

U. S. REGIONAL SOYBEAN LABORATORY
URBANA, ILLINOIS

RESULTS OF
THE COOPERATIVE UNIFORM
SOYBEAN TESTS, 1954
PART II. SOUTHERN STATES

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

MARCH, 1955
RSLM 175

"NOT FOR PUBLICATION - THIS IS A PROGRESS REPORT OF COOPERATIVE INVESTIGATIONS CONTAINING DATA THE INTERPRETATION OF WHICH MAY BE MODIFIED WITH ADDITIONAL EXPERIMENTATION. PUBLICATION, DISPLAY OR DISTRIBUTION OF ANY DATA OR ANY STATEMENTS HEREIN IS PROHIBITED WITHOUT PRIOR WRITTEN APPROVAL OF THE FIELD CROPS RESEARCH BRANCH, ARS, USDA, AND THE COOPERATING AGENCY OR AGENCIES CONCERNED."

RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS

PART II. SOUTHERN STATES

1954

Compiled by

Edgar E. Hartwig, Kuell Hinson, and Elaine Bounds^{1/}

From data supplied by:

R. C. Leffel, Maryland	R. W. Lipscomb, Marianna, Florida
G. D. Jones, Orange Virginia	T. E. Webb, Quincy, Florida
H. M. Camper, Warsaw, Virginia	Dick Lundy, Milton Florida
A. V. Watts, Norfolk, Virginia	R. L. Smith, Atmore, Alabama
M. T. Carter, Petersburg, Virginia	J. F. O'Kelly, State College, Miss.
Morris W. Alexander, Holland, Virginia	E. E. Hartwig, Stoneville, Miss.
C. A. Brim, North Carolina	L. F. Williams, Sikeston, Missouri
E. B. Eskew, South Carolina	Wallace Williams, Clarkedale, Ark.
H. W. Webb, Hartsville, South Carolina	J. L. Dameron, Marianna, Arkansas
U. R. Gore, Experiment, Georgia	P. E. Smith, Fayetteville, Arkansas
J. L. Stephens, Tifton, Georgia	John Gray, Baton Rouge, Louisiana
J. K. Boseck, Belle Mina, Alabama	J. A. Hendrix, St. Joseph, Louisiana
J. W. Langford, Tallassee, Alabama	J. Y. Oakes, Curtis, Louisiana
V. L. Brown, Camden, Alabama	Ralph Matlock, Oklahoma
Otto Brown, Fairhope, Alabama	Pat Rich, Denton, Texas
I. M. Wofford, Gainesville, Florida	John Box, Lubbock, Texas
R. W. Ruprecht, Sanford, Florida	J. R. Quinby, Chillicothe, Texas

TABLE OF CONTENTS

Cooperating Personnel	2
Introduction.	4
Location of Nurseries	6
Methods	8
Uniform Test, Group IV.	10
Uniform Test, Group V	28
Uniform Test, Group VI.	46
Uniform Test, Group VII	68
Uniform Test, Group VIII.	89

NOT FOR PUBLICATION

^{1/}Agronomist, Geneticist, and Clerk-Stenographer, respectively.

COOPERATING AGENCIES AND PERSONNEL
FOR THE
SOUTHERN REGION

Forage and Range Section, Beltsville, Maryland

D. F. Beard, Agronomist in Charge
Herbert W. Johnson, Agronomist
Project Leader
K. W. Kreitlow, Pathologist
Project Leader for Disease Investigations

Laboratory Headquarters, Urbana, Illinois

J. L. Cartter, Agronomist, Director
F. I. Collins, O. A. Krober - Chemists

Southern Region, Headquarters, Stoneville, Mississippi

E. E. Hartwig, Agronomist and Coordinator
R. A. Kilpatrick, Pathologist
Elaine Bounds, Clerk-Stenographer
C. J. Edwards, Jr., Agricultural Aid
Pat Butler, Agricultural Aid^{1/}

Raleigh, North Carolina

C. A. Brim, Agronomist
Clifford Elledge, Agricultural Aid^{2/}
S. G. Lehman, Pathologist^{2/}
C. B. Skotland, Pathologist^{1/}

Gainesville, Florida

Kuell Hinson, Geneticist

^{1/}Part-time state employee.

^{2/}Full-time state employee.

State Collaborators in the Southern Region

Alabama Agricultural Experiment Station
Agronomy Department: P. B. Gibson

Arkansas Agricultural Experiment Station
Agronomy Department: P. E. Smith

Georgia Agricultural Experiment Station
Agronomy Department: H. B. Harris

Florida Agricultural Experiment Station
Agronomy Department: R. L. Smith

Louisiana Agricultural Experiment Station
Agronomy Department: J. P. Gray

Mississippi Agricultural Experiment Station
Agronomy Department: J. F. O'Kelly

North Carolina Agricultural Experiment Station
Agronomy Department: C. A. Brim

Oklahoma Agricultural Experiment Station
Agronomy Department: Ralph Matlock

South Carolina Agricultural Experiment Station
Agronomy Department: W. R. Paden

Tennessee Agricultural Experiment Station
Agronomy Department: L. N. Skold

Texas Agricultural Experiment Station
Agronomy Department: E. C. Bashaw

Virginia Agricultural Experiment Station
Agronomy Department: T. J. Smith

Introduction

The program of the U. S. Regional Soybean Laboratory has been directed toward the development of improved strains of soybeans and the obtaining of fundamental information necessary to the efficient breeding of strains to meet specific needs. In the Southern Region, fundamental studies and breeding programs are conducted at the two research centers, Stoneville, Mississippi, and Raleigh, North Carolina. A new location, Gainesville, Florida, is being added for breeding and genetic studies. After promising new strains are developed at these breeding centers, they are advanced to the uniform regional tests, conducted in cooperation with the 12 southeastern states. This testing program enables the breeder to evaluate new strains under a wide variety of conditions, and permits new strains to be put into production in a minimum amount of time.

Nine uniform test groups have been established to evaluate the better strains developed in the breeding programs. The Groups O through IV are adapted in the northern part of the United States, and the Groups IV through VIII are grown in the southern part. Within their area of adaptation, there is a maturity range of 12 to 18 days within each maturity class. The best standard variety available of each maturity class is used as a check variety with which to compare new strains as to seed yield, chemical composition, maturity, height, lodging, and seed quality. For the groups grown in the southern area, the check varieties are Perry, Dorman, Ogden, Jackson, and Improved Pelican. At Stoneville, Mississippi, where all maturity classes will mature, the approximate maturity dates of these varieties when planted during the first half of May are: Perry, September 6; Dorman, September 20; Ogden, October 10; Jackson, October 25; and Improved Pelican, November 8.

A wide range of soil and climatic conditions exist in the region. As an aid in recognizing regional adaptation, the region has been subdivided into five rather broad areas which still represent a wide range of soil types. These are: (1) the East Coast, consisting of the Coastal Plain and Tidewater areas of the Eastern Shore of Maryland, Virginia, North Carolina, and the upper half of South Carolina; (2) the Southeast, consisting primarily of the Coastal Plain soils of the Gulf Coast area, but also including similar soils from South Carolina southward; (3) the Upper and Central South, including the Piedmont and loessal hill soils east of the Mississippi River; (4) the Delta area, composed of the alluvial soils along the Mississippi River from southern Missouri, southward, and (5) the Southwest, comprising Arkansas and Louisiana, outside the Delta, and Oklahoma and Texas. In the Southwest area, most of the potential soybean-growing areas are on the alluvial river valley soils. A map is included to illustrate the five production areas.

On nearly all of the Coastal Plain, Piedmont, and loessal soils, fertilization is essential for satisfactory soybean production. A table showing soil types and rate of fertilization is included.

LOCATIONS OF COOPERATIVE UNIFORM SOYBEAN TESTS,

SOUTHERN STATES

The map illustrates the locations of Cooperative Uniform Soybean Tests across the Southern States. Key locations marked include:

- Lubbock**
- Chillicothe**
- Tishomingo**
- Stillwater**
- South Coffeyville**
- Fayetteville**
- Shepton**
- Knoxvill**
- Athens**
- Greenville**
- Tifton**
- Marianna**
- Milon**
- Quinoy**
- Gainesville**
- Leesburg**
- Sanford**
- College Station**
- Denton**
- St. Joseph**
- Curtis**
- St. Louis**
- Stoneville**
- Clarkdale**
- Stuttgart**
- Marion**
- Clarendon**
- Shelton**
- Belle Mina**
- Garden**
- Tallassee**
- Walnut Hill**
- Poplarville**
- Baton Rouge**
- College Station**
- Denton**
- Chillicothe**
- Tishomingo**
- Stillwater**
- South Coffeyville**
- Fayetteville**
- Shepton**
- Knoxvill**
- Athens**
- Greenville**
- Tifton**
- Marianna**
- Milon**
- Quinoy**
- Gainesville**
- Leesburg**
- Sanford**
- College Station**
- Denton**
- St. Joseph**
- Curtis**
- St. Louis**
- Stoneville**
- Clarkdale**
- Stuttgart**
- Marion**
- Clarendon**
- Shelton**
- Belle Mina**
- Garden**
- Tallassee**
- Walnut Hill**
- Poplarville**
- Baton Rouge**
- College Station**
- Denton**
- Chillicothe**
- Tishomingo**
- Stillwater**
- South Coffeyville**
- Fayetteville**
- Shepton**
- Knoxvill**
- Athens**
- Greenville**
- Tifton**
- Marianna**
- Milon**
- Quinoy**
- Gainesville**
- Leesburg**
- Sanford**
- College Station**
- Denton**
- St. Joseph**
- Curtis**
- St. Louis**
- Stoneville**
- Clarkdale**
- Stuttgart**
- Marion**
- Clarendon**
- Shelton**
- Belle Mina**
- Garden**
- Tallassee**
- Walnut Hill**
- Poplarville**
- Baton Rouge**
- College Station**
- Denton**
- Chillicothe**
- Tishomingo**
- Stillwater**
- South Coffeyville**
- Fayetteville**
- Shepton**
- Knoxvill**
- Athens**
- Greenville**
- Tifton**
- Marianna**
- Milon**
- Quinoy**
- Gainesville**
- Leesburg**
- Sanford**
- College Station**
- Denton**
- St. Joseph**
- Curtis**
- St. Louis**
- Stoneville**
- Clarkdale**
- Stuttgart**
- Marion**
- Clarendon**
- Shelton**
- Belle Mina**
- Garden**
- Tallassee**
- Walnut Hill**
- Poplarville**
- Baton Rouge**
- College Station**
- Denton**
- Chillicothe**
- Tishomingo**
- Stillwater**
- South Coffeyville**
- Fayetteville**
- Shepton**
- Knoxvill**
- Athens**
- Greenville**
- Tifton**
- Marianna**
- Milon**
- Quinoy**
- Gainesville**
- Leesburg**
- Sanford**
- College Station**
- Denton**
- St. Joseph**
- Curtis**
- St. Louis**
- Stoneville**
- Clarkdale**
- Stuttgart**
- Marion**
- Clarendon**
- Shelton**
- Belle Mina**
- Garden**
- Tallassee**
- Walnut Hill**
- Poplarville**
- Baton Rouge**
- College Station**
- Denton**
- Chillicothe**
- Tishomingo**
- Stillwater**
- South Coffeyville**
- Fayetteville**
- Shepton**
- Knoxvill**
- Athens**
- Greenville**
- Tifton**
- Marianna**
- Milon**
- Quinoy**
- Gainesville**
- Leesburg**
- Sanford**
- College Station**
- Denton**
- St. Joseph**
- Curtis**
- St. Louis**
- Stoneville**
- Clarkdale**
- Stuttgart**
- Marion**
- Clarendon**
- Shelton**
- Belle Mina**
- Garden**
- Tallassee**
- Walnut Hill**
- Poplarville**
- Baton Rouge**
- College Station**
- Denton**
- Chillicothe**
- Tishomingo**
- Stillwater**
- South Coffeyville**
- Fayetteville**
- Shepton**
- Knoxvill**
- Athens**
- Greenville**
- Tifton**
- Marianna**
- Milon**
- Quinoy**
- Gainesville**
- Leesburg**
- Sanford**
- College Station**
- Denton**
- St. Joseph**
- Curtis**
- St. Louis**
- Stoneville**
- Clarkdale**
- Stuttgart**
- Marion**
- Clarendon**
- Shelton**
- Belle Mina**
- Garden**
- Tallassee**
- Walnut Hill**
- Poplarville**
- Baton Rouge**
- College Station**
- Denton**
- Chillicothe**
- Tishomingo**
- Stillwater**
- South Coffeyville**
- Fayetteville**
- Shepton**
- Knoxvill**
- Athens**
- Greenville**
- Tifton**
- Marianna**
- Milon**
- Quinoy**
- Gainesville**
- Leesburg**
- Sanford**
- College Station**
- Denton**
- St. Joseph**
- Curtis**
- St. Louis**
- Stoneville**
- Clarkdale**
- Stuttgart**
- Marion**
- Clarendon**
- Shelton**
- Belle Mina**
- Garden**
- Tallassee**
- Walnut Hill**
- Poplarville**
- Baton Rouge**
- College Station**
- Denton**
- Chillicothe**
- Tishomingo**
- Stillwater**
- South Coffeyville**
- Fayetteville**
- Shepton**
- Knoxvill**
- Athens**
- Greenville**
- Tifton**
- Marianna**
- Milon**
- Quinoy**
- Gainesville**
- Leesburg**
- Sanford**
- College Station**
- Denton**
- St. Joseph**
- Curtis**
- St. Louis**
- Stoneville**
- Clarkdale**
- Stuttgart**
- Marion**
- Clarendon**
- Shelton**
- Belle Mina**
- Garden**
- Tallassee**
- Walnut Hill**
- Poplarville**
- Baton Rouge**
- College Station**
- Denton**
- Chillicothe**
- Tishomingo**
- Stillwater**
-

As a further aid in interpreting varietal responses, rainfall data is reported for many of the locations where nurseries were grown. Since much of the summer rainfall is from local rains, rainfall data is included only from locations where records were taken reasonably close to the nurseries. Daily minimum and maximum temperatures are reported for the representative locations for the various production areas.

The 1954 season was extremely dry over much of the South. In some areas, this was the fourth growing season with below normal precipitation. The low rainfall contributed to low yields and rather low precision of many of the nurseries. At Stoneville, Mississippi, cultural practices influenced seed production appreciably, and again clearly demonstrated the ability of soybeans to obtain a high percentage of their moisture requirements from the soil. They also demonstrated their ability to produce seed under high temperatures when other conditions were satisfactory. Hot, dry conditions at planting time in the Southeast provided conditions favorable for the lesser corn stalk borer. This insect reduced stands appreciably at several of the locations.

LOCATION OF COOPERATIVE NURSERIES

Location	Cooperator	IV	V	VI	VII	VIII	Soil Type	Fertilizer ^{1/}
<u>East Coast</u>								
Marlboro, Md.	Marlboro Tobacco Farm	1	1				Sassafras sandy loam	5-30-30
Trappe, Md.	Willis Farms, Inc.	1	1				Sassafras sandy loam	0-30-60
Warsaw, Va.	Eastern Va. Research Sta.	1	1	1			Sassafras sandy loam	0-42-42
Onley, Va.	Eastern Shore Va Truck Expt. Sta.	1	1	1	1		Sassafras sandy loam	12-72-72
Petersburg, Va.	Virginia State College Field Sta.	1	1	1	1		Norfolk fine sandy loam	0-42-42
Norfolk, Va.	Virginia Truck Expt. Sta.	1	1	1	1		Woodstown sandy loam	12-72-72
Holland, Va.	Tidewater Field Sta.	1	1	1	1		Klej loamy fine sand	25-50-50
Plymouth, N. C.	Tidewater Branch Sta.	1	1	1	1		Bladen fine sandy loam	0-40-80
Willard, N. C.	Lower Coastal Plain Expt. Sta.	1	1	1	1		Norfolk sandy loam	0-40-80
McCullers, N. C.	N. C. Agric. Expt. Sta.	1	1	1	1		Norfolk sandy loam	0-40-80
Florence, S. C.	Pee Dee Expt. Sta.	1	1	1	1		Dunbar fine sandy loam	0-40-80
Hartsville, S. C.	Coker Pedigreed Seed Co.	1	1	1	1	1	Norfolk sandy loam	25-50-25
<u>Southeast</u>								
Summerville, S. C.	Coast Expt. Sta.	1	1				Coxville sandy loam	12-48-48
Charleston, S. C.	S. C. Truck Expt. Sta.	1	1				Dupont very fine sandy loam	none 2/
Tallassee, Ala.	Alabama Agric. Expt. Sta.	1	1	1			Cahaba fine sandy loam	0-39-39
Camden, Ala.	Lower Coastal Plain Substa.	1	1	1			Norfolk sandy loam	20-50-35
Tifton, Ga.	Georgia Coastal Plain Expt. Sta.	1	1	1	1	1	Tifton Pebbly loam	0-40-80
Gainesville, Fla.	Fla. Agric. Expt. Sta.	1	1	1	1	1	Lakeland fine sandy loam	0-48-48
Quincy, Fla.	N. Fla. Expt. Sta.	1	1	1	1	1	Tifton sandy loam	20-50-35
Marianna, Fla.	Mobile Unit #3	1	1	1	1	1	Ruston sandy loam	24-72-72
Milton, Fla.	West Fla. Expt. Sta.	1	1	1	1	1	Red Bay sandy loam	20-85-70
Walnut Hill, Fla.	N. Fla. Expt. Sta. (Mobile Unit #2)	1	1	1	1	1	Tifton fine sandy loam	24-60-42
Fairhope, Ala.	Gulf Coast Substa.	1	1	1	1	1	Marlboro fine sandy loam	20-50-35
Poplarville, Miss.	S. Miss. Branch Sta.	1	1	1	1	1	Orangeburg fine sandy loam	0-40-80
Baton Rouge, La.	La. Agric. Expt. Sta.	1	1	1	1	1	Olivier silt loam	15-60-60

Location	Cooperator	IV	V	VI	VII	VIII	Soil Type	Fertilizer ^{1/}
<u>Upper and Central South</u>								
Orange, Va.	Piedmont Field Sta.	1					Davidson clay	50-100-100
Belle Mina, Ala.	Tenn. Valley Substa.		1	1			Decatur sandy loam	none
Clemson, S. C.	S. C. Agric. Expt. Sta.				1		Lloyd sandy loam	24-60-36
Experiment, Ga.	Ga. Agric. Expt. Sta.		1	1	1	1	Cecil clay loam	20-60-60
State College, Miss.	Miss. Agric. Expt. Sta.		1	1	1		Verona fine sandy loam	18-24-24
<u>Delta</u>								
Sikeston, Mo.	Mo. Agric. Expt. Sta.	1	1	1			Lintonia sandy loam	0-60-60
Clarkedale, Ark.	Delta Substa.	1	1	1				none
Marianna, Ark.	Cotton Branch Sta.	1	1	1			Richland silt loam	none
Coahoma, Miss.	J. W. Slater	1	1	1			Sharkey clay	none
Clarksdale, Miss.	J. E. Weeks	1	1				Sharkey clay	none
Stoneville, Miss. (A)	Delta Br. Expt. Sta.	1	1	1	1	1	Bosket fine sandy loam	none
Stoneville, Miss. (B)	Delta Br. Expt. Sta.	1	1	1	1		Sharkey clay	none
Louise, Miss.	L. S. Stoner		1	1	1		Dundee silt loam	none
St. Joseph, La.	N.E. La. Expt. Sta.		1	1	1	1	Sargy clay loam	none
<u>West</u>								
Stuttgart, Ark.	Rice Branch Expt. Sta.		1	1	1		Crowley silt loam	none
Curtis, La.	Red River Valley Expt. Sta.		1	1	1	1	Miller very fine sandy loam	loam -
Fayetteville, Ark.	Ark. Agric. Expt. Sta.	1	1	1			Bolivar silt loam	none
South Coffeeville, Okla.	Paul O. Schultz	1	1	1			Verdigris silt loam	loam none
Bixby, Okla.	Okla. Veg. Research Sta.		1	1			Yahola very fine sandy	32-40-0
Stillwater, Okla.	Okla. Agric. Expt. Sta.		1	1			Vanoss very fine sandy loam	
Milburn, Okla.	Murray State Jr. College		1	1	1		Ochlocknee-Iuka	none
Denton, Texas	Texas Substa. No. 6	1	1	1			San Saba clay	none
Chillicothe, Texas	Texas Substa. No. 12		1	1	1		Abilene loam	none
Lubbock, Texas	Texas Substa. No. 8		1	1	1		Richfield fine sandy loam	none

^{1/} Fertilizer applied converted to pounds of N, P₂O₅, K₂O, for example, 400 pounds of 2-12-12 equals 8-48-48.
 2/ 75-150-75 + ammonium nitrate top dressing applied to early onion crop.

METHODS

The uniform nurseries were planted in 4-row plots with three replications in 1954. All seed was packeted at Stoneville, Mississippi, for planting 19-foot rows. A 16-foot section was harvested from each of the two center rows. Randomized block designs are used for all groups. Row widths at the different locations vary from 32 to 40 inches. An attempt is made to follow the best cultural and management practices in conducting these strain comparisons.

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

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

Shattering notes, where taken, are on the border rows, fourteen days after maturity. The estimates are recorded on a scale of 0 to 5 as follows:

0 - No shattering	3 - 11% to 24% shattered
1 - 1% to 5% shattered	4 - 25% to 50% shattered
2 - 6% to 10% shattered	5 - Over 50% shattered

Chemical composition - percent oil and percent protein were determined from representative locations for Groups IV, V, and VIII. For Groups VI and VII, samples were analyzed from each plot at each location. Percentage composition of the seed is expressed on a moisture-free basis. All chemical analyses are made at Urbana, Illinois.

Seed size for each strain in Groups IV, V, and VIII was determined from a composite sample from all replications at a location. Seed size for strains in Groups VI and VII was determined by replication at each location. Seed size is reported as weight in grams per 100 seeds.

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

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

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

Maturity is taken as the date when the pods are dry and most of the leaves have dropped. Under most conditions, the stems are also dry. Maturity in all summaries is expressed as days earlier (-) or later (+) than a standard or reference variety. Reference varieties used for the different Uniform Tests are as follows: Group IV, Perry; Group V, Dorman; Group VI, Ogden; Group VII, Jackson; and Group VIII, Improved Pelican.

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

- | | | |
|--------------|---------|--------------|
| 1. Very good | 3. Fair | 5. Very poor |
| 2. Good | 4. Poor | |

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

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. Yield data from tests with extremely low yields or an extremely high coefficient of variability were not included in calculating averages.

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

- C - Purdue Agric. Expt. Station and U. S. Regional Soybean Laboratory.
- D - Delta Branch Expt. Station and U. S. Regional Soybean Laboratory.
- L - Illinois Agric. Expt. Station and the U. S. Regional Soybean Laboratory.
- La - Louisiana Agric. Expt. Station and U. S. Regional Soybean Laboratory.
- N - North Carolina Agric. Expt. Station and U. S. Regional Soybean Laboratory.
- S - Missouri Agric. Expt. Station and U. S. Regional Soybean Laboratory.

* This annual report of activity at the U. S. Regional Soybean *
* Laboratory, as well as that of the state stations with which *
* the Laboratory cooperates, is a progress report and as such *
* may contain statements which may or may not be verified by *
* subsequent experiments. The fact that any statement has been *
* made herein does not necessarily constitute publication. For *
* this reason, citation to particular statements in the Report *
* should not be published unless permission has been granted *
* previously by the Laboratory or the state station concerned. *

UNIFORM GROUP IV

1954

Strain or Variety	Source or Originating Agency	Origin
Perry	Purdue A.E.S. & U.S.R.S.L.	Sel. from Patoka x L7-1355
Wabash	Purdue A.E.S. & U.S.R.S.L.	Sel. from Dunfield x Mansoy
Clark	Ill. A.E.S. & U.S.R.S.L.	Sel. from Lincoln (2) x Richland
C985	Purdue A.E.S. & U.S.R.S.L.	Sel. from Lincoln x Ogden
D52-14	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N48-1248 ¹ x Adams
D52-23	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N48-1248 x Adams
D52-52	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N48-1248 x Adams
D52-108	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N48-1248 x Perry
D52-187	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N48-1248 x Perry
D52-212	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N48-1248 x Perry

¹/N48-1248 is a bacterial pustule resistant selection of Group VI maturity from the cross Roanoke x N45-745.

Fifteen Group IV nurseries were planted in the Southern Region. Results of 12 of these nurseries are summarized in tables 1 through 9. In four of the nurseries, all strains yielded at a rate of 12 bushels or less per acre and, consequently, were of little value for strain evaluation. In 5 of the remaining 8 nurseries, yield differences were non-significant.

Varieties of Group IV maturity are of little importance in the Southern Region at the present time. Varieties such as Perry, Wabash, and Clark are highly susceptible to bacterial pustule and wildfire and give limited ground cover during the growing season. Preliminary investigations suggest that when resistance to bacterial pustule is incorporated with good agronomic characters in strains of Group IV maturity, their dependability in the Southern Region will be materially improved. In 1954, six new lines, four of which were resistant to bacterial pustule were grown. Drouth conditions reduced pustule development and reduced seed yield to such an extent that the resistant lines showed no yield advantage.

In the East Coast area, C985 was the highest yielding strain. In a combined analysis of variance of seed yield for the four locations in this area, C985 was the only strain differing in yield from Perry, the check variety. In the Delta area, the combined analysis showed the yields for Wabash and D52-14 to be significantly lower than Perry. The variety x location interaction was non-significant in the East Coast area but was significant in the Delta. The variety x location interaction was highly significant when both areas were combined.

For the 3-year period, 1952-54, C985 has averaged one bushel more per acre than Perry in the East Coast, and 2.6 bushels more than Perry in the Delta. However, C985 does not hold its seed satisfactorily for production in the Delta.

Clark, which is slightly earlier than Wabash in the North Central region, but slightly later than Wabash in the more southern tests, continues to look good. Clark has a 2-year average yield above that for Wabash and very similar to that for Perry. Clark averaged 10 days earlier than Perry in the Eastern area but only one day earlier in the Delta. For the 2-year period, Clark averages 8 days earlier than Perry for the Eastern area and 3 days earlier for the Delta area. Clark is superior to Perry in ground cover during the growing season and in seed-holding.

Of the six new strains, D52-23 is rather late and will fit into Group V more satisfactorily. D52-14 yielded significantly less than Perry and ranked lowest in oil content. D52-52 had nearly 1 percent higher oil content than Perry. D52-212 was the highest ranking strain for yield in the Delta. This strain gives good ground cover during the growing season and holds its seed very well. On the basis of appearance in the field and general performance, D52-52 and D52-212 appear most promising of the six lines tested for only one year.

Table 1: Yield, in bushels per acre, for the strains in Uniform Group IV, 1954

Location	Perry	Wabash	Clark	C985	D52-14	D52-23
<u>East Coast</u>						
Marlboro, Md.	33.0	29.2	33.9	31.1	30.1	24.3
Trappe, Md.	21.9	20.3	23.1	26.9	23.9	24.9
Orange, Va.	23.3	21.0	24.7	28.9+	24.4	25.2
Warsaw, Va.	15.1	13.6	14.6	17.1+	15.4	15.7
Mean	23.3	21.0	24.1	26.0	23.5	22.5
<u>Delta</u>						
Clarkedale, Ark.	11.2	12.0	12.3	9.7	8.2	8.7
Marianna, Ark.	26.4	21.9	26.4	25.4	29.8	28.1
Coahoma, Miss.	21.9	17.2	19.6	21.0	16.3	21.3
Clarksdale, Miss.	26.4	23.8	23.9	19.4-	16.4-	16.0-
Stoneville, Miss. (B)	28.6	26.4	30.3	27.4	28.1	26.2
Mean	22.9	20.3	22.5	20.6	19.8	20.0
<u>West</u>						
Fayetteville, Ark.	3.6	3.5	5.3	3.3	4.2	5.9
South Coffeenville, Okla.	6.8	7.7	7.2	5.9	3.6	8.5
Perkins, Okla.	2.8	3.3	1.5	2.1	1.1	0.7
Mean	4.4	4.8	4.7	3.8	3.0	5.0

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

Table 1: (Continued)

Location	D52-52	D52-108	D52-187	D52-212	L.S.D. (5%)	C.V.
<u>East Coast</u>						
Marlboro, Md.	28.1	26.1	31.2	27.5	N.S.	14%
Trappe, Md.	26.3	23.6	24.4	25.5	N.S.	13%
Orange, Va.	25.1	27.0+	24.4	27.1+	2.9	7%
Warsaw, Va.	13.2-	15.2	16.1	15.1	1.9	8%
Mean	23.2	23.0	24.0	23.8	2.3	12%
<u>Delta</u>						
Clarkedale, Ark.	6.9-	9.1	7.0-	9.7	3.2	20%
Marianna, Ark.	30.2	21.8	31.6	28.6	N.S.	15%
Coahoma, Miss.	24.2	22.4	21.0	22.2	N.S.	16%
Clarksdale, Miss.	22.4-	21.2-	20.8-	26.5	3.2	8%
Stoneville, Miss. (B)	28.3	31.0	30.4	33.6	N.S.	15%
Mean	22.4	21.1	22.2	24.1	2.5	16%
<u>West</u>						
Fayetteville, Ark.	4.2	3.9	3.2	4.4	1.1	15%
South Coffeeyville, Okla.	4.2	4.7	6.0	7.3	N.S.	47%
Perkins, Okla.	2.3	1.9	1.8	2.9	1.3	37%
Mean	3.6	3.5	3.7	4.9		

Table 2: Chemical composition of the strains in Uniform Group IV, 1954

Location	Perry	Wabash	Clark	C985	D52-14
<u>OIL PERCENTAGE</u>					
Trappe, Md.	22.6	22.7	23.4	23.5	22.4
Orange, Va.	24.2	23.4	23.8	24.1	22.5
Marianna, Ark.	21.4	23.7	22.5	23.3	20.0
Coahoma, Miss.	23.3	22.8	24.3	23.3	21.9
Stoneville, Miss. (B)	23.2	23.9	23.6	22.7	21.4
South Coffeetown, Okla.	18.6	20.3	19.3	20.4	19.2
Mean	22.2	22.8	22.8	22.9	21.2
<u>PROTEIN PERCENTAGE</u>					
Trappe, Md.	39.7	37.7	37.4	37.3	37.7
Orange, Va.	37.6	38.0	37.8	37.1	40.3
Marianna, Ark.	42.1	39.9	40.6	41.2	44.6
Coahoma, Miss.	38.7	38.9	36.3	37.6	41.9
Stoneville, Miss. (B)	38.4	37.7	36.4	35.3	41.8
South Coffeetown, Okla.	46.4	43.5	47.5	41.9	47.4
Mean	40.5	39.3	39.3	38.4	42.3

Table 2: (Continued)

Location	D52-23	D52-52	D52-108	D52-187	D52-212
<u>OIL PERCENTAGE</u>					
Trappe, Md.	24.1	24.1	22.8	21.6	21.4
Orange, Va.	23.3	23.1	23.1	22.4	22.5
Marianna, Ark.	22.2	23.3	20.7	21.7	21.2
Coahoma, Miss.	22.9	24.0	22.0	22.3	23.5
Stoneville, Miss. (B)	22.2	23.6	22.4	21.8	21.7
South Coffeerville, Okla.	20.8	20.7	19.5	18.3	18.9
Mean	22.6	23.1	21.8	21.4	21.5
<u>PROTEIN PERCENTAGE</u>					
Trappe, Md.	35.3	35.3	35.8	38.6	38.5
Orange, Va.	39.1	37.9	38.0	40.3	39.5
Marianna, Ark.	40.1	38.5	40.8	40.9	40.6
Coahoma, Miss.	39.8	36.4	40.1	38.9	37.1
Stoneville, Miss. (B)	40.2	35.5	39.3	39.0	38.1
South Coffeerville, Okla.	44.3	43.0	46.5	47.0	44.9
Mean	39.8	37.8	40.1	40.8	39.8

Table 3: Relative maturity data, days earlier (-) or later (+) than Perry,
for the strains in Uniform Group IV, 1954

Location	Date Planted	Perry Matured	Wabash	Clark	C985	D52-14
<u>East Coast</u>						
Marlboro, Md.	5-26	10-2	-6	-6	+3	+8
Trappe, Md.	5-17	9-29	-8	-9	+3	+4
Orange, Va.	5-11	9-28	-15	-15	0	0
Warsaw, Va.	5-31	10-3	-9	-9	+2	+3
Mean		10-1	-9	-10	+2	+4
<u>Delta</u>						
Marianna, Ark.	5-23	9-11	-1	0	+4	+9
Coahoma, Miss.	5-7	9-11	-4	-1	+2	+3
Stoneville, Miss.	5-21	9-6	-6	-2	+4	+4
Mean		9-9	-4	-1	+3	+5
<u>West</u>						
Fayetteville, Ark.	5-11	9-12	-1	0	+11	+23
South Coffeerville, Okla.	5-15	9-15	-1	0	+10	+26
Perkins, Okla.	5-16	9-14	-4	-3	+16	+44
Mean		9-14	-2	-1	+12	+31

Table 3: (Continued)

Location	D52-23	D52-52	D52-108	D52-187	D52-212
<u>East Coast</u>					
Marlboro, Md.	+11	+7	+8	+7	+4
Trappe, Md.	+6	+1	+2	+2	0
Orange, Va.	+12	+3	0	0	0
Warsaw, Va.	+6	+1	+2	+2	+2
Mean	+9	+3	+3	+3	+2
<u>Delta</u>					
Marianna, Ark.	+9	+4	+8	+5	+4
Coahoma, Miss.	+6	+3	+3	+3	+3
Stoneville, Miss.	+14	+4	+4	+4	+2
Mean	+10	+4	+5	+4	+3
<u>West</u>					
Fayetteville, Ark.	+27	+13	+23	+13	+10
South Coffeetown, Okla.	+26	+11	+26	+3	+10
Perkins, Okla.	+35	+42	+39	+15	+8
Mean	+28	+22	+29	+10	+9

Table 4: Height data for the strains in Uniform Group IV, 1954

Location	Perry	Wabash	Clark	C985	D52-14
<u>East Coast</u>					
Marlboro, Md.	34	34	31	37	48
Trappe, Md.	27	28	27	33	35
Orange, Va.	32	35	30	36	38
Warsaw, Va.	22	22	20	26	26
Mean	29	30	27	33	37
<u>Delta</u>					
Clarkedale, Ark.	27	31	29	33	34
Marianna, Ark.	26	27	27	32	42
Coahoma, Miss.	27	36	33	37	43
Clarksdale, Miss.	32	39	34	38	41
Stoneville, Miss. (b)	28	32	33	33	43
Mean	28	33	31	35	41
<u>West</u>					
Fayetteville, Ark.	17	18	19	18	23
South Coffeeville, Okla.	21	24	24	26	26
Perkins, Okla.	17	21	19	22	26
Mean	18	21	21	22	25

Table 4: (Continued)

Location	D52-23	D52-52	D52-108	D52-187	D52-212
<u>East Coast</u>					
Marlboro, Md.	45	46	48	46	41
Trappe, Md.	32	37	37	34	33
Orange, Va.	43	42	46	45	39
Warsaw, Va.	26	26	27	25	25
Mean	37	38	40	38	35
<u>Delta</u>					
Clarkedale, Ark.	36	38	46	37	30
Marianna, Ark.	46	44	44	43	34
Coahoma, Miss.	45	41	39	35	33
Clarksdale, Miss.	44	45	43	40	37
Stoneville, Miss. (b)	45	39	42	44	35
Mean	43	41	43	40	34
<u>West</u>					
Fayetteville, Ark.	24	25	25	27	20
South Coffeetown, Okla.	28	30	30	32	24
Perkins, Okla.	26	29	28	26	22
Mean	26	28	28	28	22

Table 5: Lodging scores for the strains in Uniform Group IV, 1954

Location	Perry	Wabash	Clark	C985	D52-14
<u>East Coast</u>					
Marlboro, Md.	1.3	2.0	1.7	1.3	2.3
Trappe, Md.	1.0	1.0	1.0	1.0	1.0
Orange, Va.	1.0	1.0	1.0	1.0	1.0
Warsaw, Va.	1.0	1.0	1.0	1.0	1.0
<u>Delta</u>					
Clarkedale, Ark.	1.0	1.0	1.0	1.0	1.3
Marianna, Ark.	1.0	1.3	1.7	1.7	2.7
Coahoma, Miss.	1.0	1.0	1.0	1.0	2.0
Clarksdale, Miss.	1.7	3.0	1.7	2.0	3.3
Stoneville, Miss. (B)	1.0	1.0	1.0	2.0	2.0
<u>West</u>					
Fayetteville, Ark.	1.0	1.0	1.0	1.0	1.0
South Coffeetown, Okla.	1.0	1.0	1.0	1.0	1.0
Perkins, Okla.	1.0	1.0	1.0	1.0	1.0

Table 5: (Continued)

Location	D52-23	D52-52	D52-108	D52-187	D52-212
<u>East Coast</u>					
Marlboro, Md.	1.3	2.0	2.0	2.0	1.3
Trappe, Md.	1.0	1.0	1.0	1.0	1.0
Orange, Va.	1.3	1.0	1.3	1.3	1.0
Warsaw, Va.	1.0	1.0	1.0	1.0	1.0
<u>Delta</u>					
Clarkedale, Ark.	1.3	1.3	2.0	1.3	1.0
Marianna, Ark.	2.7	2.3	1.7	2.7	1.7
Coahoma, Miss.	2.0	2.0	1.0	2.0	1.0
Clarksdale, Miss.	2.7	3.3	3.0	3.3	2.0
Stoneville, Miss. (B)	2.0	2.0	2.0	3.0	1.0
<u>West</u>					
Fayetteville, Ark.	1.0	1.0	1.0	1.0	1.0
South Coffeeville, Okla.	1.0	1.0	1.0	1.0	1.0
Perkins, Okla.	1.0	1.0	1.0	1.0	1.0

Table 6: Seed quality scores for the strains in Uniform Group IV, 1954

Location	Perry	wabash	Clark	C985	D52-14
<u>East Coast</u>					
Marlboro, Md.	3.7	2.7	2.0	2.7	1.7
Trappe, Md.	5.0	2.7	2.3	3.3	3.3
Orange, Va.	4.4	1.0	3.3	2.3	2.0
warsaw, Va.	2.0	1.0	2.0	2.0	1.5
<u>Delta</u>					
Clarkedale, Ark.	4.6	3.6	4.0	4.0	3.6
Marianna, Ark.	3.0	3.0	3.0	2.5	3.0
Coahoma, Miss.	3.0	4.0	2.0	3.0	4.0
Clarksdale, Miss.	4.0	5.0	3.7	4.0	4.0
Stoneville, Miss. (B)	3.0	4.0	2.0	4.0	3.0
<u>West</u>					
Fayetteville, Ark.	4.0	4.6	3.6	4.3	3.6
South Coffeetown, Okla.	4.0	4.0	3.0	3.3	3.0
Perkins, Okla.	3.7	2.7	3.0	3.0	3.3

Table 6: (Continued)

Location	D52-23	D52-52	D52-108	D52-187	D52-212
<u>East Coast</u>					
Marlboro, Md.	2.0	2.3	2.7	1.3	2.3
Trappe, Md.	2.0	2.7	2.7	2.7	3.3
Orange, Va.	1.3	2.0	2.0	1.7	2.3
Warsaw, Va.	1.0	1.0	1.5	1.5	1.0
<u>Delta</u>					
Clarkedale, Ark.	3.6	4.0	3.6	4.0	5.0
Marianna, Ark.	2.3	2.5	2.5	2.5	2.7
Coahoma, Miss.	3.0	4.0	2.0	2.0	3.0
Clarksdale, Miss.	4.3	3.0	3.7	4.0	3.0
Stoneville, Miss. (B)	4.0	3.0	2.0	3.0	3.0
<u>West</u>					
Fayetteville, Ark.	3.0	3.6	4.0	4.0	4.6
South Coffeeville, Okla.	2.6	3.6	3.3	3.6	3.3
Perkins, Okla.	2.7	3.7	3.3	3.7	4.7

Table 7: Seed weight, in grams per 100 seeds, for the strains in Uniform Group IV, 1954

Location	Perry	Wabash	Clark	C985	D52-14
<u>East Coast</u>					
Marlboro, Md.	16.8	15.1	15.7	16.2	15.5
Trappe, Md.	18.0	14.8	15.8	18.4	17.2
Orange, Va.	17.5	14.7	16.8	18.0	15.8
Warsaw, Va.	17.2	14.3	14.7	16.3	14.8
Mean	17.4	14.7	15.8	17.2	15.8
<u>Delta</u>					
Clarkedale, Ark.	11.3	11.3	12.6	13.0	11.6
Marianna, Ark.	12.7	13.7	13.3	14.7	16.7
Coahoma, Miss.	14.9	12.9	14.1	13.8	12.0
Clarksdale, Miss.	13.4	13.5	15.1	12.5	11.1
Stoneville, Miss. (B)	12.7	11.9	11.8	12.2	13.0
Mean	13.0	12.7	13.4	13.2	12.9
<u>West</u>					
Fayetteville, Ark.	12.0	12.3	13.0	14.3	13.0
South Coffeeyville, Okla.	10.6	11.2	13.0	13.7	12.6
Perkins, Okla.	9.5	9.7	10.1	11.2	10.2
Mean	10.7	11.1	12.0	13.1	11.9

Table 7: (Continued)

Location	D52-23	D52-52	D52-108	D52-187	D52-212
<u>East Coast</u>					
Marlboro, Md.	14.3	15.9	16.9	17.4	15.2
Trappe, Md.	14.9	17.4	17.8	18.5	16.1
Orange, Va.	15.2	16.8	17.5	17.3	16.3
Warsaw, Va.	13.8	15.3	17.2	17.3	15.5
Mean	14.6	16.4	17.4	17.6	15.8
<u>Delta</u>					
Clarkedale, Ark.	10.3	12.0	12.3	11.3	10.0
Marianna, Ark.	12.0	14.0	14.0	12.0	13.0
Coahoma, Miss.	11.6	11.1	14.7	13.1	11.7
Clarksdale, Miss.	11.4	11.7	11.6	11.6	9.9
Stoneville, Miss. (B)	10.2	11.5	13.0	11.9	10.2
Mean	11.1	12.1	13.1	12.0	11.0
<u>West</u>					
Fayetteville, Ark.	12.0	13.6	13.3	13.0	11.3
South Coffeerville, Okla.	11.4	13.2	13.1	12.3	11.3
Perkins, Okla.	10.3	11.1	10.5	9.9	8.9
Mean	11.2	12.6	12.3	11.7	10.5

Table 8: Two-year average yield, in bushels per acre, and oil percentage for the strains in Uniform Group IV, 1953-54

Location	Perry	Wabash	Clark	C985
<u>YIELD</u>				
<u>East Coast</u>				
Marlboro, Md.	35.4	29.1	33.5	32.2
Trappe, Md.	28.0	26.6	28.0	29.6
Orange, Va.	23.6	20.5	23.8	26.8
Warsaw, Va.	18.8	16.6	18.6	19.9
Mean	26.5	23.2	26.0	27.1
<u>Delta</u>				
Marianna, Ark.	26.6	22.2	27.4	26.6
Stoneville, Miss.	34.8	34.4	36.2	36.1
Mean	30.7	28.3	31.8	31.3
<u>OIL PERCENTAGE</u>				
Orange, Va.	24.2	23.8	24.6	24.9
Marianna, Ark.	22.8	24.2	23.3	23.9
Stoneville, Miss.	23.6	24.2	24.2	22.7
South Coffeetown, Okla.	20.4	21.2	20.8	22.1
Mean	22.8	23.4	23.2	23.4

Table 9: Three-year average yield, in bushels per acre, and oil percentage for the strains in Uniform Group IV, 1952-54

Location	Perry	Wabash	C985
<u>YIELD</u>			
<u>East Coast</u>			
Trappe, Md.	32.0	28.7	32.2
Orange, Va.	27.3	23.1	29.4
Warsaw, Va.	23.3	19.8	23.8
Mean	27.5	23.9	28.5
<u>Delta</u>			
Marianna, Ark.	22.2	20.2	22.1
Stoneville, Miss.	31.7	33.0	37.1
Mean	27.0	26.6	29.6
<u>OIL PERCENTAGE</u>			
Marianna, Ark.	22.5	23.4	23.1
Stoneville, Miss.	23.6	24.3	22.9
Mean	23.0	23.9	23.0

Table 10: Four-year average yield, in bushels per acre, and oil percentage for the strains in Uniform Group IV, 1951-54

Location	Perry	Wabash	C985
<u>YIELD</u>			
Warsaw, Va.	24.4	21.3	25.7
Marianna, Ark.	19.9	18.3	21.3
Stoneville, Miss.	27.3	28.1	31.4
Mean	23.9	22.6	26.1
<u>OIL PERCENTAGE</u>			
Warsaw, Va. ^{1/}	22.6	22.8	23.2
Marianna, Ark.	22.6	23.4	22.7
Stoneville, Miss.	23.2	23.8	22.6
Mean	22.8	23.3	22.8

^{1/} 1954 data is from Trappe, Maryland.

UNIFORM GROUP V

1954

Strain or Variety	Source or Originating Agency	Origin
Dorman	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Dunfield x Arksoy
S-100	Missouri A.E.S.	Sel. from rogue in Illini
Dortchsoy 67	Robert L. Dortch Seed Co. Scott, Arkansas	Sel. from Macoupin x Ogden
D50-204	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N46-191 ¹ x N45-745 ²
D52-13	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N48-1248 ³ x Adams
D52-16	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N48-1248 x Adams
D52-18	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N48-1248 x Adams
D52-78	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N48-1248 x Adams
D52-137	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N48-1248 x Perry
D52-217	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N48-1248 x Perry

¹/N46-191 is a selection from S-100 x Rose Non-pop.

²/N45-745 is a selection from Ogden x CNS, resistant to bacterial pustule.

³/N48-1248 is a selection from Roanoke x N45-745.

Thirty Group V nurseries were planted. Results of 24 nurseries are summarized in tables 10 through 18. Seed yield was low in nearly all of these nurseries. Only 9 nurseries had a mean yield of 20 bushels per acre or over, and 14 nurseries had a mean yield of 15 bushels per acre or over. Consequently, the yield level was too low to satisfactorily evaluate varieties for yielding capacity. Drouth conditions reduced bacterial pustule development and reduced yield level to such an extent that no yield advantage was shown for resistant strains.

Production of varieties of this maturity class has been limited in recent years because of shortage of seed of adapted varieties. It appears that good varieties of this maturity will produce as well as varieties of VI maturity where both are adapted. Until Dorman was released, S-100 was the only available variety. S-100 lost favor with growers in the Delta area of Mississippi and Arkansas because its narrow growth did not keep down late-season weeds; its tendency for stems to remain green when seeds were mature; and its low oil content resulted in a lower price per bushel. Dorman, released to seed producers in 1953, has performed very satisfactorily although drouth conditions each year since its release have reduced the rate of seed increase. In many cases during the growing season, the earlier-maturing Dorman produced a moderate crop where Ogden produced extremely low yields. It is anticipated that incorporating resistance to bacterial pustule with good agronomic characters should improve appreciably the productivity of varieties of this maturity class. The 1954 nursery included five strains resistant to bacterial pustule.

In the East Coast area, Dortchsoy 67 and D52-18 yielded significantly more than Dorman, while D50-204 yielded less. There was a highly significant

variety x location interaction. In the Delta area, D52-13 yielded significantly less than Dorman. There was a highly significant variety x location interaction.

For the 3-year period, 1952-54, Dortchsoy 67 has yielded 0.8 bushel more per acre than Dorman in the East Coast area; one bushel per acre less on the heavy clay soil at Stoneville; and 6.7 bushels more per acre on a sandy loam soil at St. Joseph, Louisiana. In other tests conducted in the Delta area of Mississippi on heavy clay soils during the past three years, Dorman has yielded 1.6 bushels more per acre than Dortchsoy 67. Both varieties have high oil content. Under conditions where seed quality is poor, Dorman will usually have superior seed quality. Dorman is superior also to Dortchsoy 67 in seed-holding.

D50-204 has been tested for the past three years. This strain has excellent plant type and carries resistance to one or more strains of mildew and to bacterial pustule. During the period that D50-204 has been tested, drouth conditions have existed at many of the locations and as a result conditions have not been favorable for pustule development. This strain has shown no consistent yield advantage over Dorman. Although the oil content is 3.2 per cent lower than that of Dorman, its protein content is only 4.3 percent higher. D50-204 has been utilized as a parent in the hybridization program.

Of the new lines, D52-217 is perhaps too late for the group. Of the other strains, there was little difference in mean yield, except that D52-13 yielded significantly less than Dorman in the Delta tests. D52-13 and D52-217 were somewhat lower in oil content. The four strains, D52-13, D52-16, D52-18, and D52-78, are all rather tall, in fact they appear too tall for production in the Delta area. In the more northern tests of the Eastern area, they did not grow as tall as in the Delta. Lodging was not a factor in most of the plantings. On the basis of appearance in the field and general performance, the three lines D52-16, D52-18, and D52-137 appear to have most promise for this maturity class.

Table 11: Yield, in bushels per acre, for the strains in Uniform Group V, 1954

Location	Dorman	S-100	Dortch- soy 67	D50-204	D52-13	D52-16
<u>East Coast</u>						
Marlboro, Md.	16.7	22.2	22.7+	12.9	20.7	21.5
Trappe, Md.	22.6	21.5	25.0	22.1	24.8	26.8
Warsaw, Va.	14.9	14.5	15.3	13.8	15.3	14.1
Accomac, Va.	20.9	23.5	23.0	20.5	24.0	20.7
Norfolk, Va.	16.3	17.3	24.2	19.8	14.7	19.8
Petersburg, Va.	18.0	19.4	19.4	8.8-	19.4	19.9
Holland, Va.	31.3	20.0	31.4	21.1	27.2	28.9
Plymouth, N. C.	37.3	30.5	36.7	36.3	30.6	36.4
Mean	22.2	21.1	24.7	19.4	22.1	23.5
<u>Upper and Central South</u>						
Belle Mina, Ala.	5.3	5.2	5.1	5.4	5.5	4.8
Experiment, Ga.	13.7	14.0	11.8	11.8	14.4	13.5
State College, Miss.	16.4	21.9	20.7	15.5	16.0	16.7
Mean	11.8	13.7	12.5	10.9	12.0	11.7
<u>Delta</u>						
Clarkedale, Ark.	10.9	11.7	9.8	5.9	13.8	10.2
Marianna, Ark.	14.7	15.4	15.6	7.9-	10.6-	12.5
Coahoma, Miss.	25.2	26.9	26.4	25.7	20.0	27.2
Clarksdale, Miss.	17.3	19.1	17.4	13.9	12.1-	16.9
Stoneville, Miss. (A)	32.9	26.2	33.4	23.3-	27.4	25.1
Stoneville, Miss. (B)	29.9	24.5	27.5	23.4	28.8	23.6
St. Joseph, La.	24.3	30.6	26.6	31.4	23.0	27.7
Mean	22.2	22.1	22.4	18.8	19.4	20.5
<u>West</u>						
Stuttgart, Ark.	8.4	11.8	9.5	7.3	8.9	12.8+
Fayetteville, Ark.	4.7	4.9	7.0	4.1	4.4	6.0
South Coffeerville, Okla.	5.5	6.6	7.0	4.9	4.8	7.0
Bixby, Okla.	5.7	4.1	13.3	8.2	4.9	5.2
Perkins, Okla.	1.6	2.6	2.4	1.1	1.6	1.9
Lubbock, Texas	5.1	5.8	6.2	11.7+	8.2	12.8+
Mean	5.2	6.0	7.6	6.2	5.5	7.7

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

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

Table 11: (Continued)

	D52-18	D52-78	D52-137	D52-217	L.S.D. (5%)	C.V.
<u>East Coast</u>						
Marlboro, Md.	18.2	17.2	23.7+	21.9	5.5	16%
Trappe, Md.	23.9	24.8	22.3	23.8	N.S.	10%
Warsaw, Va.	13.7	13.4	14.5	16.0	N.S.	13%
Accomac, Va.	27.7+	20.5	21.4	22.8	4.1	11%
Norfolk, Va.	20.7	17.5	18.7	17.7	N.S.	21%
Petersburg, Va.	20.5	18.3	20.8	19.6	3.2	10%
Holland, Va.	26.9	27.7	30.5	27.7	5.9	13%
Plymouth, N. C.	39.0	37.1	35.8	37.2	N.S.	9%
Mean	23.8	22.1	23.5	23.3	1.6	13%
<u>Upper and Central South</u>						
Belle Mina, Ala.	5.6	5.6	5.2	4.2	N.S.	17%
Experiment, Ga.	12.6	11.9	12.2	8.4	N.S.	14%
State College, Miss.	17.3	16.7	19.4	20.7	N.S.	27%
Mean	11.8	11.4	12.3	11.1		
<u>Delta</u>						
Clarkedale, Ark.	11.4	14.5	17.0	10.3	N.S.	47%
Marianna, Ark.	11.6	8.9-	15.4	11.3	3.7	18%
Coahoma, Miss.	25.0	26.7	23.2	20.6	N.S.	21%
Clarksdale, Miss.	13.6	9.5-	19.9	11.9-	3.9	15%
Stoneville, Miss. (A)	23.7-	31.7	38.1	34.8	7.9	15%
Stoneville, Miss. (B)	25.8	29.7	29.6	29.3	N.S.	12%
St. Joseph, La.	27.7	27.5	31.0	40.3	N.S.	24%
Mean	19.8	21.2	24.9	22.6	3.4	19%
<u>West</u>						
Stuttgart, Ark.	14.8+	9.2	11.3	7.8	4.0	23%
Fayetteville, Ark.	5.5	5.9	5.1	4.3	N.S.	23%
South Coffeetown, Okla.	10.1	5.7	4.7	9.8+	3.5	30%
Bixby, Okla.	6.8	11.6	3.9	8.5	N.S.	43%
Perkins, Okla.	1.8	1.6	3.0+	1.9	1.0	29%
Lubbock, Texas	13.4+	11.4+	5.7	15.3+	3.4	21%
Mean	8.7	7.6	5.6	7.9		

Table 12: Chemical composition of the strains in Uniform Group V, 1954

Location	Dorman	S-100	Dortch- soy 67	D50-204	D52-13
<u>OIL PERCENTAGE</u>					
Trappe, Md.	21.6	19.8	22.7	20.1	22.0
Warsaw, Va.	23.0	19.6	23.0	19.2	21.6
Plymouth, N. C.	21.7	19.3	21.8	18.8	20.2
Marianna, Ark.	21.4	17.9	21.4	18.6	20.7
Coahoma, Miss.	23.9	22.0	24.4	22.0	22.5
Stoneville, Miss. (A)	22.6	19.1	21.9	18.4	20.7
Stoneville, Miss. (B)	23.7	19.4	23.1	20.1	22.0
Bixby, Okla.	18.9	17.5	20.8	16.5	20.4
Mean	22.1	19.3	22.4	19.2	21.3
<u>PROTEIN PERCENTAGE</u>					
Trappe, Md.	36.8	38.5	35.4	38.4	36.9
Warsaw, Va.	39.8	43.9	39.6	46.4	43.7
Plymouth, N. C.	40.5	43.6	41.9	46.3	43.8
Marianna, Ark.	41.6	43.8	40.4	46.9	45.1
Coahoma, Miss.	36.7	41.9	36.2	41.4	42.0
Stoneville, Miss. (A)	41.3	43.3	38.6	46.3	43.3
Stoneville, Miss. (B)	37.7	39.1	36.8	43.2	41.6
Bixby, Okla.	45.2	46.2	41.3	47.3	44.5
Mean	40.0	42.5	38.8	44.5	42.6

Table 12: (Continued)

Location	D52-16	D52-18	D52-78	D52-137	D52-217
<u>OIL PERCENTAGE</u>					
Trappe, Md.	22.6	22.7	22.5	23.0	22.1
Warsaw, Va.	23.0	22.8	23.1	23.1	21.7
Plymouth, N. C.	21.5	22.4	20.8	22.5	20.4
Marianna, Ark.	21.7	21.6	20.6	20.6	19.3
Coahoma, Miss.	24.1	23.7	23.8	24.3	22.7
Stoneville, Miss. (A)	21.8	22.2	21.4	22.5	21.3
Stoneville, Miss. (B)	22.9	23.0	22.9	23.5	21.9
Bixby, Okla.	20.0	20.2	20.2	19.7	18.2
Mean	22.2	22.3	21.9	22.4	21.0
<u>PROTEIN PERCENTAGE</u>					
Trappe, Md.	35.9	34.7	38.3	36.6	37.6
Warsaw, Va.	41.5	41.9	42.5	41.0	42.5
Plymouth, N. C.	41.3	40.2	43.4	40.6	45.2
Marianna, Ark.	43.4	43.3	45.2	43.0	44.3
Coahoma, Miss.	38.0	38.1	39.4	37.5	38.2
Stoneville, Miss. (A)	41.3	41.6	42.9	36.6	41.4
Stoneville, Miss. (B)	39.7	39.3	40.1	37.5	38.6
Bixby, Okla.	44.1	43.6	45.1	44.6	44.1
Mean	40.7	40.3	42.1	39.7	41.5

Table 13: Relative maturity data, days earlier (-) or later (+) than Dorman, for the strains in Uniform Group V, 1954

Location	Date Planted	Dorman Matured	S-100	Dortch-soy 67	D50-204
<u>East Coast</u>					
Marlboro, Md.	5-26	10-12	-5	+3	+10
Trappe, Md.	5-17	10-12	-7	-1	+3
Warsaw, Va.	5-31	10-8	-2	-1	+9
Petersburg, Va.	5-10	10-4	+8	+4	+17
Holland, Va.	5-13	10-10	+4	-2	+2
Plymouth, N. C.	5-3	10-4	-11	0	0
Mean		10-8	-2	+1	+7
<u>Upper and Central South</u>					
Belle Mina, Ala.	6-2	9-27	0	0	+32
Experiment, Ga.	5-11	9-19	+7	+2	+6
State College, Miss.	5-7	9-11	+1	+3	+15
Mean		9-19	+3	+1	+11
<u>Delta</u>					
Marianna, Ark.	5-23	9-14	+2	+6	+12
Coahoma, Miss.	5-7	9-15	0	+3	+4
Stoneville, Miss. (A)	5-19	9-17	0	+4	+7
Stoneville, Miss. (B)	5-21	9-18	0	+3	+7
St. Joseph, La.	6-5	9-21	0	-3	+24
Mean		9-17	0	+3	+11
<u>West</u>					
Stuttgart, Ark.	5-18	9-17	-4	0	+30
Fayetteville, Ark.	5-11	10-5	+14	+4	F
South Coffeeville, Okla.	5-15	10-4	0	+3	+7
Bixby, Okla.	5-14	10-21	+5	-1	+9
Perkins, Okla.	5-16	10-24	-21	+4	F
Mean		10-8	-1	+2	+15

Table 13: (Continued)

Location	D52-13	D52-16	D52-18	D52-78	D52-137	D52-217
<u>East Coast</u>						
Marlboro, Md.	-3	0	+5	+3	-10	+10
Trappe, Md.	-1	-3	-2	+1	-14	+3
Warsaw, Va.	+1	0	+3	+3	-5	+9
Petersburg, Va.	+3	+5	+4	+6	+5	+8
Holland, Va.	+5	-2	0	-2	+3	+4
Plymouth, N. C.	+3	0	0	0	-11	+8
Mean	+1	0	+2	+2	-5	+7
<u>Upper and Central South</u>						
Belle Mina, Ala.	0	+10	+22	+24	0	+39
Experiment, Ga.	+4	+1	0	+5	-1	+13
State College, Miss.	+15	+14	+15	+16	+1	+5
Mean	+6	+8	+12	+15	0	+19
<u>Delta</u>						
Marianna, Ark.	+6	+6	+6	+6	+2	+12
Coahoma, Miss.	0	+2	+3	+3	0	+9
Stoneville, Miss. (A)	+5	+4	+4	+3	-1	+10
Stoneville, Miss. (B)	0	+5	+6	+6	0	+9
St. Joseph, La.	+10	-2	+2	+6	0	+24
Mean	+4	+3	+4	+5	0	+13
<u>West</u>						
Stuttgart, Ark.	0	+12	+12	+17	-4	+12
Fayetteville, Ark.	+15	+13	+13	F	+3	F
South Coffeetown, Okla.	+7	+4	+4	+7	0	+5
Bixby, Okla.	+10	-5	+7	+7	-7	+8
Perkins, Okla.	+3	+7	+4	+5	-20	+5
Mean	+7	+6	+8	+9	-6	+8

Table 14: Height data for strains in Uniform Group V, 1954

Location	Dorman	S-100	Dortch- soy 67	D50-204	D52-13
<u>East Coast</u>					
Marlboro, Md.	42	37	36	40	38
Trappe, Md.	36	36	34	38	37
Warsaw, Va.	27	28	26	34	28
Accomac, Va.	35	38	29	35	40
Norfolk, Va.	34	39	31	33	35
Petersburg, Va.	36	36	34	38	37
Holland, Va.	40	48	32	39	44
Plymouth, N. C.	39	48	39	39	43
Mean	36	39	33	37	38
<u>Upper and Central South</u>					
Belle Mina, Ala.	21	20	20	24	20
Experiment, Ga.	32	32	27	30	31
Mean	27	26	29	27	26
<u>Delta</u>					
Clarkedale, Ark.	30	34	28	29	38
Marianna, Ark.	30	41	28	32	42
Coahoma, Miss.	35	46	35	35	45
Clarksdale, Miss.	31	45	33	33	41
Stoneville, Miss. (A)	37	50	35	38	53
Stoneville, Miss. (B)	30	45	30	31	43
St. Joseph, La.	24	56	34	34	50
Mean	31	45	32	33	45
<u>West</u>					
Stuttgart, Ark.	23	32	22	28	34
Fayetteville, Ark.	28	26	21	20	21
South Coffeetown, Okla.	28	30	26	27	32
Bixby, Okla.	36	38	36	34	36
Perkins, Okla.	21	24	22	24	25
Lubbock, Texas	18	30	10	21	24
Mean	26	30	23	26	29

Table 14: (Continued)

Location	D52-16	D52-18	D52-78	D52-137	D52-217
<u>East Coast</u>					
Marlboro, Md.	36	34	39	28	37
Trappe, Md.	35	32	39	26	34
Warsaw, Va.	27	26	28	23	29
Accomac, Va.	34	40	32	30	37
Norfolk, Va.	38	34	39	29	32
Petersburg, Va.	41	39	40	28	35
Holland, Va.	48	52	51	38	45
Plymouth, N. C.	50	51	50	33	41
Mean	39	39	40	29	36
<u>Upper and Central South</u>					
Belle Mina, Ala.	20	20	22	16	22
Experiment, Ga.	32	33	34	25	37
Mean	26	26	28	21	30
<u>Delta</u>					
Clarkedale, Ark.	35	39	42	28	32
Marianna, Ark.	43	45	42	29	35
Coahoma, Miss.	49	51	47	30	44
Clarksdale, Miss.	55	51	49	37	38
Stoneville, Miss. (A)	54	55	58	38	41
Stoneville, Miss. (B)	52	49	50	32	43
St. Joseph, La.	58	60	57	42	42
Mean	49	50	49	34	39
<u>West</u>					
Stuttgart, Ark.	35	34	36	24	28
Fayetteville, Ark.	20	21	26	19	19
South Coffeerville, Okla.	32	31	34	25	32
Bixby, Okla.	39	37	41	27	33
Perkins, Okla.	25	26	25	20	22
Lubbock, Texas	24	27	22	20	24
Mean	29	29	31	23	26

Table 15: Lodging scores for the strains in Uniform Group V, 1954

Location	Dorman	S-100	Dortch- soy 67	D50-204	D52-13
<u>East Coast</u>					
Marlboro, Md.	3.3	1.7	2.3	2.0	1.7
Trappe, Md.	2.7	1.0	1.3	1.3	1.3
Warsaw, Va.	1.0	1.0	1.0	1.0	1.0
Accomac, Va.	1.3	1.0	1.7	2.3	1.3
Norfolk, Va.	2.0	1.3	1.7	2.0	2.0
Petersburg, Va.	2.3	1.0	1.0	2.0	1.0
Holland, Va.	2.0	2.0	1.7	1.0	2.0
Plymouth, N. C.	3.5	3.0	3.2	2.8	3.5
<u>Upper and Central South</u>					
Belle Mina, Ala.	1.0	1.0	1.0	1.0	1.0
Experiment, Ga.	3.0	1.3	2.0	2.3	2.7
<u>Delta</u>					
Clarkedale, Ark.	1.6	1.3	1.0	1.6	2.0
Marianna, Ark.	2.0	1.3	1.0	2.0	2.0
Coahoma, Miss.	2.3	1.7	2.0	1.3	2.3
Clarksdale, Miss.	3.0	3.0	3.0	2.0	3.3
Stoneville, Miss. (A)	2.7	2.7	2.7	1.7	3.0
Stoneville, Miss. (B)	2.0	2.0	1.7	1.0	2.3
St. Joseph, La.	2.0	3.0	2.0	2.0	4.0
<u>West</u>					
Stuttgart, Ark.	1.3	1.3	1.0	1.0	1.6
Fayetteville, Ark.	1.0	1.0	1.0	1.0	1.0
South Coffeerville, Okla.	2.0	1.0	1.0	1.3	1.3
Bixby, Okla.	2.0	1.0	1.6	1.3	1.0
Perkins, Okla.	1.0	1.0	1.0	1.0	1.0
Lubbock, Texas	1.0	1.0	1.0	1.0	1.0

Table 15: (Continued)

Location	D52-16	D52-18	D52-78	D52-137	D52-217
<u>East Coast</u>					
Marlboro, Md.	1.3	1.3	1.0	2.0	1.3
Trappe, Md.	1.0	1.0	1.0	1.0	1.0
Warsaw, Va.	1.0	1.0	1.0	1.0	1.0
Accomac, Va.	1.0	1.0	1.0	1.3	1.0
Norfolk, Va.	1.0	1.0	1.0	1.3	1.0
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0
Holland, Va.	2.0	1.0	2.0	2.0	1.3
Plymouth, N. C.	3.2	3.0	2.3	2.5	2.2
<u>Upper and Central South</u>					
Belle Mina, Ala.	1.0	1.0	1.0	1.0	1.0
Experiment, Ga.	1.0	1.7	1.7	1.0	2.3
<u>Delta</u>					
Clarkedale, Ark.	1.6	1.3	1.6	1.0	1.0
Marianna, Ark.	1.3	2.0	1.3	1.0	1.0
Coahoma, Miss.	2.0	2.0	2.0	1.3	1.7
Clarksdale, Miss.	2.3	2.3	2.3	1.7	1.7
Stoneville, Miss. (A)	2.3	2.7	2.7	2.0	2.3
Stoneville, Miss. (B)	2.0	2.0	2.0	1.3	1.7
St. Joseph, La.	4.0	4.0	4.0	3.0	2.0
<u>West</u>					
Stuttgart, Ark.	1.0	1.0	1.0	1.0	1.0
Fayetteville, Ark.	1.0	1.0	1.0	1.0	1.0
South Coffeerville, Okla.	1.3	1.0	1.3	1.0	1.0
Bixby, Okla.	1.3	1.0	1.3	1.0	1.0
Perkins, Okla.	1.0	1.0	1.0	1.0	1.0
Lubbock, Texas	1.0	1.0	1.0	1.0	1.0

Table 16: Seed quality scores for the strains in Uniform Group V, 1954

Location	Dorman	S100	Dortch- soy 67	D50-204	D52-13
<u>East Coast</u>					
Marlboro, Md.	2.0	3.7	3.3	3.0	3.0
Trappe, Md.	1.7	4.0	2.0	1.7	3.3
Warsaw, Va.	1.0	1.0	1.0	2.0	1.5
Accomac, Va.	2.0	2.7	2.0	3.0	2.7
Norfolk, Va.	2.3	2.3	1.0	2.0	2.0
Petersburg, Va.	1.7	1.7	1.3	1.7	1.0
Holland, Va.	1.3	3.0	1.0	3.0	3.3
Plymouth, N. C.	3.3	3.8	2.3	3.8	3.7
<u>Upper and Central South</u>					
Belle Mina, Ala.	4.0	4.0	5.0	4.0	4.0
Experiment, Ga.	1.0	2.0	3.7	2.0	2.0
<u>Delta</u>					
Clarkedale, Ark.	3.0	3.3	4.3	3.6	3.6
Marianna, Ark.	2.5	2.5	2.8	2.8	2.5
Coahoma, Miss.	1.3	3.0	2.7	1.7	3.3
Clarksdale, Miss.	3.0	3.0	5.0	3.0	5.0
Stoneville, Miss. (A)	1.7	3.0	2.7	2.7	3.0
Stoneville, Miss. (B)	2.0	3.0	3.0	2.0	2.7
St. Joseph, La.	2.0	3.0	4.0	3.0	5.0
<u>West</u>					
Fayetteville, Ark.	3.3	4.3	5.0	4.3	4.3
South Coffeetown, Okla.	2.0	2.3	4.0	3.0	3.0
Bixby, Okla.	2.3	3.0	3.3	3.0	2.3
Perkins, Okla.	3.0	2.0	3.0	3.0	3.0
Lubbock, Texas	2.0	2.0	2.0	2.0	2.0

Table 16: (Continued)

Location	D52-16	D52-18	D52-78	D52-137	D52-217
<u>East Coast</u>					
Marlboro, Md.	2.7	2.7	2.0	3.0	3.7
Trappe, Md.	2.7	2.1	2.0	3.0	1.3
Warsaw, Va.	1.0	1.0	1.0	3.0	1.5
Accomac, Va.	2.3	2.0	2.3	2.3	2.3
Norfolk, Va.	1.7	1.3	2.3	2.3	1.7
Petersburg, Va.	1.3	2.3	1.3	3.0	1.3
Holland, Va.	2.0	2.7	2.3	1.7	1.3
Plymouth, N. C.	3.5	3.3	4.0	3.7	3.3
<u>Upper and Central South</u>					
Belle Mina, Ala.	4.0	3.0	3.0	5.0	3.0
Experiment, Ga.	2.3	2.7	2.0	3.0	3.0
<u>Delta</u>					
Clarkedale, Ark.	3.3	3.6	3.6	4.3	4.0
Marianna, Ark.	2.5	2.5	2.2	2.5	3.0
Coahoma, Miss.	3.3	2.7	1.3	2.3	2.7
Clarksdale, Miss.	4.0	4.0	3.0	4.0	3.7
Stoneville, Miss. (A)	2.7	2.7	1.7	2.3	2.3
Stoneville, Miss. (B)	2.0	2.3	2.0	3.0	2.3
St. Joseph, La.	3.0	3.0	2.0	4.0	3.0
<u>West</u>					
Fayetteville, Ark.	4.0	3.0	4.3	4.3	5.0
South Coffeeville, Okla.	2.6	3.0	2.0	3.0	4.3
Bixby, Okla.	3.3	2.6	1.3	3.6	2.6
Perkins, Okla.	3.0	3.0	2.6	3.3	3.6
Lubbock, Texas	2.0	2.0	2.0	2.0	2.0

Table 17: Seed weight, in grams per 100 seeds, for the strains in Uniform Group V, 1954

Location	Dorman	S-100	Dortch- soy 67	D50-204	D52-13
<u>East Coast</u>					
Marlboro, Md.	12.8	14.4	11.8	11.8	14.4
Trappe, Md.	16.2	17.1	15.1	14.5	17.4
Warsaw, Va.	14.5	14.7	13.7	13.0	15.0
Petersburg, Va.	14.4	14.1	13.9	16.5	14.1
Holland, Va.	17.0	15.6	14.4	16.7	18.0
Plymouth, N. C.	15.3	14.2	13.5	16.7	17.3
Mean	15.0	15.0	13.7	14.9	16.0
<u>Upper and Central South</u>					
Belle Mina, Ala.	9.7	10.5	8.8	13.5	10.4
Experiment, Ga.	13.8	15.8	11.9	12.3	16.0
Mean	11.8	13.2	10.4	12.9	13.2
<u>Delta</u>					
Clarkedale, Ark.	9.6	10.3	9.3	7.6	13.3
Marianna, Ark.	12.0	12.7	11.7	12.0	13.7
Coahoma, Miss.	13.5	13.2	10.9	11.9	12.8
Clarksdale, Miss.	9.6	10.3	8.2	9.6	9.7
Stoneville, Miss. (A)	11.8	14.1	10.9	11.4	15.0
Stoneville, Miss. (B)	11.6	12.4	11.2	11.1	12.8
Mean	11.4	12.2	10.4	10.6	12.9
<u>West</u>					
Fayetteville, Ark.	12.6	14.0	11.6	16.0	15.0
South Coffeetown, Okla.	11.4	12.6	11.3	13.3	12.6
Bixby, Okla.	13.3	13.5	13.8	15.7	14.5
Perkins, Okla.	10.5	10.3	9.6	13.9	10.1
Lubbock, Texas	14.0	14.0	13.0	14.0	13.0
Mean	12.4	12.9	11.9	11.8	10.4

Table 17: (Continued)

Location	D52-16	D52-18	D52-78	D52-137	D52-217
<u>East Coast</u>					
Marlboro, Md.	12.4	12.4	15.0	18.0	14.2
Trappe, Md.	14.4	14.1	17.0	20.2	17.2
Warsaw, Va.	13.0	12.5	13.7	19.2	14.8
Petersburg, Va.	13.6	14.3	14.6	15.8	15.0
Holland, Va.	14.4	15.3	17.7	20.3	17.9
Plymouth, N. C.	13.8	14.6	17.3	17.9	17.4
Mean	13.6	13.9	15.9	18.6	16.1
<u>Upper and Central South</u>					
Belle Mina, Ala.	9.2	10.7	12.2	13.1	12.4
Experiment, Ga.	12.4	12.7	13.8	17.0	15.4
Mean	10.8	11.7	13.0	15.1	13.9
<u>Delta</u>					
Clarkedale, Ark.	9.6	8.6	10.6	14.6	9.6
Marianna, Ark.	11.0	11.3	11.7	15.0	13.3
Coahoma, Miss.	9.1	10.4	10.8	14.4	11.1
Clarksdale, Miss.	10.0	9.7	8.7	10.7	9.2
Stoneville, Miss. (A)	10.6	11.2	12.7	15.7	14.0
Stoneville, Miss. (B)	9.4	9.4	10.3	13.0	10.9
Mean	10.0	10.1	10.8	13.9	11.3
<u>West</u>					
Fayetteville, Ark.	13.6	13.0	16.6	16.6	15.6
South Coffeerville, Okla.	11.3	11.7	12.4	13.8	11.7
Bixby, Okla.	13.8	13.6	15.3	14.3	15.2
Perkins, Okla.	10.9	11.2	11.7	11.6	12.2
Lubbock, Texas	14.0	16.0	15.0	15.0	15.0
Mean	12.7	13.1	14.2	13.3	13.9

Table 18: Two-year average yield, in bushels per acre, and oil and protein percentage for the strains in Uniform Group V, 1953-54

Location	Dorman	S-100	Dortch- soy 67	D50-204
<u>YIELD</u>				
<u>East Coast</u>				
Marlboro, Md.	20.7	26.6	24.2	18.2
Trappe, Md.	24.9	26.1	26.9	24.8
Warsaw, Va.	20.1	19.3	20.1	18.1
Accomac, Va.	21.3	24.2	26.0	21.0
Norfolk, Va.	18.6	21.0	24.2	23.5
Petersburg, Va.	14.3	14.1	18.3	16.0
Holland, Va.	32.8	19.0	28.8	24.6
Plymouth, N. C.	34.7	28.8	35.9	35.4
Mean	23.4	22.4	25.6	22.7
<u>Delta</u>				
Marianna, Ark.	12.7	20.6	18.5	16.5
Stoneville, Miss. (B)	34.9	35.5	35.1	34.2
St. Joseph, La.	32.2	39.1	37.1	31.5
Mean	26.6	31.7	30.2	27.4
<u>OIL PERCENTAGE</u>				
Trappe, Md.	22.1	20.9	22.6	20.0
Warsaw, Va.	22.4	19.3	22.3	19.2
Plymouth, N. C.	21.4	19.3	21.7	19.1
Marianna, Ark.	22.7	20.3	22.5	20.3
Stoneville, Miss.	23.2	20.3	23.0	20.0
Mean	22.4	20.0	22.4	19.7
<u>PROTEIN PERCENTAGE</u>				
Trappe, Md.	35.0	37.1	34.3	37.7
Warsaw, Va.	39.2	43.2	39.4	44.5
Plymouth, N. C.	38.9	42.2	40.1	45.0
Marianna, Ark.	38.8	40.2	37.8	43.2
Stoneville, Miss.	36.9	39.3	37.0	42.3
Mean	37.8	40.4	37.7	42.5

Table 19: Three-year average yield, in bushels per acre, and oil and protein percentage for the strains in Uniform Group V, 1952-54

Location	Dorman	S-100	Dortch- soy 67	D50-204
<u>YIELD</u>				
<u>East Coast</u>				
Trappe, Md.	28.1	27.6	28.3	-
Warsaw, Va.	23.8	22.6	24.4	22.6
Norfolk, Va.	24.4	22.6	27.5	26.5
Petersburg, Va.	20.9	19.7	23.8	20.9
Holland, Va.	32.7	22.9	30.0	29.4
Plymouth, N. C.	32.6	25.1	33.4	32.5
Mean	27.1	23.4	27.9	26.4
<u>Delta</u>				
Marianna, Ark.	13.4	16.7	15.9	16.5
Stoneville, Miss.	39.2	38.2	37.7	-
St. Joseph, La.	35.4	39.5	42.1	35.8
Mean	29.3	31.5	31.9	-
<u>OIL PERCENTAGE</u>				
Warsaw, Va.	22.5	19.7	22.3	19.3
Marianna, Ark.	22.3	19.9	22.2	19.1
Stoneville, Miss.	23.3	20.9	22.8	20.0
Mean	22.7	20.2	22.4	19.5
<u>PROTEIN PERCENTAGE</u>				
Warsaw, Va.	40.3	43.5	39.5	44.0
Marianna, Ark.	38.7	40.6	38.1	42.8
Stoneville, Miss.	36.8	40.1	37.5	41.9
Mean	38.6	41.4	38.4	42.9

UNIFORM GROUP VI

1954

Strain or Variety	Source or Originating Agency	Origin
Ogden	Tenn. A.E.S.	Sel. from Tokio x P.I. 54610
Lee	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from S-100 x CNS
(D49-2524)		
N51-1971	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x Ogden
N51-2043	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x Ogden
N51-2140	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745 ^{1/}
D51-4839	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745
D51-4863	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745
D51-4871	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745
D51-4888	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745
D51-4891	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745
D51-4977	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745
D51-5100	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745

1/N45-745 is a selection from Ogden x CNS, resistant to bacterial pustule.

Forty-three Group VI nurseries were planted. Results are summarized for 26 nurseries in tables 19 through 29. Of this number, 11 locations had mean yields of less than 15 bushels per acre and contributed little to strain evaluation. Only 8 nurseries had a mean yield of 30 bushels or more per acre.

It was planned that the strains grown in Group VI in 1954 should be continued for another two years to permit a more complete statistical evaluation of variety x year x location interactions. An attempt was made to have all testing locations record all data by replications. Although 8 of the 12 strains are selections from the same cross, they represent a range in maturity and height. Height is an important consideration in determining adaptation of this group. D51-4863, the shortest strain, makes adequate growth for combine harvesting in the more northerly plantings but is much too short in the southern plantings. Conversely, D51-4871 is too tall in northern plantings but has a desirable height in the Southeast. Although these two strains did not differ in yield in the Southeast, a higher harvesting loss would have been realized from D51-4863 because pods were borne too close to the ground for satisfactory combining.

The strain tested as D49-2524 has been released under the name of Lee. Seed stocks were increased in Virginia, North Carolina, South Carolina, Georgia, Alabama, Florida, Mississippi, and Arkansas. In all states the demand for seed far exceeds the supply. Demands for seed are especially high in the Delta area because of severe shattering on Ogden the past several years. Drouth conditions reduced seed increase appreciably in all states. In 1954, Lee yielded highly significantly higher than Ogden in the Eastern and Delta areas.

In the Southeast it had no yield advantage. Lee had a significantly lower oil content than Ogden in six East Coast tests; had significantly higher oil content than Ogden in four Western tests; and did not differ from Ogden in the Delta or Southeast. Protein content for Lee was higher than Ogden in the East and Southeast, but did not differ from Ogden in the Delta or West. Over the 4-year period, 1951-54, Lee has surpassed Ogden in yield in all production areas. As an average of 116 comparisons, Lee has averaged approximately 7 percent higher in yield. It also has slightly higher oil and protein content. However, from a production standpoint, Lee's greatest asset is its non-shattering character. With normal maturity, Lee will average 5 days later in maturity than Ogden. However, under drouth conditions, maturity of Ogden is hastened and maturity of Lee is delayed. Under extreme conditions, the differences in maturity may be as great as 21 days.

Of the other strains, N51-2043, D51-4863, and D51-4888 yielded higher than Ogden in the Eastern area and D51-4871 and D51-4891 yielded highly significantly less. It is interesting to note that the higher yielding strains were among the shorter ones and the two low yielding strains were the tallest. In addition to producing a higher seed yield than Ogden, D51-4888 also had a higher oil content and equalled Ogden in protein content. D51-4888 was included in the 1953 plantings and yielded one bushel more than Ogden in the East Coast area. In the Southeast, the strains did not differ in yield. In the Delta, only Lee yielded higher than Ogden. D51-5100 ranked after Lee and did not differ significantly from Lee in yield. On the basis of 20 locations, N51-1971, N51-2043, N51-2140, D51-4871, D51-4888, and D51-5100 all had higher oil content than Ogden. All other strains equalled Ogden in this respect. Only Lee had higher protein content, while N51-1971, D51-4871, and D51-4888 average lower in protein.

All strains except N51-2140 surpass Ogden in seed holding.

Table 20: Yield, in bushels per acre, for strains in Uniform Group VI, 1954

Location	Ogden	Lee	N51- 1971	N51- 2043	N51- 2140	D51- 4839	D51- 4863
<u>East Coast</u>							
Warsaw, Va.	15.4	16.7	15.9	16.4	15.7	14.0-	14.4
Accomac, Va.	30.6	27.9	25.3	25.1	23.8	25.6	21.4
Norfolk, Va.	20.1	19.6	23.0	24.2	24.9	22.3	21.4
Petersburg, Va.	9.1	11.2	11.4	9.6	10.6	9.2	10.2
Holland, Va.	27.1	34.9+	26.7	33.8	29.1	31.2	29.9
Plymouth, N. C.	37.5	42.3	35.8	34.7	38.2	37.2	32.4-
Willard, N. C.	30.9	37.5+	33.2	34.6+	31.5	34.1+	34.7+
McCullers, N. C.	10.4	11.4	11.8	10.5	10.2	9.7	10.6
Mean	22.6	25.1	22.9	23.6	23.0	22.9	21.9
<u>Southeast</u>							
Tallassee, Ala.	20.1	12.1	20.1	20.1	16.5	20.8	24.4
Gainesville, Fla.	27.1	27.7	27.4	26.8	27.2	24.4	29.4
Marianna, Fla.	18.9	18.7	20.4	14.5	16.2	16.8	16.4
Walnut Hill, Fla.	10.8	11.3	8.9	11.3	9.2	10.5	9.7
Fairhope, Ala.	12.5	17.6+	13.9	11.7	13.9	11.7	11.1
Baton Rouge, La.	29.3	33.7	32.9	26.5	24.7	26.8	28.7
Mean	19.8	20.2	20.6	18.4	18.0	18.5	20.0
<u>Upper and Central South</u>							
Experiment, Ga.	9.8	7.8	11.8	11.5	12.3	8.0	9.3
State College, Miss.	13.4	16.6	16.9	14.3	14.8	13.6	11.8
Mean	11.6	12.2	14.4	12.9	13.6	10.8	10.6
<u>Delta</u>							
Marianna, Ark.	22.4	22.3	24.4	19.2	24.7	21.2	18.9
Coahoma, Miss.	23.6	29.8	22.3	27.8	10.2-	28.5	33.1
Stoneville, Miss. (A)	29.6	46.1+	29.2	33.6	32.1	27.6	27.7
Stoneville, Miss. (B)	31.4	36.5	26.0	36.2	24.9	35.5	29.2
St. Joseph, La.	39.4	41.3	40.2	39.4	36.0	45.9	36.0
Mean	29.3	35.2	28.4	31.2	25.6	31.7	29.0
<u>West</u>							
Fayetteville, Ark.	8.0	8.2	7.9	8.6	9.2	8.9	9.3
Bixby, Okla.	9.0	10.4	6.4	8.8	6.5	10.3	8.6
Perkins, Okla.	2.9	2.6	2.6	2.7	3.0	2.4	2.5
Milburn, Okla.	7.9	10.7	8.3	4.7	5.2	10.5	11.0
Lubbock, Texas	13.5	16.4+	13.0	12.9	12.5	12.3	15.2
Mean	8.3	10.0	7.6	7.5	7.3	9.0	9.3

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

Table 20: (Continued)

Location	D51- 4871	D51- 4888	D51- 4891	D51- 4977	D51- 5100	L.S.D. (5%)	C.V.
<u>East Coast</u>							
Warsaw, Va.	15.1	16.8+	14.6	15.0	15.6	1.4	5%
Accomac, Va.	24.2	27.4	23.7	27.2	24.2	N.S.	11%
Norfolk, Va.	14.3	27.2	15.7	20.3	19.8	N.S.	21%
Petersburg, Va.	4.4-	14.1+	6.0-	7.7	10.6	2.9	18%
Holland, Va.	23.5	38.5	30.6	25.4	29.8	6.4	12%
Plymouth, N. C.	34.4	37.3	32.8	35.1	34.0	4.9	8%
Willard, N. C.	32.0	35.6+	27.3-	32.9	36.5+	3.2	6%
McCullers, N. C.	11.7	13.4	11.3	10.0	10.2	N.S.	17%
Mean	20.0	26.3	20.3	21.7	22.6	1.2	7%
<u>Southeast</u>							
Tallassee, Ala.	9.0	19.1	15.5	19.4	23.2	N.S.	29%
Gainesville, Fla.	34.6	29.9	29.4	29.0	25.0	N.S.	16%
Marianna, Fla.	21.2	18.6	20.8	20.9	17.3	N.S.	19%
Walnut Hill, Fla.	9.7	10.8	10.5	10.0	8.6	N.S.	12%
Fairhope, Ala.	16.1+	12.0	15.8	14.8	14.5	3.5	15%
Baton Rouge, La.	36.0+	26.5	32.5	28.6	31.0	5.5	11%
Mean	21.1	19.5	20.8	20.5	20.0	N.S.	18%
<u>Upper and Central South</u>							
Experiment, Ga.	7.0	14.4+	6.7	8.8	8.6	3.6	22%
State College, Miss.	13.0	9.9	10.8	16.9	15.9	N.S.	31%
Mean	10.0	12.2	8.7	12.9	12.3		
<u>Delta</u>							
Marianna, Ark.	31.7	27.1	20.7	24.1	21.2	N.S.	23%
Coahoma, Miss.	19.4	26.0	27.3	18.7	26.8	10.6	26%
Stoneville, Miss.(A)	35.6	27.4	33.7	26.2	35.5	8.8	16%
Stoneville, Miss.(B)	28.3	33.5	31.2	25.6	32.0	N.S.	17%
St. Joseph, La.	43.0	37.5	40.4	45.1	44.4	N.S.	13%
Mean	31.6	30.3	30.7	27.9	32.0	3.8	17%
<u>West</u>							
Fayetteville, Ark.	11.0	10.0	8.9	8.8	5.0	N.S.	35%
Bixby, Okla.	9.3	11.3	8.5	14.5	5.7	N.S.	40%
Perkins, Okla.	1.9	2.4	1.4	2.0	2.4	N.S.	41%
Milburn, Okla.	7.0	7.1	4.4	5.8	6.6	3.7	29%
Lubbock, Texas	13.3	11.7	13.3	12.1	13.9	2.4	11%
Mean	8.5	8.5	7.3	8.6	6.7		

Table 21: Summary of the oil percentage for strains in Uniform Group VI, 1954

Location	Ogden	Lee	N51- 1971	N51- 2043	N51- 2140	D51- 4839
<u>East Coast</u>						
Warsaw, Va.	21.4	20.7-	22.5+	22.1+	22.0+	20.9-
Accomac, Va.	21.7	20.8	21.9	21.8	21.8	21.1
Norfolk, Va.	19.7	18.4-	20.6+	20.3+	20.3+	19.1-
Petersburg, Va.	20.0	18.3-	21.0+	20.4	19.3	19.9
Plymouth, N. C.	20.7	21.0	21.7+	21.2	21.9+	20.5
Willard, N. C.	21.9	21.5-	23.1+	22.7+	22.8+	21.8
McCullers, N. C.	17.6	18.8	18.2	17.7	17.3	16.8
Mean	20.4	19.9	21.3	20.9	20.8	20.0
<u>Southeast</u>						
Tallassee, Ala.	23.9	23.7	25.1	24.5	24.2	24.2
Gainesville, Fla.	22.5	21.8	23.9+	23.3+	23.3+	22.9
Marianna, Fla.	19.8	20.5	20.9	19.0	20.3	20.0
Walnut Hill, Fla.	20.4	19.7-	21.2+	20.5	20.7	20.2
Fairhope, Ala.	20.3	21.0	20.9	20.4	20.2	19.9
Mean	21.4	21.3	22.4	21.5	21.7	21.4
<u>Upper and Central South</u>						
Experiment, Ga.	19.6	18.9	21.4+	21.3+	21.2+	19.4
<u>Delta</u>						
Marianna, Ark.	21.6	22.1	22.8	21.2	22.0	21.4
Coahoma, Miss.	23.4	21.2-	23.5	23.4	22.3	22.3
Stoneville, Miss. (A)	20.5	21.5+	21.7+	21.5+	22.1+	20.0
Stoneville, Miss. (B)	22.0	22.5	23.4+	22.9+	22.7+	22.6
Mean	21.8	21.8	22.9	22.3	22.3	21.6
<u>West</u>						
Fayetteville, Ark.	19.3	21.3	20.3	20.7	20.8	19.3
Bixby, Okla.	19.9	20.1	20.7	20.1	20.0	19.7
Perkins, Okla.	19.5	18.8	19.4	19.4	19.6	19.2
Milburn, Okla.	19.3	19.9	20.2	19.2	18.9	19.6
Lubbock, Texas	24.1	25.0	25.1	24.4	25.0	25.0
Mean	20.4	21.0	21.1	20.8	20.9	20.6

Table 21: (Continued)

Location	D51- 4863	D51- 4871	D51- 4888	D51- 4891	D51- 4977	D51- 5100	L.S.D. (5%)
<u>East Coast</u>							
Warsaw, Va.	21.7	21.6	21.8	20.9-	21.5	21.7	0.5
Accomac, Va.	21.4	21.2	21.6	20.9	21.3	21.4	N.S.
Norfolk, Va.	20.2	19.9	20.0	19.5	19.7	19.5	0.6
Petersburg, Va.	20.1	19.6	19.9	19.7	19.8	20.0	0.7
Plymouth, N. C.	21.1	21.2	21.1	21.1	20.3	20.7	0.7
Willard, N. C.	22.3+	22.4+	22.7+	22.0	21.9	21.8	0.4
McCullers, N.C.	17.9	20.7	16.7	20.4	20.0	17.7	N.S.
Mean	20.7	20.9	21.3	20.6	20.6	20.4	0.2
<u>Southeast</u>							
Tallassee, Ala.	24.0	22.6	24.6	24.1	24.2	24.0	0.7
Gainesville, Fla.	23.8+	23.5+	23.8+	23.0	23.4+	23.0	0.8
Marianna, Fla.	19.8	22.0+	20.7	21.0	21.5+	20.5	1.4
Walnut Hill, Fla.	19.4-	20.8	19.0-	21.1	20.9	21.0	0.6
Fairhope, Ala.	19.1-	21.4+	19.4-	21.1	21.2+	21.1	0.9
Mean	21.2	22.1	21.5	22.1	22.2	21.9	0.4
<u>Upper and Central South</u>							
Experiment, Ga.	20.0	20.1	21.4+	20.1	20.1	20.1	1.2
<u>Delta</u>							
Marianna, Ark.	21.9	21.9	21.8	22.1	21.4	22.2	N.S.
Coahoma, Miss.	21.8-	23.4	24.1	23.5	21.7-	22.5	1.3
Stoneville, Miss.(A)	20.2	22.6+	20.6	22.1+	21.0	21.4+	0.8
Stoneville, Miss.(B)	22.2	22.6	23.1+	22.6	22.5	22.6	0.7
Mean	21.5	22.6	22.4	22.6	21.7	22.2	0.5
<u>West</u>							
Fayetteville, Ark.	20.4	19.2	20.2	19.7	20.1	19.0	N.S.
Bixby, Okla.	20.0	20.2	19.9	19.9	20.0	20.1	N.S.
Perkins, Okla.	19.5	19.2	19.1	18.1	19.1	19.6	N.S.
Milburn, Okla.	20.1	18.9	19.6	18.4	19.0	19.2	1.0
Lubbock, Texas	23.6	24.4	25.1	24.8	24.2	24.0	N.S.
Mean	20.7	20.4	20.8	20.2	20.5	20.4	0.5

Table 22: Summary of the protein percentage for strains in the Uniform Group VI, 1954

Location	Ogden	Lee	N51- 1971	N51- 2043	N51- 2140	D51- 4839
<u>East Coast</u>						
Warsaw, Va.	42.7	43.4	42.0	43.6	41.7	43.4
Accomac, Va.	40.8	42.6	40.7	42.4	41.9	42.2
Norfolk, Va.	43.8	46.0	43.8	44.3	43.4	44.4
Petersburg, Va.	44.5	46.6+	43.5	44.8	45.7+	44.1
Plymouth, N. C.	42.7	43.8	41.3	43.5	40.6	42.5
Willard, N. C.	41.9	42.5	41.3	41.3	41.9	41.1
McCullers, N. C.	48.6	47.2	46.7	46.1	48.2	48.0
Mean	43.6	44.6	42.8	43.7	43.3	43.7
<u>Southeast</u>						
Tallassee, Ala.	37.5	38.3	38.0	37.5	38.1	37.8
Gainesville, Fla.	41.3	43.7+	39.6	39.7-	40.0	40.1
Marianna, Fla.	43.7	44.3	43.2	44.8	44.1	43.5
Walnut Hill, Fla.	44.0	46.4	44.2	43.8	44.0	44.7
Fairhope, Ala.	44.8	44.1	44.3	45.5	44.7	44.8
Mean	42.3	43.3	41.9	42.3	42.2	42.2
<u>Upper and Central South</u>						
Experiment, Ga.	44.6	46.3	44.3	43.9	44.5	46.1
<u>Delta</u>						
Marianna, Ark.	41.4	39.8	40.0	41.8	41.3	41.4
Coahoma, Miss.	36.5	40.0+	37.5	37.6	39.7	39.0
Stoneville, Miss.(A)	43.3	41.6-	41.2-	42.3	41.7-	42.6
Stoneville, Miss.(B)	40.2	39.5	38.8	40.1	38.8	39.2
Mean	40.4	40.2	39.4	40.7	40.4	40.6
<u>West</u>						
Fayetteville, Ark.	44.7	42.6-	44.9	44.8	44.0	46.2
Bixby, Okla.	43.6	43.1	42.3-	43.6	44.3	44.0
Perkins, Okla.	46.4	46.6	45.8	43.2-	46.2	45.5
Milburn, Okla.	44.1	44.0	44.4	46.8+	47.0+	44.6
Lubbock, Texas	32.3	31.7	32.7	31.7	31.9	30.6-
Mean	42.2	41.6	42.0	41.7	42.7	42.2

Table 22: (Continued)

Location	D51- 4863	D51- 4871	D51- 4888	D51- 4891	D51- 4977	D51- 5100	L.S.D. (5%)
<u>East Coast</u>							
Warsaw, Va.	42.1	42.0	42.0	43.1	42.4	42.1	N.S.
Accomac, Va.	41.6	42.3	41.9	41.7	41.5	41.0	N.S.
Norfolk, Va.	43.6	44.5	44.5	44.9	44.6	44.3	N.S.
Petersburg, Va.	43.3-	43.7	44.5	44.6	43.8	43.8	1.2
Plymouth, N. C.	42.6	42.5	42.0	42.7	41.9	42.0	N.S.
Willard, N. C.	41.4	41.4	40.9	43.0+	41.7	41.6	1.1
McCullers, N. C.	47.2	43.7	46.8	45.7	45.7	46.6	N.S.
Mean	43.1	42.9	43.2	43.7	43.0	43.1	0.7
<u>Southeast</u>							
Tallassee, Ala.	37.4	39.3	36.5	38.8	38.3	38.7	N.S.
Gainesville, Fla.	39.1-	40.7	38.8-	40.9	39.3-	39.2-	1.6
Marianna, Fla.	44.2	41.6-	43.4	43.2	40.8-	42.6	1.7
Walnut Hill, Fla.	44.9+	43.7	44.4	43.7	43.7	43.8	0.8
Fairhope, Ala.	45.8	44.1	45.3	44.8	43.3	43.0	N.S.
Mean	42.3	41.9	41.7	42.3	41.1	41.5	0.7
<u>Upper and Central South</u>							
Experiment, Ga.	45.3	44.5	43.1	45.0	44.6	45.0	N.S.
<u>Delta</u>							
Marianna, Ark.	40.7	39.9	40.3	41.2	40.7	40.1	N.S.
Coahoma, Miss.	39.3	36.3	35.6	37.2	39.9+	38.6	2.4
Stoneville, Miss.(A)	44.0	40.8-	42.3	41.2	42.4	41.3-	1.3
Stoneville, Miss.(B)	40.3	39.3	38.5	39.9	38.3	39.4	N.S.
Mean	41.1	39.1	39.2	40.0	40.3	40.0	0.8
<u>West</u>							
Fayetteville, Ark.	42.8	43.4	43.9	45.1	43.8	45.5	2.1
Bixby, Okla.	42.6	42.1-	44.0	43.0	42.6	42.4-	1.2
Perkins, Okla.	44.0-	44.2-	45.2	47.1	45.0	44.7	1.9
Milburn, Okla.	43.2	43.7	45.8	46.5+	44.9	43.7	1.9
Lubbock, Texas	31.6	32.3	31.5	30.1-	31.3-	32.3	0.9
Mean	40.8	41.1	42.1	42.4	41.5	41.7	0.9

Table 23: Maturity data, days (-) or later (+) than Ogden for the strains in Uniform Group VI, 1954

Location	Date Planted	Ogden Matured	Lee	N51-1971	N51-2043	N51-2140
<u>East Coast</u>						
Warsaw, Va.	5-31	10-21	+1	-3	-2	-1
Petersburg, Va.	5-10	11-10	+1	-3	-2	-6
Holland, Va.	5-13	10-22	+4	+2	-3	-7
Plymouth, N. C.	5-3	10-15	+7	+2	-2	-2
Willard, N. C.	5-5	10-8	+10	+4	-2	-3
McCullers, N. C.	5-11	10-9	+9	-1	-10	-11
Mean		10-14	+5	0	-4	-5
<u>Southeast</u>						
Tallassee, Ala.	5-21	10-5	+20	+1	0	0
Gainesville, Fla.	6-10	10-5	+11	+2	0	+2
Walnut Hill, Fla.	6-15	9-24	+16	+10	+6	+10
Fairhope, Ala.	6-14	10-15	+21	0	-2	-4
Baton Rouge, La.	4-27	9-23	+25	+3	-1	+2
Mean		10-2	+19	+3	+1	+2
<u>Upper and Central South</u>						
Experiment, Ga.	5-11	10-6	+5	+2	-2	0
State College, Miss.	5-7	10-1	+24	+3	0	-1
Mean		10-3	+15	+2	-1	0
<u>Delta</u>						
Marianna, Ark.	5-23	10-6	+19	0	0	0
Coahoma, Miss.	5-7	10-7	+13	-2	-2	-8
Stoneville, Miss.(A)	5-19	10-11	+12	+2	0	0
Stoneville, Miss.(B)	5-21	10-11	+10	0	-1	-4
St. Joseph, La.	6-4	10-10	+5	0	0	0
Mean		10-9	+12	0	-1	-2
<u>West</u>						
Fayetteville, Ark.	5-11	All varieties frosted 10-30				
Bixby, Okla.	5-14	10-28	+6	+1	+1	+1
Perkins, Okla.	5-16	All varieties frosted				
Milburn, Okla.	5-8	10-30	+5	-13	-13	-9
Mean		10-29	+5	-6	-6	-4

Table 23: (Continued)

Location	D51- 4839	D51- 4863	D51- 4871	D51- 4888	D51- 4891	D51- 4977	D51- 5100
<u>East Coast</u>							
Warsaw, Va.	-1	0	+11	-2	+11	-2	-2
Petersburg, Va.	-1	-3	+5	+4	+5	-1	-1
Holland, Va.	-2	-3	+4	-5	-1	-4	-4
Plymouth, N. C.	-3	-2	+4	-2	+3	+1	-2
Willard, N. C.	-2	-1	-1	-2	+3	+1	0
McCullers, N. C.	-1	+9	+13	-10	+13	+13	+3
Mean	-2	0	+6	-3	+6	+1	-1
<u>Southeast</u>							
Tallassee, Ala.	+1	0	+20	+1	+9	+2	+2
Gainesville, Fla.	0	0	+6	0	+2	+2	+2
Walnut Hill, Fla.	+8	+5	+15	+3	+10	+8	+8
Fairhope, Ala.	0	0	+21	-3	0	+8	+7
Baton Rouge, La.	+3	+2	+7	-1	+7	+4	+4
Mean	+2	+1	+14	0	+6	+5	+5
<u>Upper and Central South</u>							
Experiment, Ga.	+2	+2	+2	-1	+6	+2	+4
State College, Miss.	+1	+4	+13	0	+1	+3	+3
Mean	+1	+3	+7	0	+3	+2	+3
<u>Delta</u>							
Marianna, Ark.	0	+3	+12	0	+4	0	0
Coahoma, Miss.	0	-2	+5	-6	+6	+1	0
Stoneville, Miss. (A)	-3	-1	+3	-3	+3	+1	0
Stoneville, Miss. (B)	-3	-1	+1	-2	+1	-2	-2
St. Joseph, La.	0	0	+3	0	+2	+2	+3
Mean	-1	0	+5	-2	+3	0	0
<u>West</u>							
Fayetteville, Ark.			All varieties frosted				
Bixby, Okla.	+5	+2	+6	+4	+7	+4	+3
Perkins, Okla.			All varieties frosted				
Milburn, Okla.	-7	-14	-8	0	+5	-9	0
Mean	-1	-6	-1	+2	+6	-2	+1

Table 24: Height data for the strains in Uniform Group VI, 1954

Location	Ogden	Lee	N51- 1971	N51- 2043	N51- 2140	D51- 4839
<u>East Coast</u>						
Warsaw, Va.	31	27	31	31	31	30
Accomac, Va.	31	31	31	30	33	30
Norfolk, Va.	29	28	33	31	39	36
Petersburg, Va.	37	33	37	36	34	36
Holland, Va.	43	37	45	41	43	43
Plymouth, N. C.	41	35	42	38	39	41
Willard, N. C.	34	30	35	28	32	35
McCullers, N. C.	34	31	35	33	39	35
Mean	35	32	36	34	36	36
<u>Southeast</u>						
Tallassee, Ala.	23	30	25	19	25	23
Gainesville, Fla.	15	14	15	15	19	13
Marianna, Fla.	24	24	29	24	30	27
Walnut Hill, Fla.	28	29	31	26	30	31
Fairhope, Ala.	18	24	18	20	20	22
Baton Rouge, La.	28	26	25	24	28	28
Mean	23	25	24	21	25	24
<u>Upper and Central South</u>						
Experiment, Ga.	32	35	37	30	38	33
<u>Delta</u>						
Marianna, Ark.	32	28	35	30	31	30
Coahoma, Miss.	33	31	35	31	35	31
Stoneville, Miss. (A)	38	33	43	37	41	34
Stoneville, Miss. (B)	31	27	34	31	35	31
St. Joseph, La.	30	32	36	20	34	36
Mean	33	30	37	30	35	32
<u>West</u>						
Fayetteville, Ark.	21	23	26	21	24	25
Bixby, Okla.	32	36	37	30	39	35
Perkins, Okla.	22	23	24	22	23	23
Milburn, Okla.	25	24	28	25	30	27
Lubbock, Texas	20	19	30	21	21	20
Mean	24	25	29	24	27	26

Table 24: (Continued)

Location	D51- 4863	D51- 4871	D51- 4888	D51- 4891	D51- 4977	D51- 5100
<u>East Coast</u>						
Warsaw, Va.	24	37	28	35	33	32
Accomac, Va.	26	36	31	42	41	34
Norfolk, Va.	25	42	28	40	43	38
Petersburg, Va.	32	45	34	44	42	38
Holland, Va.	36	56	39	53	52	46
Plymouth, N. C.	31	50	36	51	47	45
Willard, N. C.	27	51	30	45	47	38
McCullers, N. C.	27	43	33	44	39	37
Mean	29	45	32	44	43	39
<u>Southeast</u>						
Tallassee, Ala.	16	37	20	36	36	29
Gainesville, Fla.	12	21	11	23	20	16
Marianna, Fla.	21	35	24	34	37	33
Walnut Hill, Fla.	21	36	27	35	36	32
Fairhope, Ala.	12	30	16	23	32	27
Baton Rouge, La.	20	32	24	34	34	28
Mean	17	32	20	31	33	28
<u>Upper and Central South</u>						
Experiment, Ga.	28	41	32	43	41	36
<u>Delta</u>						
Marianna, Ark.	28	40	30	44	42	33
Coahoma, Miss.	30	49	32	42	48	39
Stoneville, Miss. (A)	31	57	34	53	50	49
Stoneville, Miss. (B)	25	43	32	43	45	38
St. Joseph, La.	18	44	26	36	36	40
Mean	27	47	31	44	44	40
<u>West</u>						
Fayetteville, Ark.	19	26	23	26	27	21
Bixby, Okla.	26	42	32	41	39	36
Perkins, Okla.	17	26	22	28	25	24
Milburn, Okla.	20	34	26	32	32	31
Lubbock, Texas	20	30	22	30	28	22
Mean	20	32	25	31	30	27

Table 25: Lodging data for strains in Uniform Group VI, 1954

Location	Ogden	Lee	N51- 1971	N51- 2043	N51- 2140	D51- 4839
<u>East Coast</u>						
Warsaw, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Accomac, Va.	1.0	2.0	1.0	1.7	1.3	1.0
Norfolk, Va.	1.0	1.7	1.0	1.0	1.7	1.0
Petersburg, Va.	1.0	2.0	1.3	1.3	1.0	1.0
Holland, Va.	1.3	1.0	1.0	1.0	1.3	1.3
Plymouth, N. C.	2.7	2.5	3.2	2.7	2.8	2.3
Willard, N. C.	1.8	1.5	1.7	1.3	1.8	1.8
McCullers, N. C.	1.3	1.8	2.0	1.3	2.2	1.3
<u>Southeast</u>						
Tallassee, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, Fla.	1.0	1.0	1.7	1.0	1.3	1.0
Walnut Hill, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	1.0	2.0	1.0	1.0	2.0	1.0
<u>Upper and Central South</u>						
Experiment, Ga.	1.0	1.7	1.3	1.0	1.7	1.0
State College, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
<u>Delta</u>						
Clarkedale, Ark.	1.0	1.7	1.7	1.3	1.3	1.0
Marianna, Ark.	2.0	2.0	1.7	1.7	1.7	1.7
Coahoma, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, Miss. (A)	2.0	2.0	2.7	2.0	2.0	1.3
Stoneville, Miss. (B)	1.0	1.0	1.0	1.0	1.0	1.0
St. Joseph, La.	2.0	3.0	2.0	1.0	2.0	2.0
<u>West</u>						
Fayetteville, Ark.	1.0	1.7	1.0	1.0	1.0	1.0
Bixby, Okla.	1.0	1.3	1.0	1.0	1.0	1.3
Perkins, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
Milburn, 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 25: (Continued)

Location	D51- 4863	D51- 4871	D51- 4888	D51- 4891	D51- 4977	D51- 5100
<u>East Coast</u>						
Warsaw, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Accomac, Va.	1.0	1.0	2.0	1.7	2.0	1.0
Norfolk, Va.	1.0	1.0	1.7	1.7	1.7	1.7
Petersburg, Va.	1.0	1.0	1.0	2.3	1.7	1.0
Holland, Va.	3.0	1.0	2.3	2.3	1.0	1.3
Plymouth, N. C.	2.3	3.0	2.5	3.2	3.0	3.0
Willard, N. C.	1.2	2.2	2.0	2.0	3.2	2.3
McCullers, N. C.	1.0	3.0	1.0	3.2	3.0	1.5
<u>Southeast</u>						
Tallassee, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Marianna, Fla.	1.0	1.7	1.0	2.7	2.3	1.7
Walnut Hill, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	1.0	2.0	1.0	2.0	2.0	2.0
<u>Upper and Central South</u>						
Experiment, Ga.	1.0	1.3	1.3	2.3	2.0	1.0
State College, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
<u>Delta</u>						
Clarkedale, Ark.	1.0	1.3	1.7	2.5	2.0	1.7
Marianna, Ark.	1.0	2.0	1.7	3.0	2.7	2.0
Coahoma, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
Stoneville, Miss. (A)	1.0	2.7	1.3	2.7	2.0	2.0
Stoneville, Miss. (B)	1.0	2.3	1.0	2.0	2.3	1.3
St. Joseph, La.	1.0	3.0	3.0	2.0	2.0	2.0
<u>West</u>						
Fayetteville, Ark.	1.0	1.0	1.0	2.0	1.3	1.0
Bixby, Okla.	1.0	1.3	1.0	1.6	1.0	1.0
Perkins, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
Milburn, 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 26: Seed quality data for the strains in Uniform Group VI, 1954

Location	Ogden	Lee	N51- 1971	N51- 2043	N51- 2140	D51- 4839
<u>East Coast</u>						
Warsaw, Va.	1.5	1.5	1.0	1.0	2.5	1.0
Accomac, Va.	1.3	1.3	1.3	1.7	1.3	1.3
Norfolk, Va.	2.0	1.7	1.0	1.7	2.0	1.3
Petersburg, Va.	2.7	2.3	2.7	2.0	3.0	1.0
Holland, Va.	2.0	1.0	1.7	2.0	1.3	1.7
Plymouth, N. C.	3.2	1.7	2.5	2.7	2.7	2.7
Willard, N. C.	2.8	1.2	2.8	2.3	2.7	2.8
McCullers, N. C.	2.8	1.7	2.3	2.0	2.8	3.0
<u>Southeast</u>						
Tallassee, Ala.	2.7	2.7	4.0	3.0	3.3	3.0
Gainesville, Fla.	2.0	2.0	2.0	2.0	2.0	1.0
Marianna, Fla.	3.0	2.3	3.0	3.0	2.7	3.0
Walnut Hill, Fla.	3.0	2.0	3.3	3.0	4.0	3.0
Fairhope, Ala.	3.3	2.3	3.0	3.0	2.7	3.0
Baton Rouge, La.	3.0	1.0	3.0	3.0	4.0	2.0
<u>Upper and Central South</u>						
Experiment, Ga.	3.0	2.7	3.3	2.7	2.3	3.0
<u>Delta</u>						
Marianna, Ark.	3.0	3.0	3.0	3.0	3.0	3.0
Coahoma, Miss.	2.0	1.7	3.0	1.7	2.0	2.0
Stoneville, Miss. (A)	2.0	1.0	2.7	2.3	2.3	2.0
Stoneville, Miss. (B)	2.0	2.0	2.3	2.0	2.0	2.0
St. Joseph, La.	3.0	2.0	3.0	3.0	3.0	2.0
<u>West</u>						
Fayetteville, Ark.	3.7	3.7	3.7	2.7	3.0	3.3
Bixby, Okla.	2.3	2.0	3.0	1.6	2.3	1.6
Perkins, Okla.	2.0	2.6	3.0	1.6	1.6	2.3
Milburn, Okla.	3.6	3.0	4.0	4.0	3.3	3.3
Lubbock, Texas	2.3	2.3	3.0	2.3	2.7	2.0

Table 26: (Continued)

Location	D51- 4863	D51- 4871	D51- 4888	D51- 4891	D51- 4977	D51- 5100
<u>East Coast</u>						
Warsaw, Va.	2.0	1.0	1.5	1.0	1.0	1.0
Accomac, Va.	1.7	1.3	1.3	2.0	1.3	1.3
Norfolk, Va.	1.7	2.0	1.0	1.7	2.0	1.0
Petersburg, Va.	3.0	3.0	2.3	3.0	2.0	1.3
Holland, Va.	1.3	2.0	1.0	2.0	1.3	1.3
Plymouth, N. C.	3.2	2.7	2.5	3.0	3.0	2.5
Willard, N. C.	2.5	3.0	1.8	3.0	2.8	2.3
McCullers, N. C.	2.7	3.3	2.7	3.0	3.0	2.7
<u>Southeast</u>						
Tallassee, Ala.	2.3	4.7	3.3	3.3	3.0	2.7
Gainesville, Fla.	2.0	2.0	1.3	1.7	2.0	1.7
Marianna, Fla.	2.7	3.0	3.3	2.7	2.0	2.3
Walnut Hill, Fla.	3.7	3.0	3.0	3.0	2.7	2.7
Fairhope, Ala.	2.3	3.3	3.7	3.0	2.7	2.7
Baton Rouge, La.	2.0	2.0	2.0	3.0	3.0	2.0
<u>Upper and Central South</u>						
Experiment, Ga.	3.3	3.0	3.0	3.3	2.7	2.3
<u>Delta</u>						
Marianna, Ark.	3.0	3.0	3.0	3.0	3.0	3.0
Coahoma, Miss.	2.0	2.7	2.3	2.0	2.3	1.3
Stoneville, Miss. (A)	2.0	2.0	2.0	2.0	2.0	2.0
Stoneville, Miss. (B)	2.0	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	2.0	3.0	2.0	2.0	2.0	3.0
<u>West</u>						
Fayetteville, Ark.	3.0	3.0	4.0	4.0	3.7	4.0
Bixby, Okla.	2.3	1.6	2.3	2.3	2.0	2.0
Perkins, Okla.	3.0	2.6	3.0	2.3	2.0	2.0
Milburn, Okla.	3.3	3.0	4.0	3.6	2.3	2.3
Lubbock, Texas	2.0	2.3	3.0	2.0	2.3	2.0

Table 27: Seed weight, in grams per 100 seeds, for the strains in Uniform Group VI, 1954

Location	Ogden	Lee	N51- 1971	N51- 2043	N51- 2140	D51- 4839
<u>East Coast</u>						
Warsaw, Va.	17.0	14.2	16.3	17.5	15.5	14.5
Accomac, Va.	19.9	14.8	17.8	21.6	20.0	16.5
Norfolk, Va.	17.1	14.2	18.0	19.1	18.3	16.7
Petersburg, Va.	17.3	13.5	17.2	16.9	15.0	16.1
Holland, Va.	16.0	13.8	17.4	18.1	16.6	15.6
Plymouth, N. C.	18.2	14.8	18.0	18.6	18.9	17.9
Willard, N. C.	18.0	12.9	20.1	19.9	18.8	15.8
McCullers, N. C.	10.0	10.2	10.9	10.0	9.8	10.3
Mean	16.7	13.6	17.0	17.7	16.7	15.4
<u>Southeast</u>						
Tallassee, Ala.	15.8	12.9	15.7	14.5	13.6	13.6
Gainesville, Fla.	16.2	15.2	16.6	16.5	15.3	14.7
Marianna, Fla.	12.3	11.9	13.1	13.9	11.9	11.8
Walnut Hill, Fla.	13.3	14.9	13.8	12.7	13.4	13.7
Fairhope, Ala.	14.9	14.5	16.5	14.1	13.0	13.2
Baton rouge, La.	14.7	13.4	16.0	16.5	16.0	12.0
Mean	14.5	13.8	15.2	14.7	13.9	13.2
<u>Upper and Central South</u>						
Experiment, Ga.	14.7	11.9	14.8	15.3	14.0	15.0
State College, Miss.	13.7	11.4	13.9	14.2	13.2	12.4
Mean	14.2	11.6	14.3	14.7	13.6	13.7
<u>Delta</u>						
Marianna, Ark.	14.7	13.7	15.3	13.7	15.7	15.0
Coahoma, Miss.	12.1	10.8	12.9	13.6	10.7	11.6
Stoneville, Miss. (A)	14.0	13.7	15.3	14.8	14.9	13.4
Stoneville, Miss. (B)	15.4	12.4	14.1	15.8	12.5	13.7
St. Joseph, La.	14.7	13.0	16.0	14.8	14.2	14.0
Mean	14.1	12.7	14.7	14.6	13.6	13.5
<u>West</u>						
Fayetteville, Ark.	17.3	14.7	16.7	17.0	17.0	16.7
Bixby, Okla.	18.1	14.4	14.9	16.9	16.6	16.3
Perkins, Okla.	15.4	12.6	14.0	14.7	13.7	14.1
Milburn, Okla.	16.0	13.7	14.5	14.0	15.0	15.1
Lubbock, Texas	11.8	10.8	12.2	11.3	10.0	12.2
Mean	15.7	13.2	14.5	14.8	14.5	14.4

Table 27: (Continued)

Location	D51- 4863	D51- 4871	D51- 4888	D51- 4891	D51- 4977	D51- 5100
<u>East Coast</u>						
Warsaw, Va.	13.7	15.5	16.3	16.0	13.7	14.7
Accomac, Va.	16.5	17.3	20.1	17.1	16.1	16.5
Norfolk, Va.	16.6	18.0	19.1	17.7	15.1	16.0
Petersburg, Va.	14.2	16.3	17.2	16.9	13.7	14.1
Holland, Va.	14.9	16.1	16.8	16.5	14.2	14.5
Plymouth, N. C.	16.9	19.5	17.9	19.7	17.1	16.8
Willard, N. C.	15.5	18.0	17.8	19.2	16.1	16.4
McCullers, N. C.	11.0	17.1	10.6	15.0	12.1	10.3
Mean	14.9	17.2	16.9	17.3	14.8	14.9
<u>Southeast</u>						
Tallassee, Ala.	13.3	16.7	13.9	16.6	14.1	13.9
Gainesville, Fla.	14.6	17.8	16.4	16.3	14.9	15.5
Marianna, Fla.	9.9	14.3	13.3	13.3	11.5	10.9
Walnut Hill, Fla.	11.1	19.4	11.8	14.7	13.3	13.2
Fairhope, Ala.	11.3	18.7	13.3	16.2	14.6	13.8
Baton Rouge, La.	12.1	14.4	14.6	14.0	11.6	12.1
Mean	12.1	16.9	13.9	15.2	13.3	13.2
<u>Upper and Central South</u>						
Experiment, Ga.	13.0	16.8	15.4	15.8	14.6	13.6
State College, Miss.	10.4	14.3	12.2	13.4	11.5	11.9
Mean	11.7	15.6	13.9	14.6	13.0	12.7
<u>Delta</u>						
Marianna, Ark.	14.7	14.7	15.7	15.3	14.0	13.0
Coahoma, Miss.	10.5	14.0	12.8	13.2	10.7	11.3
Stoneville, Miss. (A)	12.5	16.2	14.5	16.1	13.0	13.4
Stoneville, Miss. (B)	12.9	15.0	14.4	16.0	11.9	12.9
St. Joseph, La.	12.6	15.3	14.2	14.9	12.8	13.9
Mean	12.6	15.0	14.3	15.1	12.5	12.9
<u>West</u>						
Fayetteville, Ark.	18.0	18.0	19.0	17.3	16.0	15.7
Bixby, Okla.	15.1	17.5	16.5	18.1	17.6	15.0
Perkins, Okla.	13.7	15.5	14.8	15.9	13.6	13.9
Milburn, Okla.	14.3	14.9	16.9	17.7	14.7	14.4
Lubbock, Texas	12.4	14.1	11.2	12.0	10.2	10.6
Mean	14.7	16.0	15.7	16.2	14.4	13.9

Table 28: Four-year average yield, in bushels per acre, and oil and protein percentage by locations for the strains in Uniform Group VI, 1951-54

Location	Seed Yield		Oil Percentage		Protein Percentage	
	Ogden	Lee	Ogden	Lee	Ogden	Lee
<u>East Coast</u>						
Warsaw, Va.	23.5	24.3	20.7	20.2	42.8	42.7
Petersburg, Va.	25.4	25.3				
Holland, Va.	31.8	33.6				
Plymouth, N. C.	34.9	39.8	20.4	20.4	41.8	43.1
Willard, N. C.	35.5	39.7	21.0	21.0	42.0	41.9
McCullers, N. C.	22.5	24.5				
Mean	28.9	31.2				
<u>Southeast</u>						
Tallassee, Ala.	30.9	33.1				
Marianna, Ark.	19.8	20.7				
Walnut Hill, Fla.	26.4	28.8	21.5	21.6	41.6	43.3
Baton Rouge, La.	27.1	28.3				
Mean	26.1	27.7				
<u>Upper and Central South</u>						
Experiment, Ga.	16.0	19.5				
State College, Miss.	17.5	19.7				
Mean	16.6	19.6				
<u>Delta</u>						
Stoneville, Miss.	37.8	41.0	21.4	22.1	40.4	40.4
St. Joseph, La.	42.6	40.6				
Mean	40.2	40.8				
<u>West</u>						
Fayetteville, Ark.	12.9	14.1				
Lubbock, Texas	16.5	16.6				
Mean	14.7	15.3				
REGIONAL MEAN	26.3	28.1	21.0	21.1	41.7	42.3

Table 29: Average yield by sections for all tests grown, 1951-54, for the strains in Uniform Group VI

Year	No. Tests	Ogden	Lee
<u>East Coast</u>			
1951	6	31.7	34.5
1952	7	32.4	34.3
1953	11	29.7	30.7
1954	8	22.4	25.1
Mean Yield	32	28.8	30.8
<u>Southeast</u>			
1951	7	25.2	27.4
1952	7	28.3	33.7
1953	9	27.3	27.4
1954	6	19.8	20.2
Mean Yield	29	25.2	27.4
<u>Upper and Central South</u>			
1951	3	14.2	21.1
1952	3	22.3	24.0
1953	3	20.8	20.8
1954	2	11.6	12.2
Mean Yield	11	17.7	20.2
<u>Delta</u>			
1951	7	29.7	26.9
1952	6	26.1	26.7
1953	5	27.7	29.6
1954	5	29.3	35.2
Mean Yield	23	28.2	29.2
<u>West</u>			
1951	9	22.3	28.1
1952	2	26.9	26.8
1953	5	28.4	23.2
1954	5	8.3	10.0
Mean Yield	21	20.9	22.6
GRAND MEAN YIELD	116	25.3	27.1

Table 30: Four-year average oil and protein percentage for the strains in Uniform Group VI, for all locations analyzed 1951-54

Year	Ogden	Lee
<u>OIL PERCENTAGE</u>		
1951	21.0	21.1
1952	21.1	21.6
1953	21.8	21.8
1954	20.9	20.7
Mean	21.2	21.3
<u>PROTEIN PERCENTAGE</u>		
1951	41.8	41.7
1952	41.1	41.0
1953	39.4	39.4
1954	42.6	43.3
Mean	41.2	41.4

UNIFORM GROUP VII

1954

Strain or Variety	Source or Originating Agency	Origin
Jackson	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Volstate (2) x Palmetto
Roanoke	N. Car. A.E.S. & U.S.R.S.L.	Sel. from mixed seed lot
Lee	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from S-100 x CNS
N50-2217	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Volstate x Mamotan 6640
N50-2542	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Ogden x Biloxi
N51-2186	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745 ^{1/}
N51-2220	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745
N51-2638	N. Car. A.E.S. & U.S.R.S.L.	Sel. from N42-26 x N45-1004 ^{2/}
N51-3527	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Jackson
D51-4877	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745
D51-5052	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745
D51-5091	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745

^{1/}Selection from Ogden x CNS, resistant to bacterial pustule.

^{2/}Selection from Volstate x CNS, resistant to bacterial pustule.

Thirty-nine Group VII nurseries were planted. Results from 23 are summarized in tables 30 through 39. Only 13 nurseries had yields of 15 bushels per acre or over and only 6 nurseries had yields of 30 bushels per acre or higher. As with Group VI, it is intended that the strains now making up Group VII should be continued for the next two years. An attempt was made to get all data reported by replications so that a study could be made of variety x location x year interaction. Samples for determination of oil and protein percentages were analyzed by replication from nearly all locations.

Increase of the variety Jackson was retarded appreciably in the Southeast, its area of best adaptation, because of severe drouth. Greatest increase has been made in North Carolina.

In 1954, Lee yielded highly significantly more than Jackson in the Eastern area and significantly higher in the Delta. In the Southeast there was no difference between these two varieties. These results are in agreement with the 3-year mean yields in these three areas. In the Eastern and Delta area, Jackson grows rather tall for most satisfactory combining, with an average height of 46 inches in the East and 43 inches in the Delta. Lee has an average height of 33 inches in both areas. However, in the Southeast, Jackson has a mean height of 32 inches and Lee a mean height of 24 inches. The growth of Jackson in the Southeast is very comparable to that of Lee in the Delta and Southeast. Lee averages slightly lower in oil content and slightly higher in protein content than Jackson or Roanoke as an average of all comparisons over the past three years.

In the East Coast tests, three of the shortest growing strains, Lee, D51-4877, and D51-5052, yielded more than Jackson and the only strain to yield less was D51-5091, the tallest strain. There was no variety x location interaction. Four the Southeast, N50-2542 was the highest yielding strain and was the only strain to differ in yield from Jackson. There was a highly significant variety x location interaction. The two shortest varieties, Lee and D51-4877, ranked highest in the Delta and were the only ones to differ in yield from Jackson. There was no variety x location interaction. A combined analysis for 13 locations from the East, Southeast, and Delta with yields of 15 bushels per acre or higher showed a highly significant variety x location interaction.

The height-yield relationship in the Eastern and Delta areas is interesting. Excessive lodging is often associated with height. However, in 1954, no location reported excessive lodging. It appears that under conditions of limited rainfall, a short plant has less growth to support and, consequently, can utilize available moisture more efficiently in seed development.

The strain N51-3527 is a sub-line from Jackson selected in North Carolina for higher yield; higher oil content, and greater resistance to nematode. N51-3527 did not differ from Jackson in yield in any area. However, its oil content was highly significantly higher than Jackson in the East and Southeast. Protein content was slightly lower in the Southeast but no different in other areas.

The two strains N51-2220 and D51-5052 were evaluated in the 1953 tests and both equalled Roanoke in oil content and were slightly higher than Jackson. However, in 1954, both were highly significantly lower than Jackson.

Most of the strains had been selected for resistance to one or more diseases. Drouth conditions restricted disease development or lowered yields so that effects of disease could not be recognized.

Table 31: Yield, in bushels per acre, for the strains in Uniform Group VII, 1954

Location	Jackson	Roanoke	Lee	N50- 2217	N50- 2542	N51- 2186	N51- 2220
<u>East Coast</u>							
Accomac, Va.	14.2	16.7+	15.0	17.7+	18.0+	16.3+	16.2+
Norfolk, Va.	17.7	21.2	19.6	15.7	16.8	18.4	18.7
Petersburg, Va. ^{1/}	5.8	6.6	7.5	7.5	6.0	4.3	4.1
Holland, Va.	22.0	24.4	30.6	20.6	18.1	25.8	23.7
Plymouth, N. C.	34.5	33.2	43.0+	32.9	31.1	41.8+	36.8
Willard, N. C.	32.1	31.6	35.1	30.0	30.1	29.5	31.7
McCullers, N. C. ^{1/}	10.8	10.8	12.6	9.2	11.1	9.3	10.3
Florence, S. C. ^{1/}	12.3	10.7	11.2	12.7	10.2	11.4	13.0
Mean	24.1	25.4	28.7	23.3	22.8	26.3	25.4
<u>Southeast</u>							
Summerville, S. C. ^{1/}	12.4	10.8	12.5	12.9	14.1	12.6	12.5
Charleston, S. C.	36.8	30.3	29.4	32.3	32.2	26.0	32.8
Tallassee, Ala.	15.0	16.7	21.1	17.2	22.7+	31.5+	21.5
Gainesville, Fla.	22.5	22.0	26.4	26.9	28.4	25.1	23.8
Walnut Hill, Fla. ^{1/}	13.4	12.9	11.8	12.6	13.2	11.6	10.2
Fairhope, Ala.	19.4	16.2-	17.2	16.2-	19.1	16.5-	19.2
Baton Rouge, La.	31.0	31.3	32.5	31.5	32.4	35.1	36.5
Mean	24.9	23.3	25.3	23.7	27.8	27.0	27.0
<u>Upper and Central South</u>							
Clemson, S. C.	14.8	10.2	12.6	11.4	12.1	14.6	9.4
Experiment, Ga.	4.0	3.0	6.3	3.2	5.7	3.6	4.3
State College, Miss.	10.7	8.8	14.8	9.3	15.2	11.7	14.2
Mean	9.8	7.3	11.2	8.0	11.0	10.0	9.3
<u>Delta</u>							
Stoneville, Miss. (A)	33.8	32.1	37.8	34.3	32.2	35.7	36.5
Stoneville, Miss. (B)	43.7	38.3	52.1+	37.7	39.9	43.4	41.6
St. Joseph, La.	19.7	25.6	25.0	20.3	25.5	25.0	29.6
Mean	32.4	32.0	38.3	30.8	32.5	34.7	35.9
<u>West</u>							
Milburn, Okla.	3.0	4.3	3.6	5.3	6.0	3.0	2.9
Lubbock, Texas	12.3	13.4	16.5	15.0	14.2	13.4	12.6

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

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

^{1/}Not included in the mean.

Table 31: (Continued)

Location	N51- 2638	N51- 3527	D51- 4877	D51- 5052	D51- 5091	L.S.D. (5%)	C.V.
<u>East Coast</u>							
Accomac, Va.	15.3+	15.9+	15.5+	15.4+	12.3-	1.0	4%
Norfolk, Va.	22.1	17.1	23.0	16.6	15.0	N.S.	26%
Petersburg, Va.	10.5+	5.4	9.3+	8.4+	2.4-	2.8	26%
Holland, Va.	22.3	22.8	27.1	26.0	16.0	6.5	17%
Plymouth, N. C.	33.0	35.3	39.0+	39.2+	29.3-	4.1	7%
Willard, N. C.	31.2	34.8	36.3+	35.2	27.0-	3.7	7%
McCullers, N. C. ^{1/}	9.1	11.1	11.2	12.3	8.7	N.S.	20%
Florence, S. C. ^{1/}	13.3	12.2	10.8	11.7	9.7	N.S.	18%
Mean	24.8	25.2	28.2	26.5	19.9	2.4	14%
<u>Southeast</u>							
Summerville, S. C. ^{1/}	13.5	11.5	12.8	15.4	13.3	N.S.	12%
Charleston, S. C.	28.1	32.0	35.4	34.6	30.8	N.S.	15%
Tallassee, Ala.	21.0	17.4	29.1+	25.9+	22.3+	7.1	19%
Gainesville, Fla.	21.5	22.9	21.2	32.6	26.1	N.S.	19%
Walnut Hill, Fla. ^{1/}	13.7	12.6	13.4	11.3	12.9	N.S.	12%
Fairhope, Ala.	16.7-	17.6	15.6-	19.6	21.9	2.6	8%
Baton Rouge, La.	22.8-	29.8	26.1	30.8	34.6	5.8	11%
Mean	23.1	24.1	26.9	26.5	26.5	2.8	15%
<u>Upper and Central South</u>							
Clemson, S. C.	16.4	10.7	14.1	9.7	7.9	N.S.	27%
Experiment, Ga.	7.8+	5.2	3.2	3.4	1.8	3.0	42%
State College, Miss.	14.2	11.2	13.8	10.9	10.9	N.S.	31%
Mean	12.8	9.0	10.4	8.0	6.9		
<u>Delta</u>							
Stoneville, Miss. (A)	35.8	30.2	44.4	38.4	33.1	N.S.	16%
Stoneville, Miss. (B)	43.1	46.5	52.2+	42.2	40.3	6.8	9%
St. Joseph, La.	21.2	21.6	31.5	28.5	26.6	N.S.	27%
Mean	33.4	32.8	42.7	36.4	33.3	5.1	16%
<u>West</u>							
Milburn, Okla.	3.7	6.4	2.1	5.2	4.3	N.S.	45%
Lubbock, Texas	12.9	10.0	14.9	15.4	13.7	N.S.	16%

Table 32: Summary of the oil percentage for the strains in Uniform Group VII, 1954

Location	Jackson	Roanoke	Lee	N50- 2217	N50- 2542	N51- 2186
<u>East Coast</u>						
Accomac, Va.	21.3	22.1	20.7	21.1	20.6	20.9
Norfolk, Va.	20.6	20.3	19.2-	18.9-	18.8-	19.3-
Petersburg, Va.	20.3	20.6	18.1-	18.5-	19.9	19.7
Plymouth, N. C.	21.4	21.9	20.9	20.6-	20.8-	21.1
Willard, N. C.	22.1	22.4	21.9	21.0-	20.9-	21.9
McCullers, N. C.	20.4	20.0	19.0-	19.3-	19.5-	19.0-
Mean	21.0	21.2	20.0	19.9	20.1	20.3
<u>Southeast</u>						
Summerville, S. C.	22.4	21.4-	21.0-	21.0-	21.2-	21.3-
Charleston, S. C.	22.3	22.2	21.6	21.6	22.1	22.6
Tallassee, Ala.	24.3	24.3	24.6	23.1-	24.2	24.3
Gainesville, Fla.	24.8	24.7	22.5-	23.9	23.2-	24.3
Walnut Hill, Fla.	21.6	21.5	19.9-	20.9-	20.2-	20.7-
Fairhope, Ala.	21.8	21.2	21.9	20.9-	22.4+	21.6
Mean	22.9	22.6	21.9	21.9	22.2	22.5
<u>Upper and Central South</u>						
Clemson, S. C.	22.9	21.6	21.2	21.3	21.6	21.4
<u>Delta</u>						
Stoneville, Miss.(A)	21.8	22.3	21.0	20.8	21.5	21.2
Stoneville, Miss.(B)	23.2	22.2-	22.0-	21.5-	21.5-	22.1-
Mean	22.5	22.3	21.5	21.1	21.5	21.6
<u>West</u>						
Milburn, Okla.	19.3	19.0	18.2-	18.7	18.6	18.3-
REGIONAL MEAN	22.1	22.0	21.0	21.0	21.2	21.4

Table 32: (Continued)

Location	N51- 2220	N51- 2638	N51- 3527	D51- 4877	D51- 5052	D51- 5091	L.S.D. (5%)
<u>East Coast</u>							
Accomac, Va.	20.8	20.5	22.7+	21.1	20.6	18.8-	1.1
Norfolk, Va.	19.5-	20.1	21.4	19.4-	18.9-	17.5-	1.1
Petersburg, Va.	19.8	18.8-	20.1	19.5	20.6	19.4	1.1
Plymouth, N. C.	21.6	20.2-	22.2+	21.1	21.6	20.2-	0.6
Willard, N. C.	22.6+	21.1-	23.3+	21.8	22.3	21.8	0.5
McCullers, N. C.	19.5-	18.1-	20.8	19.2-	19.2-	17.7-	0.9
Mean	20.6	19.8	21.7	20.3	20.5	19.0	0.4
<u>Southeast</u>							
Summerville, S. C.	21.1-	21.3-	23.1	21.3-	21.0-	20.6-	0.8
Charleston, S. C.	22.7	20.6	22.8	21.6	22.2	21.9	0.6
Tallassee, Ala.	24.9	25.3+	24.5	24.4	24.3	23.0-	1.0
Gainesville, Fla.	23.9	22.2-	24.9	23.6	23.9	22.8-	1.0
Walnut Hill, Fla.	20.5-	19.9-	21.9	20.7-	19.3-	19.4-	0.7
Fairhope, Ala.	21.7	21.3-	22.6+	21.6	21.4	20.7-	0.5
Mean	22.5	21.8	23.3	22.2	22.0	21.4	0.3
<u>Upper and Central South</u>							
Clemson, S. C.	22.1	21.6	22.4	22.1	20.5	21.2	N.S.
<u>Delta</u>							
Stoneville, Miss. (A)	21.7	20.9	22.0	21.3	21.9	21.7	N.S.
Stoneville, Miss. (B)	22.1-	20.8-	23.2	21.1-	21.2-	21.3-	0.5
Mean	21.9	20.9	22.6	21.2	21.6	21.5	0.5
<u>West</u>							
Milburn, Okla.	18.1-	17.8-	19.9	19.0	19.0	17.7-	0.9
REGIONAL MEAN	21.6	20.8	22.5	21.3	21.3	20.5	0.2

Table 33: Summary of the protein percentage for the strains in Uniform Group VII, 1954

Location	Jackson	Roanoke	Lee	N50- 2217	N50- 2542	N51- 2186
<u>East Coast</u>						
Accomac, Va.	39.6	40.3	42.0	40.7	43.3	41.9
Norfolk, Va.	43.2	43.3	45.3+	43.8	45.0+	44.6
Petersburg, Va.	43.3	42.5	46.9+	44.6	44.9	43.2
Plymouth, N. C.	40.8	40.6	42.3+	41.5	43.0+	40.5
Willard, N. C.	40.2	39.8	41.5+	40.8	43.3+	39.8
McCullers, N. C.	44.2	45.3	46.8+	44.0	46.0	47.7+
Mean	41.9	42.0	44.1	42.6	44.3	43.0
<u>Southeast</u>						
Summerville, S. C.	39.9	41.2+	43.0+	42.2+	43.1+	41.4+
Charleston, S. C.	39.0	38.2	39.1	38.6	39.9	37.9+
Tallassee, Ala.	36.8	38.5+	37.3	36.7	40.1+	36.8
Gainesville, Fla.	40.3	39.1	41.0	40.3	42.2	39.1
Walnut Hill, Fla.	43.8	44.5	46.1+	42.9-	45.2+	44.8+
Fairhope, Ala.	44.0	44.2	43.4	42.2	42.5	43.2
Mean	40.5	41.0	41.6	40.5	42.2	40.5
<u>Upper and Central South</u>						
Clemson, S. C.	37.0	37.4	40.8	41.8	41.0	37.7
<u>Delta</u>						
Stoneville, Miss. (A)	40.7	40.2	42.6	40.9	42.1	41.9
Stoneville, Miss. (B)	38.3	38.4	40.5+	38.1	42.0+	38.5
Mean	39.5	39.3	41.6	39.5	42.1	40.2
<u>West</u>						
Milburn, Okla.	43.8	45.1+	43.8	45.4+	43.9	44.3
REGIONAL MEAN	40.7	40.9	42.6	41.3	42.9	41.3

Table 33: (Continued)

Location	N51- 2220	N51- 2638	N51- 3527	D51- 4877	D51- 5052	D51- 5091	L.S.D. (5%)
<u>East Coast</u>							
Accomac, Va.	42.0	41.0	38.2	40.5	41.0	42.6	N.S.
Norfolk, Va.	44.3	42.9	41.8	43.9	43.9	45.5+	1.7
Petersburg, Va.	43.2	44.5	44.2	43.6	42.5	44.0	1.8
Plymouth, N. C.	40.8	40.9	39.5-	40.9	40.6	41.1	1.3
Willard, N. C.	39.9	41.0	39.2-	40.0	39.7	41.9+	0.9
McCullers, N. C.	44.9	46.2+	44.9	45.7	45.7	45.9	1.9
Mean	42.5	42.8	41.3	42.4	42.2	43.3	0.8
<u>Southeast</u>							
Summerville, S. C.	40.9+	41.7+	38.6-	41.0+	39.9	41.0+	0.7
Charleston, S. C.	38.4	39.4	37.8-	38.1	37.2-	37.7-	1.0
Tallassee, Ala.	36.5	36.0	36.7	35.7	36.2	36.8	1.5
Gainesville, Fla.	39.8	40.6	39.4	39.5	39.2	39.8	N.S.
Walnut Hill, Fla.	44.1	43.9	43.4	44.2	44.0	43.9	0.9
Fairhope, Ala.	42.6	43.0	43.2	43.4	42.3	41.9	N.S.
Mean	40.4	40.8	39.9	40.3	39.8	40.2	0.5
<u>Upper and Central South</u>							
Clemson, S. C.	38.0	39.0	39.3	37.8	39.8	37.5	N.S.
<u>Delta</u>							
Stoneville, Miss. (A)	41.8	41.7	41.3	40.4	40.0	39.1	N.S.
Stoneville, Miss. (B)	39.2+	40.0+	38.0	39.1+	39.9+	38.5	0.6
Mean	40.3	40.8	39.8	39.7	40.0	38.8	1.1
<u>West</u>							
Milburn, Okla.	44.3	44.2	44.2	42.3+	42.8	42.2+	1.2
REGIONAL MEAN	41.1	41.5	40.4	40.9	40.8	41.1	0.4

Table 34: Maturity data, days earlier (-) or later (+) than Jackson, for the strains in Uniform Group VII, 1954

Location	Date Planted	Jackson Matured	Roanoke	Lee	N50- 2217	N50- 2542
<u>East Coast</u>						
Petersburg, Va.	5-10	11-13	+1	-1	-2	+6
Holland, Va.	5-13	10-30	-4	-4	-1	-4
Plymouth, N. C.	5-3	11-2	-1	-9	-2	0
Willard, N. C.	5-5	10-25	-1	-7	-7	0
McCullers, N. C.	5-11	11-1	-3	-12	-3	-2
Florence, S. C.	5-18	10-31	-1	-10	-8	-3
Mean		11-2	-1	-7	-4	0
<u>Southeast</u>						
Tallassee, Ala.	5-21	10-25	0	-9	0	0
Gainesville, Fla.	6-10	10-15	-1	+3	0	0
Walnut Hill, Fla.	6-15	10-24	-9	-15	-8	-3
Fairhope, Ala.	6-14	11-16	-1	-10	-3	-3
Baton Rouge, La.	4-27	10-23	-13	-13	-1	-5
Mean		10-27	-5	-9	-2	-2
<u>Upper and Central South</u>						
Clemson, S. C.	5-12	10-20	+2	-5	-4	+8
Experiment, Ga.	5-11	11-2	-4	-7	-1	0
State College, Miss.	5-7	11-10	0	-19	-12	+4
Mean		11-31	-1	-10	-6	+2
<u>Delta</u>						
Stoneville, Miss. (A)	5-19	10-28	0	-4	+2	+2
Stoneville, Miss. (B)	5-21	10-28	+1	-7	+1	+1
St. Joseph, La.	6-4	10-30	0	-5	-5	-10
Mean		10-29	0	-5	-1	-2
<u>West</u>						
Milburn, Okla.	5-8					

All varieties frosted Nov. 3

Table 34: (Continued)

Location	N51- 2186	N51- 2220	N51- 2638	N51- 3527	D51- 4877	D51- 5052	D51- 5091
<u>East Coast</u>							
Petersburg, Va.	0	+4	-10	+3	0	-1	+4
Holland, Va.	-4	-4	-6	-3	-6	-11	-4
Plymouth, N. C.	-5	-7	-6	0	-5	-7	-1
Willard, N. C.	-10	-7	-8	-6	-7	-9	-9
McCullers, N. C.	-9	-5	-22	-3	-9	-8	-4
Florence, S. C.	-8	-7	-8	-3	-8	-7	-3
Mean	-6	-4	-10	-2	-6	-7	-3
<u>Southeast</u>							
Tallassee, Ala.	-2	0	-7	0	-7	0	0
Gainesville, Fla.	-2	-2	-2	0	-3	+1	+2
walnut Hill, Fla.	-8	-7	-10	-7	-8	-5	-7
Fairhope, Ala.	-10	-4	-10	-2	-4	-10	-2
Baton Rouge, La.	-15	-15	-3	+1	-11	-8	-1
Mean	-7	-6	-6	-1	-5	-4	-1
<u>Upper and Central South</u>							
Clemson, S. C.	-1	+6	-10	+5	-1	+6	+7
Experiment, Ga.	0	-1	-7	-3	0	+2	+2
State College, Miss.	-2	+2	-15	-11	-2	+4	-2
Mean	-1	+2	-11	-3	-1	+4	+2
<u>Delta</u>							
Stoneville, Miss. (A)	-2	0	0	+1	-3	-3	+2
Stoneville, Miss. (B)	-3	-3	0	0	-3	-3	+2
St. Joseph, La.	-12	-10	-8	-6	-12	-15	-8
Mean	-6	-4	-3	-2	-6	-7	-1
<u>West</u>							
Milburn, Okla.	All varieties frosted Nov. 3						

Table 35: Height data for the strains in Uniform Group VII, 1954

Location	Jackson	Roanoke	Lee	N50- 2217	N50- 2542	N51- 2186
<u>East Coast</u>						
Accomac, Va.	44	44	35	40	36	31
Norfolk, Va.	42	48	29	41	35	31
Petersburg, Va.	36	46	35	43	33	35
Holland, Va.	49	51	37	51	37	36
Plymouth, N. C.	51	52	36	48	36	38
Willard, N. C.	45	48	32	43	33	31
McCullers, N. C.	42	43	30	30	33	31
Florence, S. C.	43	42	32	37	34	30
Mean	44	47	33	42	35	33
<u>Southeast</u>						
Summerville, S. C.	38	37	30	39	28	25
Charleston, S. C.	25	23	20	21	20	19
Tallassee, Ala.	42	37	32	41	37	32
Gainesville, Fla.	17	17	15	15	14	16
Walnut Hill, Fla.	34	31	29	34	29	22
Fairhope, Ala.	25	24	18	26	26	14
Baton Rouge, La.	30	26	24	36	25	20
Mean	30	28	24	30	26	21
<u>Upper and Central South</u>						
Clemson, S. C.	38	38	31	37	31	32
Experiment, Ga.	40	43	31	42	33	32
Mean	39	40	31	40	32	32
<u>Delta</u>						
Stoneville, Miss. (A)	49	47	33	44	37	33
Stoneville, Miss. (B)	45	41	33	45	38	34
St. Joseph, La.	40	44	33	44	32	30
Mean	45	44	33	44	36	32
<u>West</u>						
Milburn, Okla.	28	31	23	31	20	20
Lubbock, Texas	28	26	23	26	21	24
Mean	28	28	23	28	20	22

Table 35: (Continued)

Location	N51- 2220	N51- 2638	N51- 3527	D51- 4877	D51- 5052	D51- 5091
<u>East Coast</u>						
Accomac, Va.	41	39	44	32	34	51
Norfolk, Va.	36	37	42	34	31	42
Petersburg, Va.	39	37	42	30	34	51
Holland, Va.	42	41	49	35	35	55
Plymouth, N. C.	43	39	49	33	37	47
Willard, N. C.	41	37	43	28	32	52
McCullers, N. C.	37	33	39	29	32	44
Florence, S. C.	37	30	39	29	33	42
Mean	40	37	43	31	34	48
<u>Southeast</u>						
Summerville, S. C.	34	32	36	23	27	44
Charleston, S. C.	21	20	23	16	17	26
Tallassee, Ala.	37	34	37	31	31	46
Gainesville, Fla.	21	16	19	12	16	25
Walnut Hill, Fla.	28	30	32	22	23	37
Fairhope, Ala.	22	22	23	14	18	31
Baton Rouge, La.	30	22	28	20	23	34
Mean	28	25	28	20	22	35
<u>Upper and Central South</u>						
Clemson, S. C.	34	34	36	25	31	39
Experiment, Ga.	36	38	39	31	32	51
Mean	35	36	38	28	32	45
<u>Delta</u>						
Stoneville, Miss. (A)	41	37	49	35	35	55
Stoneville, Miss. (B)	39	33	43	33	36	57
St. Joseph, La.	34	30	40	32	32	50
Mean	38	33	44	33	34	54
<u>West</u>						
Milburn, Okla.	30	26	28	20	20	36
Lubbock, Texas	27	26	21	18	26	36
Mean	28	26	24	19	23	36

Table 36: Lodging data for the strains in Uniform Group VII, 1954

Location	Jackson	Roanoke	Lee	N50- 2217	N50- 2542	N51- 2186
<u>East Coast</u>						
Accomac, Va.	1.3	1.3	1.7	1.3	1.7	1.3
Norfolk, Va.	1.7	2.7	1.3	2.3	1.0	1.3
Petersburg, Va.	1.0	3.0	1.7	1.7	1.0	1.0
Holland, Va.	2.0	2.3	1.3	2.7	2.3	2.0
Plymouth, N. C.	3.0	3.3	2.2	3.0	2.7	2.3
Willard, N. C.	2.5	3.2	2.2	3.5	2.2	2.2
McCullers, N. C.	2.3	3.2	2.0	2.7	2.0	2.2
Florence, S. C.	2.0	3.2	1.8	3.0	2.0	2.2
<u>Southeast</u>						
Summerville, S. C.	1.2	1.8	1.8	1.0	1.0	1.0
Charleston, S. C.	1.5	1.5	1.2	2.0	1.0	2.0
Tallassee, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	2.0	2.0	2.0	2.0	2.0	2.0
<u>Upper and Central South</u>						
Clemson, S. C.	1.0	1.0	1.0	1.0	1.0	1.0
Experiment, Ga.	1.0	1.3	1.3	1.0	1.0	1.0
<u>Delta</u>						
Stoneville, Miss. (A)	2.0	3.0	2.0	2.0	2.0	2.3
Stoneville, Miss. (B)	2.0	3.3	2.0	3.0	2.0	3.0
St. Joseph, La.	1.0	3.0	1.0	1.0	1.0	1.0
<u>West</u>						
Milburn, 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 36: (Continued)

Location	N51- 2220	N51- 2638	N51- 3527	D51- 4877	D51- 5052	D51- 5091
<u>East Coast</u>						
Accomac, Va.	1.3	1.3	2.0	1.3	2.0	1.3
Norfolk, Va.	1.3	2.3	1.3	1.0	1.3	2.3
Petersburg, Va.	1.0	1.7	1.7	1.0	1.0	2.3
Holland, Va.	2.0	2.0	1.7	1.7	2.7	1.7
Plymouth, N. C.	2.7	2.5	2.5	2.2	2.0	3.7
Willard, N. C.	1.8	3.3	2.0	1.7	1.5	3.0
McCullers, N. C.	2.3	1.8	2.5	1.3	1.8	3.5
Florence, S. C.	2.2	3.0	1.8	1.5	1.5	3.0
<u>Southeast</u>						
Summerville, S. C.	1.0	1.3	1.0	1.0	1.0	1.3
Charleston, S. C.	1.0	1.5	1.0	1.0	1.0	2.5
Tallassee, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Gainesville, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	2.0	1.0	2.0	1.0	2.0	2.0
<u>Upper and Central South</u>						
Clemson, S. C.	1.0	1.7	1.0	1.0	1.0	1.3
Experiment, Ga.	1.0	1.7	1.0	1.0	1.0	1.0
<u>Delta</u>						
Stoneville, Miss. (A)	2.3	3.0	2.0	1.0	1.0	3.0
Stoneville, Miss. (B)	2.7	2.7	2.0	2.0	2.0	3.3
St. Joseph, Ia.	1.0	2.0	1.0	1.0	1.0	1.0
<u>West</u>						
Milburn, 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 37: Seed quality scores for the strains in Uniform Group VII, 1954

Location	Jackson	Roanoke	Lee	N50- 2217	N50- 2542	N51- 2186
<u>East Coast</u>						
Accomac, Va.	1.7	1.0	1.7	2.7	2.7	2.3
Norfolk, Va.	1.3	1.0	1.7	1.7	2.3	1.3
Petersburg, Va.	2.0	2.0	3.0	2.0	2.0	3.0
Holland, Va.	1.3	1.3	1.0	2.7	1.7	1.3
Plymouth, N. C.	1.7	1.8	1.7	3.0	3.5	2.3
Willard, N. C.	1.3	1.2	1.0	2.8	3.2	2.7
McCullers, N. C.	2.2	2.5	1.5	3.0	2.3	4.0
Florence, S. C.	2.7	3.0	3.0	2.2	4.7	2.8
<u>Southeast</u>						
Summerville, S. C.	2.0	2.0	2.0	3.0	4.0	3.0
Charleston, S. C.	2.0	2.0	1.0	2.0	1.0	1.0
Tallassee, Ala.	2.7	2.3	1.7	2.7	2.7	3.0
Gainesville, Fla.	2.3	2.3	1.7	2.0	2.7	2.0
Walnut Hill, Fla.	3.0	2.3	2.0	3.0	3.0	4.3
Fairhope, Ala.	2.7	2.7	2.0	3.7	2.7	3.0
Baton Rouge, La.	2.0	2.0	2.0	4.0	2.0	3.0
<u>Upper and Central South</u>						
Clemson, S. C.	3.0	3.0	2.0	3.0	3.0	3.0
Experiment, Ga.	3.0	2.7	2.7	3.0	3.3	3.3
<u>Delta</u>						
Stoneville, Miss. (A)	1.7	2.0	1.3	2.0	2.0	2.0
Stoneville, Miss. (B)	1.0	2.0	1.3	2.3	2.0	2.0
St. Joseph, La.	3.0	3.0	1.0	3.0	1.0	3.0
<u>West</u>						
Milburn, Okla.	2.3	2.3	2.0	2.3	2.0	3.6
Lubbock, Texas	2.0	2.0	2.0	2.0	2.0	2.0

Table 37: (Continued)

Location	N51- 2220	N51- 2638	N51- 3527	D51- 4877	D51- 5052	D51- 5091
<u>East Coast</u>						
Accomac, Va.	2.3	2.0	1.0	2.3	1.7	2.3
Norfolk, Va.	2.0	1.7	1.7	2.0	2.0	1.7
Petersburg, Va.	2.0	2.0	2.7	3.0	2.0	1.3
Holland, Va.	1.3	1.0	1.7	1.3	1.0	1.7
Plymouth, N. C.	3.0	2.7	1.8	3.3	2.0	3.0
Willard, N. C.	1.5	2.0	1.5	2.2	1.3	1.8
McCullers, N. C.	2.5	2.2	2.5	2.7	2.7	3.0
Florence, S. C.	2.7	2.0	2.5	3.0	3.7	2.7
<u>Southeast</u>						
Summerville, S. C.	3.0	2.0	2.0	3.0	2.0	2.0
Charleston, S. C.	1.0	1.0	2.0	3.0	2.0	1.0
Tallassee, Ala.	2.0	2.0	3.0	2.0	2.0	2.0
Gainesville, Fla.	1.0	1.3	2.0	2.0	1.7	2.7
Walnut Hill, Fla.	2.0	2.0	2.7	2.3	3.0	3.0
Fairhope, Ala.	2.0	2.3	2.7	4.0	2.0	2.0
Baton Rouge, La.	3.0	3.0	3.0	2.0	2.0	2.0
<u>Upper and Central South</u>						
Clemson, S. C.	3.0	2.0	3.0	3.0	3.0	3.0
Experiment, Ga.	2.7	2.0	3.0	3.3	3.7	3.7
<u>Delta</u>						
Stoneville, Miss. (A)	2.0	2.0	2.0	2.0	1.0	1.3
Stoneville, Miss. (B)	2.0	1.7	1.0	2.0	2.0	1.3
St. Joseph, La.	2.0	2.0	3.0	2.0	2.0	1.0
<u>West</u>						
Milburn, Okla.	2.3	2.3	2.0	2.6	2.0	2.3
Lubbock, Texas	2.0	2.0	2.0	2.0	2.0	2.0

Table 38: Seed weight, in grams per 100 seeds, for the strains in Uniform Group VII, 1954

Location	Jackson	Roanoke	Lee	N50- 2217	N50- 2542	N51- 2186
<u>East Coast</u>						
Accomac, Va.	14.2	16.7	15.0	17.7	18.0	16.3
Norfolk, Va.	15.7	17.7	13.9	18.8	17.2	16.2
Petersburg, Va.	14.9	16.0	13.0	15.0	19.1	15.6
Holland, Va.	14.1	15.4	13.8	16.8	16.8	14.3
Plymouth, N. C.	15.7	16.9	13.8	18.1	19.4	16.5
Willard, N. C.	15.3	16.5	13.2	17.8	17.6	14.5
McCullers, N. C.	13.5	13.0	10.6	14.3	13.5	12.2
Florence, S. C.	14.1	15.2	11.9	13.8	18.3	13.1
Mean	14.7	15.9	13.2	16.5	17.5	14.8
<u>Southeast</u>						
Summerville, S. C.	15.6	16.4	14.1	18.1	20.2	16.2
Charleston, S. C.	17.9	17.5	14.5	20.3	19.3	16.6
Tallassee, Ala.	17.1	17.7	13.1	18.6	20.1	15.3
Gainesville, Fla.	15.5	16.7	15.1	16.8	15.4	15.9
Walnut Hill, Fla.	17.4	19.3	15.4	18.4	20.9	16.1
Fairhope, Ala.	20.3	22.3	14.6	20.7	21.9	16.8
Baton Rouge, La.	13.9	15.9	14.2	17.1	16.6	13.2
Mean	16.8	18.0	14.4	18.6	19.2	15.7
<u>Upper and Central South</u>						
Clemson, S. C.	12.5	12.4	10.6	12.6	16.7	11.9
Experiment, Ga.	14.8	15.8	13.6	16.5	20.6	16.8
Mean	13.7	14.1	12.1	14.6	18.7	14.3
<u>Delta</u>						
Stoneville, Miss. (A)	15.4	17.2	14.3	17.2	19.3	16.2
Stoneville, Miss. (B)	16.0	19.1	14.4	17.6	18.6	15.8
St. Joseph, La.	14.5	15.7	12.8	14.8	17.4	14.2
Mean	15.3	17.3	13.8	16.5	18.4	15.4
<u>West</u>						
Milburn, Okla.	14.5	14.4	12.8	15.9	17.0	14.1
Lubbock, Texas	11.7	12.0	11.5	11.5	15.7	11.5
Mean	13.1	13.2	12.2	13.7	16.3	12.8

Table 38: (Continued)

Location	N51- 2220	N51- 2638	N51- 3527	D51- 4877	D51- 5052	D51- 5091
<u>East Coast</u>						
Accomac, Va.	16.2	15.3	15.9	15.5	15.4	12.3
Norfolk, Va.	16.5	14.4	17.5	14.7	14.6	12.2
Petersburg, Va.	15.5	12.6	16.0	15.6	16.0	12.7
Holland, Va.	15.5	13.2	16.3	14.0	15.1	12.3
Plymouth, N. C.	17.2	14.4	17.8	16.5	16.4	14.2
Willard, N. C.	14.8	14.8	17.2	15.0	14.4	12.0
McCullers, N. C.	13.0	9.2	14.5	12.3	12.0	11.3
Florence, S. C.	14.4	11.7	15.3	14.2	15.0	12.9
Mean	15.4	13.2	16.3	14.7	14.9	12.5
<u>Southeast</u>						
Summerville, S. C.	18.0	14.5	15.9	15.1	18.0	14.9
Charleston, S. C.	16.0	13.9	17.7	15.7	16.0	14.9
Tallassee, Ala.	15.8	12.3	17.6	13.7	15.2	13.0
Gainesville, Fla.	15.5	13.8	16.3	14.3	16.1	15.6
Walnut Hill, Fla.	16.8	13.5	17.9	16.8	15.4	14.9
Fairhope, Ala.	20.3	14.4	21.6	18.3	18.2	17.2
Baton Rouge, La.	14.5	11.7	15.9	12.8	13.3	12.3
Mean	16.7	13.4	17.6	15.2	16.0	14.7
<u>Upper and Central South</u>						
Clemson, S. C.	13.2	9.9	13.5	11.5	12.9	11.7
Experiment, Ga.	17.2	12.6	16.0	15.4	15.6	14.6
Mean	15.2	11.3	14.8	13.4	14.3	13.2
<u>Delta</u>						
Stoneville, Miss. (A)	16.9	13.0	17.2	15.7	16.2	14.1
Stoneville, Miss. (B)	16.9	13.2	16.6	15.2	15.5	13.9
St. Joseph, La.	15.2	12.8	15.9	13.8	14.2	13.4
Mean	16.3	13.0	16.6	14.9	15.3	13.8
<u>West</u>						
Milburn, Okla.	13.9	11.7	15.1	14.1	15.3	12.7
Lubbock, Texas	12.8	9.4	14.2	11.2	13.7	10.3
Mean	13.3	10.5	14.7	12.7	14.5	11.5

Table 39: Average yield, in bushels per acre, and height by locations for varieties in Uniform Group VII, 1952-54

Location	Yield			Height		
	Jackson	Roanoke	Lee	Jackson	Roanoke	Lee
<u>East Coast</u>						
Accomac, Va.	21.6	23.8	23.1	44	39	30
Norfolk, Va.	25.2	21.7	22.2	47	51	32
Petersburg, Va.	18.8	17.7	22.8	43	45	32
Holland, Va.	26.8	25.8	30.1	49	49	33
Plymouth, N. C.	35.1	32.0	39.7	47	46	35
Willard, N. C.	33.7	30.1	36.4	44	43	32
McCullers, N. C.	21.2	21.8	24.7	46	45	34
Florence, S. C.	22.4	21.1	24.0	46	41	35
Mean	25.6	24.3	27.9	46	45	33
<u>Southeast</u>						
Charleston, S. C.	32.5	25.2	24.3	40	37	31
Tallassee, Ala.	35.7	37.1	33.3	43	37	29
Gainesville, Fla.	31.7	31.5	31.6	22	20	17
Walnut Hill, Fla.	24.4	24.2	26.9	36	33	32
Baton Rouge, La.	34.6	31.5	30.6	33	31	25
Mean	31.8	29.9	29.3	35	32	27
MEAN OF 29 TESTS IN AREA	28.5	26.7	26.5	32	30	24
<u>Upper and Central South</u>						
Clemson, S. C.	21.3	20.4	21.1	42	40	31
State College, Miss.	17.7	17.7	22.7	40	39	29 ^{1/}
Mean	19.5	19.1	21.9	41	40	30
<u>Delta</u>						
Stoneville, Miss.	31.0	28.9	36.4	47	43	35
St. Joseph, La.	33.4	37.6	34.6	35	39	33
Mean	32.2	33.2	35.5	41	41	34
MEAN OF 9 TESTS IN AREA	31.0	30.7	33.3	43	42	33

^{1/}Height data are for Experiment, Georgia.

Table 40: Average oil percentage and protein percentage by locations for varieties in Group VII, 1952-54

Location	Jackson	Roanoke	Lee
<u>OIL PERCENTAGE</u>			
Petersburg, Va.	20.3	19.8	19.2
Willard, N. C.	21.3	21.7	21.3
Walnut Hill, Fla.	20.9	21.9	21.1
Baton Rouge, La.	22.3	22.7	22.3
Clemson, S. C.	21.9	22.4	21.8
Stoneville, Miss.	21.5	21.6	21.3
Mean	21.4	21.7	21.2
MEAN OF 35 COMPARISONS	21.7	21.9	21.3
<u>PROTEIN PERCENTAGE</u>			
Petersburg, Va.	41.4	44.4	44.4
Willard, N. C.	39.8	39.8	41.6
Walnut Hill, Fla.	41.6	41.2	43.0
Baton Rouge, La.	40.0	40.7	40.4
Clemson, S. C.	38.0	37.2	38.4
Stoneville, Miss.	40.5	39.5	42.0
Mean	40.2	40.5	41.6
MEAN OF 35 COMPARISONS	40.0	39.6	41.3

UNIFORM GROUP VIII

1954

Strain or Variety	Source or Originating Agency	Origin
Improved Pelican	Louisiana A.E.S.	Sel. from Tanloxi x P.I. 60406
J.E.W. 45	J. E. Wannamaker	
	St. Matthews, S.C.	Sel. from mixed seed lot
Majos	Coker Pedigreed Seed Co.	Sel. from Tokio x Yelredo
	Hartsville, S. C.	
Yelnanda	Coker Pedigreed Seed Co.	Sel. from Nanda x Yelredo
Jackson	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Volstate (2) x Palmetto
Yellow Gatan	Georgia A.E.S.	Sel. from Gatan
La 49-1-4	Louisiana A.E.S.	Sel. from Pelican #2 x Ogden
La 49-2-4	Louisiana A.E.S.	Sel. from Creole x Ogden
La 49-11-6	Louisiana A.E.S.	Sel. from Pelican #2 x Volstate
La 49-89-6	Louisiana A.E.S.	Sel. from La 40-242
La 51-7-4	La. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x F.C. 31592
La 51-34-5	La A.E.S. & U.S.R.S.L.	Sel. from F.C. 31592 x Acadian

Fifteen Group VIII nurseries were planted. Results from five of these nurseries are summarized in tables 41 through 48. Of the locations planting the Group VIII nursery, stands were destroyed at several locations by the lesser corn stalk borer, while others suffered appreciably from drouth.

Jackson has been included the past two years so as to permit a more direct comparison of Group VIII strains with those in Group VII. For the three locations with two-year data, Jackson has averaged 3.3 busncls per acre higher than Improved Pelican and 0.9 percent higher in oil content. In comparison with J.E.W. 45, Jackson has yielded 0.9 bushel higher and has 1.5 percent higher oil content. La. 51-34-5, a selection from F.C. 31592 x Acadian, yielded 0.7 bushel less per acre than Jackson and was 0.2 per cent lower in oil content. La. 51-34-5 is approximately two days earlier than Improved Pelican and is similar in height to Jackson. The three new strains, La 49-1-4, La 49-2-4, and La 49-11-6, all yielded well. La. 49-2-4 and La 49-11-6 equalled or surpassed Jackson in oil content. These two strains are very similar to Jackson in maturity and height.

The variety Yellow Gatan is a hay type recently released in Georgia as a replacement for the colored-seeded Gatan. Gatan has the smallest seed of the strains included. Gatan equalled Improved Pelican in yield at four locations, but yielded significantly less at Baton Rouge. Yellow Gatan ranked lowest in oil content, being 3.6 percent lower than Jackson.

Several strains in Group VIII are rather tall. In most production areas, Jackson will make adequate growth for satisfactory combining. However, in very late plantings, the additional height of Improved Pelican can be advantageous. As soybean production moves southward in Florida, the height of Improved Pelican may become more advantageous.

Table 41: Yield, in bushels per acre, for the strains in Uniform Group VIII, 1954

Location	Improved Pelican	J.E.W. 45	Majos	Yel- nanda	Jackson	Yellow Gatan	La. 49-1-4
<u>Southeast</u>							
Gainesville, Fa.	25.1	28.6	23.7	21.1	26.1	24.5	24.0
Walnut Hill, Fla.	10.0	10.5	10.8	9.2	12.4	13.2	12.9
Baton Rouge, La.	29.1	20.4-	28.2	19.7-	33.6+	16.4-	34.9+
Mean	21.4	19.8	20.9	16.6	24.0	18.0	23.9
<u>Delta</u>							
Stoneville, Miss. (A)	26.9	26.0	29.9	16.9	42.3+	30.3	41.9+
St. Joseph, La.	30.2	24.7	32.7	27.5	29.1	29.1	35.8
Mean	28.5	25.3	31.3	22.2	35.7	29.7	38.8

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

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

Table 41: (Continued)

Location	La 49- 2-4	La 49- 11-6	La 49- 89-6	La 51- 7-4	La 51- 34-5	L.S.D. (5%)	C.V.
<u>Southeast</u>							
Gainesville, Fla.	23.7	27.4	25.8	24.8	30.3	N.S.	24%
Walnut Hill, Fla.	11.8	12.1	10.8	10.5	13.6	N.S.	16%
Baton Rouge, La.	29.4	33.7+	20.9-	22.8-	23.4-	3.7	8%
Mean	21.6	24.4	19.1	19.3	22.4		
<u>Delta</u>							
Stoneville, Miss. (A)	37.2+	38.0+	21.6	24.3	20.3	7.8	16%
St. Joseph, La.	27.9	44.6+	18.0-	25.8	30.2	6.5	11%
Mean	32.5	41.3	19.8	25.1	25.2		

Table 42: Chemical composition of the strains in Uniform Group VIII, 1954

Location	Improved Pelican	J.E.W. 45	Majos	Yel- nanda	Jackson	Yellow Gatan
<u>OIL PERCENTAGE</u>						
Gainesville, Fla.	22.1	22.6	22.4	21.6	24.2	22.8
Walnut Hill, Fla.	18.8	18.5	18.5	17.7	21.0	17.2
Baton Rouge, La.	21.4	21.5	22.8	21.5	22.5	18.0
Stoneville, Miss. (A)	21.5	20.1	21.0	18.4	22.6	17.8
Mean	21.0	20.7	21.2	19.8	22.6	19.0
<u>PROTEIN PERCENTAGE</u>						
Gainesville, Fla.	42.2	42.8	40.1	43.1	38.9	40.5
Walnut Hill, Fla.	45.3	44.8	45.0	48.2	44.0	44.4
Baton Rouge, La.	41.8	37.6	38.4	42.1	40.7	40.1
Stoneville, Miss. (A)	40.1	39.0	39.2	45.9	38.2	41.0
Mean	42.4	41.1	40.7	44.8	40.5	41.5

Table 42: (Continued)

Location	La 49-1 -4	La 49- 2-4	La 49- 11-6	La 49- 89-6	La 51- 7-4	La 51- 34-5
----------	---------------	---------------	----------------	----------------	---------------	----------------

OIL PERCENTAGE

Gainesville, Fla.	18.8	23.6	23.4	20.6	22.5	23.7
Walnut Hill, Fla.	18.5	21.3	21.1	18.0	19.5	19.6
Baton Rouge, La.	21.9	23.8	23.3	21.1	22.2	23.3
Stoneville, Miss. (A)	21.0	22.8	22.7	19.0	21.4	21.6
Mean	20.0	22.9	22.6	19.7	21.4	22.0

PROTEIN PERCENTAGE

Gainesville, Fla.	40.5	39.6	39.4	45.2	42.4	39.6
Walnut Hill, Fla.	45.9	45.1	42.8	48.1	45.1	44.2
Baton Rouge, La.	39.4	39.8	36.3	43.7	40.9	37.5
Stoneville, Miss. (A)	39.6	40.5	37.9	45.2	41.0	41.2
Mean	41.4	41.3	39.1	45.6	42.4	40.6

Table 43: Relative maturity data, days earlier (-) or later (+) than Improved Pelican for the strains in Uniform Group VIII, 1954

Location	Date Planted	Imp. Pelican Matured	J.E.W. 45	Majos	Yel- nanda	Jackson
<u>Southeast</u>						
Gainesville, Fla.	6-10	10-29	-8	+1	-4	-11
Baton Rouge, La.	4-27	11-3	-13	-2	-9	-13
Mean			-10	0	-6	-12
<u>Delta</u>						
Stoneville, Miss.	5-20	11-8	-1	+2	+3	-11
St. Joseph, La.	6-4	11-10	-13	0	-10	-13
Mean			-7	+1	-3	-12

Table 43: (Continued)

Location	Yellow Gatan	La 49-1 -4	La 49- 2-4	La 49- 11-6	La 49- 89-6	La. 51- 7-4	La 51- 34-5
----------	-----------------	---------------	---------------	----------------	----------------	----------------	----------------

Southeast

Gainesville, Fla.	-1	-7	-16	-13	-1	0	-4
Baton Rouge, La.	-9	-6	-19	-16	-8	-2	-4
Mean	-5	-6	-17	-14	-4	0	-4

Delta

Stoneville, Miss.	-1	-1	-11	-9	0	+2	+3
St. Joseph, La.	-5	0	-20	-20	-5	-10	-5
Mean	-3	0	-15	-14	-2	-4	-1

Table 44: Height data for the strains in Uniform Group VIII, 1954

Location	Improved Pelican	J.E.W. 45	Majos	Yel- nanda	Jackson	Yellow Gatan
<u>Southeast</u>						
Gainesville, Fla.	47	23	26	28	21	33
Walnut Hill, Fla.	47	36	35	42	36	41
Baton Rouge, La.	73	36	35	48	33	58
Mean	56	32	32	39	30	44
<u>Delta</u>						
Stoneville, Miss.	74	46	45	50	50	66
St. Joseph, La.	66	33	37	51	40	57
Mean	70	40	41	51	45	62

Table 44: (Continued)

Location	La 49-1 -4	La 49- 2-4	La 49- 11-6	La 49- 89-6	La 51- 7-4	La 51- 34-5
<u>Southeast</u>						
Gainesville, Fla.	21	19	25	43	28	25
Walnut Hill, Fla.	37	35	37	40	38	42
Baton Rouge, La.	34	35	36	58	50	33
Mean	31	30	33	47	39	33
<u>Delta</u>						
Stoneville, Miss.	49	49	53	60	55	45
St. Joseph, La.	43	33	45	58	50	41
Mean	46	41	49	59	53	43

Table 45: Lodging data for strains in Uniform Group VIII, 1954

Location	Improved Pelican	J.E.W. 45	Majos	Yel- nanda	Jackson	Yellow Gatan
Gainesville, Fla.	1.7	1.0	1.0	1.0	1.0	3.0
Walnut Hill, Fla.	1.3	2.0	3.0	1.7	1.0	2.0
Baton Rouge, La.	3.0	2.0	3.0	3.0	2.0	5.0
Stoneville, Miss.	4.0	3.3	3.3	3.7	2.0	5.0
St. Joseph, La.	5.0	3.0	2.0	2.0	1.0	5.0

Table 45: (Continued)

Location	La 49-1 -4	La 49- 2-4	La 49- 11-6	La 49- 89-6	La 51- 7-4	La 51- 34-5
Gainesville, Fla.	1.0	1.0	1.0	3.0	1.0	1.0
Walnut Hill, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	2.0	2.0	2.0	4.0	3.0	2.0
Stoneville, Miss.	3.7	3.0	3.0	2.7	3.7	4.0
St. Joseph, La.	4.0	1.0	2.0	4.0	4.0	4.0

Table 46: Seed quality scores for the strains in Uniform Group VIII, 1954

Location	Improved Pelican	J.E.W. 45	Majos	Yel- nanda	Jackson	Yellow Gatan
Gainesville, Fla.	2.7	2.0	2.0	2.0	1.7	3.3
Walnut Hill, Fla.	2.0	2.0	2.0	3.0	3.0	2.0
Baton Rouge, La.	1.0	2.0	2.0	2.0	3.0	2.0
Stoneville, Miss.	2.0	2.0	2.7	2.7	2.0	2.0
St. Joseph, La.	1.0	2.0	2.0	2.0	2.0	1.0

Table 46: (Continued)

Location	La 49-1 -4	La 49- 2-4	La 49- 11-6	La 49- 89-6	La 51- 7-4	La 51- 34-5
Gainesville, Fla.	3.3	2.0	1.7	3.0	3.3	1.7
Walnut Hill, Fla.	2.0	3.0	2.0	2.0	2.0	2.0
Baton Rouge, La.	1.0	3.0	2.0	2.0	1.0	2.0
Stoneville, Miss.	2.0	2.3	2.0	2.0	2.0	3.0
St. Joseph, La.	2.0	2.0	2.0	2.0	1.0	2.0

Table 47: Seed weight, in grams per 100 seeds, for the strains in Uniform Group VIII, 1954

Location	Improved Pelican	J.E.W. 45	Majos	Yel- nanda	Jackson	Yellow Gatan
<u>Southeast</u>						
Gainesville, Fla.	14.6	20.5	20.2	18.4	14.7	12.0
Walnut Hill, Fla.	12.6	20.2	20.1	19.1	17.2	12.0
Baton Rouge, La.	10.1	17.3	18.5	15.7	14.8	9.7
Mean	12.4	19.3	19.6	17.7	15.6	11.2
<u>Delta</u>						
Stoneville, Miss.	10.8	19.2	16.1	14.1	15.7	10.4

Table 47: (Continued)

Location	La 49-1- 4	La 49- 2-4	La 49- 11-6	La 49- 89-6	La 51- 7-4	La 51- 34-5
----------	---------------	---------------	----------------	----------------	---------------	----------------

Southeast

Gainesville, Fla.	14.4	15.1	16.5	16.7	18.2	22.6
Walnut Hill, Fla.	15.2	18.4	17.8	16.6	17.5	20.7
Baton Rouge, La.	14.8	14.0	13.9	14.8	13.9	19.7
Mean	14.8	15.8	16.1	16.0	16.5	21.0

Delta

Stoneville, Miss.	15.6	15.6	15.6	14.1	13.4	18.9
-------------------	------	------	------	------	------	------

Table 48: Two-year average yield, in bushels per acre, oil and protein percentage and height data for the strains in Uniform Group VIII, 1953-54

Location	Improved Pelican	J.E.W. 45	Majors	Jackson	La 49- 89-6	La 51-7 -4	La 51- 34-5
			<u>YIELD</u>				
Gainesville, Fla.	24.9	36.1	23.5	26.5	23.9	25.7	32.3
Walnut Hill, Fla.	12.7	15.3	15.0	18.4	10.7	9.1	16.3
Baton Rouge, La.	28.7	22.2	27.3	31.3	22.1	24.0	25.5
Mean	22.1	24.5	21.9	25.4	18.9	19.6	24.7
			<u>OIL PERCENTAGE</u>				
Gainesville, Fla. 1/	20.4	20.9	21.0	22.7	19.5	21.0	22.4
Walnut Hill, Fla.	19.3	18.3	18.3	20.0	17.2	17.5	19.2
Baton Rouge, La.	23.0	21.8	22.5	22.6	21.3	23.0	23.2
Mean	20.9	20.3	20.6	21.8	19.3	20.5	21.6
			<u>PROTEIN PERCENTAGE</u>				
Gainesville, Fla. 1/	42.4	43.0	40.3	40.5	45.8	41.8	40.5
Walnut Hill, Fla.	44.3	43.3	42.8	42.4	47.0	43.3	42.4
Baton Rouge, La.	39.5	38.0	37.7	38.8	41.6	39.3	37.9
Mean	42.1	41.4	40.3	40.6	44.8	41.5	40.3
			<u>HEIGHT</u>				
Gainesville, Fla.	39	25	27	22	39	30	26
Walnut Hill, Fla.	52	34	35	35	46	41	40
Baton Rouge, La.	69	32	34	34	57	44	34
Mean	53	30	32	30	47	38	33

1/1953 data used from Quincy, Florida









