville, Miss.(B)	+8	+8	+2	-1	+6	+3
Mean	+7	+7	0	+1	+7	+5
		West				
Bixby, Okla.	+23	+21	+8	+4	+22	+22

Table 5. - Plant height for the strains in Uniform Group IV, 1967

Location	Kent	Delmar	Custer	S63-3277	D64-3146	D65-2262
			East Coast			
Georgetown, Del.	40	41	46	40	35	39
Queenstown, Md.	43	45	53	41	30	39
Linkwood, Md.	45	45	46	40	39	38
Painter, Va.	44	45	54	42	42	39
Warsaw, Va.	36	35	36	37	31	26
Plymouth, N. C.	39	39	40	45	41	32
Mean	41	42	46	41	36	36
			Upper and Central South			
Orange, Va.	39	40	41	38	38	32
Blairsville, Ga.	36	35	40	36	36	38
Trenton, Ill.	46	50	52	48	39	37
Eldorado, Ill.	44	48	46	48	45	36
Carbondale, Ill.	45	45	50	48	44	36
Princeton, Ky.	45	43	45	48	43	33
Mean	43	44	46	44	41	35
			Delta			
Miller City, Ill.	39	45	46	43	38	32
Henderson, Ky.	44	49	50	48	44	36
Portageville, Mo.(A)	36	36	38	37	35	33
Portageville, Mo.(B)	22	26	33	27	25	27
Martin, Tenn.	38	38	42	48	40	34
Keiser, Ark.	33	34	41	37	30	26
Marianna, Ark.	42	46	46	46	43	35
Stoneville, Miss.(B)	32	34	37	35	32	27
Mean	36	39	42	40	36	31
			West			
Mt. Vernon, Mo.	45	52	56	54	50	41
Bixby, Okla.	41	44	46	46	43	33
Bushland, Texas	31	33	37	30	--	29
Halfway, Texas	27	30	34	26	30	31
Mean	36	40	43	39	41	34

Table 5. - (continued)

Location	D65-2276	D65-2284	D65-2291	D65-2304	D65-2367	D65-2385
			East Coast			
Georgetown, Del.	43	39	38	39	36	33
Queenstown, Md.	43	40	40	41	34	32
Linkwood, Md.	44	39	39	38	35	33
Painter, Va.	45	40	43	41	35	39
Warasw, Va.	26	28	29	25	27	28
Plymouth, N. C.	38	35	34	37	32	35
Mean	40	37	37	37	33	33
			Upper and Central South			
Orange, Va.	34	37	31	38	31	34
Blairsville, Ga.	42	45	39	41	36	36
Trenton, Ill.	43	38	42	40	35	37
Eldorado, Ill.	36	41	34	43	34	35
Carbondale, Ill.	40	42	42	40	32	36
Princeton, Ky.	39	38	37	38	34	37
Mean	39	40	38	40	34	36
			Delta			
Miller City, Ill.	39	34	33	39	35	35
Henderson, Ky.	44	38	37	37	40	40
Portageville, Mo.(A)	35	34	37	35	33	32
Portageville, Mo.(B)	30	31	31	30	25	28
Martin, Tenn.	34	35	32	35	35	36
Keiser, Ark.	33	28	31	33	30	32
Marianna, Ark.	36	36	39	38	32	33
Stoneville, Miss.(B)	33	31	31	32	26	27
Mean	36	33	34	35	32	33
			West			
Mt. Vernon, Mo.	44	41	38	53	41	49
Bixby, Okla.	34	33	30	35	29	32
Bushland, Texas	34	31	30	34	30	31
Halfway, Texas	38	30	29	32	31	30
Mean	38	34	32	39	33	36

Table 6. - Lodging scores for the strains in Uniform Group IV, 1967

Location	Kent	Delmar	Custer	S63-3277	D64-3146	D65-2262
			East Coast			
Georgetown, Del.	1.5	1.7	2.8	1.5	3.2	3.2
Queenstown, Md.	1.7	2.3	3.3	1.7	1.9	3.8
Linkwood, Md.	1.2	2.1	1.4	2.1	3.4	3.9
Painter, Va.	1.5	1.3	2.8	2.2	2.5	3.0
Warsaw, Va.	1.0	1.0	1.3	1.0	1.1	1.7
Plymouth, N. C.	2.0	2.7	4.0	2.0	2.7	4.3
			Upper and Central South			
Orange Va.	1.0	1.7	2.7	1.0	2.0	3.3
Blairsville, Ga.	1.0	2.0	2.7	1.3	---	4.7
Trenton, Ill.	2.9	3.7	4.9	2.0	2.2	4.3
Eldorado, Ill.	2.6	3.0	4.3	2.3	3.7	4.8
Carbondale, Ill.	3.0	3.0	4.0	2.0	4.0	3.0
Princeton, Ky.	1.0	1.0	3.0	1.0	2.0	5.0
			Delta			
Miller City, Ill.	1.3	1.3	2.1	1.6	1.3	1.5
Henderson, Ky.	1.3	1.3	2.7	1.3	2.7	2.3
Portageville, Mo.(A)	1.5	1.0	2.0	1.7	1.7	2.2
Portageville, Mo.(B)	1.3	1.0	1.2	1.2	1.7	2.3
Martin, Tenn.	3.0	2.0	3.0	1.0	3.0	4.0
Keiser, Ark.	1.0	1.0	1.0	1.0	1.0	1.7
Marianna, Ark.	1.3	2.3	3.3	2.0	3.0	3.0
Stoneville, Miss.(B)	2.0	2.0	2.3	2.0	3.3	2.3
			West			
Mt. Vernon, Mo.	1.0	2.0	2.0	1.0	2.0	3.0
Bixby, Okla.	2.0	2.0	3.0	2.0	3.0	4.0
Halfway, Texas	1.0	1.0	1.0	2.0	1.0	3.0

Table 6. - (continued)

Location	D65-2276	D65-2284	D65-2291	D65-2304	D65-2367	D65-2385
			East Coast			
Georgetown, Del.	4.2	3.7	4.0	2.7	4.2	3.2
Queenstown, Md.	4.7	3.3	4.1	3.2	4.2	3.6
Linkwood, Md.	3.6	3.8	1.7	3.7	3.1	1.1
Painter, Va.	5.0	3.8	3.7	3.3	3.8	3.7
Warsaw, Va.	2.7	1.5	2.1	1.4	2.5	2.3
Plymouth, N. C.	4.7	4.3	4.3	4.0	4.0	3.0
			Upper and Central South			
Orange, Va.	3.7	2.7	4.0	1.7	3.3	4.3
Blairsville, Ga.	5.0	4.7	4.7	4.0	4.7	4.7
Trenton, Ill.	4.8	4.3	5.0	4.6	4.7	4.0
Eldorado, Ill.	4.9	4.7	4.9	3.6	4.7	4.5
Carbondale, Ill.	4.0	3.0	4.0	3.0	3.0	4.0
Princeton, Ky.	5.0	4.0	5.0	2.0	4.0	4.0
			Delta			
Miller City, Ill.	3.2	2.0	1.8	1.4	2.4	2.5
Henderson, Ky.	4.0	2.1	3.7	1.8	3.0	2.3
Portageville, Mo.(A)	2.5	2.2	2.7	2.0	3.0	2.2
Portageville, Mo.(B)	3.3	2.3	3.3	2.0	1.8	2.7
Martin, Tenn.	4.0	4.0	4.0	2.0	4.0	4.0
Keiser, Ark.	1.3	1.0	1.2	1.0	1.0	1.0
Marianna, Ark.	3.3	2.7	3.0	2.0	2.3	3.0
Stoneville, Miss.(B)	4.0	2.0	3.0	1.7	2.3	2.3
			West			
Mt. Vernon, Mo.	5.0	3.3	4.0	3.3	4.6	4.0
Bixby, Okla.	4.0	3.0	2.0	2.0	4.0	3.0
Halfway, Texas	4.0	3.0	3.0	2.0	3.0	2.0

Table 7. - Seed quality scores for the strains in Uniform Group IV, 1967

Location	Kent	Delmar	Custer	S63-3277	D64-3146	D65-2262
			East Coast			
Georgetown, Del.	1.7	1.5	2.2	1.8	1.8	1.5
Queenstown, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Linkwood, Md.	2.0	2.0	3.0	2.0	2.0	2.0
Painter, Va.	2.5	1.5	2.2	2.0	2.3	1.7
Warsaw, Va.	2.7	2.0	2.2	2.0	1.5	1.3
Plymouth, N. C.	1.5	1.5	2.0	1.5	2.0	1.5
			Upper and Central South			
Orange, Va.	1.0	2.0	2.0	1.0	1.0	1.0
Blairsville, Ga.	2.5	3.0	3.3	2.8	---	2.7
Trenton, Ill.	1.8	1.8	2.3	1.8	2.0	1.2
Eldorado, Ill.	2.3	1.7	2.3	2.0	1.8	1.7
Carbondale, Ill.	1.0	1.0	2.0	1.0	2.0	2.0
Princeton, Ky.	2.0	2.0	2.0	2.0	2.0	2.0
			Delta			
Miller City, Ill.	2.2	2.0	2.2	1.8	1.5	1.3
Henderson, Ky.	1.7	1.3	1.7	1.3	2.0	1.0
Portageville, Mo.(A)	3.5	2.3	3.3	3.5	2.8	2.2
Portageville, Mo.(B)	2.7	2.3	3.5	3.3	3.0	1.8
Keiser, Ark.	4.0	3.0	2.7	3.0	3.0	2.3
Marianna, Ark.	3.3	3.7	4.0	3.0	3.0	2.0
Stoneville, Miss.(B)	2.0	3.0	3.0	2.7	2.7	2.0
			West			
Mt. Vernon, Mo.	3.0	2.5	4.0	3.5	3.5	3.0
Bixby, Okla.	1.0	2.0	2.0	1.0	2.0	1.0

Table 7. - (continued)

Location	D65-2276	D65-2284	D65-2291	D65-2304	D65-2367	D65-2385
			East Coast			
Georgetown, Del.	1.5	2.3	1.3	1.7	3.0	2.3
Queenstown, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Painter, Va.	1.8	1.4	2.5	2.0	2.8	2.7
Warsaw, Va.	1.5	1.3	1.7	2.1	1.3	1.5
Plymouth, N. C.	2.0	1.5	2.0	1.5	1.5	1.5
			Upper and Central South			
Orange, Va.	1.3	1.0	1.7	1.0	2.0	1.7
Blairsville, Ga.	2.7	2.0	3.0	1.7	2.0	2.2
Trenton, Ill.	1.7	1.3	1.7	1.2	1.5	1.5
Eldorado, Ill.	2.0	2.0	1.7	1.0	1.7	1.5
Carbondale, Ill.	1.0	2.0	3.0	2.0	1.0	1.0
Princeton, Ky.	2.0	2.0	2.0	2.0	2.0	2.0
			Delta			
Miller City, Ill.	1.5	1.5	1.2	1.2	1.3	1.7
Henderson, Ky.	1.0	1.7	1.3	1.0	1.7	1.3
Portageville, Mo.(A)	2.7	2.5	1.7	1.5	2.0	3.2
Portageville, Mo.(B)	2.2	1.7	1.8	1.8	2.2	2.3
Keiser, Ark.	2.7	2.7	2.3	2.3	2.0	2.3
Marianna, Ark.	3.0	2.0	2.0	1.7	1.7	2.7
Stoneville, Miss.(B)	2.3	2.0	2.0	2.0	2.0	2.0
			West			
Mt. Vernon, Mo.	4.0	3.5	3.3	2.5	3.5	3.5
Bixby, Okla.	1.0	1.0	1.0	1.0	1.0	2.0

PRELIMINARY GROUP IV-S

1967

Four Preliminary Group IV-S nurseries, including 34 experimental strains along with Kent and Custer as checks, were grown. The parentage of these strains is reported in table 8. Performance data are summarized in tables 9 through 14.

The combined analysis of variance for seed yield for the four locations showed differences to be nonsignificant at the 5% level of confidence. Differences between strains were significant at Linkwood, Maryland, and Warsaw, Virginia. At Linkwood, where Kent ranked highest in yield, 14 strains yielded significantly less than Kent. Eleven strains produced seed yields significantly higher than Kent at Warsaw. Although none of the experimental strains were significantly higher in seed yield at the 5% level of confidence based upon the means from the four locations, 28 of 34 strains had mean seed yields higher than that of Kent and 30 had seed quality scores indicating better seed quality. Twenty-one strains had shattering scores of 1.5 or lower, while Kent had a score of 4.0 and Custer a score of 3.1. Twenty-seven strains had less than 2% of its seed showing mottling compared with 8.5% for Kent.

There were no strains having an oil content above that of Kent. However, 13 strains had significantly lower protein content, based upon the four location means. Custer was similar to Kent in oil content but was 10% lower in protein content.

Among the strains which appear to merit advancing to Uniform Group IV-S are: D66-4361, D66-4498, D66-4504, D66-4505, D66-4582, D66-4587, and S65-15A. S65-5644 ranked highest in mean seed yield but shattered. Although its shattering score was 2.6 in comparison with 4.2 for Kent, such a score indicates considerable risk. S65-15A received a shattering score of 2.8, but this was less than the score of 3.1 for Custer and the mean yield was 3 bushels above that for Custer. The two strains D66-4578 and D66-4590 had good mean seed yields, but both were lower in protein than Custer at Stoneville. An unidentified root problem is believed to have contributed to the low protein content of Custer and probably for other strains, also.

Table 8. - Parentage of the strains in Preliminary Group IV-S, 1967

	Variety or strain	Parentage	Generation composited
1.	Kent	Lincoln x Ogden	F_7
2.	Custer	Scott with resistance to C.N. and P.R.	
3.	D64-3082	D49-2491(5) x Hawkeye	F_4
4.	D64-3155	D49-2491(5) x Hawkeye	F_4
5.	D64-3159	D49-2491(5) x Hawkeye	F_4
6.	D65-2384	D54-2437 x PI 171,450	F_5
7.	D65-2421	D54-2437 x PI 171,450	F_5
8.	D66-4361	D53-354(2) x D54-2437	F_7
9.	D66-4463	D53-354(2) x D54-2437	F_7
10.	D66-4465	D53-354(2) x D54-2437	F_7
11.	D66-4498	D53-354(2) x D54-2437	F_7
12.	D66-4500	D53-354(2) x D54-2437	F_7
13.	D66-4504	D53-354(2) x D54-2437	F_7
14.	D66-4505	D53-354(2) x D54-2437	F_7
15.	D66-4529	D53-354(2) x D54-2437	F_7
16.	D66-4531	D53-354(2) x D54-2437	F_7
17.	D66-4534	D53-354(2) x D54-2437	F_7
18.	D66-4537	D53-354(2) x D54-2437	F_7
19.	D66-4539	D53-354(2) x D54-2437	F_7
20.	D66-4543	D53-354(2) x D54-2437	F_7
21.	D66-4545	D53-354(2) x D54-2437	F_7
22.	D66-4548	D53-354(2) x D54-2437	F_7
23.	D66-4566	D53-354 x D54-2437	F_7
24.	D66-4578	D53-354 x D54-2437	F_7
25.	D66-4579	D53-354 x D54-2437	F_7
26.	D66-4582	D53-354 x D54-2437	F_7
27.	D66-4587	D53-354 x D54-2437	F_7
28.	D66-4590	D53-354 x D54-2437	F_7
29.	D66-4594	D53-354 x D54-2437	F_7
30.	D66-4609	D53-354 x D54-2437	F_7
31.	S65-15A	Subline of Custer	
32.	S65-21B	Subline of Custer	
33.	S65-37B	Subline of Custer	
34.	S65-47B-2	Subline of Custer	
35.	S65-5644	Scott(9) x Blackhawk	
36.	S65-5652	Scott(9) x Blackhawk	

Table 9. - General summary of performance for the strains grown in Preliminary Group IV, 1967

Strain	Seed yield	Maturity index	Ht.	Percent Oil	Percent Protein	Seed quality	Shatter[1]	% mottled seed[2]	D.S.[3]
Kent	29.5	10-29	31	22.7	40.4	2.4	4.2	8.5	1.5
Custer	30.4	-2	38	22.5	36.4-	2.3	3.1	0.5	2.0
D64-3082	30.4	0	32	21.6	40.0	2.2	1.6	2.5	1.5
D64-3155	30.8	-1	34	21.5	41.1	2.5	2.3	1.5	---
D64-3159	30.5	+2	38	21.6	41.3	2.3	1.5	4.0	---
D65-2384	23.2	-12	26	18.9-	40.4	1.6	1.1	9.5	1.0
D65-2421	27.7	+7	30	18.2-	40.3	1.8	1.1	7.0	---
D66-4361	31.5	-3	32	22.3	39.0-	1.6	1.1	1.5	2.0
D66-4463	29.9	-1	37	21.6	39.0-	2.0	1.5	0.0	---
D66-4465	29.2	-2	39	21.0	39.2	1.9	1.1	4.0	1.5
D66-4498	34.0	-3	35	21.1	40.4	1.7	1.0	0.0	---
D66-4500	31.2	0	40	21.3	39.6	2.2	1.0	2.5	3.0
D66-4504	32.2	0	35	21.5	39.2	2.0	1.0	1.5	1.0
D66-4505	32.0	-2	35	21.6	39.9	1.7	1.3	0.0	1.5
D66-4529	31.1	0	40	21.7	37.5-	2.4	1.1	0.5	1.5
D66-4531	30.7	+2	35	21.0	40.7	2.0	1.6	1.0	2.0
D66-4534	31.3	0	37	21.5	39.7	1.8	1.3	0.0	1.0
D66-4537	29.9	-3	34	21.7	39.3	1.6	1.1	0.5	1.8
D66-4539	30.4	-1	41	21.1	40.2	2.0	1.8	2.5	1.2
D66-4543	29.6	-2	33	21.2	39.6	1.8	1.0	0.0	1.2
D66-4545	29.1	-2	34	21.3	40.0	1.9	1.8	1.0	1.2
D66-4548	28.5	0	36	21.3	39.2	2.1	1.6	0.0	1.0
D66-4566	30.6	+1	37	21.4	40.5	2.1	1.0	1.0	3.5
D66-4578	32.2	+3	40	21.8	38.7-	2.0	1.2	0.0	1.5
D66-4579	31.5	+4	38	20.8	38.8-	1.8	1.3	1.0	1.5
D66-4582	32.0	+2	38	21.8	38.9-	2.1	1.1	0.5	1.8
D66-4587	31.9	0	36	20.6	39.6	2.0	1.6	0.0	1.0
D66-4590	32.1	+1	38	21.4	39.0-	2.0	1.0	0.0	1.2
D66-4594	30.7	0	40	21.4	40.3	1.8	1.1	1.0	1.0
D66-4609	30.9	0	41	20.7	39.5	2.2	1.3	4.5	1.2
S65-15A	33.6	-4	40	22.6	36.5-	2.4	2.8	0.0	1.5
S65-21B	31.1	-4	38	21.4	37.5-	2.3	3.3	0.0	1.8
S65-37B	28.3	-7	39	22.2	35.7-	2.3	4.1	0.0	1.5
S65-47B-2	31.0	-4	38	21.9	35.9-	2.5	3.3	1.0	1.2
S65-5644	35.3	-1	39	21.2	37.3-	2.1	2.6	2.0	2.0
S65-5652	31.7	-1	39	21.3	36.6-	2.0	2.0	0.5	1.8
L.S.D.(.05)	N.S.			0.7	1.4				
L.S.D.(.01)	N.S.			1.0	1.9				

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

Table 10. - Seed yield, in bushels per acre, for the strains in Preliminary Group IV, 1967

Strain	Linkwood, Md.	Warsaw, Va.	Portageville, Mo.	Stoneville, Miss.(B)
Kent	37.2	33.8	21.5	25.5
Custer	34.8	30.5	29.3	27.2
D64-3082	29.1-	41.2+	19.4	32.0
D64-3155	33.0	34.6	30.0	25.7
D64-3159	36.6	35.2	27.4	22.8
D65-2384	23.0-	27.6-	19.7	22.6
D65-2421	30.8	29.5-	29.6	20.9
D66-4361	35.6	36.4	25.9	28.2
D66-4463	30.6-	35.4	29.3	24.2
D66-4465	29.9-	33.5	29.7	24.0
D66-4498	33.0	39.7+	29.8	33.7
D66-4500	29.8-	37.0	28.3	29.8
D66-4504	31.2	37.7+	30.3	29.8
D66-4505	30.2-	43.0+	28.9	26.0
D66-4529	30.6-	37.1	28.8	27.9
D66-4531	30.4-	34.6	27.6	30.4
D66-4534	30.0-	35.4	29.0	30.9
D66-4537	32.7	36.3	26.5	24.1
D66-4539	29.2-	37.2	29.4	25.9
D66-4543	28.0-	38.2+	29.1	23.0
D66-4545	30.8	37.8+	27.3	20.6
D66-4548	29.4-	35.2	26.9	22.4
D66-4566	30.8	35.8	32.7	23.2
D66-4578	29.9-	36.6	30.5	32.0
D66-4579	23.1-	39.0+	32.4	21.7
D66-4582	35.4	37.3+	28.3	26.9
D66-4587	34.8	35.7	30.3	27.9
D66-4590	30.8	40.2+	32.8	24.8
D66-4594	34.9	35.6	28.2	24.3
D66-4609	33.0	32.9	29.9	28.0
S65-15A	34.6	37.5+	35.6	26.7
S65-21B	36.7	31.4	28.3	28.0
S65-37B	34.2	33.8	28.5	26.8
S65-47B-2	36.6	32.2	28.4	27.0
S65-5644	35.0	37.9+	35.5	32.9
S65-5652	36.2	36.2	31.7	22.7
L.S.D.(.05)	6.5	3.5	N.S.	N.S.
C.V.	10%	5%	19%	17%

Table 11. - Oil percentages for the strains in Preliminary Group IV, 1967

Strain	Linkwood, Md.	Warsaw, Va.	Portageville, Mo.	Stoneville, Miss.(B)
Kent	22.1	22.9	22.6	23.3
Custer	21.2	21.6	23.0	24.2
D64-3082	20.4	20.9	22.4	22.8
D64-3155	19.9	20.9	21.5	23.5
D64-3159	19.9	20.8	21.7	24.0
D65-2384	18.7	18.5	18.8	19.7
D65-2421	17.9	17.8	17.5	19.7
D66-4361	20.8	21.0	21.8	25.4
D66-4463	20.6	20.9	22.2	22.8
D66-4465	20.1	20.9	21.5	21.6
D66-4498	20.2	21.0	21.2	21.8
D66-4500	19.6	20.4	21.6	23.4
D66-4504	20.7	20.9	21.8	22.4
D64-4505	20.7	20.9	21.8	22.9
D66-4529	20.7	21.1	21.7	23.2
D66-4531	19.6	20.9	21.2	22.3
D66-4534	20.1	21.2	21.7	22.9
D66-4537	20.5	21.9	21.8	22.6
D66-4539	19.8	20.8	20.9	22.9
D66-4543	19.9	20.8	21.8	22.2
D66-4545	20.1	20.9	21.8	22.3
D66-4548	19.8	20.8	21.9	22.7
D66-4566	20.1	20.7	21.9	22.9
D66-4578	20.0	21.5	22.1	23.6
D66-4579	19.2	20.8	21.0	22.3
D66-4582	20.3	21.9	22.1	22.7
D66-4587	19.5	20.7	21.0	21.3
D66-4590	19.2	20.8	21.8	23.8
D66-4594	20.1	21.3	21.8	22.3
D66-4609	19.2	20.8	20.9	21.8
S65-15A	20.4	22.6	23.2	24.2
S65-21B	19.9	20.9	21.8	23.1
S65-37B	20.5	21.7	22.9	23.5
S65-47B-2	20.2	21.2	22.8	23.5
S65-5644	18.9	20.5	22.1	23.1
S65-5652	19.2	20.1	22.5	23.2

Table 12. - Protein percentages for the strains in Preliminary Group IV, 1967

Strain	Linkwood, Md.	Warsaw, Va.	Portageville, Mo.	Stoneville, Miss.(B)
Kent	41.5	42.0	39.9	38.3
Custer	37.7	35.7	35.7	36.6
D64-3082	42.3	40.1	38.8	38.9
D64-3155	42.5	42.0	40.7	39.2
D64-3159	43.5	42.4	41.7	37.7
D65-2384	42.6	40.9	39.1	39.0
D65-2421	42.1	40.3	41.8	37.0
D66-4361	41.4	39.3	38.2	37.0
D66-4463	41.0	40.4	37.9	36.6
D66-4465	40.8	38.8	38.5	38.5
D66-4498	42.1	41.8	39.4	38.1
D66-4500	42.0	40.7	39.2	36.3
D66-4504	41.3	39.7	38.6	37.3
D66-4505	41.7	40.7	39.7	37.3
D66-4529	37.8	38.8	37.5	35.7
D66-4531	42.0	42.0	40.6	38.3
D66-4534	42.1	40.6	39.3	36.9
D66-4537	41.4	38.9	39.9	37.1
D66-4539	42.1	40.8	39.9	37.8
D66-4543	41.5	40.4	39.0	37.3
D66-4545	41.9	41.1	39.1	37.9
D66-4548	41.0	38.9	39.8	36.9
D66-4566	41.2	41.7	41.8	37.2
D66-4578	40.0	39.8	38.8	36.0
D66-4579	41.0	39.3	39.3	35.7
D66-4582	40.6	38.5	39.4	36.9
D66-4587	41.0	39.7	40.0	37.8
D66-4590	41.5	39.5	39.6	35.5
D66-4594	40.3	39.2	44.2	37.3
D66-4609	41.6	39.5	39.5	37.5
S65-15A	38.2	37.3	35.2	35.2
S65-21B	38.9	38.3	36.1	36.6
S65-37B	37.5	36.0	33.8	35.3
S65-47B-2	38.1	37.0	33.2	35.1
S65-5644	38.7	38.9	36.5	35.1
S65-5652	38.1	38.3	34.3	35.6

Table 13. - Plant height for the strains in Preliminary Group IV, 1967

Strain	Linkwood, Md.	Warsaw, Va.	Portageville, Mo.	Stoneville, Miss.(B)
Kent	39	31	26	29
Custer	42	38	34	36
D64-3082	38	35	25	31
D64-3155	41	36	29	30
D64-3159	46	36	36	34
D65-2384	31	25	25	23
D65-2421	32	34	29	24
D66-4361	41	31	26	29
D66-4463	40	34	34	39
D66-4465	42	38	36	38
D66-4498	39	34	31	37
D66-4500	43	42	34	41
D66-4504	38	34	33	33
D66-4505	42	34	31	31
D66-4529	44	36	40	40
D66-4531	39	36	30	34
D66-4534	42	38	31	35
D66-4537	38	36	29	31
D66-4539	44	38	39	44
D66-4543	36	34	29	33
D66-4545	36	34	30	34
D66-4548	40	37	33	35
D66-4566	40	38	32	37
D66-4578	44	40	35	42
D66-4579	44	41	32	34
D66-4582	46	36	32	36
D66-4587	44	36	31	34
D66-4590	44	40	34	34
D66-4594	48	40	32	39
D66-4609	47	36	40	40
S65-15A	46	42	36	36
S65-21B	42	36	35	38
S65-37B	46	43	35	33
S65-47B-2	44	38	33	35
S65-5644	43	40	36	38
S65-5652	44	41	34	35

Table 14. - Seed quality scores for the strains in Preliminary Group IV, 1967

Strain	Linkwood, Md.	Warsaw, Va.	Portageville, Mo.	Stoneville, Miss.(B)	Mean
Kent	2.0	2.7	3.0	2.0	2.4
Custer	2.0	1.8	3.3	2.0	2.3
D64-3082	2.0	1.5	2.8	2.5	2.2
D64-3155	2.0	2.5	2.8	2.5	2.5
D64-3159	2.0	2.0	2.0	3.0	2.3
D65-2384	2.0	1.8	1.5	1.0	1.6
D65-2421	2.0	1.5	2.0	1.5	1.8
D66-4361	2.0	1.5	1.5	1.5	1.6
D66-4463	2.0	1.7	2.3	2.0	2.0
D66-4465	2.0	1.7	2.0	2.0	1.9
D66-4498	2.0	1.6	1.0	2.0	1.7
D66-4500	2.0	1.8	2.8	2.0	2.2
D66-4504	2.0	1.6	2.3	2.0	2.0
D66-4505	2.0	1.5	1.8	1.5	1.7
D66-4529	3.0	1.6	2.6	2.5	2.4
D66-4531	2.0	1.8	2.0	2.0	2.0
D66-4534	2.0	1.3	1.8	2.0	1.8
D66-4537	2.0	1.7	1.3	1.5	1.6
D66-4539	2.0	1.3	2.0	2.5	2.0
D66-4543	2.0	1.5	2.8	1.0	1.8
D66-4545	2.0	1.9	2.0	1.5	1.9
D66-4548	2.0	1.6	2.8	2.0	2.1
D66-4566	2.0	1.6	2.8	2.0	2.1
D66-4578	2.0	1.6	2.5	2.0	2.0
D66-4579	2.0	1.3	1.8	2.0	1.8
D66-4582	3.0	1.5	1.8	2.0	2.1
D66-4587	2.0	1.3	2.0	2.5	2.0
D66-4590	2.0	1.9	2.8	1.5	2.1
D66-4594	2.0	1.3	2.0	2.0	1.8
D66-4609	2.0	1.8	2.8	2.0	2.2
S65-15A	2.0	2.2	3.3	2.0	2.4
S65-21B	2.0	2.2	3.0	2.0	2.3
S65-37B	2.0	2.8	3.0	1.5	2.3
S65-47B-2	2.0	2.5	3.3	2.0	2.5
S65-5644	2.0	1.8	2.5	2.0	2.1
S65-5652	2.0	1.7	2.5	2.0	2.1

UNIFORM GROUP V

1967

	Variety or strain	Parentage	Generation composited
1.	Hill	D632-15 x D49-2525	F_5
2.	Dare	Hill x D52-810	F_5
3.	York(V61-20)	Dorman x Hood	
4.	Dyer	Hill x [Lee(2) x Peking]	F_6
5.	R64-500	Hill(6) x Arksoy	F_3
6.	R62-659	(R54-168 x Hill) x (Lee x Dortchsoy 110)	F_4
7.	D61-858	Hill(2) x D51-4877	F_5
8.	D64-4731	Lee(2) x [Clark(2) x T109]	F_5
9.	N63-2769	N59-6958 sel. Hill x D52-810	F_6
10.	N63-4253	Hill(2) x PI 96983	F_5
11.	R64-14	(R54-168 x Hill) x (Lee x Dortchsoy 110)	F_6
12.	V63-57	Hood x D53-354	F_6

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.

D52-810 is a selection from Roanoke x Ogden of Ogden type and maturity with yellow seed. It is a selection from N48-1101 which was included in the Uniform Group VI nurseries for the years 1951 through 1953.

R54-168 is a sister selection of Davis from the cross D49-2573 x N45-1497.

Dortchsoy 110 is a short, lodging-resistant strain selected from Ogden x Wabash.

D51-4877 is a selection from Roanoke x N45-745 which was included in Uniform Group VII for the years 1954 through 1956.

T109 is a genetic type of Group II maturity with narrow leaves and a high number of seeds per pod.

D53-354 is a selection from N48-1394 x L6-5679 which was tested in Group IV-S for the years 1956-1958.

Thirty-three Uniform Group V nurseries were planted. Results of 31 nurseries are summarized in tables 15 through 21, with table 15 giving a general summary of agronomic qualities, chemical composition of the seed, and field reaction to several diseases. Two- and three-year data are reported for seed yield by production regions and for oil and protein content. The two plantings from which data were not reported were Miller City, Illinois, whichwas combine harvested by the cooperator; and Lubbock, Texas, which was destroyed by hail.

Seed yield differences among strains were significant at the 5% level of confidence at 20 of the 31 locations. The combined analysis of variance for mean seed yields by production regions showed differences to be significant at the 5% level of confidence in the East Coast, Upper and Central South and Delta regions but nonsignificant in the West.

The strain V61-20 has been named York and seed increased in Virginia, North Carolina, and Maryland. In 1967 tests, York yielded significantly better than Hill in all but the Western region. Under conditions of heavy seed coat mottling, York showed no evidence of mottling. Maturity is 10 days later than for Hill. Dare, 9 days later in maturity than Hill, has ranked above Hill in seed yield in all production areas. Yields for Dyer average slightly below the mean seed yield of Hill. However, productivity of Dyer has been very good where cyst nematodes have been a problem.

Two strains, R64-500 and R62-659, have been grown 2 years. R64-500 has 2-year mean yields very similar to Hill. In 1966, it yielded significantly less than Hill in the Upper and Central South, while in 1967, it yielded significantly better. R62-659 is of Dare maturity and has been similar in seed yield.

Of the strains tested one year, D64-4731 and N63-2769 yielded significantly higher than Hill in the production regions where seed yield differences were statistically significant. Both are relatively late in maturity. D64-4731 had green stems at maturity in both plantings at Stoneville. D61-858 averages 5 inches taller than Hill but has little yield advantage. N63-4253 also averaged taller than Hill, was 5 days later, and showed little advantage in yield. R64-14 yielded significantly better than Hill in 6 of the 9 East Coast locations and had a mean yield 1.3 bushels above York. It also ranked well in yield in the West. V63-57 yielded well in the East and Upper and Central South but was no better than Hill in the other areas.

Table 15. - General summary of performance for the strains in Uniform Group V, 1967

	Hill	Dare	York	Dyer	R64-500	R62-659
Seed Yield - 1967						
East Coast	34.3	36.1	39.0+	34.8	36.4	38.2+
Upper & Central South	38.4	40.4	42.6+	36.0	41.8+	40.8
Delta	39.2	44.0+	44.0+	38.4	40.2	44.7+
West	42.1	44.1	44.7	39.4	41.8	48.3
- 1966-67						
East Coast	32.6	35.1	36.9	32.9	33.2	35.8
Upper & Central South	36.4	38.6	40.5	34.6	36.5	38.5
Delta	38.9	42.5	42.1	37.3	39.3	42.3
West	39.5	41.7	42.1	36.7	39.5	45.3
- 1965-67						
East Coast	33.5	35.9	38.2	33.2		
Upper & Central South	37.0	39.4	40.8	35.0		
Delta	37.0	40.6	39.7	35.1		
West	38.7	40.5	41.2	35.3		
Oil Content - 1967	20.9	21.8+	20.6	20.7	20.7	20.6
- 1966-67	21.0	21.8	20.6	20.5	20.7	20.6
- 1965-67	21.2	21.7	21.0	20.8		
Protein Content - 1967	39.2	40.2+	39.4	39.9+	39.7	40.5+
- 1966-67	38.9	39.3	39.1	39.7	39.4	40.5
- 1965-67	39.2	39.7	39.2	40.1		
Seed size	13.4	14.5+	18.0+	16.1+	13.0	16.3+
Seed quality	1.7	1.3	1.6	1.9	1.6	1.7
Maturity index	10-7	+9	+10	+7	0	+9
Height	36	37	35	34	35	38
Bacterial pustule	1.0	1.0	2.5	1.0	1.0	1.0
Phytophthora rot	1.0	1.0	2.0	2.0	1.0	1.0
Seed coat mottling (%) 1/	24.0	19.5	0.0	51.0	32.5	48.5
Seed coat mottling (%) 2/	3.3	0.8	0.0	11.7	1.8	12.0
Shattering	1.0	1.0	2.3	2.0	1.3	1.0
Flower color	W	W	P	P	W	P
Pubescence color	T	G	G	T	T	T
Pod wall color	T	B	T	T	T	seg.

1/ Halfway, Texas, data

2/ Orange and Warsaw, Va. data.

Table 15. - (continued)

	D61-858	D64-4731	N63-2769	N63-4253	R64-14	V63-57
Seed Yield - 1967						
East Coast	34.8	37.0+	37.3+	35.3	40.3+	37.5+
Upper & Central South	39.5	42.1+	42.5+	39.6	39.5	42.5+
Delta	40.0	42.8+	44.4+	39.7	42.3	38.9
West	43.5	42.1	47.4	40.7	46.2	42.3
- 1966-67						
East Coast						
Upper & Central South						
Delta						
West						
- 1965-67						
East Coast						
Upper & Central South						
Delta						
West						
Oil Content - 1967	21.4+	20.0-	21.1	20.6	21.0	19.9-
- 1966-67						
- 1965-67						
Protein Content - 1967	38.5-	40.4+	40.4+	39.9+	40.6+	39.4
- 1966-67						
- 1965-67						
Seed size	13.6	12.6-	16.3+	15.7+	14.0+	14.5+
Seed quality	1.8	1.7	1.6	1.9	1.7	1.4
Maturity index	+4	+7	+10	+5	+7	+3
Height	41	31	37	41	38	36
Bacterial pustule	1.0	1.0	1.0	1.0	1.0	1.0
Phytophthora rot	1.0	2.0	1.0	2.0	1.0	3.0
Seed coat mottling (%)[1/]	49.0	55.5	53.5	59.0	17.5	8.0
Seed coat mottling (%)[2/]	3.5	18.5	0.8	7.0	4.2	0.0
Shattering	1.0	1.0	1.6	1.6	1.0	1.5
Flower color	W	P	W	W	W	P
Pubescence color	T	T	G	T	T	G
Pod wall color	T	T	B	T	T	B

Table 16. - Seed yield, in bushels per acre, for the strains in Uniform Group V, 1967

Location	Hill	Dare	York	Dyer	R64-500	R62-659	D61-858
			East Coast				
Georgetown, Del.	31.6	31.6	32.2	33.6	30.6	37.1+	33.7
Queenstown, Md.	43.0	38.2	43.4	41.4	43.0	36.5	40.4
Linkwood, Md.	31.6	33.6	36.5+	30.7	36.4+	35.9+	33.6
Painter, Va.	34.1	32.2	42.8+	31.2	35.5	38.6	33.5
Warsaw, Va.	37.0	34.5	38.7	36.8	38.1	37.3	35.6
Petersburg, Va.	31.2	38.8+	40.6+	35.2	36.7+	42.9+	35.0
Norfolk, Va.	37.8	38.1	42.8	36.1	37.4	35.4	36.3
Holland, Va.	33.3	39.9+	36.6	36.2	38.3	41.8+	29.6
Plymouth, N. C.	29.2	37.9+	37.7+	32.2	31.7	38.0+	34.8
Mean	34.3	36.1	39.0+	34.8	36.4	38.2+	34.8
			Upper and Central South				
Orange, Va.	39.9	37.8	45.1	38.5	41.7	36.5	41.5
Blairsville, Ga.	24.4	30.5	35.2+	30.3	35.0+	26.6	31.3
Belle Mina, Ala.	39.4	43.9+	44.3+	41.4	43.6+	44.6+	43.8+
Experiment, Ga.	45.3	50.1	52.0	39.9	51.3	51.6	47.1
State College, Miss.	31.2	35.6	29.5	29.7	35.4	38.3	34.9
Princeton, Ky.	33.3	34.9	37.7	31.7	35.6	35.6	31.3
Martin, Tenn.	49.9	44.8	45.9	40.2	43.6	43.7	45.9
Jackson, Tenn.	43.8	45.7	51.2+	36.2-	47.8	49.7+	40.1
Mean	38.4	40.4	42.6+	36.0	41.8+	40.8	39.5
			Delta				
Henderson, Ky.	25.2	38.4+	28.9	30.5	25.7	31.2	27.8
Hickman, Ky.	45.2	52.0+	55.8+	47.7	48.6	59.3+	45.7
Portageville, Mo.(A)	33.9	34.9	36.7	38.3	34.0	34.3	32.7
Portageville, Mo.(B)	27.5	30.3+	30.7+	24.9	32.6+	29.2	29.2
Keiser, Ark.	35.4	43.3+	47.4+	26.3-	39.5	40.2	40.0
Marianna, Ark.	39.4	44.7	47.5	42.0	40.7	46.0	44.3
Stoneville, Miss.(A)	49.2	48.4	49.9	45.7	51.1	50.1	44.9
Stoneville, Miss.(B)	49.8	54.0	52.0	44.1	46.4	56.1	48.3
St. Joseph, La.	47.4	49.9	47.2	46.0	43.6	55.8	47.1
Mean	39.2	44.0+	44.0+	38.4	40.2	44.7+	40.0
			West				
Mt. Vernon, Mo.*	21.3	20.0	25.5+	17.4	25.3	14.6-	14.9-
Stuttgart, Ark.	49.6	49.8	46.3	40.0-	50.3	51.6	46.9
Curtis, La.	28.9	37.0	32.3	30.6	28.2	43.2	35.5
Bixby, Okla.	48.4	49.1	51.4	41.9	49.7	53.9	44.9
Halfway, Texas	41.5	40.6	48.8+	45.1	39.2	44.6	46.8+
Mean	42.1	44.1	44.7	39.4	41.8	48.3	43.6

*Not included in mean.

Table 16. - (continued)

Location	D64-4731	N63-2769	N63-4253	R64-14	V63-57	L.S.D. (.05)	C.V.
			East Coast				
Georgetown, Del.	26.0-	35.8+	35.2	36.8+	31.2	3.8	7%
Queenstown, Md.	43.9	38.0	39.9	43.2	40.6	5.7	8%
Linkwood, Md.	34.2	33.1	32.5	35.8+	35.0	3.8	7%
Painter, Va.	38.9+	33.8	37.9	40.5+	38.0	4.7	8%
Warsaw, Va.	39.0	37.7	36.0	38.4	38.1	N.S.	5%
Petersburg, Va.	35.3	41.0+	36.7	42.2+	39.3+	6.5	10%
Norfolk, Va.	39.6	35.4	32.6	38.3	35.0	N.S.	13%
Holland, Va.	37.5	39.7+	31.7	46.8+	40.8+	6.0	9%
Plymouth, N. C.	38.5+	40.9+	35.5+	41.0+	39.8+	5.1	8%
Mean	37.0+	37.3+	35.3	40.3+	37.5+	2.5	
			Upper and Central South				
Orange, Va.	43.5	42.0	38.9	42.3	41.0	N.S.	8%
Blairsville, Ga.	30.1	36.7+	26.6	24.0	32.7+	7.8	15%
Belle Mina, Ala.	49.4+	47.2+	42.4	45.8+	44.0	4.1	5%
Experiment, Ga.	54.2+	52.6+	50.3	48.6	52.0	7.3	9%
State College, Miss.	34.0	31.1	41.1	43.9	42.6	N.S.	18%
Princeton, Ky.	35.3	36.2	32.5	31.7	35.0	N.S.	13%
Martin, Tenn.	42.9	46.4	41.3	37.2	42.7	N.S.	13%
Jackson, Tenn.	46.3	47.5	44.0	42.5	49.6+	5.8	7%
Mean	42.1+	42.5+	39.6	39.5	42.5+	3.2	
			Delta				
Henderson, Ky.	29.4	33.6+	34.1+	27.6	31.1	6.5	13%
Hickman, Ky.	54.6+	56.2+	47.2	54.9+	54.0+	5.3	6%
Portageville, Mo.(A)	34.6	34.2	32.4	34.0	33.7	N.S.	7%
Portageville, Mo.(B)	26.5	34.0+	25.6	32.4+	26.3	2.7	5%
Keiser, Ark.	35.6	43.8+	29.5-	38.9	25.9-	5.3	8%
Marianna, Ark.	45.5	47.4	41.5	44.2	42.9	N.S.	9%
Stoneville, Miss.(A)	57.0+	47.3	43.3-	49.2	48.9	5.8	7%
Stoneville, Miss.(B)	56.9	52.0	52.6	53.2	46.6	7.2	8%
St. Joseph, La.	45.5	50.8	51.4	46.5	41.0	N.S.	9%
Mean	42.8+	44.4+	39.7	42.3	38.9	3.3	
			West				
Mt. Vernon, Mo.*	26.5+	17.9	15.5-	15.9-	22.5	4.1	12%
Stuttgart, Ark.	48.5	54.9	49.9	53.1	50.2	6.2	7%
Curtis, La.	25.8	34.8	28.7	42.2	28.2	N.S.	21%
Bixby, Okla.	47.7	51.8	43.5	51.7	43.3	7.2	9%
Halfway, Texas	46.6+	48.1+	40.5	37.8	47.4+	4.7	6%
Mean	42.1	47.4	40.7	46.2	42.3	N.S.	

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

Table 17. - Chemical composition and seed size for the strains in Uniform Group V, 1967

Location	Hill	Dare	York	Dyer	R64-500	R62-659
			Oil Percentage			
Queenstown, Md.	20.0	21.2	19.5	19.2	19.7	19.2
Warsaw, Va.	21.3	21.6	20.2	20.1	21.1	20.0
Plymouth, N. C.	20.2	21.0	19.7	19.9	19.9	20.2
Henderson, Ky.	19.6	21.1	19.7	21.1	20.2	19.6
Portageville, Mo.(A)	21.2	21.8	20.8	21.1	20.7	21.1
Keiser, Ark.	22.8	23.1	22.0	21.4	21.5	22.2
Stoneville, Miss.(B)	21.1	23.7	21.4	21.9	21.8	21.9
Stuttgart, Ark.	22.1	22.3	21.4	21.7	21.7	21.2
Halfway, Texas	19.9	20.7	20.3	19.8	19.9	20.2
Mean	20.9	21.8+	20.6	20.7	20.7	20.6
			Protein Percentage			
Queenstown, Md.	41.3	42.7	39.0	40.2	40.2	41.5
Warsaw, Va.	37.4	39.4	39.5	38.3	38.1	39.4
Plymouth, N. C.	41.6	41.6	42.0	41.4	42.4	42.8
Henderson, Ky.	41.8	42.3	41.7	42.6	40.8	41.2
Portageville, Mo.(A)	39.9	40.4	39.6	40.1	40.2	40.2
Keiser, Ark.	35.7	37.3	37.1	37.7	38.2	38.4
Stoneville, Miss.(B)	37.2	37.4	37.0	38.4	38.0	38.2
Stuttgart, Ark.	39.4	41.5	40.1	41.2	40.3	42.6
Halfway, Texas	38.9	39.1	38.9	39.6	39.2	40.1
Mean	39.2	40.2+	39.4	39.9+	39.7	40.5+
			Grams per 100 Seeds			
Queenstown, Md.	15.3	17.3	20.9	18.6	15.3	18.8
Warsaw, Va.	12.4	15.7	18.4	16.6	13.3	15.3
Plymouth, N. C.	11.8	12.4	16.5	14.8	11.7	15.1
Henderson, Ky.	13.1	15.0	15.5	14.4	12.8	15.9
Portageville, Mo.(A)	12.3	11.9	16.5	14.8	11.1	14.1
Keiser, Ark.	14.3	14.0	19.3	15.3	14.0	15.7
Stoneville, Miss.(B)	13.0	14.5	17.0	16.8	12.4	16.8
Stuttgart, Ark.	15.0	15.0	20.0	17.7	14.0	18.3
Halfway, Texas	13.0	15.0	18.0	16.0	12.0	17.0
Mean	13.4	14.5+	18.0+	16.1+	13.0	16.3+

Table 17. - (continued)

Location	D61-858	D64-4731	N63-2769	N63-4253	R54-14	V53-57	L.S.D. (.05)
			Oil Percentage				
Queenstown, Md.	19.8	19.8	20.4	20.2	20.4	19.2	
Warsaw, Va.	21.3	19.4	21.2	20.6	21.1	19.9	
Plymouth, N. C.	20.2	19.9	20.9	19.7	21.2	18.8	
Henderson, Ky.	21.5	18.9	20.5	20.1	19.9	18.2	
Portageville, Mo.(A)	21.5	19.9	21.3	20.5	20.8	19.9	
Keiser, Ark.	23.5	21.8	22.4	22.5	22.4	22.3	
Stoneville, Miss.(B)	22.3	20.3	22.2	21.1	21.8	20.9	
Stuttgart, Ark.	21.7	20.0	21.3	21.0	21.4	20.8	
Halfway, Texas	21.0	20.0	20.0	19.9	19.9	19.1	
Mean	21.4+	20.0-	21.1	20.6	21.0	19.9-	0.4
			Protein Percentage				
Queenstown, Md.	38.6	40.6	40.1	39.9	41.0	40.0	
Warsaw, Va.	36.9	40.0	38.8	38.1	40.0	38.3	
Plymouth, N. C.	41.3	41.8	41.2	42.2	41.2	41.3	
Henderson, Ky.	39.1	40.6	41.6	42.3	41.7	40.9	
Portageville, Mo.(A)	39.5	41.6	41.2	40.2	41.1	39.6	
Keiser, Ark.	36.7	37.7	38.5	36.7	38.4	36.5	
Stoneville, Miss.(B)	36.4	39.0	38.7	39.1	39.3	37.7	
Stuttgart, Ark.	40.6	43.5	42.4	41.6	42.7	40.3	
Halfway, Texas	37.7	39.1	40.7	39.0	39.6	39.6	
Mean	38.5-	40.4+	40.4+	39.9+	40.6+	39.4	0.7
			Grams per 100 Seeds				
Queenstown, Md.	16.2	16.2	18.3	17.8	16.2	17.4	
Warsaw, Va.	13.9	12.5	16.4	16.3	14.0	14.4	
Plymouth, N. C.	12.3	10.4	14.2	15.8	13.0	13.6	
Henderson, Ky.	12.7	12.1	16.8	15.5	12.9	13.0	
Portageville, Mo.(A)	11.8	10.9	14.0	13.9	12.4	12.9	
Keiser, Ark.	14.0	12.7	16.7	15.3	13.7	15.0	
Stoneville, Miss.(B)	12.7	12.0	15.5	14.5	14.0	13.5	
Stuttgart, Ark.	14.7	13.3	18.0	16.3	14.7	15.0	
Halfway, Texas	14.0	13.0	17.0	16.0	15.0	16.0	
Mean	13.6	12.6-	16.3+	15.7+	14.0+	14.5+	0.6

Table 18. - Relative maturity, days earlier (-) or later (+) than Hill, for the strains in Uniform Group V, 1967

Location	Date planted	Hill matured	Dare	York	Dyer	R64-500	R62-659
		East Coast					
Georgetown, Del.	5-18	10-16	+8	+13	+3	+1	+8
Queenstown, Md.	5-29	10-19	+8	+13	+9	-1	+7
Linkwood, Md.	6-6	10-18	+9	+11	+3	-1	+8
Painter, Va.	5-20	10-13	+9	+11	+4	-1	+11
Warsaw, Va.	5-24	10-13	+8	+7	+7	-1	+8
Petersburg, Va.	5-24	10-8	+7	+7	+6	+2	+7
Holland, Va.	5-29	10-18	+6	-6	+4	+2	+2
Plymouth, N. C.	5-17	9-30	+8	+17	+8	0	+10
Mean		10-13	+8	+9	+6	0	+8
		Upper and Central South					
Belle Mina, Ala.	5-30	10-9	+14	+12	+14	+2	+7
Experiment, Ga.	5-29	9-28	+8	+9	+7	0	+9
Jackson, Tenn.	5-23	10-4	+6	+8	+2	-9	+12
Mean		10-4	+9	+10	+8	-2	+9
		Delta					
Hickman, Ky.	5-11	10-4	+9	+11	+4	-2	+13
Portageville, Mo.(A)	6-7	10-11	+3	+3	+6	-2	+7
Portageville, Mo.(B)	6-5	10-11	+9	+5	+7	-2	+9
Keiser, Ark.	5-25	10-6	+25	+26	+22	0	+14
Marianna, Ark.	5-24	9-30	+7	+9	+6	-1	+6
Stoneville, Miss.(A)	5-26	10-4	+10	+7	+5	0	+5
Stoneville, Miss.(B)	5-12	9-21	+13	+13	+9	0	+14
St. Joseph, La.	5-19	9-18	+11	+10	+11	+1	+11
Mean		10-2	+11	+11	+9	0	+10
		West					
Stuttgart, Ark.	6-5	10-6	+8	+25	+16	+1	+7
Curtis, La.	5-19	9-21	+8	+15	+7	+4	+11
Bixby, Okla.	5-17	10-7	+5	+2	+1	-3	+4
Halfway, Texas	5-26	10-16	+4	+3	+4	+4	+8
Mean		10-5	+6	+11	+7	+2	+8

Table 18. - (continued)

Location	D61-858	D64-4731	N63-2769	N63-4253	R64-14	V63-57
			East Coast			
Georgetown, Del.	+4	+3	+10	+5	+7	+2
Queenstown, Md.	+5	+7	+10	+6	+6	+5
Linkwood, Md.	+4	+3	+10	+3	+6	+3
Painter, Va.	+3	+3	+11	+8	+9	+3
Warsaw, Va.	+5	+5	+8	+6	+7	+2
Petersburg, Va.	+6	+3	+9	+4	+6	0
Holland, Va.	0	-2	+6	-2	-2	-5
Plymouth, N. C.	+6	+2	+8	+6	+8	+2
Mean	+4	+3	+9	+5	+6	+2
			Upper and Central South			
Belle Mina, Ala.	+4	+2	+14	+4	+6	+2
Experiment, Ga.	+5	+8	+10	+7	+7	+4
Jackson, Tenn.	+2	+12	+12	+2	0	0
Mean	+4	+7	+12	+4	+4	+2
			Delta			
Hickman, Ky.	+3	+13	+11	+4	+13	+3
Portageville, Mo.(A)	+2	+5	+8	+1	+5	+2
Portageville, Mo.(B)	+5	+5	+12	+8	+10	+5
Keiser, Ark.	+14	+21	+26	+16	+15	+14
Marianna, Ark.	+6	+9	+9	+6	+6	+4
Stoneville, Miss.(A)	+3	+12	+7	+3	+2	0
Stoneville, Miss.(B)	+6	+15	+13	+7	+10	+5
St. Joseph, La.	+3	+11	+11	+11	+11	+2
Mean	+5	+11	+12	+7	+9	+4
			West			
Stuttgart, Ark.	+5	+7	+7	+3	+5	+4
Curtis, La.	+4	+6	+13	+5	+12	+2
Bixby, Okla.	+1	+5	+5	+1	+4	-3
Halfway, Texas	+5	+5	+4	+5	+7	+5
Mean	+4	+6	+7	+4	+7	+2

Table 19. - Plant height data for the strains in Uniform Group V, 1967

Location	Hill	Dare	York	Dyer	R64-500	R62-659
			East Coast			
Georgetown, Del.	37	37	39	37	39	39
Queenstown, Md.	46	51	44	45	43	48
Linkwood, Md.	39	38	40	35	39	39
Painter, Va.	39	45	44	39	40	46
Warsaw, Va.	33	35	31	32	33	35
Petersburg, Va.	32	36	33	31	31	36
Norfolk, Va.	35	35	34	33	30	35
Holland, Va.	42	42	42	40	42	46
Plymouth, N. C.	34	35	33	33	31	36
Mean	37	39	38	36	36	40
			Upper and Central South			
Orange, Va.	36	31	34	26	30	35
Blairsville, Ga.	39	41	38	37	38	43
Belle Mina, Ala.	36	38	34	34	35	38
Experiment, Ga.	36	38	34	33	36	36
Princeton, Ky.	39	36	39	40	40	37
Jackson, Tenn.	36	39	35	37	36	41
Mean	37	37	36	35	36	38
			Delta			
Henderson, Ky.	38	41	41	37	37	40
Hickman, Ky.	40	44	38	30	42	44
Portageville, Mo.(A)	39	38	39	38	39	39
Portageville, Mo.(B)	30	27	29	26	32	29
Keiser, Ark.	32	37	34	34	34	35
Marianna, Ark.	36	41	37	35	36	38
Stoneville, Miss.(A)	35	35	33	33	35	37
Stoneville, Miss.(B)	31	33	34	28	31	34
St. Joseph, La.	35	38	38	31	36	38
Mean	35	37	36	32	36	37
			West			
Mt. Vernon, Mo.	40	46	44	41	37	41
Stuttgart, Ark.	30	32	29	29	27	32
Curtis, La.	21	20	22	22	21	28
Bixby, Okla.	31	33	27	32	32	33
Halfway, Texas	33	30	29	28	34	32
Mean	31	32	30	30	30	33

Table 19. - (continued)

Location	D61-858	D64-4731	N63-2769	N63-4253	R64-14	V63-57
			East Coast			
Georgetown, Del.	44	32	38	45	40	39
Queenstown, Md.	50	35	45	50	47	47
Linkwood, Md.	40	33	38	43	38	40
Painter, Va.	49	37	46	51	45	45
Warsaw, Va.	36	30	35	39	38	33
Petersburg, Va.	40	29	36	36	35	33
Norfolk, Va.	36	32	36	39	36	34
Holland, Va.	48	39	41	46	44	41
Plymouth, N. C.	36	33	35	37	37	36
Mean	42	33	39	43	40	39
			Upper and Central South			
Orange, Va.	39	29	34	36	37	31
Blairsville, Ga.	49	29	46	47	41	40
Belle Mina, Ala.	41	26	37	38	37	31
Experiment, Ga.	46	29	36	37	38	33
Princeton, Ky.	40	33	42	47	39	36
Jackson, Tenn.	47	37	37	45	41	37
Mean	44	31	39	42	39	35
			Delta			
Henderson, Ky.	45	34	40	43	35	40
Hickman, Ky.	46	36	38	58	48	34
Portageville, Mo.(A)	43	34	39	41	42	37
Portageville, Mo.(B)	34	25	28	31	29	27
Keiser, Ark.	39	31	38	39	37	36
Marianna, Ark.	42	31	37	41	39	38
Stoneville, Miss.(A)	42	29	37	40	37	37
Stoneville, Miss.(B)	37	29	33	37	33	29
St. Joseph, La.	43	27	40	38	36	37
Mean	41	31	37	41	37	35
			West			
Mt. Vernon, Mo.	43	37	44	47	48	44
Stuttgart, Ark.	37	25	32	39	33	31
Curtis, La.	29	14	22	24	20	18
Bixby, Okla.	37	26	35	36	38	32
Halfway, Texas	40	30	32	37	36	36
Mean	37	26	33	37	35	32

Table 20. - Lodging scores for the strains in Uniform Group V, 1967

Location	Hill	Dare	York	Dyer	R64-500	R62-659
			East Coast			
Georgetown, Del.	3.0	2.5	2.7	2.7	2.3	2.8
Queenstown, Md.	4.0	4.0	3.4	4.3	3.9	3.7
Linkwood, Md.	3.5	3.2	2.3	3.8	3.2	4.2
Painter, Va.	3.8	3.7	2.8	4.8	3.3	4.5
Warsaw, Va.	1.7	1.5	1.0	3.0	2.0	1.7
Petersburg, Va.	1.0	1.3	1.0	1.0	1.3	2.0
Norfolk, Va.	4.2	3.3	2.0	4.3	4.3	4.2
Holland, Va.	4.7	4.3	2.7	4.3	5.0	4.0
Plymouth, N. C.	4.0	3.0	3.0	5.0	4.7	3.7
			Upper and Central South			
Orange, Va.	4.3	2.7	2.3	2.3	3.3	3.7
Blairsville, Ga.	3.7	4.0	3.3	3.7	4.0	5.0
Belle Mina, Ala.	2.0	1.7	1.0	2.0	2.0	2.0
Experiment, Ga.	1.7	1.0	1.0	1.3	2.0	1.7
Princeton, Ky.	4.0	3.0	3.0	4.0	5.0	4.0
Jackson, Tenn.	3.0	2.0	1.0	3.0	4.0	3.0
			Delta			
Henderson, Ky.	2.7	2.3	2.3	2.0	2.7	2.7
Hickman, Ky.	4.0	3.0	2.0	3.0	3.0	3.0
Portageville, Mo.(A)	2.8	2.7	1.8	3.7	1.8	2.8
Portageville, Mo.(B)	2.5	1.7	2.0	2.0	2.0	2.5
Keiser. Ark.	1.3	1.5	1.0	1.5	1.5	1.8
Marianna, Ark.	3.0	2.7	2.0	3.0	3.0	2.3
Stoneville, Miss.(A)	2.7	3.0	2.3	3.0	2.3	3.7
Stoneville, Miss.(B)	2.0	2.3	2.0	2.0	2.7	3.7
St. Joseph, La.	3.0	2.0	2.0	2.0	3.0	3.0
			West			
Mt. Vernon, Mo.	3.3	3.0	2.6	4.0	3.6	3.3
Stuttgart, Ark.	1.0	1.0	1.0	1.0	1.0	1.7
Curtis, La.	1.0	1.0	1.0	2.0	1.0	2.0
Bixby, Okla.	2.0	3.0	3.0	3.0	3.0	3.0
Halfway, Texas	1.0	1.0	1.0	1.0	1.0	2.0

Table 20. - (continued)

Location	D61-858	D64-4731	N63-2769	N63-4253	R64-14	V63-57
			East Coast			
Georgetown, Del.	3.2	1.7	2.8	3.2	2.7	2.5
Queenstown, Md.	4.1	2.5	4.0	3.7	3.7	3.5
Linkwood, Md.	4.2	1.6	2.4	3.2	3.8	3.1
Painter, Va.	3.8	2.8	3.3	5.0	4.0	2.8
Warsaw, Va.	2.3	1.2	1.5	2.7	2.5	1.3
Petersburg, Va.	1.3	1.0	1.0	1.0	1.7	1.0
Norfolk, Va.	5.0	1.5	2.0	4.3	4.3	5.0
Holland, Va.	5.0	3.7	4.7	5.0	5.0	4.0
Plymouth, N. C.	4.3	2.7	3.0	3.7	3.3	3.3
			Upper and Central South			
Orange, Va.	4.0	2.7	3.0	4.0	4.3	3.0
Blairsville, Ga.	4.7	2.0	4.3	5.0	4.3	4.0
Belle Mina, Ala.	3.3	1.0	2.0	2.0	3.3	1.7
Experiment, Ga.	2.0	1.0	1.3	1.3	1.7	1.3
Princeton, Ky.	5.0	1.0	5.0	5.0	4.0	3.0
Jackson, Tenn.	2.0	1.0	2.0	3.0	3.0	3.0
			Delta			
Henderson, Ky.	3.0	1.0	3.0	2.7	2.3	3.0
Hicksman, Ky.	4.0	2.0	3.0	4.0	3.0	3.0
Portageville, Mo.(A)	2.7	1.7	2.0	2.5	2.7	3.0
Portageville, Mo.(B)	2.3	1.7	2.2	2.2	2.5	1.8
Keiser, Ark.	2.2	1.0	1.3	1.7	2.0	1.0
Marianna, Ark.	3.3	2.0	3.0	3.3	2.3	2.0
Stoneville, Miss.(A)	3.7	2.0	3.3	3.3	3.3	3.0
Stoneville, Miss.(B)	3.3	2.0	2.3	3.0	3.3	3.0
St. Joseph, La.	2.0	1.0	2.0	3.0	3.0	3.0
			West			
Mt. Vernon, Mo.	4.0	2.3	3.6	3.6	3.6	2.3
Stuttgart, Ark.	2.0	1.0	1.0	1.7	2.0	1.0
Curtis, La.	2.0	1.0	1.0	1.0	1.0	1.0
Bixby, Okla.	3.0	1.0	2.0	3.0	3.0	2.0
Halfway, Texas	2.0	1.0	1.0	2.0	2.0	2.0

Table 21. - Seed quality scores for the strains in Uniform Group V, 1967

Location	Hill	Dare	York	Dyer	R64-500	R62-659
			East Coast			
Georgetown, Del.	1.3	1.0	2.0	1.7	1.3	1.7
Queenstown, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Painter, Va.	2.0	1.2	1.5	2.0	1.8	2.5
Warsaw, Va.	1.7	1.1	1.5	1.3	1.7	1.9
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Holland, Va.	2.0	1.5	1.0	1.0	2.5	1.0
Plymouth, N. C.	1.0	1.0	1.5	1.0	1.5	1.0
			Upper and Central South			
Orange, Va.	1.0	1.0	1.0	1.0	1.0	2.0
Blairsville, Ga.	2.5	2.7	2.0	3.5	1.8	2.2
Experiment, Ga.	1.0	1.2	1.2	2.0	1.2	1.5
Princeton, Ky.	3.0	2.0	2.0	3.0	2.0	3.0
Jackson, Tenn.	3.0	1.0	1.0	3.0	2.0	2.0
			Delta			
Henderson, Ky.	1.3	1.0	1.0	1.3	1.3	1.3
Hickman, Ky.	1.0	1.0	1.0	1.7	1.0	1.3
Portageville, Mo.(A)	1.8	1.5	1.8	2.3	1.7	1.7
Portageville, Mo.(B)	1.8	1.3	2.2	2.3	2.0	2.7
Keiser, Ark.	2.0	2.3	2.3	3.0	2.0	2.0
Marianna, Ark.	2.0	1.7	2.0	2.3	2.0	2.3
Stoneville, Miss.(A)	2.0	1.7	2.0	2.0	2.0	2.0
Stoneville, Miss.(B)	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	3.0	2.0	4.0	3.0	3.0	2.0
			West			
Mt. Vernon, Mo.	3.0	2.5	3.5	3.5	3.2	3.5
Stuttgart, Ark.	1.7	1.3	2.0	3.0	1.7	2.0
Curtis, La.	2.0	1.0	2.0	2.0	1.0	2.0
Bixby, Okla.	1.0	1.0	1.0	1.0	1.0	1.0

Table 21. - (continued)

Location	D61-858	D64-4731	N63-2769	N63-4253	R64-14	V63-57
			East Coast			
Georgetown, Del.	2.3	2.0	1.7	2.0	1.0	1.0
Queenstown, Md.	2.0	2.0	2.0	2.0	2.0	3.0
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Painter, Va.	2.5	2.7	1.8	2.0	1.8	1.2
Warsaw, Va.	1.7	1.3	1.7	1.9	1.5	1.3
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Holland, Va.	1.5	1.0	1.5	2.0	1.5	3.0
Plymouth, N. C.	1.0	1.0	1.0	1.0	1.5	1.0
			Upper and Central South			
Orange, Va.	1.0	1.3	1.0	1.0	1.0	1.7
Blairsville, Ga.	3.0	1.7	2.2	2.5	3.0	2.2
Experiment, Ga.	1.0	1.0	1.5	1.7	1.0	1.3
Princeton, Ky.	3.0	4.0	2.0	3.0	3.0	2.0
Jackson, Tenn.	2.0	3.0	2.0	3.0	2.0	2.0
			Delta			
Henderson, Ky.	1.3	1.7	1.3	2.0	1.3	1.7
Hicksman, Ky.	1.3	1.0	1.0	2.3	1.7	1.0
Portageville, Mo.(A)	2.3	1.7	1.5	2.7	1.5	2.0
Portageville, Mo.(B)	2.5	2.7	2.0	2.3	2.2	2.0
Keiser, Ark.	2.7	2.0	2.3	3.3	2.3	3.0
Marianna, Ark.	2.3	2.0	2.0	3.0	2.0	2.3
Stoneville, Miss.(A)	2.0	1.7	2.0	2.0	2.0	2.0
Stoneville, Miss.(B)	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	3.0	4.0	3.0	2.0	4.0	3.0
			West			
Mt. Vernon, Mo.	3.0	3.0	4.0	3.0	3.0	3.5
Stuttgart, Ark.	2.0	1.7	2.0	2.7	1.7	2.3
Curtis, La.	2.0	2.0	1.0	2.0	1.0	2.0
Bixby, Okla.	1.0	1.0	1.0	2.0	1.0	1.0

PRELIMINARY GROUP V

1967

Preliminary Group V nurseries, including 34 experimental strains and the two check varieties Hill and Dare, were grown at 6 locations. The parentage of these strains is reported in table 22. Performance data are summarized in tables 23 through 28. Differences in seed yield were significant at the 5% level of confidence in 5 of the 6 plantings. The combined analysis of variance for seed yield showed differences among strains to be significant at the 5% level of confidence. Eight strains yielded significantly less than Hill. There were no strains with seed yields significantly above the yield of Hill, but Dare and 12 strains had average yields higher than Hill. Two strains had yields slightly higher than Dare.

Five selections from D49-2491(5) x Hawkeye yielded very well, but were quite similar in performance at each of the locations. All five were significantly higher in protein content than Hill and equal or higher in oil content.

D65-2567, selected from Hill(2) x PI 196,177, yielded well at all locations and was one of the two strains having a mean seed yield higher than Dare. However, D65-2553, selected for small seed size from PI 196,177(2) x Hill, was one of the lowest yielding strains. The lowest yielding strain was D65-6647, which has genes for high protein from Biloxi and Sioux. This strain shatters and is susceptible to phytophthora rot.

The four strains D65-3057, D65-3065, D65-3067, and D65-3097 carry the high degree of resistance to phytophthora rot along with resistance to all races of downy mildew. Three ranked above Hill in seed yield. D65-12,392 through D66-12,440 combine resistance to phytophthora rot, downy mildew, root-knot and cyst nematodes. D60-12,392 was very similar to Hill in overall performance.

N63-2765 and N63-2771 yielded very well but averaged later than Dare in maturity. Both strains are closely related to N63-2769, which was grown in Uniform Group V.

R65-113 and R65-213 were of approximately Hill maturity. Both yielded well and had good general performance. The two Missouri selections yielded significantly less than Hill and also shattered.

Table 22. - Parentage of the strains in Preliminary Group V, 1967

	Variety or strain	Parentage	Generation composited
1.	Hill		
2.	Dare		
3.	D50-204	N46-191 x N45-745	F_6
4.	D64-3198	D49-2491(5) x Hawkeye	F_4
5.	D64-3211	D49-2491(5) x Hawkeye	F_4
6.	D64-3219	D49-2491(5) x Hawkeye	F_4
7.	D64-3242	D49-2491(5) x Hawkeye	F_4
8.	D64-3253	D49-2491(5) x Hawkeye	F_4
9.	D64-3806	Hill x D59-1619	F_5
10.	D64-3852	Hill x D59-1619	F_5
11.	D65-2357	D54-2437 x PI 171,450	F_5
12.	D65-2553	PI 196,177(2) x Hill	F_5
13.	D65-2567	Hill(2) x PI 196,177	F_5
14.	D65-3057	Hill(4) x PI 171,442	F_6
15.	D65-3065	Hill(4) x PI 171,442	F_6
16.	D65-3067	Hill(4) x PI 171,442	F_6
17.	D65-3097	Hill(4) x PI 171,442	F_6
18.	D65-6555	D61-475 x D61-2624	F_5
19.	D65-6647	D55-4110 x (Biloxi x Sioux)	F_5
20.	D66-12,392	D63-6100 x D63-7320	F_5
21.	D66-12,394	D63-6100 x D63-7320	F_5
22.	D66-12,397	D63-6100 x D63-7320	F_5
23.	D66-12,401	D63-6100 x D63-7320	F_5
24.	D66-12,440	D63-6100 x D63-7320	F_5
25.	N62-2372	(N52-3908 x N51-1675) x (Ogden x Lee)	F_5
26.	N62-2378	(N52-3908 x N51-1675) x (Ogden x Lee)	F_5
27.	N63-2765	N59-6958 sel. (Hill x D52-810)	
28.	N63-2771	N59-6958 sel. (Hill x D52-810)	
29.	N63-4056	Hill(2) x PI 96,983	F_4
30.	N63-4166	Hill(2) x PI 96,983	F_4
31.	N63-4396	Hill(2) x PI 96,983	F_4
32.	R65-113	Hill x R59-200	F_5
33.	R65-213	Hill x R69-200	F_5
34.	R65-431	(R54-168 x Hill) x (Lee x Dortchsoy 110)	F_5
35.	S65-5546	Hill(3) x [Scott(2) x Peking]	
36.	S65-5593	Hill(3) x [Scott(2) x Peking]	

Table 23. - General summary of performance for the strains grown in Preliminary Group V, 1967

Strain	Seed yield	Maturity index	Ht.	Percent Oil	Percent Protein	Seed holding	B.P.	P.R.	% mottled seed
Hill	36.6	10-7	35	21.0	38.5	1.0	1.0	1.0	6.0
Dare	39.2	+12	34	22.1+	39.0	1.5	1.0	1.0	1.0
D50-204	31.0-	+11	36	19.4-	42.4+	2.5	1.0	1.0	17.0
D64-3198	37.5	+11	33	21.3	40.4+	1.0	1.0	2.0	10.0
D64-3211	36.8	+9	32	21.7+	40.3+	1.0	1.0	1.0	10.0
D64-3219	38.2	+7	31	21.5+	40.6+	1.0	1.0	1.0	5.0
D64-3242	38.0	+11	33	20.9	41.1+	1.0	1.0	1.0	7.5
D64-3253	38.9	+9	32	21.2	40.9+	1.0	1.0	1.0	3.5
D64-3806	32.2-	+10	38	20.8	39.1	1.0	1.0	1.0	3.5
D64-3852	35.0	+10	38	20.5-	39.0	1.0	1.0	1.0	10.0
D65-2357	32.3-	0	35	18.6-	38.5	3.0	1.0	1.0	12.2
D65-2553	26.9-	+10	32	17.3-	43.5+	2.0	1.0	1.0	10.0
D65-2567	39.5	+2	35	20.8	38.9	2.0	1.0	1.0	11.0
D65-3057	37.5	0	33	21.1	38.1	2.0	1.0	1.0	6.5
D65-3065	34.3	+9	37	20.7	38.5	1.0	1.0	1.0	10.0
D65-3067	36.9	+4	32	21.7+	37.7	2.0	1.0	1.0	5.5
D65-3097	37.2	+8	35	20.6	39.2	1.0	1.0	1.0	4.5
D65-6555	33.3	+3	33	18.9-	41.9+	1.0	1.0	1.0	10.0
D65-6647	24.6-	+15	36	16.3-	48.0+	5.0	1.0	3.0	35.0
D66-12,392	36.0	+1	33	21.6+	38.1	2.0	1.0	1.0	9.0
D66-12,394	34.9	+4	33	21.1	38.6	2.5	1.0	1.0	9.0
D66-12,397	34.2	+6	32	20.7	38.8	3.0	1.0	1.0	8.5
D66-12,401	34.8	+5	31	20.7	38.4	3.0	1.0	1.0	12.0
D66-12,440	34.8	0	32	21.8+	38.1	3.0	1.0	1.0	2.5
N62-2372	32.9	+13	35	20.2-	41.1+	1.0	1.0	1.0	3.0
N62-2378	33.2	+14	34	20.9	41.4+	1.0	1.0	1.0	1.0
N63-2765	40.3	+16	34	20.7	39.3	1.0	1.0	1.0	1.5
N63-2771	37.9	+15	36	21.3	38.9	1.0	1.0	1.0	0.5
N63-3056	33.4	+7	38	20.8	39.0	1.0	1.0	1.0	8.0
N63-4166	32.6-	+12	41	19.9-	39.6+	1.0	1.0	1.0	8.0
N63-4396	35.4	+11	39	19.4-	40.8+	1.0	1.0	1.0	11.0
R65-113	37.3	-2	34	21.4	39.0	1.0	1.0	1.0	3.7
R65-213	36.5	+2	34	21.3	39.2	1.0	1.0	1.0	5.0
R65-431	33.1	+3	39	22.0+	38.3	3.0	1.0	1.0	11.3
S65-5546	29.3-	0	35	21.1	38.0	4.0	1.0	3.0	6.5
S65-5593	31.8-	+3	37	21.3	37.2-	2.5	1.0	1.0	6.0
L.S.D.(.05)	3.9			0.5	0.9				
L.S.D.(.01)	5.2			0.6	1.2				

Table 24. - Seed yield, in bushels per acre, for the strains in Preliminary Group V, 1967

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.	Stoneville, Miss.(B)
Hill	32.6	37.6	32.8	28.4	37.8	50.6
Dare	33.7	33.9	37.5	31.2	44.8	54.3
D50-204	27.8	29.7-	38.2	22.4	25.9-	42.0
D64-3198	34.8	41.5	36.5	28.7	33.4	50.3
D64-3211	35.5	38.6	32.8	27.0	38.7	48.4
D64-3219	33.9	42.8+	35.5	28.8	33.5	54.8
D64-3242	30.8	43.0+	34.0	30.5	41.4	48.3
D64-3253	36.6	41.5	36.1	28.6	37.7	52.6
D64-3806	21.2-	30.6-	31.0	27.0	35.1	48.7
D64-3852	32.6	32.8-	34.3	30.4	35.4	44.3
D65-2357	29.7	31.5-	29.2	23.9	34.8	44.4
D65-2553	24.4-	20.5-	26.9	20.4	29.8	39.5-
D65-2567	34.4	34.5	39.7	29.8	45.2	53.4
D65-3057	35.0	38.5	33.0	31.1	42.2	45.0
D65-3065	28.4	33.7	36.1	24.4	37.8	45.1
D65-3067	33.4	35.2	35.5	28.3	38.7	50.4
D65-3097	31.0	34.7	34.3	31.7	44.0	47.6
D65-6555	28.0	31.2-	32.5	25.5	35.3	47.5
D65-6647	25.1-	24.3-	27.1	20.1	21.2-	29.6-
D66-12,392	29.8	35.7	38.9	27.9	36.1	47.7
D66-12,394	27.5	37.6	35.5	27.9	32.2	48.6
D66-12,397	27.9	36.0	34.2	30.5	31.7	45.6
D66-12,401	30.8	37.3	30.6	29.7	32.7	47.4
D66-12,440	32.0	40.4	29.2	30.3	29.6	47.2
N62-2372	28.1	32.3-	38.0	22.1	32.3	44.9
N62-2378	26.5-	32.4-	41.7+	28.3	34.9	35.6-
N63-2765	31.8	37.4	44.1+	33.7	44.8	50.1
N63-2771	31.0	37.3	37.9	30.3	40.7	50.4
N63-4056	28.1	36.3	34.4	27.2	34.1	40.2-
N63-4166	35.0	31.5-	33.1	27.8	28.5-	39.5-
N63-4396	35.6	36.3	34.8	27.4	30.4	47.6
R65-113	34.6	38.1	31.5	29.3	38.6	52.1
R65-213	27.2	38.9	35.3	29.2	37.8	52.3
R65-431	26.4-	36.0	31.6	25.3	39.5	39.7-
S65-5546	30.0	36.5	27.8	25.9	23.9-	31.5-
S65-5593	29.2	36.4	30.1	26.3	26.4-	42.4
L.S.D.(.05)	6.1	4.6	7.8	N.S.	8.5	9.4
C.V.	10%	6%	11%	13%	12%	10%

Table 25. - Oil percentages for the strains in Preliminary Group V, 1967

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.	Stoneville, Miss.(B)
Hill	20.3	20.1	19.7	21.5	22.1	22.0
Dare	21.1	21.3	21.1	22.6	23.6	23.1
D50-204	18.3	18.6	17.8	19.4	20.9	21.2
D64-3198	20.6	19.7	19.7	22.0	22.7	22.9
D64-3211	20.9	21.7	20.2	21.7	22.5	23.2
D64-3219	20.3	20.5	20.2	21.7	23.4	22.8
D64-3242	20.3	19.9	20.0	21.1	21.9	22.0
D64-3253	20.3	20.3	20.3	21.7	22.4	22.3
D64-3806	20.1	20.2	19.5	21.2	21.7	22.1
D64-3852	19.7	19.7	19.8	20.4	21.6	21.8
D65-2357	18.3	18.4	17.2	19.2	19.6	19.0
D65-2553	16.8	17.2	16.2	17.6	18.4	17.8
D65-2567	20.1	20.2	19.4	21.4	21.9	21.7
D65-3057	20.3	20.7	19.6	22.0	21.5	22.6
D65-3065	20.1	20.1	19.7	20.9	21.4	21.9
D65-3067	20.9	21.5	20.6	22.0	22.7	22.6
D65-3097	20.4	19.7	19.6	21.0	21.4	21.4
D65-6555	18.9	18.5	17.1	19.6	20.0	19.3
D65-6647	15.5	15.4	15.1	16.4	17.8	17.4
D66-12,392	20.3	21.5	20.7	22.0	22.5	22.3
D66-12,394	20.4	20.4	19.9	21.8	22.8	21.5
D66-12,397	19.8	19.7	20.1	21.4	21.9	21.5
D66-12,401	19.8	19.9	20.0	21.2	21.6	21.5
D66-12,440	20.4	20.3	21.2	23.0	22.6	23.0
N62-2372	19.5	19.3	19.2	20.4	21.3	21.3
N62-2378	19.8	18.9	20.1	21.2	22.5	22.8
N63-2765	20.3	20.0	19.7	21.8	20.6	21.6
N63-2771	20.7	20.6	20.1	21.7	22.4	22.3
N63-4056	19.5	20.5	19.8	21.7	22.1	21.0
N63-4166	19.3	19.7	19.1	19.8	21.0	20.4
N63-4396	18.7	19.1	18.6	20.0	20.6	19.5
R65-113	20.1	19.3	20.6	22.5	22.8	22.8
R65-213	20.2	19.9	20.2	22.0	23.5	22.0
R65-431	21.3	21.2	20.9	21.9	23.6	23.1
S65-5546	19.9	20.6	20.1	21.1	22.2	22.5
S65-5593	20.2	20.5	20.4	21.9	22.8	21.8

Table 26. - Protein percentages for the strains in Preliminary Group V, 1967

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.	Stoneville, Miss.(B)
Hill	39.7	38.0	42.2	36.7	38.1	36.3
Dare	39.7	38.9	41.7	38.6	37.7	37.2
D50-204	42.7	42.0	47.1	42.7	40.8	39.3
D64-3198	41.4	42.0	43.2	39.4	39.0	37.3
D64-3211	41.4	38.7	43.2	40.6	39.4	38.2
D64-3219	41.2	40.5	43.9	40.3	40.3	37.6
D64-3242	41.5	42.1	43.2	40.6	40.0	39.1
D64-3253	42.0	41.1	43.8	40.2	40.0	38.1
D64-3806	39.5	37.0	42.5	39.6	38.4	37.6
D64-3852	38.8	38.5	41.2	38.7	39.0	37.9
D65-2357	39.2	38.4	41.6	37.5	37.1	37.4
D65-2553	43.3	42.0	47.3	43.4	42.3	42.4
D65-2567	38.8	38.4	41.8	38.3	38.5	37.7
D65-3057	39.4	37.6	41.2	37.0	37.6	35.5
D65-3065	39.0	38.5	41.4	38.7	37.4	36.1
D65-3067	38.9	36.1	40.8	37.2	36.7	36.4
D65-3097	39.5	39.1	42.0	38.6	38.1	37.9
D65-6555	42.4	41.4	45.7	42.0	39.6	40.4
D65-6647	48.6	48.8	50.4	48.5	47.7	44.0
D66-12,392	40.4	36.1	40.9	37.6	37.0	36.8
D66-12,394	39.7	38.0	41.0	37.3	37.9	37.9
D66-12,397	39.9	38.5	41.1	37.8	38.6	37.0
D66-12,401	40.1	38.4	39.8	37.2	37.4	37.7
D66-12,440	39.9	38.4	40.5	36.4	37.6	36.0
N62-2372	41.9	41.4	42.5	41.8	39.7	39.5
N62-2378	42.9	42.8	44.1	41.0	39.6	37.7
N63-2765	40.0	39.4	41.6	38.8	38.3	37.7
N63-2771	39.4	38.3	42.8	38.4	37.0	37.4
N63-4056	39.5	37.5	42.1	38.7	37.9	38.4
N63-4166	40.0	38.0	43.3	39.7	38.1	38.4
N63-4396	40.1	40.4	43.7	40.8	40.4	39.5
R65-113	40.2	39.7	42.4	37.5	36.9	37.0
R65-213	40.7	39.7	41.5	38.0	37.6	37.9
R65-431	38.8	38.3	42.0	39.0	36.5	35.1
S65-5546	40.0	37.8	40.4	37.7	36.6	35.3
S65-5593	39.7	35.5	40.0	35.8	36.0	36.2

Table 27. - Plant height for the strains in Preliminary Group V, 1967

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.	Stoneville, Miss.(B)
Hill	40	33	34	33	36	33
Dare	36	34	35	29	37	33
D50-204	41	36	37	34	34	31
D64-3198	36	30	33	33	36	31
D64-3211	35	29	32	33	35	30
D64-3219	32	28	35	30	31	28
D64-3242	42	28	32	34	34	29
D64-3253	34	30	32	32	31	30
D64-3806	42	42	38	35	34	36
D64-3852	39	40	39	39	38	33
D65-2357	36	36	36	32	35	32
D65-2553	42	31	32	26	30	29
D65-2567	41	32	37	33	35	30
D65-3057	42	30	34	33	33	28
D65-3065	46	34	39	35	36	34
D65-3067	40	28	34	31	30	28
D65-3097	38	32	38	35	34	32
D65-6555	36	31	38	32	33	30
D66-6647	40	38	38	32	38	28
D66-12,392	37	32	36	31	33	31
D66-12,394	36	30	35	36	31	31
D66-12,397	37	30	34	32	30	29
D66-12,401	36	28	33	33	33	24
D66-12,440	36	30	32	32	31	29
N62-2372	38	39	39	30	35	30
N62-2378	44	28	35	34	33	29
N63-2765	36	34	38	32	34	29
N63-2771	31	37	37	36	38	34
N63-4056	40	42	40	35	39	33
N63-4166	38	43	46	43	40	34
N63-4396	36	44	39	38	38	37
R65-113	36	30	39	35	32	34
R65-213	36	30	37	35	34	31
R65-431	41	44	41	39	37	34
S65-5546	40	34	37	36	30	32
S65-5593	42	34	40	36	39	33

Table 28. - Seed quality scores for the strains in Preliminary Group V, 1967

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.	Stoneville, Miss.(B)
Hill	2.0	1.7	1.5	2.0	2.0	2.0
Dare	2.0	1.6	1.0	1.5	2.5	1.5
D50-204	2.0	3.1	1.5	3.5	4.5	2.5
D64-3198	2.0	1.9	1.5	2.0	2.5	2.0
D64-3211	2.0	1.6	1.5	2.5	3.0	2.0
D64-3219	2.0	1.7	1.5	2.0	2.0	2.0
D64-3242	2.0	1.5	1.5	2.3	2.0	2.0
D64-3253	2.0	1.6	1.0	1.8	2.0	1.5
D64-3806	2.0	1.9	1.0	1.8	3.0	2.0
D64-3852	2.0	2.8	1.5	2.0	3.5	2.0
D65-2357	2.0	2.2	1.5	3.3	3.5	1.5
D65-2553	2.0	2.5	3.0	3.3	2.5	2.0
D65-2567	2.0	1.7	1.5	2.0	2.5	1.5
D65-3057	2.0	1.4	1.5	1.8	2.5	2.0
D65-3065	2.0	1.7	1.5	1.8	2.0	2.0
D65-3067	2.0	1.5	1.0	1.8	1.5	2.0
D65-3097	2.0	1.3	1.5	2.0	2.5	2.0
D65-6555	2.0	1.7	1.5	2.5	2.5	1.0
D66-6647	3.0	3.0	2.0	3.5	3.5	2.0
D66-12,392	2.0	1.6	1.0	2.0	2.0	2.0
D66-12,394	2.0	1.9	1.0	2.3	3.0	2.0
D66-12,397	2.0	2.0	1.5	2.5	3.0	2.0
D66-12,401	2.0	2.0	1.5	2.5	3.0	2.0
D66-12,440	2.0	1.7	1.0	2.3	2.5	2.0
N62-2372	2.0	2.3	1.5	2.3	2.5	2.0
N62-2378	2.0	1.5	1.0	2.3	2.5	2.0
N63-2765	2.0	1.5	2.0	1.5	2.5	2.0
N63-2771	2.0	1.4	1.5	1.5	2.5	2.0
N63-4056	2.0	2.0	2.0	2.5	3.0	2.0
N63-4166	2.0	1.8	1.5	2.3	3.0	2.0
N63-4396	2.0	1.6	1.5	2.3	3.0	2.0
R65-113	2.0	1.7	1.5	1.5	2.0	1.5
R65-213	2.0	1.8	1.5	2.3	2.0	2.0
R65-431	2.0	2.0	1.5	3.0	2.5	2.0
S65-5546	2.0	1.8	2.0	2.0	2.5	2.0
S65-5593	2.0	1.8	1.5	2.0	3.0	2.0

UNIFORM GROUP VI

1967

	Variety or strain	Parentage	Generation composited
1.	Hood	Roanoke x N45-745	F_6
2.	Lee	S-100 x CNS	F_6
3.	Pickett	[D49-2491(6) x Dorman] x [Lee(4) x Peking]	F_5
4.	Davis	D49-2573 x N45-1497	F_6
5.	Lee 68(R64-501)	Lee(6) x Arksoy	F_3
6.	D62-7816	D49-2491(5) x PI 181,537	F_5
7.	D64-3396	D49-2491(5) x Hawkeye	F_4
8.	D64-3937	Hill x D59-1619	F_5
9.	D64-4485	Hill x D58-3311	F_5
10.	D64-4573	Hill x D58-3311	F_5
11.	D64-4636	Hill x D58-3311	F_5
12.	R64-502	Lee(6) x Arksoy	F_3

Background of strains used as parents:

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

D49-2573 is a selection from Roanoke x N45-745 similar in maturity to Hood, but taller.

N45-1497 is a high oil line selected from Ralsoy x Ogden.

D59-1619 is a selection from D51-5427 x D49-2491, selected for resistance to phytophthora rot. D51-5427 is a subline of N45-1497.

D58-3311 is a bacterial-pustule-resistant strain selected from Jackson(4) x D49-2491.

Thirty-four Uniform Group VI nurseries were planted. Results of 33 nurseries are summarized in table 29 through 35. Table 29 gives a general summary of agronomic qualities, chemical composition of the seed, and field reaction to several diseases. Two- and three-year data are reported for seed yield and oil and protein percentages.

Seed yield differences among strains were significant at the 5% level of confidence at 20 of the 33 locations. The combined analysis of variance for mean seed yields by production regions showed difference among strains to be significant at the 5% level in all regions except the Southeast. Hood ranked above Lee in seed yield in the East, Upper and Central, and West. The 3-year means for Pickett showed yields to be lower than for Lee in the East and Delta but quite similar in other regions.

The strain R64-501 has been designated Lee 68 and is being increased in Arkansas, Mississippi, and Missouri. This strain has the high degree of resistance to phytophthora rot. The 2-year mean yields are very similar to Lee in each production region.

D64-3396, a selection from D49-2491(5) x Hawkeye, yielded very well in the Upper & Central region but no better than Lee in other areas. D64-3937, a phytophthora-rot-resistant strain yielded slightly less than Lee 68 in the Southeast but slightly higher in other regions. D64-4485, one day earlier than Hood, yielded significantly less than Hood in three of the five production regions. D64-4573 yielded well but was significantly lower in both oil and protein than Hood. D64-4636 and R64-502 are of Hood maturity and yielded very well in all regions except the Upper and Central. D64-4636 has a high degree of resistance to root-knot nematodes. R64-502 is highly resistant to phytophthora rot.

As in previous years, Hood was free of seed coat mottling where other strains showed the problem. At Halfway, Texas, percent of seed mottled ranged from 0 for Hood to 56% for D64-3396.

Table 29. - General summary of the performance for the strains in Uniform Group VI, 1967

	Hood	Lee	Pickett	Davis	Lee 68	D62-7816
Seed Yield - 1967						
East Coast	38.3	35.7-	32.1-	35.5-	36.8	35.9
Southeast	38.4	40.8	41.9	43.2	39.0	41.8
Upper & Central South	49.3	44.4-	44.5-	46.1-	45.6-	45.6-
Delta	38.4	40.0	36.3	39.8	38.6	38.2
West	43.4	39.0-	38.5-	42.2	38.7-	41.6
- 1966-67						
East Coast	38.0	35.8	31.7	36.9	36.2	35.6
Southeast	39.9	40.5	39.5	43.7	38.7	39.9
Upper & Central South	43.3	40.0	40.9	43.4	40.5	41.3
Delta	40.1	39.3	34.5	40.0	40.2	38.4
West	42.8	39.7	39.1	42.0	38.8	42.0
- 1965-67						
East Coast	38.0	36.1	31.0	35.3		
Southeast	38.6	37.1	37.3	41.1		
Upper & Central South	41.6	38.6	38.8	39.7		
Delta	38.0	38.2	34.6	39.1		
West	42.1	40.9	39.1	40.5		
Oil Content - 1967	21.5	21.3	21.7	21.8	21.1-	21.3
- 1966-67	21.3	20.9	21.2	21.6	20.8	20.9
- 1965-67	21.5	20.9	21.2	21.5		
Protein Content - 1967	39.7	40.7+	40.2	39.2	41.0+	40.4
- 1966-67	39.7	40.9	40.5	39.1	41.1	40.5
- 1965-67	39.9	41.1	40.6	39.5		
Seed size	15.9	13.4-	13.2-	14.9-	13.8-	12.7-
Maturity index	10-16	+5	+7	+7	+6	+4
Height	34	34	33	40	34	33
Bacterial pustule	1.0	1.0	1.0	1.0	1.0	1.0
Phytophthora rot	2.0	1.0	2.5	1.0	1.0	1.5
Seed coat mottling (%)[1/]	0.0	10.0	6.0	7.0	7.5	8.0
Seed coat mottling (%)[2/]	0.0	40.0	15.5	6.0	43.0	37.0
Shattering	2.3	1.0	1.0	2.0	1.0	1.5
Flower color	P	P	P	W	P	P
Pubescence color	G	T	G	G	T	T
Pod wall color	T	T	T	T	T	T

1/ Warsaw, Plymouth, Clayton data. 2/ Halfway data.

Table 29. - (continued)

	D64-3396	D64-3937	D64-4485	D64-4573	D64-4636	R64-502
Seed Yield - 1967						
East Coast	37.2	36.9	34.4-	35.9	37.5	37.9
Southeast	39.2	35.5	39.4	44.2	38.9	37.8
Upper & Central South	48.1	47.0	43.5-	49.2	46.3-	45.7-
Delta	40.7	41.6+	39.3	42.1+	43.0+	42.2+
West	39.2-	39.4-	37.4-	41.6	41.4	41.2
- 1966-67						
East Coast						
Southeast						
Upper & Central South						
Delta						
West						
- 1965-67						
East Coast						
Southeast						
Upper & Central South						
Delta						
West						
Oil Content - 1967	21.1-	20.9-	21.2	20.8-	21.0-	21.3
- 1966-67						
- 1965-67						
Protein Content - 1967	40.6+	40.2	39.4	37.3-	39.6	41.4+
- 1966-67						
- 1965-67						
Seed size	13.8-	13.3-	13.9-	13.1-	13.7-	14.1-
Maturity index	+6	+5	-1	+5	0	-1
Height	35	33	34	34	33	34
Bacterial pustule	1.0	1.0	1.0	1.0	1.0	1.0
Phytophthora rot	1.0	1.0	1.0	1.0	1.0	1.0
Seed coat mottling (%)[1/]	11.0	1.0	0.4	0.6	1.0	7.3
Seed coat mottling (%)[2/]	56.0	5.0	3.5	16.0	26.5	30.0
Shattering	1.2	1.0	1.2	2.0	1.3	1.2
Flower color	P	W	W	W	W	P
Pubescence color	T	G	G	G	G	T
Pod wall color	T	T	T	T	T	T

Table 30. - Seed yield in bushels per acre, for the strains in Uniform Group VI, 1967

Location	Hood	Lee	Pickett	Davis	Lee 68	D62-7816	D64-3396
			East Coast				
Queenstown, Md.	43.4	37.3-	25.5-	29.5-	37.5-	38.9	38.5
Linkwood, Md.	28.9	31.3	31.4	30.9	33.6	31.4	32.9
Painter, Va.	27.6	28.5	26.9	31.6	28.9	31.2	31.6
Warsaw, Va.	34.2	34.3	29.3-	29.3-	36.4	34.8	35.8
Petersburg, Va.	24.7	23.7	27.0	28.9+	24.2	25.4	27.6
Norfolk, Va.	39.8	34.8	28.3-	32.6-	33.5-	33.9-	32.0-
Holland, Va.	34.9	29.7	24.4	26.7	32.4	28.2	32.0
Plymouth, N. C.	36.9	37.1	33.5	40.9	39.0	37.5	36.0
Willard, N. C.	48.9	35.9-	36.6-	40.0-	39.0-	40.2-	45.0
Clayton, N. C.	54.7	50.3	44.8-	46.8-	50.4	46.3-	46.6-
Florence, S. C.	47.9	49.8	45.6	53.2	50.0	47.5	51.4
Mean	38.3	35.7-	32.1-	35.5-	36.8	35.9	37.2
			Southeast				
Quincy, Fla.	28.4	32.7	32.3	34.2+	33.9+	30.4	31.3
Jay, Fla.	38.3	35.8	36.8	44.1	37.8	35.8	35.0
Fairhope, Ala.	44.6	45.9	47.4	46.4	42.5	46.2	43.8
Baton Rouge, La.	42.4	48.9	51.2	48.0	41.8	54.9	46.5
Mean	38.4	40.8	41.9	43.2	39.0	41.8	39.2
			Upper and Central South				
Belle Mina, Ala.	42.6	41.3	44.8	42.2	41.7	40.8	43.7
Clemson, S. C.	59.4	53.3	54.6	60.0	57.3	56.5	59.4
Experiment, Ga.	54.4	51.1	52.0	53.5	53.1	48.7-	53.4
State College, Miss.	39.4	35.9	33.3-	36.7	34.5	39.1	34.9
Jackson, Tenn.	50.7	40.4-	37.9-	38.3-	41.2-	43.1	49.1
Mean	49.3	44.4-	44.5-	46.1	45.6-	45.6-	48.1
			Delta				
Portageville, Mo.(A)	25.3	24.6	30.8	23.6	26.7	24.3	24.4
Portageville, Mo.(B)	25.8	29.3	29.0	32.1+	32.3+	29.7+	32.5+
Keiser, Ark.	37.1	42.7	39.5	42.7	42.1	35.6	40.8
Marianna, Ark.	37.7	34.2	29.4-	37.6	30.8-	35.6	38.2
Stoneville, Miss.(A)	52.3	53.0	43.2-	45.7-	46.0-	50.8	50.2
Stoneville, Miss.(B)	40.9	45.1	37.7	45.3	46.1+	43.0	45.5
St. Joseph, La.	49.7	50.8	44.5	51.6	46.5	48.1	52.9
Mean	38.4	40.0	36.3	39.8	38.6	38.2	40.7
			West				
Stuttgart, Ark.	50.2	45.9	48.6	47.8	46.7	48.0	48.0
Curtis, La.	39.4	39.8	34.7	45.2	31.7	43.7	32.2
Crowley, La.	25.7	25.1	23.9	27.6	26.6	24.8	26.4
Bixby, Okla.	49.6	48.0	42.8-	49.3	46.6	46.3	47.9
Beaumont, Texas	48.6	45.2	44.5	49.1	45.8	49.7	45.3
Halfway, Texas	47.5	29.8	36.6	34.5	35.0	37.3	35.2
Mean	43.4	39.0-	38.5-	42.2	38.7-	41.6	39.2-

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

Table 30. - (continued)

Location	D64-3937	D64-4485	D64-4573	D64-4636	R64-502	L.S.D. (.05)	C.V.
			East Coast				
Queenstown, Md.	39.1	37.9	35.9-	37.8	41.4	5.5	9%
Linkwood, Md.	31.1	28.5	32.3	35.5+	32.0	5.3	10%
Painter, Va.	35.3+	26.9	29.1	33.1+	33.8+	5.2	10%
Warsaw, Va.	34.7	32.1	33.8	37.5+	38.1+	2.8	5%
Petersburg, Va.	28.3+	22.6	22.1	25.8	26.2	3.5	8%
Norfolk, Va.	32.4-	34.4-	35.4	37.2	35.7	5.1	9%
Holland, Va.	30.2	32.9	31.6	31.5	35.5	N.S.	15%
Plymouth, N. C.	37.2	33.0	39.0	41.7	41.1	N.S.	10%
Willard, N. C.	45.3	40.5-	44.2	43.5-	37.9-	5.0	7%
Clayton, N. C.	43.8-	45.9-	43.9-	52.4	48.9	6.6	8%
Florence, S. C	48.2	44.0	47.0	36.2-	46.3	6.5	8%
Mean	36.9	34.4-	35.9	37.5	37.9	2.5	
			Southeast				
Quincy, Fla.	21.8-	27.8	34.2+	23.9	27.3	5.3	10%
Jay, Fla.	36.1	38.0	42.8	38.6	36.3	N.S.	9%
Fairhope, Ala.	45.4	43.5	47.3	45.8	45.4	N.S.	9%
Baton Rouge, La.	38.5	48.2	52.6	47.2	42.0	N.S.	15%
Mean	35.5	39.4	44.2	38.9	37.8	N.S.	
			Upper and Central South				
Belle Mina, Ala.	41.4	41.2	44.8	45.3	41.8	N.S.	6%
Clemson, S. C.	55.3	51.9	61.9	55.6	57.1	N.S.	6%
Experiment, Ga.	55.2	49.6-	56.2	54.4	49.2-	3.7	4%
State College, Miss.	38.4	39.5	37.9	30.7-	33.6-	5.0	8%
Jackson, Tenn.	44.8	35.5-	45.4	45.3	46.8	9.0	12%
Mean	47.0	43.5-	49.2	46.3	45.7-	3.5	
			Delta				
Portageville, Mo.(A)	26.9	26.8	26.4	27.2	28.3	N.S.	9%
Portageville, Mo.(B)	33.8+	31.2+	31.2+	36.0+	37.1+	3.7	7%
Keiser, Ark.	46.9+	40.1	45.8+	50.1+	40.9	6.0	8%
Marianna, Ark.	35.2	38.4	38.4	40.8	42.8	5.4	9%
Stoneville, Miss.(A)	53.2	48.0	51.2	52.0	54.3	4.7	6%
Stoneville, Miss.(B)	45.4	45.5	48.9+	47.2+	46.3+	4.9	7%
St. Joseph, La.	50.2	45.1	53.0	47.5	45.8	N.S.	9%
Mean	41.6+	39.3	42.1+	43.0+	42.2+	3.0	
			West				
Stuttgart, Ark.	49.1	44.2	47.3	52.1	49.8	N.S.	5%
Curtis, La.	37.5	34.7	37.4	45.0	36.1	8.9	14%
Crowley, La.	22.9	24.0	24.7	22.4	26.1	N.S.	16%
Bixby, Okla.	50.0	40.2	51.1	47.0	46.0	5.5	7%
Beaumont, Texas	42.3	45.1	50.0	43.6	48.9	N.S.	8%
Halfway, Texas	34.3	36.4	38.8	38.2	40.1	N.S.	14%
Mean	39.4-	37.4-	41.6	41.4	41.2	3.4	

Table 31. - Chemical composition and seed size for the strains in Uniform Group VI, 1967

Location	Hood	Lee	Pickett	Davis	Lee 68	D62-7816	D64-3396
			Oil Percentage				
Warsaw, Va.	20.8	20.9	21.6	21.0	20.0	21.0	20.3
Plymouth, N. C.	19.7	19.7	20.2	20.8	19.6	20.1	19.8
Clayton, N. C.	21.3	20.7	20.8	21.3	20.7	20.3	20.7
Jay, Fla.	23.8	22.1	23.5	23.6	23.2	22.7	22.8
Portageville, Mo.(A)	21.8	22.6	22.0	22.1	21.5	22.1	21.5
Keiser, Ark.	22.8	22.1	22.8	22.0	21.4	22.0	21.4
Stoneville, Miss.(A)	21.2	22.3	22.1	22.1	22.2	22.5	22.3
Stoneville, Miss.(B)	21.8	22.0	22.0	22.0	21.6	21.9	22.0
Stuttgart, Ark.	21.7	20.7	21.0	21.6	20.6	20.3	21.0
Halfway, Texas	20.3	19.4	20.5	21.6	19.9	19.7	19.4
Mean	21.5	21.3	21.7	21.8	21.1-	21.3	21.1-
			Protein Percentage				
Warsaw, Va.	39.6	40.5	38.9	38.4	40.4	39.0	40.8
Plymouth, N. C.	42.7	44.4	43.7	41.9	44.4	43.5	43.1
Clayton, N. C.	40.2	42.7	41.7	39.8	42.1	43.4	42.3
Jay, Fla.	38.3	40.8	40.5	39.5	41.0	40.3	41.0
Portageville, Mo.(A)	38.3	36.8	37.7	38.0	39.7	37.5	37.6
Keiser, Ark.	38.0	38.3	37.5	38.2	39.3	37.9	38.4
Stoneville, Miss.(A)	39.4	39.9	39.6	38.6	39.1	38.9	38.9
Stoneville, Miss.(B)	39.1	40.2	40.2	38.2	40.5	39.4	38.7
Stuttgart, Ark.	41.4	43.7	42.5	41.9	43.0	43.6	42.5
Halfway, Texas	39.6	40.1	39.6	37.5	40.8	40.8	42.8
Mean	39.7	40.7+	40.2	39.2	41.0+	40.4	40.6+
			Grams per 100 Seeds				
Warsaw, Va.	15.8	12.7	13.9	13.9	14.1	12.3	14.5
Plymouth, N. C.	14.6	13.0	13.4	15.2	13.2	12.0	13.8
Clayton, N. C.	17.1	13.6	14.8	16.5	14.3	14.1	14.8
Jay, Fla.	15.9	14.4	13.4	16.7	14.4	12.7	14.4
Portageville, Mo.(A)	13.4	11.3	11.8	12.9	11.9	10.4	11.3
Keiser, Ark.	16.0	13.0	12.0	14.0	13.7	12.0	13.7
Stoneville, Miss.(A)	16.2	14.4	13.2	15.5	14.0	13.0	14.0
Stoneville, Miss.(B)	15.5	13.4	12.0	13.8	13.2	13.0	13.6
Stuttgart, Ark.	16.0	13.0	13.7	15.0	13.0	13.0	13.7
Halfway, Texas	18.0	15.0	14.0	15.0	16.0	14.0	14.0
Mean	15.9	13.4-	13.2-	14.9-	13.8-	12.7-	13.8-

Table 31. - (continued)

Location	D64-3937	D64-4485	D64-4573	D64-4636	D64-502	L.S.D. (.05)
			Oil Percentage			
Warsaw, Va.	20.9	20.0	20.4	20.1	20.3	
Plymouth, N. C.	19.7	19.2	19.7	19.7	19.7	
Clayton, N. C.	20.8	20.8	21.1	20.5	21.4	
Jay, Fla.	22.1	23.3	22.1	22.1	22.2	
Portageville, Mo.(A)	21.3	20.6	20.9	21.1	21.6	
Keiser, Ark.	21.1	22.0	21.1	21.0	21.4	
Stoneville, Miss.(A)	21.9	22.2	21.0	21.9	22.4	
Stoneville, Miss.(B)	21.3	22.5	21.6	22.1	22.3	
Stuttgart, Ark.	20.8	21.0	20.6	21.0	20.9	
Halfway, Texas	19.4	19.9	19.6	20.5	20.6	
Mean	20.9-	21.2	20.8-	21.0-	21.3	0.4
			Protein Percentage			
Warsaw, Va.	38.8	40.4	36.1	38.9	41.8	
Plymouth, N. C.	43.2	41.8	40.2	41.9	45.3	
Clayton, N. C.	41.2	39.2	36.9	39.8	41.5	
Jay, Fla.	40.9	39.7	38.7	41.2	40.8	
Portageville, Mo.(A)	39.0	38.7	34.1	37.5	39.7	
Keiser, Ark.	38.4	37.6	35.1	39.2	41.3	
Stoneville, Miss.(A)	38.8	37.6	36.5	38.2	38.9	
Stoneville, Miss.(B)	39.1	37.4	36.3	39.0	39.6	
Stuttgart, Ark.	42.2	41.4	40.1	42.2	44.7	
Halfway, Texas	40.6	40.0	38.9	38.3	40.2	
Mean	40.2	39.4	37.3-	39.6	41.4+	0.8
			Grams per 100 Seeds			
Warsaw, Va.	13.9	12.9	12.1	12.7	13.3	
Plymouth, N. C.	13.2	12.8	12.4	13.4	13.4	
Clayton, N. C.	13.8	15.5	14.4	13.8	15.0	
Jay, Fla.	12.7	13.3	13.9	14.0	14.5	
Portageville, Mo.(A)	10.5	11.6	11.1	10.8	11.6	
Keiser, Ark.	13.0	13.0	13.0	14.3	13.0	
Stoneville, Miss.(A)	14.1	13.8	13.5	14.1	15.3	
Stoneville, Miss.(B)	13.0	14.0	13.2	14.5	14.0	
Stuttgart, Ark.	13.7	14.7	13.3	15.0	14.7	
Halfway, Texas	15.0	17.0	14.0	14.0	16.0	
Mean	13.3-	13.9-	13.1-	13.7-	14.1-	0.6

Table 32. - Relative maturity data, days earlier (-) or later (+) than Hood, for the strains in Uniform Group VI, 1967

Location	Date planted	Hood matured	Lee	Pickett	Davis	Lee 68	D62-7816
			East Coast				
Queenstown, Md.	5-29	10-30	+1	+8	+9	+2	+1
Linkwood, Md.	6-6	10-27	0	+12	+13	+1	+4
Painter, Va.	5-20	10-20	+6	+8	+12	+6	+5
Warsaw, Va.	5-24	10-14	+1	+5	+5	+1	+2
Petersburg, Va.	5-24	10-26	+3	+10	+10	+3	+5
Plymouth, N. C.	5-17	10-8	+14	+16	+16	+12	+12
Willard, N. C.	5-15	10-8	+5	+8	+14	+7	+7
Clayton, N. C.	5-11	10-14	+6	+8	+8	+4	+6
Florence, S. C.	5-15	10-6	+11	+15	+13	+10	+2
Mean		10-18	+5	+9	+11	+5	+5
			Southeast				
Quincy, Fla.	5-25	9-30	+5	+5	+5	+5	+4
Jay, Fla.	5-28	9-28	+9	+9	+10	+8	+7
Fairhope, Ala.	6-6	10-1	+5	+5	+3	+5	+3
Baton Rouge, La.	5-17	10-4	+14	+14	+11	+14	+10
Mean		10-1	+8	+8	+7	+8	+6
			Upper and Central South				
Belle Mina, Ala.	5-30	10-23	-4	+11	+8	0	-2
Clemson, S. C.	6-12	10-26	0	+6	+8	+2	+2
Experiment, Ga.	5-29	10-13	+2	+4	+6	+2	0
Jackson, Tenn.	5-23	10-9	+15	+15	+11	+19	+15
Mean		10-18	+3	+9	+8	+6	+4
			Delta				
Portageville, Mo.(A)	6-7	10-25	0	+4	+5	0	0
Portageville, Mo.(B)	6-5	10-26	+1	+2	+3	+1	0
Keiser, Ark.	5-25	10-31	+1	+1	+5	+6	-4
Marianna, Ark.	5-24	10-16	+3	+2	+4	+2	+2
Stoneville, Miss.(A)	5-26	10-22	+3	+4	+4	+3	0
Stoneville, Miss.(B)	5-12	10-12	+6	+6	+6	+6	+5
St. Joseph, La.	5-19	10-6	+13	+12	+14	+12	+10
Mean		10-20	+4	+4	+6	+4	+2
			West				
Stuttgart, Ark.	6-5	10-18	+8	+5	+10	+9	+7
Curtis, La.	5-19	10-18	+2	+1	+4	+6	+3
Crowley, La.	5-18	10-26	0	0	-14	0	0
Bixby, Okla.	5-17	10-20	+7	+4	+6	+7	+7
Beaumont, Texas	5-18	10-2	+15	+15	+3	+16	+14
Mean		10-17	+6	+5	+1	+8	+6

Table 32. - (continued)

Location	D64-3396	D64-3937	D64-4485	D64-4573	D64-4636	R64-502
			East Coast			
Queenstown, Md.	+2	+2	-2	+2	+1	+1
Linkwood, Md.	+4	+3	+3	+6	+3	-3
Painter, Va.	+3	+4	+1	+3	+4	-1
Warsaw, Va.	+2	0	0	+3	-2	-2
Petersburg, Va.	+6	+6	0	+5	0	-5
Plymouth, N. C.	+14	+10	+2	+12	+2	+10
Willard, N. C.	+7	+5	+3	+7	+5	-6
Clayton, N. C.	+6	0	-6	+2	-2	-2
Florence, S. C.	+13	+3	+2	+9	-2	-2
Mean	+6	+4	0	+5	+1	-1
			Southeast			
Quincy, Fla.	+7	+6	+1	+5	+1	+5
Jay, Fla.	+9	+3	0	+9	0	+9
Fairhope, Ala.	+9	+5	+3	+3	+3	+5
Baton Rouge, La.	+16	+15	0	+15	0	0
Mean	+10	+7	+1	+8	+1	+5
			Upper and Central South			
Belle Mina, Ala.	-5	+11	-8	+3	+3	-11
Clemson, S. C.	+3	+2	+1	+6	+5	-1
Experiment, Ga.	+3	+3	0	+2	+1	0
Jackson, Tenn.	+11	+18	+11	+17	+11	0
Mean	+3	+9	+1	+7	+5	-3
			Delta			
Portageville, Mo.(A)	0	0	-8	0	0	-7
Portageville, Mo.(B)	+2	+2	-8	-1	+2	-5
Keiser, Ark.	+1	+5	-4	+3	+7	-4
Marianna, Ark.	+2	+2	-6	+2	-3	-7
Stoneville, Miss.(A)	+4	+3	-3	+2	-2	-1
Stoneville, Miss.(B)	+6	+6	-1	+3	0	-1
St. Joseph, La.	+12	+16	0	+10	-1	-1
Mean	+4	+5	-4	+3	0	-4
			West			
Stuttgart, Ark.	+9	+2	-2	+3	+5	+1
Curtis, La.	0	+1	0	0	+4	+5
Crowley, La.	0	0	-14	0	-14	-14
Bixby, Okla.	+6	+6	-1	+6	-4	-4
Beaumont, Texas	+15	+7	0	+7	0	0
Mean	+6	+3	-3	+3	-2	-2

Table 33. - Plant Height for the strains in Uniform Group VI, 1967

Location	Hood	Lee	Pickett	Davis	Lee 68	D62-7816
			East Coast			
Queenstown, Md.	42	46	44	50	48	43
Linkwood, Md.	36	40	37	45	38	36
Painter, Va.	44	45	43	54	46	42
Warsaw, Va.	34	36	33	42	35	34
Petersburg, Va.	32	32	35	42	33	32
Norfolk, Va.	38	37	36	39	36	35
Holland, Va.	43	42	39	45	41	40
Plymouth, N. C.	36	35	33	41	36	37
Willard, N. C.	36	33	35	43	34	33
Clayton, N. C.	36	37	34	39	36	34
Florence, S. C.	41	37	39	36	38	37
Mean	38	38	37	44	38	37
			Southeast			
Quincy, Fla.	21	20	16	32	23	19
Jay, Fla.	31	26	26	36	26	22
Fairhope, Ala.	25	23	25	31	23	24
Baton Rouge, La.	33	32	33	37	34	29
Mean	28	25	25	34	27	24
			Upper and Central South			
Belle Mina, Ala.	34	38	35	37	35	37
Clemson, S. C.	31	31	31	36	29	33
Experiment, Ga.	36	36	36	43	38	36
Jackson, Tenn.	43	44	45	47	41	47
Mean	36	37	37	41	36	38
			Delta			
Portageville, Mo.(A)	37	43	41	43	42	38
Portageville, Mo.(B)	28	31	26	30	34	29
Keiser, Ark.	37	37	37	40	36	37
Marianna, Ark.	38	39	39	46	39	38
Stoneville, Miss.(A)	35	35	33	41	37	34
Stoneville, Miss.(B)	34	35	33	40	36	34
St. Joseph, La.	37	37	34	45	39	34
Mean	35	37	35	41	38	35
			West			
Stuttgart, Ark.	31	32	27	37	32	31
Curtis, La.	28	28	27	30	23	23
Crowley, La.	21	20	19	26	21	17
Bixby, Okla.	35	33	34	40	31	35
Beaumont, Texas	24	25	27	36	25	23
Halfway, Texas	34	32	35	38	30	33
Mean	29	28	28	35	27	27

Table 33. - (continued)

Location	D64-3396	D64-3937	D64-4485	D64-4573	D64-4636	R64-502
		East Coast				
Queenstown, Md.	50	40	40	42	40	42
Linkwood, Md.	39	37	40	40	37	39
Painter, Va.	45	42	39	44	40	45
Warsaw, Va.	36	34	35	35	34	33
Petersburg, Va.	35	30	32	32	33	32
Norfolk, Va.	34	36	38	37	36	35
Holland, Va.	42	39	43	40	40	40
Plymouth, N. C.	38	37	39	36	37	37
Willard, N. C.	36	35	37	35	31	32
Clayton, N. C.	37	34	34	32	32	37
Florence, S. C.	39	36	41	36	34	40
Mean	39	36	38	37	36	37
		Southeast				
Quincy, Fla.	24	17	19	19	20	25
Jay, Fla.	27	24	28	26	28	32
Fairhope, Ala.	29	28	23	24	24	29
Baton Rouge, La.	38	35	31	31	29	31
Mean	30	26	25	25	25	29
		Upper and Central South				
Belle Mina, Ala.	39	34	39	35	36	34
Clemson, S. C.	33	33	36	32	32	30
Experiment, Ga.	37	36	36	36	35	37
Jackson, Tenn.	44	44	48	45	50	43
Mean	38	37	40	37	38	36
		Delta				
Portageville, Mo.(A)	41	38	38	42	40	38
Portageville, Mo.(B)	34	31	27	32	33	34
Keiser, Ark.	36	36	36	36	37	34
Marianna, Ark.	42	37	37	38	36	38
Stoneville, Miss.(A)	35	35	35	35	33	35
Stoneville, Miss.(B)	36	33	35	36	34	34
St. Joseph, La.	37	35	36	37	36	39
Mean	37	35	35	37	36	36
		West				
Stuttgart, Ark.	32	29	28	30	30	30
Curtis, La.	23	22	28	27	25	27
Crowley, La.	22	21	19	21	21	18
Bixby, Okla.	33	37	36	35	32	32
Beaumont, Texas	27	24	29	25	22	32
Halfway, Texas	34	32	34	27	33	34
Mean	29	28	29	28	27	29

Table 34. - Lodging scores for the strains in Uniform Group VI, 1967

Location	Hood	Lee	Pickett	Davis	Lee 68	D62-7816
			East Coast			
Queenstown, Md.	3.3	3.6	3.8	4.0	3.7	3.4
Linkwood, Md.	1.3	2.8	2.2	2.2	3.2	1.8
Painter, Va.	3.2	3.8	3.8	4.5	4.7	3.7
Warsaw, Va.	2.2	2.3	1.8	3.5	2.5	2.0
Petersburg, Va.	1.0	1.0	1.0	2.0	2.0	1.0
Norfolk, Va.	2.3	4.5	3.5	3.7	4.5	2.5
Holland, Va.	3.7	4.3	4.7	4.3	5.0	4.7
Plymouth, N. C.	3.0	4.7	4.3	3.7	4.7	3.0
Willard, N. C.	2.3	3.0	3.0	3.0	4.0	2.7
Clayton, N. C.	3.0	3.7	3.7	3.3	3.7	3.3
Florence, S. C.	1.0	2.0	3.0	2.0	2.0	1.0
			Southeast			
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Jay, 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	3.0	2.0	3.0	3.0	1.0
			Upper and Central South			
Belle Mina, Ala.	1.3	2.0	2.0	3.0	2.3	2.0
Clemson, S. C.	3.7	4.0	3.8	4.7	4.7	3.5
Experiment, Ga.	1.0	2.3	1.3	2.0	1.3	1.3
Jackson, Tenn.	2.0	4.0	2.0	3.0	4.0	2.0
			Delta			
Portageville, Mo.(A)	1.8	2.3	3.5	2.0	2.7	2.0
Portageville, Mo.(B)	1.7	2.7	2.0	2.0	2.7	2.2
Keiser, Ark.	1.0	2.3	1.8	1.8	2.5	1.8
Marianna, Ark.	2.7	3.0	3.0	3.7	3.0	3.0
Stoneville, Miss.(A)	3.0	3.0	3.0	4.0	3.7	3.0
Stoneville, Miss.(B)	2.7	3.0	3.0	4.0	3.3	3.0
St. Joseph, La.	2.0	2.0	2.0	3.0	2.0	2.0
			West			
Stuttgart, Ark.	1.3	2.0	1.0	2.0	2.0	1.0
Curtis, La.	1.0	2.0	1.0	1.0	2.0	1.0
Crowley, La.	1.0	1.0	1.0	1.0	1.0	1.0
Bixby, Okla.	3.0	3.0	3.0	3.0	3.0	3.0
Beaumont, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Halfway, Texas	2.0	2.0	2.0	2.0	2.0	2.0

Table 34. - (continued)

Location	D64-3396	D64-3937	D64-4485	D64-4573	D64-4636	R64-502
			East Coast			
Queenstown, Md.	3.7	3.5	3.1	3.4	3.5	3.5
Linkwood, Md.	3.1	1.5	1.2	1.5	1.8	2.8
Painter, Va.	3.5	2.8	2.2	4.0	3.7	2.8
Warsaw, Va.	2.0	1.3	1.0	1.2	1.7	2.0
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Norfolk, Va.	4.0	1.7	2.3	3.2	2.5	4.7
Holland, Va.	4.0	3.7	3.7	4.0	4.6	4.3
Plymouth, N. C.	5.0	3.7	2.0	3.0	3.0	5.0
Willard, N. C.	3.3	3.0	2.3	3.0	3.0	3.7
Clayton, N. C.	3.0	2.3	2.0	2.7	2.3	3.0
Florence, S. C.	2.0	1.0	1.0	1.0	1.0	2.0
			Southeast			
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Jay, 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	1.0	1.0	2.0	2.0	3.0
			Upper and Central South			
Belle Mina, Ala.	2.0	1.0	1.0	1.7	2.0	2.7
Clemson, S. C.	3.5	3.0	2.8	3.5	4.0	4.3
Experiment, Ga.	1.7	1.0	1.0	1.0	1.0	2.0
Jackson, Tenn.	3.0	1.0	2.0	3.0	3.0	3.0
			Delta			
Portageville, Mo.(A)	2.3	1.8	1.5	1.5	1.7	2.2
Portageville, Mo.(B)	2.7	1.5	1.2	1.8	1.7	2.3
Keiser, Ark.	2.5	1.0	1.0	1.3	1.0	1.3
Marianna, Ark.	3.0	2.3	2.0	3.0	3.0	2.7
Stoneville, Miss.(A)	3.0	2.0	2.0	3.3	3.0	3.0
Stoneville, Miss.(B)	3.0	2.3	2.0	3.0	2.7	3.3
St. Joseph, La.	2.0	1.0	1.0	1.0	2.0	2.0
			West			
Stuttgart, Ark.	1.7	1.0	1.0	1.0	1.0	1.3
Curtis, La.	1.0	1.0	1.0	1.0	1.0	2.0
Crowley, La.	1.0	1.0	1.0	1.0	1.0	1.0
Bixby, Okla.	3.0	2.0	3.0	3.0	2.0	2.0
Beaumont, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Halfway, Texas	2.0	1.0	1.0	2.0	2.0	2.0

Table 35. - Seed quality scores for the strains in Uniform Group VI, 1967

Location	Hood	Lee	Pickett	Davis	Lee 68	D62-7816
			East Coast			
Queenstown, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Painter, Va.	1.0	3.3	2.3	1.3	2.3	2.7
Warsaw, Va.	1.7	2.2	2.0	1.7	2.0	1.6
Petersburg, Va.	1.0	2.0	1.0	2.0	2.0	2.0
Holland, Va.	1.0	1.5	1.5	1.5	1.0	2.0
Plymouth, N. C.	1.0	1.0	1.0	1.5	1.0	1.0
Willard, N. C.	1.0	1.0	1.0	1.0	1.0	1.5
Clayton, N. C.	1.0	1.0	1.0	1.0	1.0	1.0
			Southeast			
Quincy, Fla.	3.0	2.0	2.0	2.0	2.0	3.0
Jay, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	2.2	1.7	1.2	1.8	1.8	1.3
Baton Rouge, La.	3.0	3.0	2.0	4.0	3.0	4.0
			Upper and Central South			
Clemson, S. C.	2.0	2.5	1.5	2.0	2.0	2.0
Experiment, Ga.	1.5	1.2	1.7	1.3	1.5	1.2
Jackson, Tenn.	1.0	2.0	3.0	1.0	3.0	2.0
			Delta			
Portageville, Mo.(A)	1.2	2.2	2.2	2.0	2.0	2.7
Portageville, Mo.(B)	1.5	2.3	1.8	2.0	2.2	3.2
Keiser, Ark.	2.7	2.0	2.0	2.0	2.0	2.0
Marianna, Ark.	3.0	2.3	2.3	2.3	2.3	2.0
Stoneville, Miss.(A)	2.0	1.7	2.0	2.0	2.0	2.0
Stoneville, Miss.(B)	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	2.0	2.0	2.0	2.0	3.0	2.0
			West			
Stuttgart, Ark.	2.0	1.3	2.0	1.7	1.7	1.7
Curtis, La.	2.0	1.0	1.0	1.0	2.0	2.0
Bixby, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
Beaumont, Texas	1.0	2.7	1.3	1.3	1.7	1.3

Table 35. - (continued)

Location	D64-3396	D64-3937	D64-4485	D64-4573	D64-4636	R64-502
			East Coast			
Queenstown, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Painter, Va.	3.0	1.0	1.0	1.3	1.7	2.2
Warsaw, Va.	1.8	1.5	1.7	1.5	1.6	1.5
Petersburg, Va.	2.0	1.0	1.0	1.0	1.0	1.0
Holland, Va.	1.5	1.5	1.0	1.5	1.5	1.5
Plymouth, N. C.	1.5	1.0	1.0	1.0	1.0	1.0
Willard, N. C.	1.5	1.5	1.0	1.0	1.0	1.5
Clayton, N. C.	1.0	1.0	1.5	1.0	1.0	1.0
			Southeast			
Quincy, Fla.	4.0	4.0	2.0	2.0	3.0	3.0
Jay, Fla.	2.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	2.5	2.3	1.8	1.8	2.0	1.7
Baton Rouge, La.	3.0	3.0	3.0	3.0	3.0	4.0
			Upper and Central South			
Clemson, S. C.	3.0	2.5	1.0	1.5	2.5	2.0
Experiment, Ga.	1.8	1.7	1.7	1.5	1.2	1.3
Jackson, Tenn.	3.0	2.0	3.0	2.0	2.0	2.0
			Delta			
Portageville, Mo.(A)	2.3	1.5	1.3	1.2	2.2	2.0
Portageville, Mo.(B)	3.2	1.5	1.5	1.3	2.0	2.0
Keiser, Ark.	2.3	2.0	2.0	1.7	2.7	1.7
Marianna, Ark.	2.3	3.0	3.0	2.3	2.0	2.0
Stoneville, Miss.(A)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, Miss.(B)	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	3.0	3.0	2.0	2.0	2.0	2.0
			West			
Stuttgart, Ark.	2.7	2.0	2.0	2.0	1.7	1.7
Curtis, La.	1.0	2.0	1.0	1.0	2.0	2.0
Bixby, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
Beaumont, Texas	3.0	2.3	1.7	1.0	2.0	3.3

PRELIMINARY GROUP VI

1967

Preliminary Group VI nurseries, including 34 experimental strains and the two check varieties Hood and Lee, were grown at 7 locations. The parentage of these strains is reported in table 36. Performance data are summarized in tables 37 through 42. Differences in seed yield were significant at the 5% level of confidence in 5 of 7 plantings. The combined analysis of variance for seed yield showed differences among strains to be significant at the 5% level of confidence. Lee and five strains yielded significantly more than Hood. Only two had mean seed yields higher than that of Lee. Six strains yielded significantly less than Hood.

The five strains yielding significantly better than Hood were D64-3302 and D64-3311 from D49-2491(5) x Hawkeye; D67-B5, a D49-2491 type with narrow leaves and resistant to phytophthora rot; N64-1758, which was similar to Hood in maturity and was free of seed coat mottling; and R64-37, a Hood type resistant to phytophthora rot but also later in maturity and taller.

Eight strains selected for high protein content ranked below Hood in seed yield. D64-5144 and D65-6562 were only slightly lower in yield than Hood. D65-6562 is highly resistant to phytophthora rot and all races of downy mildew. Seed yield of D65-6562 was similar to that of Hood at 6 of the locations but yielded 12.5 bushels less at Jay.

Table 36. - Parentage of the strains in Preliminary VI, 1967

	Variety or strain	Parentage	Generation composited
1.	Hood		
2.	Lee		
3.	D51-4863	Roanoke x N45-745	F_5
4.	D64-3300	D49-2491(5) x Hawkeye	F_4
5.	D64-3302	D49-2491(5) x Hawkeye	F_4
6.	D64-3311	D49-2491(5) x Hawkeye	F_4
7.	D64-3881	Hill x D59-1619	F_5
8.	D64-5144	D49-2491(5) x PI 163,453	F_5
9.	D65-2874	Hill x D62-6346	F_5
10.	D65-5595	D49-2491(4) x PI 163,453	F_6
11.	D65-5669	D49-2491(4) x PI 163,453	F_6
12.	D65-5778	Hill x D60-7908	F_5
13.	D65-5782	Hill x D60-7908	F_5
14.	D65-5790	Hill x D60-7908	F_5
15.	D65-6409	D61-475 x D61-2624	F_5
16.	D65-6445	D61-475 x D61-2624	F_5
17.	D65-6467	D61-475 x D61-2624	F_5
18.	D65-6562	D61-475 x D61-2624	F_5
19.	D67-B5	D62-7816 x Lee P.R.	
20.	N62-2116	(N52-3908 x N51-1675) x (Ogden x Lee)	F_5
21.	N62-2144	(N52-3908 x N51-1675) x (Ogden x Lee)	F_5
22.	N62-2148	(N52-3908 x N51-1675) x (Ogden x Lee)	F_5
23.	N62-2255	(N52-3908 x N51-1675) x (Ogden x Lee)	F_5
24.	N63-4279	Hill(2) x PI 96,983	F_4
25.	N64-1758	(N55-3843 x N55-2908) x D56-1192	F_4
26.	N64-1816	(N55-3843 x N55-3908) x D56-1192	F_4
27.	N64-1866	(N55-3843 x N55-2908) x D56-1192	F_4
28.	R65-37	Hood(6) x Arksoy	F_4
29.	R65-481	(R54-168 x Hill) x (Lee x Dortchsoy 110)	F_5
30.	R65-516	(R54-168 x Hill) x (Lee x Dortchsoy 110)	F_5
31.	R65-654	Hill x R58-82	F_5
32.	S65-5522	[Lee(5) x Peking] x [(Lee(4) x Peking) x (Scott(2) x Peking)]	
33.	UD64-1085-16		
34.	UD64-1085-45		
35.	UD64-1085-50		
36.	UD65-5711		

Table 37. - General summary of performance for the strains in Preliminary Group VI, 1967

Strain	Seed yield	Maturity index	Ht.	Percent Oil	Percent Protein	Shatter	B.P.	P.R.	Percent mottled seed
Hood	34.2	10-10	34	20.9	39.9	2.0	1.0	2.0	0.0
Lee	39.0+	+7	34	20.6	41.5+	1.0	1.0	1.0	6.0
D51-4863	35.2	+6	32	21.3	39.7	1.5	1.0	1.0	0.0
D64-3300	37.2	+7	33	21.3	40.2	1.0	1.0	1.0	11.5
D64-3302	38.9+	+6	33	20.9	41.7+	1.0	1.0	1.0	3.0
D64-3311	38.8+	+5	33	21.3	41.0+	1.0	1.0	1.0	16.0
D64-3881	34.9	+2	36	21.2	39.0	1.0	1.0	1.0	1.0
D64-5144	34.0	+3	34	19.0-	44.0+	1.0	1.0	1.0	13.0
D65-2874	31.6	+3	41	20.1-	39.3	1.0	1.0	1.0	3.0
D65-5595	32.5	+7	33	18.4-	45.6+	1.0	1.0	1.0	8.0
D65-5669	30.2-	0	33	18.1-	46.4+	1.0	1.0	1.0	10.0
D65-5778	27.9-	-2	34	16.8-	47.1+	1.5	1.0	1.0	2.0
D65-5782	26.4-	+3	36	18.8-	45.1+	2.0	1.0	1.0	4.0
D65-5790	30.9	+2	36	18.4-	44.0+	2.0	1.0	1.0	4.0
D65-6409	34.9	+2	33	18.8-	41.9+	1.0	1.0	1.0	2.0
D65-6445	35.7	+4	33	19.7-	40.4	1.0	1.0	1.0	4.5
D65-6467	33.7	+2	33	18.3-	43.2+	1.0	1.0	1.0	12.0
D65-6562	33.5	+4	32	19.2-	43.7+	1.0	1.0	1.0	17.0
D67-B5	39.8+	+7	34	20.8	41.3+	1.0	1.0	1.0	4.5
N62-2116	36.6	+4	33	22.1+	40.6	2.0	1.0	2.0	0.0
N62-2144	37.0	+3	31	21.4	39.2	1.0	1.0	2.0	0.0
N62-2148	35.9	+3	35	21.3	39.2	1.0	1.0	1.0	4.0
N62-2255	30.9	+7	35	20.9	40.7	2.0	1.0	4.0	5.5
N63-4279	34.0	+6	37	19.4	41.1+	1.0	1.0	1.0	3.5
N64-1758	39.4+	+1	36	20.7	40.1	1.0	1.0	1.0	0.0
N64-1816	35.2	+6	39	20.2-	41.0+	1.0	1.0	1.0	11.5
N64-1866	36.2	+4	38	20.4	41.5+	1.5	1.0	2.0	0.0
R65-37	37.8+	+5	37	20.9	40.8	2.0	1.0	1.0	0.0
R65-481	35.8	+8	35	19.9-	38.7-	1.0	1.0	1.0	3.5
R65-516	35.9	+6	36	21.4	39.3	1.0	1.0	1.5	1.0
R65-654	36.1	+7	43	20.6	38.5-	1.0	1.0	1.0	0.0
S65-5522	30.8-	+4	30	21.0	40.0	1.0	1.0	2.5	3.0
UD64-1085-16	31.2	-4	48	21.3	40.0	1.0	1.0	4.0	2.5
UD64-1085-45	30.4-	-5	45	21.3	39.4	1.0	1.0	3.0	6.0
UD64-1085-50	32.0	-5	46	21.6+	40.2	1.0	1.0	2.0	3.5
UD65-5711	29.3-	-5	30	19.8-	41.2	2.5	1.0	1.0	1.0
L.S.D.(.05)	3.4			0.6	1.0				
L.S.D.(.01)	4.5			0.8	1.4				

Table 38. - Seed yield, in bushels per acre, for the strains in Preliminary Group VI, 1967

Strain	Petersburg, va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.	Stoneville, Miss.(A)	Stoneville, Miss.(B)	Jay, Fla.
Hood	19.2	37.3	24.3	35.9	41.9	35.8	44.7
Lee	26.7	40.8	31.3	39.7	47.0	50.1+	37.5-
D51-4863	25.2	33.5	28.5	36.9	43.2	41.1	37.8-
D64-3300	26.2	42.7	20.3	41.6	45.9	42.8	40.9
D64-3302	26.7	41.7	30.2	40.1	43.5	48.8+	41.3
D64-3311	28.2	36.8	26.8	37.5	49.6	48.5+	44.3
D64-3881	20.5	35.8	29.3	35.4	42.4	45.2+	35.6-
D64-5144	27.5	34.9	22.8	33.2	42.3	39.5	37.8-
D65-2874	21.4	32.0	23.5	31.5	36.8	41.6	34.8-
D65-5595	25.5	29.9	24.5	35.7	38.9	35.4	37.5-
D65-5669	23.8	31.1	18.4	31.9	34.4	38.6	33.7-
D65-5778	21.7	24.7-	22.7	29.9	35.9	29.9	30.6-
D65-5782	17.1	24.1-	25.2	29.7	30.1-	31.0	28.0-
D65-5790	21.6	28.4-	21.8	34.5	34.9	41.0	34.4-
D65-6409	25.4	31.9	28.6	36.8	42.0	42.2	37.8-
D65-6445	25.4	40.1	29.5	37.4	42.0	37.6	37.8-
D65-6467	25.7	33.9	22.6	34.6	40.7	43.9+	34.8-
D65-6562	24.0	34.7	25.4	37.2	40.3	40.8	32.2-
D67-B5	28.0	39.0	31.0	43.8+	50.2	47.5+	39.4
N62-2116	20.8	34.0	24.6	37.6	49.1	46.4+	43.5
N62-2144	30.9	40.8	21.1	39.5	47.6	37.0	42.0
N62-2148	29.1	34.9	19.5	37.1	48.8	36.1	45.8
N62-2255	23.8	42.5	18.4	16.7-	42.0	29.3	43.5
N63-4279	20.8	32.8	28.4	36.4	39.1	40.2	40.5
N64-1758	25.4	44.0	28.3	40.2	47.0	46.4+	44.7
N64-1816	25.2	39.3	29.4	32.9	41.9	36.2	41.3
N64-1866	28.2	38.9	30.8	32.4	41.3	39.3	42.7
R65-37	24.8	38.4	24.5	42.0	48.6	43.8+	42.7
R65-481	28.3	32.6	29.6	37.9	43.1	44.2+	34.0-
R65-516	24.8	40.4	20.7	34.7	48.8	44.2+	37.5-
R65-654	26.2	34.9	21.1	39.2	45.8	42.9	42.8
S65-5522	24.7	27.1-	31.9	26.0-	39.0	32.6	34.8-
UD64-1085-16	25.8	35.2	23.2	30.3	34.1	28.2-	42.0
UD64-1085-45	24.7	31.8	21.2	28.5-	33.3-	35.6	37.8-
UD64-1085-50	29.2	34.3	25.5	29.5	35.3	32.0	38.6-
UD65-5711	17.8	31.1	25.7	33.4	35.8	34.5	27.2-
L.S.D.(.05)	N.S.	7.7	N.S.	6.7	8.5	7.2	5.8
C.V.	17%	11%	19%	9%	10%	9%	7%

Table 39. - Oil percentages for the strains in Preliminary Group VI, 1967

Strain	Petersburg, Va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.	Stoneville, Miss.(B)
Hood	19.7	19.4	21.8	21.9	21.6
Lee	18.8	19.4	21.5	21.6	21.8
D51-4863	20.3	20.3	21.2	22.2	22.6
D64-3300	19.5	20.4	22.4	22.2	22.0
D64-3302	19.7	19.9	21.3	22.1	21.6
D64-3311	20.3	20.3	22.1	22.1	21.8
D64-3881	20.5	20.4	21.5	21.9	21.8
D64-5144	17.8	17.9	19.9	20.0	19.6
D65-2874	19.5	19.5	20.4	20.3	20.9
D65-5595	17.2	17.3	19.3	19.3	19.0
D65-5669	16.4	18.1	19.0	18.2	18.6
D65-5778	15.4	15.9	16.9	18.1	17.6
D65-5782	17.6	17.8	18.8	19.7	20.3
D65-5790	17.0	17.5	19.1	19.1	19.4
D65-6409	17.8	17.8	20.1	19.4	19.0
D65-6445	17.8	19.3	20.4	20.4	20.4
D65-6467	16.7	17.1	19.6	19.3	18.8
D65-6562	18.5	17.8	20.1	19.9	19.6
D67-B5	19.4	19.8	21.5	21.8	21.6
N62-2116	21.6	21.3	22.7	22.7	22.4
N62-2144	20.1	20.4	22.1	21.7	22.5
N62-2148	20.6	20.9	22.4	22.1	20.3
N62-2255	20.0	20.4	21.3	21.7	21.0
N63-4279	18.8	18.5	19.6	19.3	20.7
N64-1758	18.9	20.1	20.9	21.8	21.8
N64-1816	18.9	20.1	20.4	21.5	20.1
N64-1866	19.1	20.0	19.9	21.0	21.8
R65-37	19.3	19.8	21.3	21.4	22.9
R65-481	19.0	19.2	19.5	20.7	21.0
R65-516	20.2	21.1	22.2	22.0	21.7
R65-654	20.1	20.0	20.7	21.3	21.0
S65-5522	20.2	20.0	21.5	21.2	22.1
UD64-1085-16	21.1	20.4	21.3	21.6	22.3
UD64-1085-45	20.1	20.8	22.5	21.6	21.7
UD64-1085-50	20.7	21.2	21.8	21.8	22.5
UD65-5711	19.0	19.1	20.4	19.7	21.0

Table 40 - Protein percentages for the strains in Preliminary Group VI, 1967

Strain	Petersburg, Va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.	Stoneville, Miss.(B)
Hood	42.2	41.8	38.0	38.6	39.1
Lee	44.1	44.0	39.4	39.8	40.1
D51-4863	41.0	41.4	38.5	38.4	39.0
D64-3300	42.5	42.5	37.3	39.3	39.3
D64-3302	44.4	43.9	39.2	40.3	40.6
D64-3311	44.1	43.3	37.0	40.0	40.7
D64-3881	40.2	41.0	38.2	37.4	38.0
D64-5144	45.4	47.8	42.0	42.3	42.6
D65-2874	40.8	42.0	37.7	38.0	38.1
D65-5595	47.3	48.9	43.0	44.1	44.5
D65-5669	48.9	49.2	43.4	45.9	44.5
D65-5778	49.1	47.7	46.2	46.0	46.7
D65-5782	47.1	47.3	44.1	43.3	43.5
D65-5790	46.5	46.3	41.5	42.7	42.9
D65-6409	43.9	44.6	39.5	40.5	41.2
D65-6445	43.1	42.0	37.6	39.2	40.2
D65-6467	44.7	47.3	40.1	41.9	42.2
D65-6562	46.4	46.6	40.2	41.6	43.8
D67-B5	44.1	43.3	39.3	39.3	40.6
N62-2116	43.0	42.0	39.2	39.2	39.4
N62-2144	42.1	40.9	37.7	38.4	36.9
N62-2148	41.5	40.6	37.5	38.9	37.3
N62-2255	41.9	43.2	38.6	40.5	39.2
N63-4279	42.2	44.0	39.3	40.1	40.1
N64-1758	42.5	41.5	39.9	38.3	38.1
N64-1816	43.1	43.4	39.2	39.4	40.0
N64-1866	42.2	43.0	41.7	39.9	40.8
R65-37	42.0	42.4	39.1	40.6	40.1
R65-481	40.6	40.8	38.5	35.7	37.8
R65-516	41.3	41.1	37.7	38.1	38.2
R65-654	40.2	41.6	36.2	36.6	38.0
S65-5522	42.1	41.8	38.3	39.9	38.0
UD64-1085-16	41.0	42.5	39.6	39.9	37.1
UD64-1085-45	41.9	42.0	36.3	38.7	38.0
UD64-1085-50	42.4	43.1	39.2	39.1	37.3
UD65-5711	42.2	43.2	39.5	41.5	39.5

Table 41. - Plant height for the strains in Preliminary Group VI, 1967

Strain	Petersburg, Va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.	Stoneville, Miss.(A)	Stoneville, Miss.(B)	Jay, Fla.
Hood	30	36	32	38	36	35	30
Lee	34	36	36	36	36	36	25
D51-4863	30	37	30	37	33	28	26
D64-3300	32	34	31	37	36	34	24
D64-3302	30	36	35	37	35	34	25
D64-3311	32	33	35	36	35	34	25
D64-3881	36	43	35	36	37	36	27
D64-5144	32	33	34	37	38	34	28
D65-2874	41	41	41	40	45	42	38
D65-5595	31	36	35	34	35	34	29
D65-5669	32	34	34	33	37	34	24
D65-5778	33	40	36	37	32	32	31
D65-5782	33	44	35	39	38	34	31
D65-5790	34	43	35	38	35	34	32
D65-6409	33	39	34	35	32	35	26
D65-6445	33	34	36	38	33	31	29
D65-6467	34	34	35	36	35	33	27
D65-6562	32	32	32	37	33	33	24
D67-B5	34	38	35	36	35	35	25
N62-2116	32	35	32	37	33	32	29
N62-2144	30	33	28	37	33	28	27
N62-2148	36	41	33	38	37	31	30
N62-2255	38	40	29	35	36	34	30
N63-4279	38	42	41	39	35	35	30
N64-1758	34	43	34	38	38	36	28
N64-1816	40	40	38	41	40	38	33
N64-1866	37	40	39	39	42	38	33
R65-37	34	40	35	40	38	37	34
R65-481	36	32	39	38	36	36	30
R65-516	36	39	34	39	37	37	29
R65-654	45	47	40	44	44	43	41
S65-5522	28	36	34	31	30	32	22
UD64-1085-16	54	46	38	42	52	51	50
UD64-1085-46	49	43	34	38	50	54	46
UD64-1085-50	48	47	37	41	50	54	48
UD65-5711	26	32	31	33	34	30	25

Table 42. - Seed quality scores for the strains in Preliminary Group VI, 1967

Strain	Petersburg, Va.	Plymouth, N.C.	Portageville, Mo.	Keiser, Ark.	Stoneville, Miss.(A)	Stoneville, Miss.(B)	Jay, Fla.
Hood	1.0	1.0	1.3	2.5	2.0	2.0	1.0
Lee	2.0	1.0	2.3	2.0	1.5	2.0	1.0
D51-4863	1.0	1.5	1.0	2.0	2.0	2.0	1.0
D64-3300	3.0	1.0	3.0	2.5	2.0	2.0	1.0
D64-3302	2.0	1.5	2.0	2.5	2.0	2.0	1.0
D64-3311	3.0	1.5	2.8	2.0	2.0	2.0	1.0
D64-3881	1.0	1.0	1.5	3.0	2.0	2.0	1.0
D64-5144	3.0	1.5	2.3	2.0	2.0	2.0	1.0
D65-2874	2.0	1.5	2.8	2.0	2.0	2.0	1.0
D65-5595	1.0	1.5	3.0	2.5	2.0	2.0	1.0
D65-5669	2.0	1.5	2.8	2.0	1.5	2.0	1.0
D65-5778	2.0	1.5	1.8	2.5	2.0	2.0	1.0
D65-5782	2.0	1.5	3.0	3.5	2.0	2.0	1.0
D65-5790	2.0	1.5	2.5	3.0	2.0	2.0	1.0
D65-6409	2.0	1.5	2.3	2.0	2.0	2.0	1.0
D65-6445	1.0	1.5	2.5	2.0	2.0	2.0	1.0
D65-6467	2.0	1.5	2.5	2.5	2.0	2.0	1.0
D65-6562	3.0	1.5	3.0	2.0	2.0	2.0	1.0
D67-B5	2.0	1.0	2.5	2.5	1.5	2.0	1.0
N62-2116	1.0	1.0	2.5	2.5	2.0	2.0	1.0
N62-2144	1.0	1.5	2.8	3.0	2.0	2.0	1.0
N62-2148	1.0	2.0	3.3	3.0	2.0	2.0	1.0
N62-2255	3.0	1.5	3.0	3.5	2.0	2.0	1.0
N63-4279	2.0	2.0	2.0	3.0	2.0	2.0	1.0
N64-1758	1.0	1.0	1.5	2.5	2.0	2.0	1.0
N64-1816	3.0	1.5	2.8	3.0	2.0	2.0	1.0
N64-1866	1.0	1.0	2.3	2.5	2.0	2.0	1.0
R65-37	1.0	1.0	1.5	3.0	2.0	2.0	1.0
R65-481	1.0	2.0	2.3	2.5	2.0	2.0	1.0
R65-516	1.0	1.5	3.0	2.5	2.0	2.0	1.0
R65-654	2.0	1.5	2.3	2.5	2.0	2.0	1.0
S65-5522	2.0	1.5	3.8	3.5	2.0	2.0	1.0
UD64-1085-16	1.0	2.0	3.5	3.5	2.0	2.0	1.0
UD64-1085-45	2.0	2.0	2.8	3.5	2.0	2.0	1.0
UD64-1085-50	1.0	2.0	2.8	4.0	2.0	2.0	1.0
UD65-5711	1.0	1.5	2.5	3.0	2.0	2.0	1.0

UNIFORM GROUP VII

1967

	Variety or strain	Parentage	Generation composited
1.	Bragg	Jackson x D49-2491	F_6
2.	Semmes	D51-5427 x D49-2491	F_6
3.	D61-4269	D49-2491(6) x Barchet	F_4
4.	F62-1058	F57-871 x F57-879	F_5
5.	N63-1926	D58-3358 x D59-9289	F_5
6.	D58-4384	D51-5052 x D49-2491	F_5
7.	F64-1683	Hardee x D53-1301	F_5
8.	F64-1881	F57-1471 x D53-1301	F_5
9.	N63-858	D58-3358 x D59-9289	F_5
10.	N63-908	D58-3358 x D59-9289	F_5
11.	N63-1131	D58-3358 x D59-9289	F_5
12.	N63-1206	D58-3358 x D59-9289	F_5

Background of strains used as parents:

D49-2491 is a sister strain to Lee selected from S100 x CNS.

D51-5427 is a subline of N45-1497, a high oil line selected from Ralsoy x Ogden.

F57-871 and F57-879 are F_3 lines selected from D49-2491(2) x Biloxi.

D58-3358 is a selection from Jackson(4) x D49-2491.

D59-9289 is a selection from D51-4877 x D55-4168. It is the parent line of D60-8107 which was tested in Uniform Group VII.

D51-5052 is a selection from Roanoke x N45-745. It was grown in Uniform Group VII for the years 1954-1957.

D53-1301 is a selection from the same cross as Hill but is of Lee maturity.

F57-1471 is a selection from the cross D49-2491 x Majos.

Thirty-one Uniform Group VII nurseries were planted. Results of 29 nurseries are summarized in tables 43 through 49. Table 43 gives a general summary of agronomic qualities, chemical composition of the seed, and field reaction to several diseases. Two- and three-year data are reported for seed yield and oil and protein percentages.

Seed yield differences among strains were significant at the 5% level of confidence at 21 of the 29 locations. The combined analysis of variance for mean seed yields by production regions showed difference among strains to be significant at the 5% level of confidence in all regions except the Upper and Central. There were no strains yielding significantly above Bragg. All but one strain had higher protein content than Bragg.

The three strains D61-4269, F62-1058, and N63-1926 have been grown 2 years. None of these have been superior to Bragg in seed yield.

Seven strains have been grown one year. All have yielded well in one or more of the regions. D58-4384 has yielded very well on the muck soils of central Florida. Mean seed yield averaged slightly below that for Bragg. F64-1683 yielded very well in the East and Southeast. Protein content averaged 6% higher than for Bragg. F64-1881 was somewhat below Bragg in yield in the East but good in the other regions. The four strains N63-858, N63-908, N63-1131, and N63-1206 yielded well but were weak in seed holding. All behaved much like Jackson in showing a tendency for strains to remain green after maturity under many conditions.

Table 43. - General summary of performance for the strains in Uniform Group VII, 1967

	Bragg	Semmes	D61-4269	F62-1058	N63-1926	D58-4384
Seed Yield - 1967						
East Coast	41.0	36.5-	39.8	35.5-	37.8	38.4
Southeast	41.5	37.7-	38.2-	38.2-	41.5	40.4
Upper & Central South	40.1	40.9	39.5	37.2	39.8	40.3
Delta and West	41.1	35.6-	37.0	36.9-	38.7	39.9
- 1966-67						
East Coast	39.9	36.2	39.4	35.9	36.4	
Southeast	40.6	36.4	37.9	38.0	39.1	
Upper & Central South	35.9	34.7	34.7	32.5	35.3	
Delta and West	43.2	37.8	38.7	38.7	40.7	
- 1965-67						
East Coast	40.5	36.8				
Southeast	37.9	34.0				
Upper & Central South	36.8	33.9				
Delta and West	40.5	35.3				
Oil Content - 1967	21.5	20.6-	21.4	20.4-	21.4	22.1+
- 1966-67	21.4	20.7	21.1	20.3	21.1	
- 1965-67	21.4	20.8				
Protein Content - 1967	40.1	41.9+	40.9+	43.9+	40.8+	40.8+
- 1966-67	40.3	41.4	40.6	43.6	40.8	
- 1965-67	40.5	41.3				
Seed size	15.4	15.7	13.1-	14.9	14.7-	13.8-
Maturity index	10-22	-2	+1	0	0	+2
Height	41	37	34	35	37	35
Shattering	1.0	2.0	1.0	1.0	3.5	3.3
Bacterial pustule	1.0	1.0	1.0	1.0	1.0	1.0
Phytophthora rot	1.0	1.0	3.5	2.7	2.0	2.0
Mottled seed (%)	9.5	13.0	9.5	12.0	1.5	4.0
Flower color	W	P	P	P	W	P
Pubescence color	T	G	T	T	G	G
Pod wall color	T	T	T	T	Br	T

Table 43. - (continued)

	F64-1683	F64-1881	N63-858	N63-908	N63-1131	N63-1206
Seed Yield - 1967						
East Coast	41.1	38.6	42.3	41.9	42.6	40.9
Southeast	42.1	40.1	42.3	42.8	41.7	42.2
Upper & Central South	35.5	40.3	43.3	43.6	43.2	43.8
Delta and West	34.2-	40.3	40.6	42.0	38.4	38.8
- 1966-67						
East Coast						
Southeast						
Upper & Central South						
Delta and West						
- 1965-67						
East Coast						
Southeast						
Upper & Central South						
Delta and West						
Oil Content - 1967	20.5-	21.1-	20.3-	21.7	21.7	21.5
- 1966-67						
- 1965-67						
Protein Content - 1967	42.8+	40.8+	41.8+	40.9+	39.9	41.3+
- 1966-67						
- 1965-67						
Seed size	15.0	12.4-	15.5	16.9+	15.3	16.5+
Maturity index	+3	+1	0	0	0	0
Height	40	36	37	41	35	37
Shattering	1.0	1.6	2.2	2.7	1.7	2.4
Bacterial pustule	1.0	1.0	1.0	1.0	1.0	1.0
Phytophthora rot	3.7	3.3	2.3	1.3	2.3	1.7
Mottled seed (%)	4.5	10.0	0.0	1.0	0.5	0.0
Flower color	P	W	W	P	W	P
Pubescence color	T	T	T	T	T	T
Pod wall color	T	T	T	T	T	T

Table 44. - Seed yield, in bushels per acre, for the strains in Uniform Group VII, 1967

Location	Bragg	Semmes	D61-4269	F62-1058	N63-1926	D58-4384	F64-1683
			East Coast				
Rocky Mount, N.C.	37.6	30.4-	34.0	23.5-	23.5-	28.2-	31.8
Clayton, N.C.	32.8	26.5	34.8	32.8	41.3	29.7	35.3
Willard, N.C.	41.3	38.7	39.7	38.5	41.7	37.6	39.0
Florence, S.C.(A)	48.1	44.9	48.1	44.9	46.5	45.9	50.9
Florence, S.C.(B)	41.7	42.4	41.5	37.3	38.7	48.4	48.4
Hartsville, S. C.	44.5	35.8-	40.7	37.3-	35.2-	40.4	41.2
Mean	41.0	36.5-	39.8	35.5-	37.8	38.4	41.1
			Southeast				
Blackville, S.C.	43.3	39.4-	44.8	41.4	46.4	48.1+	47.2+
Tallassee, Ala.	48.4	44.9	49.2	50.3	47.9	52.8	49.7
Tifton, Ga.	44.9	39.8-	42.0	35.9-	43.6	39.4-	42.0
Gainesville, Fla.	35.4	28.1-	27.6-	32.5	40.2+	30.5-	37.8
Live Oak, Fla.(A)	43.4	35.3-	33.2-	37.4-	39.5	40.1	40.6
Live Oak, Fla.(B)	38.3	34.0	34.0	34.5	38.5	41.7	41.3
Marianna, Fla.	24.1	27.1	20.2-	21.1	29.5+	24.4	24.2
Quincy, Fla.	30.6	27.2	30.5	32.0	26.4-	28.1	37.8+
Jay, Fla.	43.9	42.4	40.1	42.9	42.1	40.8	44.1
Fairhope, Ala.	46.0	40.1-	42.4	41.6	46.8	44.4	37.8-
Poplarville, Miss.	56.3	49.7	49.5	49.2	56.1	49.0	55.0
Baton Rouge, La.	43.5	44.7	45.5	40.1	41.0	45.7	47.7
Mean	41.5	37.7-	38.2-	38.2-	41.5	40.4	42.1
			Upper and Central South				
Clemson, S. C.	36.9	40.5	36.3	32.2	41.7	36.9	34.9
Experiment Ga.	49.2	49.2	50.0	44.4-	44.0-	45.7-	43.9-
State College, Miss.	34.1	32.9	32.0	34.9	33.7	38.2	27.7-
Mean	40.1	40.9	39.5	37.2	39.8	40.3	35.5
			Delta and West				
Stoneville, Miss.(A)	42.1	37.6	43.9	35.7	41.7	42.0	37.3
Stoneville, Miss.(B)	39.2	36.0	38.3	34.5	33.4	37.3	31.0-
Stuttgart, Ark.	42.2	39.0	39.9	40.2	41.9	38.4-	38.1-
Rohwer, Ark.	35.5	35.3	19.2-	27.1-	37.3	39.3	14.8-
St. Joseph, La.	50.4	44.0-	42.8-	47.0	50.7	45.9	41.7-
Curtis, La.	45.8	36.4	41.6	40.7	38.0	41.1	43.4
Crowley, La.	33.7	25.3-	32.3	34.7	25.9-	34.7	28.2
Beaumont, Texas	39.4	31.0-	37.9	35.3	40.8	40.6	39.2
Mean	41.1	35.6-	37.0	36.9-	38.7	39.9	34.2-

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

Table 44. - (continued)

Location	F64-1881	N63-858	N63-908	N63-1131	N63-1206	L.S.D. (.05)	C.V.
			East Coast				
Rocky Mount, N.C.	26.3-	35.3	30.5-	30.8	29.1-	6.9	14%
Clayton, N.C.	35.5	38.0	43.7+	39.5	40.5	9.5	16%
Willard, N.C.	38.1	46.0	41.1	46.9	43.3	N.S.	10%
Florence, S.C.(A)	51.2	47.5	48.0	49.6	46.6	N.S.	8%
Florence, S.C.(B)	39.9	43.5	43.8	49.1+	44.0	6.9	10%
Hartsville, S. C.	40.4	43.4	44.3	40.0	41.8	5.7	8%
Mean	38.6	42.3	41.9	42.6	40.9	3.7	
			Southeast				
Blackville, S.C.	46.2	46.6	50.6+	49.7+	47.9+	3.8	5%
Tallassee, Ala.	53.3	47.6	59.2	46.1	48.3	N.S.	9%
Tifton, Ga.	40.5	43.3	41.2	44.9	44.1	4.6	6%
Gainesville, Fla.	32.8	40.7+	41.8+	41.4+	42.4+	4.8	8%
Live Oak, Fla.(A)	38.2	41.7	41.8	36.6-	40.4	5.5	8%
Live Oak, Fla.(B)	31.5-	38.3	39.8	43.8+	41.1	4.6	7%
Marianna, Fla.	18.7-	30.8+	27.5+	25.6	27.6+	3.3	8%
Quincy, Fla.	32.5	31.6	26.2-	36.0+	30.8	4.0	8%
Jay, Fla.	40.6	40.9	41.6	44.9	43.4	N.S.	8%
Fairhope, Ala.	46.1	45.5	43.9	42.9	42.8	4.6	6%
Poplarville, Miss.	49.5	55.6	51.0	40.9-	51.8	7.6	9%
Baton Rouge, La.	50.7	44.5	49.4	47.1	46.0	N.S.	11%
Mean	40.1	42.3	42.8	41.7	42.2	2.6	
			Upper and Central South				
Clemson, S. C.	35.7	44.2+	43.0+	51.2+	47.2+	5.9	9%
Experiment, Ga.	47.5	53.7+	51.3	47.7	49.5	3.4	4%
State College, Miss.	37.8	32.0	36.5	30.6	34.5	5.4	10%
Mean	40.3	43.3	43.6	43.2	43.8	N.S.	
			Delta and West				
Stoneville, Miss.(A)	43.3	41.6	39.2	41.6	40.5	N.S.	8%
Stoneville, Miss.(B)	39.9	42.3	44.0	37.9	37.1	5.9	9%
Stuttgart, Ark.	41.5	44.0	47.3+	42.2	44.3	3.5	5%
Rohwer, Ark.	23.1-	31.4	41.6+	26.5-	37.9	5.0	10%
St. Joseph, La.	50.7	48.8	51.6	44.4-	50.5	5.5	7%
Curtis, La.	46.7	44.6	44.0	41.8	36.8	N.S.	10%
Crowley, La.	39.8	26.0-	24.3-	31.1	20.6	6.7	13%
Beaumont, Texas	37.5	46.2+	44.0	41.4	42.6	5.4	8%
Mean	40.3	40.6	42.0	38.4	38.8	4.2	

Table 45. - Chemical composition and seed size for the strains in Uniform Group VII, 1967

Location	Bragg	Semmes	D61-4269	F62-1058	N63-1926	D58-4384	F64-1683
			Oil Percentage				
Willard, N. C.	20.6	19.4	19.8	19.1	21.0	20.9	19.2
Hartsville, S.C.	21.8	20.8	21.6	21.0	21.3	23.1	20.9
Blackville, S.C.	21.5	20.7	22.0	20.6	21.4	22.8	20.3
Live Oak, Fla.(A)	22.9	21.7	22.0	20.8	21.7	23.0	21.2
Jay, Fla.	21.9	20.8	21.7	21.7	22.5	22.9	20.5
Clemson, S.C.	20.8	20.2	20.8	19.5	19.9	20.5	19.7
Stoneville, Miss.(A)	21.3	20.0	22.0	19.3	21.9	21.6	21.3
St. Joseph, La.	21.3	21.0	21.6	20.5	21.9	22.1	20.4
Beaumont, Texas	21.3	20.8	21.3	20.8	21.4	21.9	21.3
Mean	21.5	20.6-	21.4	20.4-	21.4	22.1+	20.5-
			Protein Percentage				
Willard, N. C.	43.2	44.3	42.5	46.6	42.6	42.4	44.9
Hartsville, S.C.	38.7	40.1	38.9	42.6	39.3	38.7	40.5
Blackville, S.C.	38.8	40.3	38.7	41.6	39.7	39.2	40.9
Live Oak, Fla.(A)	38.7	41.3	41.6	44.1	40.9	39.5	43.1
Jay, Fla.	41.6	43.0	41.7	43.0	41.4	40.8	44.2
Clemson, S.C.	39.3	41.6	41.4	44.2	41.5	42.4	43.1
Stoneville, Miss.(A)	39.4	41.7	39.5	43.6	38.7	39.9	41.6
St. Joseph, La.	41.0	42.9	42.1	44.9	41.2	41.9	44.3
Beaumont, Texas	40.6	41.7	41.9	44.4	42.0	42.5	42.4
Mean	40.1	41.9+	40.9+	43.9+	40.8+	40.8+	42.8+
			Grams per 100 Seeds				
Willard, N. C.	17.5	17.5	14.3	16.2	15.5	16.0	15.8
Hartsville, S. C.	16.3	16.5	13.8	15.1	15.1	14.8	15.7
Blackville, S.C.	14.7	15.2	12.7	14.7	14.3	13.7	15.0
Tallassee, Ala.	15.7	17.8	14.9	16.7	16.2	15.2	16.5
Live Oak, Fla.(A)	15.2	15.8	12.3	14.9	14.5	12.7	16.0
Jay, Fla.	16.1	16.1	13.5	14.8	15.4	13.8	15.7
Clemson, S.C.	12.8	13.3	11.0	12.2	12.3	12.2	13.2
Stoneville, Miss.(A)	16.2	14.9	12.8	15.2	14.8	13.0	14.2
Beaumont, Texas	14.5	13.9	12.7	14.7	14.4	12.4	13.3
Mean	15.4	15.7	13.1-	14.9	14.7-	13.8-	15.0

Table 45. - (continued)

Location	F64-1881	N63-858	N63-908	N63-1131	N63-1206	L.S.D. (.05)
			Oil Percentage			
Willard, N.C.	19.1	19.6	21.1	21.3	20.4	
Hartsville, S.C.	21.5	20.5	21.9	22.1	21.6	
Blackville, S.C.	21.7	20.4	22.0	21.5	21.4	
Live Oak, Fla.(A)	21.4	21.1	22.0	22.5	21.8	
Jay, Fla.	21.3	20.2	22.0	22.2	21.5	
Clemson, S.C.	19.9	19.3	19.9	20.5	20.5	
Stoneville, Miss.(A)	22.3	21.1	22.5	22.0	22.2	
St. Joseph, La.	21.3	19.6	21.8	21.5	21.8	
Beaumont, Texas	21.8	20.5	22.1	22.0	22.0	
Mean	21.1-	20.3-	21.7	21.7	21.5	0.4
			Protein Percentage			
Willard, N.C.	42.9	43.6	42.2	41.2	43.2	
Hartsville, S.C.	39.2	39.2	39.6	38.0	40.6	
Blackville, S.C.	39.1	41.0	39.4	39.1	39.3	
Live Oak, Fla.(A)	40.9	42.2	40.7	39.8	41.4	
Jay, Fla.	41.7	43.4	41.6	40.9	42.2	
Clemson, S.C.	42.1	41.3	42.5	40.2	40.8	
Stoneville, Miss.(A)	38.3	40.0	39.2	38.8	39.8	
St. Joseph, La.	41.0	42.6	41.7	40.8	42.0	
Beaumont, Texas	42.1	42.8	41.1	40.6	42.8	
Mean	40.8+	41.8+	40.9+	39.9	41.3+	0.6
			Grams per 100 Seeds			
Willard, N.C.	11.8	16.9	18.2	17.2	18.2	
Hartsville, S.C.	12.1	16.6	17.5	15.4	17.0	
Blackville, S.C.	12.0	14.2	16.0	14.8	15.3	
Tallassee, Ala.	14.5	17.2	18.7	17.2	17.6	
Live Oak, Fla.(A)	12.1	15.5	17.0	14.4	16.5	
Jay, Fla.	11.8	15.8	18.2	17.1	17.6	
Clemson, S.C.	13.3	12.2	13.9	12.6	13.7	
Stoneville, Miss.(A)	12.1	15.4	17.0	14.9	16.0	
Beaumont, Texas	11.8	15.3	15.7	13.8	16.7	
Mean	12.4-	15.5	16.9+	15.3	16.5+	0.6

Table 46. - Relative maturity data, days earlier (-) or later (+), than Bragg for the strains in Uniform Group VII, 1967

Location	Date planted	Bragg matured	Semmes	D61-4269	F62-1058	N63-1926	D58-4384
			East Coast				
Rocky Mount, N.C.	5-18	10-20	0	+2	0	0	+8
Clayton, N.C.	5-11	10-24	-2	-2	-2	-2	+6
Willard, N.C.	5-15	10-24	0	-4	0	+4	+2
Florence, S.C.(A)	5-15	10-25	-2	+4	-1	+4	-2
Florence, S.C.(B)	6-15	10-31	-2	+2	+3	+1	+2
Hartsville, S.C.	5-29	10-30	-3	-1	-1	+2	-1
Mean		10-26	-2	0	0	+2	+3
			Southeast				
Blackville, S.C.	5-8	10-19	-4	+5	+4	-6	+7
Tallassee, Ala.	5-11	10-21	-1	+1	0	+3	+3
Tifton, Ga.	5-24	10-22	+4	+3	+3	+4	+4
Gainesville, Fla.	6-15	10-17	-8	+1	-1	-2	0
Live Oak, Fla.(A)	6-6	10-16	-3	+1	+1	-1	+1
Live Oak, Fla.(B)	6-8	10-17	-3	+3	+1	-2	0
Marianna, Fla.	6-5	10-16	-2	+6	+7	0	+4
Quincy, Fla.	5-25	10-9	-6	-1	-2	-4	-2
Jay, Fla.	5-28	10-16	+3	0	0	+4	-1
Fairhope, Ala.	6-6	10-15	-5	0	-3	+3	-3
Baton Rouge, La.	5-17	10-27	-1	-5	-5	+8	-4
Mean		10-18	-2	+1	0	0	0
			Upper and Central South				
Clemson, S.C.	5-18	10-20	-3	+6	+6	-3	+6
Experiment, Ga.	5-29	10-20	-1	+3	+4	-1	+5
Mean		10-20	-2	+5	+5	-2	+6
			Delta and West				
Stoneville, Miss.(A)	5-26	10-28	-2	0	+2	-2	0
Stoneville, Miss.(B)	5-12	10-28	-2	+1	+2	0	+1
Stuttgart, Ark.	6-5	11-5	-7	-2	-3	-8	-1
Rohwer, Ark.	6-9	10-19	+4	0	+1	+6	+5
St. Joseph, La.	5-19	10-25	-1	0	0	+1	0
Curtis, La.	5-19	10-24	-6	-2	+3	-3	-1
Beaumont, Texas	5-18	10-19	-3	+4	+1	-6	+4
Mean		10-26	-2	0	0	0	+1

Table 46. - (continued)

Location	F64-1683	F64-1881	N63-858	N63-908	N63-1131	N63-1206
		East Coast				
Rocky Mount, N.C.	+2	+8	+2	+2	0	+2
Clayton, N.C.	+4	+2	-2	-9	-2	-2
Willard, N.C.	+4	0	+4	+4	+2	+4
Florence, S.C.(A)	+7	+3	+4	-5	+5	+5
Florence, S.C.(B)	+4	0	-3	-2	0	-2
Hartsville, S.C.	+1	-3	+2	-1	+1	+2
Mean	+4	+2	+1	-2	+1	+2
		Southeast				
Blackville, S.C.	+7	+6	+2	-2	+2	-3
Tallassee, Ala.	+4	+3	+3	+1	+4	+3
Tifton, Ga.	+8	+3	+7	+5	+7	+7
Gainesville, Fla.	+1	+1	-2	-3	-1	-2
Live Oak, Fla.(A)	+2	+3	+2	0	+1	+1
Live Oak, Fla.(B)	+3	+3	0	+1	0	0
Marianna, Fla.	+5	+8	-5	-2	+4	+1
Quincy, Fla.	+6	+1	-2	+5	+3	-1
Jay, Fla.	-2	0	0	-2	+2	+1
Fairhope, Ala.	+3	0	+3	0	0	+3
Baton Rouge, La.	-2	-4	+8	+9	+5	+9
Mean	+3	+2	+1	+1	+2	+2
		Upper and Central South				
Clemson, S.C.	+8	+5	-2	-2	-1	-2
Experiment, Ga.	+5	+3	0	-3	-2	-3
Mean	+7	+4	-1	-3	-2	-3
		Delta and West				
Stoneville, Miss.(A)	+2	-1	+1	-1	+1	0
Stoneville, Miss.(B)	+1	-1	0	-1	+1	+1
Stuttgart, Ark.	--	-7	-12	-11	-14	-13
Rohwer, Ark.	+5	+3	+5	+3	+5	+5
St. Joseph, La.	+1	0	+4	+3	0	+4
Curtis, La.	+2	-7	-4	+1	+2	-2
Beaumont, Texas	+4	+3	-3	-3	-3	-3
Mean	+2	-1	-1	-1	-1	-1

Table 47. - Plant height for the strains in Uniform Group VII, 1967

Location	Bragg	Semmes	D61-4269	F62-1058	N63-1926	D58-4384
			East Coast			
Rocky Mount, N.C.	44	40	38	39	42	38
Clayton, N.C.	39	37	35	37	37	33
Willard, N.C.	44	40	35	35	37	37
Florence, S.C.(A)	51	45	37	45	41	35
Florence, S.C.(B)	42	34	37	39	39	34
Hartsville, S.C.	43	33	31	33	35	33
Mean	44	38	36	38	39	35
			Southeast			
Blackville, S.C.	32	35	32	34	36	33
Tallassee, Ala.	49	46	38	38	44	41
Tifton, Ga.	37	36	31	29	37	33
Gainesville, Fla.	36	32	33	31	32	32
Live Oak, Fla.(A)	35	32	29	31	31	35
Live Oak, Fla.(B)	37	35	37	32	35	37
Marianna, Fla.	43	38	37	40	42	38
Quincy, Fla.	27	24	25	24	24	24
Jay, Fla.	40	35	34	35	34	35
Fairhope, Ala.	38	33	34	36	33	30
Baton Rouge, La.	45	39	35	37	37	42
Mean	38	35	33	33	35	35
			Upper and Central South			
Clemson, S.C.	46	40	38	37	39	37
Experiment, Ga.	44	42	38	38	40	38
Mean	45	41	38	38	40	38
			Delta and West			
Stoneville, Miss.(A)	46	41	35	36	39	41
Stoneville, Miss.(B)	45	39	35	36	39	37
Stuttgart, Ark.	42	37	34	34	36	34
Rohwer, Ark.	47	38	32	36	37	36
St. Joseph, La.	47	43	42	41	44	40
Curtis, La.	47	36	33	40	38	39
Crowley, La.	37	27	26	25	27	26
Beaumont, Texas	36	36	31	28	38	31
Mean	43	37	34	35	37	36

Table 47. - (continued)

Location	F64-1683	F64-1881	N63-858	N63-908	N63-1131	N63-1206
			East Coast			
Rocky Mount, N.C.	43	37	41	47	40	42
Clayton, N.C.	42	39	37	41	35	36
Willard, N.C.	42	36	39	42	39	39
Florence, S.C.(A)	47	44	41	45	40	42
Florence, S.C.(B)	45	35	34	37	32	33
Hartsville, S.C.	38	34	33	37	31	34
Mean	43	38	38	42	36	38
			Southeast			
Blackville, S.C.	34	34	35	38	33	37
Tallassee, Ala.	47	39	45	49	45	46
Tifton, Ga.	39	35	39	41	37	40
Gainesville, Fla.	35	31	31	34	32	34
Live Oak, Fla.(A)	35	32	33	37	30	34
Live Oak, Fla.(B)	37	33	36	39	36	37
Marianna, Fla.	41	38	39	42	34	39
Quincy, Fla.	30	26	25	29	27	23
Jay, Fla.	39	34	36	39	34	34
Fairhope, Ala.	33	35	31	35	23	32
Baton Rouge, La.	38	38	41	46	37	38
Mean	37	34	36	39	33	36
			Upper and Central South			
Clemson, S.C.	44	38	38	41	40	38
Experiment, Ga.	43	40	40	42	38	38
Mean	44	39	39	42	39	38
			Delta and West			
Stoneville, Miss.(A)	42	38	42	45	41	42
Stoneville, Miss.(B)	38	36	37	42	37	39
Stuttgart, Ark.	41	37	33	40	33	33
Rohwer, Ark.	36	37	36	41	33	35
St. Joseph, La.	46	42	42	47	41	44
Curtis, La.	46	44	38	46	38	39
Crowley, La.	31	30	28	31	28	27
Beaumont, Texas	41	33	36	41	38	35
Mean	40	37	37	42	36	37

Table 48. - Lodging scores for the strains in Uniform Group VII, 1967

Location	Bragg	Semmes	D61-4269	F62-1058	N63-1926	D58-4384
			East Coast			
Rocky Mount, N.C.	4.0	2.8	3.8	4.7	3.7	3.3
Clayton, N.C.	2.3	2.7	3.7	2.7	2.3	3.2
Willard, N.C.	2.3	2.0	2.3	3.3	2.3	2.7
Florence, S.C.(A)	3.0	2.0	3.0	3.0	1.0	2.0
Florence, S.C.(B)	3.0	2.0	3.0	3.0	1.0	2.0
Hartsville, S.C.	2.3	1.8	2.2	2.3	1.3	2.0
			Southeast			
Blackville, S.C.	2.7	1.3	2.3	2.3	1.5	2.5
Tallassee, Ala.	2.3	1.0	2.0	2.3	1.3	2.3
Tifton, Ga.	3.0	2.0	4.0	4.0	1.0	4.0
Gainesville, Fla.	1.6	1.0	1.3	1.6	1.0	1.0
Live Oak, Fla.(A)	1.3	1.0	2.0	1.7	1.0	1.0
Live Oak, Fla.(B)	2.3	1.3	3.0	2.3	2.3	1.6
Marianna, 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
Jay, Fla.	1.7	1.0	1.7	2.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	3.0	2.0	3.0	3.0	1.0	3.0
			Upper and Central South			
Clemson, S.C.	2.0	1.6	3.0	3.5	1.2	2.3
Experiment, Ga.	1.7	1.0	2.0	1.7	1.0	2.0
			Delta and West			
Stoneville, Miss.(A)	3.0	3.0	3.0	3.3	3.0	3.0
Stoneville, Miss.(B)	4.0	2.3	3.0	4.0	3.0	3.0
Stuttgart, Ark.	2.0	2.0	2.3	3.0	1.0	2.3
Rohwer, Ark.	2.0	2.0	1.3	2.7	1.0	2.0
St. Joseph, La.	3.0	2.0	2.0	3.0	2.0	4.0
Curtis, La.	2.0	1.0	2.0	2.0	2.0	3.0
Crowley, La.	1.0	1.0	1.0	1.0	1.0	1.0
Beaumont, Texas	3.0	1.0	3.0	5.0	1.0	4.0

Table 48. - (continued)

Location	F64-1683	F64-1881	N63-858	N63-908	N63-1131	N63-1206
		East Coast				
Rocky Mount, N.C.	3.5	4.5	3.2	2.8	2.7	2.8
Clayton, N.C.	3.0	3.3	2.0	2.0	2.0	2.0
Willard, N.C.	2.7	3.0	2.0	2.0	1.7	2.0
Florence, S.C.(A)	3.0	3.0	2.0	1.0	1.0	1.0
Florence, S.C.(B)	2.0	3.0	1.0	1.0	1.0	1.0
Hartsville, S.C.	2.2	3.0	1.3	1.3	1.4	1.3
		Southeast				
Blackville, S.C.	2.5	3.2	1.2	1.3	1.3	1.3
Tallassee, Ala.	1.7	4.0	1.0	1.0	1.0	1.0
Tifton, Ga.	2.0	3.0	2.0	1.0	1.0	1.0
Gainesville, Fla.	1.6	1.3	1.0	1.0	1.0	1.0
Live Oak, Fla.(A)	1.3	2.0	1.0	1.0	1.0	1.0
Live Oak, Fla.(B)	2.6	3.0	1.6	2.0	1.0	1.3
Marianna, 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
Jay, Fla.	1.0	2.0	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.	3.0	4.0	1.0	1.0	1.0	1.0
		Upper and Central South				
Clemson, S.C.	2.5	2.7	1.3	1.2	1.2	1.1
Experiment, Ga.	1.3	1.3	1.0	1.0	1.0	1.0
		Delta and West				
Stoneville, Miss.(A)	3.0	3.0	3.0	3.0	3.0	3.0
Stoneville, Miss.(B)	3.7	3.0	3.0	3.0	2.0	2.7
Stuttgart, Ark.	3.0	3.0	1.0	1.3	1.0	1.0
Rohwer, Ark.	1.7	2.3	1.0	1.0	1.0	1.0
St. Joseph, La.	3.0	2.0	1.0	2.0	1.0	2.0
Curtis, La.	2.0	2.0	2.0	2.0	1.0	2.0
Crowley, La.	1.0	1.0	1.0	1.0	1.0	1.0
Beaumont, Texas	1.0	2.0	1.0	2.0	1.0	1.0

Table 49. - Seed quality scores for the strains in Uniform Group VII, 1967

Location	Bragg	Semmes	D61-4269	F62-1058	N63-1926	D58-4384
			East Coast			
Rocky Mount, N.C.	1.0	2.0	1.5	2.0	1.0	1.5
Clayton, N.C.	1.0	2.0	1.5	1.5	1.5	1.5
Willard, N.C.	1.0	1.5	1.0	1.0	1.0	1.0
Hartsville, S.C.	2.0	2.0	1.0	2.0	2.0	2.0
			Southeast			
Blackville, S.C.	2.0	2.0	2.0	2.0	1.0	1.0
Tallassee, Ala.	1.5	2.5	1.5	2.0	2.5	2.5
Gainesville, Fla.	1.3	1.0	1.0	1.0	1.3	1.0
Live Oak, Fla.(A)	1.0	2.0	1.3	1.3	1.0	1.0
Live Oak, Fla.(B)	1.3	1.3	1.0	1.3	2.0	1.0
Quincy, Fla.	4.0	3.0	3.0	3.0	3.0	2.0
Jay, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	1.3	1.5	1.3	1.7	1.8	1.0
Baton Rouge, La.	3.0	4.0	2.0	2.0	4.0	2.0
			Upper and Central South			
Clemson, S.C.	2.0	3.0	2.0	2.0	1.5	2.5
Experiment, Ga.	1.5	1.5	1.2	1.2	1.5	1.0
			Delta and West			
Stoneville, Miss.(A)	2.0	2.7	2.0	2.0	2.0	2.0
Stoneville, Miss.(B)	2.0	2.3	2.0	2.3	2.0	2.3
Stuttgart, Ark.	2.0	2.3	1.7	2.3	2.0	2.0
Rohwer, Ark.	2.0	2.7	2.7	3.0	2.3	2.0
St. Joseph, La.	2.0	3.0	2.0	2.0	2.0	2.0
Curtis, La.	1.0	2.0	1.0	2.0	1.0	2.0
Beaumont, Texas	2.0	2.7	3.0	2.7	1.3	1.7

Table 49. - (continued)

Location	F64-1683	F64-1881	N63-858	N63-908	N63-1131	N63-1206
			East Coast			
Rocky Mount, N.C.	1.5	1.5	1.0	1.0	1.5	1.0
Clayton, N.C.	1.0	2.0	1.0	1.0	1.5	1.0
Willard, N.C.	1.0	1.5	1.0	1.0	1.0	1.0
Hartsville, S.C.	2.0	3.0	1.0	2.0	2.0	1.0
			Southeast			
Blackville, S.C.	1.0	4.0	1.0	1.0	2.0	1.0
Tallassee, Ala.	2.0	1.5	2.0	2.5	2.0	2.0
Gainesville, Fla.	1.0	1.0	1.0	1.6	1.6	1.0
Live Oak, Fla.(A)	1.0	1.3	1.0	2.0	2.3	2.0
Live Oak, Fla.(B)	1.0	1.0	1.0	2.0	1.0	1.3
Quincy, Fla.	4.0	3.0	2.0	3.0	3.0	4.0
Jay, Fla.	1.0	2.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	1.3	3.0	1.8	2.1	1.3	1.7
Baton Rouge, La.	2.0	3.0	3.0	4.0	3.0	4.0
			Upper and Central South			
Clemson, S.C.	2.0	3.0	1.5	2.0	1.5	1.0
Experiment, Ga.	1.5	1.5	1.3	1.0	1.3	1.2
			Delta and West			
Stoneville, Miss.(A)	2.3	2.0	2.0	2.0	2.0	2.0
Stoneville, Miss.(B)	2.0	2.0	2.0	2.0	2.0	2.0
Stuttgart, Ark.	1.7	2.3	1.7	1.7	1.7	2.0
Rohwer, Ark.	4.0	3.3	3.0	3.0	3.0	2.7
St. Jospeh, La.	3.0	3.0	3.0	2.0	3.0	3.0
Curtis, La.	2.0	2.0	2.0	1.0	2.0	1.0
Beaumont, Texas	2.7	3.3	2.7	2.3	2.3	2.0

PRELIMINARY GROUP VII

1967

Preliminary Group VII nurseries, including 34 experimental strains and the two check varieties Bragg and Lee, were grown at 8 locations. The parentage of these strains is reported in table 50. Performance data are summarized in tables 51 through 56. Differences among strains for seed yield were significant at the 5% level of confidence at each of the locations and means for the 8 locations differed significantly. Seed yields for Bragg and Lee were similar. Two strains had mean seed yields significantly higher than Bragg, while six others had mean yields slightly higher than Bragg. Of the eight North Carolina selections, seven had average seed yields higher than Bragg.

Fourteen strains had higher protein and lower oil percentage than Bragg. D65-6765 had an average yield slightly above Bragg along with 12% higher protein and 10% lower oil. F65-1376 had a seed yield slightly lower than Bragg but had 13% higher protein content.

D65-6776, basically Jackson but with resistance to bacterial pustule, yielded as well as Bragg, was free of seed coat mottling, but shattered more.

The two strains with seed yields significantly higher than Bragg, N64-2430 and N64-2451, had significantly higher oil content than Bragg.

F63-3999 has been included in Uniform Group VIII for the past 2 years. It appeared to be too early for that group so was also included with Preliminary VII. Maturity was rated similar to that of Bragg. Its mean yield was slightly lower than that of Bragg. It did not appear to have sufficient advantages over Bragg to merit further testing in Group VII.

Four groups of bulked material from Bragg x Semmes were included. Mean yields of these bulks were very similar. However, the bulk advanced on clay at Stoneville yielded significantly less than Bragg at Willard but significantly higher than Bragg at Beaumont.

Table 50. - Parentage of strains in Preliminary Group VII, 1967

	Variety or strain	Parentage	Generation composited
1.	Bragg		
2.	Lee		
3.	D49-772	Roanoke x N45-745	F_5
4.	D51-4877	Roanoke x N45-745	F_6
5.	D55-4102	Ogden x CNS	F_7
6.	D65-6734	D58-3358 x D59-9289	F_5
7.	D65-6739	D58-3358 x D59-9289	F_5
8.	D65-6765	D58-3358 x D59-9289	F_5
9.	D65-6776	Jackson(4) x D49-2491	F_7
10.	D65-6788	Lee(2) x Rokusun	F_5
11.	D65-6792	Lee(2) x Rokusun	F_5
12.	D65-6795	Lee(2) x Rokusun	F_5
13.	D67-B1	Bragg x Semmes - Bulk F_6 advanced at Stoneville	
14.	D67-B2	Bragg x Semmes - Bulk F_6 advanced at Gainesville	
15.	D67-B3	Bargg x Semmes, composite 46 F_5 lines resistant to P.R.	
16.	D67-B4	Bragg x Semmes, composite 33 F_5 lines resist. to P.R. and R.K.	
17.	F63-3999	F55-822 x (Roanoke x CNS-4)	F_6
18.	F64-2420	(F55-224 x D55-4073) x (F58-5788 x D56-4065)	F_5
19.	F65-1193	D55-4110 x D56-4065	F_5
20.	F65-1242	D55-4110 x (Biloxi x Sioux)	F_5
21.	F65-1376	(F55-224 x D55-4073) x (F58-5788 x D56-4065)	F_5
22.	F65-1377	(F55-224 x D55-4073) x (F58-5788 x D56-4065)	F_5
23.	F65-1597	Bragg x D60-8107	F_4
24.	F65-1627	Bragg x D60-8107	F_4
25.	F65-1691	Bragg x D60-8107	F_4
26.	F65-1718	Bragg x D60-8107	F_4
27.	F65-1752	Bragg x D60-8107	F_4
28.	F65-1753	Bragg x D60-8107	F_4
29.	N62-2249	(N52-3908 x N51-1675) x (Ogden x Lee)	F_5
30.	N62-2280	(N52-3908 x N51-1675) x (Ogden x Lee)	F_5
31.	N63-1130	D58-3358 x D59-9289	F_4
32.	N63-1712	D58-3358 x D59-9289	F_4
33.	N64-374	(D58-1899 x D59-2205) x (N55-47 x D56-1215)	F_4
34.	N64-1681	(N55-3843 x N55-2908) x D56-1192	F_4
35.	N64-2430	(N55-5931 x N58-3818) x D56-1185	F_5
36.	N64-2451	(N55-5931 x N58-3818) x D56-1185	F_5

Table 51. - General summary of performance for the strains in Preliminary Group VII, 1967

Strain	Seed yield	Maturity index	Ht.	Percent Oil	Percent Protein	Shatter	B.P.	P.R.	Percent mottled seed
Bragg	40.7	10-21	40	21.8	39.9	1.2	1.0	1.0	5.0
Lee	40.6	-7	30	21.9	41.0	1.5	1.0	1.0	3.0
D49-772	37.0-	-4	37	21.3	40.0	3.5	1.0	1.0	3.0
D51-4877	36.6-	-5	29	21.7	40.8	3.5	1.0	1.0	15.0
D55-4102	37.6	+4	35	19.6-	45.7+	1.2	1.0	1.0	0.0
D65-6734	34.7-	-2	41	20.4-	42.8+	2.0	1.0	1.0	7.0
D65-6739	35.5-	-2	40	20.4-	44.6+	3.2	1.0	1.0	12.0
D65-6765	41.0	0	38	19.7-	44.8+	2.0	1.0	1.0	13.0
D65-6776	41.0	+3	38	22.1	39.3	2.2	1.0	1.0	0.0
D65-6788	37.3	-2	30	22.3	41.6+	1.5	1.0	1.0	10.0
D65-6792	34.2-	-6	34	22.0	43.2+	3.0	1.0	1.0	4.0
D65-6795	37.9	+1	37	21.4	42.4+	1.5	1.0	1.0	14.0
D67-B1	38.8	0	40	21.3	41.3+	1.5	1.0	1.0	5.0
D67-B2	38.0	0	40	21.2	41.0	1.5	1.0	1.0	9.0
D67-B3	37.8	0	40	21.0-	41.4+	2.0	1.0	1.0	5.0
D67-B4	37.4	0	39	21.2	40.7	1.5	1.0	1.0	7.0
F63-3999	39.8	0	41	20.6-	42.8+	1.5	1.0	1.0	6.0
F64-2420	35.6-	+6	41	19.4-	44.1+	1.0	1.0	1.0	15.0
F65-1193	31.8-	+4	35	16.8-	47.1+	1.5	1.0	1.0	16.0
F65-1242	28.3-	+5	40	16.4-	49.4+	1.5	1.0	1.0	0.0
F65-1376	38.9	+3	41	20.4-	45.1+	1.0	1.0	1.0	2.0
F65-1377	35.9-	+5	39	19.3-	45.2+	1.0	1.0	1.0	1.0
F65-1597	39.3	+3	42	20.0-	45.1+	2.0	1.0	1.0	16.0
F65-1627	36.0-	0	40	19.8-	44.4+	1.5	1.0	1.0	7.0
F65-1691	40.5	-3	39	21.6	41.3+	1.5	1.0	4.0	6.0
F65-1718	36.6-	-3	41	19.3-	43.7+	1.0	1.0	1.0	35.0
F65-1752	39.8	-2	41	22.0	40.6	1.0	1.0	1.0	5.0
F65-1753	40.1	0	42	21.6	40.2	1.0	1.0	1.0	8.0
N62-2249	41.7	-2	36	22.1	40.7	1.5	1.0	4.0	0.0
N62-2280	42.0	-1	37	20.9-	40.9	2.0	1.0	2.0	0.0
N63-1130	42.4	-2	38	22.2	39.1	3.5	1.0	1.0	1.0
N63-1712	42.3	0	38	22.0	40.0	2.5	1.0	1.0	0.0
N64-374	38.7	-2	36	21.4	41.3+	1.8	1.0	1.0	3.0
N64-1681	43.9	-6	35	22.4	40.6	3.0	1.0	1.0	2.0
N64-2430	46.9+	0	36	23.6+	39.3	1.5	1.0	1.0	1.0
N64-2451	45.0+	-2	35	23.1+	39.4	2.0	1.0	1.0	0.0
L.S.D.(.05)	3.7			0.7	1.3				
L.S.D.(.01)	4.9			0.9	1.7				

Table 52. - Seed yield, in bushels per acre, for the strains in Preliminary Group VII, 1967

Strain	Willard, N.C.	Black-ville, S.C.	Tallas-see, Ala.	Live Oak, Fla.	Jay, Fla.	Stone-ville, Miss.(A)	Stone-ville, Miss.(B)	Beaumont, Texas
Bragg	45.5	42.4	50.7	35.5	44.3	37.2	39.0	31.5
Lee	37.2	40.8	57.2	34.8	36.3-	45.4+	40.0	33.1
D49-772	34.9-	39.9	45.3	31.5	36.7-	39.7	36.3	31.9
D51-4877	42.4	39.3	39.8	31.4	34.8-	38.7	31.6	35.2
D55-4102	37.9	43.8	35.7-	34.1	37.9-	36.2	36.8	38.9
D65-6734	38.4	36.3	38.1-	30.4	34.8-	36.6	36.2	27.1
D65-6739	38.4	38.2	33.0-	31.4	33.7-	34.1	35.4	39.7
D65-6765	40.6	42.0	51.4	28.3-	41.2	42.0	41.6	40.9
D65-6776	46.9	44.2	45.9	38.8	44.3	39.0	39.0	30.2
D65-6788	42.8	41.7	43.2	33.7	36.3-	41.2	35.3	23.9
D65-6792	39.0	36.8	37.8-	32.0	29.9-	37.3	36.7	23.9
D65-6795	43.0	41.7	41.9	35.0	39.7	39.8	31.4	31.3
D67-B1	34.9-	42.6	40.2	35.3	41.2	35.0	36.0	44.9+
D67-B2	37.2	42.4	49.7	35.6	37.8-	35.8	37.8	27.8
D67-B3	30.3	41.3	43.2	31.6	39.4-	40.9	38.4	27.7
D67-B4	37.4	45.1	45.9	35.9	41.6	35.3	31.8	26.4
F63-3999	40.6	41.7	51.1	37.8	39.3-	39.2	37.5	31.5
F64-2420	36.6-	42.4	43.2	33.6	37.1-	29.9	31.7	30.4
F65-1193	32.1-	35.8-	41.5	27.2-	32.2-	25.7-	24.2-	35.8
F65-1242	30.3	30.6-	25.9-	25.4-	33.7-	24.7-	22.4-	33.6
F65-1376	40.2	46.0	47.3	32.2	36.3-	36.6	35.2	37.1
F65-1377	32.2-	41.9	42.5	30.6	39.7	29.5	36.0	35.3
F65-1597	35.7-	44.2	50.4	30.8	36.3-	36.0	34.7	46.1+
F65-1627	42.1	39.4	38.8-	32.0	35.6-	32.1	33.7	35.1
F65-1691	40.5	48.4	50.7	38.8	40.5	38.4	28.2-	38.5
F65-1718	37.3	43.1	39.8	32.1	33.7-	34.0	34.4	38.5
F65-1752	37.2	45.0	48.0	36.6	41.6	40.5	36.6	33.1
F65-1753	42.8	47.3	42.9	31.6	43.5	41.0	39.2	32.5
N62-2249	45.6	47.9	52.4	31.8	47.7	43.5	30.6-	33.9
N62-2280	41.8	46.6	49.4	34.4	45.0	42.9	38.2	37.6
N63-1130	48.3	41.6	45.9	42.6+	42.4	39.6	42.4	36.1
N63-1712	43.1	46.9	50.4	32.5	42.8	49.2+	39.4	33.9
N64-374	38.1	40.4	47.3	28.3-	36.7-	41.7	36.8	40.9
N64-1681	43.6	49.5+	45.9	34.7	44.3	49.2+	45.6	38.2
N64-2430	52.8	48.6	52.8	39.5	46.5	47.1+	42.0	45.9+
N64-2451	44.8	49.9+	48.0	40.4	47.7	45.2+	35.7	48.1+
L.S.D.(.05)	8.5	6.3	10.9	5.5	4.8	8.0	8.3	10.6
C.V.	10%	7%	12%	8%	6%	10%	11%	15%

Table 53. - Oil percentages for the strains in Preliminary Group VII, 1967

Strain	Willard, N.C.	Blackville, S.C.	Jay, Fla.	Stoneville, Miss.(A)	Beaumont, Texas
Bragg	20.8	21.8	21.9	22.3	22.2
Lee	20.7	22.0	21.9	22.6	22.1
D49-772	20.0	21.5	21.7	21.0	22.1
D51-4877	20.8	21.7	22.6	21.0	22.4
D55-4102	18.3	20.1	19.5	19.7	20.4
D65-6734	19.3	20.5	20.5	20.6	21.2
D65-6739	19.6	20.5	20.5	21.2	20.3
D65-6765	18.9	19.3	22.0	19.2	19.2
D65-6776	20.9	21.6	21.9	22.1	23.9
D65-6788	21.3	22.7	22.5	22.1	23.0
D65-6792	21.3	21.8	23.1	20.7	22.9
D65-6795	20.5	21.8	20.4	21.7	22.8
D67-B1	20.0	21.5	22.1	21.4	21.5
D67-B2	20.0	21.2	21.6	21.2	22.0
D67-B3	19.9	21.8	20.3	21.0	22.0
D67-B4	20.2	21.9	21.3	21.0	21.8
F63-3999	19.6	20.4	21.1	21.2	20.7
F64-2420	17.9	19.5	19.6	20.4	19.8
F65-1193	15.9	17.2	17.3	16.3	17.1
F65-1242	14.7	16.2	17.0	17.4	16.8
F65-1376	20.2	20.4	20.3	20.3	20.9
F65-1377	17.9	19.7	19.0	20.0	19.8
F65-1597	19.2	20.2	19.9	20.1	20.5
F65-1627	18.9	20.1	20.3	19.5	20.4
F65-1691	20.3	21.3	21.8	21.6	23.0
F65-1718	18.2	19.1	19.8	19.5	19.9
F65-1752	20.4	21.8	21.6	23.2	22.8
F65-1753	20.4	21.6	21.9	21.7	22.4
N62-2249	20.7	22.6	22.2	21.4	23.5
N62-2280	18.8	21.2	21.5	20.9	22.2
N63-1130	21.3	21.9	23.2	21.7	23.0
N63-1712	20.9	21.6	21.7	22.2	23.8
N64-374	19.9	21.0	21.8	22.0	22.4
N64-1681	21.9	22.7	22.4	22.1	22.8
N64-2430	23.4	23.9	23.5	23.0	24.0
N64-2451	22.6	23.9	23.1	22.4	23.7

Table 54. - Protein percentages for the strains in Preliminary Group VII, 1967

Strain	Willard, N.C.	Blackville, S.C.	Jay, Fla.	Stoneville, Miss.(A)	Beaumont, Texas
Bragg	42.3	39.1	41.6	36.7	39.9
Lee	42.3	39.5	42.8	38.8	41.7
D49-772	40.9	39.4	41.8	38.7	39.5
D51-4877	43.0	38.5	41.9	40.2	40.3
D55-4102	47.6	44.8	46.7	44.7	44.5
D65-6734	40.9	42.5	45.1	41.0	44.4
D65-6739	44.7	43.7	45.8	42.5	46.1
D65-6765	46.8	43.4	43.4	44.0	46.2
D65-6776	41.2	39.5	40.7	37.7	37.4
D65-6788	45.9	39.2	42.0	40.1	40.8
D65-6792	43.9	42.3	44.4	42.6	42.9
D65-6795	43.6	39.5	44.1	42.0	42.8
D67-B1	43.3	39.9	42.4	39.7	41.0
D67-B2	43.5	39.8	42.4	40.1	39.1
D67-B3	43.0	39.8	44.6	40.2	39.4
D67-B4	42.9	40.0	43.1	38.0	39.7
F63-3999	44.4	41.0	44.8	42.0	41.7
F64-2420	47.2	43.2	45.2	40.6	44.1
F65-1193	48.4	45.1	46.7	48.7	46.7
F65-1242	51.1	47.9	49.5	48.6	49.9
F65-1376	47.0	43.2	46.7	44.6	44.1
F65-1377	47.7	43.4	47.1	43.5	44.5
F65-1597	47.7	43.9	47.3	44.1	42.7
F65-1627	46.9	42.9	45.8	42.8	43.7
F65-1691	43.3	40.3	42.7	39.8	40.4
F65-1718	46.2	42.8	45.2	41.8	42.4
F65-1752	43.4	40.0	42.8	37.1	39.8
F65-1753	42.7	38.8	41.9	38.1	39.5
N62-2249	42.7	40.2	42.2	39.7	38.9
N62-2280	42.7	40.0	41.0	40.2	40.6
N63-1130	40.4	38.4	40.5	37.8	38.4
N63-1712	41.6	40.1	42.2	37.6	38.7
N64-374	42.4	41.3	42.7	39.5	40.6
N64-1681	42.1	39.1	43.0	38.0	40.8
N64-2430	39.2	38.1	41.0	39.0	39.4
N64-2451	40.6	37.9	41.2	38.2	39.3

Table 55. - Plant height for the strains in Preliminary Group VII, 1967

Strain	Willard, N.C.	Black-ville, S.C.	Tallas-see, Ala.	Live Oak, Fla.	Jay, Fla.	Stone-ville, Miss.(A)	Stone-ville, Miss.(B)	Beaumont, Texas
Bragg	42	33	48	35	41	46	42	30
Lee	35	28	32	25	26	38	38	21
D49-772	37	30	39	37	40	44	44	25
D51-4877	32	29	39	25	29	34	29	18
D55-4102	37	36	41	27	30	39	38	22
D65-6734	45	40	50	39	41	47	42	26
D65-6739	40	38	52	35	38	46	42	30
D65-6765	37	35	50	34	36	43	37	28
D65-6776	42	37	49	35	35	44	40	24
D65-6788	32	27	37	26	28	35	36	20
D65-6792	37	33	39	28	34	44	37	22
D65-6795	37	36	42	36	36	43	37	29
D67-B1	42	36	53	38	40	46	42	26
D67-B2	43	41	53	40	40	42	38	23
D67-B3	47	36	51	37	40	47	38	26
D67-B4	40	38	51	35	38	43	40	25
F63-3999	46	37	51	39	41	46	40	28
F64-2420	43	36	50	40	40	47	40	34
F65-1193	35	30	35	35	35	44	37	26
F65-1242	42	38	49	35	40	46	41	28
F65-1376	41	36	50	35	40	45	43	36
F65-1377	39	31	49	39	38	43	38	33
F65-1597	47	39	45	39	44	47	42	36
F65-1627	46	38	51	37	41	44	38	23
F65-1691	42	37	53	33	36	45	39	24
F65-1718	46	34	48	39	42	47	40	32
F65-1752	45	37	47	37	39	48	38	34
F65-1753	43	35	54	35	40	45	43	38
N62-2249	41	28	45	28	33	38	39	32
N62-2280	38	35	45	31	32	43	36	34
N63-1130	37	31	50	35	35	42	40	30
N63-1712	38	34	46	33	35	45	38	32
N64-374	37	36	42	28	34	39	37	36
N64-1681	40	30	43	30	34	41	37	24
N64-2430	39	34	44	29	35	39	36	28
N64-2451	37	32	44	30	33	40	38	28

Table 56. - Seed quality scores for the strains in Preliminary Group VII, 1967

Strain	Willard, N.C.	Black-ville, S.C.	Tallas-see,	Live Oak, Fla.	Jay, Fla.	Stone-ville, Miss.(A)	Stone-ville, Miss.(B)	Beaumont, Texas
Bragg	1.0	1.0	1.3	2.0	1.0	2.0	2.0	3.6
Lee	1.0	1.0	1.2	2.0	1.0	2.0	2.0	3.0
D49-772	1.5	2.0	1.6	3.0	1.0	2.0	2.0	2.9
D51-4877	1.5	1.0	1.5	1.0	1.0	2.0	2.0	2.6
D55-4102	1.0	1.0	1.0	1.0	1.0	2.0	2.0	1.8
D65-6734	1.0	2.0	1.4	2.0	1.0	2.0	2.0	1.6
D65-6739	1.5	1.0	1.5	2.0	1.0	2.0	2.0	2.0
D65-6765	1.5	1.0	1.2	2.0	1.0	2.0	2.0	2.8
D65-6776	1.5	1.0	1.7	2.0	1.0	2.0	2.0	2.9
D65-6788	1.5	1.0	1.5	1.0	1.0	2.0	2.0	2.4
D65-6792	1.0	2.0	2.0	1.5	1.0	2.0	2.5	2.5
D65-6795	1.0	2.0	1.8	2.0	1.0	2.0	2.0	2.3
D67-B1	1.0	1.0	1.5	2.0	1.0	2.0	2.5	2.5
D67-B2	1.0	1.0	1.8	1.0	1.0	2.3	2.0	2.8
D67-B3	1.0	1.0	1.8	1.5	1.0	2.5	2.0	2.5
D67-B4	1.0	1.0	1.8	1.5	1.0	2.0	2.0	2.7
F63-3999	1.0	1.0	1.3	1.0	1.0	2.0	2.0	2.3
F64-2420	1.5	1.0	1.0	1.0	1.0	2.0	2.0	2.7
F65-1193	1.5	1.0	1.0	1.0	1.0	2.0	2.5	3.3
F65-1242	1.0	4.0	1.2	1.5	1.0	2.0	2.0	3.0
F65-1376	1.0	1.0	1.3	2.0	1.0	2.0	2.0	2.8
F65-1377	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.9
F65-1597	1.0	1.0	1.5	2.0	1.0	2.0	2.5	2.8
F65-1627	1.0	1.0	1.4	2.0	1.0	2.0	2.0	1.8
F65-1691	1.5	2.0	2.0	1.5	1.0	2.0	2.5	3.1
F65-1718	1.5	1.0	1.8	1.5	1.0	2.0	2.0	3.0
F65-1752	1.0	1.0	1.5	1.5	1.0	2.0	2.0	2.2
F65-1753	1.0	1.0	1.5	2.0	1.0	2.0	2.0	3.0
N62-2249	1.0	1.0	1.5	2.0	1.0	2.0	2.0	2.8
N62-2280	1.0	1.0	1.5	1.5	1.0	2.0	2.0	3.2
N63-1130	1.0	1.0	1.7	1.5	1.0	2.0	2.0	2.9
N63-1712	1.0	1.0	1.5	1.5	1.0	2.0	2.0	2.2
N64-374	1.0	1.0	1.2	2.0	1.0	2.0	2.5	2.9
N64-1681	1.5	2.0	1.8	2.5	1.0	2.0	2.0	3.0
N64-2430	1.0	1.0	1.5	1.5	1.0	2.0	2.0	2.2
N64-2451	1.0	1.0	1.3	2.0	1.0	2.0	2.0	2.2

UNIFORM GROUP VIII

1967

	Variety or strain	Parentage	Generation composited
1.	Hampton	Majos x Lee	
2.	Hardee	D49-772 x Improved Pelican	F_7
3.	F63-3938	Seminole x F55-822	F_6
4.	F63-3999	F55-822 x (Roanoke x CNS-4)	F_6
5.	F63-4000	F55-822 x (Roanoke x CNS-4)	F_6
6.	Coker 318	Jackson x Co56-251	
7.	F64-1928	F57-1471 x D53-1301	F_5
8.	F64-2505	F57-1471 x F58-3726	F_5
9.	F64-2570	F57-1471 x F58-3726	F_5
10.	F64-2571	F57-1471 x F58-3726	F_5
11.	F64-2597	F57-1471 x F58-3726	F_5
12.	F64-2778	PI 171,445 x D51-5091	F_9

Background of strains used as parents:

D49-772 is a selection from Roanoke x N45-745 which was tested in Uniform Group VII. It is resistant to bacterial pustule and target spot.

F55-822 is the parent line of Bragg.

F57-1471 is a selection from the cross D49-2491 x Majos.

D53-1301 is a strain of Lee maturity from the same cross as Hill.

F58-3726 is from the same cross as Hampton.

D51-5091 is a rather tall growing type selected from Roanoke x N45-745. It was grown in Uniform Group VII for the years 1954-1957.

Twenty-six Uniform Group VIII nurseries were planted. Results of 22 nurseries are summarized in tables 57 through 63. Table 57 gives a general summary of agronomic qualities, chemical composition of the seed and field reaction to several diseases. Two- and three-year data are reported for seed yield and oil and protein percentages.

Seed yield differences were significant at the 5% level of confidence at 20 of the 22 locations. The combined analysis also showed differences among strains for seed yield to be significant. There were no strains having a higher seed yield than Hampton. Eight strains had a mean yield significantly lower than Hampton. All but one of the strains had a higher protein percentage than Hampton.

F63-3938 averaged 3.7 bushels per acre lower in yield than Hampton for the two years. F63-3999 and F63-4000 have yielded very similarly to Hampton. F63-3999 is slightly earlier in maturity. Both have higher protein content and lower oil.

Six of the seven strains grown one year matured later than Hampton, while five were later than Hardee. F64-2571 yielded nearly as well as Hampton, was 6 days later and 5 inches taller. Seed holding was not as good as for Hampton.

Table 57. - General summary of performance for the strains in Uniform Group VIII, 1967

	Hampton	Hardee	F63-3938	F63-3999	F63-4000	Coker 318
Seed Yield-1967	44.0	38.0-	38.9-	42.3	44.0	39.0-
-1966-67	43.7	39.2	40.0	42.8	43.3	
-1965-67	41.9	37.5				
Oil Content-1967	22.4	21.6-	20.9-	20.7-	20.9-	20.8-
-1966-67	22.5	21.6	21.2	20.6	21.0	
-1965-67	22.7	21.6				
Protein Content-1967	38.8	41.4+	43.2+	43.0+	42.6+	40.5+
-1966-67	38.5	41.1	42.6	42.6	42.2	
-1965-67	38.4	41.0				
Seed size	16.7	14.5-	19.9+	15.2-	17.5	14.7-
Maturity index	10-29	+5	0	-2	0	+3
Height	38	45	40	40	39	46
Shattering	1.1	1.8	2.0	1.5	1.7	2.1
Bacterial pustule	1.0	1.0	1.0	1.0	1.0	1.0
Phytophthora rot	4.0	1.0	1.3	1.7	1.7	3.0
Flower color	P	W	P	P	P	W
Pubescence color	G	G	T	T	T	G

Table 57. - (continued)

	F64-1928	F64-2505	F64-2570	F64-2571	F64-2597	F64-2778
Seed Yield - 1967	37.5-	37.6-	35.5-	42.3	34.9-	37.8-
- 1966-67						
- 1965-67						
Oil Content - 1967	21.5-	20.5-	20.0-	20.7-	20.6-	20.9-
- 1966-67						
- 1965-67						
Protein Content - 1967	39.9+	41.0+	41.0+	40.1+	39.3	39.9+
- 1966-67						
- 1965-67						
Seed Size	13.2-	15.9	15.3-	15.9	15.7-	14.0-
Maturity index	+7	+7	+7	+6	+8	-1
Height	48	53	47	43	48	48
Shattering	1.1	1.5	1.5	2.4	1.4	2.7
Bacterial pustule	1.0	1.0	1.0	1.0	1.0	1.0
Phytophthora rot	1.0	1.0	2.0	1.0	1.0	3.3
Flower color	W	P	S	P	W	P
Pubescence color	G	G	G	G	G	G

Table 58. - Seed yield, in bushels per acre, for the strains in Uniform Group VIII, 1967

Location	Hampton	Hardee	F63-3938	F63-3999	F63-4000	Coker 318	F64-1928
			South				
Florence, S.C.(A)	50.0	39.4-	44.0	51.6	51.6	43.3	45.2
Florence, S.C.(B)	47.9	38.7-	41.0-	40.8-	38.7-	46.6	40.1-
Hartsville, S.C.(A)	38.3	33.0	32.1	37.1	41.5	33.9	33.9
Hartsville, S.C.(B)	41.0	38.0	38.8	37.5-	38.7	41.5	36.7-
Blackville, S.C.(A)	31.3	31.6	32.2	23.5-	28.9	25.6-	31.5
Blackville, S.C.(B)	44.5	40.3	40.5	40.9	48.0	44.9	38.2-
Experiment, Ga.	52.0	41.5-	46.8	50.6	55.3	42.7-	41.3-
Tallassee, Ala.	55.4	47.2-	46.0-	52.9	52.2	43.8-	46.7-
Tifton, Ga.	41.8	37.0-	39.1	45.9	44.1	36.3-	35.6-
Live Oak, Fla.(A)	42.5	40.0	36.5-	47.4	44.9	41.4	41.0
Live Oak, Fla.(B)	41.8	38.7	38.3	42.7	42.4	38.0	32.4-
Gainesville, Fla.	46.1	41.7	33.6-	46.6	46.2	43.1	35.4-
Marianna, Fla.	25.1	20.5-	20.9	28.3	26.6	17.8-	20.2-
Quincy, Fla.	36.2	21.5-	31.2	27.3-	22.9-	25.9-	23.0-
Jay, Fla.	46.6	37.6-	41.8	42.8	43.6	42.1	40.3-
Fairhope, Ala.	48.1	44.8	46.6	44.9	47.6	45.4	41.9-
Poplarville, Miss.	59.3	55.3	52.5	58.8	57.6	54.3	54.3
Baton Rouge, La.	44.1	44.8	38.2	45.9	50.5	45.1	40.5
St. Joseph, La.	52.5	43.8-	42.2-	45.8-	45.8-	35.7-	34.0-
Curtis, La.	45.3	35.3-	36.6-	44.7	49.8	34.2-	39.3
Crowley, La.	41.4	34.2	46.1	32.5	45.7	42.8	38.8
Beaumont, Texas	36.6	32.2	30.2-	41.4+	46.2+	33.1	34.0
Mean	44.0	38.0-	38.9-	42.3	44.0	39.0-	37.5-

Table 58. - (continued)

Location	F64-2505	F64-2570	F64-2571	F64-2597	F64-2778	L.S.D. (.05)	C.V.
			South				
Florence, S.C.(A)	44.7	41.0-	46.8	43.6	43.8	7.0	9%
Florence, S.C.(B)	41.3-	38.0-	45.2	31.8-	40.6-	6.3	9%
Hartsville, S. C.(A)	36.2	36.0	42.7	28.8-	32.6	6.8	11%
Hartsville, S. C.(B)	35.3-	37.1-	41.2	31.3-	38.8	3.3	5%
Blackville, S. C.(A)	30.7	29.4	34.1	32.7	32.9	4.8	9%
Blackville, S. C.(B)	39.0-	40.4	43.2	34.7-	39.7	5.3	8%
Experiment, Ga.	40.2-	33.7-	49.0	32.9-	42.2	6.2	8%
Tallassee, Ala.	42.2-	40.4-	49.9	40.4-	40.6-	5.7	7%
Tifton, Ga.	35.6-	30.3-	45.4	33.8-	43.3	4.5	7%
Live Oak, Fla.(A)	38.3	36.5-	45.6	36.8-	37.4	5.7	8%
Live Oak, Fla.(B)	32.5-	33.6-	38.1	33.8-	36.4-	4.5	7%
Gainesville, Fla.	35.4-	43.1	41.1	37.6-	43.2	6.0	9%
Marianna, Fla.	19.3-	19.0-	24.1	16.5-	21.4	4.5	12%
Quincy, Fla.	23.5-	27.1-	32.4	24.8-	28.7-	5.7	13%
Jay, Fla.	40.1-	42.1	46.4	37.8-	43.6	4.9	7%
Fairhope, Ala.	41.2-	42.6-	48.0	37.5-	41.1-	4.9	7%
Poplarville, Miss.	55.3	49.2	53.8	54.0	46.2	N.S.	8%
Baton Rouge, La.	46.2	37.4	39.2	39.7	39.5	7.4	10%
St. Joseph, La.	40.5-	38.0-	44.5-	38.2-	40.1-	6.5	9%
Curtis, La.	43.2	29.3-	43.4	35.8-	33.3-	8.6	13%
Crowley, La.	37.1	33.6	40.8	34.7	34.7	N.S.	18%
Beaumont, Texas	30.4-	30.5-	36.6	31.2-	32.5	4.8	8%
Mean	37.6-	35.5-	42.3	34.9-	37.8-	1.9	

Table 59. - Chemical composition and seed size for the strains in Uniform Group VIII, 1967

Location	Hampton	Hardee	F63-3938	F63-3999	F63-4000	Coker 318	F64-1928
			Oil Percentage				
Hartsville, S.C.(A)	21.8	21.7	20.7	20.1	20.7	20.5	21.2
Blackville, S.C.(B)	21.8	21.1	20.6	20.2	20.7	20.5	22.6
Tifton, Ga.	21.1	20.6	19.7	20.4	20.5	19.6	21.3
Live Oak, Fla.	22.9	22.1	22.3	21.5	22.0	21.8	21.6
Gainesville, Fla.	23.7	21.5	20.4	21.1	20.9	21.1	21.7
Jay, Fla.	22.7	21.9	21.3	21.1	20.9	21.3	20.9
Baton Rouge, La.	22.5	22.0	21.6	20.2	20.2	21.0	21.0
Beaumont, Texas	22.9	21.5	20.3	20.8	21.5	20.9	21.9
Mean	22.4	21.6-	20.9-	20.7-	20.9-	20.8-	21.5-
			Protein Percentage				
Hartsville, S.C.(A)	37.6	39.2	41.6	41.8	40.9	39.2	38.0
Blackville, S.C.(B)	37.1	39.3	41.1	41.5	40.7	39.2	37.6
Tifton, Ga.	41.3	43.1	46.8	43.6	44.5	43.3	41.6
Live Oak, Fla.	38.7	41.6	41.5	42.3	41.5	40.1	40.5
Gainesville, Fla.	38.3	41.8	46.2	43.5	42.6	40.9	40.5
Jay, Fla.	37.6	41.5	43.1	44.1	43.5	40.2	40.0
Baton Rouge, La.	40.1	42.3	43.0	44.4	44.6	41.4	40.6
Beaumont, Texas	39.6	42.2	42.2	43.0	42.5	39.5	40.0
Mean	38.8	41.4+	43.2+	43.0+	42.6+	40.5+	39.9+
			Grams per 100 Seeds				
Hartsville, S.C.(A)	17.8	15.4	21.9	15.7	18.0	15.8	12.9
Blackville, S.C.(B)	15.0	14.3	20.7	13.7	16.3	15.7	13.2
Tallassee, Ala.	18.7	15.4	21.6	16.6	19.2	17.0	14.5
Tifton, Ga.	15.6	12.8	19.6	14.0	16.1	14.6	12.0
Live Oak, Fla.	17.4	16.2	20.4	16.1	17.8	15.8	13.9
Gainesville, Fla.	17.4	15.2	18.9	15.7	18.3	13.9	13.5
Quincy, Fla.	15.3	13.5	19.5	14.3	17.3	12.3	13.2
Jay, Fla.	16.3	14.7	20.4	16.2	18.1	14.0	12.8
Beaumont, Texas	16.5	12.7	16.3	14.2	16.4	13.3	12.7
Mean	16.7	14.5-	19.9+	15.2-	17.5	14.7-	13.2-

Table 59. - (continued)

Location	F64-2505	F64-2570	F64-2571	F64-2597	F64-2778	L.S.D. (.05)
			Oil Percentage			
Hartsville, S.C.(A)	19.9	19.0	20.8	19.4	20.7	
Blackville, S.C.(B)	20.2	19.8	20.4	20.2	20.4	
Tifton, Ga.	21.0	19.6	20.0	19.3	20.3	
Live Oak, Fla.	20.3	20.5	20.8	21.5	21.1	
Gainesville, Fla.	20.6	20.8	21.7	21.5	21.6	
Jay, Fla.	20.5	20.2	20.6	21.1	21.2	
Baton Rouge, La.	20.6	20.0	20.6	20.7	20.6	
Beaumont, Texas	20.5	20.1	20.8	21.4	21.3	
Mean	20.5-	20.0-	20.7-	20.6-	20.9-	0.4
			Protein Percentage			
Hartsville, S.C.(A)	38.6	39.2	37.5	37.5	38.5	
Blackville, S.C.(B)	39.2	39.1	38.3	38.6	38.1	
Tifton, Ga.	42.6	41.8	43.7	42.6	41.3	
Live Oak, Fla.	40.8	40.8	39.2	39.1	39.2	
Gainesville, Fla.	42.8	41.8	40.8	39.7	40.1	
Jay, Fla.	40.4	40.8	39.3	39.0	40.1	
Baton Rouge, La.	41.5	42.0	41.0	39.9	41.0	
Beaumont, Texas	42.2	42.4	40.6	38.1	40.8	
Mean	41.0+	41.0+	40.1+	39.3	39.9+	0.8
			Grams per 100 Seeds			
Hartsville, S.C.(A)	14.1	14.9	15.4	13.9	13.2	
Blackville, S.C.(B)	16.5	16.7	15.8	16.8	14.0	
Tallassee, Ala.	17.4	18.6	17.8	17.7	15.5	
Tifton, Ga.	13.8	12.3	15.2	12.8	13.7	
Live Oak, Fla.	17.9	15.3	16.5	17.9	14.2	
Gainesville, Fla.	17.3	15.4	15.6	15.6	14.0	
Quincy, Fla.	16.0	14.7	16.0	15.7	13.5	
Jay, Fla.	16.5	17.3	15.7	17.1	14.4	
Beaumont, Texas	13.6	12.4	15.1	13.7	13.1	
Mean	15.9	15.3-	15.9	15.7-	14.0-	0.9

Table 60. - Relative maturity, days earlier (-) or later (+) than Hampton, for the strains in Uniform Group VIII, 1967

Location	Date planted	Hampton matured	Hardee	F63-3938	F63-3999	F63-4000	Coker 318
			South				
Florence, S.C.(A)	5-15	11-5	+5	-1	-2	-3	0
Florence, S.C.(B)	6-15	11-5	-1	+1	-4	-4	0
Hartsville, S.C.(A)	5-29	11-4	+5	+5	-3	-3	+4
Blackville, S.C.(A)	7-5	11-1	+6	+4	-2	+4	+5
Blackville, S.C.(B)	5-8	10-27	+10	-1	-7	-3	+9
Experiment, Ga.	5-29	10-26	+8	+1	-5	-2	+4
Tallassee, Ala.	5-11	10-26	+6	+1	-2	-1	+4
Tifton, Ga.	5-24	11-2	-3	0	0	+2	+4
Live Oak, Fla.(A)	6-6	10-23	+4	-3	-5	-3	+4
Live Oak, Fla.(B)	6-8	10-24	+4	-2	-5	-3	+4
Gainesville, Fla.	6-8	10-22	+3	-3	-4	-2	+3
Marianna, Fla.	6-5	10-30	+4	-4	-5	-3	+5
Jay, Fla.	5-28	10-25	+5	0	-5	-2	+3
Fairhope, Ala.	6-6	10-25	+8	+5	+5	+5	0
Poplarville, Miss.	6-19	10-28	+4	0	-4	+4	+5
Baton Rouge, La.	5-17	11-1	+3	-1	0	0	+1
St. Joseph, La.	5-19	11-2	+2	+2	+2	+2	+1
Curtis, La.	5-19	11-3	+2	+6	+5	+3	-2
Beaumont, Texas	5-18	10-23	+18	0	0	-4	0
Mean		10-29	+5	0	-2	0	+3

Table 60. - (continued)

Location	F64-1928	F64-2505	F64-2570	F64-2571	F64-2597	F64-2778
			South			
Florence, S.C.(A)	+4	+8	+3	+5	+8	-4
Florence, S.C.(B)	+7	+9	+9	+7	+9	-1
Hartsville, S.C.(A)	+5	+8	+7	+5	+8	+2
Blackville, S.C.(A)	+6	+7	+7	+6	+10	+3
Blackville, S.C.(B)	+11	+13	+13	+10	+14	+6
Experiment, Ga.	+10	+13	+14	+7	+14	+4
Tallassee, Ala.	+9	+11	+11	+10	+12	0
Tifton, Ga.	+4	+4	+4	-3	+4	-3
Live Oak, Fla.(A)	+10	+12	+9	+7	+11	-2
Live Oak, Fla.(B)	+9	+11	+7	+9	+11	-2
Gainesville, Fla.	+12	+10	+6	+4	+11	-1
Marianna, Fla.	+4	+5	+2	+4	+3	-2
Jay, Fla.	+9	+9	+10	+11	+11	-2
Fairhope, Ala.	+5	+5	+5	0	+5	-5
Poplarville, Miss	+11	+8	+8	+11	+8	-1
Baton Rouge, La.	+5	+2	+3	+5	+5	-3
St. Joseph, La.	+3	0	+3	+2	+2	0
Curtis, La.	-1	-1	-2	-2	-1	-1
Beaumont, Texas	+14	+5	+18	+16	+10	-6
Mean	+7	+7	+7	+6	+8	-1

Table 61. - Plant height for the strains in Uniform Group VIII, 1967

Location	Hampton	Hardee	F63-3938	F63-3999	F63-4000	Coker 318
			South			
Florence, S.C.(A)	48	55	44	48	46	49
Florence, S.C.(B)	37	43	39	36	33	43
Hartsville, S.C.(A)	35	39	39	40	39	44
Hartsville, S.C.(B)	32	37	34	33	32	39
Blackville, S.C.(A)	25	28	28	22	23	28
Blackville, S.C.(B)	38	47	37	37	37	44
Experiment, Ga.	45	52	47	43	41	56
Tallassee, Ala.	45	52	47	52	51	53
Tifton, Ga.	39	38	39	40	35	49
Live Oak, Fla.(A)	33	46	40	38	36	45
Live Oak, Fla.(B)	35	47	40	39	35	43
Gainesville, Fla.	38	41	39	37	36	41
Marianna, Fla.	44	46	40	40	42	49
Quincy, Fla.	32	40	34	31	26	39
Jay, Fla.	40	48	42	42	38	50
Fairhope, Ala.	37	44	36	33	40	42
Poplarville, Miss.	35	39	35	35	33	44
Baton Rouge, La.	42	50	45	48	47	53
St. Joseph, La.	46	53	45	53	51	57
Curtis, La.	43	57	53	56	44	56
Crowley, La.	29	41	35	35	35	36
Beaumont, Texas	38	46	36	40	40	50
Mean	38	45	40	40	39	46

Table 61. - (continued)

Location	F64-1928	F64-2505	F64-2570	F64-2571	F64-2597	F64-2778
			South			
Florence, S.C.(A)	56	55	50	52	46	51
Florence, S.C.(B)	43	55	46	40	49	52
Hartsville, S.C.(A)	47	52	47	40	51	49
Hartsville, S.C.(B)	41	53	43	37	46	43
Blackville, S.C.(A)	32	39	35	30	36	31
Blackville, S.C.(B)	49	47	45	41	49	48
Experiment, Ga.	54	65	57	55	57	60
Tallassee, Ala.	57	62	53	47	54	50
Tifton, Ga.	41	37	35	41	33	45
Live Oak, Fla.(a)	52	59	50	46	52	47
Live Oak, Fla.(B)	49	54	50	45	50	49
Gainesville, Fla.	43	56	46	40	46	47
Marianna, Fla.	50	50	51	48	52	52
Quincy, Fla.	51	46	45	40	45	42
Jay, Fla.	54	64	54	49	55	55
Fairhope, Ala.	46	44	42	38	42	44
Poplarville, Miss.	44	40	30	36	39	33
Baton Rouge, La.	48	68	52	46	58	60
St. Joseph, La.	59	58	57	47	58	51
Curtis, La.	51	70	52	51	55	65
Crowley, La.	43	49	42	37	48	47
Beaumont, Texas	43	39	42	35	44	42
Mean	48	53	47	43	48	48

Table 62. - Lodging scores for the strains in Uniform Group VIII, 1967

Location	Hampton	Hardee	F63-3938	F63-3999	F63-4000	Coker 318
			South			
Florence, S.C.(A)	2.0	4.0	4.0	3.0	2.0	3.0
Florence, S.C.(B)	2.0	2.0	3.0	2.0	1.0	2.0
Hartsville, S.C.(A)	2.0	2.2	2.0	1.5	1.3	2.2
Hartsville, S.C.(B)	2.0	2.2	2.1	1.0	1.1	2.1
Blackville, S.C.(A)	1.2	1.2	1.8	1.0	1.0	1.5
Blackville, S.C.(B)	2.3	2.7	3.0	2.3	2.3	2.0
Experiment, Ga.	1.3	2.0	2.0	1.0	2.0	1.3
Tallassee, Ala.	1.7	3.7	3.3	1.7	2.7	1.0
Tifton, Ga.	2.0	3.0	3.0	2.0	2.0	1.0
Live Oak, Fla.(A)	1.3	2.0	2.0	1.0	1.0	1.3
Live Oak, Fla.(B)	2.0	2.0	2.3	2.0	2.0	2.3
Gainesville, Fla.	1.6	1.3	2.6	1.0	1.0	2.0
Marianna, Fla.	1.0	1.0	1.0	1.0	1.0	2.0
Quincy, Fla.	1.0	2.0	1.0	1.0	1.0	1.0
Jay, Fla.	1.0	2.0	2.0	1.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	3.0	1.0	1.0	1.0
Poplarville, Miss.	1.5	2.0	2.0	1.0	1.0	1.5
Baton Rouge, La.	3.0	5.0	3.0	1.0	1.0	1.0
St. Joseph, La.	3.0	4.0	4.0	3.0	4.0	3.0
Curtis, La.	4.0	4.0	4.0	4.0	3.0	2.0
Crowley, La.	1.0	1.0	1.0	1.0	1.0	1.0
Beaumont, Texas	1.0	2.0	2.0	2.0	2.0	1.0

Table 62. - (continued)

Location	F64-1928	F64-2505	F64-2570	F64-2571	F64-2597	F64-2778
			South			
Florence, S.C.(A)	4.0	5.0	5.0	5.0	5.0	4.0
Florence, S.C.(B)	2.0	4.0	4.0	4.0	5.0	2.0
Hartsville, S.C.(A)	2.8	3.4	3.3	3.1	3.2	3.1
Hartsville, S.C.(B)	2.2	3.8	3.0	2.5	3.0	2.5
Blackville, S.C.(A)	2.0	3.0	2.5	1.8	2.5	1.8
Blackville, S.C.(B)	3.0	4.0	4.7	3.2	4.0	4.7
Experiment, Ga.	2.7	2.7	3.0	3.3	3.3	2.7
Tallassee, Ala.	4.0	4.3	4.7	4.0	5.0	4.0
Tifton, Ga.	3.0	3.0	4.0	2.0	4.0	4.0
Live Oak, Fla.(A)	2.0	3.0	2.6	2.0	2.3	2.6
Live Oak, Fla.(B)	2.0	3.5	3.0	2.9	3.2	3.3
Gainesville, Fla.	1.3	3.0	2.3	1.6	2.3	2.6
Marianna, Fla.	1.0	2.0	2.0	2.0	2.0	2.0
Quincy, Fla.	2.0	2.0	3.0	1.0	2.0	2.0
Jay, Fla.	3.0	5.0	4.0	4.0	5.0	4.0
Fairhope, Ala.	1.0	3.0	1.0	1.0	3.0	3.0
Poplarville, Miss.	2.5	3.0	4.0	3.5	3.5	4.0
Baton Rouge, La.	5.0	4.0	5.0	4.0	5.0	5.0
St. Joseph, La.	4.0	5.0	5.0	4.0	5.0	5.0
Curtis, La.	4.0	4.0	4.0	5.0	5.0	4.0
Crowley, La.	1.0	2.0	1.0	1.0	1.0	2.0
Beaumont, Texas	4.0	4.0	4.0	4.0	4.0	4.0

Table 63. - Seed quality scores for the strains in Uniform Group VIII, 1967

Location	Hampton	Hardee	F63-3938	F63-3999	F63-4000	Coker 318
			South			
Hartsville, S.C.(A)	1.0	1.0	2.0	2.0	1.0	1.0
Blackville, S.C.(B)	1.0	1.0	2.0	2.0	2.0	1.0
Experiment, Ga.	1.2	1.0	1.5	1.5	1.0	1.0
Tallassee, Ala.	1.5	1.0	1.5	1.5	1.5	1.2
Live Oak, Fla.(A)	1.3	1.0	2.3	1.3	1.0	1.0
Live Oak, Fla.(B)	1.3	1.0	2.0	1.0	1.0	1.3
Gainesville, Fla.	2.0	1.3	2.0	1.3	1.0	1.6
Marianna, Fla.	1.3	1.0	2.3	1.3	1.0	1.0
Quincy, Fla.	2.0	4.0	4.0	3.0	4.0	2.0
Jay, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	1.3	1.0	1.8	1.5	1.0	1.1
Baton Rouge, La.	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	2.0	2.0	2.0	2.0	2.0	2.0
Curtis, La.	2.0	1.0	2.0	3.0	2.0	2.0
Beaumont, Texas	2.0	2.0	3.0	2.3	1.3	1.3

Table 63.- (continued)

Location	F64-1928	F64-2505	F64-2570	F64-2571	F64-2597	F64-2778
			South			
Hartsville, S.C.(A)	1.0	2.0	2.0	1.0	3.0	1.0
Blackville, S.C.(B)	1.0	1.0	1.0	1.0	1.0	1.0
Experiment, Ga.	1.0	1.2	1.2	1.0	1.3	1.0
Tallassee, Ala.	1.2	1.5	1.0	1.2	1.0	1.2
Live Oak, Fla.(A)	1.0	1.6	1.6	1.0	2.3	1.0
Live Oak, Fla.(B)	1.0	2.2	1.0	1.0	1.6	1.0
Gainesville, Fla.	1.0	2.0	1.2	1.0	1.6	1.0
Marianna, Fla.	1.0	1.6	1.6	1.0	2.3	1.0
Quincy, Fla.	2.0	4.0	2.0	2.0	4.0	1.0
Jay, Fla.	1.0	1.0	1.0	1.0	2.0	1.0
Fairhope, Ala.	2.1	2.1	1.3	1.3	1.1	1.3
Baton Rouge, La.	2.0	1.0	2.0	3.0	2.0	2.0
St. Joseph, La.	1.0	2.0	2.0	2.0	3.0	2.0
Curtis, La.	2.0	1.0	2.0	2.0	2.0	2.0
Beaumont, Texas	2.0	2.3	2.0	2.3	2.3	1.7

PRELIMINARY GROUP VIII

1967

Preliminary Group VIII nurseries, including 34 experimental strains and the check varieties Hampton and Hardee, were grown at 7 locations. The parentage of these strains is reported in table 64. Performance data are summarized in tables 65 through 70. Differences in seed yield were significant at the 5% level of confidence in 6 of the 7 plantings. The combined analysis of variance for seed yield showed differences among strains to be significant at the 5% level of confidence. Hampton had a higher mean yield than any of the experimental strains. Hardee and 30 strains had seed yields significantly lower than Hampton. Hardee and 29 strains had oil percentages significantly lower than Hampton, while Hardee and 31 strains were significantly higher in protein than Hampton.

Coker 207 and 208 are sublines of Hampton. The strain 207 is somewhat taller than Hampton. Strain 208 averaged 7 inches shorter than Hampton. Seed yields for the two strains were very similar.

The two strains Co5308 and Co6304 yielded very well, were slightly later in maturity than Hardee but shattered. Co5322 and Co6307 were of similar growth type and maturity but were better in seed holding.

Although none of the experimental strains were superior to Hampton in seed yield, and few of the later maturing strains were superior in yield to Hardee, several do have desired characteristics. For soils of high fertility, less height than Hardee may be desirable. F65-1019 flowered later than Hardee but was shorter. Several strains had excellent protein percentage.

Table 64. - Parentage of strains in Preliminary Group VIII, 1967

	Variety or strain	Parentage	Generation composited
1.	Hampton		
2.	Hardee		
3.	Coker 207	Hampton sel.	
4.	Coker 208	Hampton sel.	
5.	Co. 5308	Jackson x Co. 56-251	F_6
6.	Co. 5322	Jackson x Co. 56-251	F_6
7.	Co. 6304	Stuart x F56-3492	F_3
8.	Co. 6306	Stuart x F56-3492	F_3
9.	Co. 6307	Stuart x F56-3492	F_3
10.	Co. 6312	Co. 220 x Lee	
11.	F64-1708	Hardee x D53-1301	F_5
12.	F64-1917	F57-1471 x D53-1301	F_5
13.	F64-3243	D49-2491(2) x Biloxi	F_6
14.	F64-3494	D49-2491(2) x Biloxi	F_6
15.	F64-3530	D49-2491(2) x Biloxi	F_6
16.	F65-385	Hardee x (Biloxi x F55-224)	F_6
17.	F65-419	Hardee x (Biloxi x F55-224)	F_6
18.	F65-541	Hardee x (Biloxi x F55-224)	F_6
19.	F65-702	F55-224 x (D55-4073 x D55-4152)	F_6
20.	F65-799	F55-224 x (D55-4073 x D55-4152)	F_6
21.	F65-808	F55-224 x (D55-4073 x D55-4152)	F_6
22.	F65-954	F55-224 x (D55-4073 x D55-4152)	F_6
23.	F65-958	F55-224 x (D55-4073 x D55-4152)	F_6
24.	F65-1019	(F55-224 x D55-4073) x (F58-5788 x D56-4065)	F_6
25.	F65-1120	(F55-224 x D55-4073) x (F58-5788 x D56-4065)	F_6
26.	F65-1133	(F55-224 x D55-4073) x (F58-5788 x D56-4065)	F_6
27.	F65-1162	(F55-224 x D55-4073) x (F58-5788 x D56-4065)	F_6
28.	F65-1199	D55-4110 x D56-4065	F_5
29.	F65-1236	D55-4110 x (Biloxi x Sioux)	F_5
30.	F65-1248	D55-4110 x (Biloxi x Sioux)	F_5
31.	F65-1270	D55-4110 x (Biloxi x Sioux)	F_5
32.	F65-1625	Bragg x D60-8107	F_4
33.	F65-1633	Bragg x D60-8107	F_4
34.	F65-2155	Composite of several crosses	F_8
35.	F65-2248	Composite of several crosses	F_8
36.	F65-2264	Composite of several crosses	F_8

Table 65. - General summary of performance for the strains in Preliminary Group VIII, 1967

Strain	Seed yield	Maturity index	Ht.	Percent Oil	Percent Protein	Shatter	B.P.	P.R.
Hampton	41.5	10-27	35	22.5	38.5	1.0	1.0	4.0
Hardee	34.4-	+3	43	21.1-	41.4+	1.5	1.0	1.0
Coker 207	38.6	0	36	22.5	38.7	1.0	1.0	3.0
Coker 208	39.5	-3	27	22.7	39.0	1.0	1.0	3.0
Co. 5308	36.9	+4	42	20.7-	40.0+	2.2	1.0	1.0
Co. 5322	35.0-	+3	45	21.2-	39.3	1.3	1.0	1.0
Co. 6304	37.4	+5	40	21.5-	40.0+	2.7	1.0	2.0
Co. 6306	35.7-	0	33	20.3-	40.5+	2.0	1.0	2.0
Co. 6307	35.1-	+6	38	21.7-	39.7+	1.5	1.0	2.0
Co. 6312	35.8-	-4	36	21.2-	40.1+	1.7	1.0	3.0
F64-1708	32.7-	-2	29	21.8	42.4+	1.5	1.0	1.0
F64-1917	36.1-	+3	37	21.8	39.6+	1.2	1.0	2.0
F64-3243	32.3-	0	43	20.7-	43.5+	1.8	1.0	2.0
F64-3494	33.7-	+2	33	20.6-	43.2+	1.8	1.0	2.0
F64-3530	33.4-	0	33	21.0-	44.3+	1.5	1.0	3.0
F65-385	32.8-	0	41	22.1	41.1+	1.8	1.0	1.0
F65-419	33.3-	+3	46	20.9-	43.1+	2.0	1.0	1.0
F65-541	33.6-	+3	40	21.0-	41.7+	1.8	1.0	1.0
F65-702	33.4-	0	42	21.0-	42.0+	2.7	1.0	1.0
F65-799	30.0-	+8	55	20.8-	43.0+	1.0	1.0	1.0
F65-808	31.5-	+3	44	19.8-	43.8+	1.5	1.0	2.0
F65-954	29.5-	+6	50	20.6-	44.3+	1.0	1.0	1.0
F65-958	26.9-	+5	45	20.2-	44.9+	1.8	1.0	1.0
F65-1019	32.0-	+3	38	20.8-	42.8+	1.5	1.0	1.0
F65-1120	33.5-	0	37	20.1-	44.2+	1.5	1.0	1.0
F65-1133	34.0-	+8	38	19.0-	44.4+	1.0	1.0	1.0
F65-1162	28.9-	-2	41	20.9-	42.9+	1.2	1.0	1.0
F65-1199	27.7-	0	40	19.6-	43.8+	2.0	1.0	1.0
F65-1236	24.4-	+1	36	16.4-	50.6+	2.0	2.5	2.0
F65-1248	29.1-	+3	38	18.8-	46.7+	2.2	1.0	1.0
F65-1270	24.3-	0	34	15.7-	50.7+	1.8	1.0	3.0
F65-1625	30.5-	+1	43	21.2-	43.9+	2.7	1.0	1.0
F65-1633	32.2-	-3	41	20.7-	43.6+	2.2	1.0	1.0
F65-2155	31.6-	+7	46	20.0-	40.7+	2.0	1.0	1.0
F65-2248	29.6-	+7	45	21.1-	39.8+	1.8	1.0	2.0
F65-2264	31.7-	+4	54	21.7-	41.2+	2.5	1.0	1.0
L.S.D.(.05)	5.0			0.8	1.1			
L.S.D.(.01)	6.6			1.1	1.4			

Table 66. - Seed yield, in bushels per acre, for the strains in Preliminary Group VIII, 1967

Strain	Black-ville, S.C.	Live Oak, Fla.	Gaines-ville, Fla.	Quincy, Fla.	Jay, Fla.	Baton Rouge, La.	Beaumont, Texas
Hampton	29.1	40.6	47.6	34.0	50.3	49.0	39.6
Hardee	30.7	40.9	40.5	16.4-	35.9-	42.7	33.1
Coker 207	30.4	38.4	44.6	34.3	46.2	45.6	30.8
Coker 208	32.5	39.4	43.9	31.9	46.9	44.6	37.6
Co. 5308	28.3	39.2	50.2	31.1	43.9-	38.4	27.2
Co. 5322	30.8	35.5	41.7	28.2	44.6	34.9-	29.1
Co. 6304	33.2	40.9	37.6-	32.9	45.4	41.6	30.3
Co. 6306	23.3-	41.4	42.6	33.8	43.5-	34.2-	30.9
Co. 6307	39.0+	39.6	44.3	24.3-	40.5-	44.8	20.1
Co. 6312	30.1	34.1	38.5	29.2	45.0	39.2	34.6
F64-1708	28.9	38.7	35.5-	19.6-	36.3-	33.7-	35.9
F64-1917	31.5	37.9	39.4	34.5	41.6-	44.6	23.1
F64-3243	29.5	34.8	32.5-	28.1	38.6-	35.6-	27.1
F64-3494	29.8	36.4	36.0-	21.3-	36.3-	41.2	35.2
F64-3530	23.7-	36.2	35.0-	22.3-	36.3-	43.8	36.7
F65-385	26.1	41.9	38.9	18.7-	37.8-	39.7	26.5
F65-419	29.4	37.5	36.2-	19.6-	35.6-	37.7	37.3
F65-541	27.5	39.6	39.5	21.4-	37.9-	41.0	28.1
F65-702	27.6	32.8	43.0	16.1-	39.3-	33.2-	42.0
F65-799	24.9	30.0-	32.6-	16.5-	31.0-	36.8-	38.3
F65-808	25.5	33.1	36.3-	20.9-	32.2-	33.2-	38.1
F65-954	28.5	30.6-	23.9-	16.0-	30.3-	41.9	35.5
F65-958	22.5-	30.1-	17.2-	11.6-	32.6-	38.6	36.2
F65-1019	30.8	28.8-	36.6-	21.3-	33.7-	39.6	38.5
F65-1120	30.1	41.0	29.5-	26.9	37.9-	35.4-	38.6
F65-1133	31.6	42.0	44.9	24.3-	35.2-	33.0-	27.0
F65-1162	27.6	34.4	23.4-	17.5-	32.2-	38.6	28.5
F65-1199	21.2-	28.5-	32.7-	10.5-	32.9-	41.0	27.3
F65-1236	16.7-	26.7-	28.0-	11.4-	29.2-	25.8-	33.3
F65-1248	22.1-	27.3-	38.4	19.9-	32.5-	37.2-	25.9
F65-1270	23.4-	27.5-	30.4-	14.6-	26.5-	22.6-	24.5
F65-1625	24.0	32.9	36.7-	13.5-	38.2-	33.6-	34.8
F65-1633	24.6	31.4-	44.0	20.9-	34.4-	36.4-	33.6
F65-2155	27.4	29.2-	44.2	19.7-	37.5-	36.8-	26.7
F65-2248	28.4	23.8-	47.2	14.1-	30.7-	27.3-	35.8
F65-2264	30.0	28.8-	37.6-	18.2-	35.2-	34.7-	37.3
L.S.D.(.05)	5.3	8.8	10.0	8.2	6.2	11.6	N.S.
C.V.	9%	12%	13%	18%	8%	15%	18%

Table 67. - Oil percentages for the strains in Preliminary Group VIII, 1967

Strain	Blackville, S.C.	Live Oak, Fla.	Gainesville, Fla.	Jay, Fla.	Baton Rouge, La.
Hampton	20.8	23.1	23.3	22.7	22.6
Hardee	20.1	22.4	19.8	21.5	21.7
Coker 207	21.5	23.4	21.5	22.8	23.1
Coker 208	22.1	22.8	23.1	22.9	22.6
Co. 5308	18.9	21.7	21.4	21.1	20.4
Co. 5322	19.0	22.3	21.9	20.8	21.9
Co. 6304	20.1	21.9	21.9	21.4	22.0
Co. 6306	18.3	21.0	21.5	20.9	19.8
Co. 6307	19.8	22.4	22.6	21.5	22.0
Co. 6312	18.8	22.5	22.3	21.0	21.5
F64-1708	21.8	22.7	20.6	22.4	21.5
F64-1917	20.8	22.7	21.0	22.5	22.1
F64-3243	20.2	21.9	19.1	21.3	20.9
F64-3494	20.8	21.1	20.1	21.1	20.0
F64-3530	20.4	21.2	21.4	21.2	20.6
F65-385	20.5	23.4	22.3	22.4	22.1
F65-419	20.1	21.0	20.3	21.6	21.4
F65-541	19.9	20.6	21.7	21.1	21.6
F65-702	19.9	21.9	21.5	20.9	20.7
F65-799	19.3	21.3	21.5	20.7	21.0
F65-808	18.5	20.6	19.9	20.1	20.0
F65-954	20.1	20.9	20.5	20.7	20.6
F65-958	19.1	21.3	19.6	20.8	20.3
F65-1019	19.6	20.9	20.9	21.5	21.2
F65-1120	18.8	20.9	20.3	20.5	20.1
F65-1133	17.5	19.5	20.3	18.9	18.8
F65-1162	20.7	21.6	19.6	20.7	21.7
F65-1199	18.8	19.5	20.1	19.8	19.6
F65-1236	15.3	16.9	17.1	16.0	16.9
F65-1248	17.2	19.5	19.6	18.3	19.6
F65-1270	16.6	16.3	13.5	16.0	15.9
F65-1625	19.1	22.7	20.9	21.6	21.5
F65-1633	21.0	20.9	21.1	20.2	20.3
F65-2155	18.8	20.1	20.9	20.3	19.7
F65-2248	20.2	21.4	22.0	21.6	20.5
F65-2264	20.2	22.2	22.0	21.9	22.3

Table 68. - Protein percentages for the strains in Preliminary Group VIII, 1967

Strain	Blackville, S.C.	Live Oak, Fla.	Gainesville, Fla.	Jay, Fla.	Baton Rouge, La.
Hampton	38.6	38.1	37.9	38.7	39.4
Hardee	39.2	41.2	41.9	42.1	42.5
Coker 207	38.7	37.8	38.6	38.7	39.6
Coker 208	37.8	38.8	38.5	39.9	40.0
Co. 5308	39.9	39.3	39.7	39.9	41.2
Co. 5322	38.4	39.1	39.2	39.9	40.0
Co. 6304	39.2	39.8	39.8	39.7	41.3
Co. 6306	40.9	40.1	40.2	39.3	41.9
Co. 6307	38.4	39.4	39.4	39.9	41.5
Co. 6312	38.6	40.1	40.5	40.2	41.3
F64-1708	40.7	43.0	42.5	42.2	43.6
F64-1917	36.8	41.0	40.2	39.6	40.3
F64-3243	41.8	44.1	44.6	43.4	43.8
F64-3494	40.9	43.2	44.1	42.8	44.8
F64-3530	42.6	44.9	45.1	44.1	44.9
F65-385	39.0	41.0	41.1	41.3	43.2
F65-419	42.0	43.9	44.2	42.8	42.7
F65-541	39.0	42.6	41.9	42.5	42.7
F65-702	39.6	41.0	42.4	42.5	44.7
F65-799	42.1	42.9	44.2	41.5	44.1
F65-808	42.5	43.2	44.4	44.1	45.0
F65-954	42.0	43.6	46.9	43.6	45.6
F65-958	42.9	43.7	47.5	44.0	46.6
F65-1019	40.4	42.6	44.7	42.2	43.9
F65-1120	43.2	43.1	45.1	43.7	45.8
F65-1133	42.5	44.3	44.4	45.1	45.6
F65-1162	41.5	42.1	45.1	42.5	43.4
F65-1199	43.5	42.3	43.9	44.1	45.3
F65-1236	50.5	49.5	51.1	50.7	51.3
F65-1248	47.7	45.5	47.6	47.5	45.3
F65-1270	49.1	50.9	51.6	49.6	52.2
F65-1625	43.5	43.5	44.0	43.1	45.3
F65-1633	41.7	44.0	43.0	44.5	44.6
F65-2155	39.7	41.0	40.3	40.5	41.8
F65-2248	37.3	40.1	40.2	40.3	41.2
F65-2264	38.8	42.5	41.8	40.8	42.3

Table 69. - Plant height for the strains in Preliminary Group VIII, 1967

Strain	Black-ville, S.C.	Live Oak, Fla.	Gaines-ville, Fla.	Quincy, Fla.	Jay, Fla.	Baton Rouge, La.	Beaumont, Texas
Hampton	24	36	35	28	38	46	39
Hardee	30	48	41	40	46	54	41
Coker 207	23	37	38	34	41	48	33
Coker 208	21	29	26	22	29	33	28
Co. 5308	32	44	40	39	46	56	34
Co. 5322	34	52	41	39	47	56	43
Co. 6304	29	46	36	40	43	48	38
Co. 6306	24	37	36	27	38	39	30
Co. 6307	29	43	41	40	45	50	19
Co. 6312	31	33	35	36	41	46	27
F64-1708	23	33	31	25	32	35	23
F64-1917	30	40	38	36	40	40	36
F64-3243	32	45	42	41	47	53	40
F64-3494	28	37	36	29	36	37	29
F64-3530	25	38	36	25	36	37	37
F65-385	31	45	39	39	46	51	37
F65-419	38	53	43	44	49	52	43
F65-541	28	44	40	36	44	51	40
F65-702	31	46	38	38	44	59	41
F65-799	41	60	52	51	60	65	53
F65-808	37	50	41	41	47	51	42
F65-954	43	52	46	47	54	58	47
F65-958	36	46	42	41	50	56	43
F65-1019	29	42	38	36	41	46	37
F65-1120	26	39	37	35	42	46	37
F65-1133	27	41	40	32	42	44	43
F65-1162	29	42	41	36	44	54	40
F65-1199	29	43	39	38	43	43	44
F65-1236	28	37	38	33	41	42	35
F65-1248	28	40	40	33	41	46	36
F65-1270	30	35	36	27	38	40	30
F65-1625	30	45	42	39	46	60	39
F65-1633	32	43	39	35	44	51	41
F65-2155	31	53	42	43	50	56	49
F65-2248	37	50	46	41	54	61	28
F65-2264	42	56	50	53	60	68	48

Table 70. - Seed quality scores for the strains in Preliminary Group VIII, 1967

Strain	Black-ville, S.C.	Live Oak, Fla.	Gaines-ville, Fla.	Quincy, Fla.	Jay, Fla.	Baton Rouge, La.	Beaumont, Texas
Hampton	1.0	1.5	2.0	1.0	1.0	2.0	2.6
Hardee	1.0	1.0	1.5	1.0	1.0	2.0	2.5
Coker 207	1.0	1.5	2.0	1.0	1.0	2.0	3.5
Coker 208	1.0	1.0	2.0	1.0	1.0	2.0	2.5
Co. 5308	2.0	1.0	2.0	1.0	1.0	2.0	2.0
Co. 5322	1.0	1.0	1.5	1.0	1.0	3.0	3.0
Co. 6304	1.0	1.0	1.5	1.0	1.0	1.0	2.9
Co. 6306	1.0	1.5	2.0	1.0	1.0	3.0	2.7
Co. 6307	1.0	1.0	2.0	1.0	1.0	2.0	3.0
Co. 6312	1.0	2.0	2.0	1.0	1.0	3.0	3.0
F64-1708	1.0	1.0	2.0	1.0	1.0	2.0	2.8
F64-1917	3.0	1.0	1.0	1.0	1.0	2.0	2.2
F64-3243	1.0	1.5	2.0	2.0	1.0	2.0	2.2
F64-3494	2.0	1.5	2.0	1.0	1.0	3.0	2.2
F64-3530	1.0	1.0	1.5	1.0	1.0	2.0	2.5
F65-385	1.0	1.0	1.0	1.0	1.0	2.0	2.1
F65-419	3.0	1.0	1.0	2.0	1.0	3.0	2.8
F65-541	1.0	1.5	1.0	2.0	1.0	2.0	2.1
F65-702	1.0	1.0	2.0	1.0	1.0	3.0	2.9
F65-799	1.0	1.5	1.0	1.0	1.0	2.0	3.0
F65-808	1.0	1.0	1.0	2.0	1.0	1.0	2.0
F65-954	1.0	1.5	1.5	2.0	1.0	2.0	2.8
F65-958	2.0	1.5	1.5	1.0	2.0	2.0	2.1
F65-1019	1.0	1.0	1.0	2.0	1.0	2.0	2.4
F65-1120	1.0	1.0	1.0	1.0	1.0	2.0	2.1
F65-1133	1.0	1.0	1.0	1.0	1.0	2.0	2.4
F65-1162	1.0	1.0	1.0	2.0	1.0	2.0	2.0
F65-1199	3.0	1.0	1.0	3.0	1.0	2.0	2.6
F65-1236	1.0	1.5	1.5	2.0	1.0	1.0	2.3
F65-1248	1.0	1.5	2.0	1.0	1.0	2.0	2.0
F65-1270	1.0	1.0	1.5	1.0	1.0	1.0	2.8
F65-1625	1.0	1.0	1.0	1.0	1.0	3.0	3.1
F65-1633	1.0	1.5	2.0	2.0	1.0	3.0	2.4
F65-2155	1.0	2.5	1.0	2.0	1.0	2.0	1.8
F65-2248	1.0	1.5	1.0	2.0	1.0	3.0	2.1
F65-2264	1.0	2.0	1.0	3.0	1.0	1.0	2.1