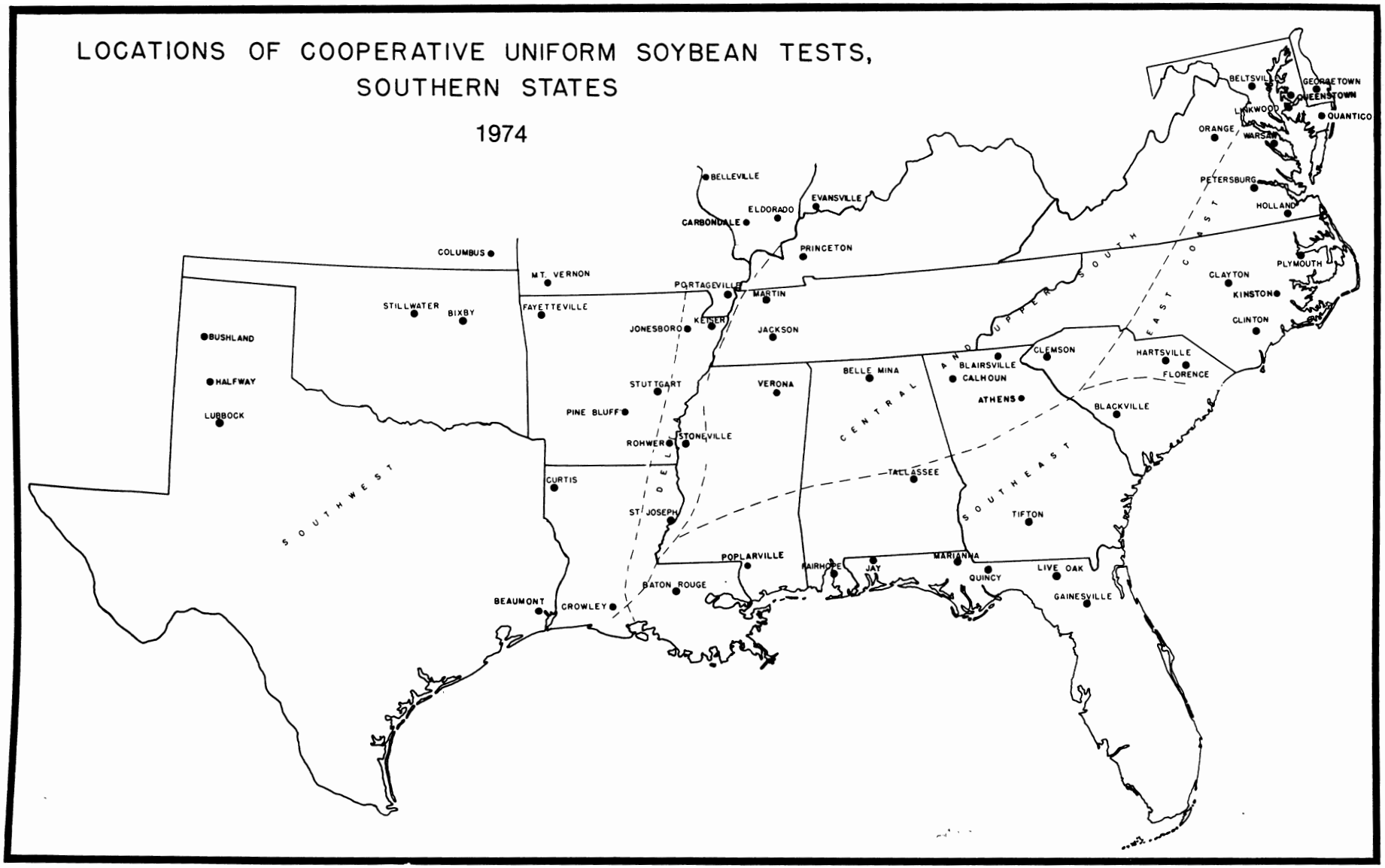
THE UNIFORM SOYBEAN TESTS
SOUTHERN STATES
1974

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
COOPERATING WITH
STATE AGRICULTURAL EXPERIMENT STATIONS
SOUTHERN REGION
STONEVILLE, MISSISSIPPI

LOCATIONS OF COOPERATIVE UNIFORM SOYBEAN TESTS, SOUTHERN STATES

1974



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SOUTHERN STATES
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Compiled by:

Edgar E. Hartwig and Kathryn W. Jamison
Delta Branch Experiment SUation
Stoneville, Mississippi 38776

From data supplied by:

R. C. Leffel, Maryland
E. L. Wisk, Georgetown, Del.
G. D. Jones, Orange, Va.
H. M. Camper, Warsaw, Va.
G. F. Robinson, Petersburg, Va.
M. W. Alexander, Holland, Va.
C. A. Brim, North Carolina
J. B. Pitner, Florence, S.C.
H. L. Musen, Blackville, S.C.
J. D. Maxwell, Clemson, S.C.
J. J. Stanton, Jr., Hartsville, S.C.
H. R. Boerma, Athens, Ga.
C. D. Fisher, Blairsville, Ga.
W. H. Marchant, Tifton, Ga.
J. K. Boseck, Belle Mina, Ala.
J. E. Barrett, Fairhope, Ala.
Kuell Hinson, Gainesville, Fla.
Dan Gorbet, Marianna, Fla.
W. H. Chapman, Quincy, Fla.
R. L. Smith, Jay, Fla.
D. L. Thurlow, Tallassee, Ala.
D. B. Egli, Kentucky
C. R. Tutt, Princeton, Ky.
J. R. Wilcox, Indiana
R. L. Bernard, Urbana, Ill.
D. R. Browning, Carbondale, Ill.
V. D. Luedders, Columbia, Mo.
Bob Hathock, Martin, Tenn.
J. R. Overton, Jackson, Tenn.
E. E. Hartwig, Stoneville, Miss.
Grover Shannon, Portageville, Mo.
C. E. Caviness, Arkansas
Donald Boquet, Keiser, Ark.
G. A. Berger, Jonesboro, Ark.
D. J. Albritton, Pine Bluff, Ark.
Curtis Williams, Baton Rouge, La.
L. W. Sloane, St. Joseph, La.
J. L. Rabb, Curtis, La.
L. J. Meyer, Columbus, Kan.
J. S. Kirby, Oklahoma
K. B. Porter, Bushland Texas
R. D. Brigham, Lubbock, Texas
J. P. Craigmiles, Beaumont, Texas
R. A. Kinloch, Jay, Fla.

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COOPERATING AGENCIES AND PERSONNEL
For
Soybean Production Research

SOUTHERN REGION

Stoneville, Mississippi

Edgar E. Hartwig, Agronomist
T. C. Kilen, Geneticist
B. L. Keeling, Pathologist
Calton J. Edwards, Jr., Agronomist, Res. Asst.
Kathryn W. Jamison, Statistical Clerk
Elizabeth Jackson, Laboratory Technician
J. Kenneth Buckner, Research Technician
Pat Butler, Research Technician

Raleigh, North Carolina

Charles A. Brim, Agronomist
John P. Ross, Pathologist
Cecil Tester, Research Chemist
Sharon Usanis, Research Assistant
M. F. Young, Research Technician
Clifford Elledge, Research Technician

Gainesville, Florida

Kuell Hinson, Geneticist
Howard F. McGraw, Research Aid

ACKNOWLEDGMENT: *Oil and protein determinations were made at Urbana, Illinois, under the supervision of Mr. Stephen J. Gibbons.*

STATE COLLABORATORS IN THE SOUTHERN REGION

L. E. Ensminger
Alabama Agricultural Experiment Station
Auburn, Alabama

C. E. Caviness
Arkansas Agricultural Experiment Station
Fayetteville, Arkansas

R. L. Smith
Agricultural Research Center
Jay, Florida

H. R. Boerma
Georgia Agricultural Experiment Station
Experiment, Georgia

Curtis Williams
Louisiana Agricultural Experiment Station
Baton Rouge, Louisiana

C. G. Shepherd
Mississippi Agricultural and Forestry Experiment Station
Delta Branch
Stoneville, Mississippi

C. A. Brim
North Carolina Agricultural Experiment Station
Raleigh, North Carolina

R. S. Matlock
Oklahoma Agricultural Experiment Station
Stillwater, Oklahoma

H. L. Musen
Edisto Experiment Station
Blackville, South Carolina

L. F. Seatz
Tennessee Agricultural Experiment Station
Knoxville, Tennessee

R. D. Brigham
Texas A&M University
Lubbock, Texas

T. J. Smith
Virginia Agricultural Experiment Station
Blacksburg, Virginia

INTRODUCTION

The Soybean Production Research Program 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 research workers in 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 diseases. For the groups grown in the southern area, the major check varieties are: Kent, Essex, Mack, Forrest, Tracy, Pickett 71, Lee 74, Bragg, Hutton, and Cobb. At Stoneville, Mississippi, where all maturity classes will mature, the approximate maturity dates of these varieties, when planted during the first half of May, are: Kent, September 8; Essex, September 25; Mack and Forrest, October 1; Tracy, October 13; Pickett 71 and Lee 74, October 16; Bragg, October 22; Hutton, November 1; and Cobb, November 6.

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 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 Experiment Station and ARS, USDA
F - Florida Agricultural Experiment Station and ARS, USDA
Ga - Georgia Agricultural Experiment Station
L - Illinois Agricultural Experiment Station and ARS, USDA
La - Louisiana Agricultural Experiment Station
Md - Maryland Agricultural Experiment Station and ARS, USDA
N - North Carolina Agricultural Experiment Station and ARS, USDA
R - Arkansas Agricultural Experiment Station
S - Missouri Agricultural Experiment Station and ARS, USDA
Ts - Texas Agricultural Experiment Station
UD - Delaware Agricultural Experiment Station
V - Virginia Agricultural Experiment Station

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

Location	IV	V	VI	VII	VIII	Soil type	P_2O_5	K_2O	pH	Fertilizer[1]	Yield-adapted variety[2]
East Coast											
Queenstown, Md.	1	1				Mattapex silt loam	H	H	6.5	0-0-0	57.8 - F
Linkwood, Md.	1	1*	1			Sassafras sandy loam	H	H	5.8	0-45-90	34.0 - A
Georgetown, Del.	1	1*				Norfolk loamy sand	VH	M	6.3	40-40-160	39.2 - E
Warsaw, Va.	1	1*	1			Sassafras sandy loam	M	M	6.4	0-40-80	44.8 - E
Petersburg, Va.		1	1*			Marlboro f.s. loam	H	M	6.5	0-0-0	40.3 - E
Holland, Va.		1	1	1		Bertie l.f.s.	VH	M-	6.3	0-0-0	55.3 - E
Plymouth, N.C.		1*	1*	1		Bladen f.s. loam	H	H	5.9	0-40-80	40.8 - G
Kinston, N.C.			1	1*	1	Norfolk sandy loam				0-40-80	44.8 - G
Clinton, N.C.			1	1		Norfolk sandy loam				0-40-80	44.5 - G
Florence, S.C.			1	1	1	Dunbar sandy loam				0-0-0	46.0 - K
Hartsville, S.C.			1	1	1	Norfolk sandy loam				18-54-108	
Southeast											
Blackville, S.C.(A)			1	1*	1	Dothan loamy sand	M-	L	5.9	0-45-90	37.0 - G
Blackville, S.C.(B)					1*	Dothan loam sand	M	L	5.7	0-45-90	29.5 - M
Tifton, Ga.			1	1	1	Tifton loam sand	M	H	6.2	0-60-120	54.6 - K
Tallassee, Ala.				1*	1	Wickham sandy loam	H	H	6.0	0-40-80	30.8 - K
Live Oak, Fla.				1	1*	Klez fine sand				0-40-80	43.2 - N
Gainesville, Fla.				1	1*	Arredonda fine sand				0-0-0	46.8 - M
Marianna, Fla.				1	1	Orangburg f.s.l.	M	H	5.9	32-96-96	43.2 - M
Quincy, Fla.			1	1	1*	Orangburg l.f.s.	L	H	6.0	5-50-75	37.2 - K
Jay, Fla.			1*	1*	1*	Tifton f.s. loam	H	H	6.2	0-128-64	49.2 - K
Fairhope, Ala.			1	1	1	Malbis f.s.l.	H	M	5.8	16-48-40	57.3 - K
Baton Rouge, La.			1	1*	1	Loring silt loam	M	M	7.4	40-40-40	43.5 - G
Poplarville, Miss.				1	1	Orangeburg f.s.l	M	M-	6.5	0-96-96	36.5 - K
Upper & Central South											
Orange, Va.	1	1				Starr sandy loam			6.1	30-60-60	46.4 - A
Blairsville, Ga.	1	1				Dyke clay loam	H	M	6.4	0-50-100	35.6 - E
Calhoun, Ga.		1	1	1		Leadvale silt loam	M	H	5.9	0-50-100	38.6 - E
Belleville, Ill.	1					Ebbert silt loam	M	H	6.0	0-50-250	40.7 - A
Eldorado, Ill.	1					Harco silt loam	H	M	6.6	0-45-60	51.3 - A
Carbondale, Ill	1					Stoy silt loam				0-50-150	39.4 - A
Princeton, Ky.	1	1				Crider silt loam	M	M	6.0	0-46-78	46.4 - E
Martin, Tenn.	1	1				Grenada silt loam	M	M	5.9	0-60-60	32.3 - F
Jackson, Tenn.		1	1			Grenada silt loam	M	H	5.8	0-0-0	58.0 - F
Belle Mina, Ala.		1	1*			Humphrey sandy loam				20-60-60	53.1 - E
Verona, Miss.		1	1			Leaper silt loam	H+	M	7.9	0-80-80	26.6 - F
Athens, Ga.		1	1	1	1	Cecil sandy loam	VH	H	5.4	0-40-80	50.5 - H
Clemson, S.C.			1	1	1	Cecil sandy loam	Lt	M-	6.3	0-70-70	48.2 - I

Location	IV	V	VI	VII	VIII	Soil type	P_2O_5	K_2O	pH	Fertilizer[1]	Yield-adapted variety[2]
Delta											
Evansville, Ind.	1					Montgomery silty clay	M	H	5.7	22-70-130	31.5 - A
Portageville,Mo.(A)	1	1*	1*			Tiptonville silt loam	VH	M	6.0	0-0-0	52.1 - F
Portageville,Mo.(B)	1	1	1			Portageville clay	VH	VH	5.7	0-0-0	34.6 - G
Keiser, Ark.	1	1*	1*			Sharkey clay	M	H	6.1	0-0-0	32.6 - H
Jonesboro, Ark.		1	1				H				31.3 - G
Stoneville, Miss.(A)		1	1*	1*		Bosket f.s.l.	M	M	6.7	0-0-0	50.8 - F
Stoneville, Miss.(B)	1	1*	1*	1*	1*	Sharkey clay	M	H	6.4	0-0-0	49.3 - G
Rohwer, Ark.			1	1		Perry clay	M	H	6.8	0-0-0	25.1 - G
St. Joseph, La.		1	1	1		Commerce silt loam	H	M	5.5	0-0-0	51.4 - F
West											
Columbus, Kan.	1					Cherokee silt loam	M	M	6.3	15-50-50	42.7 - B
Mt. Vernon, Mo.	1	1				Parson silt loam	M	M		60-40-40	44.3 - F
Pine Bluff, Ark.			1	1		Calloway silt loam				0-0-0	43.3 - G
Stuttgart, Ark.		1	1	1		Crowley silt loam	VL	M	6.8	0-40-40	47.1 - G
Curtis, La.		1	1	1	1	Yahola very f.s.l.				0-0-0	46.3 - H
Bixby, Okla.	1	1	1			Reinoch silt loam	H	VH	6.3	0-0-0	40.1 - F
Bushland, Tex.	1					Pullman S.C.L.				0-0-0	30.1 - B
Halfway, Tex.	1	1	1								
Lubbock, Tex.	1	1	1			Amarillo loam	M	VH	8.1	0-0-0	44.2 - E
Beaumont, Tex.			1	1*	1*	Morrey silt loam	L	L	6.3	20-60-60	46.1 - M

[1]Fertilizer applied converted to pounds N, P_2O_5, K_2O. For example: 400# of 2-12-12 equals 8-48-48.

[2]Varieties: A = Kent; B = Columbus; C = Hill; D = Mack; E = Essex; F = Forrest; G = Tracy; H = Davis; I = Lee 74; J = Pickett 71; K = Bragg; L = Ransom; M = Hutton; N = Cobb

*Preliminary nursery also grown.

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 30 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 for planting at the rate of 10 seeds per foot.

Yields are taken by harvesting a 16-foot length from the mid-section of each plot. Actual seed weights are recorded after the seed of strains have a uniform moisture content. A bushel weight of 60 pounds is used in determining bushels per acre.

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
4 - 9 to 19% shattered
5 - over 20% shattered

Chemical composition: Percent oil and percent protein was determined from representative locations. Percentage compositon 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 plant 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 from the different uniform tests are as follows: Group IV, Kent; Group V, Essex; Group VI, Tracy; Group VII, Bragg; and Group VIII, Hutton.

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 difference can exist between factors responsbile for the poorer grades in different locations.

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 lesions
5 - leaves covered with lesions and much necrosis

B. Root and Stem:

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

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

C. Root-knot ratings are based upon degree of galling development on roots. All ratings were made from a special planting on a heavily infested field in west Florida, near the Jay station.

D. 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

E. In some cases actual percentages are reported for purple stain development or seedcoat mottling.

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 co-efficient of variability are not included in calculating averages.

UNIFORM GROUP IV-S

1974

	Variety or strain	Parentage	Generation composited
1.	Kent	Lincoln x Ogden	F_7
2.	Columbus	C1069 x Clark	F_8
3.	Oksoy	Scott(6) x Blackhawk	F_6
4.	Clark 63	[Clark(5) x L49-4091] x [Clark(6) x Blackhawk]	13 F_3 lines
5.	K1004	C1266 x C1265	F_4
6.	D66-5566	D49-2491(4) x Hawkeye	F_8
7.	D67-3297	Hill(2) x PI 171,450	F_5
8.	S63-5328S	Lee x Scott	F_6
9.	V68-1242	PI 80837 x V63-76	F_3
10.	V71-480	V63-76 x V66-318	
11.	V71-793	Dare x V66-318	
12.	V71-807	Delmar x V66-318	

Background of strains used as parents:

C1069 is a selection from Lincoln x Ogden closely related to Kent.

L49-4091 is a bacterial pustule resistant selection from the F_3 of Lincoln(2) x Richland crossed with the F_1 of Lincoln x CNS.

D49-2491 is a sister line of Lee.

PI 171,450 is a late-flowering strain of Group III maturity. It is considered a "summer type" at the 34° latitude level in Japan.

V63-76 is a selection from Hill x D53-354.

C1265 and C1266 are selections from Harosoy x C1079. Col079 is a selection from Lincoln x Ogden.

V66-318 is a selection from D53-184 x J22.

Results of 21 IV-S nurseries are summarized in Tables 1 through 7. Table 1 gives a general summary of performance and characteristics of each of the varieties and strains. Two- and three-year data are reported for seed yield, and oil and protein percentage of the seed.

Differences among strains for seed yield were significant at the 5% level of confidence at 17 of the 21 locations. A combined analysis for seed yield for locations within each production region showed differences among strains to be significant only in the Upper and Central South. In that region there were no strains yielding significantly higher than Kent, but four strains yielded significantly less.

Although Table 1 shows on three-year data, D66-5566 has been compared with Kent for 6 years. Six-year yield data would show seed yields to be very similar but a consistent seed quality advantage for D66-5566. D67-3257 has been in comparison with Kent 5 years. Again seed yields are nearly similar, but seed holding and seed quality is much superior.

Neither S63-5328S or V68-1242 appears to have any clear-cut advantages over Kent.

Of the three strains grown for the first time in 1974, V71-480 averaged 6 days later than Kent. It yielded appreciably less than Kent in the area where an early freeze occurred. None of these strains appear to have a seed quality advantage over Kent.

This test was not harvested at Stoneville, because of the extremely poor growth of most of the strains as a result of the extremely wet soil for the 4-week period shortly after planting.

Table 1. - General summary of performance for the strains in Uniform Group IV-S, 1974

	Kent	Columbus	Oksoy	Clark 63	K1004	D66-5566
Seed Yield - 1974						
East Coast	38.8	36.5	41.3	36.5	41.6	40.3
Upper & Central South	42.7	37.7-	39.5	41.2	42.2	39.2
Delta	35.5	34.8	33.1	33.9	34.1	35.7
West	38.6	40.2	37.2	34.9	39.8	43.1
- 1973-74						
East Coast	39.7	36.6	41.7	37.4		40.6
Upper & Central South	42.2	39.0	39.6	37.7		40.2
Delta	34.0	33.1	34.0	32.0		34.9
West	41.5	42.2	40.1	36.2		43.0
- 1972-74						
East Coast	39.4	37.9				39.4
Upper & Central South	43.2	39.4				40.5
Delta	36.0	36.4				37.2
West	39.7	40.7				39.5
Oil Content - 1974	20.9	19.6-	19.7-	21.1	21.0	20.4
- 1973-74	22.2	21.0	21.5			21.7
- 1972-74	22.4	21.3				22.0
Protein Content - 1974	41.8	43.4+	39.0-	42.2	41.9	42.6
- 1973-74	41.2	42.5	38.6			41.9
- 1972-74	40.9	42.1				41.5
Seed size	18.8	16.5-	15.7-	16.9-	18.9	14.8-
Maturity index	10-3	+4	+2	-5	0	0
Seed quality	1.9	1.8	1.8	2.5	1.8	1.5
Height	34	38	35	32	34	23
Mexican bean beetle	5.0	3.0	4.0	6.0	4.0	4.0

Table 1. - (continued)

	D67-3297	S63-5328S	V68-1242	V71-480	V71-793	V71-807
Seed Yiled - 1974						
East Coast	39.1	40.4	41.5	37.7	40.3	39.4
Upper & Central South	33.7-	39.4	39.0	33.4-	38.0-	39.1
Delta	34.5	33.1	35.9	35.9	36.0	37.5
West	39.9	36.8	40.7	39.4	39.0	39.7
- 1973-74						
East Coast	40.7	41.6	40.8			
Upper & Central South	36.9	40.2	40.4			
Delta	34.0	32.7	34.1			
West	41.3	39.3	43.3			
- 1972-74						
East Coast	40.2	41.1	40.3			
Upper & Central South	39.2	42.2	42.6			
Delta	37.6	37.2	36.2			
West	39.0	37.5	39.6			
Oil Content - 1974	18.6-	20.1-	19.7-	18.9-	19.7-	20.6
- 1973-74	20.2	21.5	21.0			
- 1972-74	20.5	21.9	21.4			
Protein Content - 1974	41.2	39.6-	40.8-	41.2	42.7+	41.5
- 1973-74	40.1	39.3	40.4			
- 1972-74	39.9	39.1	40.5			
Seed size	13.6-	15.3-	20.5+	13.8-	14.9-	16.7-
Maturity index	+5	+3	+4	+6	+1	+1
Seed quality	1.6	1.8	1.6	1.8	1.7	1.8
Height	30	35	26	33	33	33
Mexican bean beetle	4.0	4.0	4.0	4.0	4.0	5.0

Table 2. - Seed yield, in bushels per acre, for the strains in Uniform Group IV-S, 1974

Location	Kent	Columbus	Oksoy	Clark 63	K1004	D66-5566	D67-3297
			East Coast				
Queenstown, Md.	45.2	38.8-	43.3	38.3-	45.4	39.8-	45.5
Linkwood, Md.	34.0	32.9	43.0	32.4	41.8	37.3	35.6
Georgetown, Del.	35.1	39.3	41.2	37.6	38.0	42.1	44.2
Warsaw, Va.	42.9	44.4	43.7	37.5-	44.2	44.2	43.1
Beltsville, Md.	36.7	27.2-	35.1	37.3	38.7	38.1	27.0-
Mean	38.8	36.5	41.3	36.6	41.6	40.3	39.1
			Upper and Central South				
Orange, Va.	46.4	30.9-	37.9-	45.5	45.0	37.1-	31.3-
Blairsville, Ga.	34.5	41.3	34.8	33.3	30.4	40.6	38.1
Belleville, Ill.	40.7	30.1-	36.7	37.6	39.9	36.2	21.2-
Eldorado, Ill.	51.3	42.9-	45.3-	49.1	51.7	46.7	40.4-
Carbondale, Ill.	39.4	36.9	33.9-	35.4	41.9	35.4	33.9-
Princeton, Ky.	43.7	44.2	48.5	46.3	44.3	39.1	37.1
Mean	42.7	37.7-	39.5	41.2	42.2	39.2	33.7-
			Delta				
Evansville, Ind.	42.8	35.9	29.2-	35.1	41.9	37.5	26.9-
Portageville, Mo.(A)	38.7	42.8	48.6+	48.3+	42.4	46.9+	45.8
Portageville, Mo.(B)	21.9	23.6	22.7	24.0	17.0	24.1	27.2+
Martin, Tenn.	41.1	38.9	43.0	30.1-	40.9	41.3	43.5
Keiser, Ark.	32.7	32.7	21.8-	31.7	28.2	28.7	28.8
Mean	35.5	34.8	33.1	33.9	34.1	35.7	34.5
			West				
Columbus, Kan.	39.2	42.7+	36.8-	33.8-	40.2	38.4	39.9
Mt. Vernon, Mo.*	35.1	38.7	28.3	33.3	31.2	28.6	28.7
Bixby, Okla.	33.2	32.3	31.2	28.5	34.9	37.3	33.0
Bushland, Texas	26.2	30.1	28.3	27.8	27.9	39.8+	32.8+
Lubbock, Texas	55.9	55.6	52.6	49.6-	56.0	56.7	53.8
Mean	38.6	40.2	37.2	34.9	39.8	43.1	39.9

*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	S63-5328S	V68-1242	V71-480	V71-793	V71-807	L.S.D. (.05)	C.V. (%)
			East Coast				
Queenstown, Md.	45.8	40.5	45.9	45.4	44.2	4.8	7
Linkwood, Md.	38.0	42.5	35.2	38.3	33.8	N.S.	14
Georgetown, Del.	38.5	42.1	39.9	40.0	40.0	N.S.	5
Warsaw, Va.	46.0	43.4	45.1	42.7	44.2	3.5	4
Beltsville, Md.	33.5	39.3	22.1-	35.0	34.8	3.6	6
Mean	40.4	41.5	37.7	40.3	39.4	N.S.	
			Upper and Central South				
Orange, Va.	37.3-	39.3-	25.5-	33.9-	37.8-	4.6	7
Blairsville, Ga.	42.5	43.1	35.3	42.6	38.6	9.4	15
Belleville, Ill.	33.5-	38.4	25.2-	32.7-	33.6-	4.7	6
Eldorado, Ill.	47.2	43.6-	41.3-	43.4-	47.7	4.8	6
Carbondale, Ill.	29.9-	33.5-	32.5-	34.8	33.2-	5.0	8
Princeton, Ky.	46.1	36.1	40.4	40.9	43.8	N.S.	12
Mean	39.4	39.0	33.4-	38.0-	39.1	4.6	
			Delta				
Evansville, Ind.	33.3-	43.9	19.2-	39.8	38.1	8.0	13
Portageville, Mo.(A)	44.6	43.2	47.6+	40.5	51.8+	7.2	9
Portageville, Mo.(B)	17.1	27.6+	31.6+	26.6	23.4	5.3	13
Martin, Tenn.	44.7	40.6	46.6	44.0	46.8	6.5	9
Keiser, Ark.	25.8-	24.3-	34.2	28.9	27.3	6.0	12
Mean	33.1	35.9	35.9	36.0	37.5	N.S.	
			West				
Columbus, Kan.	38.1	43.0+	42.8+	40.6	38.4	2.3	5
Mt. Vernon, Mo.*	32.8	33.1	34.1	34.9	40.5	N.S.	16
Bixby, Okla.	30.9	43.1+	33.2	37.0	36.8	4.9	8
Bushland, Texas	26.6	29.3	25.6	30.6+	31.2+	4.1	8
Lubbock, Texas	51.4-	47.1-	55.9	47.7-	52.5	4.1	5
Mean	36.8	40.7	39.4	39.0	39.7	N.S.	

Table 3. - Chemical composition and seed size for the strains in Uniform Group IV-S, 1974

Location	Kent	Columbus	Oksoy	Clark 63	K1004	D66-5566
			Oil Percentage			
Linkwood, Md.	22.1	19.5	20.1	21.1	22.2	20.9
Warsaw, Va.	21.2	19.8	20.0	22.5	20.9	20.1
Blairsville, Ga.	20.9	20.3	20.2	20.6	21.7	20.8
Carbondale, Ill.	20.9	20.0	19.8	21.5	20.7	21.3
Evansville, Ind.	19.8	18.1	18.0	20.8	19.5	18.4
Portageville, Mo.(A)	21.9	20.2	21.8	21.2	22.4	22.1
Bixby, Okla.	19.6	19.0	18.0	20.1	19.9	19.5
Mean	20.9	19.6-	19.7-	21.1	21.0	20.4
			Protein Percentage			
Linkwood, Md.	41.4	44.7	38.7	42.5	41.1	43.3
Warsaw, Va.	43.4	44.9	41.4	45.6	43.8	44.6
Blairsville, Ga.	42.5	43.2	38.5	42.6	42.2	42.1
Carbondale, Ill.	40.7	40.8	38.5	40.8	41.4	41.2
Evansville, Ind.	41.8	43.5	37.5	39.7	41.4	42.5
Portageville, Mo.(A)	42.3	44.1	39.8	43.9	42.7	43.3
Bixby, Okla.	40.8	42.4	38.5	40.4	40.5	41.0
Mean	41.8	43.4+	39.0-	42.2	41.9	42.6
			Grams per 100 Seeds			
Linkwood, Md.	17.7	16.0	15.7	15.3	18.7	14.7
Warsaw, Va.	20.2	18.1	17.3	18.9	19.3	16.2
Blairsville, Ga.	19.4	16.1	15.9	16.1	19.7	15.5
Carbondale, Ill.	17.0	16.2	14.0	14.4	17.7	13.2
Evansville, Ind.	18.1	14.3	13.7	15.6	18.7	13.2
Portageville, Mo.(A)	20.4	18.2	16.5	21.2	20.0	15.8
Bixby, Okla.	18.9	16.6	16.5	16.7	18.3	15.3
Mean	18.8	16.5-	15.7-	16.9-	18.9	14.8-

Table 3. - (continued)

Location	D67-3297	S63-5328S	V68-1242	V71-480	V71-793	V71-807	L.S.D. (.05)
			Oil Percentage				
Linkwood, Md.	18.8	20.9	20.2	19.4	19.2	20.6	
Warsaw, Va.	19.0	20.7	20.4	19.7	19.4	20.6	
Blairsville, Ga.	19.1	21.4	20.7	20.1	20.6	21.5	
Carbondale, Ill.	18.3	19.7	19.4	18.8	19.8	20.7	
Evansville, Ind.	16.0	17.4	18.3	16.5	18.0	19.1	
Portageville, Mo.(A)	20.9	21.7	20.1	20.0	22.3	21.3	
Bixby, Okla.	17.8	18.6	18.9	17.8	18.8	20.2	
Mean	18.6-	20.1-	19.7-	18.9-	19.7-	20.6	0.6
			Protein Percentage				
Linkwood, Md.	42.6	39.3	42.0	42.3	43.6	41.9	
Warsaw, Va.	43.5	41.5	43.5	42.5	45.7	43.6	
Blairsville, Ga.	41.1	36.8	38.8	39.2	42.0	39.9	
Carbondale, Ill.	39.3	39.6	39.9	39.4	40.8	41.2	
Evansville, Ind.	41.0	39.7	40.1	41.8	43.2	41.7	
Portageville, Mo.(A)	42.0	40.9	42.2	42.3	43.2	42.7	
Bixby, Okla.	39.0	39.4	38.9	41.1	40.7	39.4	
Mean	41.2	39.6-	40.8-	41.2	42.7+	41.5	0.9
			Grams per 100 Seeds				
Linkwood, Md.	14.8	14.8	18.7	13.5	13.8	14.7	
Warsaw, Va.	14.5	16.6	21.6	15.4	15.2	18.2	
Blairsville, Ga.	15.1	16.6	21.6	13.4	15.0	16.2	
Carbondale, Ill.	12.8	13.6	19.8	13.8	14.3	16.0	
Evansville, Ind.	10.2	13.2	19.7	10.2	14.1	14.6	
Portageville, Mo.(A)	15.1	16.0	20.1	16.3	15.5	20.7	
Bixby, Okla.	12.9	16.1	22.1	13.9	16.2	16.5	
Mean	13.6-	15.3-	20.5+	13.8-	14.9-	16.7-	1.0

Table 4. - Relative maturity data, days earlier (-) or later (+) than Kent, for the strains in Uniform Group IV-S, 1974

Location	Date planted	Kent matured	Columbus	Oksoy	Clark 63	K1004	D66-5566
			East Coast				
Queenstown, Md.	5-28	10-8	+3	0	-7	0	-5
Linkwood, Md.	6-10	9-29	+6	+6	-4	+3	+4
Georgetown, Del.	5-25	9-30	+5	+5	+4	0	+2
Warsaw, Va.	5-20	9-26	+8	+7	-3	-3	+3
Beltsville, Md.	6-7	10-12	+2	+1	-3	0	0
Mean		10-3	+5	+4	-3	0	0
			Upper and Central South				
Blairsville, Ga.	5-30	9-30	+4	0	-8	-2	0
Belleville, Ill.	6-11	10-15	+4	+1	-5	-1	+1
Eldorado, Ill.	5-28	10-8	+1	0	-8	-2	-1
Carbondale, Ill.	6-4	10-5	+5	+2	-8	0	-3
Princeton, Ky.	5-21	9-30	+5	+3	-3	+1	+1
Mean		10-6	+4	+1	-6	-1	0
			Delta				
Portageville, Mo.(A)	5-21	10-1	+4	+3	-4	0	-2
Portageville, Mo.(B)	5-28	10-1	+1	0	-3	+2	0
Martin, Tenn.	6-14	10-1	+6	0	-3	0	0
Keiser, Ark.	5-30	9-24	+2	+6	-7	-1	-2
Mean		9-29	+3	+2	-4	0	-1
			West				
Columbus, Kan.	6-18	10-14	+4	0	-8	-2	-1
Bixby, Okla.	6-21	10-8	-2	0	-2	-1	0
Lubbock, Texas	5-15	9-19	+9	-6	-6	+7	+7
Mean		10-4	+4	-2	-5	+1	+2

Table 4. - (continued)

Location	D67-3297	S63-5328S	V68-1242	V71-480	V71-793	V71-807
		East Coast				
Queenstown, Md.	0	+3	0	+1	-1	0
Linkwood, Md.	+7	+4	+9	+9	+6	+3
Georgetown, Del.	+5	+6	+8	+12	+5	+4
Warsaw, Va.	+7	+8	+8	+12	+3	+4
Beltsville, Md.	+3	+2	+4	+6	+1	+2
Mean	+4	+5	+6	+8	+3	+3
		Upper and Central South				
Blairsville, Ga.	+4	+1	0	0	-2	-2
Belleville, Ill.	+6	+2	+1	+7	+2	+1
Eldorado, Ill.	+1	0	+1	+6	+1	0
Carbondale, Ill.	+7	0	+4	+9	+1	-1
Princeton, Ky.	+4	+2	+2	+7	+3	+2
Mean	+4	+1	+2	+6	+1	0
		Delta				
Portageville, Mo.(A)	0	+4	+5	+7	0	+1
Portageville, Mo.(B)	+4	+1	+6	+6	+1	+1
Martin, Tenn.	+4	+2	+4	0	0	0
Keiser, Ark.	+5	+7	+1	+6	+2	+2
Mean	+3	+4	+4	+5	+1	+1
		West				
Columbus, Kan.	+4	-1	+4	+6	-2	-1
Bixby, Okla.	+1	+1	-1	+1	-1	+2
Lubbock, Texas	+16	+6	+9	+13	0	+1
Mean	+7	+2	+4	+7	-1	0

Table 5. - Plant height for the strains in Uniform Group IV-S, 1974

Location	Kent	Columbus	Oksoy	Clark 63	K1004	D66-5566
			East Coast			
Queenstown, Md.	30	32	32	27	30	15
Linkwood, Md.	30	39	40	31	35	26
Georgetown, Del.	36	37	38	35	35	24
Warsaw, Va.	34	42	40	34	33	26
Beltsville, Md.	41	41	37	38	42	30
Mean	34	38	37	33	35	24
			Upper and Central South			
Orange, Va.	40	45	42	38	44	29
Blairsville, Ga.	37	40	38	34	35	31
Belleville, Ill.	39	40	36	36	40	20
Eldorado, Ill.	43	46	40	41	43	25
Carbondale, Ill.	26	32	27	23	29	19
Princeton, Ky.	36	40	40	34	34	24
Mean	37	41	37	34	38	25
			Delta			
Evansville, Ind.	40	39	33	36	40	23
Portageville, Mo.(A)	35	49	43	37	37	27
Portageville, Mo.(B)	21	24	18	22	18	14
Martin, Tenn.	32	37	34	32	35	21
Keiser, Ark.	27	38	34	29	34	19
Mean	31	37	32	31	33	21
			West			
Columbus, Kan.	31	36	34	29	32	23
Mt. Vernon, Mo.	31	36	32	30	32	20
Bixby, Okla.	38	38	40	36	37	28
Lubbock, Texas	24	27	28	24	24	15
Mean	31	34	34	30	31	22

Table 5. - (continued)

Location	D67-3297	S63-5328S	V68-1242	V71-480	V71-793	V71-807
			East Coast			
Queenstown, Md.	25	32	20	25	29	26
Linkwood, Md.	36	39	35	40	33	31
Georgetown, Del.	33	39	29	37	35	37
Warsaw, Va.	33	39	28	37	36	35
Beltsville, Md.	34	40	37	42	38	42
Mean	32	38	30	36	34	34
			Upper and Central South			
Orange, Va.	33	39	34	37	39	41
Blairsville, Ga.	40	40	33	44	34	37
Belleville, Ill.	31	35	25	32	34	36
Eldorado, Ill.	31	39	27	35	40	41
Carbondale, Ill.	25	27	22	29	24	24
Princeton, Ky.	30	40	21	33	37	37
Mean	32	37	27	35	35	36
			Delta			
Evansville, Ind.	31	38	30	37	36	38
Portageville, Mo.(A)	33	45	26	39	42	41
Portageville, Mo.(B)	19	14	18	19	22	20
Martin, Tenn.	31	34	25	31	28	28
Keiser, Ark.	22	29	24	28	28	28
Mean	27	32	25	31	31	31
			West			
Columbus, Kan.	29	31	25	29	29	29
Mt. Vernon, Mo.	30	32	27	33	31	33
Bixby, Okla.	33	39	28	35	33	34
Lubbock, Texas	25	26	15	25	23	28
Mean	29	32	24	31	29	31

Table 6. - Lodging scores for the strains in Uniform Group IV-S, 1974

Location	Kent	Columbus	Oksoy	Clark 63	K1004	D66-5566
		East Coast				
Queenstown, Md.	2.5	4.5	3.0	1.3	2.6	1.0
Linkwood, Md.	1.0	2.3	2.0	1.0	1.0	2.7
Georgetown, Del.	2.0	2.2	2.3	2.0	2.0	2.2
Warsaw, Va.	1.3	3.3	2.4	2.3	1.3	3.3
Beltsville, Md.	2.3	4.0	3.0	3.3	2.0	2.7
		Upper and Central South				
Orange, Va.	2.0	2.0	2.7	1.3	1.0	2.3
Blarisville, Ga.	1.3	2.0	1.3	1.3	1.0	1.3
Belleville, Ill.	1.8	2.3	2.3	2.0	1.9	3.0
Eldorado, Ill.	1.4	2.5	1.8	2.8	2.0	2.5
Carbondale, Ill.	1.0	1.0	1.0	1.0	1.0	1.0
Princeton, Ky.	1.0	2.0	1.3	1.0	1.0	1.0
		Delta				
Evansville, Ind.	3.8	5.0	4.3	3.8	4.2	4.0
Portageville, Mo.(A)	1.3	2.2	2.3	1.8	1.2	1.5
Portageville, Mo.(B)	1.0	1.2	1.0	1.0	1.0	1.2
Martin, Tenn.	1.0	1.0	2.0	1.0	1.0	1.0
Keiser, Ark.	1.0	1.3	1.0	1.0	1.0	1.0
		West				
Columbus, Kan.	1.5	2.3	1.5	1.5	1.5	2.3
Mt. Vernon, Mo.	2.0	1.8	1.6	1.7	1.8	1.0
Bixby, Okla.	2.3	2.0	2.7	3.0	2.0	3.3
Lubbock, Texas	2.5	3.0	2.7	3.2	2.7	1.2

Table 6. - (continued)

Location	D67-3297	S63-5328S	V68-1242	V71-480	V71-793	V71-807
			East Coast			
Queenstown, Md.	1.8	1.8	1.0	1.5	1.6	1.0
Linkwood, Md.	3.7	1.0	2.0	3.3	1.0	1.0
Georgetown, Del.	2.8	2.0	1.8	2.3	2.0	1.8
Warsaw, Va.	3.2	2.1	1.6	2.6	1.2	1.1
Beltsville, Md.	4.0	3.3	3.0	3.7	2.0	2.3
			Upper and Central South			
Orange, Va.	1.7	2.0	1.3	2.0	1.3	1.0
Blairsville, Ga.	2.5	1.3	1.0	2.5	1.3	1.2
Belleville, Ill.	3.0	1.7	2.0	2.8	1.7	1.4
Eldorado, Ill.	3.5	1.8	1.4	4.0	2.4	1.4
Carbondale, Ill.	1.0	1.0	1.0	1.0	1.0	1.0
Princeton, Ky.	1.0	1.3	1.0	1.3	1.0	1.0
			Delta			
Evansville, Ind.	4.8	4.7	3.2	4.8	4.2	3.0
Portageville, Mo.(A)	2.2	2.2	1.2	3.0	2.2	1.7
Portageville, Mo.(B)	1.3	1.0	1.0	1.2	1.0	1.0
Martin, Tenn.	1.0	1.0	1.0	1.0	1.0	1.0
Keiser, Ark.	1.0	1.0	1.0	1.0	1.0	1.0
			West			
Columbus, Kan.	2.5	1.2	3.5	3.0	1.0	1.3
Mt. Vernon, Mo.	1.3	1.5	1.2	2.0	1.2	1.8
Bixby, Okla.	3.0	2.0	2.0	3.7	2.7	2.0
Lubbock, Texas	2.0	2.0	1.0	3.0	1.5	1.5

Table 7. - Seed quality scores for the strains in Uniform Group IV-S, 1974

Location	Kent	Columbus	Oksoy	Clark 63	K1004	D66-5566
		East Coast				
Queenstown, Md.	1.1	1.2	1.0	1.0	1.0	1.5
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Georgetown, Del.	2.3	2.2	2.3	3.0	2.5	2.0
Warsaw, Va.	2.5	2.2	2.3	4.0	2.6	1.8
Beltsville, Md.	2.0	2.0	2.0	3.0	2.0	2.0
		Upper and Central South				
Orange, Va.	1.7	1.0	1.0	1.0	1.0	1.0
Blairsville, Ga.	1.5	1.5	1.5	1.7	1.5	1.5
Belleville, Ill.	2.7	2.2	2.2	2.0	2.0	1.7
Eldorado, Ill.	2.7	2.0	2.0	2.0	2.2	1.7
Carbondale, Ill.	1.0	1.0	2.0	3.0	2.0	1.0
Princeton, Ky.	2.0	2.7	1.3	4.7	1.0	1.0
		Delta				
Evansville, Ind.	1.5	1.5	1.0	1.5	1.5	1.5
Portageville, Mo.(A)	2.0	1.8	2.3	3.0	2.3	1.5
Portageville, Mo.(B)	2.7	2.2	2.7	3.2	3.0	3.0
Keiser, Ark.	1.0	1.5	1.0	1.5	1.0	1.0
		West				
Columbus, Kan.	1.5	1.3	1.2	1.7	1.2	1.2
Mt. Vernon, Mo.	1.8	1.8	2.0	2.2	1.5	1.5
Bixby, Okla.	1.7	1.3	1.7	1.7	1.7	1.3
Bushland, Texas	2.7	1.7	2.0	3.0	2.0	1.0
Lubbock, Texas	2.5	2.0	3.0	4.0	2.0	1.7

Table 7. - (continued)

Location	D67-3297	S63-5328S	V68-1242	V71-480	V71-793	V71-807
			East Coast			
Queenstown, Md.	2.0	1.7	1.0	2.0	1.0	1.2
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Georgetown, Del.	2.2	2.2	1.7	2.0	2.0	1.8
Warsaw, Va.	2.0	2.0	1.8	1.5	1.5	2.0
Beltsville, Md.	2.0	2.0	2.0	2.0	2.0	2.0
			Upper and Central South			
Orange, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Blairsville, Ga.	1.7	1.5	2.0	2.3	1.5	1.5
Belleville, Ill.	2.0	2.3	2.3	1.7	2.5	2.5
Eldorado, Ill.	2.0	1.8	1.8	2.0	2.5	2.5
Carbondale, Ill.	1.0	2.0	1.0	3.0	1.0	2.0
Princeton, Ky.	1.0	1.3	1.0	2.0	1.3	1.3
			Delta			
Evansville, Ind.	1.5	1.5	1.0	2.5	1.5	1.5
Portageville, Mo.(A)	2.0	2.0	2.0	1.5	1.8	2.5
Portageville, Mo.(B)	1.8	2.8	2.0	1.5	1.8	2.2
Keiser, Ark.	1.0	1.0	1.0	1.5	1.0	1.0
			West			
Columbus, Kan.	1.0	1.2	1.0	1.5	1.0	1.3
Mt. Vernon, Mo.	2.0	1.8	1.7	2.3	1.8	2.0
Bixby, Okla.	1.0	1.3	1.0	1.0	1.3	1.3
Bushland, Texas	1.0	2.0	1.7	1.5	2.5	2.5
Lubbock, Texas	1.5	2.7	2.0	1.5	2.0	2.0

UNIFORM GROUP V

1974

	Variety or strain	Parentage	Generation composited
1.	Essex	Lee x S5-7075	F_6
2.	Forrest	Dyer x Bragg	F_5
3.	Mack	Lee recurrent parent; resist. C.N. & P.R.	
4.	D70-2650	D65-3075 x Hood	F_5
5.	D70-5107	D65-3075 x D64-4636	F_5
6.	V68-1171	PI 80837 x V63-76	
7.	D70-3115	D64-4636 x tawny pubescence Pickett 71 type	F_5
8.	D70-5101	D63-6075 x D64-4636	F_5
9.	N70-1549	Dare x D65-6765	F_4
10.	R70-332	(Davis x Lee 68) x R60-66	F_5
11.	R71-638	(Davis x Lee 68) x R60-66	F_4
12.	V71-775	Delmar x V66-318	

Background of strains used as parents:

Lee is a selection from S-100 x CNS.

S5-7075 is a selection from N48-1248 x Perry which was grown in Uniform Group VI. N48-1248 has the same parentage as Hood.

Dyer is a cyst nematode (race 3) resistant variety selected from Hill x [Lee(2) x Peking].

D65-3075 is a selection from Hill(4) x PI 171,442.

Hood is a selection from Roanoke x N45-745 (sel. from Ogden x CNS).

D64-4636 is a selection from Hill x D58-3311. D58-3311 is a bacterial pustule resistant selection from Jackson(4) x D49-2491.

V63-73 is a selection from Hill x D53-354.

D65-6765 is a Group VII line grown in Uniform Group VII in 1968 and 1969. It is a selection from D58-3358 [Jackson(4) x D49-2491] x D59-9289 (a selection from D51-4877 x D55-4168).

R60-66 is a selection from Dortchsoy 67 x Lee.

V66-318 is a selection from D53-184 x J22.

Thirty Uniform Group V nurseries were grown. Results are summarized in Tables 8 through 14. Table 8 gives a general summary of performance along with characteristics of each of the strains. Two- and three-year data are reported for seed yield and oil and protein percentage of the seed.

Differences among strain for seed yield were significant (odds 19:1 or greater) at all but six of the locations. The combined analysis of variance for seed yield by production regions showed differences among strains to be non-significant in the Delta and West.

A separate planting was made at Jay, Florida, on a soil heavily infested with the root knot nematode, *Meloidogyne incognita* var *acrita* for root knot evaluation. Ratings for bacterial pustule and phytophthora rot were made in the field at Stoneville. Shatter resistance ratings are based upon observations at several locations. Ratings for Mexican bean beetle feedings were made at Linkwood, Maryland.

Three-year average yields for Essex are appreciably higher than for Forrest or Mack in the East Coast and Upper and Central South. Three-year means for Essex and Forrest are nearly similar in the Delta and Western regions where cyst nematodes are not a factor. Forrest has averaged higher in seed yield in these two regions than Mack. Both Forrest and Mack are resistant to race 3 of the cyst nematode. Forrest is resistant to root knot nematodes, while Mack is susceptible; but Mack has a higher degree of resistance to phytophthora rot than Forrest. Essex is susceptible to phytophthora rot, root knot and cyst nematodes.

Three strains, D70-2650, D70-5107, and V68-1171, have been evaluated two years. All have averaged lower in seed yield than Essex in the East Coast. While yields in other areas have been good, they have not been outstanding. D70-5107 has good resistance to phytophthora rot and root knot.

Six strains were evaluated for one year. D71-3115 combines resistance to phytophthora rot, root knot and cyst nematodes. It yielded well in the Delta and West, but significantly less than Essex in the East Coast and Upper and Central south. D70-5101 combines resistance to phytophthora rot and root knot but is only fair in seed yield. N70-1549 equalled Essex in seed yield in the East Coast, but was not outstanding in other areas. R70-332 yielded well in the Delta and West. R71-638 of similar parentage was lower in seed yield, except that it yielded well in the West. V71-775 grew taller than Essex but in general gave poorer performance.

Table 8. - General summary of performance for the strains in Uniform Group V, 1974

	Essex	Forrest	Mack	D70-2650	D70-5107	V68-1171
Seed Yield - 1974						
East Coast	45.9	37.2-	39.5-	38.5-	43.2	42.3-
Upper & Central South	39.7	34.6-	33.5-	32.8-	36.6	37.6
Delta	36.3	38.9	37.8	37.7	37.9	34.5
West	38.6	40.4	36.3	38.8	38.5	40.0
- 1973-74						
East Coast	44.5	38.2	39.5	40.0	41.7	41.9
Upper & Central South	41.9	37.5	36.9	36.2	38.3	39.6
Delta	40.3	42.6	40.5	42.0	41.5	38.0
West	42.4	44.3	40.8	42.3	42.0	44.9
- 1972-74						
East Coast	44.3	38.0	39.3			
Upper & Central South	43.2	37.7	37.6			
Delta	43.0	43.0	40.7			
West	43.1	43.4	41.7			
Oil Content - 1974	20.5	20.7	21.1	20.3	20.9	21.1
- 1973-74	21.8	21.7	22.5	21.4	22.1	22.4
- 1972-74	21.9	21.8	22.8			
Protein Content - 1974	42.7	39.8-	41.3-	41.5-	40.0-	40.0-
- 1973-74	41.8	39.2	40.5	41.0	39.7	39.5
- 1972-74	41.3	39.0	40.0			
Seed size	13.2	12.7	14.0+	12.7	13.4	15.6+
Seed quality	1.6	1.9	1.8	1.6	1.7	1.9
Maturity index	10-3	+6	+4	+4	+1	+4
Height	27	34	33	30	32	28
Bacterial pustule	R	R	R	R	R	S
Phytophthora rot	2.5	1.5	1.0	1.0	1.0	1.0
Root knot nematode	3.0	1.3	4.5	4.0	2.0	2.5
Cyst nematode (race 3)	S	R	R	S	S	S
Shatter resistance	1.5	1.0	1.0	1.0	1.0	1.5
Flower color	P	W	P	W	W	P
Pubescence color	G	T	T	G	T	G
Pod wall color	T	T	T	T	T	T
Mexican bean beetle	4.0	3.0	3.0	2.0	2.0	3.0

Table 8. - (continued)

	D70-3115	D70-5101	N70-1549	R70-332	R71-638	V71-775
Seed Yield - 1974						
East Coast	41.0-	36.5-	45.3	42.3-	39.7-	42.0-
Upper & Central South	34.6-	33.4-	35.9-	34.1-	34.7-	37.0
Delta	41.3	37.0	37.8	41.6	37.8	36.9
West	39.1	39.5	38.1	41.9	42.1	36.2
- 1973-74						
East Coast						
Upper & Central South						
Delta						
West						
- 1972-74						
East Coast						
Upper & Central South						
Delta						
West						
Oil Content - 1974	21.1	20.7	21.2+	21.7+	20.8	21.3+
- 1973-74						
- 1972-74						
Protein Content - 1974	41.0-	39.6-	40.8-	40.1-	41.2-	42.2
- 1973-74						
- 1972-74						
Seed size	13.7	13.0	13.5	12.9	12.5-	16.5+
Seed quality	1.7	1.8	1.7	1.6	1.7	2.1
Maturity index	+6	+7	+4	+4	+4	0
Height	33	33	31	32	32	38
Bacterial pustule	R	R	R	R	R	R
Phytophthora rot	1.0	1.0	1.0	1.0	1.0	3.0
Root knot nematode	1.5	1.3	4.3	4.3	4.7	3.3
Cyst nematode (race 3)	R	S	S	S	S	S
Shatter resistance	1.0	2.0	1.0	1.0	1.5	1.8
Flower color	W	W	W	P	P	P
Pubescence color	T	T	T	G	G	G
Pod wall color	T	T	T	T	Br	T
Mexican bean beetle	2.0	2.0	3.0	2.0	2.0	3.0

Table 9. - Seed yield, in bushels per acre, for the strains in Uniform Group V, 1974

Location	Essex	Forrest	Mack	D70-2650	D70-5107	V68-1171	D70-3115
			East Coast				
Queenstown, Md.	57.8	39.6-	42.3-	44.8-	44.1-	47.8-	46.6-
Linkwood, Md.	32.9	29.8	34.1	31.5	35.1	39.8+	33.7
Georgetown, Md.	39.2	25.2-	32.8-	30.2-	37.0	36.4	31.5-
Warsaw, Va.	44.8	41.3	43.4	34.7-	45.2	40.5-	43.8
Petersburg, Va.	40.3	33.2-	35.6	39.0	47.1+	40.0	43.2
Holland, Va.	55.3	46.3-	44.4-	47.7-	49.9-	47.5-	45.3-
Plymouth, N.C.	50.7	45.3	43.5-	41.2-	43.7-	44.2-	42.9-
Mean	45.9	37.2-	39.5-	38.5-	43.2	42.3-	41.0-
			Upper and Central South				
Orange, Va.	28.8	19.8-	18.1-	18.2-	26.3	25.6	20.1-
Blairsville, Ga.	35.6	18.7-	19.4-	23.0-	31.8	27.4-	22.7-
Calhoun, Ga.	38.6	29.9-	34.2-	28.9-	27.9-	39.8	33.7-
Athens, Ga.	30.3	39.2	30.3	28.1	35.6	38.4	40.5
Belle Mina, Ala.	53.1	49.2	44.3-	41.4-	46.6-	51.4	50.0
Princeton, Ky.	46.4	37.8	43.1	41.9	40.6	42.6	43.0
Martin, Tenn.	33.7	32.3	31.5	29.2	35.4	31.3	32.3
Jackson, Tenn.	66.2	58.0-	52.2-	55.9-	58.5-	61.2	49.3-
Verona, Miss.(no cysts)	24.3	26.6	27.1	28.3	26.4	20.9	19.8
Verona,Miss.(cyst area)*	7.4	15.3	12.2	9.3	11.2	7.3	10.5
Mean	39.7	34.6-	33.5-	32.8-	36.6	37.6	34.6-
			Delta				
Portageville, Mo.(A)	54.2	52.1	46.8	39.3-	42.3-	45.5	48.3
Portageville, Mo.(B)	28.0	30.9	29.7	32.2	35.9+	33.1	34.4+
Keiser, Ark.	19.8	24.5	26.4+	33.1+	31.9+	25.6	29.9+
Jonesboro, Ark.	32.2	26.6-	27.1-	28.5	23.5-	30.4	27.0-
Stoneville, Miss.(A)	43.9	50.8	49.4	47.0	40.9	40.4	51.7
Stoneville, Miss.(B)	23.2	32.4+	38.5+	40.1+	42.7+	26.5	49.6+
St. Joseph, La.	52.5	51.4	46.9	43.4-	48.1	40.2-	47.8
Mean	36.3	38.9	37.8	37.7	37.9	34.5	41.3
			West				
Mt. Vernon, Mo.*	40.5	44.3	41.2	36.3	39.6	39.0	40.4
Columbus, Kan.	44.2	37.2-	41.9	38.7-	39.2-	46.6	43.0
Stuttgart, Ark.	33.6	41.1+	37.2	39.4+	36.3	38.6+	42.4+
Curtis, La.	32.4	39.5	30.4	38.3	35.2	21.6	37.2
Bixby, Okla.	38.7	40.1	31.8	34.7	37.5	47.2	34.2
Lubbock, Texas	44.0	44.4	40.0-	42.7	44.3	46.1	38.7-
Mean	38.6	40.4	36.3	38.8	38.5	40.0	39.1

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

Table 9. - (continued)

Location	D70-5101	N70-1549	R70-332	R71-638	V71-775	L.S.D. (.05)	C.V. (%)
		East Coast					
Queenstown, Md.	40.6-	47.5-	43.1-	43.3-	48.8-	5.5	7
Linkwood, Md.	27.6-	39.2+	38.0+	36.3	38.2+	4.7	8
Georgetown, Del.	29.7-	41.0	30.8-	34.8-	36.4	3.8	8
Warsaw, Va.	36.2	46.2	43.0	42.2	41.9	3.9	5
Petersburg, Va.	37.8	41.0	42.7	38.0	40.0	6.1	9
Holland, Va.	42.8-	49.7-	49.5-	45.0-	49.8-	3.2	4
Plymouth, N.C.	40.9-	52.4	49.1	38.1-	38.8-	6.0	8
Mean	36.5-	45.3	42.3-	39.7-	42.0-	3.2	
		Upper and Central South					
Orange, Va.	20.0-	23.9-	21.1-	20.1-	27.0	3.9	10
Blairsville, Ga.	20.4-	30.2-	23.6-	30.1-	42.8+	5.3	12
Calhoun, Ga.	30.9-	29.2-	32.1-	32.7-	29.9-	4.3	8
Athens, Ga.	36.6	34.4	36.4	31.7	30.4	N.S.	20
Belle Mina, Ala.	44.9-	52.9	49.9	47.9-	44.3-	4.9	6
Princeton, Ky.	38.0	44.0	40.6	43.8	42.6	N.S.	10
Martin, Tenn.	25.8-	23.2-	28.4	28.7	37.0	6.6	12
Jackson, Tenn.	55.5-	58.6-	56.9-	51.0-	55.6-	6.5	6
Verona, Miss.(no cysts)	28.3	26.5	18.5	26.2	23.0	N.S.	18
Verona, Miss.(cyst area)*	10.6	8.3	6.8	8.9	6.0	N.S.	30
Mean	33.4-	35.9-	34.1-	34.7-	37.0	3.7	
		Delta					
Portageville, Mo.(A)	40.5-	42.3-	44.1-	37.8-	54.0	9.2	12
Portageville, Mo.(B)	32.8	34.0+	35.5+	35.9+	33.8+	5.5	10
Keiser, Ark.	27.3+	32.8+	31.8+	29.8+	20.2	5.9	12
Jonesboro, Ark.	26.8-	28.2	26.4-	26.4-	30.1	4.4	9
Stoneville, Miss.(A)	46.9	49.6	52.5	47.4	35.2	9.6	12
Stoneville, Miss.(B)	42.3+	33.9+	46.3+	38.7+	34.0+	5.3	8
St. Joseph, La.	42.5-	43.7-	54.7	48.9	50.7	6.9	9
Mean	37.0	37.8	41.6	37.8	36.9	N.S.	
		West					
Mt. Vernon, Mo.*	41.2	40.7	44.6	40.4	32.7	N.S.	11
Columbus, Kan.	40.9	41.9	44.4	43.9	40.3-	2.6	4
Stuttgart, Ark.	41.3+	39.7+	43.0+	45.5+	35.0	4.1	6
Curtis, La.	40.4	36.1	41.3	44.2	33.1	N.S.	24
Bixby, Okla.	34.8	32.0	35.6	33.0	30.8-	7.6	12
Lubbock, Texas	40.0-	41.0	45.3	43.8	41.9	3.4	4
Mean	39.5	38.1	41.9	42.1	36.2	N.S.	

Table 10. - Chemical composition and seed size for the strains in Uniform Group V, 1974

Location	Essex	Forrest	Mack	D70-2650	D70-5107	V68-1171
			Oil Percentage			
Linkwood, Md.	20.1	18.8	19.6	19.5	19.4	19.7
Warsaw, Va.	19.6	19.2	20.9	18.9	20.1	20.0
Plymouth, N.C.	19.7	20.0	20.7	20.2	21.0	20.2
Calhoun, Ga.	22.3	21.2	21.7	21.1	21.9	22.4
Jackson, Tenn.	20.0	20.3	21.5	19.6	21.6	20.7
Portageville, Mo.(A)	20.3	20.0	21.0	18.7	20.8	20.3
Keiser, Ark.	19.7	20.3	20.8	19.3	19.3	21.6
Stoneville, Miss.(A)	22.0	23.6	22.4	24.3	23.0	22.0
Stuttgart, Ark.	20.9	22.5	21.3	21.1	21.0	23.1
Mean	20.5	20.7	21.1	20.3	20.9	21.1
			Protein Percentage			
Linkwood, Md.	43.7	38.9	41.7	41.2	39.4	40.1
Warsaw, Va.	43.8	40.0	41.3	42.8	40.6	40.9
Plymouth, N.C.	44.2	42.1	43.7	43.7	42.4	42.5
Calhoun, Ga.	39.5	39.1	40.0	39.1	37.4	38.3
Jackson, Tenn.	41.5	38.9	39.4	41.0	37.4	37.5
Portageville, Mo.(A)	43.9	40.1	41.2	42.8	40.4	39.6
Keiser, Ark.	42.3	39.5	41.1	41.9	40.7	39.3
Stoneville, Miss.(A)	42.0	39.3	40.8	38.8	40.1	41.3
Stuttgart, Ark.	43.8	40.2	42.8	42.4	41.6	40.1
Mean	42.7	39.8-	41.3-	41.5-	40.0-	40.0-
			Grams per 100 Seeds			
Linkwood, Md.	13.7	12.4	14.2	12.9	14.0	15.7
Warsaw, Va.	14.2	12.4	15.5	14.1	15.3	16.4
Plymouth, N.C.	14.6	12.5	14.2	13.3	13.3	15.8
Calhoun, Ga.	12.1	10.9	13.1	10.7	11.4	16.1
Jackson, Tenn.	15.1	13.7	15.0	14.3	15.1	16.4
Portageville, Mo.(A)	15.0	14.6	15.0	13.2	14.6	16.9
Keiser, Ark.	11.3	12.1	12.9	12.1	13.6	14.8
Stoneville, Miss.(A)	11.7	13.8	13.5	11.4	12.0	13.4
Stuttgart, Ark.	11.3	12.3	13.0	12.7	11.7	14.7
Mean	13.2	12.7	14.0+	12.7	13.4	15.6+

Table 10. - (continued)

Location	D70-3115	D70-5101	N70-1549	R70-332	R71-638	V71-775	L.S.D. (.05)
			Oil Percentage				
Linkwood, Md.	19.8	18.8	20.6	20.6	19.7	19.7	
Warsaw, Va.	20.9	18.5	20.3	20.5	20.1	19.6	
Plymouth, N.C.	20.0	20.4	21.0	20.7	20.3	20.3	
Calhoun, Ga.	21.8	20.8	21.1	22.2	21.7	22.6	
Jackson, Tenn.	19.8	21.5	20.9	20.9	20.3	21.4	
Portageville, Mo.(A)	19.9	19.8	19.4	20.3	20.0	19.9	
Keiser, Ark.	20.7	20.0	19.9	20.7	20.0	21.0	
Stoneville, Miss.(A)	24.5	24.0	24.8	26.6	23.5	25.3	
Stuttgart, Ark.	22.8	22.3	22.9	23.2	21.5	21.8	
Mean	21.1	20.7	21.2+	21.7+	20.8	21.3+	0.7
			Protein Percentage				
Linkwood, Md.	41.0	39.5	39.7	40.4	41.0	43.2	
Warsaw, Va.	41.6	39.8	41.3	40.5	42.1	44.9	
Plymouth, N.C.	43.7	42.3	42.9	43.9	43.8	44.9	
Calhoun, Ga.	38.6	38.4	39.6	38.1	38.5	39.5	
Jackson, Tenn.	42.0	37.4	40.4	39.3	40.6	39.7	
Portageville, Mo.(A)	41.7	40.9	42.6	41.6	42.8	43.8	
Keiser, Ark.	39.4	39.2	40.9	40.0	41.3	42.0	
Stoneville, Miss.(A)	40.3	39.0	39.0	36.8	39.1	40.1	
Stuttgart, Ark.	40.4	39.8	40.8	39.9	41.4	41.8	
Mean	41.0-	39.6-	40.8-	40.1-	41.2-	42.2	0.8
			Grams per 100 seeds				
Linkwood, Md.	14.2	11.5	14.5	12.9	13.3	15.6	
Warsaw, Va.	14.3	13.4	15.3	14.0	13.2	17.8	
Plymouth, N.C.	13.8	13.0	13.9	14.2	13.0	17.4	
Calhoun, Ga.	12.2	10.9	11.9	11.4	11.2	14.9	
Jackson, Tenn.	14.9	14.1	15.3	13.6	13.6	18.3	
Portageville, Mo.(A)	14.8	13.8	15.1	14.1	13.4	19.8	
Keiser, Ark.	13.0	14.9	12.3	12.5	12.3	15.4	
Stoneville, Miss.(A)	13.5	11.5	11.6	11.2	10.5	14.6	
Stuttgart, Ark.	12.7	13.7	12.0	12.3	12.3	15.0	
Mean	13.7	13.0	13.5	12.9	12.5-	16.5+	0.7

Table 11. - Relative maturity, days earlier (-) or later (+) than Essex, for the strains in Uniform Group V, 1974

Location	Date planted	Essex matured	Forrest	Mack	D70-2650	D70-5107
		East Coast				
Queenstown, Md.	5-28	10-16	+2	-1	+2	+2
Linkwood, Md.	6-10	10-10	+5	+4	+6	+4
Plymouth, N.C.	5-14	10-10	-2	-5	-5	-9
Mean		10-12	+2	0	+1	-1
		Upper and Central South				
Calhoun, Ga.	5-20	9-20	+11	+9	+9	+7
Athens, Ga.	5-9	9-14	+6	+2	+4	+1
Martin, Tenn.	6-14	10-15	+7	+3	+5	+5
Jackson, Tenn.	5-30	10-1	+6	+5	+5	-4
Mean		9-28	+8	+5	+6	+2
		Delta				
Portageville, Mo.(A)	5-21	10-8	+1	+1	+1	-1
Portageville, Mo.(B)	5-28	10-10	+3	+3	+4	+2
Keiser, Ark.	5-30	10-4	+6	+3	+2	+5
Stoneville, Miss.(A)	5-14	9-22	+11	+11	+7	+1
Stoneville, Miss.(B)	5-8	9-22	+11	+8	+6	-1
St. Joseph, La.	5-30	9-9	+9	+4	+1	+4
Mean		9-28	+7	+5	+4	+2
		West				
Columbus, Kan.	6-18	10-30	+6	+3	+1	0
Stuttgart, Ark.	5-20	9-23	+12	+8	+13	+3
Curtis, La.	5-8	9-20	+6	+4	+3	+1
Bixby, Okla.	6-21	10-17	+4	+3	+2	+4
Lubbock, Texas	5-15	10-10	+8	+11	+4	+2
Mean		10-8	+7	+6	+5	+2

Table 11. - (continued)

Location	V68-1171	D70-3115	D70-5101	N70-1549	R70-332	R71-638	V71-775
			East Coast				
Queenstown, Md.	+4	0	0	+1	+2	+3	-2
Linkwood, Md.	+4	+3	+6	+3	+4	+3	+1
Plymouth, N.C.	0	0	0	-2	-2	0	0
Mean	+3	+1	+2	0	+1	+2	0
			Upper and Central South				
Calhoun, Ga.	+11	+9	+10	+10	+11	+9	+3
Athens, Ga.	+7	+7	+7	+1	+3	+2	-2
Martin, Tenn.	0	+3	+10	+3	+5	+5	0
Jackson, Tenn.	+4	+5	+10	+4	+5	+5	-3
Mean	+6	+6	+9	+5	+6	+5	0
			Delta				
Portageville, Mo.(A)	0	+2	+2	+3	+3	+1	0
Portageville, Mo.(B)	+1	+3	+4	+3	+4	+3	+1
Keiser, Ark.	+2	+4	+7	+2	+3	+2	+5
Stoneville, Miss.(A)	+8	+12	+9	+3	+3	+8	+2
Stoneville, Miss.(B)	+10	+9	+8	+8	+7	+4	+6
St. Joseph, La.	0	+6	+1	+7	+1	+1	+6
Mean	+4	+6	+5	+4	+4	+3	+3
			West				
Columbus, Kan.	+2	+3	+3	+2	+4	+1	-3
Stuttgart, Ark.	+14	+12	+13	+9	+10	+14	+8
Curtis, La.	+4	+15	+5	+2	+4	0	-2
Bixby, Okla.	+2	+7	+4	+6	+2	+6	-1
Lubbock, Texas	+2	+13	+9	+3	+9	+2	-5
Mean	+5	+10	+9	+4	+6	+5	0

Table 12. - Plant height for the strains in Uniform Group V, 1974

Location	Essex	Forrest	Mack	D70-2650	D70-5107	V68-1171
			East Coast			
Queenstown, Md.	25	30	26	28	29	29
Linkwood, Md.	28	40	41	32	37	35
Georgetown, Del.	31	36	38	34	34	34
Warsaw, Va.	35	41	41	36	40	35
Petersburg, Va.	29	40	29	30	35	30
Holland, Va.	31	37	43	38	36	31
Plymouth, N.C.	32	37	37	30	35	32
Mean	30	36	36	33	35	32
			Upper and Central South			
Orange, Va.	36	39	36	35	37	36
Blairsville, Ga.	35	41	41	37	41	37
Calhoun, Ga.	30	39	38	30	35	33
Athens, Ga.	22	32	29	25	30	23
Belle Mina, Ala.	28	37	36	33	33	31
Princeton, Ky.	32	36	36	34	35	31
Martin, Tenn.	33	39	39	36	36	33
Jackson, Tenn.	30	42	38	35	33	28
Mean	31	38	37	33	35	32
			Delta			
Portageville, Mo.(A)	32	41	42	31	39	36
Portageville, Mo.(B)	17	20	20	19	23	18
Keiser, Ark.	16	19	19	21	25	13
Stoneville, Miss.(A)	22	31	29	28	27	21
Stoneville, Miss.(B)	15	20	19	20	23	15
St. Joseph, La.	23	35	34	30	29	24
Mean	21	28	27	25	28	21
			West			
Mt. Vernon, Mo.	29	37	37	33	33	32
Columbus, Kan.	30	41	38	36	38	32
Stuttgart, Ark.	17	28	26	22	23	19
Curtis, La.	16	20	18	16	17	13
Bixby, Okla.	32	40	42	36	38	33
Lubbock, Texas	22	26	28	24	23	22
Mean	24	32	30	28	27	25

Table 12. - (continued)

Location	D70-3115	D70-5101	N70-1549	R70-332	R71-638	V71-775
			East Coast			
Queenstown, Md.	29	31	29	30	29	33
Linkwood, Md.	40	38	37	38	38	34
Georgetown, Del.	37	38	35	35	34	40
Warsaw, Va.	37	42	39	37	40	44
Petersburg, Va.	32	36	35	33	28	43
Holland, Va.	35	35	33	35	32	45
Plymouth, N.C.	35	37	33	35	32	42
Mean	35	37	34	35	33	40
			Upper and Central South			
Orange, Va.	33	39	39	32	34	42
Blairsville, Ga.	38	39	38	38	38	42
Calhoun, Ga.	38	37	33	35	31	33
Athens, Ga.	29	29	29	28	26	27
Belle Mina, Ala.	37	36	34	41	39	45
Princeton, Ky.	36	34	34	38	37	41
Martin, Tenn.	39	39	36	30	38	41
Jackson, Tenn.	42	39	37	41	38	50
Mean	37	37	35	35	35	40
			Delta			
Portageville, Mo.(A)	41	41	40	39	38	45
Portageville, Mo.(B)	21	20	19	20	22	23
Keiser, Ark.	21	16	19	18	23	28
Stoneville, Miss.(A)	31	29	25	32	30	40
Stoneville, Miss.(B)	23	23	17	29	25	33
St. Joseph, La.	28	32	30	34	32	45
Mean	28	27	22	29	28	36
			West			
Mt. Vernon, Mo.	37	35	35	33	35	40
Columbus, Kan.	34	39	40	35	37	39
Stuttgart, Ark.	24	25	24	25	27	32
Curtis, La.	18	20	19	16	20	29
Bixby, Okla.	42	38	43	39	40	41
Lubbock, Texas	27	25	27	25	25	33
Mean	30	30	31	29	31	36

Table 13. - Lodging scores for the strains in Uniform Group V, 1974

Location	Essex	Forrest	Mack	D70-2650	D70-5107	V68-1171
			East Coast			
Queenstown, Md.	2.1	2.5	3.8	3.8	2.6	3.0
Linkwood, Md.	2.0	3.0	4.0	4.0	3.3	2.3
Georgetown, Del.	2.3	3.2	3.5	3.0	2.8	2.5
Warsaw, Va.	1.1	1.5	2.0	1.0	1.7	1.8
Petersburg, Va.	2.0	1.0	2.0	1.0	1.0	2.0
Holland, Va.	1.5	2.5	2.7	2.2	2.3	1.7
Plymouth, N.C.	2.0	2.7	3.3	3.0	3.3	2.0
			Upper and Central South			
Orange, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Blairsville, Ga.	2.3	3.2	4.0	3.0	3.5	2.8
Calhoun, Ga.	1.5	1.8	2.3	2.2	1.5	2.0
Athens, Ga.	1.0	1.4	1.5	1.2	1.5	1.2
Princeton, Ky.	1.0	1.7	3.0	3.7	3.0	1.3
Martin, Tenn.	1.0	2.0	2.0	2.0	2.0	1.0
Jackson, Tenn.	1.5	1.0	2.5	1.0	1.5	1.0
			Delta			
Portageville, Mo.(A)	1.5	2.8	3.8	3.0	3.5	3.0
Portageville, Mo.(B)	1.2	1.8	2.3	1.3	1.7	1.2
Keiser, Ark.	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, Miss.(A)	2.0	2.0	2.7	2.3	2.0	2.0
Stoneville, Miss.(B)	1.0	1.0	2.0	1.7	2.0	1.0
St. Joseph, La.	1.0	1.0	3.0	2.0	2.0	1.0
			West			
Mt. Vernon, Mo.	1.9	2.2	2.8	3.0	2.4	2.4
Columbus, Kan.	1.3	3.0	3.8	2.2	3.2	2.7
Stuttgart, Ark.	1.0	1.2	1.2	1.0	1.2	1.0
Curtis, La.	1.0	1.5	1.3	1.5	1.5	1.0
Bixby, Okla.	2.3	3.3	4.0	3.7	3.3	2.0
Lubbock, Texas	1.5	2.0	2.0	1.7	2.0	1.5

Table 13. - (continued)

Location	D70-3115	D70-5101	N70-1549	R70-332	R71-638	V71-775
			East Coast			
Queenstown, Md.	3.0	3.0	3.1	4.0	4.1	1.6
Linkwood, Md.	4.0	2.3	2.7	3.0	3.3	1.0
Georgetown, Del.	2.7	3.0	2.3	2.5	2.7	2.0
Warsaw, Va.	1.5	1.8	1.8	1.5	1.8	2.0
Petersburg, Va.	2.0	4.0	2.0	1.0	4.0	1.0
Holland, Va.	2.3	2.5	1.8	1.8	1.8	2.0
Plymouth, N.C.	3.3	3.7	2.7	2.7	3.3	2.7
			Upper and Central South			
Orange, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Blairsville, Ga.	3.7	3.8	4.0	2.7	3.3	1.2
Calhoun, Ga.	2.3	2.0	1.8	1.7	1.8	1.0
Athens, Ga.	1.8	2.1	1.3	1.4	1.2	1.0
Princeton, Ky.	4.0	3.3	3.0	2.3	3.7	2.0
Martin, Tenn.	2.0	2.0	1.0	2.0	1.0	1.0
Jackson, Tenn.	2.0	1.5	2.0	2.5	3.0	1.5
			Delta			
Portageville, Mo.(A)	3.3	2.8	3.0	3.5	3.5	2.5
Portageville, Mo.(B)	1.7	1.5	1.8	1.2	1.7	1.3
Keiser, Ark.	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, Miss.(A)	2.0	2.3	2.0	3.0	3.0	3.0
Stoneville, Miss.(B)	2.0	1.7	1.0	2.0	2.0	1.7
St. Joseph, La.	1.0	1.0	1.0	1.0	3.0	2.0
			West			
Mt. Vernon, Mo.	2.7	2.5	2.6	2.5	2.7	1.6
Columbus, Kan.	2.8	3.2	2.8	1.7	2.2	1.3
Stuttgart, Ark.	1.0	1.2	1.0	1.0	1.3	1.2
Curtis, La.	1.5	2.0	2.4	1.0	1.5	1.0
Bixby, Okla.	3.7	4.0	3.7	4.0	4.3	3.0
Lubbock, Texas	2.0	2.0	2.0	1.5	2.0	1.5

Table 14. - Seed quality scores for the strains in Uniform Group V, 1974

Location	Essex	Forrest	Mack	D70-2650	D70-5107	V68-1171
			East Coast			
Queenstown, Md.	1.5	2.3	2.0	2.0	2.0	1.5
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Georgetown, Del.	2.0	3.0	2.5	2.2	2.3	2.3
Warsaw, Va.	1.1	1.5	2.0	1.0	1.7	1.8
Petersburg, Va.	1.0	2.0	1.0	1.0	1.0	1.0
Holland, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Plymouth, N.C.	1.5	1.0	1.0	1.0	1.0	1.0
			Upper and Central South			
Orange, Va.	1.0	2.3	2.2	1.8	1.3	2.0
Blairsville, Ga.	3.5	4.8	4.7	4.5	3.5	4.5
Calhoun, Ga.	1.3	1.5	1.5	1.3	1.0	2.0
Athens, Ga.	1.5	1.5	1.5	1.2	1.5	2.3
Princeton, Ky.	1.0	1.0	1.0	1.0	1.0	1.0
Jackson, Tenn.	1.0	1.0	2.0	1.0	1.0	1.0
			Delta			
Portageville, Mo.(A)	1.5	1.5	1.5	2.0	1.7	2.0
Portageville, Mo.(B)	2.0	2.0	2.0	2.0	2.0	2.5
Keiser, Ark.	1.0	1.5	1.0	1.0	1.0	1.5
Stoneville, Miss.(A)	2.0	2.0	2.0	2.0	2.3	2.3
Stoneville, Miss.(B)	2.3	2.0	2.0	2.0	2.0	2.3
			West			
Mt. Vernon, Mo.	1.5	2.0	2.0	1.5	1.7	1.8
Columbus, Kan.	1.2	1.8	1.7	1.5	1.3	1.3
Stuttgart, Ark.	2.2	2.8	2.2	2.2	2.5	3.0
Curtis, La.	3.7	2.4	2.4	1.4	3.0	2.7
Bixby, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
Lubbock, Texas	1.0	1.0	1.0	1.0	1.0	1.0

Table 14. - (continued)

Location	D70-3115	D70-5101	N70-1549	R70-332	R71-638	V71-775
			East Coast			
Queenstown, Md.	1.5	2.0	1.8	2.0	2.0	1.0
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Georgetown, Del.	2.3	2.8	2.2	2.3	2.5	2.0
Warsaw, Va.	1.5	1.8	1.8	1.5	1.8	2.0
Petersburg, Va.	1.0	1.0	1.0	1.0	2.0	1.0
Holland, Va.	1.0	1.0	1.0	1.0	1.0	1.5
Plymouth, N.C.	1.0	1.5	1.0	1.0	1.5	2.0
			Upper and Central South			
Orange, Va.	1.5	2.0	1.7	1.0	1.8	1.0
Blairsville, Ga.	4.3	4.8	4.5	4.5	4.3	2.0
Calhoun, Ga.	1.2	2.0	1.3	1.0	1.5	1.5
Athens, Ga.	1.5	1.7	1.5	1.3	1.3	4.0
Princeton, Ky.	1.0	1.0	1.0	1.0	1.0	3.0
Jackson, Tenn.	2.0	1.0	1.0	1.0	1.0	2.0
			Delta			
Portageville, Mo.(A)	1.8	1.5	1.5	1.5	1.5	2.0
Portageville, Mo.(B)	2.0	2.0	2.0	2.0	2.0	2.0
Keiser, Ark.	1.0	1.0	1.0	1.0	1.5	1.5
Stoneville, Miss.(A)	2.0	2.0	2.0	2.0	2.0	2.3
Stoneville, Miss.(B)	2.0	2.0	2.0	2.0	2.0	2.0
			West			
Mt. Vernon, Mo.	1.5	1.5	1.5	1.5	1.5	2.2
Columbus, Kan.	1.3	1.7	1.6	1.2	1.4	1.3
Stuttgart, Ark.	2.2	2.8	1.7	1.7	2.2	3.2
Curtis, La.	3.0	2.0	2.0	1.7	2.0	3.0
Bixby, Okla.	1.0	1.0	1.0	1.0	1.0	2.0
Lubbock, Texas	1.2	1.0	1.5	1.0	1.0	3.7

PRELIMINARY GROUP V

1974

Preliminary Group V nurseries, including 34 experimental strains and the two check varieties Hill and Mack, were grown at seven locations. The parentage of these strains is reported in Table 15. Performance data are summarized in Tables 16 through 21.

Differences among strains for seed yield were significant at the 5% level of confidence at five of the seven locations. The combined analysis of variance showed differences among strains to be significant. Eleven strains had mean seed yields significantly lower than Hill. Three strains had mean seed yields higher than Hill and seven strains had mean yields higher, but not significant, than Mack.

Results obtained in 1974 were probably biased by a killing frost on October 4 at four of the seven locations. In previous years, most of the higher yielding strains were 7 to 10 days later than Hill. In the 1974 plantings, the highest yielding strains were 4 to 6 days later than Hill.

In the plantings near Jay, Florida, on soil heavily infested with the root knot nematode, *Meloidogyne incognita*, five strains received lower ratings than Hill. One of the better strains was D70-5101, which had been included in the 1973 plantings also. This strain will have potential as a parent, as it carries a major gene for resistance to phytophthora rot and probably the major gene giving a broad range of resistance to downy mildew.

Four strains, D71-4606, D71-4713, D71-5047, and D71-5246, selected to combine small seed size with good agronomic qualities, produced mean seed yields significantly lower than Hill. The two strains D72-8809 and D72-8814, selected to combine resistance to soybean mosaic virus with other disease resistance qualities, were not outstanding in yield, although D72-8814 was one of the top-yielding strains at Keiser.

Strains were scored for feeding by Mexican bean beetle in the planting at Linkwood. Scores ranged from 1 to 4. Insect feeding does not appear to have influenced seed yields, as N72-55, which ranks second in seed yield, received a feeding score of 2; while N72-37, a selection having the same parentage, received a score of 4 and produced a similar seed yield. The scores do emphasize that we do have variability for attractiveness to feeding by insects within our regular breeding material. UD70-80DE-45, which received the lowest score, has one parent in common with Shore, which was released as a variety with resistance to Mexican bean beetle.

Strains which appear to merit consideration for being advanced to Uniform Group V are: N72-7, N72-40, N72-55, R71-626, V72-128, and V72-580.

Table 15. - Parentage of the strains in Preliminary Group V, 1974

	Vareity or strain	Parentage	Generation composited
1.	Hill		
2.	Mack		
3.	D70-2527	Hood x D65-6562	F_5
4.	D70-5083	D65-3075 x D64-4636	F_5
5.	D70-5101	D65-3075 x D64-4636	F_5
6.	D70-6599	D64-5144 x D62-6342	F_5
7.	D70-6750	D64-5144 x D62-6342	F_5
8.	D71-4606	D65-3065 x D65-2553	F_5
9.	D71-4713	D65-3065 x D65-2553	F_5
10.	D71-4838	D65-2567 x D65-2553	F_5
11.	D71-5047	D65-2567 x D65-2553	F_5
12.	D71-5246	D65-6555 x D65-6647	F_5
13.	D71-6860	D64-4636 x D64-3937	F_5
14.	D72-8809	D64-3253(2) x D65-3168	F_5
15.	D72-8814	D64-3253(2) x D65-3168	F_5
16.	D72-8879-A	D66-12392 x [Hill(2) x PI 90763]	F_6
17.	D72-8927-B	D66-12392 x [Hill(2) x PI 90763]	F_6
18.	N72-7	D64-3253 x D65-3168	F_5
19.	N72-37	D64-3253 x D65-3168	F_5
20.	N72-40	D64-3253 x D65-3168	F_5
21.	N72-55	D64-3253 x D65-3168	F_5
22.	N72-73	D64-3253 x D65-3168	F_5
23.	N72-129	D65-6765 x (N64-1758 x N64-2457)	F_5
24.	N72-186	D65-6765 x (N64-1758 x N64-2457)	F_5
25.	N72-214	D65-6765 x (N64-1758 x N64-2457)	F_5
26.	N72-236	D65-6765 x (N64-1758 x N64-2457)	F_5
27.	R71-148	(Bragg x Davis) x (Dare x Davis)	F_5
28.	R71-626	(Davis x Lee 68) x R60-66	F_4
29.	R72-49	(Davis x Lee 68) x R60-66	F_5
30.	R72-50	(Davis x Lee 68) x R60-66	F_5
31.	UD67-18KE-32	PI 181,550 x Kent	F_5
32.	UD70-80DE-37	PI 80837 x Delmar	F_8
33.	UD70-80DE-45	PI 80837 x Delmar	F_8
34.	V71-370		
35.	V72-128	PI 96983 x V66-318	
36.	V72-580	York x R62-550	

Table 16. - General summary of performance for the strains grown in Preliminary Group V, 1974

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	Seed holding	R.K.[1]	P.R.[2]	M.B.B.[3]
Hill	36.0	10-4	33	20.1	40.8	1.0	2.8	1.0	4.0
Mack	34.8	+6	34	21.6+	41.4	1.0	4.8	1.0	2.0
D70-2527	32.0	+7	27	20.9+	41.2	1.0	4.0	1.0	2.0
D70-5083	33.1	+4	34	19.8	41.0	1.0	2.0	1.0	3.0
D70-5101	33.6	+10	33	20.3	39.4-	1.0	1.0	1.0	2.0
D70-6599	29.9-	+4	32	17.2-	45.6+	2.0	5.0	1.0	4.0
D70-6750	29.5-	+9	31	17.4-	45.0+	1.0	5.0	1.0	4.0
D71-4606	31.2-	+4	33	19.1-	41.9+	1.5	4.0	1.0	3.0
D71-4713	31.2-	+5	31	18.9-	41.2	1.0	2.3	1.0	4.0
D71-4838	31.4-	+8	34	19.1-	40.4	1.0	3.8	1.0	3.0
D71-5047	28.9-	+1	30	19.1-	42.7+	1.0	3.3	1.0	2.0
D71-5246	28.3-	+8	33	17.0-	46.5+	1.0	3.8	1.0	2.0
D71-6860	34.3	+7	33	18.9-	42.1+	1.0	3.8	1.0	2.0
D72-8809	31.4-	+4	30	19.4	42.0+	1.0	4.5	1.0	4.0
D72-8814	33.5	+5	30	18.9-	43.5+	1.0	4.0	1.0	3.0
D72-8879-A	29.0-	+9	35	18.9-	39.4-	1.0	4.5	1.0	2.0
D72-8927-B	26.7-	+9	35	18.6-	39.7-	2.0	4.5	2.0	2.0
N72-7	35.2	+4	33	18.3-	42.7+	1.0	4.5	1.0	3.0
N72-37	33.5	+3	33	18.6-	43.7+	1.0	4.5	1.0	4.0
N72-40	36.4	+5	36	18.3-	43.9+	1.5	4.0	1.0	2.0
N72-55	38.0	+6	34	18.6-	43.0+	1.0	4.3	1.0	2.0
N72-73	35.1	+6	30	18.6-	43.5+	1.0	4.3	3.0	2.0
N72-129	32.8	+13	36	19.8	43.5+	1.5	4.8	1.0	2.0
N72-186	33.1	+14	35	19.3-	42.4+	1.0	4.8	1.0	4.0
N72-214	32.7	+14	35	19.0-	42.2+	1.5	4.5	1.0	3.0
N72-236	33.7	+18	41	19.6	40.8	1.5	4.3	1.0	2.0
R71-148	34.8	+10	36	20.8	40.5	1.0	2.3	1.0	2.0
R71-626	35.8	+4	32	19.3-	42.3+	1.0	4.3	1.0	3.0
R72-49	32.4	+6	35	20.3	40.6	2.5	5.0	1.0	2.0
R72-50	33.5	+6	34	20.7	40.9	1.0	4.8	1.0	3.0
UD67-18KE-32	25.9-	+6	32	18.5-	44.6+	3.0	3.5	2.0	2.0
UD70-80DE-37	32.6	+10	37	18.9-	42.6+	1.0	0.5	3.0	1.0
UD70-80DE-45	31.8	+11	36	19.6	41.9+	1.0	0.8	1.0	2.0
V71-370	33.7	+5	29	20.1	42.4+	2.5	3.8	3.0	2.0
V72-128	34.9	+8	34	18.2-	43.8+	1.0	4.8	1.0	2.0
V72-580	38.8	+5	36	22.0+	40.2	1.0	4.3	1.0	3.0
L.S.D.(.05)	4.5			0.8	0.8				
L.S.D.(.01)	5.9			1.1	1.1				

[1] R.K. = root-knot ratings at Jay, Fla.

[2] P.R. = phytophthora rot ratings at Stoneville, Miss.

Table 17. - Seed yield, in bushels per acre, for the strains in Preliminary Group V, 1974

Strain	George-town, Del.	Link-wood, Md.	Warsaw, Va.	Ply-mouth, N.C.	Portage-ville, Mo.	Keiser, Ark.	Stoneville, Miss.(B)
Hill	36.7	30.7	43.9	41.8	44.1	32.6	22.4
Mack	28.6	28.8	40.2	45.0	49.6	21.7-	29.8
D70-2527	33.7	25.9	35.8-	43.4	35.5	22.6-	26.9
D70-5083	34.0	26.7	39.6	37.7	38.3	28.2	27.3
D70-5101	30.2	26.0	39.0	34.5-	45.1	27.7	32.5
D70-6599	32.3	25.3	41.0	39.0	37.6	21.0-	13.0
D70-6750	29.8	26.6	35.5-	36.5	36.2	20.7-	21.5
D71-4606	32.9	24.7	34.6-	33.4-	36.3	28.1	28.4
D71-4713	31.8	23.9-	34.9-	35.7	40.4	32.9	18.6
D71-4838	26.6	27.6	32.2-	34.8-	34.9	32.5	31.0
D71-5047	31.8	26.3	32.8-	31.8-	33.9	27.8	17.9
D71-5246	21.8	22.2-	30.3-	33.8-	35.5	28.2	26.5
D71-6860	33.3	29.5	35.7-	32.0-	47.7	27.8	33.9+
D72-8809	29.0	31.3	40.9	38.3	42.3	23.8	14.3
D72-8814	31.8	28.0	37.5-	40.9	39.9	34.1	22.1
D72-8879-A	26.2	23.1-	34.1-	33.3-	35.2	26.7	24.3
D72-8927-B	25.7	17.8-	34.1-	39.0	38.6	18.8-	13.0
N72-7	32.8	32.9	42.3	38.4	44.1	31.6	24.2
N72-37	30.2	35.6	37.1-	41.2	34.5	26.3	29.6
N72-40	35.3	30.4	44.9	44.4	40.2	27.3	32.5
N72-55	32.6	35.6	41.1	44.3	44.5	34.0	34.1
N72-73	29.8	33.3	40.2	43.3	46.7	31.5	20.8
N72-129	28.8	26.5	33.7	41.3	30.7	34.8	33.8+
N72-186	30.4	27.4	33.3	41.5	28.3	35.1	35.9+
N72-214	28.3	29.4	33.8	39.2	34.7	25.6	37.6+
N72-236	26.4	19.8-	32.3	41.3	40.0	39.6	36.4+
R71-148	35.1	28.1	38.9	39.6	39.9	35.4	26.5
R71-626	33.4	29.4	40.1	45.8	40.1	35.1	27.0
R72-49	33.2	28.4	34.2	46.2	36.7	26.8	21.3
R72-50	27.8	32.7	39.5	45.1	35.5	29.1	24.8
UD67-18KE-32	24.6	23.0-	29.0-	33.0-	31.1	20.8-	19.9
UD70-80DE-37	28.2	28.8	40.5	35.8	40.4	28.5	25.9
UD70-80DE-45	28.0	29.5	34.3-	31.5-	38.6	31.1	29.3
V71-370	32.3	37.8+	42.0	41.7	45.8	26.0	10.6-
V72-128	38.1	34.8	40.6	37.7	34.5	23.2-	35.4+
V72-580	36.6	33.3	44.9	44.9	45.8	36.2	30.1
L.S.D.(.05)	N.S.	6.3	6.3	6.9	N.S.	9.1	11.2
C.V.	16%	11%	8%	9%	16%	15%	21%

Table 18. - Oil percentages for the strains in Preliminary Group V, 1974

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Keiser, Ark.	Stoneville, Miss.(B)
Hill	19.7	19.4	20.2	19.6	21.7
Mack	19.5	21.2	21.4	21.5	24.3
D70-2527	19.6	20.3	19.7	21.6	23.5
D70-5083	19.2	19.0	19.3	18.9	22.4
D70-5101	17.5	19.6	21.1	19.6	23.7
D70-6599	16.7	16.5	17.3	17.0	18.3
D70-6750	16.7	17.2	17.7	16.2	19.2
D71-4606	17.6	18.5	19.0	18.5	21.8
D71-4713	17.8	18.8	19.0	18.1	20.8
D71-4838	18.1	18.5	19.4	18.8	20.5
D71-5047	18.4	18.5	19.6	18.1	20.7
D71-5246	15.3	16.3	16.8	18.0	18.8
D71-6860	17.7	18.0	18.4	18.9	21.5
D72-8809	18.7	19.2	19.7	18.4	21.2
D72-8814	18.6	18.9	18.2	18.5	20.5
D72-8879-A	17.5	18.3	18.6	19.2	21.0
D72-8927-B	16.6	17.6	18.9	18.6	21.1
N72-7	17.5	17.7	17.9	18.5	19.7
N72-37	18.4	18.4	17.3	18.4	20.4
N72-40	17.7	17.5	17.3	19.4	19.4
N72-55	17.3	18.3	17.9	18.9	20.4
N72-73	18.1	18.3	17.8	19.0	19.9
N72-129	18.5	19.6	19.2	18.9	22.7
N72-186	17.9	18.8	18.3	20.1	21.4
N72-214	17.4	18.4	18.9	19.4	20.9
N72-236	17.9	18.5	19.8	19.4	22.4
R71-148	19.2	20.5	20.1	19.9	24.2
R71-626	19.1	18.2	19.3	18.4	21.7
R72-49	18.8	20.1	20.2	19.7	22.8
R72-50	19.3	20.6	19.6	20.5	23.4
UD67-18KE-32	17.6	18.0	17.6	19.4	19.9
UD70-80DE-37	17.8	19.1	18.6	19.5	19.7
UD70-80DE-45	18.4	19.0	19.9	20.5	20.4
V71-370	18.1	18.7	19.7	22.4	21.7
V72-128	17.7	18.2	17.2	18.3	19.8
V72-580	19.8	21.7	20.9	22.0	25.4

Table 19. - Protein percentages for the strains in Preliminary Group V, 1974

Strain	Linkwood, Md.	Warsaw, Va.	Plymouth, N.C.	Keiser, Ark.	Stoneville, Miss.(B)
Hill	40.2	41.8	42.6	40.8	38.6
Mack	42.0	41.9	43.6	40.9	38.5
D70-2527	41.8	42.0	43.6	40.7	37.9
D70-5083	41.4	42.2	43.0	41.0	37.3
D70-5101	40.3	39.8	42.0	39.6	35.2
D70-6599	45.8	45.7	47.7	45.1	43.6
D70-6750	45.6	45.6	47.2	44.2	42.3
D71-4606	42.6	42.7	44.8	41.5	37.9
D71-4713	41.7	41.7	43.1	41.5	37.8
D71-4838	40.5	40.3	43.1	40.1	37.8
D71-5047	41.9	43.4	45.2	42.7	40.1
D71-5246	46.7	46.5	48.8	47.0	43.5
D71-6860	42.6	43.2	44.9	41.5	38.2
D72-8809	41.7	42.7	44.3	42.3	39.1
D72-8814	43.0	44.6	45.8	43.3	40.9
D72-8879-A	40.4	39.8	41.6	38.4	36.8
D72-8927-B	40.8	39.8	41.9	38.8	37.4
N72-7	42.6	43.5	44.0	42.6	40.8
N72-37	44.2	44.2	46.3	43.2	40.6
N72-40	43.9	44.9	46.7	43.3	40.9
N72-55	42.8	43.4	45.1	43.1	40.6
N72-73	42.8	43.9	45.7	43.5	41.4
N72-129	43.8	44.1	45.9	43.8	40.0
N72-186	42.9	42.9	44.6	41.5	39.9
N72-214	43.6	43.5	43.8	40.3	39.6
N72-236	42.0	41.6	42.0	39.9	38.5
R71-148	41.1	40.4	43.1	40.6	37.2
R71-626	42.1	43.0	44.4	42.4	39.8
R72-49	41.3	41.2	43.6	39.9	36.8
R72-50	41.2	41.4	44.1	40.6	37.3
UD67-18KE-32	45.2	45.6	46.1	43.8	42.1
UD70-80DE-37	42.6	43.3	44.4	43.0	39.6
UD70-80DE-45	42.4	43.4	43.5	41.0	39.0
V71-370	41.9	43.4	44.2	40.2	42.1
V72-128	42.5	44.7	47.5	42.6	41.8
V72-580	40.2	40.4	43.6	39.1	37.6

Table 20 - Plant height for the strains in Preliminary Group V, 1974

Strain	George-town, Del.	Link-wood, Md.	Warsaw, Va.	Ply-mouth, N.C.	Portage-ville, Mo.	Keiser, Ark.	Stone-ville, Miss.(B)
Hill	44	38	37	36	35	23	17
Mack	43	36	40	38	38	27	19
D70-2527	34	31	34	31	30	15	17
D70-5083	39	39	41	37	33	24	22
D70-5101	41	35	40	37	36	24	19
D70-6599	42	34	38	34	35	23	15
D70-6750	40	35	38	33	32	23	15
D71-4606	40	36	38	38	36	22	21
D71-4713	38	33	36	35	34	24	16
D71-4838	40	40	38	37	36	26	20
D71-5047	35	37	36	31	29	24	18
D71-5246	38	38	43	34	32	23	22
D71-6860	39	37	38	36	35	20	23
D72-8809	35	33	40	34	35	20	14
D72-8814	40	32	37	34	32	19	15
D72-8879-A	48	39	43	34	37	24	20
D72-8927-B	42	40	42	41	42	22	15
N72-7	38	37	40	38	37	22	19
N72-37	42	35	40	36	34	21	20
N72-40	42	37	41	41	44	25	24
N72-55	42	39	40	37	41	21	21
N72-73	39	33	37	33	36	23	12
N72-129	46	37	40	40	35	32	19
N72-186	43	38	40	37	35	28	21
N72-214	43	41	38	38	42	23	21
N72-236	48	45	46	42	47	29	26
R71-148	42	40	41	37	37	32	20
R71-626	37	37	36	36	30	25	20
R72-49	39	39	42	42	33	30	21
R72-50	43	37	40	38	34	27	22
UD67-18KE-32	40	35	35	34	32	26	20
UD70-80DE-37	40	34	40	37	41	36	28
UD70-80DE-45	39	34	38	37	42	34	30
V71-370	36	36	34	35	31	18	10
V72-128	37	39	40	39	42	19	23
V72-580	46	37	42	41	40	27	21

Table 21 - Seed quality scores for the strains in Preliminary Group V, 1974

Strain	George-town, Del.	Link-wood, Md.	Warsaw, Va.	Ply-mouth, N.C.	Portage-ville, Mo.	Keiser, Ark.	Stone-ville, Miss.(B)
Hill	2.3	2.0	1.4	1.5	2.0	1.5	2.0
Mack	2.8	2.0	1.8	1.5	2.0	1.0	2.0
D70-2527	2.3	2.0	2.0	2.0	2.5	1.5	2.0
D70-5083	2.0	2.0	1.3	1.5	2.5	1.0	2.0
D70-5101	2.5	2.0	1.3	1.5	2.0	1.5	2.0
D70-6599	2.5	2.0	1.5	1.5	2.0	1.5	2.0
D70-6750	2.8	2.0	1.6	1.5	2.0	1.0	2.0
D71-4006	2.3	2.0	1.6	1.5	2.0	1.0	2.0
D71-4713	2.3	2.0	1.4	1.5	2.0	1.0	2.0
D71-4838	2.3	2.0	1.1	1.5	2.0	1.0	2.0
D71-5047	2.3	2.0	1.6	1.0	2.5	1.0	2.0
D71-5246	2.8	2.0	1.8	1.0	2.0	1.0	2.0
D71-6860	2.0	2.0	1.4	1.5	2.5	1.0	2.0
D72-8809	2.3	2.0	1.6	1.5	2.5	1.0	2.0
D72-8814	2.0	2.0	1.8	1.0	2.3	1.0	2.0
D72-8879-A	3.0	2.0	1.8	1.5	2.8	1.5	2.0
D72-8927-B	3.0	2.0	1.8	1.5	3.8	1.5	2.0
N72-7	2.0	2.0	1.7	1.5	2.0	1.0	2.0
N72-37	2.0	2.0	1.3	1.5	2.0	1.0	2.0
N72-40	2.0	2.0	1.2	2.0	2.0	1.5	2.0
N72-55	2.0	2.0	1.2	1.5	2.5	1.0	2.0
N72-73	2.3	2.0	1.5	1.0	2.0	1.5	2.0
N72-129	3.0	2.0	1.8	1.0	2.0	1.0	2.0
N72-186	2.8	2.0	1.8	1.0	2.0	1.5	2.0
N72-214	2.5	2.0	1.5	1.0	2.0	1.0	2.0
N72-236	2.5	2.0	1.5	1.0	2.0	1.0	2.0
R71-148	2.8	2.0	2.0	1.5	2.0	1.0	2.0
R71-626	2.3	2.0	1.1	1.5	2.5	1.0	2.0
R72-49	2.5	2.0	1.2	1.0	2.0	1.0	2.0
R72-50	3.0	2.0	1.8	1.5	2.3	1.0	2.0
UD67-18KE-32	2.8	2.0	2.3	1.5	2.5	1.5	2.0
UD70-80DE-37	2.5	2.0	2.1	3.0	2.5	1.5	2.0
UD70-80DE-45	2.8	2.0	1.8	2.5	2.5	1.5	2.0
V71-370	2.5	2.0	1.8	1.5	2.5	1.5	2.5
V72-128	2.0	2.0	1.5	1.5	2.5	1.5	2.0
V72-580	2.0	2.0	1.1	1.0	2.5	1.5	2.0

UNIFORM GROUP VI

1974

	Variety or strain	Parentage	Generation composited
1.	Tracy	D61-618 x D60-9647	F_5
2.	Davis	D49-2573 x N45-1497	F_6
3.	Pickett 71	Pickett x P.R. resistant Lee	Comp. F_4 lines
4.	Lee 74	Lee 68 x R66-1517	F_4
5.	R68-208	Davis x Lee 68	F_5
6.	D69-8201	Hood x Semmes	F_5
7.	D70-3185	D64-4636 x tawny pubescence Pickett 71 type	F_5
8.	D70-7583	Hood x D60-9647	F_5
9.	D71-6841	D64-4636 x D64-3937	F_5
10.	D71-6879	D64-4636 x D64-3937	F_5
11.	N70-1501	Dare x D65-6765	F_4
12.	R70-33	Semmes x R64-500	F_5

Background of strains used as parents:

D61-618 is a phytophthora-rot-resistant selection from Hill(2) x PI 171,442.

D60-9647 is a moderately high protein strain selected from FC31745 x D49-2510 which was included in Uniform Group VI 1963-65.

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 which carries the Arksoy type resistance to phytophthora rot.

R66-1517 is a root knot nematode resistant strain selected from Lee(5) x FC33243.

D64-4636 is a selection from Hill x D58-3311. D58-3311 is a bacterial pustule resistant strain selected from Jackson(4) x D49-2491.

D64-3937 is a selection from Hill x D59-1619. D59-1619 is a selection from D51-5427 x D49-2491. D51-5427 is a selection from Ralsoy x Ogden.

D65-6765 is a Group VII line grown in Uniform Group VII in 1968 and 1969. It is a selection from D58-3358 [Jackson(4) x D49-2491] x D59-9289 (a selection from D51-4877 x D55-4168).

Dare is a selection from Hill x D52-810 (a selection from Roanoke x Ogden).

R64-500 is a phytophthora-rot-resistant selection from Hill(6) x Arksoy.

Results of 36 Uniform Group VI nurseries are summarized in Tables 22 through 28. Table 22 gives a general summary of agronomic qualities, oil and protein percentages 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 25 of the 36 locations. The combined analysis of variance for mean seed yield by production regions showed differences to be significant only in the East Coast and Upper and Central South.

A special planting was made at Jay, Florida, on a soil heavily infested with root knot nematodes, *M. incognita* var *acrita*, for strain evaluation. Phytophthora rot ratings were made at Stoneville and downy mildew ratings were made at Beaumont, Texas. Shatter resistance ratings are an average from several locations.

Three-year means for Tracy are somewhat higher than for Davis in the East Coast and Delta, but nearly similar in other regions. Tracy has a higher protein percentage and lower oil percentage than Davis. The 3-year mean for Tracy is higher than that for Pickett 71 in all regions. R68-208 and D69-8201 have been grown three years. R68-208 has yielded well in the Southeast. D69-8201 has the highest mean yield in the East Coast for the strains included three years. It has also yielded well in all other regions.

The 2-year means for Lee 74 and Pickett 71 are very similar. Previous test had shown the yield of Lee 74 to be very similar to Lee 68. Lee 74 differs from Lee 68 in being somewhat resistant to root knot nematodes. Lee 74 differs from Pickett 71 in that Pickett 71 is resistant to cyst nematodes and very susceptible to root knot. Both are resistant to phytophthora rot.

D70-3185 is the only strain evaluated two years. Its 2-year means are slightly lower than for Tracy but higher than for Pickett 71 or Lee 74. D70-3185 has a high level of resistance to phytophthora rot, root knot nematodes, and cyst nematodes. It root know rating at Jay, Florida, was 0.5 as compared to 3.5 for Lee 74. Increase of D70-3185 will be initiated to provide a variety combining root knot and cyst nematode resistance for the production area in west Florida. The qualities of D70-3185 could permit it to replace Pickett 71 and Lee 74 in other areas.

The four new strains D70-7583, D71-6841, D71-6879, and N70-1501 produced well in the East Coast plantings. D70-7583 and D71-6879 made very poor growth on clay at Stoneville where they were exposed to 4 weeks of very wet soil beginning shortly after emergence. All are earlier maturing than Tracy. R70-33 averaged lower in seed yield than Tracy in all regions and was of similar maturity.

Table 22. - General summary of the performance for the strains in Uniform Group VI, 1974

	Tracy	Davis	Pickett 71	Lee 74[1]	R68-208	D69-8201
Seed Yield - 1974						
East Coast	37.8	34.6	35.2	35.4	38.8	39.8
Southeast	47.7	46.7	42.0	41.5	47.5	48.4
Upper & Central South	38.9	39.0	36.9	37.1	40.8	40.0
Delta	37.6	33.5	32.0	33.0	34.2	36.7
West	39.5	40.0	37.0	36.1	40.2	36.8
- 1973-74						
East Coast	38.8	37.5	36.6	36.7	40.7	41.4
Southeast	46.2	45.8	41.9	43.2	47.9	47.1
Upper & Central South	38.7	37.9	37.7	41.4	39.0	39.4
Delta	40.9	38.8	37.0	38.2	38.5	40.5
West	39.9	39.8	36.8	36.9	39.0	37.4
- 1972-74						
East Coast	39.9	37.5	36.3	36.9	40.6	41.2
Southeast	45.3	45.0	41.5	44.0	47.6	47.0
Upper & Central South	37.5	37.6	36.2	39.3	37.1	37.8
Delta	40.6	39.3	36.9	37.6	39.2	40.8
West	40.5	40.6	38.0	38.4	40.9	40.3
Oil Content - 1974	17.2	19.9+	19.4+	19.4+	20.1+	19.8+
- 1973-74	19.1	21.7	21.2	20.8	21.6	21.5
- 1972-74	19.6	22.0	21.4	21.2	21.9	21.8
Protein Content - 1974	43.6	40.9-	41.4-	42.5-	42.6-	40.7-
- 1973-74	43.7	40.3	40.8	42.3	42.4	40.3
- 1972-74	43.2	40.0	40.4	41.8	42.1	40.2
Seed size	16.3	14.1-	12.5-	12.9-	15.9	15.6
Maturity index	10-16	0	+2	+2	0	-3
Height	35	37	31	32	33	36
Shatter resistance	1.5	1.8	1.0	1.0	1.0	2.0
Phytophthora rot	1.0	1.0	1.0	1.0	1.0	1.0
Root knot nematode	4.8	4.5	5.0	3.5	5.0	4.5
Cyst nematode (race 3)	S	S	R	S	S	S
Downy mildew	1.0	2.0	2.0	4.0	2.0	3.0
Flower color	W	W	P	P	P	P
Pubescence color	T	G	G	T	G	G
Pod wall color	T	T	T	T	T	T

[1] 3-year summaries have Lee 68 values

Table 22. - (continued)

	D70-3185	D70-7583	D71-6841	D71-6879	N70-1501	R70-33
Seed Yield - 1974						
East Coast	35.0	40.6	40.3	39.9	39.3	36.9
Southeast	44.9	43.0	41.2	44.8	46.4	44.1
Upper & Central South	36.5	41.6	39.5	41.6	40.6	35.9
Delta	33.8	36.1	37.4	37.3	36.6	35.4
West	38.9	39.4	39.6	39.8	39.4	37.1
- 1973-74						
East Coast	37.9					
Southeast	45.3					
Upper & Central South	37.2					
Delta	38.6					
West	39.6					
- 1972-74						
East Coast						
Southeast						
Upper & Central South						
Delta						
West						
Oil Content - 1974	19.1+	19.5+	19.6+	19.8+	20.8+	18.5+
- 1973-74	20.7					
- 1972-74						
Protein Content - 1974	42.3-	43.9	41.5-	41.6-	40.4-	42.4-
- 1973-74	42.2					
- 1972-74						
Seed size	13.4-	17.9+	14.7-	13.7-	13.9-	15.1-
Maturity index	+1	-9	-2	-4	-3	0
Height	36	28	35	32	33	33
Shatter resistance	1.0	3.0	2.0	1.2	2.0	1.5
Phytophthora rot	1.0	1.0	1.0	1.0	1.0	1.0
Root knot nematode	0.5	4.5	1.3	1.3	1.7	2.5
Cyst nematode (race 3)	R	S	S	S	S	S
Downy mildew	1.0	3.0	2.0	2.0	2.0	3.0
Flower color	P	P	W	W	W	P
Pubescence color	T	T	G	G	G	T
Pod wall color	T	Br	T	T	T	T

Table 23. - Seed yield, in bushels per acre, for the strains in Uniform Group VI, 1974

Location	Tracy	Davis	Pickett 71	Lee 74	R68-208	D69-8201	D70-3185
			East Coast				
Linkwood, Md.	25.0	21.2	25.5	23.5	26.3	23.8	18.0-
Warsaw, Va.	35.0	30.3	31.9	34.9	37.0	36.4	31.4
Petersburg, Va.	27.8	21.5-	26.3	25.7	31.0	35.1+	23.9
Holland, Va.	41.9	34.5-	33.5-	32.6-	39.3	38.9	33.8-
Plymouth, N.C.	40.8	38.9	37.9	39.8	39.0	45.4	39.0
Clinton, N.C.	44.5	43.3	41.0	46.4	49.7	49.9	47.0
Kinston, N.C.	44.7	44.2	39.9-	39.3-	44.1	41.9	38.0-
Florence, S.C.	36.6	38.8	38.0	34.4	39.0	39.5	39.5
Hartsville, S.C.	43.9	39.2	42.8	41.8	43.7	46.9	44.1
Mean	37.8	34.6	35.2	35.4	38.8	39.8	35.0
			Southeast				
Blackville, S.C.	37.7	30.7-	28.9-	28.7-	30.7-	31.5-	21.8-
Tifton, Ga.	57.0	59.7	38.9-	34.7-	61.4	55.3	54.6
Quincy, Fla.	45.0	47.3	49.0	47.9	49.6	48.7	46.3
Jay, Fla.	45.1	46.4	42.5	42.6	44.6	48.1	52.0
Fairhope, Ala.	57.7	54.9	53.9	53.7	56.8	57.8	56.8
Baton Rouge, La.	43.5	41.5	35.4-	41.2	42.0	49.1	38.1
Mean	47.7	46.7	42.0	41.5	47.5	48.4	44.9
			Upper and Central South				
Athens, Ga.	45.4	50.5	39.9	43.8	53.4	48.3	44.3
Calhoun, Ga.	25.4	27.9	21.4	22.9	24.9	27.2	21.5
Belle Mina, Ala.	43.2	35.6-	40.8	37.7	41.6	39.2	39.4
Clemson, S.C.	46.9	48.3	46.3	48.2	46.3	43.6	42.8
Jackson, Tenn.	42.8	46.8	47.4	45.0	49.6	53.5+	42.0
Verona,Miss.(no cysts)	29.4	25.0	25.9	24.6	29.2	28.4	28.9
Verona,Miss.(cyst area)*	10.8	11.9	22.4+	12.6	13.6	10.3	22.5+
Mean	38.9	39.0	36.9	37.1	40.8	40.0	36.5
			Delta				
Portageville, Mo.(A)	42.8	30.0-	38.1	41.0	41.9	32.8	33.5
Portageville, Mo.(B)	34.6	33.7	29.8-	27.5-	31.1-	32.3	29.2-
Keiser, Ark.	31.7	32.6	25.9-	26.8-	31.4	32.3	27.0-
Jonesboro, Ark.	31.3	23.1-	23.3-	25.6-	25.8-	28.8	27.9
Stoneville, Miss.(A)	52.4	47.3-	53.5	52.8	62.6+	61.7+	53.9
Stoneville, Miss.(B)	49.3	43.9	35.2-	36.0-	39.4-	45.3	45.3
St. Joseph, La.	33.7	32.5	25.0-	32.6	26.1-	33.9	29.8
Rohwer, Ark.	25.1	24.4	25.0	22.0	15.2-	26.4	23.7
Mean	37.6	33.5	32.0	33.0	34.2	36.7	33.8
			West				
Pine Bluff, Ark.	43.3	41.4	45.9	41.6	46.9	46.9	46.1
Stuttgart, Ark.	47.1	44.2	43.3-	44.0-	41.9-	41.9-	46.8
Curtis, La.	43.3	46.3	38.1	35.4	36.5	29.9	44.2
Beaumont, Texas	36.8	33.8	26.7-	27.6-	29.3-	27.6-	26.5-
Bixby, Okla.	27.4	31.2	31.0	30.6	41.9+	32.5	32.3
Lubbock, Texas	39.2	42.9	37.2	37.4	44.7+	41.8	37.4
Mean	39.5	40.0	37.0	36.1	40.2	36.8	38.9

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

Table 23. - (continued)

Location	D70-7583	D71-6841	D71-6879	N70-1501	R70-33	L.S.D. (.05)	C.V. (%)
		East Coast					
Linkwood, Md.	30.9+	27.3	28.2	29.9+	28.2	3.9	9
Warsaw, Va.	46.8+	42.3+	40.4	37.1	36.9	6.2	9
Petersburg, Va.	42.2+	41.2+	40.5+	35.6	29.8-	4.2	7
Holland, Va.	39.2	40.4	36.5	30.9-	45.0	6.9	11
Plymouth, N.C.	47.1+	39.6	42.3	39.9	42.4	5.5	8
Clinton, N.C.	40.0	48.5	47.9	47.3	42.2	N.S.	13
Kinston, N.C.	41.4	41.4	43.7	45.3	41.9	4.2	6
Florence, S.C.	32.3	35.4	28.4	34.6	36.1	N.S.	11
Hartsville, S.C.	42.9	47.3	45.9	49.2	41.0	N.S.	9
Mean	40.6	40.3	39.9	39.3	36.9	3.3	
		Southeast					
Blackville, S.C.	27.7-	27.7-	34.4	27.3-	32.9	6.1	12
Tifton, Ga.	50.6	50.2	45.1-	56.9	55.1	8.3	9
Quincy, Fla.	40.4	43.4	44.7	48.6	44.9	4.4	6
Jay, Fla.	38.3	41.1	45.1	46.4	44.1	N.S.	10
Fairhope, Ala.	44.3-	49.1-	50.7-	53.5	51.6-	5.5	6
Baton Rouge, La.	56.8+	35.7-	48.6	38.9	41.7	7.7	11
Mean	43.0	41.2	44.8	46.4	44.1	N.S.	
		Upper and Central South					
Athens, Ga.	36.9	44.8	46.4	47.3	41.3	N.S.	15
Calhoun, Ga.	35.2+	25.6	30.1+	23.4	23.5	3.4	8
Belle Mina, Ala.	42.7	44.7	44.1	40.4	35.1-	5.7	8
Celmson, S.C.	47.7	44.2	48.6	48.9	43.1	N.S.	8
Jackson, Tenn.	57.4+	50.0+	56.7+	50.2+	46.1	6.9	8
Verona, Miss.(no cysts)	29.8	27.9	23.4	33.1	26.4	N.S.	18
Verona, Miss.(cyst area)*	9.2	14.5	13.8	12.4	10.8	4.5	19
Mean	41.6	39.5	41.6	40.6	35.9	4.0	
		Delta					
Portageville, Mo.(A)	44.5	38.8	44.1	37.3	34.6	N.S.	16
Portageville, Mo.(B)	31.6-	32.7	36.2	30.3-	34.4	3.7	7
Keiser, Ark,	22.2-	33.4	26.3-	27.6	31.0	4.2	8
Jonesboro, Ark.	31.6	25.5-	30.8	23.9-	26.7	4.7	10
Stoneville, Miss.(A)	60.0+	58.8+	65.0+	57.8+	53.9	5.1	7
Stoneville, Miss.(B)	26.1-	48.7	41.0-	42.3-	44.6	5.2	7
St. Joseph, La.	52.0+	33.8	34.5	36.8	39.7+	5.4	9
Rohwer, Ark.	16.1-	27.2	19.8	26.1	20.7	6.8	17
Mean	36.1	37.4	37.3	36.6	35.4	N.S.	
		West					
Pines Bluff, Ark.	48.4	43.9	43.8	43.6	44.1	N.S.	8
Stuttgart, Ark.	38.5-	44.2	48.2	44.8	41.9-	3.0	4
Curtis, La.	35.8	46.0	35.6	40.1	43.1	N.S.	15
Beaumont, Texas	25.2-	30.2	33.0	37.6	23.7-	7.3	14
Bixby, Okla.	36.4+	32.0	30.9	29.0	31.3	5.2	9
Lubbock, Texas	52.0+	41.3	47.1+	41.4	38.1	4.8	6
Mean	39.4	39.6	39.8	39.4	37.1	N.S.	

Table 24. - Chemical composition and seed size for the strains in Uniform Group VI, 1974

Location	Tracy	Davis	Pickett 71	Lee 74	R68-208	D69-8201
			Oil Percentage			
Warsaw, Va.	16.2	17.5	18.6	18.9	19.3	18.2
Plymouth, N.C.	16.7	20.3	18.7	18.6	19.7	18.9
Kinston, N.C.	16.4	19.3	18.6	19.6	20.5	18.7
Jay, Fla.	20.5	22.4	22.4	21.5	21.8	22.9
Jackson, Tenn.	16.5	19.2	18.4	18.8	19.0	19.5
Portageville, Mo.(A)	16.2	18.9	19.1	18.3	19.4	18.7
Keiser, Ark.	17.3	20.3	19.0	19.2	20.1	19.8
Stoneville, Miss.(B)	18.8	21.6	21.3	20.5	22.2	21.1
Stuttgart, Ark.	16.4	19.6	18.4	19.1	19.3	20.0
Mean	17.2	19.9+	19.4+	19.4+	20.1+	19.8+
			Protein Percentage			
Warsaw, Va.	49.8	41.8	41.2	42.0	43.2	41.3
Plymouth N.C.	43.8	41.4	42.5	43.6	44.4	42.6
Kinston, N.C.	44.0	42.9	43.1	43.9	43.8	43.4
Jay, Fla.	44.0	41.5	41.9	44.5	43.3	41.1
Jackson, Tenn.	40.7	39.4	40.7	40.2	41.3	37.5
Portageville, Mo.(A)	42.3	41.1	40.5	42.3	42.7	41.3
Keiser, Ark.	42.3	40.3	40.2	41.9	41.1	39.9
Stoneville, Miss.(B)	41.7	37.0	38.5	39.6	38.8	37.4
Stuttgart, Ark.	44.0	42.5	44.4	44.4	45.0	41.9
Mean	43.6	40.9-	41.4-	42.5-	42.6-	40.7-
			Grams per 100 Seeds			
Warsaw, Va.	14.4	11.5	11.0	11.6	14.2	14.4
Plymouth, N.C.	15.4	13.6	11.4	11.6	15.6	14.7
Kinston, N.C.	14.8	13.8	11.2	11.7	16.1	14.8
Jay, Fla.	18.0	17.0	15.0	15.0	17.0	17.0
Jackson, Tenn.	17.6	14.8	12.8	13.0	16.8	16.9
Portageville, Mo.(A)	16.3	14.1	12.1	12.9	16.1	15.5
Keiser, Ark.	16.5	13.8	12.0	12.6	15.6	15.7
Stoneville, Miss.(B)	16.0	13.6	13.2	13.8	15.4	14.9
Stuttgart, Ark.	17.3	14.5	13.7	13.7	16.3	16.7
Mean	16.3	14.1-	12.5-	12.9-	15.9	15.6

Table 24. - (continued)

Location	D70-3185	D70-7583	D71-6841	D71-6879	N70-1501	R70-33	L.S.D. (.05)
			Oil Percentage				
Warsaw, Va.	17.7	18.4	19.4	19.3	19.0	19.1	
Plymouth, N.C.	18.5	18.6	18.6	19.0	20.2	18.4	
Kinston, N.C.	18.8	18.4	19.4	19.2	20.3	17.6	
Jay, Fla.	22.4	20.9	22.4	22.9	24.5	20.5	
Jackson, Tenn.	18.4	19.6	19.4	18.4	19.4	17.8	
Portageville, Mo.(A)	17.7	17.3	18.5	18.5	19.6	17.7	
Keiser, Ark.	18.5	20.6	19.5	18.9	20.1	18.1	
Stoneville, Miss.(B)	20.5	22.0	20.5	22.1	23.2	19.5	
Stuttgart, Ark.	19.0	19.6	19.1	19.9	20.6	17.6	
Mean	19.1+	19.5+	19.6+	19.8+	20.8+	18.5+	0.5
			Protein Percentage				
Warsaw, Va.	43.0	44.4	40.7	41.8	40.6	41.5	
Plymouth, N.C.	43.3	46.1	43.4	43.2	41.6	43.7	
Kinston, N.C.	43.9	46.6	43.8	44.0	42.4	44.1	
Jay, Fla.	44.8	45.9	43.1	43.6	41.1	43.8	
Jackson, Tenn.	37.7	41.4	38.5	38.7	37.7	40.7	
Portageville, Mo.(A)	42.6	45.2	41.3	41.3	41.1	41.9	
Keiser, Ark.	41.0	42.0	41.2	39.9	40.3	41.8	
Stoneville, Miss.(B)	40.4	39.4	39.3	38.7	37.0	40.0	
Stuttgart, Ark.	44.4	43.7	42.5	43.3	41.5	43.8	
Mean	42.3-	43.9	41.5-	41.6-	40.4-	42.4-	0.9
			Grams per 100 Seeds				
Warsaw, Va.	11.4	18.9	13.5	11.9	12.7	13.8	
Plymouth, N.C.	12.4	18.6	14.5	13.3	14.3	14.5	
Kinston, N.C.	14.0	18.8	14.3	13.2	13.3	14.5	
Jay, Fla.	16.0	--	17.0	17.0	16.0	16.0	
Jackson, Tenn.	14.5	20.3	16.6	15.0	14.2	16.1	
Portageville, Mo.(A)	13.3	19.6	14.5	14.6	13.5	14.6	
Keiser, Ark.	12.7	16.1	12.9	12.1	12.7	15.0	
Stoneville, Miss.(B)	12.9	14.5	13.9	12.1	14.4	15.4	
Stuttgart, Ark.	13.7	16.7	15.0	14.3	13.7	16.0	
Mean	13.4-	17.9+	14.7-	13.7-	13.9-	15.1-	0.8

Table 25. - Relative maturity data, days earlier (-) or later (+) than Tracy, for the strains in Uniform Group VI, 1974

Location	Date planted	Tracy matured	Davis	Pickett 71	Lee 74	R68-208
		East Coast				
Linkwood, Md.	6-10	10-23	+3	+1	0	0
Plymouth, N.C.	5-14	10-20	0	0	0	0
Clinton, N.C.	5-24	10-26	-1	-1	-5	-7
Hartsville, S.C.(A)	6-4	10-25	-3	-3	-5	-8
Mean		10-24	0	0	-3	-4
		Southeast				
Blackville, S.C.	5-8	10-6	0	+3	+2	-1
Tifton, Ga.	5-7	9-30	+2	+9	+9	+2
Quincy, Fla.	6-4	10-7	+3	+4	+6	+1
Jay, Fla.	5-16	9-27	+10	+10	+19	+5
Fairhope, Ala.	5-30	10-3	+2	+7	+6	+5
Baton Rouge, La.	5-7	10-2	+9	+9	+17	+9
Mean		10-3	+4	+7	+10	+4
		Upper and Central South				
Athens, Ga.	5-9	10-22	+3	+4	+3	+3
Calhoun, Ga.	5-20	10-8	+3	+3	+1	+3
Clemson, S.C.	5-16	10-18	-4	-5	-4	-7
Jackson, Tenn.	5-21	10-18	0	+4	+2	0
Mean		10-17	0	+2	0	0
		Delta				
Portageville, Mo.(A)	5-21	10-26	-1	0	0	+1
Portageville, Mo.(B)	5-28	10-21	+1	0	-1	-1
Keiser, Ark.	5-30	10-14	+4	+7	+6	+3
Stoneville, Miss.(A)	5-14	10-13	-2	+7	+8	0
Stoneville, Miss.(B)	5-7	10-16	-2	+2	+4	0
St. Joseph, La.	4-30	9-25	+6	+9	+9	-2
Rohwer, Ark.	6-20	11-5	0	-7	-5	+4
Mean		10-17	+1	+3	+3	0
		West				
Pine Bluff, Ark.	5-15	10-18	-4	-6	-8	-4
Stuttgart, Ark.	5-20	10-19	-2	+1	+2	-2
Curtis, La.	5-8	10-12	-2	+2	+4	0
Beaumont, Texas	6-6	10-10	-1	-9	-5	-4
Bixby, Okla.	6-21	11-15	-3	-1	-2	-8
Lubbock, Texas	5-15	11-2	+1	-3	-5	-3
Mean		10-23	-2	-3	-2	-4

Table 25. - (continued)

Location	D69-8201	D70-3185	D70-7583	D71-6841	D71-6879	N70-1501	R70-33
			East Coast				
Linkwood, Md.	+1	+1	-9	-1	0	+2	-1
Plymouth, N.C.	-3	0	-3	0	0	-2	-3
Clinton, N.C.	-7	-3	-16	-11	-11	-7	-7
Hartsville, S.C.(A)	-13	-4	-19	-13	-15	-10	-8
Mean	-6	-2	-12	-6	-7	-4	-5
			Southeast				
Blackville, S.C.	-1	+1	-11	-9	-4	-7	0
Tifton, Ga.	-2	+8	-24	+9	+4	-3	+1
Quincy, Fla.	-4	+2	-8	-1	-4	-2	-6
Jay, Fla.	0	+10	--	+10	+7	-4	+10
Fairhope, Ala.	+2	+6	+5	+7	+5	-1	+5
Baton Rouge, La.	+7	+9	-9	+9	+4	-3	+9
Mean	0	+6	-8	+4	0	-3	+5
			Upper and Central South				
Athens, Ga.	0	+6	-15	0	-7	-5	-2
Calhoun, Ga.	+2	+3	-9	0	-3	+2	-1
Clemson, S.C.	-9	-1	-16	-9	-9	-8	-7
Jackson, Tenn.	-1	+4	-7	0	-2	-1	+1
Mean	-2	+3	-12	-2	-5	-3	-2
			Delta				
Portageville, Mo.(A)	0	0	-10	-3	-3	-2	-2
Portageville, Mo.(B)	-1	+2	-6	-4	-4	-3	-2
Keiser, Ark.	+2	+6	-6	+2	-2	+3	+1
Stoneville, Miss.(A)	-4	+5	-17	-2	-9	-6	0
Stoneville, Miss.(B)	-3	0	-21	0	-11	-9	0
St. Joseph, La.	+3	+12	-4	0	-5	-1	+9
Rohwer, Ark.	-8	-14	-5	-5	-14	-5	-7
Mean	-2	+2	-9	-2	-7	-3	0
			West				
Pine Bluff, Ark.	-14	-14	-8	-4	+12	-4	-4
Stuttgart, Ark.	-8	+1	-13	-3	-9	-8	-5
Curtis, La.	-2	0	-4	0	-2	+1	-1
Beaumont, Texas	0	+5	+3	+2	-3	+1	+4
Bixby, Okla.	-6	-3	-7	-10	-4	-3	-3
Lubbock, Texas	-4	-3	-14	-5	-6	-9	-10
Mean	-6	-2	-7	-3	-2	-4	-3

Table 26. - Plant height for the strains in Uniform Group VI, 1974

Location	Tracy	Davis	Pickett 71	Lee 74	R68-208	D69-8201
			East Coast			
Linkwood, Md.	39	45	37	37	39	41
Warsaw, Va.	41	38	38	40	39	43
Petersburg, Va.	31	38	35	36	32	32
Holland, Va.	48	45	45	43	41	48
Plymouth, N.C.	38	39	34	35	38	40
Clinton, N.C.	34	38	31	31	33	39
Kinston, N.C.	43	41	35	36	37	38
Florence, S.C.	40	44	30	35	40	42
Hartsville, S.C.(A)	39	39	35	39	37	41
Mean	39	41	36	37	37	40
			Southeast			
Blackville, S.C.	32	39	27	28	31	32
Tifton, Ga.	25	34	19	16	29	31
Quincy, Fla.	34	37	29	32	33	36
Jay, Fla.	28	37	26	27	27	31
Fairhope, Ala.	33	37	25	24	33	31
Baton Rouge, La.	29	34	26	26	32	36
Mean	30	36	25	26	31	33
			Upper and Central South			
Athens, Ga.	32	39	27	28	34	38
Calhoun, Ga.	41	41	36	39	36	44
Belle Mina, Ala.	38	45	33	35	40	42
Clemson, S. C.	35	37	34	34	33	37
Jackson, Tenn.	47	45	45	45	45	49
Mean	39	41	35	36	38	42
			Delta			
Portageville, Mo.(A)	44	46	36	38	34	40
Portageville, Mo.(B)	31	28	25	25	22	26
Keiser, Ark.	26	21	18	23	22	21
Stoneville, Miss.(A)	35	45	29	29	33	36
Stoneville, Miss.(B)	29	31	17	18	18	23
St. Joseph, La.	36	35	37	35	36	37
Rohwer, Ark.	31	27	24	27	21	31
Mean	33	33	27	28	27	31
			West			
Pine Bluff, Ark.	32	33	31	27	32	34
Stuttgart, Ark.	35	32	28	31	29	33
Curtis, La.	22	27	22	21	19	24
Beaumont, Texas	29	31	30	31	37	34
Bixby, Okla.	43	43	40	42	40	46
Lubbock, Texas	34	34	27	28	25	29
Mean	33	33	30	30	30	33

Table 26. - (continued)

Location	D70-3185	D70-7583	D71-6841	D71-6879	N70-1501	R70-33
			East Coast			
Linkwood, Md.	40	35	40	39	38	40
Warsaw, Va.	39	37	41	39	37	40
Petersburg, Va.	41	34	36	32	36	32
Holland, Va.	50	44	41	45	49	39
Plymouth, N.C.	37	33	37	36	37	36
Clinton, N.C.	41	28	37	32	34	36
Kinston, N.C.	39	35	43	36	37	37
Florence, S.C.	38	32	41	35	36	36
Hartsville, S.C.(A)	40	35	39	37	38	38
Mean	41	35	38	37	38	37
			Southeast			
Blackville, S.C.	34	25	33	29	31	28
Tifton, Ga.	27	21	27	24	31	24
Quincy, Fla.	37	28	37	35	34	34
Jay, Fla.	30	--	28	31	28	32
Fairhope, Ala.	34	29	33	31	27	27
Baton Rouge, La.	31	26	30	28	28	33
Mean	32	26	31	30	30	30
			Upper and Central South			
Athens, Ga.	36	29	33	33	34	29
Calhoun, Ga.	42	36	41	36	35	38
Belle Mina, Ala.	40	34	41	38	41	36
Clemson, S.C.	37	31	37	34	36	36
Jackson, Tenn.	46	43	46	43	47	44
Mean	40	35	40	37	39	37
			Delta			
Portageville, Mo.(A)	35	40	45	41	44	38
Portageville, Mo.(B)	28	20	32	26	23	25
Keiser, Ark.	28	17	25	20	18	28
Stoneville, Miss.(A)	37	25	38	31	35	34
Stoneville, Miss.(B)	26	13	27	16	19	24
St. Joseph, La.	39	27	35	32	35	34
Rohwer, Ark.	26	19	33	25	30	28
Mean	31	23	34	27	29	30
			West			
Pine Bluff, Ark.	35	27	34	32	31	30
Stuttgart, Ark.	35	20	35	28	30	35
Curtis, La.	24	13	24	21	21	23
Beaumont, Texas	32	36	35	34	35	30
Bixby, Okla.	44	35	43	41	41	45
Lubbock, Texas	30	26	32	27	27	28
Mean	33	26	34	31	31	32

Table 27. - Lodging scores for the strains in Uniform Group VI, 1974

Location	Tracy	Davis	Pickett 71	Lee 74	R68-208	D69-8201
			East Coast			
Linkwood, Md.	2.7	2.0	3.0	3.7	2.0	2.0
Warsaw, Va.	3.5	3.4	3.7	3.9	2.5	2.7
Petersburg, Va.	2.0	1.0	4.0	2.0	1.0	1.0
Holland, Va.	3.8	3.2	4.2	4.8	1.7	1.5
Plymouth, N.C.	3.3	4.0	3.0	3.0	2.0	2.0
Clinton, N.C.	2.7	2.7	1.7	2.0	1.7	1.3
Kinston, N.C.	3.0	2.7	3.3	3.0	2.0	2.3
Florence, S.C.	3.0	5.0	3.0	1.0	1.0	2.0
Hartsville, S.C.(A)	2.6	2.8	3.0	2.8	2.3	2.5
			Southeast			
Blackville, S.C.	3.0	3.0	2.0	2.0	2.0	2.0
Tifton, Ga.	1.7	2.7	1.0	1.0	1.0	1.7
Quincy, Fla.	2.0	2.0	1.0	1.0	1.0	1.0
Jay, Fla.	1.0	1.0	1.0	2.0	1.0	1.0
Fairhope, Ala.	2.3	2.7	1.7	1.3	1.7	1.0
Baton Rouge, La.	1.5	3.5	1.5	2.0	2.0	1.5
			Upper and Central South			
Athens, Ga.	1.8	1.7	1.2	1.3	1.3	1.3
Calhoun, Ga.	2.3	1.5	2.2	1.7	2.3	1.7
Clemson, S.C.	2.0	1.8	2.0	2.0	1.7	1.8
Jackson, Tenn.	2.0	3.0	2.0	2.0	1.0	1.0
			Delta			
Portageville, Mo.(A)	4.0	4.7	4.3	3.7	3.2	3.7
Portageville, Mo.(B)	2.8	2.3	3.0	3.2	1.5	1.8
Keiser, Ark.	1.7	1.0	1.0	1.0	1.0	1.0
Stoneville, Miss.(A)	3.0	3.0	2.0	2.0	2.0	2.3
Stoneville, Miss.(B)	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	2.0	3.0	2.0	2.0	1.0	2.0
Rohwer, Ark.	2.0	1.3	1.3	1.7	1.0	1.0
			West			
Pine Bluff, Ark.	2.0	1.0	2.0	3.0	1.0	1.0
Stuttgart, Ark.	2.0	1.5	1.5	1.3	1.0	1.2
Curtis, La.	2.5	1.7	2.0	1.4	1.0	1.4
Beaumont, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Bixby, Okla.	3.7	3.3	3.3	3.3	2.0	2.7
Lubbock, Texas	2.5	2.0	3.0	2.7	1.5	2.2

Table 27. - (continued)

Location	D70-3185	D70-7583	D71-6841	D71-6879	N70-1501	R70-33
			East Coast			
Linkwood, Md.	2.0	2.0	2.0	2.0	2.3	3.0
Warsaw, Va.	3.1	2.9	3.5	3.7	3.6	4.1
Petersburg, Va.	1.0	1.0	1.0	2.0	2.0	4.0
Holland, Va.	3.2	3.0	3.3	4.0	4.5	1.7
Plymouth, N.C.	2.7	2.0	3.0	3.3	3.0	3.7
Clinton, N.C.	2.0	1.7	1.7	1.7	2.0	2.7
Kinston, N.C.	2.7	2.0	2.7	2.7	2.7	3.3
Florence, S.C.	2.0	1.0	3.0	2.0	3.0	5.0
Hartsville, S.C.(A)	2.5	2.0	2.0	2.2	2.6	3.0
			Southeast			
Blackville, S.C.	3.0	1.0	3.0	2.0	3.0	3.0
Tifton, Ga.	1.0	1.0	1.0	1.0	1.7	1.0
Quincy, Fla.	1.0	1.0	1.0	1.0	1.0	2.0
Jay, Fla.	1.0	---	1.0	1.0	1.0	1.0
Fairhope, Ala.	1.7	1.3	2.0	1.7	1.0	1.3
Baton Rouge, La.	1.5	1.0	1.5	1.5	2.0	2.0
			Upper and Central South			
Athens, Ga.	1.2	1.0	1.5	1.5	1.3	1.8
Calhoun, Ga.	2.0	1.0	1.5	1.5	2.2	2.8
Clemson, S.C.	1.8	1.3	1.8	1.8	2.2	2.3
Jackson, Tenn.	1.0	1.0	1.5	1.0	1.0	2.0
			Delta			
Portageville, Mo.(A)	4.2	3.3	4.3	4.0	3.8	4.5
Portageville, Mo.(B)	2.8	1.2	3.0	1.8	2.2	3.3
Keiser, Ark.	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, Miss.(A)	2.0	2.0	2.3	2.0	2.0	2.3
Stoneville, Miss.(B)	2.0	1.7	2.0	2.0	2.0	2.0
St. Joseph, La.	2.0	1.0	3.0	2.0	1.0	2.0
Rohwer, Ark.	1.0	1.0	2.0	1.3	1.3	2.0
			West			
Pine Bluff, Ark.	4.0	1.0	2.0	3.0	3.0	1.0
Stuttgart, Ark.	1.8	1.0	1.5	1.2	1.3	1.5
Curtis, La.	2.0	1.0	2.0	1.5	2.0	2.0
Beaumont, Texas	2.0	2.0	2.0	1.0	1.0	1.0
Bixby, Okla.	3.0	2.0	3.0	3.0	4.0	4.0
Lubbock, Texas	2.5	1.5	2.5	1.5	2.5	3.0

Table 28. - Seed quality scores for the strains in Uniform Group VI, 1974

Location	Tracy	Davis	Pickett 71	Lee 74	R68-208	D69-8201
			East Coast			
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Warsaw, Va.	1.8	1.2	1.5	1.3	1.3	1.8
Petersburg, Va.	1.0	2.0	2.0	1.0	1.0	1.0
Holland, Va.	1.5	1.2	1.2	1.2	1.3	1.2
Plymouth, N.C.	2.0	1.5	1.0	1.0	1.0	1.0
Clinton, N.C.	2.0	1.0	1.0	1.0	1.0	1.0
Kinston, N.C.	2.0	1.0	1.0	1.0	1.0	1.0
			Southeast			
Blackville, S.C.	1.0	2.0	2.0	3.0	1.0	2.0
Tifton, Ga.	2.2	2.0	2.5	2.8	2.0	2.3
Quincy, Fla.	2.0	1.0	1.0	2.0	1.0	1.0
Jay, Fla.	2.0	1.0	1.0	3.0	2.0	2.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
			Upper and Central South			
Athens, Ga.	1.3	1.0	1.3	1.5	1.2	1.5
Calhoun, Ga.	1.5	1.7	1.7	1.8	1.7	1.5
Jackson, Tenn.	1.0	1.0	1.0	1.0	1.0	1.0
			Delta			
Portageville, Mo.(A)	1.5	2.0	1.5	1.5	1.5	1.5
Portageville, Mo.(B)	1.5	1.5	1.5	1.5	1.5	1.5
Keiser, Ark.	1.0	1.0	1.5	1.0	1.0	1.5
Stoneville, Miss.(A)	1.7	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
Rohwer, Ark.	3.3	2.2	2.2	2.0	2.7	2.5
			West			
Pine Bluff, Ark.	1.6	1.6	2.0	1.0	2.0	1.0
Stuttgart, Ark.	2.3	1.5	1.8	2.2	1.8	1.8
Curtis, La.	1.0	1.0	2.0	1.7	1.4	1.7
Beaumont, Texas	2.0	2.0	2.0	2.0	2.0	2.0
Bixby, Okla.	2.0	1.3	1.3	1.7	1.3	1.0
Lubbock, Texas	1.5	1.0	1.0	1.0	1.0	1.0

Table 28. - (continued)

Location	D70-3185	D70-7583	D71-6841	D71-6879	N70-1501	R70-33
			East Coast			
Linkwood, Md.	2.0	2.0	2.0	2.0	2.0	2.0
Warsaw, Va.	1.4	2.0	1.5	1.2	1.8	1.4
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Holland, Va.	1.2	1.3	1.0	1.0	1.3	1.2
Plymouth, N.C.	1.0	1.5	2.0	1.0	1.0	1.0
Clinton, N.C.	1.0	1.0	1.5	1.0	1.0	1.0
Kinston, N.C.	1.5	2.0	2.0	1.0	1.0	1.0
			Southeast			
Blackville, S.C.	3.0	2.0	3.0	2.0	1.0	2.0
Tifton, Ga.	2.5	3.3	3.0	2.3	2.2	2.2
Quincy, Fla.	2.0	3.0	3.0	1.0	1.0	1.0
Jay, Fla.	2.0	---	3.0	3.0	1.0	2.0
Fairhope, Ala.	1.0	2.0	2.7	1.0	1.0	1.0
			Upper and Central South			
Athens, Ga.	1.3	1.5	2.0	1.5	1.2	1.0
Calhoun, Ga.	2.0	1.8	2.0	1.7	2.0	2.0
Jackson, Tenn.	1.0	1.0	1.0	1.0	1.0	1.0
			Delta			
Portageville, Mo.(A)	1.5	2.0	2.0	2.0	2.0	1.5
Portageville, Mo.(B)	1.7	2.0	1.5	1.5	1.5	1.5
Keiser, Ark.	1.0	1.0	1.5	1.0	1.0	1.5
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
Rohwer, Ark.	2.3	3.5	3.0	3.0	2.7	2.8
			West			
Pine Bluff, Ark.	2.3	2.3	2.3	2.0	1.0	1.6
Stuttgart, Ark.	2.2	2.5	3.3	1.8	1.8	2.3
Curtis, La.	1.7	2.4	2.0	2.0	1.0	1.4
Beaumont, Texas	3.0	3.0	3.0	2.0	2.0	3.0
Bixby, Okla.	2.0	1.3	1.7	1.0	1.0	1.3
Lubbock, Texas	1.5	1.5	1.5	1.5	1.5	1.5

PRELIMINARY GROUP VI

1974

Preliminary Group VI nurseries, including 34 experimental strains along with Pickett 71 and D64-4636 as checks, were grown at eight locations. The parentage of these strains is reported in Table 29. Performance data are summarized in Tables 30 through 35. Differences among strains were significant at the 5% level of confidence at seven of the eight locations.

A killing frost October 3 or 4 at three locations probably reduced yield of the later maturing strains more than for the earlier strains. The killing frost was nearly 3 weeks ahead of normal maturity for the later maturing strains. D64-4636, normally high yielding but also one of the earliest, ranked first in seed yield as a mean for all locations. Twenty-five strains ranked above Pickett 71 in mean seed yield. Pickett 71 matures at the late range for this group.

Plantings at Stoneville were made May 8 on clay and May 14 on loam. During a 4-week period beginning May 22, 16 inches of rain fell with measurable rain on 14 days. Growth and development was normal on the sandy loam, but considerable differences in growth were observed on clay, even among strains resistant to phytophthora rot. For example, the strain D71-6879 was 34 inches tall and yielded at the rate of 66.9 bushels per acre on loam and was 17 inches tall and yielded at the rate of 36.1 bushels on clay. D71-6234 made normal growth on clay and produced yields of 45.6 and 48.7 bushels, respectively, for plantings on clay and loam.

The deciduous pubescent strain D71-7466 produced well at Stoneville and at Jay.

The three strains D71-6879, D71-6956, and R71-132 had low root knot (*M. incognita*) ratings at Jay.

Among the strains which appear to merit advance to Uniform VI are: D71-6234, which was one of the top yielders on the two plantings on clay; D72-8489, N72-337, N72-3037, N72-3039, and R71-72.

Table 29. - Parentage of the strains in Preliminary Group VI, 1974

	Variety or strain	Parentage	Generation composited
1.	Pickett 71		
2.	D64-4636		
3.	D70-6875	(D63-6094 x D62-7816) x D64-5144	F_5
4.	D70-7485	D63-6292 x D62-6342	F_5
5.	D71-6234	D66-7398 x PI 95960	F_5
6.	D71-6518	D68-2874 x Hood	F_5
7.	D71-6840	D64-4636 x D64-3937	F_5
8.	D71-6879	D64-4636 x D64-3937	F_5
9.	D71-6956	D64-4636 x D64-3937	F_5
10.	D71-7061	D62-7818 x D64-3937	F_5
11.	D71-7197	D62-7818 x D64-3937	F_5
12.	D71-7246	D62-7818 x D64-3937	F_5
13.	D71-7466	D64-8713 x Semmes	F_5
14.	D71-9814	D64-3937 x PI 95960	F_5
15.	D72-7139	(D64-8713 x D66-7398) x (D65-2874 x Hood)	F_5
16.	D72-8489	Hood x Lee 68	F_5
17.	D72-8521	Hood x Lee 68	F_5
18.	D72-8540	Hood x Lee 68	F_5
19.	D72-8579	Hood x Lee 68	F_5
20.	D72-8601	Hood x Lee 68	F_5
21.	D72-8605	Hood x Lee 68	F_5
22.	D72-8607	Hood x Lee 68	F_5
23.	N72-306	D65-6765 x (N64-1758 x N64-2457)	F_5
24.	N72-337	D65-6765 x (N64-1758 x N64-2457)	F_5
25.	N72-438	D65-6765 x (N64-1758 x N64-2457)	F_5
26.	N72-513	D65-6765 x (N64-1758 x N64-2457)	F_5
27.	N72-3033	D67-B5 x N64-2451	F_5
28.	N72-3037	D67-B5 x N64-2451	F_5
29.	N72-3038	D67-B5 x N64-2451	F_5
30.	N72-3039	D67-B5 x N64-2451	F_5
31.	R71-72	(Bragg x Davis) x (Dare x Davis)	F_5
32.	R71-132	(Bragg x Davis) x (Dare x Davis)	F_5
33.	R72-679	R64-502 x Pickett	F_4
34.	R72-737	R64-502 x Pickett	F_4
35.	R72-1174	D65-2839 x Davis	F_4
36.	V72-248	D64-4731 x Hood	

Table 30 - General summary of performance for the strains in Preliminary Group VI, 1974

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	Seed holding	P.R.	R.K.
Pickett 71	36.7	10-19	29	19.8	41.6	1.0	1.0	4.5
D64-4636	42.8+	-7	29	19.7	41.6	1.0	1.0	0.8
D70-6875	35.4	-10	25	17.9-	44.9+	1.0	1.0	3.8
D70-7485	37.4	-10	27	20.0	43.0+	1.0	1.0	4.0
D71-6234	37.1	+1	36	17.6-	45.7+	1.0	1.0	3.0
D71-6518	37.7	-8	32	18.5-	42.7+	1.0	1.0	3.8
D71-6840	41.8+	-5	36	19.4	40.9	1.0	1.0	2.3
D71-6879	42.8+	-7	32	20.0	41.7	1.0	1.0	1.0
D71-6956	40.7	-6	31	19.5	42.1	1.0	1.0	1.5
D71-7061	35.6	0	32	19.1	42.9+	1.0	1.0	2.8
D71-7197	38.8	-2	32	19.6	42.8+	1.0	1.0	3.8
D71-7246	36.1	-4	31	19.4	42.1	1.0	1.0	4.3
D71-7466	36.1	-2	34	20.3	41.2	1.0	1.0	4.3
D71-9814	39.3	-4	28	20.6+	43.2+	1.0	1.0	2.8
D72-7139	37.9	-1	35	18.6-	42.6+	2.5	1.0	3.5
D72-8489	41.3	0	39	19.5	43.2+	1.0	1.0	4.0
D72-8521	38.2	-1	37	18.3-	42.9+	1.0	1.0	4.3
D72-8540	37.9	+3	37	18.7-	43.4+	1.0	1.0	4.3
D72-8579	40.1	-8	39	21.8+	41.6	1.0	1.0	4.0
D72-8601	36.1	-3	38	20.2	41.9	1.0	1.0	4.3
D72-8605	34.7	-8	32	19.6	44.1+	1.0	1.0	4.8
D72-8607	37.0	-8	32	21.0+	41.6	1.5	1.0	4.8
N72-306	39.4	+2	32	20.5	42.5	1.0	2.0	3.8
N72-337	41.9+	-1	33	21.1+	41.6	1.0	1.0	4.0
N72-438	41.4	+3	36	19.6	43.1+	1.0	1.0	4.3
N72-513	36.6	+1	38	19.2	42.9+	2.0	1.0	3.5
N72-3033	41.3	-4	32	20.6+	40.7	1.0	2.0	4.0
N72-3037	42.7+	-2	29	20.2	41.0	1.0	1.0	3.8
N72-3038	42.4+	-3	35	19.1	41.9	1.0	1.0	4.8
N72-3039	40.4	-2	33	19.6	41.8	1.0	2.0	4.8
R71-72	41.7+	+1	30	19.9	41.1	1.0	1.0	4.5
R71-132	40.5	-6	36	21.0+	42.1	1.0	2.0	1.5
R72-679	34.3	-1	29	19.8	42.5	1.0	3.0	4.7
R72-737	36.8	+2	34	19.8	42.6+	1.0	1.0	4.8
R72-1174	32.2	+3	34	19.0-	39.6-	1.0	1.0	4.5
V72-248	37.2	+3	31	21.1+	41.5	2.0	3.0	4.8
L.S.D.(.05)	5.0			0.8	1.0			
L.S.D.(.01)	6.6			1.0	1.3			

P.R. = phytophthora rot ratings
P,K. = root knot ratings

Table 31 - Seed yield, in bushels per acre, for the strains in Preliminary Group VI, 1974

Strain	Peters-burg, Va.	Ply-mouth, N.C.	Portage-ville, Mo.	Keiser, Ark.	Stone-ville, Miss(A)	Stone-ville, Miss(B)	Jay, Fla.	Belle Mina, Ala.
Pickett 71	21.2	38.1	40.2	29.2	51.0	35.5	42.8	35.4
D64-4636	38.1+	46.0+	38.1	24.9	62.2+	47.5+	47.3	38.7
D70-6875	27.1	38.9	38.6	23.2	57.3+	30.7	45.4	35.3
D70-7485	39.5+	37.1	44.4	25.8	59.4+	23.6-	29.5	40.0
D71-6234	23.4	34.4	31.5	38.3+	48.7	45.6+	43.9	31.0
D71-6518	27.1	37.0	42.4	26.7	56.8+	39.9	40.5	31.0
D71-6840	27.8	42.6	40.1	36.6	58.1+	46.1+	32.0	34.9
D71-6879	38.1+	43.7	42.7	32.9	66.9+	36.1	45.4	35.9
D71-6956	33.7+	38.0	40.6	31.5	57.4+	47.1+	39.7	37.6
D71-7061	24.1	39.4	30.9	34.4	51.5	36.7	36.3	31.8
D71-7197	33.7+	40.9	34.7	34.9	58.0	37.4	36.3	34.9
D71-7246	30.7+	38.6	32.2	34.1	54.8	35.2	28.0	34.9
D71-7466	21.9	29.9-	34.8	23.4	58.0+	41.8	44.7	34.2
D71-9814	32.2+	38.2	44.0	26.5	59.5+	35.1	35.6	39.2
D72-7139	24.9	40.4	30.9	30.2	57.4+	43.9	39.7	31.5
D72-8489	29.3+	44.5+	46.6	30.2	59.0+	44.6+	46.5	29.3-
D72-8521	29.3+	37.1	33.6	26.9	50.1	43.8	52.9	35.6
D72-8540	19.0	38.4	34.3	33.7	50.4	45.0+	52.9	30.3
D72-8579	33.7+	40.2	41.1	28.3	53.1	44.3+	45.4	34.4
D72-8601	26.3	37.8	31.0	25.1	53.1	40.0	41.2	33.9
D72-8605	29.3+	39.6	30.6	23.7	48.4	33.3	42.0	31.1
D72-8607	30.0+	38.9	35.5	17.6-	62.9+	31.0	45.8	34.1
N72-306	31.5+	38.0	35.9	31.3	58.7+	37.0	49.2	30.3
N72-337	35.1+	38.6	41.3	31.2	59.9+	43.1	44.6	40.7
N72-438	31.5+	39.4	41.9	35.9	59.3+	43.9	43.5	35.4
N72-513	24.9	41.1	27.1-	28.5	53.2	41.7	42.0	34.2
N72-3033	39.5+	45.8+	42.5	24.4	62.0+	28.0	48.4	38.6
N72-3037	30.0+	47.5+	45.5	36.1	62.6+	30.6	48.8	40.8
N72-3038	31.5+	50.3+	40.9	31.2	63.1+	41.9	41.2	38.5
N72-3039	24.1	41.8	32.1	28.2	61.0+	36.8	56.4	42.6+
R71-72	30.7+	40.1	33.8	37.7+	59.7+	42.3	52.6	36.9
R71-132	32.2+	40.9	38.4	30.0	63.2+	38.0	46.9	34.2
R72-679	32.9+	39.3	34.2	20.9-	55.7	17.7-	38.2	35.3
R72-737	19.7	37.7	39.7	27.2	55.9	38.1	41.2	34.0
R72-1174	13.9-	28.5-	28.2	27.3	47.0	42.3	46.2	24.2-
V72-248	31.5+	37.3	39.8	22.0	60.2+	29.9	36.3	40.3
L.S.D.(.05)	6.8	5.9	N.S.	8.1	8.5	8.6	10.2	5.9
C.V.	11%	7%	17%	13%	7%	11%	11%	8%

Table 32 - Oil percentages for the strains in Preliminary Group VI, 1974

Strain	Petersburg, Va.	Plymouth, N.C.	Keiser, Ark.	Stoneville, Miss.(B)	Jay, Fla.
Pickett 71	16.7	19.2	20.4	21.6	20.9
D64-4636	17.7	19.2	19.9	20.5	21.0
D70-6875	16.0	17.2	19.2	19.4	17.9
D70-7485	18.3	18.6	19.7	22.0	21.5
D71-6234	14.3	18.3	18.1	18.8	18.7
D71-6518	15.2	18.1	18.2	20.2	21.0
D71-6840	16.3	18.9	19.8	20.1	22.0
D71-6879	17.8	19.6	19.6	21.5	21.6
D71-6956	17.8	19.1	20.1	20.3	20.2
D71-7061	15.6	19.7	18.7	19.7	21.7
D71-7197	16.8	19.0	19.4	21.3	21.5
D71-7246	17.0	19.0	19.3	20.7	21.1
D71-7466	17.3	20.5	19.5	21.1	23.0
D71-9814	19.0	19.4	20.0	21.7	23.1
D72-7139	16.9	18.2	18.2	19.1	20.8
D72-8489	17.4	19.5	19.4	20.9	20.4
D72-8521	16.1	17.5	18.9	18.5	20.4
D72-8540	16.3	18.3	19.1	19.3	20.6
D72-8579	19.4	20.8	21.8	22.5	24.3
D72-8601	18.0	19.1	19.9	21.4	22.5
D72-8605	17.6	19.0	19.0	20.7	21.6
D72-8607	18.8	20.1	21.0	22.3	22.9
N72-306	17.8	20.3	20.5	21.0	22.9
N72-337	18.6	20.8	21.4	22.2	22.6
N72-438	17.1	19.1	18.4	20.4	22.9
N72-513	16.1	19.0	19.1	20.4	21.4
N72-3033	18.9	21.1	19.3	21.4	22.4
N72-3037	17.8	19.4	19.0	22.0	22.7
N72-3038	17.0	18.8	18.8	20.3	20.4
N72-3039	16.9	19.8	18.1	20.7	22.3
R71-72	17.3	19.8	19.2	20.5	22.8
R71-132	18.6	20.8	20.1	22.7	22.8
R72-679	17.4	19.1	19.4	21.8	21.1
R72-737	16.5	19.5	19.8	22.4	20.9
R72-1174	15.1	18.6	19.1	20.7	21.6
V72-248	18.7	19.9	21.0	23.2	22.5

Table 33 - Protein percentages for the strains in Preliminary Group VI, 1974

Strain	Petersburg, Va.	Plymouth, N.C.	Keiser, Ark.	Stoneville, Miss.(B)	Jay, Fla.
Pickett 71	43.5	42.2	40.5	38.3	43.5
D64-4636	41.2	43.2	40.6	39.7	43.5
D70-6875	44.8	46.4	43.3	41.9	47.9
D70-7485	43.4	45.5	41.5	39.3	45.1
D71-6234	47.0	45.7	45.0	43.1	47.9
D71-6518	44.6	44.7	42.1	38.8	43.4
D71-6840	40.6	42.9	40.2	38.0	43.0
D71-6879	42.0	43.2	41.1	38.2	43.8
D71-6956	41.4	44.1	40.7	39.8	44.4
D71-7061	45.1	43.5	42.7	40.0	43.4
D71-7197	43.8	44.1	42.5	39.0	44.5
D71-7246	43.0	44.1	40.8	38.2	44.4
D71-7466	43.0	41.2	41.4	38.2	42.2
D71-9814	43.0	45.9	42.5	40.1	44.4
D72-7139	44.2	43.8	41.5	40.5	43.1
D72-8489	43.7	44.1	42.3	40.7	45.2
D72-8521	43.8	44.4	41.9	40.4	44.2
D72-8540	44.5	44.7	42.4	40.7	44.7
D72-8579	42.1	43.3	40.7	38.6	43.5
D72-8601	42.9	43.9	40.2	38.4	43.9
D72-8605	43.8	46.1	44.0	40.9	45.6
D72-8607	42.5	43.4	40.7	38.6	42.8
N72-306	44.3	43.6	42.2	39.4	43.2
N72-337	43.5	42.4	40.4	38.6	43.0
N72-438	44.6	43.6	42.3	40.8	44.4
N72-513	45.6	44.2	41.1	40.1	43.3
N72-3033	42.3	41.9	39.2	38.1	41.9
N72-3037	43.6	43.8	39.9	36.5	41.2
N72-3038	42.8	43.7	40.6	38.8	43.7
N72-3039	43.9	42.7	40.3	39.2	42.7
R71-72	43.1	42.1	40.2	37.8	42.5
R71-132	43.6	43.5	42.1	38.7	42.7
R72-679	42.7	44.3	41.6	38.9	44.9
R72-737	44.0	43.5	41.7	38.8	45.1
R72-1174	43.2	40.6	38.6	35.6	40.0
V72-248	42.9	43.1	40.2	38.2	43.1

Table 34 - Plant height for the strains in Preliminary Group VI, 1974

Strain	Peters-burg, Va.	Ply-mouth, N.C.	Portage-ville, Mo.	Keiser, Ark.	Stone-ville, Miss(A)	Stone-ville, Miss(B)	Jay, Fla.	Belle Mina, Ala.
Pickett 71	32	37	38	19	31	16	28	33
D64-4636	32	34	35	21	31	19	24	34
D70-6875	31	33	35	18	30	12	22	32
D70-7485	35	35	38	19	27	13	21	31
D71-6234	36	40	43	30	42	27	26	46
D71-6518	35	38	40	22	35	20	29	33
D71-6840	34	37	47	31	39	28	32	40
D71-6879	33	38	40	27	34	17	26	37
D71-6956	32	38	39	20	36	22	26	37
D71-7061	34	37	39	26	37	20	26	38
D71-7197	38	38	42	27	34	18	21	38
D71-7246	38	38	38	24	33	18	26	35
D71-7466	30	36	44	27	43	25	33	34
D71-9814	30	34	35	23	30	15	21	33
D72-7139	38	38	42	36	32	25	25	40
D72-8489	40	45	45	27	44	32	33	42
D72-8521	33	40	46	35	40	26	26	39
D72-8540	36	39	46	27	42	32	31	40
D72-8579	42	43	49	29	45	28	31	46
D72-8601	46	44	44	28	45	23	28	44
D72-8605	32	35	38	19	38	20	28	45
D72-8607	38	41	36	23	36	19	28	38
N72-306	36	40	34	31	34	19	26	39
N72-337	38	39	39	23	36	20	23	42
N72-438	43	43	45	30	39	24	21	44
N72-513	41	45	43	33	43	25	31	46
N72-3033	38	37	43	26	33	14	29	34
N72-3037	36	34	35	23	28	18	21	33
N72-3038	40	41	48	28	34	20	26	39
N72-3039	37	38	42	31	32	17	27	38
R71-72	32	35	38	22	34	21	22	35
R71-132	43	44	37	29	39	21	31	47
R72-679	34	37	39	22	29	11	27	32
R72-737	35	38	41	32	34	21	30	40
R72-1174	37	35	39	24	41	28	29	41
V72-248	34	36	40	24	34	14	26	38

Table 35 - Seed qulaity scores for the strains in Preliminary Group VI, 1974

Strain	Peters-burg, Va.	Ply-mouth, N.C.	Portage-ville, Mo.	Keiser, Ark.	Stone-ville, Miss(A)	Stone-ville, Miss(B)	Jay, Fla.
Pickett 71	2.0	1.0	1.5	1.0	2.0	2.0	1.0
D64-4636	1.0	1.0	1.5	1.0	2.0	2.0	2.0
D70-6875	1.0	1.0	1.8	1.0	2.0	2.0	1.0
D70-7485	1.0	1.5	1.5	1.5	3.0	2.0	5.0
D71-6234	3.0	1.0	1.5	1.5	2.0	2.0	2.0
D71-6518	2.0	1.0	1.8	1.0	2.5	2.0	2.0
D71-6840	1.0	1.5	2.0	1.0	2.0	2.0	1.0
D71-6879	1.0	1.0	1.8	1.0	2.0	2.0	2.0
D71-6956	1.0	1.5	1.8	1.5	2.0	2.0	2.0
D71-7061	1.0	1.0	1.5	1.0	2.0	2.0	2.0
D71-7197	1.0	1.0	1.5	1.0	2.0	2.0	1.0
D71-7246	2.0	1.0	1.5	1.0	2.0	2.0	2.0
D71-7466	3.0	1.0	1.5	1.5	1.5	2.0	2.0
D71-9814	1.0	2.0	1.5	1.0	2.5	2.0	4.0
D72-7139	1.0	1.5	1.8	1.0	2.0	2.0	2.0
D72-8489	2.0	1.0	1.5	1.5	2.0	2.0	1.0
D72-8521	3.0	1.0	1.5	1.0	2.0	2.0	2.0
D72-8540	3.0	1.0	1.5	1.5	2.0	2.0	1.0
D72-8579	1.0	1.5	1.5	1.5	3.0	2.0	2.0
D72-8601	3.0	1.0	1.5	1.5	2.0	2.0	1.0
D72-8605	1.0	1.0	1.8	1.0	2.5	2.0	1.0
D72-8607	2.0	1.0	1.5	1.5	2.0	2.0	2.0
N72-306	1.0	1.0	1.5	1.0	2.0	2.0	3.0
N72-337	1.0	1.5	1.5	1.0	2.0	2.0	3.0
N72-438	2.0	1.0	1.5	1.0	2.0	2.0	2.0
N72-513	1.0	1.0	1.5	1.0	2.0	2.0	2.0
N72-3033	1.0	1.0	1.3	1.0	2.0	2.0	1.0
N72-3037	1.0	1.0	1.5	1.0	2.0	2.0	1.0
N72-3038	1.0	1.0	1.5	1.0	2.0	2.0	2.0
N72-3039	1.0	1.5	1.5	1.0	2.0	2.0	1.0
R71-72	1.0	1.5	1.5	1.5	2.0	2.0	1.0
R71-132	1.0	1.5	1.5	1.0	2.5	2.0	1.0
R72-679	1.0	1.0	2.0	1.0	2.0	2.0	4.0
R72-737	2.0	1.0	1.5	1.5	2.0	2.0	1.0
R72-1174	2.0	1.0	1.5	1.5	2.0	2.0	2.0
V72-248	1.0	1.5	1.5	1.0	2.0	2.0	1.0

UNIFORM GROUP VII

1974

	Variety or strain	Parentage	Generation composited
1.	Bragg	Jackson x D49-2491	F_6
2.	Ransom	(N55-5931 x N55-3818) x D56-1185	F_6
3.	N66-1136	N56-4202 x N57-6801	F_5
4.	F67-3673	Bragg x D60-8107	F_4
5.	F68-1577	Bragg (3) x D60-7965	F_6
6.	N68-415	Dare x D60-5234	F_4
7.	D69-442	Bragg(3) x D60-7965	F_4
8.	D70-8347	Semmes x Hardee	F_4
9.	D71-8928	D49-772 x D55-4102	F_5
10.	F70-2061	F62-2953 x D62-3286	F_5
11.	N70-1816	Dare x D65-6765	F_6
12.	N70-2173	Hampton x Ransom	F_4

Background of strains used as parents:

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

N55-5931 is a selection from Roanoke x D49-2491 which was grown in Uniform Group VII in 1958.

N55-3818 is a selection from (N45-2994 x Ogden) x (N44-92 x N58-1867) which was grown in Preliminary VI in 1957. N45-2994 is from Arksoy x Ogden, N44-92 is from Haberlandt x Ogden, and N48-1867 is from Roanoke x N45-745.

D56-1185 is a selection from Perry x Lee.

N56-4202 is a selection from N46-1703 x D49-2525 which was grown in Juniform Group VI for the years 1959-61. N46-1703 is a selection from Ogden x Volstate.

N57-6801 is a selection from Jackson x D49-2491.

D60-7965 is a high protein selection from a cross of an F_5 line from Ogden x CNS with and F_5 line from Ogden x Biloxi.

D60-5234 is a selection from D55-4110 x N56-4071. D55-4110 is a selection from Ogden x CNS. N56-4071 is a selection from N46-1703 (Ogden x Volstate) x D49-2525.

D49-772 is a selection from Roanoke x N45-745 (sel. from Ogden x CNS)

D55-4102 is a selection from Ogden x CNS.

F62-2953 is a selection from D51-5091 x N50-2542. D51-5091 is a tall selection from Roanoke x N45-745 and N50-2542 is a high protein selection from Ogden x Biloxi.

D62-3286 is a high protein selection from D49-2491(4) x PI 163,453, a wild type.

D65-6765 is a selection from D58-3358 x D59-9289.

D58-3358 is a bacterial-pustule-resistant selection from Jackson(4) x D49-2491. D59-9289 is a high protein selection from D51-4877 x D55-4168. D51-4877 is a selection from Roanoke x N45-745. D55-4168 is a selection from Ogden x Biloxi.

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Results from 29 Uniform Group VII nurseries are summarized in Tables 36 through 42. Table 36 gives a general summary of agronomic qualities, oil and protein percentages of the seed, and field reaction to several diseases. Two- and three-year data are reported for seed yield and oil and protein percentages.

Differences among strains were significant at the 5% level of confidence at 23 locations. The combined analysis of variance for seed yield by production regions showed differences among strains to be significant in the Southeast and the Delta and West.

A special planting was made at Jay, Florida, on a soil heavily infested with root knot nematode (*M. incognita* var. *acrita*) for strain evaluation. Phytophthora rot ratings were made at Stoneville. Downy mildew ratings were made at Beaumont, Texas. Shatter resistance ratings are an average for several locations.

Three-year mean yields for Ransom are higher than for Bragg in the East and Southeast, but lower in the Delta and West. The lower yield for Ransom in the Delta and West is probably a result of its susceptibility to phytophthora rot. N66-1136 has equalled Ransom in yield in the East, is 3.5 bushels lower in the Southeast, and 2.4 bushels higher than Bragg in the Delta and West. F67-3673, a high protein strain, has equalled Bragg in the Southeast and exceeded Bragg in the Delta and West. This strain has equalled Bragg in root knot resistance. F68-1577 has generally good performance, but is only slightly superior to Bragg. N68-415 has also produced well in all areas. It is more susceptible to root knot nematodes than Bragg.

Two strains, D69-442 and D70-8347, have been evaluated two years. D49-442 is basically a Bragg type with higher protein percentage. Its performance suggests that higher protein, by itself, does not reduce seed yield. D70-8347 has averaged lower in yield than Bragg in the Southeast, but superior to Bragg in the Delta and West.

The four strains grown one year gave generally good performance, but none showed clear-cut advantages over the established varieties.

Table 36. - General summary of performance for the strains in Uniform Group VII, 1974

	Bragg	Ransom	N66-1136	F67-3673	F68-1577	N68-415
Seed Yield - 1974						
East Coast	38.8	40.2	38.7	35.3	38.4	40.3
Southeast	41.4	39.8	37.8-	38.7	40.8	40.9
Upper & Central South	34.5	38.8	37.9	34.4	41.5	36.0
Delta and West	38.2	34.9	41.5	39.4	39.1	38.4
- 1973-74						
East Coast	39.8	40.9	41.2	38.3	39.8	40.8
Southeast	40.3	41.9	37.1	39.0	40.7	40.8
Upper & Central South	33.6	37.6	36.6	33.9	37.8	34.8
Delta and West	39.5	37.5	42.1	40.1	40.2	40.0
- 1972-74						
East Coast	40.5	42.0	42.3	39.3	40.6	41.2
Southeast	37.3	39.1	35.6	37.0	38.3	38.5
Delta and West	39.4	37.6	41.8	40.3	40.3	40.4
Oil Content - 1974	20.3	22.8+	21.2+	17.7-	19.9	20.7
- 1973-74	21.4	23.5	22.0	18.9	20.8	21.7
- 1972-74	21.5	23.6	22.2	18.9	20.9	21.9
Protein Content - 1974	41.6	40.3-	41.3	46.1+	41.8	41.9
- 1973-74	41.9	40.4	41.8	46.3	42.2	42.1
- 1972-74	41.6	40.2	41.6	45.9	42.0	41.8
Seed size	14.9	15.7+	15.3	14.5	15.2	13.8-
Maturity index	10-2	0	0	+3	+1	-2
Height	39	32	39	42	38	37
Shattering	1.0	1.0	2.0	1.0	1.0	1.0
Phytophthora rot	1.0	2.5	1.0	1.0	1.0	1.0
Root knot nematode	2.0	4.8	2.8	1.8	2.0	3.5
Downy mildew	2.0	1.0	2.0	3.0	3.0	4.0
Flower color	W	P	W	W	W	W
Pubescence color	T	T	T	T	G	G
Pod wall color	T	T	T	T	T	Br

Table 36. - (continued)

	D69-442	D70-8347	D71-8928	F70-2061	N70-1816	N70-2173
Seed Yield - 1974						
East Coast	38.3	38.4	38.2	38.1	39.1	40.1
Southeast	40.6	37.8-	38.8	42.2	41.6	42.7
Upper & Central South	36.8	35.8	33.1	39.8	37.1	35.9
Delta and West	38.5	40.9	39.0	35.1	37.7	36.2
- 1973-74						
East Coast	39.2	39.7				
Southeast	40.0	38.1				
Upper & Central South	35.4	35.2				
Delta and West	38.5	41.8				
- 1972-74						
East Coast						
Southeast						
Delta and West						
Oil Content - 1974	18.5-	20.9+	21.2+	21.8+	20.7	21.9+
- 1973-74	19.5	21.7				
- 1972-74						
Protein Content - 1974	44.5+	41.7	41.6	39.9-	41.1	39.5-
- 1973-74	44.9	41.6				
- 1972-74						
Seed size	14.2-	14.3	18.7+	13.2-	13.7-	14.5
Maturity index	-1	-7	-1	-5	-3	-1
Height	37	30	35	37	32	34
Shattering	1.0	1.0	3.0	1.0	1.0	1.0
Phytophthora rot	1.0	1.0	1.0	1.0	2.0	2.0
Root knot nematode	1.8	3.5	4.0	2.8	3.0	3.5
Downy mildew	2.0	3.0	2.0	4.0	1.0	1.0
Flower color	W	P	P	P	W	P
Pubescence color	T	G	G	G	G	T
Pod wall color	T	T	T	T	T	Br

Table 37. - Seed yield, in bushels per acre, for the strains in Uniform Group VII, 1974

Location	Bragg	Ransom	N66-1136	F67-3673	F68-1577	N68-415	D69-442
			East Coast				
Holland, Va.	34.0	39.0	34.4	29.3	30.4	35.8	35.7
Plymouth, N.C.	39.5	36.1	39.4	33.3	37.9	38.6	35.7
Kinston, N.C.	39.3	38.6	41.4	34.8	40.3	41.2	36.4
Clinton, N.C.	41.8	46.1	42.2	41.3	45.4	43.7	45.0
Florence, S.C.(A)	46.0	45.5	43.3	44.1	50.5	47.9	45.8
Florence, S.C.(B)	28.6	32.7	28.4	25.8	24.1	30.8	28.2
Hartsville, S.C.	42.2	43.6	41.8	38.4	40.6	44.4	41.4
Mean	38.8	40.2	38.7	35.3	38.4	40.3	38.3
			Southeast				
Blackville, S.C.	22.3	31.2+	22.2	24.1	30.0+	21.7	23.6
Tallassee, Ala.	30.8	20.7-	26.1-	25.8-	25.6-	26.8-	28.0
Tifton, Ga.	54.6	46.4	53.1	54.4	52.2	56.5	54.6
Gainesville, Fla.	48.9	46.4	45.8	45.8	48.9	43.9	47.8
Live Oak, Fla.	36.6	38.1	30.6-	29.4-	34.5	36.2	29.8-
Marianna, Fla.	37.2	34.9	28.2-	35.3	34.9	37.7	35.4
Quincy, Fla.	40.1	45.6+	41.2	35.6	38.9	41.7	43.4
Jay, Fla.	49.2	44.9	38.6-	41.6-	49.7	47.1	48.2
Fairhope, Ala.	57.3	55.0	60.9	55.0	56.0	53.2	58.9
Poplarville,Miss.	36.5	32.7	23.8-	30.3	34.8	36.5	34.8
Baton Rouge, La.	42.2	41.9	45.8	48.2+	43.1	48.3+	42.5
Mean	41.4	39.8	37.8-	38.7	40.8	40.9	40.6
			Upper and Central South				
Athens, Ga.	41.2	55.0+	47.1	42.1	50.0+	44.3	45.8
Calhoun, Ga.	18.8	21.7	18.2	18.9	24.0+	20.5	20.8
Clemson, S.C.	43.5	39.8-	48.4+	42.2	50.4+	43.4	43.9
Mean	34.5	38.8	37.9	34.4	41.5	36.0	36.8
			Delta and West				
Stoneville, Miss.(A)	49.2	48.8	51.3	49.4	52.1	60.2	50.9
Stoneville, Miss.(B)	45.9	34.8-	46.1	45.8	47.1	42.2	48.1
Pine Bluff, Ark.	37.6	44.4+	44.4+	43.9+	36.1	44.6+	39.6
Stuttgart, Ark.	37.8	43.5+	44.8+	40.2	41.7+	45.0+	41.9+
Rohwer, Ark.	23.4	16.8-	25.2	24.6	28.3	16.6-	21.1
St. Joseph, La.	44.7	27.5-	39.4	38.8-	36.4-	30.4-	39.0-
Curtis, La.	38.6	32.4	40.8	34.3	39.9	34.5	37.3
Beaumont, Texas	28.2	31.1	40.2+	37.0+	31.4	33.9	30.4
Mean	38.2	34.9	41.5	39.4	39.1	38.4	38.5

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

Table 37. - (continued)

Location	D70-8347	D71-8928	F70-2061	N70-1816	N70-2173	L.S.D. (.05)	C.V. (%)
			East Coast				
Holland, Va.	39.1+	30.7	40.4+	33.8	34.9	5.1	9
Plymouth, N.C.	37.0	42.1	38.2	41.6	37.6	N.S.	8
Kinston, N.C.	35.0	43.4	39.1	41.1	37.3	5.1	8
Clinton, N.C.	51.2+	46.2	50.1+	42.4	45.3	5.7	8
Florence, S.C.(A)	39.7-	46.3	38.3-	43.8	46.0	5.8	7
Florence, S.C.(B)	25.2	23.1	20.7	29.4	35.4	N.S.	18
Hartsville, S.C.	41.2	35.5-	40.1	41.8	44.1	4.1	6
Mean	38.4	38.2	38.1	39.1	40.1	N.S.	
			Southeast				
Blackville, S.C.	21.3	17.5	34.0+	27.7	30.3+	5.4	13
Tallassee, Ala.	26.8-	26.7-	30.3	23.3-	21.7-	4.0	9
Tifton, Ga.	41.1-	49.6	52.7	54.6	47.6-	6.5	7
Gainesville, Fla.	45.6	45.2	47.3	46.2	47.8	N.S.	6
Live Oak, Fla.	20.5-	32.2	35.3	31.9-	37.8	6.0	11
Marianna, Fla.	31.9-	29.8-	34.3	38.0	36.6	4.9	9
Quincy, Fla.	40.5	45.2+	45.4+	42.9	48.7+	4.8	7
Jay, Fla.	44.4	47.4	41.9	50.9	55.2	7.6	9
Fairhope, Ala.	57.9	57.5	58.1	56.2	59.4	N.S.	4
Poplarville, Miss.	38.5	31.9	45.5+	40.9	41.8	8.1	13
Baton Rouge, La.	47.3	43.7	39.7	44.4	43.3	5.2	7
Mean	37.8-	38.8	42.2	41.6	42.7	3.1	
			Upper and Central South				
Athens, Ga.	40.2	38.2	49.2+	47.0	48.6+	7.4	10
Calhoun, Ga.	27.2+	20.7	23.8+	21.9	17.8	5.0	14
Clemson, S.C.	40.1	40.3	46.4	42.3	41.3	3.5	5
Mean	35.8	33.1	39.8	37.1	35.9	N.S.	
			Delta and West				
Stoneville, Miss.(A)	59.3	49.9	52.5	53.2	48.3	N.S.	8
Stoneville, Miss.(B)	43.3	43.2	46.2	42.9	35.2-	5.5	7
Pine Bluff, Ark.	40.3	35.6	37.3	36.3	43.9+	5.9	8
Stuttgart, Ark.	44.8+	41.0+	41.1+	42.8+	46.5+	3.1	4
Rohwer, Ark.	23.5	27.7	20.2	28.0	17.6	5.9	15
St. Joseph, La.	37.7-	38.3-	21.3-	31.1-	31.1-	5.7	10
Curtis, La.	38.9	39.7	27.4	35.1	33.4	N.S.	14
Beaumont, Texas	39.0+	36.5+	34.5	32.3	33.5	6.6	11
Mean	40.9	39.0	35.1	37.7	36.2	3.9	

Table 38. - Chemical composition and seed size for the strains in Uniform Group VII, 1974

Location	Bragg	Ransom	N66-1136	F67-3673	F68-1577	N68-415
			Oil Percentage			
Plymouth, N.C.	18.1	20.9	20.8	17.1	18.4	18.8
Clinton, N.C.	18.4	21.2	20.3	17.7	18.3	20.0
Blackville, S.C.	21.2	23.9	21.8	17.5	20.9	20.5
Tifton, Ga.	21.2	22.3	20.9	17.4	20.9	20.6
Gainesville, Fla.	22.2	23.4	22.4	19.1	21.1	22.7
Jay, Fla.	21.0	23.2	21.7	17.5	20.1	21.8
Baton Rouge, La.	20.6	23.5	21.1	17.2	20.1	21.2
Clemson, S.C.	20.1	22.7	21.3	18.6	18.9	20.9
Stoneville, Miss.(B)	20.7	23.8	21.4	18.6	19.9	20.7
Beaumont, Texas	19.7	23.5	20.1	16.4	20.4	20.2
Mean	20.3	22.8+	21.2+	17.7-	19.9	20.7
			Protein Percentage			
Plymouth, N.C.	43.1	41.6	40.8	46.2	42.8	43.4
Clinton, N.C.	42.1	40.6	40.4	45.8	42.0	41.8
Blackville, S.C.	40.5	39.7	40.6	45.3	41.3	41.3
Tifton, Ga.	42.4	42.3	43.9	47.0	42.3	43.3
Gainesville, Fla.	42.6	41.6	42.8	46.6	42.4	41.9
Jay, Fla.	42.6	41.4	43.8	46.8	42.3	42.3
Baton Rouge, La.	41.5	40.7	41.3	46.6	42.4	41.8
Clemson, S.C.	41.1	39.5	39.1	45.2	41.4	41.2
Stoneville, Miss.(B)	36.9	34.8	37.3	44.5	38.8	38.7
Beaumont, Texas	43.2	40.7	42.8	46.7	42.0	43.5
Mean	41.6	40.3-	41.3	46.1+	41.8	41.9
			Grams per 100 Seeds			
Plymouth, N.C.	14.9	14.1	14.2	13.5	12.8	12.3
Clinton, N.C.	13.0	13.8	14.1	12.6	13.0	11.6
Blackville, S.C.	12.0	12.0	12.0	11.0	13.0	10.0
Tifton, Ga.	17.3	16.1	17.2	16.2	17.4	16.2
Gainesville, Fla.	18.3	19.1	18.6	17.4	19.1	17.4
Jay, Fla.	17.0	19.0	19.0	17.0	18.0	16.0
Baton Rouge, La.	15.2	15.7	15.7	14.6	15.8	14.2
Clemson, S.C.	15.3	16.3	16.1	15.6	15.9	14.1
Stoneville, Miss.(B)	14.0	14.2	14.7	14.3	14.0	12.9
Beaumont, Texas	12.2	16.2	11.8	12.8	12.9	13.1
Mean	14.9	15.7+	15.3	14.5	15.2	13.8-

Table 38. - (continued)

Location	D69-442	D70-8347	D71-8928	F70-2061	N70-1816	N70-2173	L.S.D. (.05)
			Oil Percentage				
Plymouth, N.C.	18.2	19.2	19.1	19.5	18.9	19.9	
Clinton, N.C.	18.2	19.6	18.7	20.3	18.5	20.8	
Blackville, S.C.	18.6	22.1	22.2	23.2	21.7	21.5	
Tifton, Ga.	18.8	21.1	22.2	22.1	21.2	22.2	
Gainesville, Fla.	19.1	21.7	22.9	23.3	22.9	24.3	
Jay, Fla.	18.4	21.6	21.9	21.3	21.3	22.8	
Baton Rouge, La.	18.2	21.2	22.8	23.1	21.7	23.5	
Clemson, S.C.	18.6	21.5	19.9	21.6	19.5	20.9	
Stoneville, Miss.(B)	19.7	21.0	20.7	21.9	20.2	21.4	
Beaumont, Texas	17.6	20.4	21.1	21.3	20.6	21.5	
Mean	18.5-	20.9+	21.2+	21.8+	20.7	21.9+	0.6
			Protein Percentage				
Plymouth, N.C.	45.2	43.1	41.8	41.1	42.4	41.3	
Clinton, N.C.	43.5	42.1	41.6	39.7	41.1	39.6	
Blackville, S.C.	43.6	40.7	41.1	39.1	40.3	38.6	
Tifton, Ga.	46.2	43.2	42.9	41.5	42.7	40.4	
Gainesville, Fla.	45.5	41.9	41.5	40.3	41.1	39.4	
Jay, Fla.	46.1	42.5	42.7	41.3	42.0	39.9	
Baton Rouge, La.	44.4	41.8	42.2	40.7	41.0	38.6	
Clemson, S.C.	44.0	40.5	41.3	38.8	40.4	40.0	
Stoneville, Miss.(B)	41.0	39.2	38.2	35.8	38.5	36.6	
Beaumont, Texas	45.3	42.1	42.3	40.7	41.8	40.9	
Mean	44.5+	41.7	41.6	39.9-	41.1	39.5-	0.6
			Grams per 100 Seeds				
Plymouth, N.C.	13.9	14.8	16.4	11.8	12.6	12.2	
Clinton, N.C.	12.3	14.4	17.1	13.0	11.8	12.8	
Blackville, S.C.	11.0	13.0	16.0	12.0	12.0	12.0	
Tifton, Ga.	16.2	16.3	20.3	14.7	14.7	14.3	
Gainesville, Fla.	17.9	15.5	21.4	15.0	16.3	19.0	
Jay, Fla.	18.0	17.0	23.0	16.0	17.0	19.0	
Baton Rouge, La.	13.3	13.8	19.4	12.3	13.6	14.8	
Clemson, S.C.	14.6	14.2	18.1	14.0	13.8	14.5	
Stoneville, Miss.(B)	13.2	12.8	19.0	11.4	12.8	12.6	
Beaumont, Texas	11.7	11.1	16.3	11.4	12.1	14.0	
Mean	14.2-	14.3	18.7+	13.2-	13.7-	14.5	0.7

Table 39. - Relative maturity data, days earlier (-) or later (+), than Bragg for the strains in Uniform Group VII, 1974

Location	Date planted	Bragg matured	Ransom	N66-1136	F67-3673	F68-1577	N68-415
			East Coast				
Plymouth, N.C.	5-14	10-28	0	-2	+2	0	-2
Clinton, N.C.	5-24	10-28	0	+4	+4	+4	0
Hartsville, S.C.	6-6	10-28	0	-2	+1	+2	+2
Mean		10-28	0	0	+2	+2	0
			Southeast				
Blackville, S.C.	5-8	10-15	+2	+2	+2	+4	0
Tallassee, Ala.	5-30	10-23	+3	0	+7	-2	-3
Tifton, Ga.	5-7	10-15	-2	+1	+8	+2	+1
Gainesville, Fla.	5-29	10-19	-1	-3	+4	+5	-2
Marianna, Fla.	6-12	10-18	+2	+3	-1	-1	-2
Quincy, Fla.	6-4	10-17	+3	-7	+2	+1	-3
Jay, Fla.	5-16	10-11	+8	+3	+10	+5	+9
Fairhope, Ala.	5-30	10-14	+2	+1	+7	+5	0
Poplarville, Miss.	5-27	10-10	-9	+3	0	-16	-15
Baton Rouge, La.	5-7	10-20	0	+1	+5	+2	+1
Mean		10-16	0	0	+4	0	-1
			Upper and Central South				
Athens, Ga.	5-9	10-14	0	0	+2	+2	-2
Calhoun, Ga.	5-20	10-13	-2	+1	+1	+2	0
Clemson, S.C.	5-16	10-19	+1	+3	+5	+3	+4
Mean		10-15	0	+1	+3	+2	0
			Delta and West				
Stoneville, Miss.(A)	5-14	10-24	-2	+3	+3	+2	-1
Stoneville, Miss.(B)	5-8	10-23	-2	0	+7	+7	0
Pine Bluff, Ark.	5-15	10-30	-12	-2	-2	-2	-10
Stuttgart, Ark.	5-20	10-24	0	0	+2	+1	+1
Rohwer, Ark.	6-20	10-30	+1	0	0	0	+4
St. Joseph, La.	4-30	10-17	-3	+1	+4	+4	-9
Curtis, La.	5-8	10-24	-6	-4	+1	+1	-6
Beaumont, Texas	5-16	10-12	-1	0	0	-5	-3
Mean		10-23	-3	0	+2	+1	-3

Table 39. - (continued)

Location	D69-442	D70-8347	D71-8928	F70-2061	N70-1816	N70-2173
			East Coast			
Plymouth, N.C.	0	-2	0	-8	-2	-2
Clinton, N.C.	-1	-5	+4	-5	-1	0
Hartsville, S.C.	-1	-4	+3	-2	+1	+1
Mean	0	-4	+2	-5	0	0
			Southeast			
Blackville, S.C.	+1	-1	+1	+1	+1	+2
Tallassee, Ala.	+1	-4	-3	-4	-2	+4
Tifton, Ga.	+1	-8	-6	-6	-2	-3
Gainesville, Fla.	-1	-12	-3	-5	-3	-3
Marianna, Fla.	-2	-11	-1	-5	-3	-4
Quincy, Fla.	-6	-9	-6	-4	-4	+1
Jay, Fla.	+6	-2	-2	-2	+3	+3
Fairhope, Ala.	-1	-4	-1	-2	-1	+1
Poplarville, Miss.	+2	-18	-16	-7	-19	-16
Baton Rouge, La.	0	-6	-4	-8	-9	-2
Mean	0	-8	-4	-4	-4	-2
			Upper and Central South			
Athens, Ga.	-2	-7	0	-2	-1	-1
Calhoun, Ga.	0	-2	0	-1	-2	-1
Clemson, S.C.	0	-3	+2	-3	-1	-1
Mean	0	-4	0	-2	-1	-1
			Delta and West			
Stoneville, Miss.(A)	0	-10	+3	-1	-1	-1
Stoneville, Miss.(B)	-1	-5	+2	-1	-2	-1
Pine Bluff, Ark.	-12	-12	-10	-16	-6	-2
Stuttgart, Ark.	0	-7	-1	-2	-1	-1
Rohwer, Ark.	-4	-5	+6	-6	+1	-1
St. Joseph, La.	+1	-10	-3	-13	-10	-6
Curtis, La.	-4	-10	-1	-8	-6	0
Beaumont, Texas	0	-1	+3	-1	-4	-2
Mean	-3	-8	0	-6	-4	-2

Table 40. - Plant height for the strains in Uniform Group VII, 1974

Location	Bragg	Ransom	N66-1136	F67-3673	F68-1577	N68-415
			East Coast			
Holland, Va.	38	38	52	48	49	52
Plymouth, N.C.	47	39	46	45	43	41
Kinston, N.C.	45	41	47	47	44	41
Clinton, N.C.	48	40	45	49	42	42
Florence, S.C.(A)	38	38	46	50	48	43
Florence, S.C.(B)	38	30	38	40	33	35
Hartsville, S.C.	43	38	43	46	42	41
Mean	42	38	45	46	43	42
			Southeast			
Blackville, S.C.	35	27	35	38	38	35
Tallassee, Ala.	47	35	48	52	46	46
Tifton, Ga.	35	24	30	36	33	33
Gainesville, Fla.	37	30	37	38	37	34
Live Oak, Fla.	41	31	37	41	38	38
Marianna, Fla.	31	28	34	35	33	31
Quincy, Fla.	38	33	38	41	38	34
Jay, Fla.	34	27	25	36	30	28
Fairhope, Ala.	40	25	37	40	39	36
Poplarville, Miss.	38	30	39	40	37	35
Baton Rouge, La.	36	27	37	41	37	32
Mean	37	29	36	40	37	35
			Upper and Central South			
Athens, Ga.	42	36	39	44	42	35
Calhoun, Ga.	41	38	38	46	43	35
Clemson, S.C.	42	36	43	42	39	36
Mean	42	37	40	44	41	35
			Delta and West			
Stoneville, Miss.(A)	46	40	51	46	47	43
Stoneville, Miss.(B)	29	23	33	41	31	29
Pine Bluff, Ark.	33	36	42	38	38	40
Stuttgart, Ark.	44	33	45	48	39	39
Rohwer, Ark.	34	26	31	35	31	29
St. Joseph, La.	42	26	40	43	36	36
Curtis, La.	30	21	28	32	28	30
Beaumont, Texas	32	27	30	36	32	31
Mean	36	29	38	40	35	35

Table 40. - (continued)

Location	D69-442	D70-8347	D71-8928	F70-2061	N70-1816	N70-2173
			East Coast			
Holland, Va.	43	43	43	49	36	46
Plymouth, N.C.	46	38	43	43	37	41
Kinston, N.C.	45	37	37	41	36	41
Clinton, N.C.	43	39	42	41	36	42
Florence, S.C.(A)	46	36	38	43	37	40
Florence, S.C.(B)	35	30	36	33	30	34
Hartsville, S.C.	41	37	34	39	37	41
Mean	43	37	39	41	36	41
			Southeast			
Blackville, S.C.	35	26	32	38	33	32
Tallassee, Ala.	44	37	45	44	38	38
Tifton, Ga.	32	21	31	36	27	28
Gainesville, Fla.	36	25	34	36	31	33
Live Oak, Fla.	37	33	37	39	34	38
Marianna, Fla.	26	21	24	30	24	25
Quincy, Fla.	38	31	37	37	32	34
Jay, Fla.	31	23	31	33	27	23
Fairhope, Ala.	37	23	32	40	32	29
Poplarville, Miss.	35	30	38	40	32	32
Baton Rouge, La.	37	30	29	34	32	29
Mean	35	27	34	37	31	31
			Upper and Central South			
Athens, Ga.	40	30	35	36	34	35
Calhoun, Ga.	39	33	42	37	34	33
Clemson, S.C.	37	32	38	35	34	34
Mean	39	32	38	36	34	34
			Delta and West			
Stoneville, Miss.(A)	43	39	39	44	37	43
Stoneville, Miss.(B)	30	21	27	31	24	22
Pine Bluff, Ark.	39	32	33	35	34	37
Stuttgart, Ark.	39	31	41	36	34	36
Rohwer, Ark.	33	22	31	27	27	25
St. Joseph, La.	45	30	35	42	34	31
Curtis, La.	26	23	24	28	27	28
Beaumont, Texas	28	23	30	31	26	26
Mean	35	28	33	34	30	31

Table 41. - Lodging scores for the strains in Uniform Group VII, 1974

Location	Bragg	Ransom	N66-1136	F67-3673	F68-1577	N68-415
			East Coast			
Holland, Va.	3.8	3.2	2.8	3.7	3.7	3.2
Plymouth, N.C.	3.3	3.0	2.7	3.0	3.7	2.7
Kinston, N.C.	2.7	2.0	2.7	2.3	3.0	2.7
Clinton, N.C.	2.7	2.3	2.0	2.0	2.7	2.3
Florence, S.C.(A)	4.0	3.0	3.0	4.0	3.0	3.0
Florence, S.C.(B)	3.0	1.0	2.0	3.0	4.0	2.0
Hartsville, S.C.	3.5	2.3	2.5	3.0	3.7	2.6
			Southeast			
Blackville, S.C.	2.0	2.0	2.0	2.0	2.0	2.0
Tallassee, Ala.	4.0	1.5	3.3	3.2	2.8	2.2
Tifton, Ga.	2.0	1.0	2.0	2.0	1.3	1.3
Gainesville, Fla.	2.0	1.0	2.0	2.0	2.0	2.0
Live Oak, Fla.	2.7	1.0	2.0	2.0	2.0	2.3
Marianna, Fla.	1.0	1.0	2.0	2.0	2.0	2.0
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.	3.0	2.0	2.3	3.0	2.3	2.0
Poplarville, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	2.0	1.5	1.0	2.0	2.5	1.5
			Upper and Central South			
Athens, Ga.	1.8	1.0	1.2	1.8	1.7	1.5
Calhoun, Ga.	2.5	1.7	1.2	2.5	2.5	2.5
Clemson, S.C.	2.3	1.7	1.8	2.0	2.0	2.0
			Delta and West			
Stoneville, Miss.(A)	2.7	2.7	3.3	3.0	2.7	2.3
Stoneville, Miss.(B)	2.0	2.0	3.0	2.3	2.0	2.0
Pine Bluff, Ark.	2.0	1.0	3.0	3.0	2.0	1.0
Stuttgart, Ark.	2.3	1.7	2.2	2.5	2.3	1.8
Rohwer, Ark.	2.0	1.3	1.3	2.0	2.0	1.7
St. Joseph, La.	2.0	1.0	2.0	3.0	3.0	1.0
Curtis, La.	1.5	1.0	1.5	2.5	1.0	1.0
Beaumont, Texas	2.0	1.0	1.0	1.0	1.0	1.2

Table 41. - (continued)

Location	D69-442	D70-8347	D71-8928	F70-2061	N70-1816	N70-2173
			East Coast			
Holland, Va.	3.0	3.0	4.5	3.2	4.3	3.0
Plymouth, N.C.	3.0	2.3	3.3	2.7	3.7	2.0
Kinston, N.C.	2.3	2.3	4.0	3.0	3.0	3.0
Clinton, N.C.	2.3	1.7	3.5	2.3	2.3	2.0
Florence, S.C.(A)	3.0	3.0	4.0	3.0	5.0	3.0
Florence, S.C.(B)	3.0	2.0	5.0	4.0	2.0	2.0
Hartsville, S.C.	3.0	3.0	4.1	3.7	3.2	2.8
			Southeast			
Blackville, S.C.	1.0	1.0	2.0	2.0	2.0	2.0
Tallassee, Ala.	2.2	1.7	4.2	3.7	2.7	2.0
Tifton, Ga.	1.3	1.0	1.7	1.7	2.0	1.0
Gainesville, Fla.	2.0	1.0	3.0	1.5	1.0	1.5
Live Oak, Fla.	2.3	1.3	3.0	2.3	2.0	2.0
Marianna, Fla.	1.0	1.0	2.0	1.0	1.0	1.0
Quincy, Fla.	2.0	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.	2.0	1.7	2.3	2.0	1.7	2.0
Poplarville, Miss.	1.0	1.3	1.0	1.0	1.7	1.0
Baton Rouge, La.	1.5	2.5	2.0	2.5	2.0	1.0
			Upper and Central South			
Athens, Ga.	1.5	1.0	2.5	1.3	1.5	1.2
Calhoun, Ga.	2.2	2.0	2.7	1.7	1.7	1.8
Clemson, S.C.	2.3	1.0	2.2	1.5	2.0	1.8
			Delta and West			
Stoneville, Miss.(A)	2.0	2.0	3.7	3.0	3.0	2.3
Stoneville, Miss.(B)	2.0	2.0	3.0	2.0	2.0	2.0
Pine Bluff, Ark.	3.0	3.0	1.0	4.0	5.0	5.0
Stuttgart, Ark.	2.0	1.5	2.5	1.5	2.2	2.0
Rohwer, Ark.	1.0	1.3	1.7	1.3	1.7	1.3
St. Joseph, La.	2.0	2.0	2.0	2.0	2.0	1.0
Curtis, La.	1.5	1.0	2.0	1.5	3.0	1.5
Beaumont, Texas	1.0	1.0	1.0	1.0	1.0	1.0

Table 42. - Seed quality scores for the strains in Uniform Group VII, 1974

Location	Bragg	Ransom	N66-1136	F67-3673	F68-1577	N68-415
			East Coast			
Holland, Va.	1.0	1.0	1.3	1.0	1.3	1.0
Plymouth, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
Kinston, N.C.	1.5	1.0	1.0	1.0	1.0	1.0
Clinton, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
			Southeast			
Blackville, S.C.	2.0	2.0	2.0	2.0	2.0	2.0
Tallassee, Ala.	2.0	2.0	2.0	2.0	2.0	2.0
Tifton, Ga.	2.2	2.3	2.5	2.2	2.0	2.2
Gainesville, Fla.	1.5	1.0	1.0	1.0	1.0	1.0
Live Oak, Fla.	2.0	1.3	2.7	2.7	2.0	2.0
Quincy, Fla.	2.0	3.0	2.0	2.0	2.0	1.0
Jay, Fla.	2.0	2.0	3.0	1.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	1.5	2.0	2.0	1.5	2.2	1.0
			Upper and Central South			
Athens, Ga.	1.5	1.5	1.0	1.0	1.5	1.0
Calhoun, Ga.	1.5	1.5	1.5	1.5	1.5	1.8
			Delta and West			
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
Pine Bluff, Ark.	2.0	1.3	2.0	1.6	1.6	2.0
Stuttgart, Ark.	1.7	3.0	2.2	1.8	2.3	1.7
Curtis, La.	1.0	1.3	1.0	1.0	1.0	1.0
Beaumont, Texas	2.0	2.0	3.0	1.0	2.0	1.0

Table 42. - (continued)

Location	D69-442	D70-8347	D71-8928	F70-2061	N70-1816	N70-2173
			East Coast			
Holland, Va.	1.2	1.0	1.8	1.2	1.0	1.0
Plymouth, N.C.	1.0	1.5	1.0	1.0	1.0	1.0
Kinston, N.C.	1.0	1.5	1.5	1.0	1.5	1.0
Clinton, N.C.	1.0	1.0	1.5	1.5	1.0	1.0
			Southeast			
Blackville, S.C.	2.0	2.0	2.0	1.0	1.0	2.0
Tallassee, Ala.	2.0	2.0	3.0	2.0	1.0	2.0
Tifton, Ga.	2.3	2.7	2.0	2.3	2.3	2.3
Gainesville, Fla.	1.0	1.5	1.5	1.0	1.0	1.5
Live Oak, Fla.	2.3	3.0	2.7	2.0	3.0	2.0
Quincy, Fla.	2.0	1.0	2.0	2.0	1.0	2.0
Jay, Fla.	2.0	3.0	2.0	1.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	2.0	2.0	1.5	2.0	1.0	2.0
			Upper and Central South			
Athens, Ga.	1.5	1.3	1.5	1.3	1.0	1.5
Calhoun, Ga.	1.5	1.2	2.0	1.2	1.5	2.0
			Delta and West			
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
Pine Bluff, Ark.	2.3	2.0	1.6	2.3	1.6	1.6
Stuttgart, Ark.	1.5	1.8	2.8	2.2	1.7	3.0
Curtis, La.	1.0	1.0	1.0	1.0	1.0	1.7
Beaumont, Texas	3.0	1.0	1.0	2.0	1.0	2.0

PRELIMINARY GROUP VII

1974

Preliminary Group VII nurseries, including 34 experimental strains and the two check varieties Bragg and Pickett 71, were grown at eight locations. The parentage of these strains is reported in Table 43. Performance data are summarized in Tables 44 through 49. Differences among strains for seed yield were significant at seven of the locations. The combined analysis of variance for seed yield showed differences among strains to be significant. Seven strains had mean seed yields significantly greater than Bragg and three strains had mean seed yields significantly lower than Bragg.

Twelve strains had significantly higher protein percentage than Bragg and seven strains had significantly lower protein. N72-1014 was significantly higher in both protein and oil than Bragg.

D71-9203 has a high level of resistance to *Meliodogyne arenaria* as well as *M. incognita*. It also has a high level of resistance to a strain of *M. incognita* found in south central Louisiana which severely damages Bragg. Eight other strains also had a high level of resistance to root knot in the plantings in west Florida.

The strain D72-7690, selected to combine resistance to phytophthora rot and soybean mosaic virus, was one of the lowest yielding strains.

Table 43. - Parentage of strains in Preliminary Group VII, 1974

	Variety or strain	Parentage	Generation composited
1.	Bragg		
2.	Pickett 71		
3.	D71-9002	D49-772 x D55-4102	F_5
4.	D71-9203	Semmes x D67-10539	F_5
5.	D72-7690	Semmes x PI 230,973	F_5
6.	D72-7872	D61-4269 x D61-5264	F_5
7.	D72-7959	D61-4269 x D61-5264	F_5
8.	D72-7962	D61-4269 x D61-5264	F_5
9.	D72-7984	D61-4269 x D61-5264	F_5
10.	D72-8122	D65-6765 x D55-4102	F_5
11.	D72-8145	D65-6765 x D55-4102	F_5
12.	D72-8150	D65-6765 x D55-4102	F_5
13.	D72-8549	Hood x Lee 68	F_5
14.	F70-2060	F62-2953 x D62-3286	F_7
15.	F71-1176	F59-1505 x [Bragg(3) x D60-7965]	F_5
16.	F71-1180	F59-1505 x [Bragg(3) x D60-7965]	F_5
17.	F71-1220	F59-1505 x [Bragg(3) x D60-7965]	F_5
18.	F71-1323	Bragg(3) x D60-7965	F_6
19.	F71-1368	Bragg(3) x D60-7965	F_6
20.	F71-1500	Bragg(3) x PI 96035	F_6
21.	F71-1726	Bragg(3) x D60-7965	F_6
22.	F71-1741	Bragg(3) x D60-7965	F_6
23.	F71-1743	Bragg(3) x D60-7965	F_6
24.	La68-4-12	D58-3358 x Bienville	F_8
25.	N72-1014	629-27-27 x Ransom	F_5
26.	N72-1039	629-27-27 x Ransom	F_5
27.	N72-3061	F65-1376 x Ransom	F_5
28.	N72-3167	F65-1376 x Ransom	F_5
29.	N72-3179	N64-1758 x N64-2451	F_5
30.	N72-3181	N64-1758 x N64-2451	F_5
31.	N72-3154	D67-B5 x N64-2451	F_5
32.	N72-3213	D67-B5 x N64-2451	F_5
33.	Ts73-6	D63-608 x D61-4269	F_7
34.	Ts73-12	Bragg x D60-8107	F_5
35.	Ts73-36	Bragg x Ransom	F_5
36.	Ts73-100	Bragg x PI 200,492	F_8

Table 44. - General summary of performance for the strains in Preliminary Group VII, 1974

Strain	Seed yield	Mat. index	Ht.	Percent Oil	Percent Protein	Seed holding	P.R.	R.K.	D.M.
Bragg	35.7	10-17	37	20.3	41.9	1.0	1.0	1.8	3.0
Pickett 71	34.7	-6	26	20.6	41.6	1.0	1.0	4.5	3.0
D71-9002	36.0	0	37	19.9	43.5+	1.0	1.0	4.5	3.0
D71-9203	35.7	-2	33	19.3-	43.6+	1.0	1.0	2.5	4.0
D72-7690	29.8-	0	43	20.1	42.7	1.0	1.0	4.3	5.0
D72-7872	32.0	+8	36	19.1-	41.5	1.0	1.0	3.8	1.0
D72-7959	38.8	+5	39	19.5-	42.0	1.0	1.0	4.5	1.0
D72-7962	31.9	+5	39	19.3-	41.7	1.0	1.0	5.0	1.0
D72-7984	31.4	+7	37	18.7-	41.9	1.0	1.0	4.5	4.0
D72-8122	31.1	+3	33	17.9-	45.2+	1.0	1.0	4.5	1.0
D72-8145	34.9	-2	37	17.2-	45.9+	1.0	1.0	5.0	1.0
D72-8150	36.9	-3	35	17.3-	45.8+	1.0	1.0	4.5	1.0
D72-8549	37.7	0	37	20.4	40.7-	1.0	1.0	3.8	4.0
F70-2060	38.7	+4	38	20.6	40.0-	1.0	1.0	1.8	4.0
F71-1176	37.9	0	39	20.2	41.0-	1.0	1.0	1.3	4.0
F71-1180	41.1+	+3	38	20.2	41.4	1.0	1.0	0.8	3.0
F71-1220	36.5	+3	34	19.4-	42.8+	1.0	1.0	1.8	3.0
F71-1323	33.4	-2	38	17.8-	44.3+	1.0	1.5	2.5	4.0
F71-1368	36.0	+1	36	19.0-	43.6+	1.0	1.0	2.8	3.0
F71-1500	35.7	0	32	19.7-	42.1	1.0	1.0	3.3	3.0
F71-1726	37.5	0	35	19.9-	41.7	1.0	2.0	1.5	3.0
F71-1741	38.8	0	35	20.4	41.9	1.0	1.0	1.8	3.0
F71-1743	36.2	-2	31	20.9	41.5	1.0	2.5	0.8	3.0
La68-4-12	34.0	+3	41	19.7-	40.8-	1.0	1.0	1.3	1.0
N72-1014	41.1+	-2	32	21.0+	43.5+	1.0	1.0	2.8	1.0
N72-1039	37.8	-4	31	20.4	43.1+	1.0	2.0	4.0	3.0
N72-3061	39.8+	-3	27	20.5	42.7	1.0	1.0	4.3	1.0
N72-3167	43.3+	-1	32	22.7+	41.2	1.0	1.0	4.0	3.0
N72-3179	39.7+	-4	33	21.2+	41.0-	1.0	1.8	4.5	1.0
N72-3181	35.3	0	31	21.7+	39.8-	3.0	1.5	4.3	1.0
N72-3154	43.0+	-2	32	20.6	41.0-	1.0	1.0	4.3	1.0
N72-3213	40.2+	+2	30	21.2+	41.1	1.0	1.0	3.5	1.0
Ts73-6	27.4-	+8	46	20.2	42.3	1.0	4.0	4.3	1.0
Ts73-12	36.3	+7	41	17.6-	46.2+	1.0	1.0	3.3	4.0
Ts73-36	29.3-	+10	45	19.8	42.0	1.0	1.0	4.5	2.0
Ts73-100	31.4	+7	42	19.5-	43.2+	1.0	1.0	3.3	4.0
L.S.D.(.05)	4.0			0.6	0.9				
L.S.D.(.01)	5.3			0.8	1.1				

Table 45. - Seed yield, in bushels per acre, for the strains in Preliminary Group VII, 1974

Strain	Kinston, N.C.	Black-ville, S.C.	Tallas-see, Ala.	Jay, Fla.	Baton Rouge La.	Stone-ville, Miss.(A)	Stone-ville, Miss.(B)	Beaumont, Texas
Bragg	38.5	23.1	21.9	46.2	32.2	48.2	45.7	30.1
Pickett 71	39.8	9.2-	23.3	42.8	42.9+	47.3	37.5	35.1
D71-9002	38.0	31.8+	20.2	39.8	36.8	47.9	41.0	33.1
D71-9203	40.3	26.4	18.3	40.1	40.8+	45.8	39.4	34.5
D72-7690	32.2-	19.8	16.4-	37.1-	33.0	37.3-	35.0-	27.9
D72-7872	31.2-	26.1	18.7	40.5	38.8	36.2-	34.0-	30.3
D72-7959	35.9	26.6	22.8	43.2	38.0	48.2	42.6	53.3
D72-7962	20.0-	23.0	17.1-	44.7	32.8	39.9-	34.5-	34.3
D72-7984	28.7-	23.5	15.5-	45.0	33.4	40.1-	35.1-	30.0
D72-8122	28.0-	20.7	20.5	39.0	36.5	42.7	36.7	25.2
D72-8145	36.6	16.9-	18.9	42.0	35.7	48.1	45.5	35.1
D72-8150	39.9	20.0	18.2	39.4	43.8+	49.8	44.9	39.1
D72-8549	40.6	27.3	24.2	46.5	38.4	48.0	44.2	32.8
F70-2060	38.3	32.8+	23.1	54.9+	41.0+	45.5	39.6	34.2
F71-1176	41.4	27.6	21.7	49.5	33.8	46.2	46.9	35.8
F71-1180	41.6	31.4+	21.9	49.6	44.6+	50.4	49.3	39.6
F71-1220	36.1	29.4+	24.2	44.2	35.2	45.9	40.4	36.9
F71-1323	35.2	26.9	21.6	40.1	37.4	43.1	36.8	31.4
F71-1368	36.0	22.4	24.5	46.2	39.1+	45.9	42.1	31.8
F71-1500	41.1	22.4	19.1	43.5	33.2	49.9	42.4	34.5
F71-1726	42.4	23.9	25.4	47.3	40.8+	47.5	40.6	32.5
F71-1741	44.4+	23.0	23.6	54.9+	36.8	50.2	42.6	35.0
F71-1743	40.9	20.0	23.9	47.7	39.6+	49.2	31.8-	36.8
La68-4-12	31.2-	27.5	14.3-	43.9	34.2	53.1	39.2	28.5
N72-1014	43.6	28.8+	23.5	48.8	47.7+	49.0	44.8	42.8
N72-1039	41.1	33.1+	21.2	50.3	45.2+	39.2-	33.3-	38.9
N72-3061	48.4+	28.5+	22.4	47.3	42.0+	50.3	39.0	40.2
N72-3167	47.5+	29.6+	24.4	54.5	51.0+	52.3	46.3	40.9
N72-3179	41.8	31.0+	18.6	49.5	45.6+	54.1	37.0	40.2
N72-3181	39.8	23.6	16.6-	45.8	43.2+	43.1	37.1	33.1
N72-3154	50.4+	33.2+	21.7	50.7	48.2+	44.6	48.2	47.0
N72-3213	43.0	27.6	22.3	51.1	42.9+	52.0	44.8	38.0
Ts73-6	19.5-	25.6	10.8-	48.0	34.8	30.4-	19.2-	31.0
Ts73-12	38.8	25.5	21.1	39.4	44.3+	44.5	41.3	35.4
Ts73-36	22.9-	20.0	11.8-	48.0	41.2+	31.6-	35.1-	23.9
Ts73-100	31.2-	22.3	11.8-	41.6	37.6	39.1-	36.7	31.2
L.S.D.(0.5)	5.5	4.7	4.6	8.4	6.8	7.4	9.2	N.S.
C.V.	7%	9%	11%	9%	9%	7%	11%	19%

Table 46. - Oil percentages for the strains in Preliminary Group VII, 1974

Strain	Kinston, N.C.	Blackville, S.C.	Jay, Fla.	Baton Rouge, La.	Stoneville, Miss.(B)	Beaumont, Texas
Bragg	17.7	21.4	20.9	20.9	21.5	19.3
Pickett 71	18.7	21.7	20.5	21.2	20.6	20.8
D71-9002	17.8	21.3	20.2	20.4	20.0	19.5
D71-9203	18.2	19.8	19.5	19.8	19.5	18.9
D72-7690	17.9	21.0	20.5	20.7	19.7	20.7
D72-7872	17.4	20.5	18.3	20.0	19.5	18.8
D72-7959	17.4	20.7	19.5	20.3	19.9	19.1
D72-7962	16.9	20.6	19.5	19.0	19.7	20.0
D72-7984	17.2	20.4	18.6	18.7	18.7	18.8
D72-8122	15.6	18.9	19.0	18.2	19.0	16.9
D72-8145	16.2	16.9	17.4	17.6	18.3	16.7
D72-8150	16.9	18.1	17.4	16.2	18.4	16.9
D72-8549	18.7	21.1	20.3	21.0	20.3	20.7
F70-2060	18.9	21.5	21.2	21.0	21.2	19.7
F71-1176	18.5	20.8	20.7	21.3	20.1	20.0
F71-1180	17.8	21.0	21.0	21.3	20.0	19.8
F71-1220	18.2	19.9	19.9	19.4	19.6	19.5
F71-1323	16.8	18.0	18.3	17.2	19.5	16.9
F71-1368	17.6	19.2	19.9	18.9	19.5	18.7
F71-1500	18.3	21.3	20.0	19.8	20.3	18.7
F71-1726	18.3	20.4	20.4	21.0	19.6	19.6
F71-1741	19.1	20.5	21.1	21.6	20.5	19.7
F71-1743	19.1	21.4	21.8	21.6	20.9	20.5
La68-4-12	17.6	19.9	20.7	20.7	19.6	19.7
N72-1014	19.0	22.3	20.9	22.1	21.4	20.2
N72-1039	17.6	21.0	20.7	20.9	21.6	20.8
N72-3061	19.8	21.1	21.0	21.2	20.1	19.5
N72-3167	21.2	24.5	22.7	23.5	21.8	22.3
N72-3179	18.4	22.5	21.7	21.7	22.1	20.7
N72-3181	18.8	22.9	23.1	23.0	22.1	20.4
N72-3154	18.8	22.2	21.1	21.3	20.5	19.5
N72-3213	19.7	22.1	22.6	21.9	21.2	19.8
Ts73-6	16.8	22.0	20.3	21.5	21.0	19.8
Ts73-12	16.6	18.0	17.7	17.8	18.2	17.5
Ts73-36	17.0	21.0	21.2	20.2	19.2	20.4
Ts73-100	17.6	19.7	20.0	20.0	20.2	19.6

Table 47. - Protein percentages for the strains in Preliminary Group VII, 1974

Strain	Kinston, N.C.	Blackville, S.C.	Jay, Fla.	Baton Rouge, La.	Stoneville, Miss.(B)	Beaumont, Texas
Bragg	42.6	41.2	42.7	44.0	37.6	43.2
Pickett 71	43.0	41.5	42.6	41.3	39.1	41.8
D71-9002	43.8	43.3	45.1	44.4	40.0	44.4
D71-9203	44.5	42.2	45.0	44.3	41.4	44.4
D72-7690	43.5	42.0	44.2	43.0	39.6	43.8
D72-7872	42.0	40.1	43.7	41.5	38.0	43.9
D72-7959	42.3	41.4	43.6	42.7	39.0	43.2
D72-7962	42.9	41.4	43.2	41.8	36.9	43.9
D72-7984	41.9	40.5	43.2	41.5	39.8	44.2
D72-8122	45.8	45.0	45.9	44.7	43.4	46.5
D72-8145	47.1	45.7	46.7	45.5	43.6	46.7
D72-8150	46.4	44.4	47.4	46.6	43.4	46.4
D72-8549	42.8	39.0	43.0	40.9	37.7	41.0
F70-2060	41.6	38.6	41.5	40.7	35.6	41.7
F71-1176	42.5	39.8	42.5	40.4	37.2	43.5
F71-1180	43.3	40.0	42.4	42.5	37.9	42.2
F71-1220	43.3	42.2	44.7	43.4	39.6	43.8
F71-1323	45.7	43.1	46.1	45.9	39.1	45.8
F71-1368	44.5	42.9	44.3	44.8	40.4	44.5
F71-1500	43.0	40.8	43.6	43.6	38.0	43.6
F71-1726	42.8	41.1	43.7	41.9	38.3	42.3
F71-1741	42.5	41.1	43.2	43.0	39.0	42.5
F71-1743	43.1	41.2	42.5	42.0	37.6	42.8
La68-4-12	42.6	39.9	41.8	41.8	37.5	41.2
N72-1014	45.1	43.3	44.2	44.0	40.3	44.0
N72-1039	44.7	43.0	44.4	43.9	38.1	44.2
N72-3061	43.4	42.3	43.5	42.6	40.5	44.0
N72-3167	42.5	40.1	43.0	41.5	38.9	41.2
N72-3179	43.8	40.5	41.7	40.9	36.6	42.4
N72-3181	41.8	38.4	40.7	39.4	36.3	42.4
N72-3154	42.4	40.4	41.4	41.1	38.6	41.9
N72-3213	42.7	39.4	42.6	41.1	38.2	42.4
Ts73-6	44.4	41.3	44.8	43.5	35.9	43.6
Ts73-12	46.6	45.1	47.7	47.9	44.2	45.9
Ts73-36	43.9	41.1	43.3	43.3	38.2	42.3
Ts73-100	44.4	42.1	44.8	44.3	40.3	43.2

Table 48. - Plant height for the strains in Preliminary Group VII, 1974

Strain	Kinston, N.C.	Black-ville-S.C.	Tallas-see, Ala.	Jay, Fla.	Baton Rouge, La.	Stone-ville, Miss.(A)	Stone-ville, Miss.(B)	Beaumont, Texas
Bragg	46	31	46	33	38	41	30	31
Pickett 71	33	16	33	21	25	32	17	28
D71-9002	40	31	41	37	36	45	31	33
D71-9203	41	30	37	28	31	40	27	29
D72-7690	47	43	53	34	40	51	40	39
D72-7872	41	31	47	35	38	41	26	32
D72-7959	44	35	47	37	38	45	30	35
D72-7962	46	36	46	35	42	48	29	31
D72-7984	43	32	41	36	36	42	30	35
D72-8122	35	28	38	35	32	36	26	33
D72-8145	40	28	48	32	38	43	33	33
D72-8150	41	32	42	31	35	44	21	31
D72-8549	41	32	45	34	35	47	33	32
F70-2060	40	33	43	43	38	43	31	33
F71-1176	46	35	48	36	36	45	33	30
F71-1180	47	35	42	31	35	46	31	33
F71-1220	44	28	43	29	34	43	24	25
F71-1323	45	31	44	35	35	49	30	37
F71-1368	44	26	45	29	31	44	32	34
F71-1500	44	26	40	30	28	36	23	27
F71-1726	43	34	43	31	32	42	24	32
F71-1741	43	30	43	30	34	44	27	30
F71-1743	38	23	41	29	29	36	22	26
La68-4-12	47	40	46	40	41	49	31	37
N72-1014	41	27	38	28	30	38	25	27
N72-1039	40	24	36	28	30	39	25	24
N72-3061	34	24	31	23	24	32	20	24
N72-3167	41	30	38	27	28	36	26	26
N72-3179	42	27	39	31	32	42	26	27
N72-3181	41	22	37	32	32	35	26	25
N72-3154	38	25	40	28	29	39	28	27
N72-3213	37	29	32	30	30	36	26	22
Ts73-6	46	50	43	47	48	51	39	43
Ts73-12	47	36	48	38	39	47	32	37
Ts73-36	42	47	42	48	45	52	41	44
Ts73-100	44	37	45	45	43	47	36	41

Table 49. - Seed qulaity scores for the stráins in Preliminary Group VII, 1974

Strain	Kinston, N.C.	Blackville, S.C.	Jay, Fla.	Baton Rouge La.	Stoneville, Miss.(A)	Stoneville, Miss.(B)	Beaumont, Texas
Bragg	1.0	2.0	1.0	2.0	2.0	2.0	2.0
Pickett 71	1.5	2.0	1.0	1.8	2.0	2.0	2.0
D71-9002	1.0	1.0	2.0	2.0	2.0	2.0	2.0
D71-9203	1.5	2.0	1.0	2.2	2.0	2.0	2.0
D72-7690	1.5	2.0	2.0	2.3	2.0	2.0	3.0
D72-7872	1.5	2.0	1.0	1.5	2.0	2.0	2.0
D72-7959	1.5	3.0	1.0	1.5	2.0	2.0	3.0
D72-7962	1.0	2.0	1.0	2.0	2.0	2.0	2.0
D72-7984	1.5	2.0	1.0	1.8	2.0	2.0	3.0
D72-8122	1.5	1.0	2.0	1.8	2.0	2.0	3.0
D72-8145	1.0	1.0	1.0	1.5	2.0	2.0	2.0
D72-8150	1.5	1.0	2.0	1.8	2.0	2.0	2.0
D72-8549	1.0	2.0	1.0	2.0	2.0	2.0	2.0
F70-2060	1.5	1.0	1.0	2.0	2.0	2.0	3.0
F71-1176	1.0	2.0	2.0	2.0	2.0	2.0	2.0
F71-1180	1.0	1.0	1.0	2.1	2.0	2.0	3.0
F71-1220	1.5	2.0	1.0	2.2	2.0	2.0	3.0
F71-1323	1.0	2.0	1.0	1.5	2.0	2.0	2.0
F71-1368	1.5	2.0	2.0	1.5	2.0	2.0	3.0
F71-1500	1.5	2.0	1.0	2.1	2.0	2.0	2.0
F71-1726	1.0	2.0	2.0	2.0	2.0	2.0	2.0
F71-1741	1.5	2.0	2.0	2.0	2.0	2.0	2.0
F71-1743	1.5	2.0	2.0	2.2	2.0	2.0	2.0
La68-4-12	1.5	2.0	2.0	1.8	2.0	2.0	2.0
N72-1014	1.0	2.0	2.0	1.8	2.0	2.0	1.0
N72-1039	1.0	1.0	2.0	2.0	2.0	2.0	1.0
N72-3061	1.0	1.0	1.0	2.0	2.0	2.0	1.0
N72-3167	1.0	2.0	1.0	2.0	2.0	2.0	2.0
N72-3179	1.0	2.0	1.0	2.0	2.0	2.0	2.0
N27-3181	1.5	2.0	1.0	2.0	2.0	2.0	2.0
N72-3154	1.5	2.0	2.0	1.8	2.0	2.0	3.0
N72-3213	1.5	3.0	1.0	2.2	2.0	2.0	3.0
Ts73-6	2.0	3.0	2.0	2.2	2.0	2.0	3.0
Ts73-12	1.0	2.0	1.0	1.8	2.0	2.0	2.0
Ts73-36	1.5	2.0	1.0	2.0	2.0	2.0	1.0
Ts73-100	1.5	2.0	1.0	2.2	2.0	2.0	2.0

UNIFORM GROUP VIII

1974

	Variety or strain	Parentage	Generation composited
1.	Hutton	F55-822 x (Roanoke x CNS-4)	F_6
2.	Cobb	F57-735 x D58-3358	F_6
3.	Coker 338	Hampton 266 x Bragg	F_4
4.	F68-1004	Bragg(3) x D60-7965	F_4
5.	F68-1018	Bragg(3) x D60-7965	F_4
6.	F68-1033	Bragg(3) x D60-7965	F_4
7.	Co71-211	Hampton 266 x Bragg	F_7
8.	Co71-222	Hampton 266 x Bragg subline Coker 338	F_7
9.	F68-2507	Bragg(3) x D60-7965	F_4
10.	F70-2207	D60-9240 x Hardee	F_8
11.	F70-3215	Bragg(3) x D60-7965	F_6
12.	Ts72-6	Bragg x PI 200,492	F_8

Background for strains used as parents:

F55-822 is the parent line of Bragg.

F57-735 is a selection from D49-772 x Improved Pelican which was grown in Unifrom Group VIII.

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

D60-9965 is a high protein selection from D55-4090 (Ogden x CNS) x D55-4159 (Ogden x Biloxi).

D60-9240 is a selection from D49-2491(4) x Barchet.

Twenty-two Uniform Group VIII nurseries were grown. Results are summarized in Tables 50 through 56. Table 50 gives a general summary of agronomic qualities, oil and protein content of the seed, and field reaction to several diseases. Two- and three-year data are reported for seed yield, and oil and protein percentage of the seed.

Phytophthora rot readings were made at Stoneville, root knot nematode ratings were made near Jay, Florida, and downy mildew ratings were made at Beaumont, Texas.

Differences in seed yield among strains were significant at 15 locations. The combined analysis of variance for seed yield showed five strains to have a lower mean yield than Hutton and no strains yielding significantly better. In fact, Hutton had the highest mean yield. The 3-year means of Hutton and Coker 338 were similar. Cobb, which is 5 days later in maturity than Hutton, averaged 1.8 bushel lower in yield on the basis of the 3-year average. Hutton is distinctly superior in resistance to root knot nematodes, *M. incognita,* than Coker 338. Hutton had a lower root knot rating than any of the strains.

Not any of the strains tested had 3-year means greater than Hutton. Co71-211, tested 2 years, had 2-year mean yield lower than Coker 338.

Ts72-6, which is two days later than Cobb, had a mean yield 2.2 bushels higher than Cobb.

Table 50. - General summary of performance for the strains in Uniform Group VIII, 1974

	Hutton	Cobb	Coker 338	F68-1004	F68-1018	F68-1033
Seed Yield - 1974	40.5	36.7-	39.0	36.6-	39.4	37.4-
- 1973-74	40.1	37.9	40.6	38.3	39.9	38.8
- 1972-74	37.5	35.7	37.6	35.9	37.3	36.9
Oil Content - 1974	20.1	21.6+	22.5+	21.3	20.9	21.5
- 1973-74	21.1	22.2	23.4	22.0	21.8	22.2
- 1972-74	21.0	22.4	23.2	22.0	21.8	22.1
Protein Content - 1974	43.3	39.9-	40.9-	41.3-	41.2-	42.1-
- 1973-74	43.2	40.3	41.0	41.4	41.4	42.2
- 1972-74	43.1	40.1	40.9	41.4	41.3	42.1
Seed size	18.4	15.3-	17.2-	14.7-	16.7-	15.9-
Maturity index	10-23	+5	+1	+2	+1	+1
Height	37	41	36	42	41	40
Phytophthora rot	1.0	1.0	2.0	1.0	1.0	1.0
Root knot nematode	1.0	1.8	4.5	2.5	2.3	2.3
Downy mildew	4.0	1.0	2.0	2.0	2.0	2.0
Flower color	P	W	W	W	W	W
Pubescence color	T	G	T	T	T	T
Pod wall color	T	T	Br	T	T	T

Table 50. - (continued)

	Co71-211	Co71-222	F68-2507	F70-2207	F70-3215	Ts72-6
Seed Yield - 1974	39.1	39.1	39.1	34.7-	35.7-	38.9
- 1973-74	39.8					
- 1972-74						
Oil Content - 1974	22.1+	23.1+	20.8	20.6	21.6+	21.4+
- 1973-74	22.7					
- 1972-74						
Protein Content - 1974	39.5-	41.1-	42.5-	41.9-	41.2-	40.0-
- 1973-74	39.8					
- 1972-74						
Seed size	16.5-	18.0	15.7-	15.1-	15.8-	15.2-
Maturity index	0	0	-5	+6	+4	+7
Height	39	32	39	41	41	39
Phytophthora rot	2.5	2.0	1.0	1.0	1.0	1.0
Root knot nematode	2.3	2.7	1.8	2.5	2.0	3.5
Downy mildew	3.0	2.0	2.0	2.0	2.0	1.0
Flower color	W	W	W	W	W	W
Pubescence color	G	T	T	G	T	G
Pod wall color	Br	Br	T	T	T	T

Table 51. - Seed yield, in bushels per acre, for the strains in Uniform Group VIII, 1974

Location	Hutton	Cobb	Coker 338	F68-1004	F68-1018	F68-1033	Co71-211
			South				
Clinton, N.C.	42.9	31.1	39.7	32.0	36.4	31.5	38.8
Florence, S.C.(A)	45.8	39.3	42.1	42.4	43.8	40.2	41.0
Florence, S.C.(B)	21.2	20.9	23.8	22.6	26.3	23.1	27.7
Hartsville, S.C.(A)	40.9	35.4-	39.8	33.1-	36.3-	31.7-	35.5-
Hartsville, S.C.(B)	36.4	29.0-	35.1	28.2-	33.4	31.1-	37.0
Blackville, S.C.(A)	29.5	23.8-	30.0	22.3-	26.6	21.2-	29.8
Blackville, S.C.(B)	17.5	23.4+	21.4+	21.4+	22.6+	22.0+	24.1+
Athens, Ga.	47.0	45.9	42.9	43.1	44.3	42.5	46.2
Clemson, S.C.	47.5	36.6-	37.3-	43.4	43.8	43.3	39.9-
Tallassee, Ala.	26.7	19.3-	24.8	19.1-	25.2	26.3	22.9
Tifton, Ga.	52.2	54.3	45.1-	50.2	53.6	49.0	51.3
Live Oak, Fla.	39.5	43.2	34.5	40.0	37.7	40.4	39.9
Gainesville, Fla.	46.8	42.2	43.1	44.0	47.2	44.8	48.4
Marianna, Fla.	38.5	37.6	34.1-	33.7-	38.6	38.8	33.6-
Quincy, Fla.	43.5	43.1	41.9	41.1	45.0	43.6	38.6-
Jay, Fla.	45.9	41.8	53.5	47.4	50.2	49.2	52.2
Fairhope, Ala.	53.6	53.7	54.9	50.4	51.0	53.9	51.3
Poplarville, Miss.	34.4	43.0+	35.2	32.8	33.2	32.8	39.7
Baton Rouge, La.	51.9	46.6	47.3	41.6	51.6	45.0	50.6
Stoneville, Miss.	46.8	40.1-	47.1	41.2	44.6	45.0	37.7-
Curtis, La.	40.3	37.5	36.9	37.1	34.3	34.5	35.3
Beaumont, Texas	41.6	31.5-	46.7	38.1	42.0	32.8-	38.6
Mean	40.5	36.7-	39.0	36.6-	39.4	37.4-	39.1

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

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

Table 51. - (continued)

Location	Co71-222	F68-2507	F70-2207	F70-3215	Ts72-6	L.S.D. (.05)	C.V. (%)
			South				
Clinton, N.C.	37.7	46.9	27.6	26.3	28.7	9.4	16
Florence, S.C.(A)	45.7	38.3	38.8	40.5	39.7	N.S.	9
Florence, S.C.(B)	25.0	23.4	23.6	21.4	28.7	N.S.	12
Hartsville, S.C.(A)	41.1	41.2	37.3	31.4-	35.1-	4.6	7
Hartsville, S.C.(B)	37.8	36.6	31.2-	26.4-	29.8-	3.1	6
Blackville, S.C.(A)	31.1	26.4	19.4-	27.2	23.8-	4.1	9
Blackville, S.C.(B)	19.7	24.2+	21.3+	23.0+	23.3+	3.0	10
Athens, Ga.	46.4	41.8	36.6	40.4	43.8	N.S.	11
Clemson, S.C.	41.0	47.0	35.1-	45.1	42.7	6.9	10
Tallassee, Ala.	25.1	25.3	18.7-	20.8-	21.8-	4.3	11
Tifton, Ga.	44.5-	50.4	51.2	50.6	59.6+	3.5	4
Live Oak, Fla.	39.5	31.8-	36.5	41.4	47.8+	6.9	10
Gainesville,Fla.	42.6	42.5	37.1	43.2	42.6	5.3	7
Marianna, Fla.	33.9-	37.4	37.1	34.4-	42.1	4.0	6
Quincy, Fla.	45.7	44.1	41.6	41.7	47.7+	2.9	4
Jay, Fla.	48.2	47.9	46.6	46.4	50.4	N.S.	8
Fairhope, Ala.	55.9	54.8	50.5	50.7	55.0	N.S.	4
Poplarville, Miss.	37.7	29.5	30.8	27.4-	31.9	5.4	9
Baton Rouge, La.	43.3	44.4	43.9	42.4	45.8	N.S.	10
Stoneville, Miss.	35.7-	45.5	35.9-	41.1	41.9	5.8	8
Curtis, La.	36.7	38.1	33.8	36.1	35.9	N.S.	8
Beaumont, Texas	46.2	40.2	28.4-	27.6-	38.5	7.4	11
Mean	39.1	39.1	34.7-	35.7-	38.9	1.9	

Table 52. - Chemical composition and seed size for the strains in Uniform Group VIII, 1974

Location	Hutton	Cobb	Coker 338	F68-1004	F68-1018	F68-1033
			Oil Percentage			
Blackville, S.C.	20.0	20.9	22.5	20.4	20.0	20.9
Tifton, Ga.	20.4	22.8	24.5	21.5	21.2	21.9
Live Oak, Fla.	21.0	22.7	22.9	22.6	22.2	23.2
Gainesville, Fla.	20.6	22.5	22.3	22.0	21.8	22.3
Jay, Fla.	20.3	21.6	23.2	21.3	21.0	21.4
Stoneville, Miss.	18.6	19.3	20.7	20.2	19.2	19.7
Baton Rouge, La.	20.7	22.2	23.0	22.4	21.5	21.7
Beaumont, Texas	19.4	20.6	20.6	20.2	20.2	21.1
Mean	20.1	21.6+	22.5+	21.3	20.9	21.5
			Protein Percentage			
Blackville, S.C.	41.9	39.6	39.2	40.1	40.3	40.9
Tifton, Ga.	44.2	40.3	41.5	41.5	41.5	42.7
Live Oak, Fla.	44.0	40.6	42.4	42.1	42.4	42.8
Gainesville, Fla.	44.4	40.4	42.6	41.1	41.8	42.7
Jay, Fla.	44.3	40.2	42.2	42.0	42.3	43.3
Stoneville, Miss.	41.6	38.4	36.6	41.1	39.3	40.8
Baton Rouge, La.	43.0	39.2	41.3	41.2	40.7	41.2
Beaumont, Texas	43.1	40.8	41.2	41.3	41.5	42.2
Mean	43.3	39.9-	40.9-	41.3-	41.2-	42.1-
			Grams per 100 Seeds			
Blackville, S.C.	14.0	12.0	14.0	11.0	13.0	12.0
Tifton, Ga.	20.7	16.9	16.1	15.6	17.7	17.6
Live Oak, Fla.	20.9	16.7	19.4	16.2	18.1	17.9
Gainesville, Fla.	20.8	16.3	20.2	16.4	19.2	17.2
Jay, Fla.	22.0	17.0	20.0	17.0	19.0	18.0
Stoneville, Miss.	16.8	14.0	14.8	13.0	16.1	15.2
Baton Rouge, La.	16.4	15.6	16.3	16.0	17.3	15.8
Beaumont, Texas	15.7	13.5	16.7	12.3	13.5	13.2
Mean	18.4	15.3-	17.2-	14.7-	16.7-	15.9-

Table 52. - (continued)

Location	Co71-211	Co71-222	F68-2507	F70-2207	F70-3215	Ts72-6	L.S.D. (.05)
			Oil Percentage				
Blackville, S.C.	22.3	23.6	20.5	19.9	20.4	20.0	
Tifton, Ga.	21.3	22.7	21.8	19.5	22.1	22.2	
Live Oak, Fla.	23.7	23.7	21.2	21.6	23.0	23.6	
Gainesville, Fla.	23.7	24.7	22.2	22.7	22.7	23.0	
Jay, Fla.	21.6	24.2	20.8	21.1	21.4	21.5	
Stoneville, Miss.	19.6	21.0	18.8	17.9	19.8	19.5	
Baton Rouge, La.	23.3	24.2	21.6	22.5	22.3	21.0	
Beaumont, Texas	21.2	20.7	19.7	19.6	21.0	20.2	
Mean	22.1+	23.1+	20.8	20.6	21.6+	21.4+	0.6
			Protein Percentage				
Blackville, S.C.	38.5	39.5	41.1	41.7	40.2	39.5	
Tifton, Ga.	40.7	42.7	42.3	42.4	41.5	40.0	
Live Oak, Fla.	39.1	43.2	44.2	42.8	42.3	40.5	
Gainesville, Fla.	40.0	42.4	43.8	41.6	41.8	40.4	
Jay, Fla.	41.7	42.0	43.6	42.6	42.5	40.9	
Stoneville, Miss.	36.3	37.2	40.5	40.5	39.4	38.1	
Baton Rouge, La.	39.5	39.8	41.6	40.9	40.4	39.8	
Beaumont, Texas	40.5	42.3	42.5	42.4	41.4	40.4	
Mean	39.5-	41.1-	42.5-	41.9-	41.2-	40.0-	0.7
			Grams per 100 Seeds				
Blackville, S.C.	13.0	15.0	12.0	13.0	12.0	12.0	
Tifton, Ga.	18.4	17.3	16.8	16.3	16.9	16.1	
Live Oak, Fla.	18.2	20.6	19.1	16.5	17.7	17.2	
Gainesville, Fla.	18.1	20.2	17.5	15.6	17.3	16.4	
Jay, Fla.	20.0	21.0	18.0	17.0	18.0	17.0	
Stoneville, Miss.	14.2	16.8	15.0	13.9	14.8	13.6	
Baton Rouge, La.	16.7	17.5	15.1	15.2	15.9	16.6	
Beaumont, Texas	13.4	15.2	12.4	13.1	13.5	12.3	
Mean	16.5-	18.0	15.7-	15.1-	15.8-	15.2-	0.8

Table 53. - Relative maturity, days earlier (-) or later (+) than Hutton, for the strains in Uniform Group VIII, 1974

Location	Date planted	Hutton matured	Cobb	Coker 388	F68-1004	F68-1018
		South				
Blackville, S.C.(A)	5-8	10-26	+4	-1	+1	0
Blackville, S.C.(B)	7-2	10-29	+6	0	+3	+2
Athens, Ga.	5-9	10-18	+10	+1	+3	+2
Clemson, S.C.	5-16	10-25	+6	0	+2	+1
Tallassee, Ala.	5-30	10-27	+8	+6	+7	+4
Tifton, Ga.	5-7	10-22	+8	-5	+3	-1
Gainesville, Fla.	5-29	10-23	+8	+2	+5	+3
Marianna, Fla.	6-12	10-20	+7	+6	+2	0
Quincy, Fla.	6-4	10-21	+8	+5	+1	+2
Jay, Fla.	5-16	10-17	+10	-1	+5	+2
Fairhope, Ala.	5-30	10-21	-7	+1	+1	0
Poplarville, Miss.	5-29	10-15	+3	+1	+3	0
Baton Rouge, La.	5-7	10-25	+6	0	-1	+1
Stoneville, Miss.	5-10	10-29	+5	+1	+2	+3
Curtis, La.	5-8	10-30	+5	+2	+3	+4
Beaumont, Texas	5-18	10-13	-1	-2	-1	0
Mean		10-23	+5	+1	+2	+1

Table 53. - (continued)

Location	F68-1033	Co71-211	Co71-222	F68-2507	F70-2207	F70-3215	Ts72-6
			South				
Blackville, S.C.(A)	+1	+1	0	-2	+3	+3	+4
Blackville, S.C.(B)	+3	-1	0	-2	+5	+4	+4
Athens, Ga.	+2	+2	0	-7	+8	+5	+8
Clemson, S.C.	+3	+2	0	-4	+8	+5	+7
Tallassee, Ala.	+7	+6	+6	-1	+10	+6	+10
Tifton, Ga.	0	-1	-8	-8	+4	+4	+6
Gainesville, Fla.	+2	+2	-1	-5	+7	+6	+5
Marianna, Fla.	+1	+2	+4	-3	+5	+3	+6
Quincy, Fla.	+2	+1	+1	-7	+7	+4	+6
Jay, Fla.	+6	-2	-2	-4	+11	+12	+10
Fairhope, Ala.	+3	-1	-3	-11	+7	+5	+5
Poplarville, Miss.	+3	0	0	-5	+2	+3	+4
Baton Rouge, La.	+1	+2	-3	-5	+6	+2	+11
Stoneville, Miss.	+3	0	+1	-4	+6	+4	+6
Curtis, La.	+5	-2	0	-6	+7	+5	+6
Beaumont, Texas	0	-2	0	-1	0	-2	-2
Mean	+1	0	0	-5	+6	+4	+7

Table 54. - Plant height for the strains in Uniform Group VIII, 1974

Location	Hutton	Cobb	Coker 338	F68-1004	F68-1018	F68-1033
			South			
Clinton, N.C.	42	44	43	48	45	47
Florence, S.C.(A)	38	46	38	48	44	42
Florence, S.C.(B)	34	38	36	38	42	36
Hartsville, S.C.(A)	42	45	42	42	43	45
Hartsville, S.C.(B)	37	39	38	41	41	40
Blackville, S.C.(A)	33	42	35	41	41	40
Blackville, S.C.(B)	22	32	28	33	30	32
Athens, Ga.	40	40	38	45	43	42
Clemson, S.C.	39	40	37	43	41	42
Tallassee, Ala.	43	49	47	51	50	50
Tifton, Ga.	33	43	34	43	38	40
Live Oak, Fla.	36	41	39	41	41	39
Gainesville, Fla.	39	42	37	44	42	42
Marianna, Fla.	32	38	32	37	32	34
Quincy, Fla.	35	41	38	41	41	41
Jay, Fla.	30	42	37	40	38	34
Fairhope, Ala.	42	45	37	46	44	42
Poplarville, Miss.	39	42	38	48	42	30
Baton Rouge, La.	37	41	35	42	40	41
Stoneville, Miss.	39	41	29	43	41	41
Curtis, La.	35	40	29	36	31	32
Beaumont, Texas	36	40	32	34	37	38
Mean	37	41	36	42	41	40

Table 54. - (continued)

Location	Co71-211	Co71-222	F68-2507	F70-2207	F70-3215	Ts72-6
			South			
Clinton, N.C.	45	39	44	44	45	44
Florence, S.C.(A)	42	40	44	46	36	44
Florence, S.C.(B)	40	33	39	40	36	39
Hartsville, S.C.(A)	44	40	47	46	46	43
Hartsville, S.C.(B)	41	38	43	41	40	39
Blackville, S.C.(A)	37	33	38	39	43	38
Blackville, S.C.(B)	31	21	29	31	33	28
Athens, Ga.	38	30	41	39	43	38
Clemson, S.C.	41	35	41	41	44	41
Tallassee, Ala.	48	39	50	50	51	48
Tifton, Ga.	36	29	35	41	40	37
Live Oak, Fla.	40	35	37	38	40	39
Gainesville, Fla.	40	35	36	42	42	38
Marianna, Fla.	36	28	36	36	36	34
Quincy, Fla.	40	30	37	43	42	39
Jay, Fla.	38	25	34	45	40	40
Fairhope, Ala.	45	30	37	46	44	45
Poplarville, Miss.	37	38	40	44	40	40
Baton Rouge, La.	38	29	38	40	40	40
Stoneville, Miss.	36	19	39	39	45	39
Curtis, La.	34	28	29	38	32	35
Beaumont, Texas	34	31	33	40	42	38
Mean	39	32	39	41	41	39

Table 55. - Lodging scores for the strains in Uniform Group VIII, 1974

Location	Hutton	Cobb	Coker 338	F68-1004	F68-1018	F68-1033
			South			
Clinton, N.C.	3.0	3.0	3.0	3.0	3.0	3.0
Florence, S.C.(A)	5.0	3.0	3.0	4.0	4.0	4.0
Florence, S.C.(B)	3.0	2.0	3.0	3.0	3.0	3.0
Hartsville, S.C.(A)	3.8	2.8	3.0	4.0	4.5	3.3
Hartsville, S.C.(B)	3.3	2.8	2.5	3.0	3.3	3.0
Blackville, S.C.(A)	2.0	3.0	2.0	3.0	3.0	3.0
Blackville, S.C.(B)	1.0	1.0	2.0	2.0	2.0	2.0
Athens, Ga.	2.2	2.0	1.1	2.2	2.3	1.8
Clemson, S.C.	2.0	1.8	1.8	2.2	2.5	2.3
Tallassee, Ala.	5.0	3.5	3.7	3.2	4.7	3.7
Tifton, Ga.	2.7	2.3	1.3	3.3	3.3	3.7
Live Oak, Fla.	1.0	2.0	2.0	2.5	3.0	2.0
Gainesville, Fla.	1.0	2.0	1.0	2.5	2.5	2.5
Marianna, Fla.	2.0	2.0	3.0	2.0	2.0	3.0
Quincy, Fla.	1.0	2.0	1.0	1.0	1.0	2.0
Jay, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	2.3	3.7	2.3	3.0	2.7	2.7
Poplarville, Miss.	1.3	1.3	1.3	2.3	2.7	2.0
Baton Rouge, La.	1.5	3.0	2.0	3.5	3.8	2.0
Stoneville, Miss.	2.0	2.3	2.0	2.7	2.7	3.0
Curtis, La.	2.5	3.0	2.0	2.5	3.0	2.3
Beaumont, Texas	2.0	1.0	1.0	4.0	4.0	1.0

Table 55 - (continued)

Location	Co71-211	Co71-222	F68-2507	F70-2207	F70-3215	Ts72-6
			South			
Clinton, N.C.	3.3	3.3	2.7	3.0	3.0	3.0
Florence, S.C.	5.0	3.0	4.0	3.0	5.0	4.0
Florence, S.C.(B)	3.0	3.0	2.0	1.0	3.0	1.0
Hartsville, S.C.(A)	3.8	2.8	3.2	3.0	4.1	2.9
Hartsville, S.C.(B)	3.2	2.7	2.5	3.2	3.7	3.5
Blackville, S.C.(A)	4.0	2.0	2.0	3.0	3.0	3.0
Blackville, S.C.(B)	2.0	1.0	1.0	2.0	2.0	1.0
Athens, Ga.	1.8	1.1	1.7	1.3	2.5	1.7
Clemson, S.C.	2.3	2.0	2.0	2.0	2.5	1.7
Tallassee, Ala.	3.5	1.8	4.0	3.2	4.0	3.6
Tifton, Ga.	2.3	1.0	1.7	3.3	3.7	2.7
Live Oak, Fla.	3.5	1.5	2.0	2.5	2.5	2.0
Gainesville, Fla.	2.0	1.0	1.0	3.0	2.5	2.0
Marianna, Fla.	3.0	2.0	2.0	2.0	3.0	2.0
Quincy, Fla.	1.0	1.0	1.0	2.0	2.0	2.0
Jay, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	3.3	1.3	2.3	4.0	4.7	2.7
Poplarville, Miss.	2.0	1.0	1.3	1.7	3.0	1.7
Baton Rouge, La.	2.5	1.0	1.0	2.5	3.8	2.8
Stoneville, Miss.	2.0	2.0	2.0	2.7	3.0	2.7
Curtis, La.	2.3	1.5	2.0	2.0	3.5	3.0
Beaumont, Texas	2.0	1.0	1.0	1.0	4.0	2.0

Table 56. - Seed quality scores for the strains in Unifrom Group VIII, 1974

Location	Hutton	Cobb	Coker 338	F68-1004	F68-1018	F68-1033
			South			
Clinton, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
Blackville, S.C. (A)	1.0	2.0	2.0	2.0	3.0	3.0
Blackville, S.C. (B)	3.0	2.0	1.0	2.0	3.0	3.0
Athens, Ga.	1.2	1.0	1.3	1.2	1.7	1.5
Tallassee, Ala.	2.0	2.0	2.0	2.0	2.0	2.0
Tifton, Ga.	1.8	2.0	1.8	2.0	2.0	2.0
Live Oak, Fla.	2.0	1.5	2.5	2.0	1.5	2.0
Gainesville, Fla.	1.5	1.5	2.0	1.0	1.0	1.0
Quincy, Fla.	2.0	1.0	2.0	1.0	2.0	2.0
Jay, Fla.	2.0	2.0	2.0	2.0	2.0	2.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	2.2	1.5	2.0	2.0	1.8	1.5
Stoneville, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
Curtis, La.	1.0	1.0	1.0	1.0	1.0	1.3
Beaumont, Texas	2.0	2.0	2.0	3.0	1.0	1.0

Table 56. - (continued)

Location	Co71-211	Co71-222	F68-2507	F70-2207	F70-3215	Ts72-6
			South			
Clinton, N.C.	1.0	1.0	1.0	1.0	1.0	1.0
Blackville, S.C.(A)	2.0	2.0	2.0	1.0	3.0	1.0
Blackville, S.C.(B)	3.0	2.0	2.0	2.0	3.0	2.0
Athens, Ga.	1.5	1.2	1.5	1.0	2.0	1.3
Tallassee, Ala.	2.0	2.0	1.0	1.0	2.0	2.0
Tifton, Ga.	2.0	2.0	2.0	2.0	2.0	2.0
Live Oak, Fla.	2.5	2.5	2.5	1.5	1.5	1.5
Gainesville, Fla.	2.0	2.0	1.5	1.0	1.0	1.5
Quincy, Fla.	1.0	2.0	1.0	2.0	2.0	1.0
Jay, Fla.	2.0	2.0	3.0	1.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	1.5	1.8	1.8	1.8	2.2	2.0
Stoneville, Miss.	2.0	2.0	2.0	2.0	2.0	2.0
Curtis, La.	1.0	1.0	1.0	1.0	2.0	1.0
Beaumont, Texas	3.0	3.0	3.0	2.0	3.0	3.0

PRELIMINARY GROUP VIII

1974

Preliminary Group VIII nurseries, including 34 experimental strains and the check varieties Hutton and Cobb, were grown at seven locations. The parentage of these strains is reported in Table 57. Performance data are summarized in Tables 58-63. Differences among strains for seed yield were significant at six locations. The combined analysis of variance for seed yield showed differences among strains to be significant.

Four strains ranked above Hutton in mean seed yield. Seven strains had mean seed yields significantly lower than Hutton. Cobb averaged nine days later than Hutton. There were no strains as late in maturity as Cobb.

F61-1648 suffered severely from phytophthora rot at Stoneville, Few, if any, of the other strains carry major genes for resistance to phytophthora rot. However, several produced excellent seed yields.

Nine strains appeared moderately resistant to root knot nematodes.

Strains which appear to merit further testing would include Co71-221, Co72-286, Co-73-476, F70-2060, F70-3380, F71-1004, GA70-163, and Ts73-16.

Table 57. - Parentage of strains in Preliminary Group VIII, 1974

	Variety or strain	Parentage	Generation composited
1.	Hutton		
2.	Cobb		
3.	Co71-221	Hampton 266 x Bragg (subline Co338)	F_7
4.	Co71-245	Hampton 266 x D60-8107	F_4
5.	Co72-280	Hampton 266 x Hutton	F_4
6.	Co72-286	Hampton 266 x Bragg	F_6
7.	Co72-287	Hampton 266 x Bragg	F_6
8.	Co72-322	(Hampton 266 x D60-8107) x (Co208 x N60-5174)	F_4
9.	Co72-328	(Jackson x Hampton) x (Hampton x Bethel)	F_5
10.	Co73-476	Hampton 266 x Bragg	F_7
11.	F70-1456	Bragg(3) x D60-7965	F_6
12.	F70-1467	Bragg(3) x D60-7965	F_6
13.	F70-1850	Bragg x D61-3498	F_8
14.	F70-2060	F62-2753 x D62-3286	F_7
15.	F70-2595	(Hardee x D60-9647) x (Bragg x F59-2496)	F_7
16.	F70-3147	Bragg x Semmes	F_8
17.	F70-3214	Bragg(3) x D60-7965	F_6
18.	F70-3324	F63-3999 x Hutton	F_4
19.	F70-3336	F63-3999 x Hutton	F_4
20.	F70-3374	F63-3999 x Hutton	F_4
21.	F70-3380	F63-3999 x Hutton	F_4
22.	F71-1004	Bragg(2) x D60-7965	F_7
23.	F71-1144	Bragg(3) x D60-7965	F_6
24.	F71-1357	Bragg(3) x D60-7965	F_6
25.	F71-1375	Bragg(3) x D60-7965	F_6
26.	F71-1606	F61-3118 x (Bragg(2) x F59-2496)	F_5
27.	F71-1648	F61-3118 x (Bragg(2) x F59-2496)	F_5
28.	F72-4046	F61-3118 x (Bragg(2) x F59-2496)	F_6
29.	Ga70-163	Davis x Lee	F_4
30.	Ga71-60	Jackson x Hood	F_4
31.	Ga71-63	Jackson x Hood	F_4
32.	Ga71-74	Davis x Ga59-871	F_4
33.	Ts73-15	N66-1136 x Ransom	F_4
34.	Ts73-16	Semmes x PI 200,492	F_8
35.	Ts73-101	D64-4716 x Hardee	F_6
36.	Ts73-102	Hood x Semmes	F_7

Table 58. - General summary of performance for the strains in Preliminary Group VIII, 1974

Strain	Seed yield	Mat. index	Ht.	Percentage Oil	Percentage Protein	P.R.	R.K.	D.M.
Hutton	40.6	10-22	35	19.9	43.5	1.0	1.3	2.0
Cobb	36.4	+9	39	21.1+	40.0-	1.0	1.8	2.0
Co71-221	41.6	+2	36	22.0+	40.8-	1.0	3.8	2.0
Co71-245	39.8	+3	35	20.6	40.9-	1.0	3.3	4.0
Co72-280	38.3	+2	39	20.5	42.5-	1.0	3.3	2.0
Co72-286	40.6	+1	42	22.0+	40.4-	2.0	3.0	3.0
Co72-287	39.5	+1	43	21.9	40.7-	1.0	4.0	4.0
Co72-322	37.3	0	40	19.8	43.8	2.0	4.5	1.0
Co72-328	36.5	+1	33	21.2+	40.1-	2.0	3.8	1.0
Co73-476	40.7	+1	30	22.8+	41.6-	2.0	4.5	2.0
F70-1456	39.5	-1	38	20.5	42.6-	1.0	2.8	2.0
F70-1467	38.5	0	34	20.4	41.9-	1.0	2.3	3.0
F70-1850	37.0	-3	41	20.1	41.8-	1.0	1.8	3.0
F70-2060	42.2	-2	35	21.4+	40.0-	1.0	2.0	3.0
F70-2595	39.5	-1	35	20.4	43.0	1.0	2.8	3.0
F70-3147	36.0	-2	37	20.8	41.7-	1.0	2.3	4.0
F70-3214	38.9	0	36	21.0+	41.2-	1.0	3.0	2.0
F70-3324	38.4	0	35	19.6	44.0	1.0	2.5	2.0
F70-3336	39.1	-2	39	19.5	43.9	1.0	3.3	4.0
F70-3374	39.8	-1	37	19.3	43.3	1.0	2.0	2.0
F70-3380	39.3	0	37	19.4	43.5	1.0	1.0	3.0
F71-1004	40.6	+1	35	19.9	41.7-	1.0	1.8	3.0
F71-1144	38.8	0	36	20.9+	41.7-	1.0	2.0	3.0
F71-1357	38.0	0	41	20.7	42.5-	1.0	1.5	3.0
F71-1375	37.1	0	41	20.7	43.5	1.0	1.3	2.0
F71-1606	33.7-	+4	49	20.8	41.4-	1.0	1.0	1.0
F71-1648	26.3-	+5	43	19.9	41.8-	5.0	0.5	3.0
F72-4046	33.0-	+1	45	19.8	42.9	1.0	1.3	2.0
Ga70-163	40.8	-2	36	21.2+	42.9	1.0	3.0	1.0
Ga71-60	35.2-	-2	34	21.6+	40.8-	2.0	2.8	1.0
Ga71-63	38.1	-3	27	22.1+	39.2-	2.0	2.0	1.0
Ga71-74	34.7-	+2	44	20.0	43.0	1.0	4.0	2.0
Ts73-15	38.3	+5	37	21.2+	39.8-	1.0	3.3	2.0
Ts73-16	40.1	+3	37	20.8	40.0-	1.0	3.8	1.0
Ts73-101	33.1-	+1	42	19.8	43.6	1.0	4.5	2.0
Ts73-102	33.2-	+3	44	19.9	43.2	1.0	3.8	3.0
L.S.D.(.05)	4.8			1.0	0.9			
L.S.D.(.01)	6.3			1.3	1.2			

Table 59. - Seed yield, in bushels per acre, for the strains in Preliminary Group VIII, 1974

Strain	Black-ville, S.C.	Live Oak, Fla.	Gaines-ville, Fla.	Quincy, Fla.	Jay, Fla.	Beaumont, Texas	Stone ville, Miss.
Hutton	22.9	31.3	49.2	44.4	48.8	41.9	45.8
Cobb	22.0	40.6	49.7	35.2-	39.0	28.4-	40.0
Co71-221	23.4	33.3	50.0	38.5-	56.7	42.2	47.3
Co71-245	20.1	44.8	40.7-	40.5	48.8	34.9	48.8
Co72-280	21.4	38.9	45.6	36.9-	46.9	38.5	40.2
Co72-286	23.0	43.6	43.7	39.4	53.4	38.9	42.2
Co72-287	23.6	38.8	46.8	35.0-	49.2	40.3	42.9
Co72-322	21.6	40.0	41.0	37.6-	44.3	36.3	40.2
Co72-328	23.0	37.4	40.8-	41.0	50.7	28.1-	34.5-
Co73-476	24.6	34.7	45.2	41.3	56.3	36.9	45.0
F70-1456	22.9	34.0	46.3	40.6	46.5	38.4	48.3
F70-1467	15.6-	31.7	48.0	43.1	54.1	28.6-	48.7
F70-1850	22.4	29.6	51.9	44.4	38.2-	30.4-	42.4
F70-2060	19.0	39.2	54.1	47.1	52.9	37.9	45.5
F70-2595	21.2	43.5	48.3	40.6	45.4	32.5-	45.4
F70-3147	21.9	34.0	44.7	38.3-	43.9	29.1-	40.1
F70-3214	21.4	35.2	52.3	39.3-	49.2	33.0-	41.8
F70-3324	17.1-	31.7	49.8	42.8	41.6	40.1	46.0
F70-3336	19.3	39.1	50.5	44.1	50.3	24.9-	45.9
F70-3374	21.2	35.7	49.1	47.7	48.0	32.7-	44.6
F70-3380	22.6	39.0	48.4	44.1	49.6	30.1-	41.7
F71-1004	24.7	38.5	43.6	45.9	52.6	36.3	42.8
F71-1144	23.6	35.2	46.0	41.0	45.0	32.5-	48.6
F71-1357	24.2	39.7	47.4	42.4	42.0	28.5-	41.8
F71-1375	21.2	34.5	48.0	38.9-	43.9	28.8-	44.6
F71-1606	23.0	27.3	46.6	34.9-	35.9-	32.5-	35.9-
F71-1648	22.8	32.5	39.4-	29.7-	32.5-	24.3-	3.0-
F72-4046	21.9	32.5	42.8	34.0-	36.3-	30.9-	32.9-
Ga70-163	22.3	36.5	49.9	48.4	47.3	39.8	41.7
Ga71-60	17.2-	31.6	42.3	43.3	44.3	29.4-	38.7-
Ga71-63	21.8	44.7	47.4	47.2	45.8	32.0-	28.2-
Ga71-74	26.2	37.9	36.6-	37.8-	34.5-	34.9	35.2-
Ts73-15	23.5	36.3	47.5	41.5	49.2	35.0	35.0-
Ts73-16	23.4	42.0	39.5-	43.5	44.3	42.7	45.4
Ts73-101	17.8-	33.6	35.5-	39.0-	36.3-	34.7	35.0-
Ts73-102	14.8-	32.3	38.1-	37.7-	40.5	36.0	33.1-
L.S.D.(.05)	4.6	N.S.	8.4	5.1	10.5	7.5	6.7
C.V.	11%	13%	9%	6%	11%	11%	8%

Table 60 - Oil percentages for the strains in Preliminary Group VIII, 1974

Strain	Blackville, S.C.	Gainesville, Fla.	Jay, Fla.	Beaumont, Texas	Stoneville, Miss.
Hutton	18.7	21.3	21.5	19.5	18.4
Cobb	19.9	23.3	22.9	19.7	19.7
Co71-221	20.5	23.7	23.1	22.0	20.8
Co71-245	20.1	21.3	21.8	20.6	19.4
Co72-280	19.0	22.0	21.3	20.4	19.8
Co72-286	19.1	23.0	24.7	22.7	20.7
Co72-287	18.4	22.6	24.6	23.1	20.8
Co72-322	18.5	21.2	20.2	19.4	19.5
Co72-328	18.3	23.4	22.8	20.9	20.6
Co73-476	19.9	25.0	24.9	22.2	22.1
F70-1456	18.3	22.0	22.0	20.8	19.5
F70-1467	18.2	23.2	21.2	20.3	19.3
F70-1850	18.5	22.3	19.9	19.0	20.9
F70-2060	19.8	24.2	21.1	20.3	21.4
F70-2595	18.1	21.7	21.6	19.9	20.3
F70-3147	19.8	22.5	21.6	20.2	19.9
F70-3214	19.0	22.9	21.8	20.3	20.8
F70-3324	18.4	21.6	20.1	19.1	18.8
F70-3336	19.1	21.0	19.0	18.5	19.8
F70-3374	18.8	21.1	19.2	19.1	18.5
F70-3380	18.8	19.7	19.7	19.3	19.6
F71-1004	18.5	21.3	20.2	19.8	19.5
F71-1144	19.9	22.5	22.2	20.1	19.8
F71-1357	19.6	22.9	21.4	19.8	19.6
F71-1375	20.2	22.0	21.9	19.5	19.8
F71-1606	19.3	22.4	22.1	20.5	19.6
F71-1648	19.5	21.4	19.8	18.6	20.4
F72-4046	17.7	21.5	20.6	19.9	19.4
Ga70-163	19.3	23.1	23.3	20.4	20.0
Ga71-60	19.1	24.1	23.4	20.1	21.1
Ga71-63	21.6	25.0	24.1	20.0	19.7
Ga71-74	19.0	21.4	21.7	18.9	19.1
Ts73-15	20.6	22.7	21.9	20.3	20.4
Ts73-16	19.3	23.3	21.8	19.7	19.9
Ts73-101	18.6	20.8	20.0	20.2	19.4
Ts73-102	19.0	21.6	20.1	19.8	19.0

Table 61. - Protein percentages for the strains in Preliminary Group VIII, 1974

Strain	Blackville, S.C.	Gainesville, Fla.	Jay, Fla.	Beaumont, Texas	Stoneville, Miss.
Hutton	43.7	44.0	44.1	44.2	41.7
Cobb	40.1	39.7	40.1	42.0	38.0
Co71-221	41.4	41.7	42.3	40.9	37.5
Co71-245	41.6	41.7	41.1	42.0	38.3
Co72-280	43.0	43.5	42.9	42.8	40.2
Co72-286	40.7	42.4	40.9	41.1	36.9
Co72-287	41.8	42.5	41.3	39.6	38.5
Co72-322	44.1	44.9	45.2	44.2	40.4
Co72-328	41.7	40.4	40.3	41.1	37.0
Co73-476	42.1	43.1	42.5	42.3	38.2
F70-1456	43.1	43.6	42.7	42.1	41.4
F70-1467	42.2	42.4	42.8	42.2	39.9
F70-1850	41.7	41.8	44.0	42.6	38.9
F70-2060	40.2	39.8	41.7	41.6	36.7
F70-2595	43.5	43.2	42.8	43.8	41.5
F70-3147	41.8	42.1	42.3	42.1	40.1
F70-3214	42.5	42.0	41.5	41.9	38.3
F70-3324	44.3	45.2	44.3	44.7	41.6
F70-3336	44.4	45.0	45.0	44.4	40.6
F70-3374	43.7	43.9	44.4	43.4	41.0
F70-3380	43.6	44.9	45.0	43.8	40.3
F71-1004	41.8	42.5	42.1	42.1	40.0
F71-1144	42.1	43.3	42.2	42.5	38.6
F71-1357	41.9	43.5	43.8	43.2	40.3
F71-1375	43.6	44.1	44.2	44.3	41.1
F71-1606	42.6	41.9	42.9	42.1	37.7
F71-1648	42.4	42.9	44.8	43.0	36.0
F72-4046	43.4	44.1	44.1	43.1	39.7
Ga70-163	43.0	42.9	43.6	43.9	40.9
Ga71-60	40.8	41.4	42.0	42.8	36.9
Ga71-63	39.9	38.8	38.8	40.9	37.6
Ga71-74	43.8	44.7	42.7	43.6	40.4
Ts73-15	40.1	40.4	41.0	39.9	37.8
Ts73-16	40.1	40.0	41.2	40.6	37.9
Ts73-101	43.1	45.3	45.1	42.5	41.8
Ts73-102	43.0	43.9	44.7	43.6	40.6

Table 62. - Plant height for the strains in Preliminary Group VIII, 1974

Strain	Black-ville, S.C.	Live Oak, Fla.	Gaines-ville, Fla.	Quincy, Fla.	Jay, Fla.	Beaumont, Texas	Stone-ville, Miss.
Hutton	26	39	38	36	32	31	42
Cobb	28	41	41	39	40	38	44
Co71-221	28	39	38	40	36	33	35
Co71-245	22	37	37	37	38	35	37
Co72-280	34	40	39	40	40	35	43
Co72-286	29	47	46	45	41	36	47
Co72-287	35	46	48	45	45	38	44
Co72-322	32	41	41	43	42	34	47
Co72-328	29	36	31	41	30	30	31
Co73-476	24	36	32	34	33	27	24
F70-1456	35	42	39	40	37	33	38
F70-1467	27	39	36	39	30	32	33
F70-1850	34	47	42	41	39	38	43
F70-2060	26	38	39	38	37	30	38
F70-2595	25	37	39	35	40	30	41
F70-3147	27	40	42	40	37	33	43
F70-3214	27	42	40	40	37	32	37
F70-3324	26	37	39	38	28	33	43
F70-3336	29	40	43	40	37	38	47
F70-3374	29	40	39	38	30	36	45
F70-3380	26	38	41	40	32	36	43
F71-1004	28	38	38	37	32	35	38
F71-1144	25	40	40	41	34	33	40
F71-1357	31	41	45	42	40	38	49
F71-1375	31	40	44	45	38	35	52
F71-1606	39	52	51	50	50	46	57
F71-1648	35	45	46	46	45	44	38
F72-4046	35	44	48	46	47	44	52
Ga70-163	28	39	38	34	46	30	38
Ga71-60	24	38	34	41	34	30	34
Ga71-63	21	32	28	29	27	24	26
Ga71-74	38	40	45	46	38	45	54
Ts73-15	28	37	38	40	35	37	43
Ts73-16	26	38	39	38	40	37	44
Ts73-101	30	39	43	42	44	45	50
Ts73-102	28	44	43	42	54	43	50

Table 63. - Seed quality scores for the strains in Preliminary Group VIII, 1974

Strain	Black-ville, S.C.	Live Oak, Fla.	Gaines-ville, Fla.	Quincy, Fla.	Jay, Fla.	Beaumont, Texas	Stone-ville, Miss.
Hutton	1.0	1.5	1.0	1.0	2.0	1.0	2.0
Cobb	2.0	1.0	1.0	1.0	1.0	2.0	2.0
Co71-221	2.0	2.0	2.0	3.0	2.0	2.0	2.0
Co71-245	2.0	1.5	1.5	1.0	2.0	2.0	2.0
Co72-280	1.0	1.5	1.5	3.0	2.0	2.0	2.0
Co72-286	2.0	2.0	2.0	1.0	2.0	3.0	2.0
Co72-287	2.0	2.0	2.0	1.0	2.0	2.0	2.0
Co72-322	2.0	2.0	1.5	2.0	2.0	2.0	2.0
Co72-328	2.0	2.0	1.5	2.0	3.0	3.0	2.0
Co73-476	2.0	2.0	1.5	3.0	2.0	4.0	2.0
F70-1456	1.0	1.5	1.5	1.0	2.0	2.0	2.0
F70-1467	1.0	2.5	1.5	2.0	1.0	3.0	2.0
F70-1850	1.0	2.0	1.0	2.0	3.0	3.0	2.0
F70-2060	1.0	1.5	1.0	1.0	1.0	2.0	2.0
F70-2595	3.0	1.0	1.0	2.0	2.0	2.0	2.0
F70-3147	2.0	1.5	1.0	2.0	2.0	2.0	2.0
F70-3214	2.0	2.0	1.0	2.0	2.0	3.0	2.0
F70-3324	2.0	2.0	1.5	2.0	2.0	3.0	2.0
F70-3336	2.0	1.5	1.0	2.0	2.0	3.0	2.0
F70-3374	2.0	1.0	1.0	1.0	2.0	3.0	2.0
F70-3380	2.0	1.0	1.0	1.0	2.0	3.0	2.0
F71-1004	2.0	2.0	1.0	2.0	1.0	3.0	2.0
F71-1144	3.0	2.5	1.5	2.0	1.0	3.0	2.0
F71-1357	2.0	1.5	1.0	1.0	2.0	3.0	1.5
F71-1375	2.0	1.0	1.0	2.0	2.0	3.0	2.0
F71-1606	2.0	2.0	1.0	2.0	1.0	3.0	2.0
F71-1648	1.0	2.0	1.0	3.0	1.0	2.0	2.0
F72-4046	2.0	2.0	1.5	2.0	2.0	2.0	2.0
Ga70-163	1.0	1.0	1.0	1.0	1.0	2.0	2.0
Ga71-60	2.0	1.5	1.0	1.0	1.0	2.0	2.0
Ga71-63	2.0	1.5	1.5	1.0	2.0	1.0	2.0
Ga71-74	1.0	2.0	1.5	1.0	2.0	2.0	2.0
Ts73-15	2.0	1.0	1.0	2.0	1.0	2.0	2.0
Ts73-16	2.0	1.0	1.0	2.0	2.0	2.0	2.0
Ts73-101	3.0	2.0	1.5	2.0	3.0	3.0	2.0
Ts73-102	4.0	1.5	1.0	2.0	2.0	2.0	2.0