U. S. REGIONAL SOYBEAN LABORATORY
URBANA, ILLINOIS

RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS, 1951 PART II. SOUTHERN STATES

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF PLANT INDUSTRY,
SOILS, AND AGRICULTURAL ENGINEERING,
DIVISION OF FORAGE CROPS AND DISEASES
COOPERATING WITH
STATE AGRICULTURAL EXPERIMENT STATIONS

MARCH, 1952
RSLM 162

RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS

PART II. SOUTHERN STATES[1/]

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1951

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Compiled by

Edgar E. Hartwig and Elaine Bounds

Stoneville, Mississippi

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1/- This annual report of activity at the Soybean Laboratory, as well as of that at 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 For this reason, citation to particular statements in the report should not be published unless permission has been granted previously by the Laboratory or the state station concerned.

INTRODUCTION

The program of the U. S. Regional Soybean Laboratory includes developing and evaluating soybean varieties for industrial utilization. As a means of evaluating present varieties and new strains developed through breeding, replicated plantings are made under a wide variety of environmental conditions. Because soybean strains are very sensitive to photoperiod, it has been necessary to classify types into maturity groups. For convenience, these maturity groups are designated Groups 0, I, II, -- VII, VIII, extending from north to south. This report includes a summary of agronomic and chemical characteristics of varieties and new strains for the Southern States. Maturity groups included are IV, V, VI, VII, and VIII. In general, each group is arranged to include strains differing in maturity by not more than 18 days.

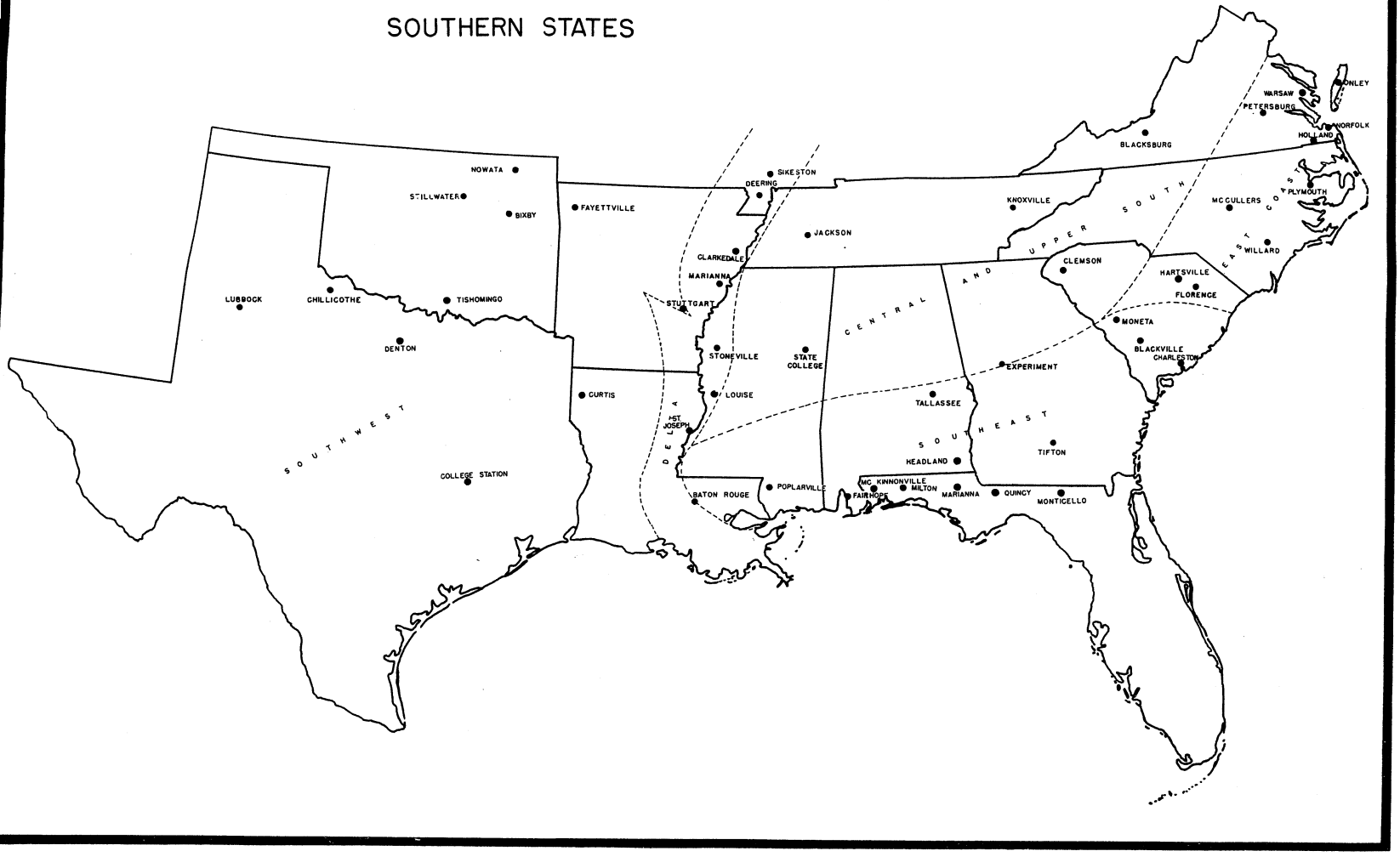
The cooperative program between the Soybean Laboratory and the states in the southern region was initiated in 1943. At that time there was only limited information available showing the regions of adaptation of the existing varieties of soybeans. During the first few years, most of the strains included in the uniform nurseries were established varieties. As agronomic and chemical data were accumulated on these strains, the poorer producers were eliminated from the tests. At the present time, the material grown in the regional nurseries comprises top-producing varieties and new selections from the breeding programs. This testing program gives agronomic and chemical data from a wide variety of conditions. Because of these tests, the breeder can get new strains into production in a minimum amount of time.

A wide range of soil and climatic conditions exist in the region. It is too much to expect that any one variety should give top performance in all areas where a particular maturity group is to be grown. 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 of Virginia, North Carolina, and the upper half of South Carolina; (2) the Southeast, consisting of the Coastal Plain soils of the lower half of South Carolina, Georgia, Florida, Alabama, and Mississippi; (3) the Upper and Central South, including the Piedmont soils between the Coastal Plain and Mississippi Delta; (4) the Delta area, composed of the alluvial soils from the Mississippi River in Missouri, Arkansas, Tennessee, Mississippi, and Louisiana; and (5) the West, or Southwest, comprising the western half of Arkansas and Louisiana, Oklahoma, and Texas. A map is included to illustrate these areas.

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

Rate of fertilization are reported for those locations where the plots were fertilized. Soil types are reported for all locations.

LOCATIONS OF COOPERATIVE UNIFORM SOYBEAN TESTS, SOUTHERN STATES



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COOPERATING AGENCIES AND PERSONNEL
FOR THE
SOUTHERN STATES

Bureau of Plant Industry, Soils, and Agricultural Engineering;
Division of Forage Crops and Diseases[1]: M. G. Weiss, Beltsville, Maryland; J. L. Cartter, Urbana, Illinois; E. E. Hartwig, Stoneville, Mississippi; Herbert W. Johnson, Raleigh, North Carolina; and Elaine Bounds, Stoneville, Mississippi.

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

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

Georgia Agricultural Experiment Station;
Agronomy Department: U. R. Gore, J. L. Stephens

Florida Agricultural Experiment Station;
Agronomy Department: R. L. Smith, H. W. Lundy, R. W. Lipscomb, Thomas Webb, R. W. Wallace

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: Herbert W. Johnson

Oklahoma Agricultural Experiment Station;
Agronomy Department: Chester Canode, Donald Swift

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: Clark Harvey

Virginia Agricultural Experiment Station;
Agronomy Department: T. J. Smith, Edward Shulkum

1/The chemists at the U. S. Regional Soybean Laboratory, Urbana, Illinois, have run the chemical analyses. Breeding material received from the Laboratory staff members located at states in the northern program has aided the southern program appreciably.

LOCATION OF COOPERATIVE NURSERIES

Location		Uniform Groups IV	V	VI	VII	VIII	Soil Type	Fertilizer[1]
		EAST COAST						
Warsaw, Va.	Eastern Va. Research Sta.	1	1	1			Sassafras Sandy Loam	10-60-60
Petersburg, Va.	Va. State College Field Sta.		1	1	1		Norfolk Fine Sandy Loam	0-56-56
Holland, Va.	Tidewater Field Station		1	1	1		Onslow Fine Sandy Loam	8-48-48
Plymouth, N. C.	Tidewater Branch Station		1	1	1		Bladen Fine Sandy Loam	0-40-80
Willard, N. C.	Lower Coastal Plain Expt. Sta.			1	1		Norfolk Fine Sandy Loam	0-40-80
McCullers, N. C.	N. Car. Agr. Expt. Sta.			1	1		Norfolk Sandy Loam	0-40-80
Florence, S. C.	Pee Dee Expt. Sta.				1		Dunbar Fine Sandy Loam	0-40-80
		SOUTHEAST						
Monetta, S. C.	Miss Bessie Johnson			1	1	1	Norfolk Sandy Loam	0-40-80
Blackville, S. C.	Edisto Expt. Station				1		Norfolk Sandy Loam	12-48-48
Tifton, Ga.	Ga. Coastal Plain Expt. Sta.				1	1	Tifton Sandy Loam	0-40-80
Tallassee, Ala.	Ala. Agric. Expt. Sta.			1	1		Cahaba Fine Sandy Loam	0-40-20
Monticello, Fla.	North Fla. Mobile Unit #1				1		Ruston Fine Sandy Loam	24-60-42
Quincy, Fla.	North Fla. Expt. Station			1	1	1	Tifton Sandy Loam	20-50-35
Marianna, Fla.	No. Fla. Mobile Unit #3			1	1		Ruston Sandy Loam	24-60-42
Milton, Fla.	West Fla. Expt. Sta.			1	1	1	Red Bay Sandy Loam	36-90-63
Walnut Hill, Fla.	Johnson Bros.			1	1	1	Tifton Fine Sandy Loam	24-60-42
Fairhope, Ala.	Gulf Coast Substation			1	1		Marlboro Fine Sandy Loam	None[2]
Poplarville, Miss.	South Miss. Branch Station				1		Orangeburg Sandy Loam	0-40-80
		UPPER AND CENTRAL SOUTH						
Knoxville, Tenn.	Tenn. Agr. Expt. Sta.	1	1	1			Sequatchie Fine Sandy Loam	6-36-36
Clemson, S. C.	Clemson Expt. Sta.				1		Cecil Sandy Loam	14-54-54
Belle Mina, Ala.	Tenn. Valley Substation		1	1			Decatur Sandy Loam	None
Experiment, Ga.	Ga. Agric. Expt. Sta.		1	1	1	1	Cecil Sandy Loam	0-50-50
State College, Miss.	Miss. Agric. Expt. Sta.		1	1	1		Verona Fine Sandy Loam	None

Location	Cooperator	Uniform Groups IV	V	VI	VII	VIII	Soil Type	Fertilizer 1/
			MISSISSIPPI DELTA					
Sikeston, Mo.	Southeast Mo. Expt. Fld. Sta.	1	1	1			Lintonia Fine Sandy Loam	4-24-12
Jackson, Tenn.	West Tenn. Agr. Expt. Sta.	1	1	1			Lintonia Silt Loam	0-12-25
Clarkedale, Ark.	Cotton Branch Sta.	1	1	1			Sharkey Clay	9-27-54
Marianna, Ark.	Cotton Branch Sta.	1	1	1			Richland Silt Loam	12-36-72
Stoneville, Miss. (A)	Delta Br. Expt. Sta.	1		1	1	1	Bosket Fine Sandy Loam	None
Stoneville, Miss. (B)	Delta Br. Expt. Sta.		1				Sharkey Clay	None
Louise, Miss.	L. S. Stoner			1	1		Dundee Silt Loam	None
St. Joseph, La.	N. E. La. Agr. Expt. Sta.		1	1	1	1	Sarpy Clay Loam	None
Baton Rouge, La.	La. Agric. Expt. Sta.		1	1	1	1	Lintonia Sandy Loam	15-60-60
			WEST					
Stillwater, Okla.	Okla. Agric. Expt. Sta.		1	1			Vanoss Very Fine Sandy Loam	None
Bixby, Okla.	Okla. Veg. Research Sta.		1	1			Yahola Very Fine Sandy Loam	0-70-0
Fayetteville, Ark.	Ark. Agr. Expt. Sta.	1	1	1			Bolivar Silt Loam	0-48-60
Stuttgart, Ark.	Rice Branch Expt. Sta.		1	1	1		Crowley Silt Oam	0-48-48
Tishomingo, Okla.	Murray State College			1	1			0-50-0
Denton, Texas	Texas Substation #6	1	1	1			San Saba Clay	None
Chillicothe, Texas	Texas Substation #12	1	1	1	1	1	Abilene Loam	None
Lubbock, Texas	Texas Substation #8		1	1	1		Richfield Fine Sandy Loam	None
Curtis, La.	Red River Valley Expt. Sta.		1	1	1	1	Miller Very Fine Sandy Loam	None

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

2/ Soybeans followed heavily fertilized potatoes.

METHODS

The uniform nurseries have been planted in 4-row plots with three replications, or in 3-row plots with four replications. Where 4-row plots were grown, the two center rows were harvested, while where 3-row plots were grown, only the center row was harvested. A randomized block design was used for all groups. Row widths at the different locations have varied from 36 to 42 inches. Plantings are made at the rate of 10 viable seeds per foot of row. An attempt is made to follow the best cultural and management practices in conducting these variety and strain comparisons.

Yields were 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, were on the border rows, fourteen days after maturity. The estimates are recorded on a scale of 1 to 5 as follows:

1. No shattering
2. 1 - 5% shattered
3. 6 - 10% shattered
4. 11 - 24% shattered
5. 25% or over shattered.

Chemical composition - percent protein, percent oil, and iodine number of the oil was determined on each strain from representative locations. Percentage composition of the seed is expressed on a dry basis (moisture free).

Seed weight from each strain was determined on a composite from all replications at a location and was recorded as weight in grams of 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 was taken as the date when the pods were dry and most of the leaves had 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, Wabash; Group V, S-100; Group VI, Ogden; Group VII, Roanoke; and Group VIII, Acadian.

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

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

The factors considered in estimating seed quality were 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 areas.

Statistical analyses - yield data were analyzed by analysis of variance. Differences necessary to indicate difference between strains (odds 19:1) are reported for each location.

Strain Identification - the strains designated by number carry a letter prefix. This letter identifies the state where this strain was selected. The following letters appear in this report.

C - Purdue Agric. Expt. Station and U. S. Regional Soybean Laboratory.
D - Delta Branch Expt. Station and the 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 the U. S. Regional Soybean Laboratory.
S - Missouri Agric. Expt. Station and the U. S. Regional Soybean Laboratory.
R - Arkansas Agric. Expt. Station and the U. S. Regional Soybean Laboratory

P. I. - Plant Introduction.

UNIFORM GROUP IV, 1951

Strain or Variety	Source or Originating Agency	Origin
Wabash	Purdue A.E.S. & U.S.R.S.L.	Sel. from Dunfield x Mansoy
Perry (612)	Purdue A.E.S. & U.S.R.S.L.	Sel. from Patoka x L7-1355
L6-1656	Ill. A.E.S. & U.S.R.S.L.	Sel. from Lincoln/Lincoln x Richland
L6-5679	Ill. A.E.S. & U.S.R.S.L.	Sel. from Lincoln x Richland
L8-6797	Ill. A.E.S. & U.S.R.S.L.	Sel. from L6-5679
L8-6852	Ill. A.E.S. & U.S.R.S.L.	Sel. from Lincoln x Richland
S7-270	Mo. A.E.S. & U.S.R.S.L.	Sel. from Chief/Macoupin x Chief
S7-5236	Mo. A.E.S. & U.S.R.S.L.	Sel. from Lincoln x S-100
C985	Purdue A.E.S. & U.S.R.S.L.	Sel. from Lincoln x Ogden
C986	Purdue A.E.S. & U.S.R.S.L.	Sel. from Lincoln x Ogden
L8-10780	Ill. A.E.S. & U.S.R.S.L.	Sel. from Lincoln/Lincoln x C171

Eleven Group IV nurseries were planted in the southern region. Results of 8 of these are summarized in tables 1 through 9. Wabash, the check variety, is a full-season variety in southern Indiana. At most locations, Wabash is 16 to 18 days earlier than S-100, the check variety of Group V. Over much of the area where these nurseries were grown, varieties of this maturity will be secondary to later-maturing varieties. Although seed yields will usually be lower than for later-maturing varieties, their production is frequently justified on the basis of permitting larger acreages to be handled by the harvesting equipment available.

Previous studies have shown Wabash to be the best variety of its maturity for the Southern Region. However, seed yield and seed quality are usually poorer than for later-maturing varieties. Wabash does not shade the ground as well as Ogden and as a result is not as effective in controlling grass and weeds. At Stoneville, the early varieties have appeared to give better production on the heavy clay soils than on the sandy loam soils. The generally low yields obtained in 1951 do not permit adequate evaluation of the new strains.

The strain C612 has been increased for release and has been named Perry. Perry has averaged 5 to 10 days later than Wabash. This later maturity along with the fact that it has heavier foliage than Wabash, should make Perry better adapted at most southern locations where an early variety is desired. At most locations, Perry has a higher three-year mean yield than Wabash. Oil content is similar.

The strain L6-5679 has a production record comparable to Perry, except that it has somewhat lower oil content. Its field appearance is usually superior to that of Perry. L6-5679 stands well and has excellent ground

coverage for an early-maturing variety. L6-1656 has shown very little yield advantage over Wabash, has lower oil content and is more susceptible to lodging. This strain appears to have been adequately tested.

None of the strains tested for two years, L8-6797, L8-6832, S7-270, or S7-5236 have demonstrated any consistent superiority over Perry. C985 looked promising at Warsaw, Virginia, but at all other locations, yields were too low to adequately evaluate the three new strains, C985, C986, or L8-10780.

Table 1: Yield, in bushels per acre, for the strains in Uniform Group IV, 1951

Location	Wabash	Perry (C612)	L6-1656	L6-5679	L8-6797	L8-6852
Upper and Central South						
Warsaw, Va.	25.4	27.7	19.4-	27.7	24.5	26.3
Delta						
Sikeston, Mo.	19.3	22.1	22.1	17.8	14.2-	11.8-
Clarkedale, Ark.	14.7	17.9	15.0	16.3	15.2	15.6
Marianna, Ark.	12.5	12.9	18.2	15.2	12.5	16.3
Stoneville, Miss.	13.0	13.9	9.6	13.0	14.9	11.7
Mean	14.9	16.7	16.2	15.6	14.2	13.8
West						
Fayetteville, Ark.	19.9	21.2	19.1	19.8	20.0	19.2
Chillicothe, Texas	11.1	13.3	13.0	12.4	12.9	13.0
Denton, Texas 1/	3.2	5.4	4.3	6.3	5.8	6.3
Mean	15.5	17.2	16.0	16.1	16.4	16.1

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

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

1/ - Not included in the mean.

Table 1: (Continued)

Location	S7-270	S7-5236	C985	C986	L8-10780	L.S.D. (5%)	C.V.
			Upper and Central South				
Warsaw, Va.	27.8	26.6	31.3+	26.9	26.3	3.7	10%
			Delta				
Sikeston, Mo.	21.3	17.1	22.4	19.5	21.3	3.8	14%
Clarkedale, Ark.	15.6	14.3	16.5	15.9	17.2	N.S.	12%
Marianna, Ark.	13.6	13.8	18.8	21.1	17.7	N.S.	22%
Stoneville, Miss.	11.6	12.4	14.3	14.5	12.6	N.S.	20%
Mean	15.5	14.4	18.0	17.8	17.2		
			West				
Fayetteville, Ark.	20.6	19.8	18.3	20.8	22.9	N.S.	9%
Chillicothe, Texas	13.6	17.8	15.4	11.0	17.9	N.S.	24%
Denton, Texas[1/]	5.2	6.3	4.3	3.6	5.9	1.6	19%
Mean	17.1	18.8	16.8	15.9	20.4		

Table 2: Chemical composition of the strains in Uniform Group IV, 1951

Location	Wabash	Perry (C612)	L6-1656	L6-5679	L6-6797
		OIL PERCENTAGE			
Warsaw, Va.	23.3	22.8	21.8	22.3	21.7
Sikeston, Mo.	22.4	23.0	21.0	21.7	21.0
Jackson, Tenn.	23.0	22.8	22.9	21.9	21.6
Clarkedale, Ark.	23.4	22.7	21.2	21.5	21.0
Stoneville, Miss.	22.1	21.9	21.1	21.8	22.0
Mean	22.8	22.6	21.6	21.8	21.5
		PROTEIN PERCENTAGE			
Warsaw, Va.	37.9	39.4	39.3	36.5	37.5
Sikeston, Mo.	39.6	39.4	37.5	37.0	37.3
Jackson, Tenn	40.4	41.8	40.2	41.6	40.5
Clarkedale, Ark.	40.1	41.4	39.9	40.3	41.1
Stoneville, Miss.	40.2	41.3	39.3	39.4	39.7
Mean	39.6	40.7	39.2	39.0	39.2
		IODINE NUMBER OF THE OIL			
Warsaw, Va.	139.9	134.3	138.0	135.2	135.1
Sikeston, Mo.	121.9	125.9	133.5	127.1	127.2
Jackson, Tenn.	124.3	128.2	136.3	130.7	130.5
Clarkedale, Ark.	126.6	129.5	133.9	132.8	128.6
Stoneville, Miss.	118.3	121.2	129.5	124.3	122.1
Mean	126.2	127.8	134.2	130.0	128.7

Table 2: (Continued)

Location	L8-6852	S7-270	S7-5236	C985	C986	L8-10780
			OIL PERCENTAGE			
Warsaw, Va.	22.3	21.8	20.7	22.2	21.7	23.8
Sikeston, Mo.	22.2	22.0	20.5	21.2	20.3	22.0
Jackson, Tenn.	22.5	21.6	21.2	21.9	21.9	22.4
Clarkedale, Ark.	21.5	20.7	21.0	21.3	22.1	22.5
Stoneville, Miss.	21.7	21.9	21.4	21.4	21.9	21.9
Mean	22.0	21.6	21.0	21.6	21.6	22.5
			PROTEIN PERCENTAGE			
Warsaw, Va.	36.3	38.2	36.8	40.2	40.9	38.4
Sikeston, Mo.	35.8	37.6	39.2	39.1	42.1	38.3
Jackson, Tenn.	38.6	41.0	40.7	41.5	43.0	43.1
Clarkedale, Ark.	40.6	41.7	41.1	42.1	40.0	42.0
Stoneville, Miss.	37.3	39.5	38.2	39.8	40.5	39.9
Mean	37.7	39.6	39.2	40.5	41.3	40.3
			IODINE NUMBER OF THE OIL			
Warsaw, Va.	134.7	136.3	139.9	138.8	136.9	136.3
Sikeston, Mo.	127.7	129.1	132.5	134.6	127.9	126.5
Jackson, Tenn.	128.0	131.8	133.3	136.2	132.7	130.5
Clarkedale, Ark.	131.0	130.6	135.8	136.5	132.7	132.7
Stoneville, Miss.	124.8	126.4	129.3	129.4	126.4	126.4
Mean	129.2	130.8	134.2	135.1	131.3	130.5

Table 3: Relative maturity data, days earlier (-) or later (+) than Wabash, for the strains in Uniform Group IV, 1951

Location	Date Planted	Wabash Matured	Perry (C612)	L6-1656	L6-5679	L8-6797
			Upper and Central South			
Warsaw, Va.	5-29	9-25	+3	-1	+3	+5
			Delta			
Sikeston, Mo.	5-11	9-16	0	-4	+5	+6
Marianna, Ark.	5-24	9-3	+17	+3	+11	+15
Stoneville, Miss.	5-9	9-8	+3	+4	+4	+6
Mean			+7	+1	+7	+9
			West			
Fayetteville, Ark.	5-25	9-11	+10	+2	+15	+15
Chillicothe, Texas	6-14	10-15	-3	-1	0	0
Mean			+4	0	+8	+8

Table 3: (Continued)

Location	L8-6852	S7-270	S7-5236	C985	C986	L8-10780
			Upper and Central South			
Warsaw, Va.	+1	+7	+3	+5	+3	+3
			Delta			
Sikeston, Mo.	+7	+9	+4	+7	+5	0
Marianna, Ark.	+13	+12	+13	+11	+13	+14
Stoneville, Miss.	+6	+4	+6	+7	+5	+4
Mean	+9	+8	+8	+8	+8	+6
			West			
Fayetteville, Ark.	+15	+6	+15	+15	+15	+10
Chillicothe, Texas	-1	0	-10	-1	-1	-10
Mean	+7	+3	+3	+7	+7	0

Table 4: Height data for strains in Uniform Group IV, 1951

Location	Wabash	Perry (C612)	L6-1656	L6-5679	L8-6897
		Upper and Central South			
Warsaw, Va.	38	38	39	45	44
		Delta			
Sikeston, Mo.	46	44	46	47	48
Clarkedale, Ark.	41	36	43	39	45
Marianna, Ark.	33	30	41	37	36
Stoneville, Miss.	31	26	29	33	34
Mean	38	34	40	39	41
		West			
Fayetteville, Ark.	30	31	35	33	32
Chillicothe, Texas	28	24	29	29	29
Denton, Texas	17	14	17	14	16
Mean	25	23	27	25	26

Table 4: (Continued)

Location	L8-6852	S7-270	S7-5286	C985	C986	L8-10780
			Upper and Central South			
Warsaw, Va.	42	49	40	43	40	42
			Delta			
Sikeston, Mo.	46	54	42	46	45	46
Clarkedale, Ark.	46	49	40	44	39	41
Marianna, Ark.	38	41	34	40	36	34
Stoneville, Miss.	35	35	31	33	32	35
Mean	41	45	37	41	38	39
			West			
Fayetteville, Ark.	33	39	30	32	33	38
Chillicothe, Texas	30	31	26	31	28	30
Denton, Texas	17	21	19	18	18	16
Mean	27	30	25	27	26	28

Table 5: Lodging scores for the strains in Uniform Group IV, 1951

Location	Wabash	Perry (C612)	L6-1656	L6-5679	L8-6797
		Upper and Central South			
Warsaw, Va.	3.5	1.0	1.5	2.0	1.5
		Delta			
Sikeston, Mo.	2.3	2.0	1.8	1.4	1.4
Clarkedale, Ark.	2.0	2.0	2.0	1.0	2.0
Marianna, Ark.	2.0	1.0	2.0	1.0	2.0
Stoneville, Miss.	1.0	1.0	1.0	1.0	1.0
		West			
Fayetteville, Ark.	1.0	1.5	2.0	2.0	1.5
Chillicothe, Texas	1.0	1.0	1.0	1.0	1.0
Denton, Texas	1.0	1.0	1.0	1.0	1.0

Table 5: (Continued)

Location	L8-6852	S7-270	S7-5236	C985	C986	L8-10780
			Upper and Central South			
Warsaw, Va.	1.0	2.0	2.5	1.5	2.0	1.0
			Delta			
Sikeston, Mo.	1.8	1.6	1.4	1.8	2.3	1.5
Clarkedale, Ark.	2.0	3.0	2.0	2.0	2.0	2.0
Marianna, Ark.	2.0	3.0	3.0	3.0	3.0	2.0
Stoneville, Miss.	1.0	1.0	1.3	1.3	1.0	1.0
			West			
Fayetteville, Ark.	1.0	2.0	1.0	1.5	2.0	2.0
Chillicothe, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Denton, Texas	1.0	1.0	1.0	1.0	1.0	1.0

Table 6: Seed quality scores for the strains in Uniform Group IV, 1951

Location	Wabash	Perry (C612)	L6-1656	L6-5679	L8-6797
		Upper and Central South			
Warsaw, Va.	1.0	1.0	1.0	2.0	2.0
		Delta			
Sikeston, Mo.	3.0	2.0	3.0	2.0	2.0
Clarkedale, Ark.	4.0	3.0	3.0	2.0	2.0
Marianna, Ark.	3.0	3.0	3.0	2.0	2.0
Stoneville, Miss.	5.0	4.3	5.0	4.0	4.7
		West			
Fayetteville, Ark.	3.0	4.0	4.0	3.0	3.0
Chillicothe, Texas	4.0	2.0	3.0	3.0	3.0
Denton, Texas	5.0	5.0	4.0	5.0	4.0

Table 6: (Continued)

Location	L8-6852	S7-270	S7-5286	C985	C986	L8-10780
			Upper and Central South			
Warsaw, Va.	1.0	1.0	2.0	2.0	1.5	3.0
			Delta			
Sikeston, Mo.	2.0	2.0	2.0	2.0	3.0	2.0
Clarkedale, Ark.	3.0	3.0	3.0	2.0	3.0	3.0
Marianna, Ark.	2.0	2.0	2.0	2.0	2.0	3.0
Stoneville, Miss.	4.3	4.7	5.0	5.0	4.3	5.0
			West			
Fayetteville, Ark.	3.0	2.0	3.0	2.0	3.0	4.0
Chillicothe, Texas	2.0	3.0	2.0	3.0	2.0	3.0
Denton, Texas	3.0	5.0	4.0	5.0	4.0	5.0

Table 7: Seed weight, in grams per 100 seeds, for the strains in Uniform Group IV, 1951

Location	Wabash	Perry (C612)	L6-1656	L6-5679	L8-6897
		Upper and Central South			
Warsaw, Va.	13.5	14.5	12.5	13.5	13.0
		Delta			
Sikeston, Mo.	12.9	12.6	11.2	12.1	11.7
Stoneville, Miss.	11.0	11.8	10.9	10.2	11.3
Mean	12.0	12.2	11.0	11.2	11.5
		West			
Fayetteville, Ark.	13.2	11.9	13.2	12.4	12.2
Chillicothe, Texas	16.0	16.0	17.0	14.0	16.0
Denton, Texas	10.0	10.5	12.0	10.2	10.8
Mean	13.1	12.8	14.1	12.2	13.0

Table 7: (Continued)

Location	L8-6852	S7-270	S7-5286	C985	C986	L8-10780
			Upper and Central South			
Warsaw, Va.	13.0	12.0	11.5	15.0	14.5	16.0
			Delta			
Sikeston, Mo.	13.3	12.3	12.3	11.6	13.0	13.0
Stoneville, Miss.	11.4	9.8	11.2	13.4	11.7	12.9
Mean	12.4	11.0	11.8	12.5	12.4	13.0
			West			
Fayetteville, Ark.	11.8	10.8	12.4	12.4	12.4	15.2
Chillicothe, Texas	16.0	15.0	16.0	18.0	17.0	16.0
Denton, Texas	11.0	11.0	10.5	11.5	8.8	12.2
Mean	12.9	12.3	13.0	14.0	12.7	14.5

Table 8: Two-year average yield, in bushels per acre, and oil percentage for the strains in Uniform Group IV, 1950-1951

Location	Wabash	Perry (C612)	L6-1656	L6-5679	L8-6797	L8-6852	S7-270	S7-5236
				YIELD				
Warsaw, Va.	23.0	27.0	20.8	26.8	25.0	25.5	25.6	23.4
Sikeston, Mo.	23.2	29.4	27.0	26.8	24.5	24.8	27.4	24.6
Clarkedale, Ark.	20.4	20.7	19.8	19.0	19.1	20.0	21.0	20.6
Marianna, Ark.	15.6	17.0	18.7	21.6	20.4	20.6	18.0	16.9
Stoneville, Miss.	25.8	29.7	24.9	30.4	34.2	24.2	23.4	26.6
Fayetteville, Ark.	22.4	26.7	26.0	29.8	26.0	29.6	26.9	29.7
Mean	21.7	25.1	22.9	25.7	24.9	24.1	23.7	23.6
				OIL PERCENTAGE				
Warsaw, Va.	22.7	22.4	22.2	21.4	21.5	22.2	21.8	21.3
Sikeston, Mo.	22.4	22.5	20.3	21.4	20.5	21.7	21.3	20.4
Jackson, Tenn.	22.6	22.5	21.9	21.4	21.2	22.2	21.3	21.0
Stoneville, Miss.	22.6	22.5	21.9	22.2	22.0	22.0	21.7	21.4
Mean	22.6	22.5	21.8	21.6	21.3	22.0	21.5	21.0

Table 9: Three-year average yield, in bushels per acre, and oil percentage for the strains in Uniform Group IV, 1949-1951

Location	Wabash	C612	L6-1656	L6-5679
		YIELD		
Warsaw, Va.	26.4	31.6	27.4	31.1
Sikeston, Mo.	26.6	32.0	28.9	28.6
Clarkedale, Ark.	18.1	17.5	17.1	15.9
Stoneville, Miss.	25.2	32.0	25.0	31.4
Mean	24.1	28.3	24.6	26.8
		OIL PERCENTAGE		
Warsaw, Va.	22.3	22.2	21.9	21.7
Sikeston, Mo.	22.5	22.5	20.8	21.3
Jackson, Tenn.	23.3	23.1	22.7	22.0
Stoneville, Miss.	22.7	22.7	21.7	22.4
Mean	22.7	22.6	21.8	21.9

UNIFORM GROUP V, 1951

Strain or Variety	Source or Originating Agency	Origin
S-100	Missouri A.E.S.	Sel. from rogue in Illini
D523-25	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Dunfield x Arksoy
R46-2062	Rice Br. A.E.S. & U.S.R.S.L.	Sel. from Dunfield x C143
R46-2076	Rice Br. A.E.S. & U.S.R.S.L.	Sel. from C143 x C233
L4-6290	Ill. A.E.S. & U.S.R.S.L.	Sel. from L7-1355/Macoupin x L7-1355
D517-4	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Arksoy x Patoka
D623-9	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Dunfield x Arksoy
D623-33	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Dunfield x Arksoy
D632-15	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Haberlandt x Dunfield
D49-247	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from Dunfield x Tennessee Non-pop
Dortchsoy 67	Robert Dortch Seed Co. Scott, Arkansas	Sel. from Macoupin x Ogden
S8-5139	Mo. A.E.S. & U.S.R.S.L.	Sel. from Lincoln x Ralsoy

Twenty-eight Group V nurseries were planted. Results of 21 of these are reported in tables 10 through 18. Yield averages were generally low. S-100, the check variety, produced less than 20 bushels per acre in 12 of the 21 comparisons. Since all of the strains being compared have the capacity to yield more than this, many of the tests were of little value in evaluating capacity to yield.

There is considerable interest for adapted varieties of this maturity, particularly in the Delta section where they would be grown along with later-maturing varieties to extend the harvest period. Where Ogden will mature, S-100 is approximately 14 to 18 days earlier.

S-100, the check variety, has several characteristics which limit its usefulness. Its low oil content has been readily recognized by processors. Because of its narrow growth type, it does not give the late season weed control that is obtained with a variety having heavier foliage, such as Ogden. The tendency for stems to remain green when seeds are mature frequently causes some loss of efficiency in harvesting. Consequently, the interest in improved varieties is very great.

D523-25, R46-2062, R46-2076, and L4-6290 have each been tested for three years. Of these, D523-25 has given the best performance. It is similar to S-100 in maturity and has a mean yield of 5 bushels per acre above S-100 in the Eastern area and 2 bushels per acre over S-100 in the Delta section. Its mean oil content for three years is 1.3 per cent higher than S-100. While D523-25 has yielded well and has fairly good oil content, it also has some of the same faults as S-100. It frequently has very heavy stems which remain green after the seed is mature.

The strain R46-2062 has produced good seed yields with high oil content. However, this strain has produced low quality seed very consistently for the three years that it has been in test. R46-2076 has shown very little advantage over S-100 in either seed yield or oil content. L4-6290 is a very tall strain, frequently growing over 5 feet tall. Because of its extreme height, it often lodges badly. Its general performance does not appear to warrant consideration for release in any area.

Four strains, D517-4, D623-9, D623-33, and D632-15, have been tested on a regional basis for two years. Of these strains, D517-4 and D623-9 have given the best yields. D623-9 has a distinct advantage over D517-4 in oil content and frequently produces superior quality seed. Although D623-9 yielded significantly more than S-100 in only two comparisons in 1951, its superiority in seed quality and oil content, which were clearly demonstrated in 1950, was again demonstrated. In relation to D523-25, the strain D623-9 produces higher quality seed and has higher oil content. Stems of D623-9 dry out much more uniformily at maturity. D623-9 also has heavy foliage which aids in late-season weed control. Studies in Mississippi show that this strain is very well adapted for production on the heavy clay soils which are very prevalent in the area.

In 1951, seed of D623-9 was increased by Arkansas, Mississippi, Missouri, and Tennessee. Adequate seed stocks should be available for general production in 1953.

The three strains, D49-247, Dortchsoy 67, and S8-5139, were grown on a regional basis for the first time. The mean seed yield and oil content of each of these strains was comparable to that of D623-9. However, the generally low yield level did not permit a satisfactory evaluation of these strains. The strain Dortchsoy 67 is being offered for sale for 1952 plantings. In the Delta and Western tests, this strain has averaged 4 or 5 days later in maturity than S-100 or D623-9.

Table 10: Yield, in bushels per acre, for the strains in Uniform Group V, 1951

Location	S-100	D523-25	R46-2062	R46-2076	L4-6290	D517-4	D623-9
			East Coast				
Warsaw, Va.	28.9	29.1	18.5-	13.3-	19.8-	29.2	25.4-
Petersburg, Va.	32.0	29.0	32.5	29.3	28.4	33.7	29.6
Holland, Va.	33.3	36.8	35.6	29.5	31.8	36.3	37.1
Plymouth, N. C.	20.9	28.0+	25.2	19.4	20.5	25.2	30.0+
Mean	28.8	30.7	28.0	22.9	25.1	31.1	30.5
			Upper and Central South				
Experiment, Ga.	13.9	12.7	12.3	16.1	12.4	13.5	13.3
Belle Mina, Ala.	13.8	10.4-	10.9-	9.9-	13.2	13.6	11.5-
State College, Miss.	27.2	22.1-	19.3-	19.9-	22.2-	20.3-	19.1-
Mean	18.3	15.1	14.2	15.3	15.9	15.8	14.6
			Delta				
Sikeston, Mo.	19.8	17.4	10.2-	16.4	19.3	19.3	14.0-
Clarkedale, Ark.1/	11.1	10.4	11.1	9.8	10.7	12.9	11.6
Marianna, Ark.	14.3	16.6	11.8	12.9	14.3	14.7	13.4
Stoneville, Miss.	33.2	31.9	34.8	26.0-	26.9-	31.2	32.3
St. Joseph, La.	28.6	34.1+	24.2	22.5	27.6	33.7+	34.7+
Baton Rouge, La.1/	10.1	11.9	11.7	13.0	13.5	10.4	12.4
Mean	24.0	25.0	20.3	19.5	22.0	24.7	23.6
			West				
Stillwater, Okla.1/	8.3	5.8	7.8	10.5	10.7	8.3	6.6
Bixby, Okla.	17.5	15.1	16.4	16.6	20.2	13.1	15.8
Fayetteville, Ark.	17.9	16.1	16.8	15.4	17.9	19.1	18.9
Stuttgart, Ark.	22.0	21.3	20.9	18.4-	20.5	23.4	20.2
Denton, Texas1/	7.2	6.3	6.8	4.3	4.8	5.8	4.9
Chillicothe, Texas	11.8	15.2	13.8	13.2	11.9	16.3	13.8
Lubbock, Texas	15.3	16.7	19.5+	17.7	18.7	16.8	17.3
Curtis, La.	25.7	20.2	22.3	25.9	29.6	22.8	27.2
Mean	18.4	17.4	18.3	17.9	19.8	18.6	18.9

(+) - Strains yielding significantly more (odds 19:1 or greater) than S-100.

(-) - Strains yielding significantly less (odds 19:1 or greater) than S-100

1/ - Not included in the mean.

Table 10: (Continued)

Location	D623-33	D632-15	D49-247	Dortch. 67	S8-5139	C.V. (5%)	L.S.D.
			East Coast				
Warsaw, Va.	23.3-	22.2-	22.5-	21.8-	26.6	2.7	8%
Petersburg, Va.	33.6	29.8	29.0	31.5	34.7	4.8	10%
Holland, Va.	31.8	31.4	39.3	38.6	40.9	N.S.	16%
Plymouth, N. C.	17.8	21.1	30.1+	31.6+	33.1+	5.1	14%
Mean	26.6	26.1	30.2	30.9	33.8		
			Upper and Central South				
Experiment, Ga.	10.7	11.1	13.3	16.6	14.3	N.S.	18%
Belle Mina, Ala.	12.1	9.2-	9.7-	12.2	10.0-	2.1	11%
State College, Miss.	17.5-	18.4-	23.6	22.9	17.8-	3.7	13%
Mean	13.4	12.9	15.5	17.2	14.0		
			Delta				
Sikeston, Mo.	14.9-	16.3	12.5-	21.9	16.2	4.3	15%
Clarkedale, Ark.1/	9.8	9.3	12.0	14.1+	11.8	2.8	13%
Marianna, Ark.	13.6	12.7	14.3	12.9	14.1	N.S.	21%
Stoneville, Miss.	28.7-	30.4	31.1	28.7-	30.7	3.9	8%
St. Joseph, La.	29.0	28.6	35.1+	39.2+	33.7+	4.7	14%
Baton Rouge, La.1/	12.2	10.9	12.2	14.5	10.4	N.S.	24%
Mean	21.6	22.0	23.3	25.7	23.7		
			West				
Stillwater, Okla.1/	8.2	3.8	6.8	11.5	10.8		
Bixby, Okla.	14.8	14.8	17.2	19.7	13.4	5.5	15%
Fayetteville, Ark.	15.6	13.7-	16.1	18.7	21.4+	3.1	11%
Stuttgart, Ark.	22.1	20.2	20.7	20.7	20.0	2.3	7%
Denton, Texas1/	5.3	5.9	5.3	6.0	5.5	N.S.	23%
Chillicothe, Texas	14.6	16.3	14.4	14.3	12.1	N.S.	19%
Lubbock, Texas	16.5	15.0	14.5	18.4	12.3	3.6	15%
Curtis, La.	24.4	22.8	32.7	26.7	28.8	6.6	18%
Mean	18.0	17.1	19.3	19.8	18.0		

Table 11: Chemical composition of the strains in Uniform Group V, 1951

Location	S-100	D523-25	R46-2062	R46-2076	L4-6290	D517-4
			OIL PERCENTAGE			
Petersburg, Va.	18.9	20.0	21.7	18.9	20.6	20.6
Knoxville, Tenn.	20.6	23.0	23.3	21.3	22.9	22.3
Belle Mina, Ala.	18.3	19.6	20.2	17.0	20.4	18.7
Sikeston, Mo.	19.9	21.0	20.9	20.3	20.8	20.7
Jackson, Tenn.	19.6	20.3	21.4	18.2	19.9	19.3
Stoneville, Miss.	19.8	22.3	22.2	19.0	21.1	21.9
Stuttgart, Ark.	19.3	22.0	22.1	19.4	21.2	21.1
Bixby, Okla.	19.4	20.1	20.3	19.9	20.7	19.1
Mean	19.5	21.0	21.5	19.3	20.9	20.5
			PROTEIN PERCENTAGE			
Petersburg, Va.	43.6	44.3	42.0	42.6	41.2	43.8
Knoxville, Tenn.	42.3	39.8	39.5	40.2	39.9	42.0
Belle Mina, Ala.	44.0	45.1	43.5	43.9	40.3	44.4
Sikeston, Mo.	38.8	40.6	39.5	40.9	39.2	42.1
Jackson, Tenn.	43.8	44.1	42.0	43.7	42.1	47.2
Stoneville, Miss.	42.1	41.2	39.8	43.7	39.7	42.9
Stuttgart, Ark.	45.0	40.8	42.2	43.8	41.2	43.3
Bixby, Okla.	40.3	43.2	41.2	40.8	40.9	44.8
Mean	42.5	42.4	41.2	42.5	40.6	43.8
			IODINE NUMBER OF OIL			
Petersburg, Va.	132.1	127.2	133.7	138.0	133.2	131.3
Knoxville, Tenn.	133.1	128.3	131.6	135.9	132.5	127.0
Belle Mina, Ala.	128.0	123.2	130.0	133.7	129.4	127.9
Sikeston, Mo.	131.3	127.3	130.4	134.8	132.5	126.6
Jackson, Tenn.	123.2	121.7	127.6	131.7	131.6	127.6
Stoneville, Miss.	128.3	127.0	127.6	133.4	128.8	128.8
Stuttgart, Ark.	122.5	128.0	130.3	137.2	133.6	131.5
Bixby, Okla.	129.9	125.2	129.9	137.4	131.5	124.9
Mean	128.6	126.0	130.1	135.3	131.6	128.2

Table 11: (Continued)

Location	D623-9	D623-33	D632-15	D49-247	Dort. 67	S8-5139
			OIL PERCENTAGE			
Petersburg, Va.	19.9	21.3	20.4	20.3	20.4	21.1
Knoxville, Tenn.	23.2	24.3	23.8	23.0	24.2	23.0
Belle Mina, Ala.	19.8	20.3	19.9	20.6	20.5	19.8
Sikeston, Mo.	22.3	23.4	23.0	20.8	22.0	22.4
Jackson, Tenn.	20.3	20.3	20.0	19.8	18.5	20.8
Stoneville, Miss.	23.2	23.1	22.4	21.7	21.5	22.8
Stuttgart, Ark.	22.0	22.1	22.5	22.1	21.9	21.7
Bixby, Okla.	19.8	21.9	21.0	21.1	20.8	19.8
Mean	21.3	22.1	21.6	21.2	21.2	21.4
			PROTEIN PERCENTAGE			
Petersburg, Va.	42.0	41.3	40.7	43.0	40.2	40.8
Knoxville, Tenn.	37.0	39.3	37.0	38.3	35.0	40.2
Belle Mina, Ala.	42.4	42.0	39.0	42.4	38.9	43.0
Sikeston, Mo.	38.3	37.9	36.0	41.7	39.6	37.9
Jackson, Tenn.	42.4	43.6	41.2	43.8	43.9	44.1
Stoneville, Miss.	39.3	40.4	37.6	40.9	39.3	37.6
Stuttgart, Ark.	41.1	40.6	39.7	41.0	39.3	43.5
Bixby, Okla.	40.7	40.1	39.5	41.8	41.7	41.6
Mean	40.4	40.7	38.8	41.6	39.7	41.1
			IODINE NUMBER OF OIL			
Petersburg, Va.	137.1	130.3	133.2	136.1	135.9	136.4
Knoxville, Tenn.	136.3	132.6	131.5	136.0	133.7	134.2
Belle Mina, Ala.	132.9	124.8	126.9	133.0	131.2	137.4
Sikeston, Mo.	134.4	129.4	130.2	133.0	133.7	135.1
Jackson, Tenn.	133.9	122.3	129.9	133.3	129.9	134.4
Stoneville, Miss.	135.3	127.5	129.8	134.6	130.7	135.6
Stuttgart, Ark.	135.4	132.3	132.8	137.7	133.3	136.0
Bixby, Okla.	134.1	128.6	129.4	132.9	135.3	138.9
Mean	134.9	128.5	130.5	134.6	133.0	136.0

Table 12: Maturity data, days earlier (-) or later (+) than S-100, for the strains in Uniform Group V, 1951

Location	Date Planted	S-100 Matured	D523-25	RL46-2062	RL46-2076	L4-6290
		East Coast				
Warsaw, Va.	5-28	10-3	-2	0	-5	0
Petersburg, Va.	4-27	9-24	+4	+3	+6	+7
Holland, Va.	5-11	10-24	+2	-3	0	-3
Plymouth, N. C.	5-1	9-29	-2	+2	+4	+2
Mean			0	0	+1	+2
		Upper and Central South				
Experiment, Ga.	5-15	10-1	-1	-3	-1	+5
Belle Mina, Ala.	5-25					
State College, Miss.	5-25	9-13	-1	0	+3	+1
Mean			-1	-2	+1	+3
		Delta				
Sikeston, Mo.	5-11	10-2	+2	-4	+6	+6
Marianna, Ark.	5-24	9-24	-4	0	+1	+3
Stoneville, Miss.	5-1	9-6	0	+3	+8	+8
St. Joseph, La.	5-8	9-12	+3	+6	+3	+6
Baton Rouge, La.	5-16	9-5	0	+5	+10	+15
Mean			0	+2	+6	+8
		West				
Stillwater, Okla.	6-2	9-30	+3	+8	+10	+12
Bixby, Okla.	5-2	10-3	+2	+5	+6	+10
Fayetteville, Ark.	5-25	9-28	0	+1	0	+4
Stuttgart, Ark.	6-15	9-28	0	+12	+12	+12
Denton, Texas	6-1	9-30	+8	0	+2	+3
Chillicothe, Texas	6-14	10-14	-9	0	-4	0
Lubbock, Texas	6-18	10-1	+5	+5	+5	+15
Curtis, La.	5-24	9-23	-2	+17	+17	+17
Mean			0	+6	+6	+9

Table 12: (Continued)

Location	D517-4	D623-9	D623-33	D632-15	D49-247	Dortch. 67	S8-5139
			East Coast				
Warsaw, Va.	0	0	-2	0	-2	-6	0
Petersburg, Va.	+2	+6	+1	+1	+4	+6	+6
Holland, Va.	+3	0	-3	0	-2	+7	+6
Plymouth, N. C.	-1	-1	0	0	-2	-2	0
Mean	+1	+1	-1	0	0	+1	+3
			Upper and Central South				
Experiment, Ga.	-1	0	0	0	0	-1	-1
Belle Mina, Ala.							
State College, Miss.	0	-1	0	+1	-1	+1	+5
Mean	0	0	0	0	0	0	+2
			Delta				
Sikeston, Mo.	0	+3	-1	+1	+6	+7	+4
Marianna, Ark.	-6	0	-1	0	+3	+4	+5
Stoneville, Miss.	0	0	+1	0	+9	+6	+6
St. Joseph, La.	-2	-2	0	0	-2	+4	+3
Baton Rouge, La.	0	-2	+2	+13	+13	0	+1
Mean	-2	0	0	+3	+6	+4	+4
			West				
Stillwater, Okla.	+4	0	+3	+3	+9	+19	+19
Bixby, Okla.	+1	+2	+5	+2	+4	+6	+4
Fayetteville, Ark.	0	0	0	0	0	+5	+6
Stuttgart, Ark.	0	0	0	0	0	+12	+12
Denton, Texas	-3	+8	0	+6	-4	-2	-5
Chillicothe, Texas	-4	-9	0	-6	0	+1	+1
Lubbock, Texas	0	+5	+5	+10	+5	-5	0
Curtis, La.	-1	+3	+17	-2	+17	0	+17
Mean	0	+1	+4	+2	+4	+5	+7

Table 13: Height data for the strains in Uniform Group V, 1951

Location	S-100	D523-25	R46-2062	R46-2076	L4-6290	D517-4
			East Coast			
Warsaw, Va.	44	45	41	44	55	39
Petersburg, Va.	47	46	52	53	61	43
Holland, Va.	49	42	48	55	56	48
Plymouth, N. C.	48	51	51	56	67	48
Mean	47	46	48	52	60	44
			Upper and Central South			
Experiment, Ga.	30	29	29	28	37	26
Belle Mina, Ala.	49	45	43	43	55	43
State College, Miss.	44	40	38	40	58	38
Mean	41	38	37	37	50	36
			Delta			
Sikeston, Mo.	52	49	46	47	63	46
Clarkedale, Ark.	48	42	41	42	57	42
Marianna, Ark.	44	41	37	41	59	42
Stoneville, Miss.	54	47	48	52	63	43
St. Joseph, La.	45	44	50	48	72	42
Baton Rouge, La.	18	23	24	26	46	22
Mean	44	41	41	43	60	40
			West			
Stillwater, Okla.	40	36	36	37	53	33
Bixby, Okla.	56	47	48	48	68	46
Fayetteville, Ark.	39	40	38	42	52	40
Stuttgart, Ark.	30	33	30	35	46	26
Denton, Texas	16	19	13	18	26	13
Chillicothe, Texas	34	30	34	32	38	26
Lubbock, Texas	22	23	22	28	34	18
Curtis, La.	38	28	26	28	42	24
Mean	34	32	31	34	45	28

Table 13: (Continued)

Location	D623-9	D623-33	D632-15	D49-247	Dortch. 67	S8-5139
			East Coast			
Warsaw, Va.	39	45	46	38	37	38
Petersburg, Va.	41	53	44	45	38	39
Holland, Va.	43	46	43	39	46	40
Plymouth, N. C.	44	52	52	45	41	40
Mean	42	49	46	42	40	39
			Upper and Central South			
Experiment, Ga.	20	27	29	26	23	24
Belle Mina, Ala.	36	50	45	43	38	35
State College, Miss.	28	42	34	38	30	30
Mean	28	40	36	36	30	30
			Delta			
Sikeston, Mo.	40	52	48	47	40	40
Clarkedale, Ark.	38	44	43	42	35	35
Marianna, Ark.	41	42	45	39	35	35
Stoneville, Miss.	32	47	42	44	39	32
St. Joseph, La.	33	45	44	39	36	25
Baton Rouge, La.	13	20	24	24	17	17
Mean	33	42	41	39	34	31
			West			
Stillwater, Okla.	32	41	40	32	31	36
Bixby, Okla.	38	55	46	44	45	34
Fayetteville, Ark.	39	40	42	38	38	38
Stuttgart, Ark.	24	32	30	28	23	21
Denton, Texas	16	19	15	21	13	15
Chillicothe, Texas	26	36	34	32	28	26
Lubbock, Texas	16	29	22	24	15	18
Curtis, La.	20	33	25	33	23	25
Mean	26	36	32	32	27	27

Table 14: Lodging scores for the strains in Uniform Group V, 1951

Location	S-100	D523-25	R46-2062	R46-2076	L4-6290	D517-4
			East Coast			
Warsaw, Va.	1.5	3.0	1.5	2.0	2.0	1.0
Petersburg, Va.	1.0	2.0	2.0	1.0	2.0	1.0
Plymouth, N. C.	3.5	4.2	3.5	3.8	4.0	2.2
			Upper and Central South			
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
Belle Mina, Ala.	2.3	2.7	3.7	2.3	2.0	2.3
State College, Miss.	2.0	2.0	1.0	2.0	3.0	2.0
			Delta			
Sikeston, Mo.	2.0	2.2	1.8	2.1	2.0	2.2
Clarkedale, Ark.	3.0	2.0	2.0	2.0	2.0	2.0
Marianna, Ark.	2.0	3.0	2.0	3.0	4.0	2.0
Stoneville, Miss.	3.0	3.3	2.7	3.7	3.7	2.7
St. Joseph, La.	4.0	3.0	4.0	4.0	4.0	4.0
Baton Rouge, La.	1.0	1.0	1.0	2.0	3.0	1.0
			West			
Bixby, Okla.	2.0	2.0	2.0	3.0	2.0	2.0
Fayetteville, Ark.	2.0	1.5	1.0	2.0	2.5	1.5
Stuttgart, Ark.	1.0	1.0	1.0	1.0	1.0	1.0
Denton, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Chillicothe, Texas	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
Curtis, La.	2.0	1.0	1.0	2.0	3.0	1.0

Table 14: (Continued)

Location	D623-9	D623-33	D632-15	D49-247	Dortch. 67	S8-5139
			East Coast			
Warsaw, Va.	2.0	2.0	3.0	1.0	1.0	1.0
Petersburg, Va.	2.0	3.0	3.0	1.0	2.0	1.0
Plymouth, N. C.	3.2	5.0	4.2	2.8	3.5	2.5
			Upper and Central South			
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
Belle Mina, Ala.	1.7	2.3	3.3	1.3	1.7	1.0
State College, Miss.	1.0	2.0	2.0	1.0	2.0	1.0
			Delta			
Sikeston, Mo.	2.0	2.3	2.6	2.2	2.0	1.7
Clarkedale, Ark.	3.0	3.0	4.0	2.0	2.0	2.0
Marianna, Ark.	3.0	2.0	3.0	2.0	3.0	3.0
Stoneville, Miss.	2.3	3.3	2.7	3.0	3.7	2.0
St. Joseph, La.	3.0	4.0	3.0	5.0	2.0	2.0
Baton Rouge, La.	1.0	1.0	2.0	1.0	1.0	1.0
			West			
Bixby, Okla.	2.0	4.0	4.0	1.0	2.0	1.0
Fayetteville, Ark.	3.0	1.5	2.5	1.0	2.0	2.0
Stuttgart, Ark.	1.0	1.0	1.0	1.0	1.0	1.0
Denton, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Chillicothe, Texas	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
Curtis, La.	1.0	2.0	1.0	3.0	1.0	1.0

Table 15: Seed quality scores for the strains in Uniform Group V, 1951

Location	S-100	D523-25	R46-2062	R46-2076	L4-6290	D517-4
			East Coast			
Warsaw, Va.	1.5	1.0	5.0	4.0	3.0	1.0
Petersburg, Va.	3.0	1.0	3.0	2.0	2.0	2.0
Plymouth, N. C.	4.0	4.0	5.0	4.0	4.0	4.0
			Upper and Central South			
Belle Mina, Ala.	3.0	4.0	4.0	2.0	2.0	3.0
			Delta			
Sikeston, Mo.	3.0	2.0	3.0	2.0	2.0	2.0
Clarkedale, Ark.	3.0	2.0	4.0	4.0	4.0	3.0
Marianna, Ark.	3.0	2.0	4.0	2.0	3.0	2.0
Stoneville, Miss.	4.0	3.0	5.0	3.0	4.0	3.0
St. Joseph, La.	3.0	2.0	4.0	2.0	4.0	2.0
Baton Rouge, La.	5.0	4.0	4.0	2.0	3.0	3.0
			West			
Stillwater, Okla.	5.0	5.0	5.0	3.0	4.0	5.0
Bixby, Okla.	4.0	5.0	4.0	3.0	3.0	5.0
Fayetteville, Ark.	3.0	3.0	3.0	3.0	3.0	3.0
Stuttgart, Ark.	3.0	2.0	4.0	3.0	3.0	2.0
Denton, Texas	3.0	5.0	4.0	2.0	3.0	4.0
Chillicothe, Texas	3.0	3.0	3.0	2.0	3.0	2.0
Lubbock, Texas	2.0	2.0	2.0	2.0	2.0	2.0
Curtis, La.	4.0	4.0	4.0	3.0	3.0	3.0

Table 15: (Continued)

Location	D623-9	D623-33	D632-15	D49-247	Dortch. 67	S8-5139
			East Coast			
Warsaw, Va.	1.5	2.0	3.0	2.0	1.0	2.0
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Plymouth, N. C.	2.0	2.0	2.0	3.0	2.0	2.0
			Upper and Central South			
Belle Mina, Ala.	2.0	3.0	3.0	3.0	3.0	3.0
			Delta			
Sikeston, Mo.	1.0	2.0	2.0	2.0	1.0	1.0
Clarkedale, Ark.	2.0	2.0	2.0	2.0	2.0	2.0
Marianna, Ark.	2.0	2.0	2.0	3.0	2.0	2.0
Stoneville, Miss.	2.3	2.0	2.0	3.0	3.7	2.0
St. Joseph, La.	2.0	2.0	2.0	1.0	2.0	2.0
Baton Rouge, La.	2.0	3.0	3.0	3.0	3.0	3.0
			West			
Stillwater, Okla.	3.0	2.0	4.0	2.0	3.0	3.0
Bixby, Okla.	2.0	2.0	2.0	2.0	2.0	3.0
Fayetteville, Ark.	2.0	2.0	2.0	2.0	2.0	3.0
Stuttgart, Ark.	1.0	2.0	3.0	3.0	1.0	1.0
Denton, Texas	4.0	3.0	3.0	2.0	3.0	4.0
Chillicothe, Texas	2.0	2.0	2.0	2.0	3.0	2.0
Lubbock, Texas	2.0	2.0	2.0	2.0	2.0	2.0
Curtis, La.	2.0	2.0	2.0	2.0	4.0	2.0

Table 16: Seed weight, in grams per 100 seeds, for the strains in Uniform Group V, 1951

Location	S-100	D523-25	R46-2062	R46-2076	L4-6290	D517-4
East Coast						
Warsaw, Va.	14.5	15.0	13.5	11.0	11.5	17.5
Petersburg, Va.	14.5	18.5	16.5	15.5	16.0	18.5
Holland, Va.	11.0	18.0	14.0	15.0	13.0	16.0
Plymouth, N. C.	12.8	15.8	14.3	14.4	13.7	16.7
Mean	13.2	16.8	14.6	14.0	13.6	17.2
Upper and Central South						
Belle Mina, Ala.	10.5	11.1	12.1	11.4	13.9	11.1
Delta						
Sikeston, Mo.	12.8	15.8	15.5	17.7	13.0	17.3
Stoneville, Miss.	14.2	14.4	13.8	13.4	11.0	14.2
Mean	13.5	15.1	14.7	15.6	12.0	15.8
West						
Stillwater, Okla.	6.8	9.1	8.6	11.9	11.4	9.4
Bixby, Okla.	11.4	11.3	12.9	12.5	13.6	11.2
Fayetteville, Ark.	12.4	15.2	13.8	14.4	13.8	15.3
Stuttgart, Ark.	13.8	14.8	15.8	14.2	14.8	15.0
Denton, Texas	9.5	11.0	10.5	10.5	10.5	10.0
Chillicothe, Texas	15.0	18.0	18.0	15.0	15.0	16.0
Lubbock, Texas	16.0	16.0	17.0	17.0	15.0	15.0
Mean	12.1	13.6	13.8	13.6	13.4	13.1

Table 16: (Continued)

Location	D623-9	D623-33	D632-15	D49-247	Dortch. 67	S8-5139
			East Coast			
Warsaw, Va.	11.0	14.0	9.5	12.5	8.5	13.0
Petersburg, Va.	12.0	14.5	12.0	14.5	12.0	15.0
Holland, Va.	12.0	13.0	11.0	17.0	12.0	17.0
Plymouth, N. C.	11.3	12.6	10.5	13.7	10.2	13.8
Mean	11.6	13.5	10.8	14.4	10.7	14.7
			Upper and Central South			
Belle Mina, Ala.	9.5	10.1	7.6	10.4	8.6	10.1
			Delta			
Sikeston, Mo.	12.7	12.5	10.0	17.7	9.9	13.0
Stoneville, Miss.	11.4	12.8	10.0	12.9	9.4	12.8
Mean	12.0	12.7	10.0	15.3	9.6	12.9
			West			
Stillwater, Okla.	8.4	10.1	6.0	11.5	11.3	11.0
Bixby, Okla.	8.9	12.5	8.8	13.7	12.1	10.0
Fayetteville, Ark.	13.2	11.6	10.8	13.5	10.9	14.3
Stuttgart, Ark.	13.2	13.0	14.2	13.2	10.8	13.8
Denton, Texas	9.0	9.0	7.3	9.5	9.0	10.0
Chillicothe, Texas	16.0	14.0	14.0	15.0	14.0	18.0
Lubbock, Texas	16.0	16.0	16.0	16.0	17.0	15.0
Mean	12.1	12.3	11.0	13.2	12.2	13.2

Table 17: Two-year average of yield in bushels per acre, and oil percentage for the strains in Uniform Group V, 1950-1951

Location	S-100	D523-25	R46-2062	R46-2076	L4-6290
		YIELD			
		East Coast			
Warsaw, Va.	26.6	29.1	22.2	16.6	22.8
Petersburg, Va.	34.3	40.1	36.0	33.8	36.2
Holland, Va.	38.6	41.4	41.6	34.8	40.9
Plymouth, N. C.	25.8	31.1	28.4	25.0	27.6
Mean	31.3	35.4	32.0	27.6	31.9
		Upper and Central South			
Experiment, Ga.	18.2	21.0	19.0	20.8	20.6
State College, Miss.	30.9	29.5	25.0	24.4	25.5
Mean	24.6	25.3	22.0	22.6	23.0
		Delta			
Sikeston, Mo.	27.6	28.4	23.4	24.7	25.4
Clarkedale, Ark.	18.7	15.3	15.6	14.2	14.6
Marianna, Ark.	16.3	19.4	18.3	17.5	18.6
Stoneville, Miss.	37.7	42.6	42.4	34.8	33.6
St. Joseph, La.	29.5	32.7	28.4	-	28.0
Baton Rouge, La.	17.1	17.8	17.2	-	16.4
Mean	24.5	26.0	24.2	-	22.8
		West			
Bixby, Okla.	28.2	26.0	24.5	23.8	25.3
Fayetteville, Ark.	25.1	18.9	25.0	25.2	23.8
Stuttgart, Ark.	25.6	24.0	25.4	23.2	25.6
Lubbock, Texas	20.2	20.8	20.2	21.2	24.2
Curtis, La.	31.8	31.1	31.2	-	34.0
Mean	26.2	24.2	25.3	23.4	26.6
		OIL PERCENTAGE			
Petersburg, Va.	19.0	20.0	21.2	19.0	20.8
Knoxville, Tenn.	20.1	21.7	22.6	21.0	22.1
Sikeston, Mo.	19.1	20.4	21.0	19.6	20.8
Jackson, Tenn.	19.6	20.1	21.6	18.8	20.2
Stoneville, Miss.	20.3	22.0	22.4	19.8	21.6
Stuttgart, Ark.	19.7	21.4	22.2	20.0	21.7
Bixby, Okla.	19.6	20.8	20.7	20.3	21.2
Mean	19.6	20.9	21.7	19.8	21.2

Table 17: (Continued)

Location	D517-4	D623-9	D623-33	D632-15
		YIELD		
	East Coast			
Warsaw, Va.	28.5	26.8	23.0	23.0
Petersburg, Va.	38.4	36.2	36.4	31.6
Holland, Va.	41.6	40.4	31.9	34.4
Plymouth, N. C.	28.8	32.3	24.9	26.2
Mean	34.3	33.7	29.0	28.8
	Upper and Central South			
Experiment, Ga.	19.9	19.6	18.7	19.6
State College, Miss.	28.0	26.0	25.6	23.9
Mean	24.0	22.8	22.1	21.8
	Delta			
Sikeston, Mo.	28.2	21.8	24.2	24.8
Clarkedale, Ark.	18.0	17.6	14.2	14.7
Marianna, Ark.	18.2	19.5	14.7	16.8
Stoneville, Miss.	39.6	42.3	35.8	39.2
St. Joseph, La.	31.2	30.4	28.6	28.4
Baton Rouge, La.	17.6	16.7	17.8	17.5
Mean	25.5	24.7	22.6	23.6
	West			
Bixby, Okla.	24.8	30.4	24.4	26.3
Fayetteville, Ark.	26.0	29.5	21.6	22.5
Stuttgart, Ark.	24.6	21.2	22.2	23.8
Lubbock, Texas	19.7	22.0	21.6	20.2
Curtis, La.	26.4	29.7	31.2	25.9
Mean	24.3	26.6	24.2	23.7
		OIL PERCENTAGE		
Petersburg, Va.	20.7	20.5	21.3	21.1
Knoxville, Tenn.	21.9	22.3	23.2	22.7
Sikeston, Mo.	20.5	21.5	22.3	21.9
Jackson, Tenn.	20.3	20.6	21.0	20.2
Stoneville, Miss.	21.7	22.8	22.8	22.0
Stuttgart, Ark.	21.4	22.1	22.4	22.1
Bixby, Okla.	19.8	21.3	22.2	21.2
Mean	20.9	21.6	22.2	21.6

Table 18: Three-year average of yield, in bushels per acre, and oil percentage for the strains in Uniform Group V, 1949-1951

Location	S-100	D523-25	R46-2062	R46-2076	L4-6290
		YIELD			
		East Coast			
Petersburg, Va.	33.1	40.9	27.2	36.0	35.9
Holland, Va.	35.8	38.9	36.9	31.9	35.5
Plymouth, N. C.	25.0	29.0	28.2	25.9	27.1
Mean	31.3	36.3	34.1	31.3	32.8
		Upper and Central South			
Experiment, Ga.	20.8	23.0	20.0	22.4	26.3
State College, Miss.	32.9	29.3	25.1	26.4	28.0
Mean	26.9	26.1	22.5	24.4	27.1
		Delta			
Sikeston, Mo.	30.1	28.7	26.2	26.6	27.5
Marianna, Ark.	20.0	22.0	21.4	19.1	22.0
Stoneville, Miss.	33.7	36.2	32.8	31.1	29.2
St. Joseph, La.	31.3	36.0	30.9	-	30.7
Baton Rouge, La.	18.5	18.9	16.4	-	16.4
Mean	26.7	28.4	25.5	-	25.2
		West			
Stuttgart, Ark.	22.1	22.0	23.4	21.3	23.5
Lubbock, Texas	21.9	22.8	21.5	23.9	25.4
Curtis, La.	29.9	27.2	26.8	-	28.5
Mean	24.6	24.0	23.9	22.6	25.8
		OIL PERCENTAGE			
Petersburg, Va.	19.0	20.0	21.1	19.1	20.7
Knoxville, Tenn.	20.3	21.6	22.7	20.9	22.4
Sikeston, Mo.	19.1	20.0	21.0	19.1	20.7
Stoneville, Miss.	19.7	21.7	22.3	19.9	21.6
Stuttgart, Ark.	19.7	21.3	22.5	20.1	21.6
Bixby, Okla.	19.8	20.9	20.8	20.2	21.3
Mean	19.6	20.9	21.7	19.9	21.4

UNIFORM GROUP VI, 1951

Strain or Variety	Source or Originating Agency	Origin
Ogden	Tenn. Agr. Expt. Sta.	Sel. from Tokio x P.I. 54610
Hale Ogden 2	George Hale Blytheville, Ark.	Selection from Ogden
N46-1703	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Volstate x Ogden
N46-2566	N. Car. A.E.S. & U.S.R.S.L.	Sel. from S-100 x CNS
D49-2524	Delta Br. A.E.S. & U.S.R.S.L.	Sel. from N46-2566
N48-886	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x Ogden
N48-1101	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x Ogden
N48-1151	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x Ogden
N48-1515	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745*
N48-1570	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745*
N48-1831	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745*
N48-2087	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745*

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

Thirty-eight Group VI nurseries were planted. Results of 32 of these nurseries are summarized in tables 19 through 28. The four nurseries not harvested were at Onley and Norfolk, Virginia; Hartsville, South Carolina; and at Headland, Alabama. Results are not reported for Jackson and Knoxville, Tennessee. For most areas, yields averaged lower than in recent years. Many of the low yields are the result of prolonged periods without rain during the fruiting period. The yield of Ogden, the check variety, dropped below 25 bushels per acre in 16 of the 34 comparisons. These low yields give little opportunity for evaluating yielding capacity as most strains have the capacity to produce yields greater than this. Differences among strains were non-significant in 9 of these tests.

Ogden is the most widely grown soybean variety in the Southern States. This variety is well adapted in the Tidewater area of Virginia and North Carolina, and in the Delta section of Missouri, Tennessee, Arkansas, Mississippi, and Louisiana. In these areas, it matures in early October if planted during May. Ogden is also widely grown in the Gulf Coast section of Alabama and Florida, where it frequently follows an early crop such as potatoes or some other truck crop. Ogden is an excellent variety from the standpoint of growth habit, seed yield, and chemical composition of the seed. Although Ogden will usually hold its seed satisfactorily for 14 to 18 days after reaching combine maturity, a variety with Ogden's maturity and productivity, but having better seed-holding qualities would be welcomed by many soybean growers. Under some conditions the quality of seed produced by Ogden is not as good as is desired.

The strain Hale Ogden 2 has been evaluated for three years. It resembles Ogden very closely in general appearance, time of maturity, and in seed yield. Hale Ogden 2 appears to have an advantage in seed yield over Ogden in the Southeast. During each of the three years, Hale Ogden 2 has had higher seed yields than Ogden at Tallassee and Fairhope. In the Walnut Hill, Florida, area, representing conditions similar to Fairhope, Ogden shows a two-year yield advantage over Hale Ogden 2 of nearly 4 bushels per acre. The oil content of Hale Ogden 2 has averaged 0.3 per cent over that of Ogden in each of the three years it has been tested.

Two strains, N46-1703 and N46-2566, have each been evaluated for two years. N46-1703 resembles Ogden in many respects, but has yellow seed coat and better seed-holding qualities. It is much more susceptible to bacterial pustule and wildfire than is Ogden. The two-year mean yield for N46-1703 is slightly below Ogden in all areas. Their oil content is similar.

N46-2566 carries the CNS type resistance to bacterial pustule and wildfire, holds its seed extremely well and has excellent quality seed. It has averaged approximately 5 days later than Ogden. Although the two-year mean yield is slightly below Ogden in each area except the West, it does produce good seed yields. The oil content has averaged 0.8 per cent less than Ogden. The strain D49-2524, a selection from N46-2566, was superior to the parent line in both yield and oil content in 1950 tests in Mississippi and North Carolina. In its first year in the regional test, D49-2524 yielded significantly more than Ogden in 12 tests and appears to be the most promising line in the test. Its greatest superiority over Ogden was in the western tests. The oil content is similar to that for Ogden. D49-2524 is superior to Ogden in seed holding and seed quality. In some tests it has surpassed Ogden in standing ability. While D49-2524 should be four to six days later than Ogden, it was as much as 24 days later because of differential drought reaction.

Seven new strains have Roanoke and Ogden in their parentage. All have yielded well and have higher oil content than Ogden. N48-1101, from the cross Roanoke x Ogden, has a 1.0 per cent advantage over Ogden in oil content. It also has excellent seed-holding qualities. N48-1831 appears to have the best record of the pustule-resistant lines from the cross Roanoke x N45-745. The strains N48-1515 and N48-1570 matured later than Ogden, especially where late-season droughts were a factor.

Table 19: Yield, in bushels per acre, for the strains in Uniform Group VI, 1951

Location	Ogden	Hale Ogden 2	N46-1703	N46-2566	D49-2524	N48-886	N48-1101
			East Coast				
Warsaw, Va.	19.7	21.5	19.2	20.0	19.4	22.4+	19.4
Petersburg, Va.	29.4	27.7	29.5	27.4	29.4	33.8	29.3
Holland, Va.	39.7	45.4	38.2	35.2	41.6	43.1	34.8
Plymouth, N. C.	32.4	36.3	33.2	31.7	40.1+	34.7	33.0
Willard, N. C.	44.7	45.2	44.8	45.5	48.6	47.5	44.2
McCullers, N. C.	24.2	27.2	23.9	23.5	27.8+	26.9	23.2
Mean	31.7	33.9	31.5	30.6	34.5	34.7	30.6
			Southeast				
Monetta, S. C.	13.1	13.0	14.6	14.6	15.6	14.2	14.3
Tallassee, Ala.	17.2	29.3+	22.9	32.7+	35.0+	23.6	27.0
Marianna, Fla.	12.1	13.1	15.1	9.7	11.2	12.9	14.7
Quincy, Fla.	37.1	37.6	40.1	35.0	45.1+	40.3	37.8
Milton, Fla.	23.4	25.5	21.7	24.1	24.1	19.6	18.8-
Walnut Hill, Fla.	31.3	35.3	31.3	32.0	35.3	32.7	31.5
Fairhope, Ala.	42.6	51.7	37.6	26.1-	25.2-	46.4	36.3
Mean	25.2	29.4	26.2	24.9	27.4	27.1	25.8
			Upper and Central South				
Experiment, Ga.	12.3	12.6	11.9	16.8+	17.5+	9.6	12.2
Belle Mina, Ala.	12.0	15.3	13.8	19.0+	20.4+	16.4+	16.1+
State College, Miss.	18.4	21.9	18.1	19.3	25.3	18.4	19.9
Mean	14.2	16.6	14.6	18.4	21.1	14.8	16.1
			Delta				
Sikeston, Mo.	34.2	34.2	29.7-	29.9-	27.0-	27.7-	28.2-
Clarkedale, Ark.	15.4	16.3	14.5	17.0	15.6	14.3	14.7
Marianna, Ark.	18.9	23.8+	17.9	19.0	13.8-	17.4	20.2
Stoneville, Miss.	35.3	27.0	27.0	38.6	36.8	29.3	21.1
Louise, Miss.	43.0	42.0	49.0	38.5	44.6	43.8	43.2
St. Joseph, La.	44.8	36.2	41.7	35.4	32.4	38.2	26.9
Baton Rouge, La.	16.6	16.9	14.5	16.3	18.2	18.4	13.5
Mean	29.7	28.1	27.8	27.8	26.9	27.0	24.0
			West				
Stillwater, Okla.	17.5	17.6	16.0	21.7+	22.7+	20.9+	17.2
Bixby, Okla.	26.7	28.4	26.6	30.4	33.4+	30.4	25.1
Fayetteville, Ark.	21.4	24.2	23.1	27.7+	30.4+	21.0	23.5
Tishomingo, Okla. 1/	18.0	22.6	14.2	16.0	21.0	17.9	11.4
Denton, Texas 1/	5.9	6.2	5.6	6.0	6.6	7.0	8.0
Chillicothe, Texas	12.0	13.5	12.4	13.8	14.8	12.6	10.2
Lubbock, Texas	14.2	14.4	13.8	19.1+	17.2+	19.8+	19.4+
Curtis, La.	36.8	34.0	28.8-	46.2+	46.7+	26.4-	32.9
Stuttgart, Ark.	27.6	27.6	26.5	29.9	31.2+	24.6	23.8-
Mean	22.3	22.8	21.0	27.0	28.1	22.2	21.7

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

Table 19: (Continued)

Location	N48-1151	N48-1515	N48-1570	N48-1831	N48-2087	L.S.D. (5%)	C.V.
			East Coast				
Warsaw, Va.	22.8+	17.1-	20.1	20.6	21.6	2.4	8%
Petersburg, Va.	34.0	28.8	28.2	34.3	30.0	5.2	13%
Holland, Va.	39.7	34.8	37.4	39.4	36.3	6.2	11%
Plymouth, N. C.	33.2	27.2	34.0	31.0	35.9	5.4	11%
Willard, N. C.	45.9	36.2-	48.8	47.3	45.4	5.4	8%
McCullers, N. C.	26.0	23.5	19.8	21.0	21.3	3.6	11%
Mean	33.6	27.9	31.4	32.3	31.8		
			Southeast				
Monetta, S. C.	14.7	18.4+	13.9	14.6	14.3	2.7	13%
Tallassee, Ala.	23.2	33.4+	25.9	24.7	21.5	10.0	22%
Marianna, Fla.	15.7	11.6	11.0	15.1	13.7	N.S.	20%
Quincy, Fla.	40.4	42.1+	39.8	42.6+	40.1	4.4	6%
Milton, Fla.	21.1	26.0	20.3	21.7	22.7	4.4	12%
Walnut Hill, Fla.	32.7	31.0	35.1	33.2	30.6	N.S.	9%
Fairhope, Ala.	41.0	42.5	43.6	44.3	33.8	10.4	16%
Mean	27.0	29.3	27.1	28.0	25.2		
			Upper and Central South				
Experiment, Ga.	13.0	15.0	14.4	10.9	13.1	4.2	22%
Belle Mina, Ala.	14.7	22.9+	20.0	15.1	16.3+	3.8	13%
State College, Miss.	22.0	21.5	23.8	21.7	20.5	N.S.	17%
Mean	16.6	19.8	19.4	15.9	16.6		
			Delta				
Sikeston, Mo.	26.5-	22.2-	22.7-	24.1-	22.8-	3.8	10%
Clarkedale, Ark.	14.3	15.9	13.4	14.5	14.1	N.S.	15%
Marianna, Ark.	18.8	20.4	22.5	18.6	12.7-	4.5	14%
Stoneville, Miss.	34.6	31.9	27.1	31.5	24.2	N.S.	23%
Louise, Miss.	47.8	39.6	47.7	41.6	42.9	N.S.	9%
St. Joseph, La.	39.7	39.2	25.9	35.0	36.2	N.S.	23%
Baton Rouge, La.	15.3	21.8	19.7	19.7	17.9	N.S.	20%
Mean	28.1	27.3	25.3	29.9	24.4		
			West				
Stillwater, Okla.	14.1-	24.9+	14.9	19.1	15.1	3.3	12%
Bixby, Okla.	25.3	29.6	23.2	29.9	26.9	5.4	13%
Fayetteville, Ark.	23.8	20.7	18.1	23.3	19.0	6.0	16%
Tishomingo, Okla.1/	13.8	22.3	12.9	15.6	12.7		
Denton, Texas1/	5.0	4.6	6.9	8.6	8.1		
Chillicothe, Texas	11.6	10.1	9.1	15.4	10.6	N.S.	23%
Lubbock, Texas	20.1+	14.3	16.7	19.5+	15.6	2.9	12%
Curtis, La.	29.0-	40.2	39.2	40.5	32.7	7.1	7%
Stuttgart, Ark.	23.4-	29.6	24.9	25.2	25.0	3.1	7%
Mean	21.0	24.2	20.9	24.7	20.7		

Table 20: Chemical composition of the strains in Uniform Group VI, 1951

Location	Ogden	Halo Ogden 2	N46-1703	N46-2566	D49-2524	N48-886
			OIL PERCENTAGE			
Petersburg, Va.	19.4	20.0	19.9	18.5	19.7	20.4
Plymouth, N. C.	19.3	19.7	19.2	17.9	19.8	20.2
McCullers, N. C.	19.9	20.5	18.9	19.4	20.4	20.0
Walnut Hill, Fla.	22.2	22.4	21.8	19.4	22.7	21.8
Sikeston, Mo.	21.1	21.6	21.4	20.7	21.4	21.6
Jackson, Tenn.	21.3	21.6	20.8	20.7	21.4	20.0
Stoneville, Miss.	22.1	21.1	21.5	19.7	20.8	21.3
Baton Rouge, La.	22.6	23.0	21.9	21.9	22.5	22.6
Stuttgart, Ark.	20.4	20.8	20.7	19.7	20.2	21.3
Bixby, Okla.	21.7	22.7	22.4	21.5	22.0	23.2
Mean	21.0	21.3	20.8	19.9	21.1	21.2
			PROTEIN PERCENTAGE			
Petersburg, Va.	44.1	42.4	44.0	44.6	43.6	41.2
Plymouth, N. C.	43.0	42.4	44.9	45.1	44.0	42.6
McCullers, N. C.	43.6	42.1	45.4	44.4	42.5	43.1
Walnut Hill, Fla.	42.3	42.4	44.3	42.2	44.0	42.4
Sikeston, Mo.	37.8	38.1	40.0	37.7	36.9	36.9
Jackson, Tenn.	40.3	39.8	43.4	42.6	42.3	43.5
Stoneville, Miss.	41.3	42.8	42.2	43.2	42.6	40.8
Baton Rouge, La.	40.9	41.8	44.3	40.1	37.5	41.4
Stuttgart, Ark.	42.6	41.9	43.0	44.3	45.2	42.2
Bixby, Okla.	41.9	38.9	38.8	39.1	38.0	36.5
Mean	41.8	41.3	43.0	42.3	41.7	41.1
			IODINE NUMBER OF OIL			
Petersburg, Va.	138.8	138.3	135.6	135.6	134.3	137.3
Plymouth, N. C.	136.1	137.5	136.1	133.5	134.0	132.7
McCullers, N. C.	135.8	134.5	133.3	132.6	131.0	135.4
Walnut Hill, Fla.	133.7	134.6	130.3	129.9	123.5	132.8
Sikeston, Mo.	136.9	136.0	134.5	134.7	134.6	136.0
Jackson, Tenn.	136.0	136.3	134.4	133.9	132.6	136.0
Stoneville, Miss.	134.0	135.2	135.0	133.0	132.1	134.7
Baton Rouge, La.	131.0	130.5	128.5	132.1	130.6	131.2
Stuttgart, Ark.	138.0	138.0	134.8	131.3	130.3	138.0
Bixby, Okla.	137.4	136.1	134.6	133.2	133.2	136.4
Mean	135.7	135.7	133.7	133.0	131.6	135.0

Table 20: (Continued)

Location	N48-1101	N48-1151	N48-1515	N48-1570	N48-1831	N48-2087
			OIL PERCENTAGE			
Petersburg, Va.	20.7	21.1	20.4	20.9	20.0	20.5
Plymouth, N. C.	20.6	19.9	19.8	19.8	19.4	19.9
McCullers, N. C.	20.9	20.3	21.3	20.2	18.3	19.7
Walnut Hill, Fla.	22.8	22.2	22.9	22.6	22.8	21.8
Sikeston, Mo.	22.4	21.8	21.5	21.4	22.4	21.5
Jackson, Tenn.	22.0	21.2	23.4	21.7	21.9	21.7
Stoneville, Miss.	22.2	22.6	22.4	22.2	22.7	21.6
Baton Rouge, La.	23.0	23.7	23.5	23.0	23.4	23.2
Stuttgart, Ark.	21.8	21.4	21.4	21.8	21.4	21.1
Bixby, Okla.	23.6	22.5	21.2	21.4	23.1	22.0
Mean	22.0	21.7	21.8	21.5	21.5	21.3
			PROTEIN PERCENTAGE			
Petersburg, Va.	42.1	42.5	43.4	41.4	42.7	44.1
Plymouth, N. C.	43.5	42.7	43.2	44.0	44.2	44.7
McCullers, N. C.	43.0	43.4	42.4	43.7	45.1	43.8
Walnut Hill, Fla.	41.6	42.6	42.7	41.7	41.1	43.3
Sikeston, Mo.	36.3	38.4	37.4	39.3	36.6	38.6
Jackson, Tenn.	41.3	41.8	38.5	41.3	40.2	40.9
Stoneville, Miss.	41.8	41.1	39.6	40.9	40.7	42.0
Baton Rouge, La.	42.7	39.1	42.0	40.9	40.2	42.1
Stuttgart, Ark.	42.4	41.0	42.4	41.6	41.0	42.6
Bixby, Okla.	36.9	38.9	39.9	40.5	36.9	40.3
Mean	41.2	41.2	41.2	41.5	40.9	42.2
			IODINE NUMBER OF OIL			
Petersburg, Va.	136.6	134.5	134.1	132.9	134.7	134.7
Plymouth, N. C.	136.8	134.8	133.2	130.6	133.1	134.3
McCullers, N. C.	133.2	132.1	129.3	128.3	132.5	130.5
Walnut Hill, Fla.	133.5	131.5	131.5	126.4	129.1	128.6
Sikeston, Mo.	134.7	134.5	132.6	130.8	132.5	134.6
Jackson, Tenn.	136.0	133.5	131.1	129.4	131.5	133.3
Stoneville, Miss.	135.2	133.2	132.7	128.3	130.0	130.6
Baton Rouge, La.	128.7	131.6	127.4	124.1	127.5	127.2
Stuttgart, Ark.	135.8	135.7	132.1	130.9	134.3	135.4
Bixby, Okla.	133.3	132.8	128.9	128.7	132.4	132.4
Mean	134.4	133.4	131.3	129.0	131.8	132.2

Table 21: Relative maturity data, days earlier (-) or later (+) than Ogden, for the strains in Uniform Group VI, 1951

Location	Date Planted	Ogden Matured	Hale Ogden 2	N46-1703	N46-2566	D49-2524
			East Coast			
Warsaw, Va.	5-28	10-22	0	0	0	0
Petersburg, Va.	4-27	10-18	0	+2	-1	+2
Holland, Va.	5-11	10-24	+2	0	+4	+11
Plymouth, N. C.	5-1	10-12	0	+2	+4	+6
Willard, N. C.	5-3	10-14	0	0	+4	+5
McCullers, N. C.	5-10	10-12	0	0	+4	+7
Mean			0	0	+2	+5
			Southeast			
Monetta, S. C.	5-8	9-26	0	0	+16	+16
Tallassee, Ala.	6-8	10-12	0	0	+11	+11
Marianna, Fla.	5-29	9-19	+5	+5	+12	+19
Quincy, Fla.	6-1	9-24	-3	+11	+8	+21
Milton, Fla.	7-5	10-18	0	0	0	0
Walnut Hill, Fla.	6-27	10-5	+3	+6	+5	-4
Fairhope, Ala.	5-29	10-4	0	0	0	+14
Mean			+1	+3	+7	+11
			Upper and Central South			
Experiment, Ga.	5-15	10-20	0	0	+4	+3
			Delta			
Sikeston, Mo.	5-11	10-18	+3	+3	+12	+15
Marianna, Ark.	5-24	10-15	-3	0	+4	+5
Stoneville, Miss.	5-10	10-3	+1	0	+19	+24
Louise, Miss.	5-7	10-2	0	0	+7	+10
St. Joseph, La.	5-8	9-19	+7	+1	+19	+21
Baton Rouge, La.	5-16	9-25	0	0	+10	+13
Mean			+1	+1	+12	+14
			West			
Stillwater, Okla.	6-2	11-2	0	0	0	0
Bixby, Okla.	5-28	10-22	0	0	+10	+12
Fayetteville, Ark.	5-25	10-23	0	+5	+7	-
Tishomingo, Okla.	5-26	10-15	0	0	+18	+11
Denton, Texas	6-1	10-7	+1	0	0	+1
Chillicothe, Texas	6-14	11-5	-6	0	-6	0
Lubbock, Texas	6-18	10-20	+2	-4	+8	+6
Curtis, La.	5-24	10-20	0	-2	+5	+8
Stuttgart, Ark.	6-15	10-10	0	0	+8	+15
Mean			0	0	+5	+6

Table 21: (Continued)

Location	N48-886	N48-1101	N48-1151	N48-1515	N48-1570	N48-1831	N48-2087
			East Coast				
Warsaw, Va.	0	0	0	0	0	0	0
Petersburg, Va.	-1	-2	+4	-2	+2	+3	+2
Holland, Va.	0	-1	0	+2	+3	-2	+3
Plymouth, N. C.	0	+2	+2	+4	+2	0	0
Willard, N. C.	+4	+2	+3	+5	+6	0	+4
McCullers, N. C.	0	0	+6	+7	+9	-6	0
Mean	0	0	+3	+3	+4	-1	+2
			Southeast				
Monetta, S. C.	0	0	0	+16	+16	0	+3
Tallassee, Ala.	+11	0	+1	+11	+8	0	+1
Marianna, Fla.	+4	+11	+8	+21	+13	+9	+10
Quincy, Fla.	+11	+14	0	+3	+16	-3	+14
Milton, Fla.	0	+15	+15	0	+15	0	+15
Walnut Hill, Fla.	+5	+7	+8	+8	+10	+3	+9
Fairhope, Ala.	+6	0	+14	+14	0	0	+14
Mean	+5	+7	+7	+10	+11	+1	+10
			Upper and Central South				
Experiment, Ga.	0	-3	+5	+10	+7	+2	+4
			Delta				
Sikeston, Mo.	+4	+5	+4	+15	+8	-1	+4
Marianna, Ark.	0	+1	+1	+5	+2	-2	+2
Stoneville, Miss.	+1	+2	+2	+22	+14	-2	+1
Louise, Miss.	0	+2	+4	+10	+6	-1	+1
St. Joseph, La.	+2	+7	+7	+21	+27	0	+2
Baton Rouge, La.	+2	-10	+6	+15	+10	0	+1
Mean	+1	+3	+4	+15	+11	-1	+2
			West				
Stillwater, Okla.	0	0	0	0	0	0	0
Bixby, Okla.	0	+5	+7	+7	+11	+1	+6
Fayetteville, Ark.	+2	+4	+4	-	-	+2	+7
Tishomingo, Okla.	0	0	0	0	0	-2	0
Denton, Texas	+2	+1	+1	0	+1	-2	0
Chillicothe, Texas	0	0	0	0	0	-6	0
Lubbock, Texas	+12	+10	+14	+2	+6	+12	+4
Curtis, La.	+1	-2	+2	+5	+3	+3	0
Stuttgart, Ark.	0	0	0	+15	+8	0	0
Mean	+2	+2	+3	+3	+3	+1	+2

Table 22: Height data for the strains in Uniform Group VI, 1951

Location	Ogden	Hale Ogden 2	N46-1703	N46-2566	D49-2524	N48-886
			East Coast			
Warsaw, Va.	43	43	39	38	38	39
Petersburg, Va.	43	42	39	31	31	41
Holland, Va.	40	40	37	39	35	39
Plymouth, N. C.	43	44	42	41	40	41
Willard, N. C.	38	36	36	34	36	36
McCullers, N. C.	41	41	37	40	41	38
Mean	41	41	38	37	37	39
			Southeast			
Monetta, S. C.	32	31	28	30	30	28
Tallassee, Ala.	27	27	25	23	25	27
Marianna, Fla.	19	18	18	17	18	19
Quincy, Fla.	31	31	27	25	23	29
Milton, Fla.	23	16	17	15	16	17
Walnut Hill, Fla.	25	25	22	19	23	22
Fairhope, Ala.	15	21	17	14	20	16
Mean	25	24	22	20	22	23
			Upper and Central South			
Experiment, Ga.	27	28	26	28	23	31
Belle Mina, Ala.	41	39	34	35	34	37
Mean	34	34	30	32	29	34
			Delta			
Sikeston, Mo.	46	45	43	45	43	42
Clarkedale, Ark.	37	40	34	39	36	33
Marianna, Ark.	34	35	33	39	35	35
Stoneville, Miss.	35	36	35	32	34	35
Louise, Miss.	39	37	31	35	35	34
St. Joseph, La.	29	28	29	27	32	30
Baton Rouge, La.	18	18	16	12	23	15
Mean	34	34	32	33	34	32
			West			
Stillwater, Okla.	36	37	32	34	32	34
Bixby, Okla.	45	43	39	44	43	40
Fayetteville, Ark.	40	41	39	41	39	39
Tishomingo, Okla.	20	20	20	18	22	22
Denton, Texas	17	13	19	15	17	15
Chillicothe, Texas	28	29	18	24	28	21
Lubbock, Texas	27	30	23	28	30	26
Curtis, La.	18	18	21	18	20	22
Stuttgart, Ark.	25	25	22	26	25	25
Mean	28	28	26	28	28	27

Table 22: (Continued)

Location	N48-1101	N48-1151	N48-1515	N48-1570	N48-1831	N48-2087
			East Coast			
Warsaw, Va.	42	46	48	47	37	45
Petersburg, Va.	41	41	52	45	39	43
Holland, Va	40	45	47	47	36	42
Plymouth, N. C.	44	45	44	45	39	49
Willard, N. C.	39	40	43	42	36	45
McCullers, N. C.	37	44	50	50	38	50
Mean	40	44	47	46	38	46
			Southeast			
Monetta, S. C.	32	34	40	41	30	40
Tallassee, Ala.	27	29	33	32	26	32
Marianna, Fla.	22	19	23	27	17	27
Quincy, Fla.	34	33	29	42	30	36
Milton, Fla.	21	21	20	22	17	23
Walnut Hill, Fla.	27	28	27	29	21	26
Fairhope, Ala.	19	14	25	20	16	20
Mean	26	25	28	30	22	29
			Upper and Central South			
Experiment, Ga.	30	33	33	33	28	34
Belle Mina, Ala.	42	45	51	39	35	41
Mean	36	39	45	36	32	38
			Delta			
Sikeston, Mo.	46	45	49	54	43	49
Clarkedale, Ark.	42	38	33	40	38	38
Marianna, Ark.	34	38	45	42	31	40
Stoneville, Miss.	38	40	42	41	35	40
Louise, Miss.	37	37	45	38	35	45
St. Joseph, La.	26	25	37	36	30	36
Baton Rouge, La.	12	26	30	20	15	25
Mean	34	36	40	39	32	39
			West			
Stillwater, Okla.	35	38	31	40	31	42
Bixby, Okla.	44	43	38	50	40	48
Fayetteville, Ark.	41	44	44	43	40	46
Tishomingo, Okla.	22	25	22	23	20	24
Denton, Texas	16	19	21	21	15	20
Chillicothe, Texas	18	25	35	27	34	26
Lubbock, Texas	26	28	30	30	29	31
Curtis, La.	25	25	34	34	17	38
Stuttgart, Ark.	25	29	37	36	24	34
Mean	28	31	32	34	28	34

Table 23: Lodging scores for the strains in Uniform Group VI, 1951

Location	Ogden	Hale Ogden 2	N46-1703	N46-2566	D49-2524	N48-886
			East Coast			
Warsaw, Va.	1.0	1.0	1.0	3.0	2.0	2.0
Petersburg, Va.	1.0	1.0	1.0	1.0	2.0	1.0
Holland, Va.	1.0	1.0	1.0	2.0	1.0	2.0
Plymouth, N. C.	4.0	3.7	2.3	2.7	2.7	3.5
Willard, N. C.	2.8	3.2	2.2	2.8	2.8	2.5
McCullers, N. C.	2.5	2.5	2.5	2.5	2.3	2.3
			Southeast			
Monetta, S. C.	1.0	1.0	1.0	1.0	1.0	1.0
Tallassee, Ala.	2.3	1.7	2.0	1.0	1.3	2.3
Marianna, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Quincy, Fla.	2.0	2.0	2.0	1.0	1.0	1.0
Milton, 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
			Upper and Central South			
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
Belle Mina, Ala.	1.7	1.3	2.0	1.7	1.7	2.0
State College, Miss.	1.0	1.0	1.0	1.0	2.0	1.0
			Delta			
Sikeston, Mo.	1.6	2.0	1.9	2.2	2.3	2.0
Clarkedale, Ark.	2.0	2.0	2.0	2.0	2.0	2.0
Marianna, Ark.	3.0	1.0	2.0	1.0	1.0	2.0
Stoneville, Miss.	1.3	1.3	1.0	1.3	1.3	1.0
Louise, Miss.	2.0	2.3	1.7	2.7	2.0	2.3
St. Joseph, La.	2.0	2.0	2.0	2.0	1.0	2.0
Baton Rouge, La.	1.0	1.0	1.0	1.0	1.0	1.0
			West			
Stillwater, Okla.	2.0	1.0	2.0	4.0	5.0	1.0
Bixby, Okla.	1.0	2.0	1.0	2.0	2.0	2.0
Fayetteville, Ark.	1.0	1.0	1.0	3.0	4.0	1.5
Stuttgart, Ark.	1.0	1.0	1.0	1.0	1.0	1.0
Tishomingo, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
Denton, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Chillicothe, Texas	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
Curtis, La.	1.0	1.0	1.0	1.0	1.0	1.0

Table 23: (Continued)

Location	N48-1101	N48-1151	N48-1515	N48-1570	N48-1831	N48-2087
			East Coast			
Warsaw, Va.	1.0	2.0	4.0	1.0	2.0	2.0
Petersburg, Va.	1.0	2.0	2.0	1.0	1.0	2.0
Holland, Va.	1.0	1.0	2.0	1.0	2.0	2.0
Plymouth, N. C.	2.7	2.7	3.0	3.5	4.0	2.7
Willard, N. C.	2.5	3.0	3.0	3.5	3.2	3.2
McCullers, N. C.	2.3	2.3	3.0	3.0	2.8	2.5
			Southeast			
Monetta, S. C.	1.0	1.0	1.0	1.0	1.0	1.0
Tallassee, Ala.	1.7	1.7	1.7	2.3	2.3	2.0
Marianna, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Quincy, Fla.	2.0	2.0	2.0	1.0	2.0	2.0
Milton, 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
			Upper and Central South			
Experiment, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
Belle Mina, Ala.	2.0	2.3	2.3	2.0	2.0	1.7
State College, Miss.	1.0	1.0	2.0	1.0	1.0	1.0
			Delta			
Sikeston, Mo.	1.9	2.1	2.3	2.1	2.2	1.9
Clarkedale, Ark.	2.0	3.0	1.0	2.0	2.0	2.0
Marianna, Ark.	1.0	1.0	1.0	1.0	2.0	3.0
Stoneville, Miss.	1.0	1.0	1.3	1.3	1.0	2.0
Louise, Miss.	1.3	2.0	2.0	2.0	2.0	2.0
St. Joseph, La.	2.0	2.0	2.0	2.0	3.0	3.0
Baton Rouge, La.	1.0	1.0	1.0	1.0	1.0	1.0
			West			
Stillwater, Okla.	2.0	2.0	2.0	3.0	2.0	3.0
Bixby, Okla.	2.0	2.0	2.0	2.0	2.0	2.0
Fayetteville, Ark.	1.0	1.5	1.5	2.0	1.5	2.0
Stuttgart, Ark.	1.0	1.0	1.0	1.0	1.0	1.0
Tishomingo, Okla.	1.0	1.0	1.0	1.0	1.0	1.0
Denton, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Chillicothe, Texas	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
Curtis, La.	1.0	1.0	3.0	3.0	1.0	3.0

Table 24: Seed quality scores for the strains in Uniform Group VI, 1951

Location	Ogden	Hale Ogden 2	N46-1703	N46-2566	D49-2524	N48-886
			East Coast			
Warsaw, Va.	1.0	2.0	1.0	1.0	1.0	2.0
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	2.0
Holland, Va.	2.0	2.0	2.0	2.0	1.0	2.0
Plymouth, N. C.	3.0	3.0	2.5	2.0	2.0	2.0
Willard, N. C.	2.0	2.0	2.0	1.0	1.0	2.0
McCullers, N. C.	2.5	2.5	2.0	1.5	1.0	2.0
			Southeast			
Monetta, S. C.	2.0	2.0	2.0	1.5	1.5	2.0
Tallassee, Ala.	3.0	2.0	3.0	2.0	1.0	2.0
Marianna, Fla.	4.0	3.0	2.0	2.0	2.0	3.0
Quincy, Fla.	3.0	2.0	3.0	2.0	2.0	3.0
Milton, Fla.	2.0	2.0	2.0	2.0	2.0	3.0
Walnut Hill, Fla.	3.0	3.0	2.0	2.0	1.0	3.0
			Delta			
Sikeston, Mo.	1.0	1.0	1.0	1.0	1.0	1.0
Clarkedale, Ark.	2.0	2.0	2.0	1.0	1.0	2.0
Marianna, Ark.	2.0	2.0	2.0	1.0	1.0	2.0
Stoneville, Miss.	1.3	2.3	2.0	1.3	1.0	2.3
Louise, Miss.	2.0	2.0	1.0	1.0	1.0	1.7
St. Joseph, La.	2.0	2.0	2.0	1.0	2.0	2.0
Baton Rouge, La.	3.0	3.0	3.0	2.0	1.0	3.0
			West			
Stillwater, Okla.	2.0	2.0	2.0	1.0	2.0	2.0
Bixby, Okla.	1.0	1.0	2.0	1.0	2.0	2.0
Fayetteville, Ark.	2.0	3.0	2.0	2.0	4.0	3.0
Tishomingo, Okla.	2.0	2.0	2.0	1.0	1.0	3.0
Denton, Texas	2.0	1.0	2.0	2.0	2.0	3.0
Chillicothe, Texas	2.0	2.0	2.0	2.0	1.0	2.0
Lubbock, Texas	2.0	2.0	3.0	2.0	2.0	3.0
Curtis, La.	2.0	2.0	1.0	1.0	1.0	1.0
Stuttgart, Ark.	2.0	2.0	2.0	2.0	1.0	2.0

Table 24: (Continued)

Location	N48-1101	N48-1151	N48-1515	N48-1570	N48-1831	N48-2087
			East Coast			
Warsaw, Va.	2.0	2.0	1.0	1.0	1.0	1.0
Petersburg, Va.	2.0	2.0	1.0	1.0	2.0	2.0
Holland, Va.	2.0	2.0	2.0	3.0	1.0	2.0
Plymouth, N. C.	2.0	2.0	2.5	2.5	3.0	2.5
Willard, N. C.	2.0	2.0	2.0	1.5	1.5	2.5
McCullers, N. C.	2.0	2.0	2.5	3.0	2.0	2.5
			Southeast			
Monetta, S. C.	2.0	2.0	3.0	2.5	2.0	2.0
Tallassee, Ala.	3.0	3.0	2.0	2.0	3.0	3.0
Marianna, Fla.	2.0	3.0	2.0	4.0	3.0	3.0
Quincy, Fla.	3.0	3.0	-	3.0	2.0	3.0
Milton, Fla.	2.0	2.0	2.0	2.0	2.0	2.0
Walnut Hill, Fla.	3.0	3.0	2.0	3.0	2.0	2.0
			Delta			
Sikeston, Mo.	1.0	1.0	2.0	1.0	1.0	1.0
Clarkedale, Ark.	2.0	2.0	2.0	2.0	2.0	2.0
Marianna, Ark.	2.0	2.0	2.0	2.0	2.0	3.0
Stoneville, Miss.	3.0	2.7	2.7	3.7	2.3	2.0
Louise, Miss.	1.0	1.0	1.0	2.0	1.0	1.0
St. Joseph, La.	3.0	3.0	3.0	2.0	2.0	2.0
Baton Rouge, La.	4.0	4.0	1.0	3.0	4.0	3.0
			West			
Stillwater, Okla.	2.0	2.0	-	3.0	3.0	3.0
Bixby, Okla.	2.0	2.0	2.0	3.0	2.0	3.0
Fayetteville, Ark.	4.0	4.0	4.0	4.0	2.0	3.0
Tishomingo, Okla.	4.0	4.0	3.0	4.0	3.0	4.0
Denton, Texas	4.0	3.0	2.0	4.0	2.0	3.0
Chillicothe, Texas	2.0	2.0	2.0	2.0	2.0	3.0
Lubbock, Texas	2.0	3.0	3.0	2.0	2.0	2.0
Curtis, La.	2.0	2.0	1.0	2.0	2.0	2.0
Stuttgart, Ark.	3.0	2.0	2.0	2.0	2.0	2.0

Table 25: Seed weight, in grams per 100 seeds, for the strains in Uniform Group VI, 1951

Location	Ogden	Hale Ogden 2	N46-1703	N46-2566	D49-2524	N48-886
			East Coast			
Warsaw, Va.	12.5	12.0	12.0	11.0	11.5	12.5
Petersburg, Va.	14.5	14.5	15.0	12.5	13.5	14.5
Holland, Va.	15.0	15.0	16.0	14.0	13.0	16.0
Plymouth, N. C.	14.8	14.8	15.6	11.8	12.6	14.8
Willard, N. C.	16.4	15.3	15.7	12.9	14.1	14.9
McCullers, N. C.	14.1	14.1	12.2	12.3	12.1	13.1
Mean	14.6	14.3	14.4	12.4	12.8	14.3
			Southeast			
Monetta, S. C.	9.7	9.8	8.9	9.7	11.1	10.0
Tallassee, Ala.	16.6	17.5	16.2	14.6	14.3	15.5
Marianna, Fla.	9.6	9.4	11.0	10.9	11.2	9.7
Quincy, Fla.	16.2	13.5	17.3	13.6	15.3	16.9
Milton, Fla.	18.9	19.5	18.8	16.2	17.0	20.3
Walnut Hill, Fla.	16.9	17.6	18.3	13.6	14.8	16.1
Mean	14.6	14.6	15.1	13.1	14.0	14.8
			Delta			
Sikeston, Mo.	15.3	15.5	15.9	11.2	11.6	15.2
Stoneville, Miss.	14.4	12.5	13.4	13.5	14.1	14.2
Louise, Miss.	13.3	12.0	14.2	10.0	11.3	12.6
Mean	14.3	13.3	14.5	11.6	12.3	14.0
			West			
Stillwater, Okla.	14.9	13.8	14.0	11.6	13.9	15.0
Bixby, Okla.	14.8	14.3	13.5	12.2	12.4	14.5
Fayetteville, Ark.	16.9	16.5	16.6	14.7	16.7	15.7
Tishomingo, Okla.	18.8	18.5	17.6	11.6	12.3	18.7
Denton, Texas	9.7	10.4	10.2	8.6	8.8	9.1
Chillicothe, Texas	15.0	17.0	15.0	12.0	13.0	15.0
Lubbock, Texas	17.0	18.0	16.0	16.0	17.0	16.0
Stuttgart, Ark.	14.7	14.3	14.5	14.4	13.6	15.2
Mean	15.2	15.4	14.7	12.6	13.5	14.9

Table 25: (Continued)

Location	N48-1101	N48-1151	N48-1515	N48-1570	N48-1831	N48-2087
			East Coast			
Warsaw, Va.	13.0	13.5	13.0	13.0	12.0	12.0
Petersburg, Va.	15.2	17.0	18.5	17.5	13.5	15.5
Holland, Va.	16.0	16.0	18.0	16.0	17.0	16.0
Plymouth, N. C.	16.1	16.1	16.4	17.2	14.2	15.7
Willard, N. C.	16.8	17.3	18.1	18.2	15.6	17.5
McCullers, N. C.	13.5	13.8	17.0	16.3	10.9	13.1
Mean	15.1	15.6	16.8	16.4	13.9	15.0
			Southeast			
Monetta, S. C.	11.2	11.0	15.3	12.6	9.4	10.5
Tallassee, Ala.	17.8	17.1	17.6	18.1	15.9	15.0
Marianna, Fla.	11.5	10.6	11.4	11.3	10.5	9.8
Quincy, Fla.	17.5	17.1	16.2	16.5	15.2	15.9
Milton, Fla.	21.5	18.7	19.1	10.4	20.7	18.9
Walnut Hill, Fla.	20.2	18.2	19.1	18.5	15.4	16.4
Mean	16.6	15.4	16.4	14.6	14.5	14.4
			Delta			
Sikeston, Mo.	16.8	15.9	15.9	16.0	13.9	15.9
Stoneville, Miss.	14.4	15.8	18.4	15.0	12.4	12.2
Louise, Miss.	15.8	16.3	14.6	15.4	12.0	12.7
Mean	15.7	16.0	16.3	15.5	12.8	13.6
			West			
Stillwater, Okla.	13.8	12.9	15.0	14.2	14.2	13.9
Bixby, Okla.	15.5	15.2	16.6	17.5	15.0	16.0
Fayetteville, Ark.	20.0	17.7	16.7	18.5	16.3	16.1
Tishomingo, Okla.	17.6	15.9	17.0	16.4	13.5	15.4
Denton, Texas	10.2	10.8	10.8	8.5	11.0	9.7
Chillicothe, Texas	17.0	15.0	16.0	15.0	16.0	15.0
Lubbock, Texas	16.0	17.0	16.5	16.5	17.0	16.0
Stuttgart, Ark.	16.0	15.1	17.2	16.7	13.6	14.8
Mean	15.8	15.0	15.7	15.4	14.6	14.6

Table 26: Two-year summary of yield, in bushels per acre, for the strains in Uniform Group VI, 1950 - 1951

Location	Ogden	Hale Ogden 2	N46- 1703	N46- 2566
		East Coast		
Warsaw, Va.	24.4	25.0	23.3	22.7
Petersburg, Va.	37.2	35.8	37.4	31.0
Holland, Va.	39.8	42.8	36.8	37.4
Plymouth, N. C.	37.6	37.6	37.4	35.2
Willard, N. C.	46.2	47.2	44.4	48.4
McCullers, N. C.	31.5	34.0	29.5	30.1
Mean	36.1	37.1	34.8	34.1
		Southeast		
Monetta, S. C.	28.5	25.6	22.7	25.0
Tallassee, Ala.	23.6	31.8	29.2	34.5
Marianna, Fla.	21.4	22.7	20.8	18.1
Milton, Fla.	26.6	32.0	24.2	15.8
Walnut Hill, Fla.	39.9	36.2	35.0	37.6
Fairhope, Ala.	31.5	40.3	27.4	23.3
Mean	28.6	31.4	26.6	25.7
		Upper and Central South		
Experiment, Ga.	25.2	27.2	22.2	26.6
State College, Miss.	24.2	26.0	23.4	24.0
Mean	24.7	26.6	22.8	25.3
		Delta		
Sikeston, Mo.	36.1	35.4	32.4	31.6
Clarkedale, Ark.	18.0	18.2	17.1	19.6
Marianna, Ark.	22.2	24.3	18.8	22.8
Stoneville, Miss.	45.7	40.4	42.0	43.4
Louise, Miss.	43.0	42.8	44.8	43.5
St. Joseph, La.	39.7	32.6	34.4	29.8
Baton Rouge, La.	23.0	23.5	22.1	24.0
Mean	32.5	31.0	30.2	30.7
		West		
Stillwater, Okla.	22.6	22.6	21.4	26.4
Bixby, Okla.	40.2	36.3	33.9	37.7
Fayetteville, Ark.	28.6	31.4	30.6	30.2
Stuttgart, Ark.	27.4	25.1	23.9	31.4
Lubbock, Texas	20.8	22.2	20.2	22.8
Curtis, La.	38.4	35.2	32.4	40.1
Mean	29.7	28.8	27.1	31.4

Table 27: Two-year summary of the oil percentage for strains in Uniform Group VI, 1950-1951

Location	Ogden	Hale Ogden 2	N46-1703	N46-2566
Petersburg, Va.	19.8	20.4	20.3	19.2
Plymouth, N. C.	19.8	20.0	19.8	18.9
McCullers, N. C.	20.4	20.8	19.4	19.8
Walnut, Hill, Fla.	22.0	22.4	22.0	20.3
Sikeston, Mo.	20.7	21.0	21.0	20.3
Jackson, Tenn.	21.2	21.4	21.2	20.5
Stoneville, Miss.	21.8	21.3	21.5	20.5
Baton Rouge, La.	22.6	23.2	22.3	21.8
Stuttgart, Ark.	20.4	20.8	20.8	19.5
Bixby, Okla.	21.3	21.9	22.0	21.0
Mean	21.0	21.3	21.0	20.2

Table 28: Three-year summary of yield, in bushels per acre, and oil percentage for the strains in Uniform Group VI, 1949-1951

Location	Ogden	Hale Ogden 2
	YIELD	
	East Coast	
Petersburg, Va.	38.5	40.0
Holland, Va.	42.0	40.6
Plymouth, N. C.	37.0	36.5
Willard, N. C.	44.9	45.3
McCullers, N. C.	31.0	33.4
Mean	38.7	39.2
	Southeast	
Monetta, S. C.	28.8	27.3
Tallassee, Ala.	24.8	31.4
Fairhope, Ala.	29.3	37.7
Mean	27.6	32.1
	Upper and Central South	
Experiment, Ga.	31.3	32.4
State College, Miss.	25.5	28.8
Mean	28.4	30.6
	Delta	
Sikeston, Mo.	33.1	33.7
Clarkedale, Ark.	17.4	18.8
Marianna, Ark.	21.9	23.1
Stoneville, Miss.	43.5	40.1
St. Joseph, La.	42.0	36.6
Baton Rouge, La.	27.6	27.7
Mean	30.9	30.0
	West	
Stillwater, Okla.	26.1	25.6
Bixby, Okla.	39.0	37.2
Stuttgart, Ark.	26.2	25.1
Curtis, La.	31.8	30.2
Lubbock, Texas	23.6	23.5
Mean	29.3	28.3
	OIL PERCENTAGE	
Petersburg, Va.	20.0	20.5
Plymouth, N. C.	19.4	19.8
McCullers, N. C.	20.4	20.8
Walnut Hill, Fla.	21.7	22.1
Sikeston, Mo.	20.8	20.8
Jackson, Tenn.	21.1	21.7
Stoneville, Miss.	21.4	21.2
Baton Rouge, La.	22.3	22.9
Stuttgart, Ark.	20.7	21.1
Bixby, Okla.	21.1	21.6
Mean	20.9	21.2

Preliminary Group VI, 1951

Eighteen strains, along with Ogden and N46-2566, were grown in the Preliminary Group VI nursery at seven locations. The yield for five of these locations is summarized in table 29, while the oil content for three locations is summarized in table 30.

Thirteen of the new lines carry the CNS type resistance to bacterial pustule. One line, N48-4860, was selected for its resistance to bacterial blight. The line N49-2370 has been selected for its high oil content.

One line, D49-1066, appeared to be somewhat late for this group. At Stoneville, considerable difference in drought tolerance was observed. The line D49-537 appeared outstanding in this regard. The drought tolerance of D49-537 may also account for its excellent performance at Experiment, Georgia, where it yielded 60 per cent more than Ogden. Although the oil content of D49-537 was equal to that of Ogden in 1950, it was distinctly below Ogden in each of the three comparisons made in 1951. Even though this strain appears somewhat low in oil content, it should be further evaluated in the regional plantings.

D49-854 produced consistently good yields and had an oil content slightly above Ogden at each location. The plant type of D49-854 is very similar to that of Ogden. N48-1167, from the cross Roanoke x Ogden, has an oil content 1.0 per cent higher than Ogden. In this case, Roanoke appears to have contributed genes for higher oil content.

Although all of the lines entered in the Preliminary VI test had an oil content equal to, or higher than Ogden in 1950, 12 of the 18 lines were below Ogden for the locations analyzed.

Table 29: Yield, in bushels per acre, for the strains in Preliminary Group VI, 1951

Strain	Parentage	Weeksville, N. C.	Plymouth, N. C.	Experiment, Ga.	Fairhope, Ala.	Clarkedale, Ark.
Ogden		45.7	33.7	20.9	39.9	17.7
N46-2566	S-100 x CNS	37.5-	33.0	20.6	34.4	18.4
D49-537	Roanoke x N45-745*	42.5	32.6	33.5+	35.6	18.6
D49-598	Roanoke x N45-745*	41.6	36.7	19.1	38.0	18.4
D49-658	Roanoke x N45-745*	45.2	35.3	17.6	38.3	16.1
D49-665	Roanoke x N45-745*	45.8	33.9	18.2	42.0	18.4
D49-695	Roanoke x N45-745*	43.9	32.5	22.7	42.6	18.6
D49-773	Roanoke x N45-745*	43.6	36.7	26.1	44.0	18.8
D49-854	Roanoke x N45-745*	44.7	32.1	22.1	52.0	17.9
D49-1066	Roanoke x N45-745*	42.4	32.3	25.8	46.4	18.8
D49-1493	Ogden x N45-745	33.6-	28.6	17.2	31.7	17.2
D49-2477	Sel. from N46-2566	44.4	33.3	22.7	37.6	16.8
D49-2580	Roanoke x N45-745	44.2	34.2	25.5	35.8	18.8
N48-1167	Roanoke x Ogden	40.2	36.4	20.3	37.9	17.9
N48-1219	Roanoke x N45-745	39.3-	33.3	26.6	37.8	17.0
N48-1348	Roanoke x N45-745	38.0-	30.5	28.5+	39.7	18.8
N48-4860	Ogden x Haberlandt	37.2-	32.9	20.5	45.6	15.4
N49-2134	Sel. from N46-1703	43.1	38.6	17.5	37.9	17.2
N49-2370	Ralsoy x Ogden	33.4-	28.0	20.5	36.1	16.3
N49-2443	S-100 x Tokio	33.9-	32.4	22.4	33.9	17.4
Bus. Nec. for Sig. (5% level)		6.5	N.S.	6.5	N.S.	N.S.
Coef. of Var.		10%	12%	18%	24%	13%

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

* A pustule resistant selection from Ogden x CNS.

Table 30: Summary of the oil percentage for strains in Preliminary Group VI, 1951

Strain	Weeksville, N. C.	Plymouth, N. C.	Fairhope, Ala.	Mean
Ogden	20.2	19.3	22.6	20.7
N46-2566	18.5	19.1	21.3	19.6
D49-537	18.4	18.8	22.0	19.7
D49-598	19.3	18.3	21.4	19.7
D49-658	19.6	18.5	22.2	20.1
D49-665	20.2	18.8	22.3	20.4
D49-695	19.3	19.0	21.5	19.9
D49-773	19.6	19.3	22.0	20.3
D49-854	20.6	19.7	22.8	21.0
D49-1066	20.0	20.2	23.0	21.1
D49-1493	19.2	19.0	20.8	19.7
D49-2477	18.9	18.2	21.2	19.4
D49-2580	18.7	19.0	21.9	19.9
N48-1167	22.4	20.3	22.6	21.8
N48-1219	19.1	19.5	22.5	20.4
N48-1348	19.7	19.8	22.3	20.6
N48-4860	20.1	20.2	23.1	21.1
N49-2134	21.2	19.7	22.4	21.1
N49-2370	21.3	20.9	24.2	22.1
N49-2443	19.4	18.7	21.9	20.0

UNIFORM GROUP VII, 1951

Strain or Variety	Source or Originating Agency	Origin
Roanoke	N. Car. A.E.S. & U.S.R.S.L.	Sel. from mixed seed lot
Dortchsoy 31	R. L. Dortch Seed Co. Scott, Arkansas	Selection from Ogden
N45-3799	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Palmetto x Ogden
N46-2802	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Volstate x Palmetto
N46-2872	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Volstate/Vol. x Palmetto
N46-2881	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Volstate/Vol. x Palmetto
N47-3332	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Volstate x Palmetto
N47-3470	N. Car. A.E.S. & U.S.R.S.L.	Selection from N46-2872
N47-3479	N. Car. A.E.S. & U.S.R.S.L.	Selection from N46-2881
N47-309	N. Car. A.E.S. & U.S.R.S.L.	Selection from Volstate x CNS
N48-1574	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745*
N48-1867	N. Car. A.E.S. & U.S.R.S.L.	Sel. from Roanoke x N45-745*

*N45-745 is a selection from Ogden x CNS which is resistant to the bacterial pustule disease

Thirty-four Group VII nurseries were planted. Results of 28 of these nurseries are summarized in tables 31 through 48. Nurseries not harvested were at Onley and Norfolk, Virginia; Charleston, and Hartsville, South Carolina; Headland, Alabama; and Tishomingo, Oklahoma. At several locations, yields were poorer than in recent years. The yield for Roanoke, the check variety, fell below 25 bushels per acre at 11 of the locations. At most of these locations the low yields were the results of long periods without rain during the fruiting period.

The maturity of Group VII strains is approximately the last two weeks of October. In most areas where this group is adapted, Roanoke will mature about October 25. Roanoke is approximately two weeks later in maturity than Ogden. In relation to Ogden, Roanoke grows 6 - 10 inches taller, holds its seed over a longer period, and has higher oil content. Roanoke is well adapted to the Upper Coastal Plain and Piedmont areas of North Carolina, South Carolina, Georgia, and Alabama, and to the Mississippi Delta section of Mississippi, Arkansas, and Louisiana. Tests of previous years have shown Roanoke to be superior to other varieties in this maturity class.

In addition to Roanoke, the only other variety included in the Group VII test that is in commercial production is Dortchsoy 31. Dortchsoy 31 has produced seed yields comparable with Roanoke in all production areas except the Mississippi Delta. In this area, its seed yield has been consistently below Roanoke in each of the past three years. The lower seed yield in the Delta appears to be the result of high susceptibility to the leaf disease target spot, Corynespora cassiicola. The oil content of Dortchsoy 31 has averaged 1.1. per cent below that of Roanoke. Under conditions of heavy growth, Dortchsoy 31 stands somewhat better than Roanoke.

Although its yield has been satisfactory in the Southeast, it is somewhat short, especially on some of the lighter soils of this area.

The four strains, N45-3799, N46-2802, N46-2872, and N46-2881, have been grown for three years. The strain N45-3799 is approximately 8 days earlier than Roanoke. It has yielded well but has averaged 0.7 per cent lower in oil content than Roanoke. Perhaps the outstanding characteristic of N45-3799 is its excellent standing ability for its height. This strain does not appear to merit release in any of the production areas. N46-2802 has not been superior to Roanoke in seed yield and has 0.5 per cent lower oil content.

N46-2872 and N46-2881 have both yielded well in all production areas. Although N46-2872 has a slight advantage over N46-2881 in seed yield, N46-2881 is superior in oil content and standing ability. The strain N47-3479, a sub-line from N46-2881, which has been tested for two years and which has given results comparable to N46-2881, is being increased for release. N46-2881 and N47-3479 have averaged 4 to 6 inches taller than Roanoke. This additional height should be an advantage for plantings made after oats or lupines in the Southeast. Even though N47-3479 is taller than Roanoke, it will usually stand better than Roanoke where lodging is a problem. In further comparison with Roanoke, N47-3479 is equal in seed-holding and oil content, and has produced higher seed yields.

Three other strains that have been grown for two years are N47-3332, N47-3470, and N47-309. N47-3332 is a very tall strain, frequently growing nearly 5 feet tall. It was thought that this additional height might be an advantage in plantings following oats or lupines in the Southeast. However, in this respect N47-3479 appears to have adequate height and N47-3332 has shown no yield advantage. This strain equals Roanoke in seed-holding and oil content. N47-3470 has yielded somewhat less than its parent line N46-2872. N47-309 carries the CNS type resistance to bacterial pustule, but appears to be above average in susceptibility to target spot. Its two-year mean yield is very similar to that of Roanoke and its oil content is approximately 1.0 per cent lower.

Two strains entered for the first time are N48-1574 and N48-1867. Both strains are resistant to bacterial pustule and stand very well. Their oil content was slightly below that of Roanoke.

Table 31: Yield, in bushels per acre, for the strains in Uniform Group VII, 1951

Location	Roanoke	Dortchsoy 31	N45-3799	N46-2802	N46-2872	N46-2881	N47-3332
			East Coast				
Petersburg, Va.	37.1	34.2	29.9-	32.6	29.9-	32.1	23.9-
Holland, Va.	34.4	26.1	37.1	32.5	36.3	35.9	32.6
Plymouth, N. C.	29.6	26.3	28.2	28.2	33.0	32.5	25.8
Willard, N. C.	45.5	36.7-	40.1	40.9	42.2	44.9	35.3-
McCullers, N. C.	24.9	29.3	25.1	25.1	27.1	27.0	25.9
Florence, S. C.	31.9	33.2	31.9	31.0	31.1	34.1	28.2
Mean	33.9	31.0	32.1	31.7	33.3	34.4	28.6
			Southeast				
Monetta, S. C.	10.5	9.0	8.2	10.9	14.0+	13.4	11.5
Blackville, S. C.	19.6	18.5	25.4+	22.6	20.3	25.6+	25.6+
Tifton, Ga.	9.9	11.7	11.1	16.6	14.0	13.2	10.6
Tallassee, Ala.	40.6	41.6	13.6-	32.0-	42.7	39.7	35.8
Monticello, Fla.1/	18.1	-	20.9	22.7	20.9	24.8	20.9
Marianna, Fla.	14.7	12.3	10.3-	13.2	10.8-	14.8	13.0
Quincy, Fla.	37.3	40.3	35.3	36.1	43.4+	40.6	35.8
Milton, Fla.	28.9	28.9	26.2	24.5	30.6	28.7	26.2
Walnut Hill, Fla.	33.0	33.4	33.4	33.9	38.7+	41.1+	36.5
Fairhope, Ala.	47.4	45.8	26.0-	45.2	48.9	46.4	40.7
Poplarville, Miss.	32.7	31.9	30.4	34.5	36.8	33.3	31.2
Mean	27.5	27.3	22.0	27.0	30.0	29.7	26.7
			Upper and Central South				
Clemson, S. C.	23.2	21.2	15.6-	15.1-	21.2	23.3	20.0
Experiment, Ga.	18.7	24.4+	11.3-	21.4	22.3	22.1	17.7
State College, Miss.	23.1	22.0	18.9-	24.4	26.4	22.3	18.0-
Mean	21.7	22.5	15.3	20.3	23.3	22.6	18.6
			Delta				
Stoneville, Miss.	29.6	28.4	20.2	24.0	32.8	24.8	24.9
Louise, Miss.	42.3	24.6-	36.6-	37.3-	47.6+	37.9-	38.5
St. Joseph, La.	35.4	23.8-	29.3	27.9-	35.1	36.8	26.6-
Baton Rouge, La.	26.7	21.5	19.4	22.0	30.9	25.4	29.3
Mean	33.5	24.6	26.4	27.8	36.6	31.2	29.8
			West				
Stuttgart, Ark.	23.2	28.5	23.8	24.8	28.2	27.3	28.2
Chillicothe, Texas1/	6.7	9.0	8.6	5.8	8.6	5.8	5.9
Lubbock, Texas	22.9	20.4	19.2-	18.0	19.2-	19.7-	14.4-
Curtis, La.	37.1	37.6	41.2	37.9	40.7	37.1	41.5
Mean	27.7	28.8	28.1	26.9	29.4	28.0	28.0

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

Table 31: (Continued)

Location	N47-3470	N47-3479	N47-309	N48-1574	N48-1867	L.S.D. (5%)	C.V.
			East Coast				
Petersburg, Va.	31.1-	21.2-	26.4-	28.7-	34.2	5.3	12%
Holland, Va.	33.3	37.8	36.3	34.4	37.8	N.S.	13%
Plymouth, N. C.	27.3	35.1+	28.4	29.4	35.1+	4.7	11%
Willard, N. C.	36.2-	45.2	42.6	41.5	39.4-	6.0	10%
McCullers, N. C.	26.5	27.2	27.4	26.0	28.7	N.S.	12%
Florence, S. C.	30.3	37.6	37.2	32.0	33.7	N.S.	13%
Mean	30.8	34.0	33.1	32.0	34.8		
			Southeast				
Monetta, S. C.	11.9	12.0	12.0	11.7	12.0	3.0	18%
Blackville, S. C.	22.4	24.2+	23.2+	26.0+	27.4+	4.8	12%
Tifton, Ga.	13.5	17.5	13.8	14.4	14.2	N.S.	31%
Tallassee, Ala.	36.3	35.6	33.4-	42.5	43.3	6.4	12%
Monticello, Fla.1/	18.5	23.9	20.1	-	20.5	N.S.	19%
Marianna, Fla.	13.8	15.6	10.3-	13.1	10.3-	3.2	15%
Quincy, Fla.	35.0	41.8	43.6+	38.3	41.1	5.8	9%
Milton, Fla.	27.1	22.0	27.9	30.5	32.7	N.S.	
Walnut Hill, Fla.	37.7+	37.2	41.6+	38.0+	38.0+	4.5	7%
Fairhope, Ala.	48.2	48.6	52.0	53.6	47.7	7.8	10%
Poplarville, Miss.	34.0	34.7	29.7	36.2	34.7	N.S.	10%
Mean	28.0	28.9	28.8	30.4	30.2		
			Upper and Central South				
Clemson, S. C.	21.0	25.5	20.4	20.4	21.7	4.9	17%
Experiment, Ga.	20.1	20.4	20.8	20.9	22.5	4.7	15%
State College, Miss.	17.6-	26.6	23.4	21.2	24.7	3.6	11%
Mean	19.6	24.2	21.5	20.8	23.0		
			Delta				
Stoneville, Miss.	37.3	35.7	28.8	36.8	31.4	N.S.	24%
Louise, Miss.	37.9-	40.9	32.8-	39.9	39.9	4.2	7%
St. Joseph, La.	31.0	37.8	35.1	41.2	31.7	6.4	18%
Baton Rouge, La.	26.2	21.0	28.0	27.0	21.8	N.S.	21%
Mean	33.1	33.8	31.2	36.2	31.2		
			West				
Stuttgart, Ark.	24.6	26.8	31.2	27.8	28.1	N.S.	11%
Chillicothe, Texas1/	6.2	9.8	9.0	9.8+	10.2+	2.8	24%
Lubbock, Texas	15.8-	18.8-	18.5-	17.1-	16.8-	2.9	11%
Curtis, La.	43.0	47.5+	41.5	48.5+	46.4+	6.9	12%
Mean	27.8	31.0	30.4	31.1	30.4		

Table 32: Chemical composition of the strains in Uniform Group VII, 1951

Location	Roanoke	Dortchsoy 31	N45-3799	N46-2802	N48-2872	N46-2881
			Oil Percentage			
Petersburg, Va.	20.5	20.2	20.1	20.8	20.4	21.1
McCullers, N. C.	21.2	20.5	20.4	20.5	20.5	21.0
Florence, S. C.	21.7	20.7	20.1	21.3	20.5	21.7
Quincy, Fla.	22.3	21.4	21.3	22.0	22.9	23.1
Walnut Hill, Fla.	22.8	21.6	21.9	21.8	21.9	22.5
Fairhope, Ala.	22.9	22.1	23.2	22.9	22.6	23.2
Clemson, S. C.	21.0	20.1	20.2	20.3	20.1	21.3
Louise, Miss.	21.6	18.1	20.9	20.8	21.7	21.5
Baton Rouge, La.	23.0	21.8	22.7	22.2	22.7	22.7
Stuttgart, Ark.	21.9	19.6	20.7	20.8	20.5	21.2
Mean	21.9	20.6	21.2	21.3	21.4	21.9
			Protein Percentage			
Petersburg, Va.	42.5	41.8	42.6	42.1	41.8	41.8
McCullers, N. C.	41.6	42.2	42.0	42.6	39.6	41.6
Florence, S. C.	41.5	42.4	41.3	41.1	40.3	40.0
Quincy, Fla.	41.0	41.6	43.1	42.8	40.2	39.8
Walnut Hill, Fla.	41.6	43.0	41.8	43.5	41.6	42.0
Fairhope, Ala.	38.4	37.4	39.5	40.4	40.2	40.2
Clemson, S. C.	40.4	41.7	42.4	40.6	40.5	40.8
Louise, Miss.	41.0	47.6	43.5	44.1	40.1	42.2
Baton Rouge, La.	39.6	41.4	41.2	41.0	36.7	38.9
Stuttgart, Ark.	40.7	42.0	42.8	42.0	41.3	40.2
Mean	40.8	42.1	42.0	42.0	40.2	40.8
			Iodine No. of Oil			
Petersburg, Va.	135.6	138.6	135.2	134.7	134.6	138.8
McCullers, N. C.	130.0	133.4	128.7	130.9	131.1	133.2
Florence, S. C.	137.2	139.8	134.7	134.6	134.7	139.3
Quincy, Fla.	134.3	137.6	129.2	132.2	131.7	136.6
Walnut Hill, Fla.	134.6	137.2	132.3	131.2	130.3	136.0
Fairhope, Ala.	137.6	139.2	133.9	134.5	135.6	138.1
Clemson, S. C.	132.1	131.2	131.3	132.8	132.1	132.8
Louise, Miss.	134.3	136.0	131.1	132.9	131.5	136.0
Baton Rouge, La.	135.6	132.2	128.0	133.2	134.3	136.4
Stuttgart, Ark.	134.3	135.1	132.1	133.7	132.1	136.9
Mean	134.6	136.0	131.6	133.1	132.8	136.4

Table 32: (Continued)

Location	N47-3332	N47-3470	N47-3479	N47-309	N48-1574	N48-1867
			Oil Percentage			
Petersburg, Va.	20.6	20.3	20.5	19.8	20.0	20.7
McCullers, N. C.	21.5	19.8	20.8	20.6	20.7	21.2
Florence, S. C.	21.3	20.5	21.5	20.4	21.2	21.1
Quincy, Fla.	22.9	22.2	23.2	22.1	22.8	22.2
Walnut Hill, Fla.	22.3	22.0	21.6	22.5	22.6	22.8
Fairhope, Ala.	23.5	22.7	23.2	22.8	22.7	23.2
Clemson, S. C.	21.3	20.7	21.5	20.3	20.7	19.5
Louise, Miss.	22.0	21.7	20.8	18.6	20.4	21.0
Baton Rouge, La.	22.6	22.7	23.1	22.3	22.6	22.1
Stuttgart, Ark.	21.7	20.8	21.1	20.7	20.5	20.9
Mean	22.0	21.3	21.7	21.0	21.4	21.5
			Protein Percentage			
Petersburg, Va.	43.0	42.9	43.5	43.3	42.8	40.7
McCullers, N. C.	42.3	42.9	41.9	42.2	42.0	40.3
Florence, S. C.	39.8	41.5	39.9	41.1	40.1	40.1
Quincy, Fla.	41.0	41.3	41.2	40.5	40.9	39.9
Walnut Hill, Fla.	42.7	43.1	42.6	41.6	42.4	41.6
Fairhope, Ala.	40.1	40.0	39.6	39.5	40.0	38.9
Clemson, S. C.	40.6	40.5	40.0	42.1	41.1	41.2
Louise, Miss.	41.9	43.0	41.6	43.9	42.1	42.0
Baton Rouge, La.	39.4	39.2	39.6	39.8	38.4	39.6
Stuttgart, Ark.	41.1	40.9	41.7	41.9	43.3	42.2
Mean	41.2	41.5	41.2	41.6	41.3	40.6
			Iodine No. of Oil			
Petersburg, Va.	136.0	137.0	136.9	136.9	138.6	135.7
McCullers, N. C.	134.2	133.1	134.0	134.1	132.1	128.9
Florence, S. C.	137.1	137.4	138.8	138.1	137.9	135.5
Quincy, Fla.	136.2	134.3	135.2	134.0	135.9	132.7
Walnut Hill, Fla.	135.8	135.1	136.7	133.3	135.9	132.2
Fairhope, Ala.	137.2	137.0	137.5	136.8	138.5	135.5
Clemson, S. C.	133.6	133.6	133.3	131.5	133.3	130.0
Louise, Miss.	134.3	136.2	135.7	135.7	135.7	131.8
Baton Rouge, La.	135.1	135.4	135.1	136.9	135.0	134.3
Stuttgart, Ark.	137.2	135.7	135.4	139.9	135.5	130.9
Mean	135.7	135.5	135.9	135.7	135.8	132.8

Table 33: Relative maturity data, days earlier (-) or later (+) than Roanoke, for the strains in Uniform Group VII, 1951

Location	Date Planted	Roanoke Matured	Dortchsoy 31	N45-3799	N46-2802	N46-2872
			East Coast			
Petersburg, Va.	4-27	10-27	+7	-2	+4	+9
Holland, Va.	5-14	11-1	-5	-7	0	0
Plymouth, N. C.	5-1	10-29	-1	-9	+2	+1
Willard, N. C.	5-3	10-28	-2	-10	0	0
McCullers, N. C.	6-8	11-4	-2	-8	-3	-2
Florence, S. C.	5-7	10-25	+2	-10	-1	0
Mean			0	-8	0	+1
			Southeast			
Monetta, S. C.	5-8	10-27	-1	-7	+5	+6
Tifton, Ga.	6-4	10-15	+7	-6	-3	+1
Tallassee, Ala.	6-8	10-21	+2	-9	+2	+1
Monticello, Fla.	6-22	10-17	-	-6	+4	0
Marianna, Fla.	5-29	10-8	+1	-7	+3	0
Quincy, Fla.	6-1	10-17	-2	-5	0	0
Milton, Fla.	7-5	11-7	-14	-9	+4	+4
Walnut Hill, Fla.	6-27	10-16	-1	-4	0	+1
Fairhope, Ala.	5-29	10-26	0	-22	0	0
Poplarville, Miss.	6-13	10-20	0	-5	+2	+8
Mean			-1	-8	+2	+2
			Upper and Central South			
Experiment, Ga.	5-15	11-10	-2	-2	0	-3
State College, Miss.	5-25	10-30	-11	-19	-4	-4
Mean			-6	-10	-2	-4
			Delta			
Stoneville, Miss	5-10	11-1	-3	-10	0	0
Louise, Miss.	5-7	10-20	-8	-11	+1	+2
St. Joseph, La.	5-8	11-1	-10	-22	0	+12
Baton Rouge, La.	5-16	10-10	-9	-12	+3	+8
Mean			-7	-14	+1	+5
			West			
Stuttgart, Ark.	6-15	10-26	-1	-8	-1	-1
Chillicothe, Texas	6-14	11-5	0	-6	0	0
Lubbock, Texas	6-18	11-1	-6	-6	-8	-6
Curtis, La.	10-30	5-24	0	-18	0	0
Mean			-2	-9	-2	-2

Table 33: (Continued)

Location	N46-2881	N47-3332	N47-3470	N47-3479	N47-309	N48-1574	N48-1867
			East Coast				
Petersburg, Va.	+4	+3	+3	+1	+2	+5	+2
Holland, Va.	-2	+2	+2	+3	+3	0	-2
Plymouth, N. C.	-3	+2	-1	+2	-1	-5	-6
Willard, N. C.	0	0	0	0	0	0	0
McCullers, N. C.	0	-3	-4	0	-4	-4	-7
Florence, S. C.	0	-2	0	+1	-1	-5	-7
Mean	0	0	0	+1	0	-1	-3
			Southeast				
Monetta, S. C.	+6	+1	+4	+6	0	+6	+1
Tifton, Ga.	0	-3	-7	+6	-4	-1	0
Tallassee, Ala.	+1	-1	-1	+2	+1	+2	-1
Monticello, Fla.	-3	+3	+3	-6	-3	-	+3
Marianna, Fla.	-1	+4	+2	+2	-3	+3	+2
Quincy, Fla.	0	0	0	0	0	-2	-2
Milton, Fla.	0	0	0	+4	-11	+4	-11
Walnut Hill, Fla.	+3	-2	+1	+4	-2	0	-1
Fairhope, Ala.	+12	+12	+12	+12	0	0	0
Poplarville, Miss.	+8	0	0	+5	0	+2	0
Mean	+2	+1	+1	+3	-2	+1	-1
			Upper and Central South				
Experiment, Ga.	0	-1	-1	-1	+3	-4	+3
State College, Miss.	-4	-4	-4	-4	-6	-6	-6
Mean	-2	-3	-3	-3	-2	-5	-2
			Delta				
Stoneville, Miss.	0	0	0	0	0	-4	-7
Louise, Miss.	+2	+2	+2	+2	-3	-1	-1
St. Joseph, La.	+3	0	+12	+12	-2	+6	-3
Baton Rouge, La.	+2	+5	+5	+3	+6	0	-9
Mean	+2	+2	+5	+4	0	0	-10
			West				
Stuttgart, Ark.	-1	-1	-1	-1	-1	-1	-1
Chillicothe, Texas	0	0	0	0	0	0	0
Lubbock, Texas	-4	0	-2	0	+2	0	0
Curtis, La.	0	0	0	0	0	0	0
Mean	-1	0	-1	0	0	0	0

Table 34: Height data for the strains in Uniform Group VII, 1951

Location	Roanoke	Dortchsoy 31	N45-3799	N46-2802	N46-2872	N46-2881
		East Coast				
Petersburg, Va.	48	38	46	50	48	52
Holland, Va.	49	38	45	51	50	50
Plymouth, N. C.	43	36	53	49	46	50
Willard, N. C.	41	34	46	47	41	45
McCullers, N. C.	42	34	44	43	43	44
Florence, S. C.	40	34	42	46	42	45
Mean	44	36	46	48	45	48
		Southeast				
Monetta, S. C.	37	28	39	43	44	38
Blackville, S. C.	21	16	28	25	24	27
Tifton, Ga.	23	23	27	34	28	30
Tallassee, Ala.	32	27	35	38	39	36
Monticello, Fla.	21	-	34	32	28	32
Marianna, Fla.	24	20	33	38	41	35
Quincy, Fla.	36	30	39	37	40	38
Milton, Fla.	20	19	32	29	28	27
Walnut Hill, Fla.	27	25	35	36	34	34
Fairhope, Ala.	24	19	28	30	33	24
Poplarville, Miss.	38	28	42	40	44	42
Mean	28	24	34	35	36	33
		Upper and Central South				
Clemson, S. C.	33	23	33	37	37	33
Experiment, Ga.	40	30	40	47	50	40
Mean	36	26	36	42	44	36
		Delta				
Stoneville, Miss.	43	33	39	46	46	45
Louise, Miss.	40	37	45	45	50	44
St. Joseph, La.	34	29	45	36	40	38
Baton Rouge, La.	20	15	30	25	28	23
Mean	34	28	40	38	41	38
		West				
Stuttgart, Ark.	39	30	35	44	40	38
Chillicothe, Texas	20	14	22	30	28	17
Lubbock, Texas	35	37	38	34	34	39
Curtis, La.	35	22	32	35	34	32
Mean	32	26	32	36	34	32

Table 34: (Continued)

Location	N47-3332	N47-3470	N47-3479	N47-309	N48-1574	N48-1867
			East Coast			
Petersburg, Va.	57	53	52	35	40	44
Holland, Va.	52	49	52	39	46	46
Plymouth, N. C.	57	46	30	38	46	46
Willard, N. C.	55	41	48	34	45	42
McCullers, N. C.	46	42	41	32	39	38
Florence, S. C.	56	44	44	33	42	40
Mean	54	46	48	35	43	43
			Southeast			
Monetta, S. C.	49	39	39	29	34	33
Blackville, S. C.	30	27	29	20	25	24
Tifton, Ga.	37	43	28	25	25	23
Tallassee, Ala.	40	39	39	27	33	31
Monticello, Fla.	40	38	29	19	-	23
Marianna, Fla.	52	45	33	20	25	25
Quincy, Fla.	42	39	39	29	36	36
Milton, Fla.	42	32	28	18	26	25
Walnut Hill, Fla.	44	39	37	26	32	26
Fairhope, Ala.	45	36	28	25	22	26
Poplarville, Miss.	56	38	38	28	40	36
Mean	44	38	34	25	30	29
			Upper and Central South			
Clemson, S. C.	38	39	37	27	33	31
Experiment, Ga.	50	45	42	31	46	37
Mean	44	42	40	29	40	34
			Delta			
Stoneville, Miss.	54	48	47	34	42	42
Louise, Miss.	72	47	48	33	43	45
St. Joseph, La.	69	60	43	25	32	33
Baton Rouge, La.	40	36	28	18	20	18
Mean	59	48	42	28	34	34
			West			
Stuttgart, Ark.	47	43	38	29	34	35
Chillicothe, Texas	29	22	27	22	22	18
Lubbock, Texas	56	42	40	27	33	36
Curtis, La.	39	34	34	26	29	32
Mean	43	35	35	26	30	30

Table 35: Lodging scores for the strains in Uniform Group VII, 1951

Location	Roanoke	Dortchsoy 31	N45-3799	N46-2802	N46-2872	N46-2881
			East Coast			
Petersburg, Va.	3.0	3.0	1.0	3.0	4.0	2.0
Holland, Va.	4.0	2.0	1.0	4.0	4.0	2.0
Plymouth, N. C.	4.0	3.2	3.2	4.2	5.0	3.0
Willard, N. C.	3.0	2.0	2.0	4.5	4.5	3.5
McCullers, N. C.	3.8	2.0	1.8	3.5	4.2	2.5
Florence, S. C.	3.0	2.0	2.0	3.0	3.0	2.0
			Southeast			
Monetta, S. C.	1.6	1.0	1.0	2.3	2.0	1.3
Blackville, S. C.	1.0	1.0	1.0	1.3	1.2	1.0
Tifton, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
Tallassee, Ala.	2.7	1.0	2.3	3.0	3.0	2.0
Marianna, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Quincy, Fla.	2.0	1.0	2.0	2.0	2.0	2.0
Milton, Fla.	2.0	1.0	2.0	2.0	2.0	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
Poplarville, Miss.	3.0	1.0	3.0	3.0	3.0	2.0
			Upper and Central South			
Clemson, S. C.	2.7	1.0	1.5	1.8	2.5	1.3
Experiment, Ga.	1.0	1.0	1.0	2.0	1.0	1.0
State College, Miss.	2.0	1.0	1.0	3.0	3.0	2.0
			Delta			
Stoneville, Miss.	2.7	2.0	2.0	2.3	3.0	2.3
Louise, Miss.	3.0	3.3	2.3	3.0	3.3	3.0
St. Joseph, La.	3.0	2.0	3.0	3.0	3.0	3.0
Baton Rouge, La.	1.0	1.0	2.0	2.0	2.0	1.0
			West			
Stuttgart, Ark.	1.5	1.0	1.0	1.0	2.0	1.0
Chillicothe, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Lubbock, Texas	1.0	1.0	2.0	1.0	1.0	1.0
Curtis, La.	3.0	1.0	3.0	4.0	2.0	1.0

Table 35: (Continued)

Location	N47-3332	N47-3470	N47-3479	N47-309	N48-1574	N48-1867
			East Coast			
Petersburg, Va.	4.0	3.0	2.0	4.0	2.0	2.0
Holland, Va.	5.0	2.0	2.0	3.0	1.0	2.0
Plymouth, N. C.	5.0	4.8	3.2	4.0	4.0	3.0
Willard, N. C.	5.0	4.5	3.5	3.0	2.5	2.5
McCullers, N. C.	3.0	2.8	2.2	3.0	2.8	2.5
Florence, S. C.	5.0	3.0	2.0	3.0	2.0	2.0
			Southeast			
Monetta, S. C.	2.3	2.3	1.3	1.6	1.3	1.3
Blackville, S. C.	1.3	1.3	1.0	1.2	1.2	1.3
Tifton, Ga.	1.0	1.0	1.0	1.0	1.0	1.0
Tallassee, Ala.	3.0	3.0	1.3	2.7	2.0	2.0
Marianna, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Quincy, Fla.	2.0	2.0	2.0	2.0	1.0	1.0
Milton, Fla.	2.0	2.0	2.0	2.0	1.0	1.0
Walnut Hill, Fla.	1.0	1.0	1.0	1.0	1.0	1.0
Fairhope, Ala.	3.0	1.0	1.0	1.0	1.0	1.0
Poplarville, Miss.	3.0	3.0	3.0	3.0	2.0	2.0
			Upper and Central South			
Clemson, S. C.	2.5	2.5	1.3	1.7	1.3	1.2
Experiment, Ga.	2.0	1.0	1.0	1.0	1.0	1.0
State College, Miss.	2.0	2.0	1.0	1.0	1.0	1.0
			Delta			
Stoneville, Miss.	3.0	3.0	2.3	2.7	2.0	2.3
Louise, Miss.	4.3	3.3	3.0	2.7	2.0	2.7
St. Joseph, La.	5.0	4.0	1.0	2.0	3.0	3.0
Baton Rouge, La.	3.0	2.0	1.0	1.0	1.0	1.0
			West			
Stuttgart, Ark.	1.5	1.5	1.0	2.0	1.0	1.0
Chillicothe, Texas	1.0	1.0	1.0	1.0	1.0	1.0
Lubbock, Texas	1.0	1.0	1.0	1.0	2.0	1.0
Curtis, La.	4.0	3.0	3.0	4.0	1.0	2.0

Table 36: Seed quality scores for the strains in Group VII, 1951

Location	Roanoke	Dortchsoy 31	N45-3799	N46-2802	N46-2872	N46-2881
			East Coast			
Petersburg, Va.	1.0	1.0	1.0	2.0	2.0	1.0
Holland, Va.	1.0	2.0	4.0	2.0	1.0	1.0
Plymouth, N. C.	2.0	2.5	3.0	2.5	2.0	2.0
Willard, N. C.	1.0	2.0	2.5	2.0	1.0	1.0
McCullers, N. C.	1.5	1.5	2.0	1.5	1.5	2.0
Florence, S. C.	1.5	1.5	1.5	2.0	1.5	1.5
			Southeast			
Monetta, S. C.	2.5	2.5	3.0	2.5	2.0	2.0
Blackville, S. C.	2.0	2.0	1.0	2.0	2.0	2.0
Tifton, Ga.	2.0	2.0	2.0	2.0	1.0	3.0
Tallassee, Ala.	2.0	2.0	2.0	2.0	1.0	1.0
Marianna, Fla.	2.0	2.0	3.0	2.0	3.0	2.0
Quincy, Fla.	2.0	2.0	3.0	2.0	2.0	2.0
Milton, Fla.	1.0	2.0	3.0	2.0	1.0	2.0
Walnut Hill, Fla.	2.0	2.0	2.0	2.0	2.0	3.0
Poplarville, Miss.	1.0	1.0	1.7	1.0	1.0	1.0
			Upper and Central South			
Clemson, S. C.	3.0	3.0	4.0	3.0	3.0	3.0
			Delta			
Stoneville, Miss.	2.0	1.7	2.3	1.7	2.3	2.3
Louise, Miss.	1.0	2.7	1.0	1.7	1.0	1.0
St. Joseph, La.	1.0	1.0	1.0	2.0	3.0	2.0
Baton Rouge, La.	1.0	1.0	3.0	1.0	1.0	1.0
			West			
Stuttgart, Ark.	1.0	1.0	1.0	2.0	2.0	1.0
Chillicothe, Texas	1.0	2.0	2.0	2.0	2.0	2.0
Lubbock, Texas	2.0	2.0	3.0	3.0	3.0	2.0
Curtis, La.	1.0	1.0	1.0	1.0	1.0	1.0

Table 36: (Continued)

Location	N47-3332	N47-3470	N47-3479	N47-309	N48-1574	N48-1867
			East Coast			
Petersburg, Va.	1.0	1.0	1.0	1.0	1.0	1.0
Holland, Va.	3.0	2.0	1.0	1.0	2.0	4.0
Plymouth, N. C.	2.5	2.5	2.0	2.0	2.5	2.0
Willard, N. C.	2.0	1.5	1.5	1.0	1.0	2.0
McCullers, N. C.	1.5	1.0	1.5	1.5	2.0	2.0
Florence, S. C.	1.5	1.5	1.5	1.5	2.0	1.5
			Southeast			
Monetta, S. C.	2.5	2.5	2.5	2.0	2.5	2.5
Blackville, S. C.	1.0	2.0	2.0	2.0	3.0	3.0
Tifton, Ga.	2.0	2.0	1.0	2.0	3.0	2.0
Tallassee, Ala.	1.0	2.0	1.0	1.0	2.0	2.0
Marianna, Fla.	2.0	2.0	2.0	3.0	3.0	3.0
Quincy, Fla.	2.0	2.0	2.0	2.0	3.0	2.0
Milton, Fla.	1.0	2.0	2.0	2.0	2.0	2.0
Walnut Hill, Fla.	2.0	3.0	3.0	2.0	2.0	2.0
Poplarville, Miss.	1.0	1.0	1.0	1.0	1.0	1.0
			Upper and Central South			
Clemson, S. C.	2.0	2.0	3.0	2.0	2.0	3.0
			Delta			
Stoneville, Miss.	2.0	1.3	2.0	2.0	1.3	2.0
Louise, Miss.	1.0	1.0	1.0	2.0	1.0	1.0
St. Joseph, La.	1.0	1.0	2.0	1.0	3.0	2.0
Baton Rouge, La.	1.0	1.0	1.0	1.0	1.0	1.0
			West			
Stuttgart, Ark.	1.0	1.0	2.0	2.0	2.0	1.0
Chillicothe, Texas	1.0	1.0	1.0	1.0	2.0	2.0
Lubbock, Texas	2.0	2.0	3.0	2.0	2.0	2.0
Curtis, La.	1.0	1.0	1.0	1.0	1.0	1.0

Table 37: Mean seed weight, in grams per 100 seeds, for the strains in Uniform Group VII, 1951

Location	Roanoke	Dortchsoy 31	N45-3799	N46-2802	N46-2872	N46-2881
			East Coast			
Petersburg, Va.	16.5	17.5	16.0	17.0	17.0	17.5
Holland, Va.	15.0	14.0	13.0	16.0	14.0	15.0
Plymouth, N. C.	15.8	14.1	13.3	15.7	16.3	16.2
Willard, N. C.	15.7	15.4	14.7	16.6	16.2	16.5
McCullers, N. C.	17.5	16.5	16.9	17.5	16.9	16.4
Florence, S. C.	14.6	15.1	15.0	16.8	15.5	15.9
Mean	15.9	15.4	14.8	16.6	16.0	16.3
			Southeast			
Monetta, S. C.	14.0	10.7	9.8	11.8	13.2	12.4
Blackville, S. C.	14.5	13.9	16.6	15.7	15.2	16.1
Tifton, Ga.	15.6	15.6	13.4	14.4	15.9	15.9
Tallassee, Ala.	17.8	16.3	12.5	15.7	17.4	16.2
Marianna, Fla.	12.8	10.6	9.3	12.5	12.1	12.9
Quincy, Fla.	15.5	14.6	13.2	15.6	16.5	11.6
Milton, Fla.	17.7	17.0	18.0	17.6	17.6	17.2
Walnut Hill, Fla.	17.1	16.4	14.7	18.9	19.9	16.7
Poplarville, Miss.	14.9	13.9	12.2	15.5	15.5	13.7
Mean	15.5	14.3	13.3	15.3	15.9	14.7
			Upper and Central South			
Clemson, S. C.	16.4	16.2	18.0	14.4	15.4	17.0
			Delta			
Stoneville, Miss.	16.3	15.0	13.8	14.4	15.1	13.9
Louise, Miss.	13.8	11.5	12.9	13.4	14.5	12.8
Mean	15.0	13.2	13.4	13.9	14.8	13.3
			West			
Stuttgart, Ark.	15.4	14.8	15.0	15.2	15.8	14.0
Chillicothe, Texas	14.0	15.0	15.0	15.0	15.0	14.0
Lubbock, Texas	18.0	18.0	16.0	17.0	16.0	16.0
Mean	15.8	15.9	15.3	15.7	15.6	14.7

Table 37: (Continued)

Location	N47-3332	N47-3470	N47-3479	N47-309	N48-1574	N48-1867
		East Coast				
Petersburg, Va.	17.0	15.5	16.0	15.0	16.0	16.5
Holland, Va.	16.0	14.0	17.0	14.0	14.0	15.0
Plymouth, N. C.	16.0	15.1	16.8	15.0	14.7	15.0
Willard, N. C.	16.6	15.9	17.4	17.0	16.8	14.6
McCullers, N. C.	15.7	15.8	17.0	16.3	14.5	16.7
Florence, S. C.	15.1	14.8	16.1	15.1	15.5	15.6
Mean	16.1	15.2	16.7	15.4	15.3	15.6
		Southeast				
Monetta, S. C.	10.5	12.1	13.1	9.8	12.9	12.0
Blackville, S. C.	15.1	14.7	15.5	13.8	16.2	16.8
Tifton, Ga.	13.5	12.5	16.5	13.3	14.6	16.0
Tallassee, Ala.	15.2	14.2	16.7	14.9	15.1	16.0
Marianna, Fla.	11.9	12.7	12.4	9.1	10.9	9.6
Quincy, Fla.	17.0	15.7	16.3	15.1	13.1	13.9
Milton, Fla.	15.7	17.8	19.1	18.1	19.7	17.0
Walnut Hill, Fla.	16.0	16.3	17.5	16.3	17.1	16.3
Poplarville, Miss.	12.8	13.0	13.9	13.1	14.5	14.4
Mean	14.2	14.3	15.7	13.7	14.9	14.7
		Upper and Central South				
Clemson, S. C.	15.8	15.9	16.9	16.2	16.1	16.0
		Delta				
Stoneville, Miss.	12.8	13.9	14.5	14.5	16.0	14.3
Louise, Miss.	12.4	12.1	13.5	11.3	13.4	12.5
Mean	12.6	13.0	14.0	12.9	14.7	13.4
		West				
Stuttgart, Ark.	13.6	14.6	13.6	15.4	15.0	15.6
Chillicothe, Texas	14.0	14.0	16.0	13.0	16.0	14.0
Lubbock, Texas	15.0	16.0	16.0	16.0	17.0	17.0
Mean	14.2	14.9	15.2	14.8	16.0	15.5

Table 38: Two-year summary of the yield data for strains in Uniform Group VII, 1950 - 1951

Location	Roanoke	Dortchsoy 31	N45-3799	N46-2802	N46-2872
		East Coast			
Petersburg, Va.	38.4	39.4	36.2	33.6	35.4
Holland, Va.	37.4	34.5	43.9	33.6	38.0
Plymouth, N. C.	34.5	30.4	32.6	31.3	36.8
Willard, N. C.	40.0	37.6	39.9	38.1	42.2
McCullers, N. C.	31.6	35.8	32.5	32.2	32.4
Florence, S. C.	33.1	35.0	35.8	32.3	33.2
Mean	35.8	35.5	36.8	33.5	36.3
		Southeast			
Monetta, S. C.	22.6	22.5	19.5	20.3	26.5
Tifton, Ga.	15.2	13.4	14.6	16.8	14.6
Tallassee, Ala.	34.0	35.8	18.2	27.8	39.2
Monticello, Fla.1/	18.0	-	20.6	20.4	22.9
Marianna, Fla.	20.6	18.9	16.6	17.6	19.3
Milton, Fla.	29.0	27.2	24.3	24.2	29.6
Walnut Hill, Fla.	41.8	43.1	38.3	39.2	46.2
Fairhope, Ala.	35.6	34.3	22.5	31.2	37.3
Poplarville, Miss.	26.7	24.4	23.0	25.0	29.1
Mean	28.2	27.5	22.1	25.3	30.2
		Upper and Central South			
Clemson, S. C.	25.4	23.4	19.6	19.7	23.8
Experiment, Ga.	22.5	26.0	18.4	21.4	23.4
State College, Miss.	25.1	25.0	21.8	24.4	27.2
Mean	24.3	24.8	19.9	21.8	24.8
		Delta			
Stoneville, Miss.	35.8	26.4	32.1	28.4	38.8
Louise, Miss.	41.4	28.4	38.0	40.2	48.7
St. Joseph, La.	28.8	20.5	29.9	24.6	31.6
Baton Rouge, La.	24.5	22.2	19.4	21.6	27.4
Mean	32.6	24.4	29.8	28.7	36.6
		West			
Stuttgart, Ark.	27.1	25.4	27.8	27.8	30.0
Chillicothe, Texas1/	11.1	11.0	8.5	5.6	11.3
Curtis, La.	38.4	35.8	42.2	35.6	42.2
Mean	32.8	30.6	35.0	31.8	36.1

1/ Not included in the mean.

Table 38: (Continued)

Location	N46-2881	N47-3332	N47-3470	N47-3479	N47-309
		East Coast			
Petersburg, Va.	38.0	31.4	38.4	36.2	28.3
Holland, Va.	40.9	36.9	37.8	41.6	31.4
Plymouth, N. C.	37.2	28.9	33.5	36.6	35.4
Willard, N. C.	41.5	35.7	38.0	43.3	41.1
McCullers, N. C.	35.2	31.1	32.0	33.6	32.0
Florence, S. C.	35.4	30.1	31.6	37.6	34.9
Mean	38.0	32.4	35.2	38.2	33.9
		Southeast			
Monetta, S. C.	22.4	22.4	23.6	23.5	24.0
Tifton, Ga.	14.6	13.8	14.1	15.6	15.0
Tallassee, Ala.	35.6	32.8	30.7	35.4	29.2
Monticello, Fla.1/	21.8	20.0	19.4	22.0	20.2
Marianna, Fla.	22.7	17.3	23.3	21.3	19.6
Milton, Fla.	27.4	25.2	25.9	22.9	28.8
Walnut Hill, Fla.	45.2	42.8	44.9	42.7	45.4
Fairhope, Ala.	34.9	30.2	36.9	36.0	39.0
Poplarville, Miss.	25.2	24.8	26.6	26.1	24.8
Mean	28.5	26.2	28.3	27.9	28.2
		Upper and Central South			
Clemson, S. C.	24.9	22.3	25.0	27.2	25.6
Experiment, Ga.	24.2	21.8	21.7	23.7	24.6
State College, Miss.	25.8	23.8	22.4	26.5	22.5
Mean	25.0	22.6	23.0	25.8	24.2
		Delta			
Stoneville, Miss.	33.3	30.9	39.7	42.4	32.6
Louise, Miss.	41.9	42.4	42.7	45.4	36.4
St. Joseph, La.	29.2	24.4	29.6	30.2	31.2
Baton Rouge, La.	21.8	26.6	24.3	22.3	27.6
Mean	31.6	31.1	34.1	35.1	32.0
		West			
Stuttgart, Ark.	27.4	28.4	30.5	29.4	33.5
Chillicothe, Texas1/	9.2	9.4	8.8	11.4	11.6
Curtis, La.	37.8	42.0	40.7	43.7	39.0
Mean	32.6	35.2	35.6	36.6	36.2

Table 39: Two-year summary of the percentage of oil for the strains in Uniform Group VII, 1950 - 1951

Location	Roanoke	Dortchsoy 31	N45-3799	N46-2802	N46-2872	N46-2881	N47-3332	N47-3470	N47-3479	N47-309
Petersburg, Va.	20.6	20.2	20.4	20.6	20.1	21.0	20.8	20.2	20.6	20.0
McCullers, N. C.	21.2	20.3	20.2	20.4	20.1	20.6	21.4	20.0	20.6	20.6
Florence, S. C.	21.2	20.5	20.4	20.7	20.2	21.3	21.0	20.2	21.0	20.8
Walnut Hill, Fla.	22.8	22.0	21.8	22.4	22.1	22.8	22.6	22.4	22.0	22.3
Fairhope, Ala.	23.8	23.2	23.6	23.8	23.6	24.4	24.1	23.6	24.0	23.4
Clemson, S. C.	21.8	20.7	21.0	21.1	20.8	21.1	21.5	21.1	21.1	20.8
Stoneville, Miss.	21.7	19.1	20.8	21.2	21.6	21.8	22.0	21.5	21.4	19.4
Baton Rouge, La.	23.0	22.0	22.1	22.4	23.4	23.4	23.4	23.0	23.2	22.2
Stuttgart, Ark.	21.6	19.8	20.4	21.0	20.6	21.4	21.4	20.8	21.2	20.5
Mean	22.0	20.9	21.2	21.5	21.4	22.0	22.0	21.4	21.7	21.1

Table 40: Three-year summary of yield data and percentage of oil for the strains in Uniform Group VII, 1949-1951

Location	Roanoke	Dortchsoy 31	N45-3799	N46-2802	N46-2872	N46-2881
			YIELD			
			East Coast			
Petersburg, Va.	37.5	42.8	38.1	36.9	39.6	41.6
Holland, Va.	38.5	37.9	44.3	35.7	40.6	44.3
Plymouth, N. C.	33.5	30.0	33.8	30.9	37.3	35.8
Willard, N. C.	37.4	34.5	38.3	35.7	41.4	39.4
McCullers, N. C.	31.8	34.4	33.8	31.7	32.8	34.7
Florence, S. C.	31.8	34.3	34.3	32.2	33.2	33.2
Mean	35.1	35.7	37.1	33.9	37.5	38.2
			Southeast			
Monetta, S. C.	23.6	22.3	24.7	23.2	28.2	23.9
Tifton, Ga.	15.7	15.5	17.3	19.0	17.7	18.4
Tallassee, Ala.	33.3	33.8	20.3	27.1	37.3	35.4
Walnut Hill, Fla.	40.0	42.1	38.1	39.6	44.2	43.8
Fairhope, Ala.	33.1	33.3	26.3	31.9	37.0	33.6
Poplarville, Miss.	27.1	25.4	20.6	24.1	30.2	25.0
Mean	28.8	28.8	24.6	27.5	32.4	30.0
			Upper and Central South			
Clemson, S. C.	28.4	26.4	23.8	24.6	26.1	27.6
Experiment, Ga.	29.2	32.0	28.6	25.8	30.8	30.0
State College, Miss.	26.2	28.0	31.2	23.7	27.3	27.3
Mean	27.9	28.8	27.9	24.7	28.1	28.3
			Delta			
Stoneville, Miss.	37.7	27.9	33.1	30.8	40.2	34.7
St. Joseph, La.	30.7	19.6	32.8	27.7	37.3	31.7
Baton Rouge, La.	25.3	28.6	22.8	25.9	28.5	26.1
Mean	31.2	25.4	29.6	28.1	35.3	30.8
			West			
Stuttgart, Ark.	25.4	24.5	25.7	25.9	27.6	25.1
Curtis, La.	32.4	30.5	34.1	33.8	39.0	34.1
Mean	28.9	27.5	29.9	29.8	33.3	29.6
			OIL PERCENTAGE			
Petersburg, Va.	20.7	20.2	20.4	20.5	19.9	20.9
McCullers, N. C.	21.3	20.3	20.3	20.5	20.2	20.8
Florence, S. C.	21.5	20.6	20.3	20.9	20.5	21.5
Walnut Hill, Fla.	22.9	21.8	21.9	22.3	22.2	22.9
Fairhope, Ala.	22.9	22.1	22.9	23.0	22.8	23.3
Clemson, S. C.	22.0	21.0	21.2	21.3	21.1	21.6
Stoneville, Miss.	21.9	19.5	20.9	21.1	21.5	22.0
Baton Rouge, La.	22.8	21.6	21.9	22.2	22.9	23.2
Stuttgart, Ark.	21.5	20.0	20.6	20.9	20.2	21.5
Mean	21.9	20.8	21.2	21.4	21.2	22.0

Preliminary Group VII, 1951

Fourteen new strains, along with Roanoke and N47-3479, were grown at six locations. The seed yield for these locations are summarized in table 41. Oil percentage data are summarized in table 42.

Ten of these strains, D49-533 through D49-812, N48-152, N48-4372, and N48-5043, carry the CNS type resistance to bacterial pustule. All strains had a satisfactory maturity for this group and appear to hold their seed quite satisfactorily. None appeared to lodge excessively at any of the locations.

Yield differences were non-significant in 5 of the 6 comparisons. At three of the locations the yields were too low to satisfactorily evaluate the strains for yielding capacity. The six strains, N45-2176, N47-3139, N48-152, N48-3969, N48-4372, and N48-5043, each had a mean oil content more than 1.0 per cent below Roanoke and were at least 1.0 per cent lower than Roanoke in oil content at each location.

The strain D49-772 appeared to be one of the most promising from the standpoint of field appearance and seed yield. However, its oil content ranged from 0.4 per cent below Roanoke at Poplarville, Mississippi, to 1.9 per cent lower at McCullers. One strain, D49-533, equaled Roanoke in oil content at all locations.

Several of the lines carrying resistance to bacterial pustule and approaching Roanoke in oil content should replace lines such as N45-3799, N46-2802, N47-3332 and N47-3470, now included in Group VII.

Table 41: Yield, in bushels per acre for the strains in Preliminary Group VII, 1951

Strains	Parentage	McCullers, N. Car.	Experiment, Ga.	Tifton, Ga.	Poplarville, Miss.	Stoneville, Miss.	Stuttgart, Ark.
Roanoke		22.5	18.8	12.4	38.6	34.2	28.0
N47-3479		22.6	21.2	12.9	41.6	34.8	22.7
D49-533	Roanoke x N45-745*	26.4	17.9	14.3	25.3	32.6	27.7
D49-586	Roanoke x N45-745*	25.2	23.0	12.1	35.8	32.0	30.8
D49-588	Roanoke x N45-745*	24.2	22.0	15.0	37.9	35.4	29.2
D49-643	Roanoke x N45-745*	23.7	20.8	17.8	36.9	41.6	25.1
D49-696	Roanoke x N45-745*	23.0	20.2	17.1	35.5	35.1	31.3
D49-772	Roanoke x N45-745*	24.8	20.6	13.1	39.4	38.6	29.0
D49-812	Roanoke x N45-745*	23.5	21.9	16.0	28.4	32.6	28.0
N45-2176	Ogden x Biloxi	21.8	21.9	21.4	31.7	34.6	29.1
N47-3139	Volstate x Mamotan	19.7	17.6	16.5	33.3	32.3	22.9
N48-152	Volstate x CNS	22.3	18.8	12.5	29.1	40.4	30.2
N48-3969	Ogden x Missoy	21.8	17.3	11.9	35.4	25.5	28.4
N48-4372	N42-26 x N45-1004	24.5	20.6	18.1	29.6	41.0	32.8
N48-5043	Ogden x CNS	24.1	23.5	17.1	28.1	31.8	30.2
N49-1998	Volstate x Ogden	24.6	23.7	15.8	31.8	35.2	28.3
Bus. nec. for sig. (5% level)		N.S.	N.S.	N.S.	N.S.	8.8	N.S.
Coef. of Var.		10%	13%	27%	20%	15%	13%

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

Table 42: Summary of the oil percentage for the strains in Preliminary Group VII, 1951

Strains	McCullers, N. C.	Poplarville, Miss.	Stoneville, Miss.	Stuttgart, Ark.	Mean
Roanoke	21.4	22.5	22.0	21.7	21.9
N47-3479	20.6	22.8	22.0	21.0	21.6
D49-533	21.3	22.6	22.4	21.8	22.0
D49-586	21.3	22.0	21.6	21.0	21.5
D49-588	21.1	22.3	21.4	20.8	21.4
D49-643	21.1	21.5	21.2	20.8	21.2
D49-696	20.6	21.6	21.2	21.2	21.2
D49-772	19.5	22.1	21.4	20.5	20.9
D49-812	20.3	22.4	21.4	21.0	21.3
N45-2176	20.4	21.6	20.6	20.6	20.8
N47-3139	20.1	21.5	20.9	20.2	20.7
N48-152	20.3	21.3	20.6	19.9	20.5
N48-3969	19.3	20.5	19.8	19.2	19.7
N48-4372	20.4	21.0	20.9	19.6	20.5
N48-5043	20.1	20.9	20.8	19.6	20.4
N49-1998	21.5	21.7	21.3	20.8	21.3

UNIFORM GROUP VIII, 1951

Strain or Variety	Source or Originating Agency	Origin
Acadian	La. Agric. Expt. Station	Sel. from P.I. 60406 x P.I. 04910
J.E.W. 45	J. E. Wannamaker, St. Matthews, S. Car.	Sel. from a mixed seed lot
Majos	Coker Pedigreed Seed Co. Hartsville, S. C.	Sel. from Tokyo x Yelredo
Improved Pelican	La. Agric. Expt. Station	Sel. from Tanloxi x P.I. 60406
Mamotan 6680	Delta Br. Expt. Station	Sel. from Mammoth Yellow x Otootan
La. 48-275	La. Agric. Expt. Station	Sel. from P.I. 85897
N46-2652	N. C. Agric. Expt. Sta., and U.S.R.S.L.	Sel. from Volstate x Palmetto
Mamotan 6640	Delta Br. Expt. Station	Sel. from Mammoth Yellow x Otootan
Woods Yellow #1	Farmer selection	Sel. from Woods Yellow

Results for eleven Group VIII nurseries are summarized in tables 43 through 51. The strains in this group will normally mature in early November in the Gulf Coast area. Acadian, the check variety, makes rather tall growth, holds its seed very well, and usually produces seed of high quality. At most locations, strains of Group VII maturity will usually give higher seed yields with higher oil content. However, at Baton Rouge, the later-maturing strains have consistently given highest seed yields along with good quality seed.

In the Southeast, J.E.W. 45 has given consistently higher seed yields than Acadian. Its two-year average seed yield is 5 bushels above that of Acadian in this area. However, at Baton Rouge and Curtis, Acadian consistently gives yields above J.E.W. 45. The two- and three-year summaries, tables 50 and 51, illustrate these differences.

The yield and oil content of Majos have been very similar to that for J.E.W. 45 in all comparisons. In the Southeast, Majos has averaged 5 days later in maturity than J.E.W. 45.

Improved Pelican is similar to Acadian in general growth characteristics and in seed yield. It has a slightly higher oil content.

Mamotan 6680 and La. 48-275 have each been in the Group VIII nursery for two years. Neither strain has appeared superior to Improved Pelican or J.E.W. 45 in yield or oil content in any of the production areas.

N46-2652 was included in the Group VII nursery for several years, but was shifted to Group VIII because of its tall growth. Its yield was comparable to that of the later-maturing strains.

A more uniform strain of Mamotan 6640 was again entered in the test. Its yield and oil content does not appear to be superior to the varieties of this maturity now in production.

A selection from Woods Yellow, Woods Yellow #1 made by a North Carolina farmer, was also entered. This strain yielded significantly more than Acadian in four of the eleven nurseries. Its oil content is comparable to that of Acadian.

Table 43: Yield, in bushels per acre, for the strains in Uniform Group VIII, 1951

Location	Acadian	J.E.W. 45	Majos	Imp. Pelican	Mamotan 6680	La. 48-275	M46-2652	Mamotan 6640	Woods Yellow-1	L.S.D. (5%)	C.V.
					Southeast						
Monetta, S. C.	17.9	17.2	19.1	19.6	7.2-	19.0	12.7-	13.0-	19.7	4.7	15%
Tifton, Ga.	15.8	18.6	18.8	16.3	18.7	21.9+	13.3	10.8-	21.4+	4.8	16%
Quincy, Fla.	23.2	35.3+	28.5+	24.7	28.0	27.0	28.2	-	32.0+	5.3	11%
Milton, Fla.	20.9	24.1	26.5+	22.0	30.4+	20.7	26.2+	28.1+	29.1+	3.9	9%
Walnut Hill, Fla.	30.1	36.1+	34.2+	28.7	29.1	31.0	31.3	32.0	33.4	3.9	9%
Experiment, Ga.	19.3	20.4	22.5	17.0	9.7-	22.8	16.2	20.6	24.0	5.8	21%
Mean	21.2	25.3	24.9	21.4	20.5	23.7	21.3	20.9	26.6		
					Delta						
Stoneville, Miss.	29.6	33.6	26.2	30.1	29.1	29.4	39.2	37.0	37.0	N.S.	19%
St. Joseph, La.	21.8	17.7	26.6+	21.1	22.5	12.3-	18.7	24.5	27.6+	4.6	19%
Baton Rouge, La.	31.1	29.0	27.7	32.2	28.5	31.4	28.8	29.3	28.5	N.S.	14%
Mean	27.5	26.8	26.8	27.8	26.7	24.4	28.9	30.3	31.0		
					West						
Chillicothe, Texas	3.4	4.1	4.9	4.4	4.4	3.0	3.8	5.6	4.2	N.S.	32%
Curtis, La.	36.8	31.9-	26.7-	37.9	31.9-	31.9-	33.4	33.7	32.9	4.5	9%

(+) - Strains yielding significantly more (odds 19:1) than Acadian.
(-) - Strains yielding significantly less (odds 19:1) than Acadian.

Table 44: Chemical composition of the strains in Uniform Group VIII, 1951

Location	Acadian	J.E.W. 45	Majos	Improved Pelican	Mamotan 6680	La 48-275	N46-2652	Mamotan 6640	Woods Yellow-1
				Oil Percentage					
Monetta, S. C.	19.4	17.8	17.7	20.3	16.0	19.9	18.7	19.0	19.4
Tifton, Ga.	22.0	21.8	21.7	20.6	18.8	19.6	20.9	21.1	22.1
Quincy, Fla.	20.3	20.3	20.7	21.2	19.2	19.8	19.6	-	21.4
Walnut Hill, Fla.	20.8	20.0	19.8	21.5	20.0	20.5	21.1	19.7	20.5
Stoneville, Miss.	19.5	19.1	19.3	19.7	17.8	18.6	20.1	19.4	19.3
Baton Rouge, La.	21.5	21.2	21.8	21.8	21.1	21.7	21.9	21.8	23.0
Mean	20.6	20.0	20.2	20.8	18.8	20.0	20.4	20.2	20.9
				Protein Percentage					
Monetta, S. C.	43.0	43.2	42.2	42.2	46.8	40.2	44.3	41.4	41.8
Tifton, Ga.	40.6	41.7	42.3	43.8	45.3	41.8	41.9	41.6	39.7
Quincy, Fla.	45.2	44.9	42.6	44.8	44.6	44.9	45.2	-	43.4
Walnut Hill, Fla.	45.3	42.9	42.1	43.9	44.2	42.2	40.3	44.3	42.3
Stoneville, Miss.	42.6	42.0	40.6	42.6	42.7	41.8	41.2	39.5	41.3
Baton Rouge, La.	40.4	40.4	38.7	39.0	39.1	38.5	41.2	39.5	37.4
Mean	42.8	42.5	41.4	42.7	43.8	41.6	42.4	41.3	41.0
				Iodine No. of Oil					
Monetta, S. C.	138.3	132.8	136.0	136.9	134.7	135.7	131.1	138.2	135.2
Tifton, Ga.	134.6	130.4	131.6	136.5	132.7	132.7	126.6	134.4	130.1
Quincy, Fla.	133.9	134.7	130.6	135.9	134.3	130.6	130.5	-	130.9
Walnut Hill, Fla.	133.3	128.0	131.2	135.3	132.3	130.3	128.6	135.3	129.4
Stoneville, Miss.	138.1	134.0	138.0	138.0	138.7	138.2	133.4	140.9	136.0
Baton Rouge, La.	135.1	132.6	132.4	135.7	135.7	134.0	129.8	138.0	134.6
Mean	135.6	132.1	133.3	136.4	134.7	133.6	130.0	137.4	132.7

Table 45: Relative maturity data, days earlier (-) or later (+) than Acadian, for the strains in Uniform Group VIII, 1951

Location	Date Planted	Acadian Matured	J.E.W. 45	Majos	Imp. Pelican	Mamotan 6680	La. 48-275	N46-2652	Mamotan 6640	Woods Yellow-1
					Southeast					
Monetta, S. C.	5-8	11-2	-1	+7	-1	+7	+6	-2	+5	+6
Tifton, Ga.	6-4	10-28	+3	+7	+6	+3	+7	+2	+1	+7
Quincy, Fla.	6-1	10-30	-5	-5	-5	0	-12	-15	-	-5
Milton, Fla.	7-5	11-7	-8	-4	0	0	-4	0	-4	0
Walnut Hill, Fla.	6-27	10-22	0	+8	+6	+8	+8	-1	0	+2
Experiment, Ga.	5-15	11-16	-3	+4	-2	-3	+5	-5	-5	0
Mean			-2	+3	0	+3	+2	-4	0	+2
					Delta					
Stoneville, Miss.	6-26	11-5	-3	0	0	0	0	-14	-3	-3
St. Joseph, La.	5-8	11-4	-9	+1	+1	+1	+1	+1	-3	+1
Baton Rouge, La.	5-16	10-30	-10	-8	0	-5	-10	-12	-10	-12
Mean			-7	-2	0	-2	-3	-16	-5	-5
					West					
Chillicothe, Texas	6-14	11-5	0	0	0	0	0	0	0	0
Curtis, La.	5-24	11-10	+20	+3	+2	+4	+4	+2	+4	+2
Mean			+10	+2	+1	+2	+2	+1	+2	+1

Table 46: Height data for the strains in Uniform Group VIII, 1951

Location	Acadian	J.E.W. 45	Majos	Improved Pelican	Mamotan 6680	La. 48-275	N46-2652	Mamotan 6640	Woods Yellow-1
				Southeast					
Monetta, S. C.	60	46	39	60	54	48	57	44	39
Tifton, Ga.	46	35	28	41	27	36	43	27	30
Quincy, Fla.	42	40	39	54	50	43	36	-	40
Milton, Fla.	42	26	26	44	34	31	40	26	28
Walnut Hill, Fla.	52	40	38	55	41	43	46	42	40
Experiment, Ga.	44	40	30	44	42	42	44	40	32
Mean	48	38	33	50	41	40	44	36	35
				Delta					
Stoneville, Miss.	51	39	40	53	42	40	54	39	36
St. Joseph, La.	72	44	44	68	64	44	63	46	40
Baton Rouge, La.	65	26	27	68	48	36	60	28	28
Mean	63	36	37	63	51	40	59	38	35
				West					
Chillicothe, Texas	24	18	22	30	26	30	26	15	19
Curtis, La.	58	30	33	55	50	40	54	32	30
Mean	41	24	27	42	38	35	40	24	25

Table 47: Lodging scores for the strains in Uniform Group VIII, 1951

Location	Acadian	J.E.W. 45	Majos	Improved Pelican	Mamotan 6680	La. 48-275	N46-2652	Mamotan 6640	Woods Yellow-1
				Southeast					
Monetta, S. C.	3.5	3.5	3.5	2.5	2.0	4.5	4.0	2.0	2.0
Quincy, Fla.	2.0	2.0	2.0	2.0	2.0	2.0	2.0	-	2.0
Milton, Fla.	2.0	1.0	1.0	2.0	2.0	2.0	1.0	1.0	1.0
Walnut Hill, Fla.	1.0	1.0	3.0	2.0	1.0	1.0	1.0	1.0	1.0
Experiment, Ga.	2.0	2.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
				Delta					
Stoneville, Miss.	4.0	3.0	3.0	4.0	3.0	3.5	3.0	3.0	2.5
St. Joseph, La.	5.0	4.0	4.0	5.0	3.0	4.0	5.0	4.0	2.0
Baton Rouge, La.	4.0	3.0	2.0	4.0	3.0	3.0	4.0	1.0	2.0
				West					
Chillicothe, Texas	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Curtis, La.	4.0	3.0	3.0	4.0	4.0	3.0	4.0	2.0	2.0

Table 48: Seed quality scores for the strains in Uniform Group VIII, 1951

Location	Acadian	J.E.W. 45	Majos	Improved Pelican	Mamotan 6680	La. 48-275	M46-2652	Mamotan 6640	Woods Yellow-1
					Southeast				
Monetta, S. C.	1.0	1.5	1.0	1.0	1.5	1.0	2.0	2.0	1.0
Tifton, Ga.	2.0	2.0	2.0	2.0	3.0	2.0	2.0	2.0	2.0
Quincy, Fla.	2.0	4.0	3.0	2.0	3.0	3.0	4.0	-	3.0
Milton, Fla.	2.0	2.0	3.0	2.0	3.0	2.0	2.0	3.0	3.0
Walnut Hill, Fla.	2.0	2.0	2.0	2.0	3.0	2.0	2.0	2.0	2.0
					Delta				
Stoneville, Miss.	4.0	3.0	5.0	3.0	3.0	4.0	2.0	3.0	4.0
St. Joseph, La.	1.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
Baton Rouge, La.	1.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
					West				
Chillicothe, Texas	1.0	1.0	2.0	2.0	1.0	2.0	2.0	3.0	2.0
Curtis, La.	1.0	1.0	4.0	1.0	1.0	2.0	1.0	1.0	2.0

Table 49: Weight of seed, in grams per 100 seeds, for the strains in Uniform Group VIII, 1950

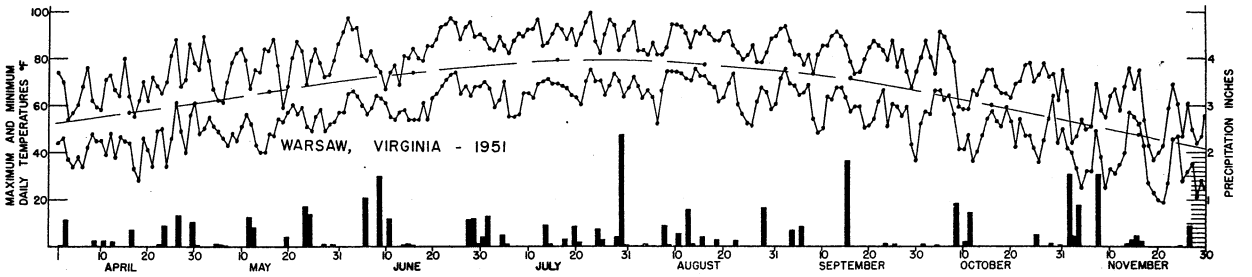
Location	Acadian	J.E.W. 45	Majos	Improved Pelican	Mamotan 6680	La. 48-275	M46-2652	Mamotan 6640	Woods Yellow #1
				SOUTHEAST					
Monetta, S. C.	13.3	19.6	20.7	13.2	10.2	16.1	14.6	19.5	17.0
Tifton, Ga.	13.6	18.9	19.6	12.6	16.0	14.6	15.2	19.1	18.8
Quincy, Fla.	13.9	19.5	19.1	13.6	16.3	16.1	17.9	-	19.7
Milton, Fla.	13.1	19.6	21.8	12.0	14.5	16.4	17.2	18.1	18.6
Walnut Hill, Fla.	14.5	21.2	19.9	13.5	17.2	15.4	16.0	17.9	19.3
Mean	13.7	19.8	20.2	13.0	14.8	15.7	16.2	18.6	18.7
				DELTA					
Stoneville, Miss.	12.8	19.2	19.1	12.2	14.2	16.2	14.6	13.8	18.1
				WEST					
Chillicothe, Texas	15.0	17.0	17.0	14.0	14.0	14.0	14.0	17.0	16.0

Table 50: Two-year summary of yield and oil data for the strains in Uniform Group VIII, 1950 - 1951

	Acadian	J.E.W. 45	Majos	Improved Pelican	Mamotan 6680	La. 48-275
			Yield (in bushels per acre)			
			Southeast			
Monetta, S. C.	14.8	25.1	24.0	15.7	15.4	23.4
Experiment, Ga.	17.0	23.0	21.4	19.2	13.2	23.2
Tifton, Ga.	13.2	14.1	16.0	12.8	13.9	16.8
Milton, Fla.	19.5	24.5	24.1	20.6	27.3	21.8
Walnut Hill, Fla.	30.8	36.8	34.0	30.2	33.0	33.2
Mean	19.1	24.7	23.9	19.7	20.6	23.7
			Delta			
Stoneville, Miss.	29.8	33.6	33.5	26.4	33.6	28.2
Baton Rouge, La.	30.2	26.4	26.6	30.6	27.4	25.8
Mean	30.0	30.0	30.0	28.5	30.5	27.0
			West			
Curtis, La.	33.7	24.8	22.8	34.0	26.2	27.5
Chillicothe, Texas	2.4	7.6	5.4	3.6	4.6	1.9
			Oil Percentage			
Monetta, S. C.	18.4	18.2	18.2	19.2	16.6	18.5
Milton, Fla.	21.3	20.8	21.0	21.2	20.8	20.2
Walnut Hill, Fla.	20.8	20.2	19.6	21.2	19.6	19.8
Stoneville, Miss.	20.0	20.0	19.6	20.1	18.5	18.8
Baton Rouge, La.	21.8	21.1	22.8	22.2	21.1	22.0
Mean	20.5	20.1	20.2	20.8	19.3	19.9

Table 51: Three-year summary of yield and oil content for the strains in Uniform Group VIII, 1949 - 1951

Location	Acadian	J.E.W. 45	Majos	Improved Pelican
		Yield (in bushels per acre)		
Monetta, S. C.	20.8	27.9	24.5	21.6
Experiment Ga.	18.0	25.6	24.6	18.9
Tifton, Ga.	18.0	16.4	17.7	14.4
Walnut Hill, Fla.	30.9	36.7	37.1	31.6
Stoneville, Miss.	31.5	31.8	31.7	28.8
Baton Rouge, La.	29.9	-	26.8	31.1
Curtis, La.	32.1	-	20.0	31.5
		Oil Percentage		
Monetta, S. C.	19.0	18.6	19.0	19.5
Walnut Hill, Fla.	20.6	20.4	20.1	20.6
Baton Rouge, La.	21.3	-	22.8	21.9


WARSAW, VIRGINIA - 1951
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
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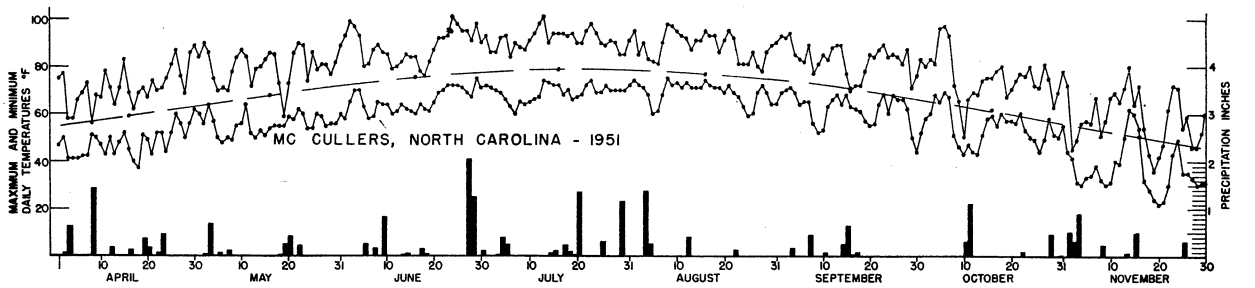
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


MC CULLERS, NORTH CAROLINA - 1951
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
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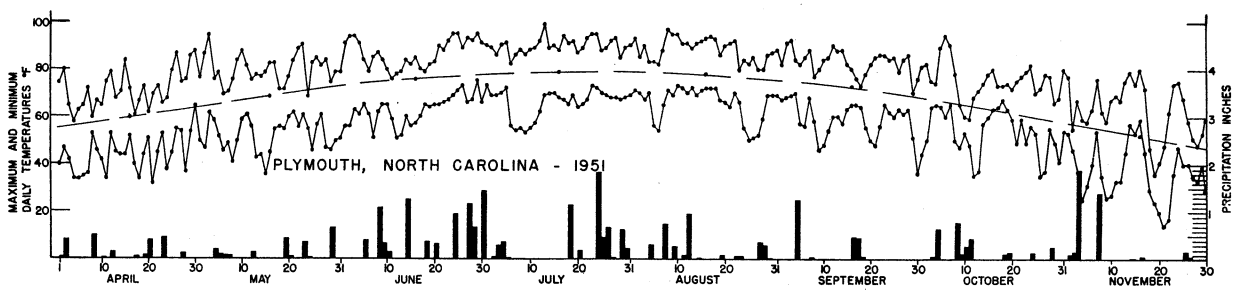
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


PLYMOUTH, NORTH CAROLINA - 1951
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
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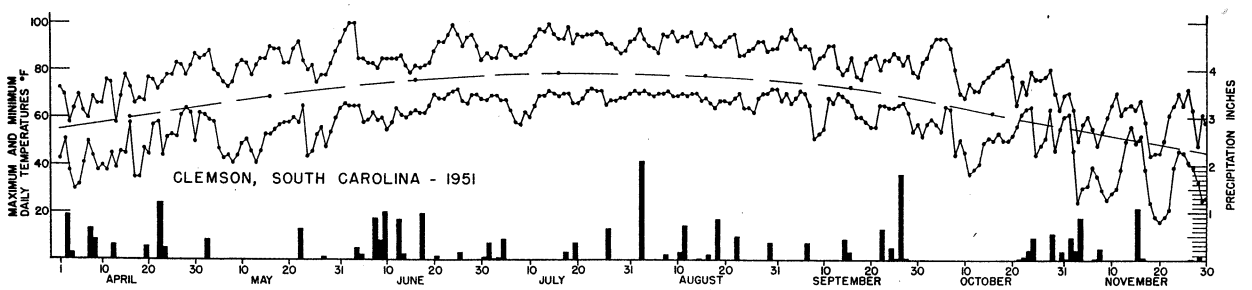
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


CLEMSON, SOUTH CAROLINA - 1951
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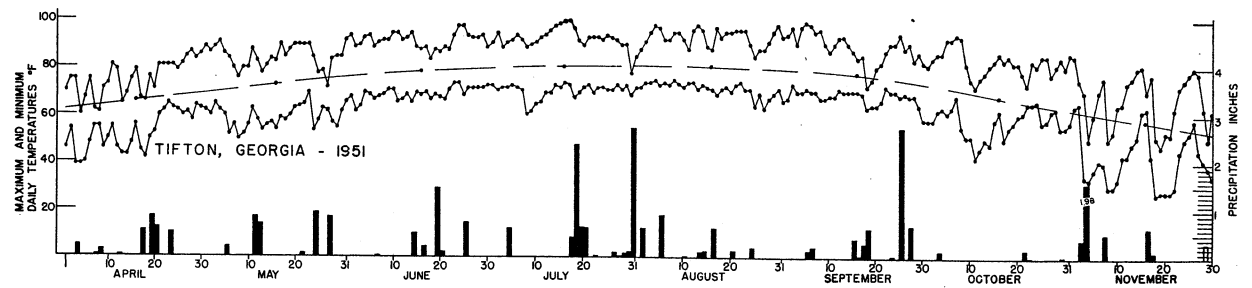
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER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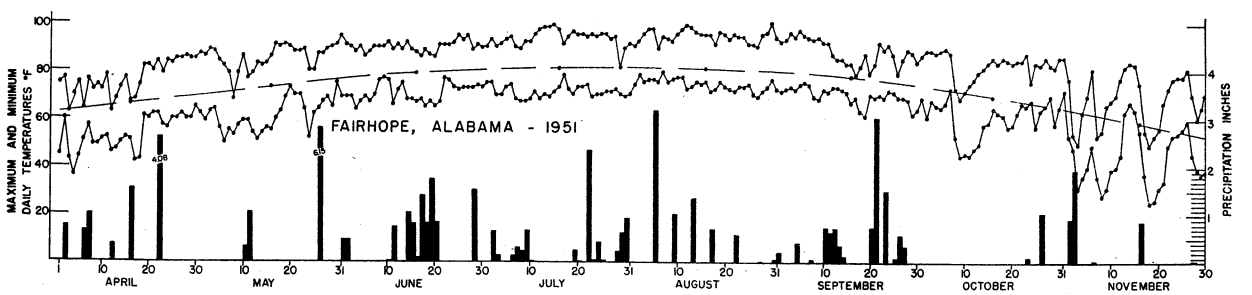
SEPTEMBER
OCTOBER
NOVEMBER


FAIRHOPE, ALABAMA - 1951
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
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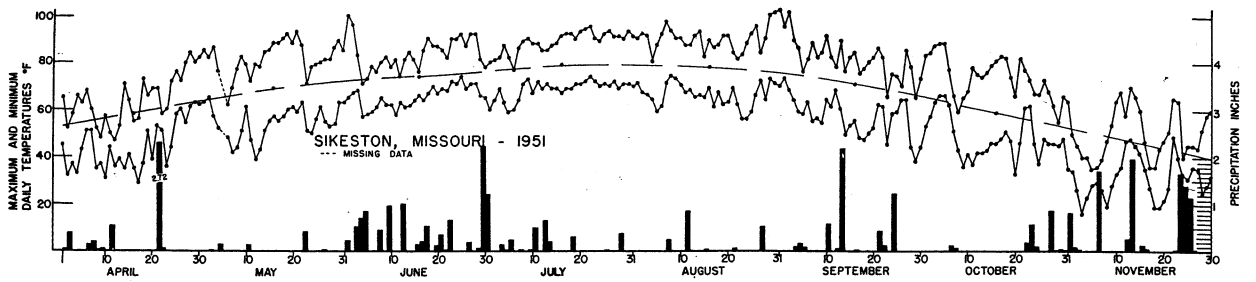
SIKESTON, MISSOURI - 1951
--- MISSING DATA
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SEPTEMBER
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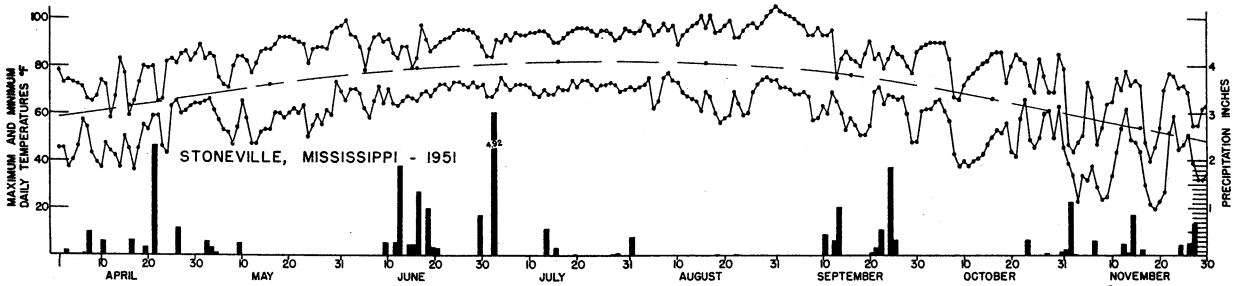
NOVEMBER


STONEVILLE, MISSISSIPPI - 1951
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
APRIL
MAY
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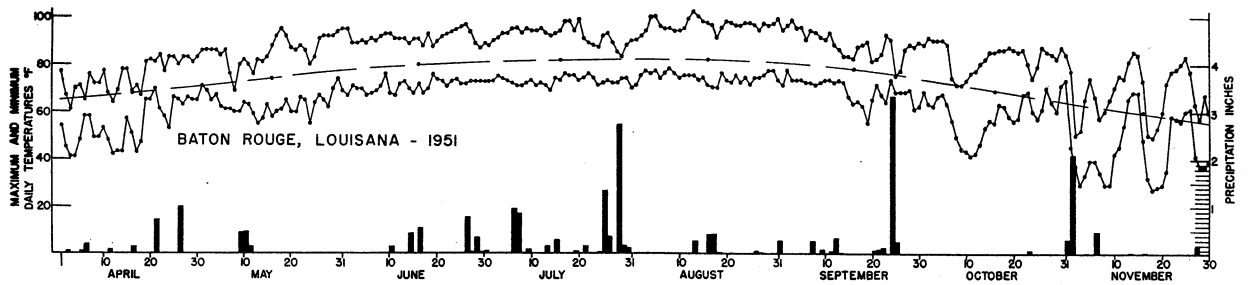
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


BATON ROUGE, LOUISANA - 1951
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
APRIL
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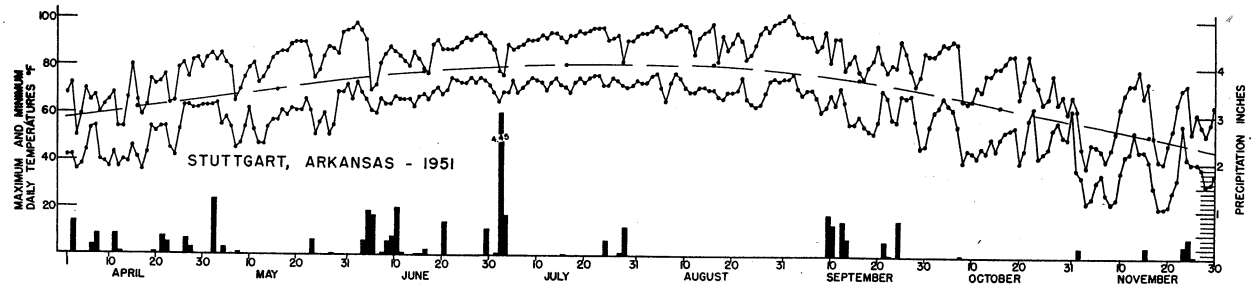
STUTTGART, ARKANSAS - 1951
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
APRIL
MAY
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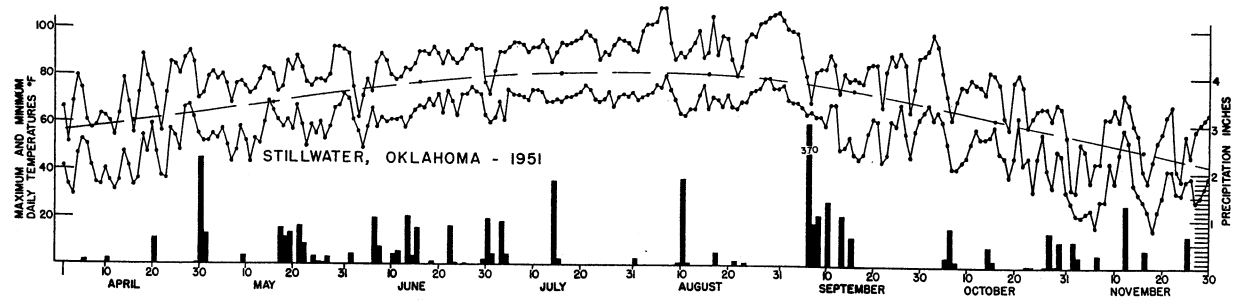
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


STILLWATER, OKLAHOMA - 1951
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
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APRIL
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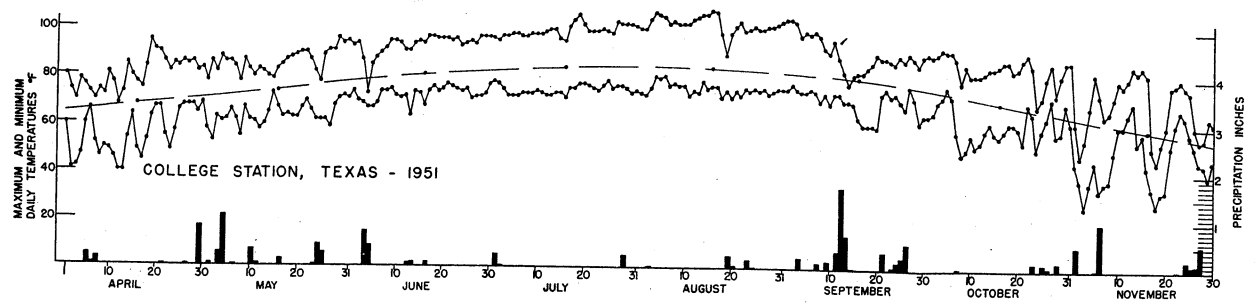
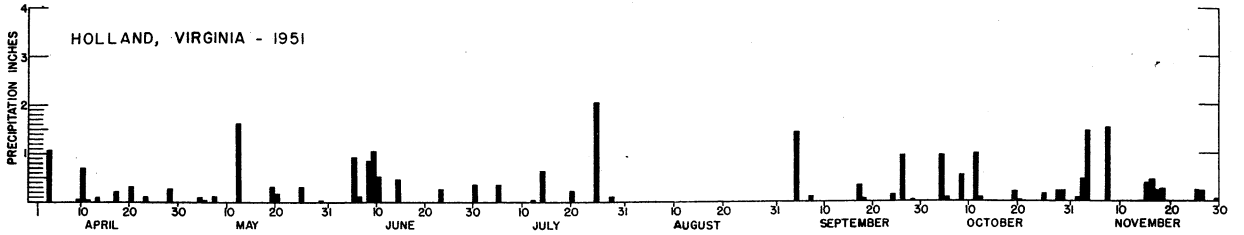
SEPTEMBER
OCTOBER
NOVEMBER


COLLEGE STATION, TEXAS - 1951
MAXIMUM AND MINIMUM DAILY TEMPERATURES °F
PRECIPITATION INCHES
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


HOLLAND, VIRGINIA - 1951
PRECIPITATION INCHES
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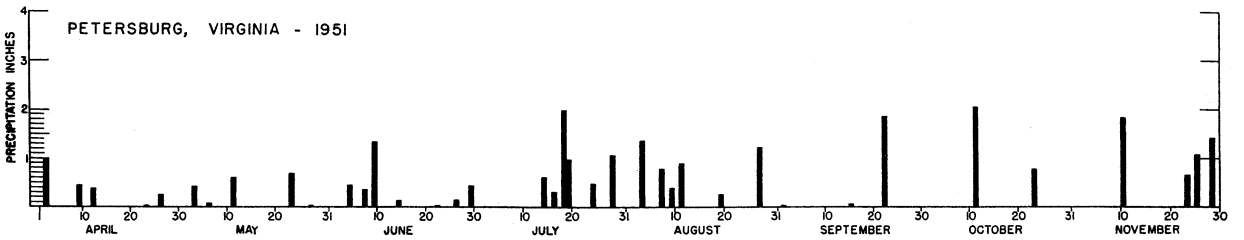
APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER


PETERSBURG, VIRGINIA - 1951
PRECIPITATION INCHES
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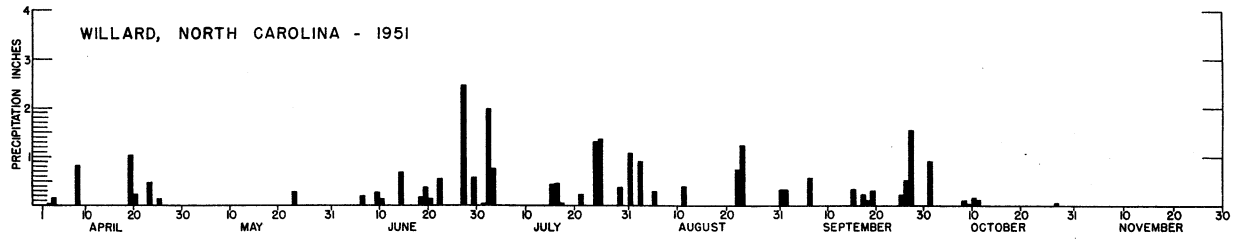
APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER


WILLARD, NORTH CAROLINA - 1951
PRECIPITATION INCHES
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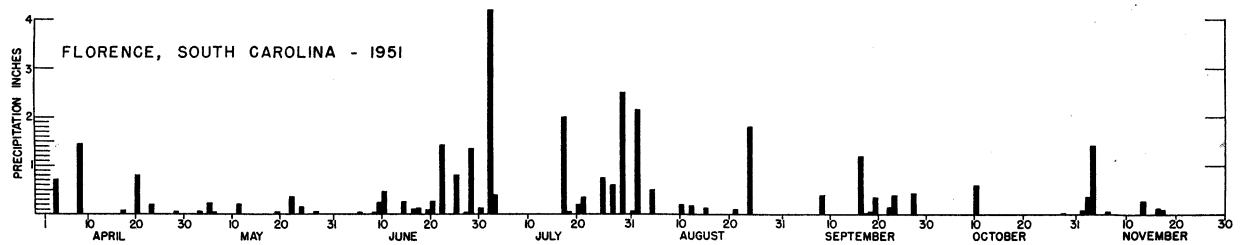
FLORENCE, SOUTH CAROLINA - 1951
PRECIPITATION INCHES
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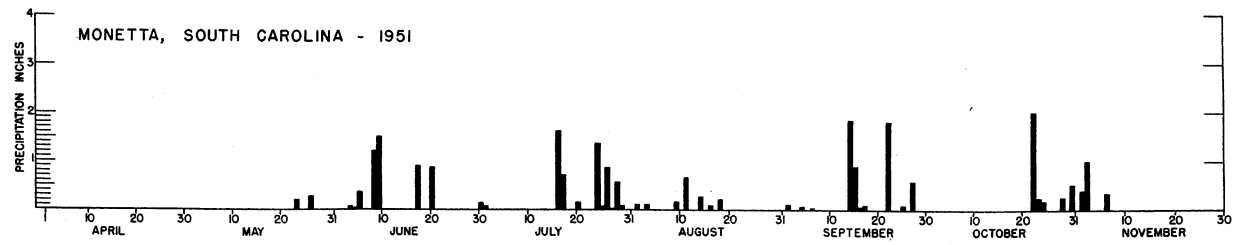
MONETTA, SOUTH CAROLINA - 1951
PRECIPITATION INCHES
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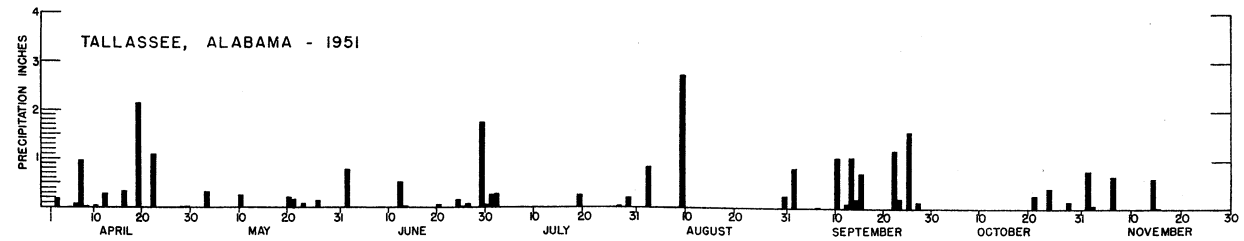
TALLASSEE, ALABAMA - 1951
PRECIPITATION INCHES
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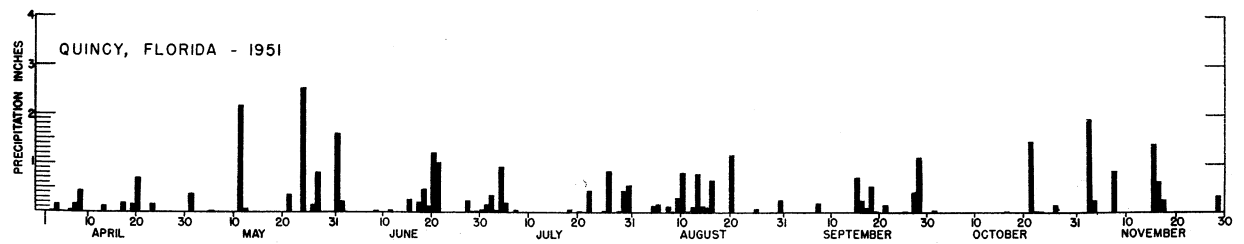
QUINCY, FLORIDA - 1951
PRECIPITATION INCHES
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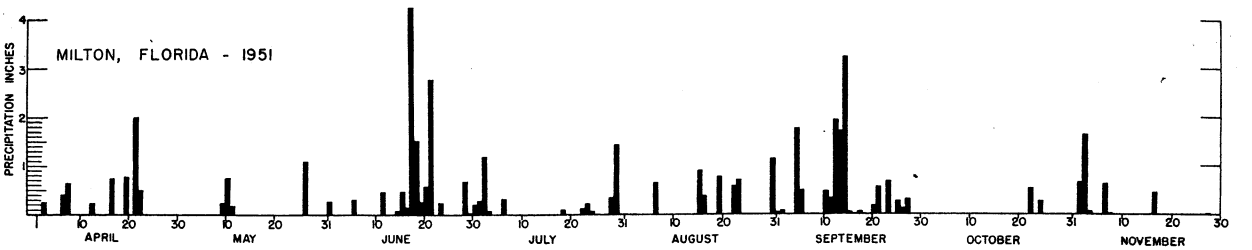
MILTON, FLORIDA - 1951
PRECIPITATION INCHES
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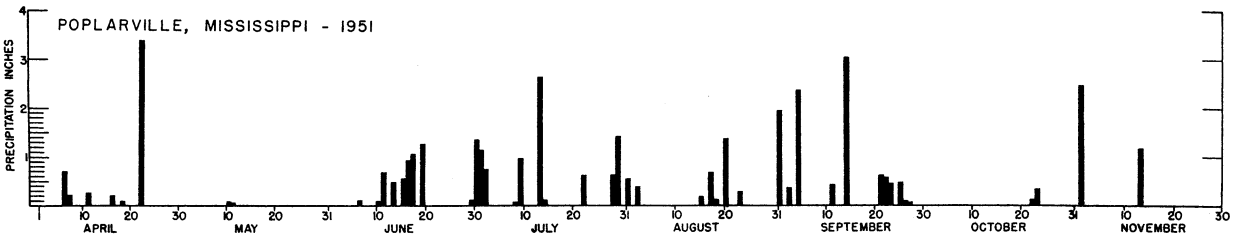
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


POPLARVILLE, MISSISSIPPI - 1951
PRECIPITATION INCHES
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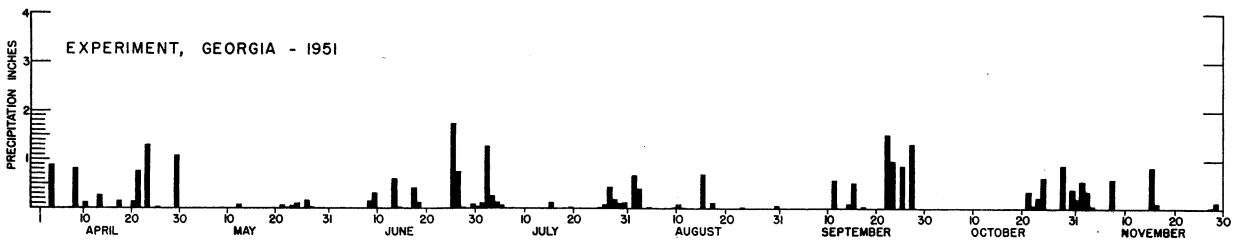
EXPERIMENT, GEORGIA - 1951
PRECIPITATION INCHES
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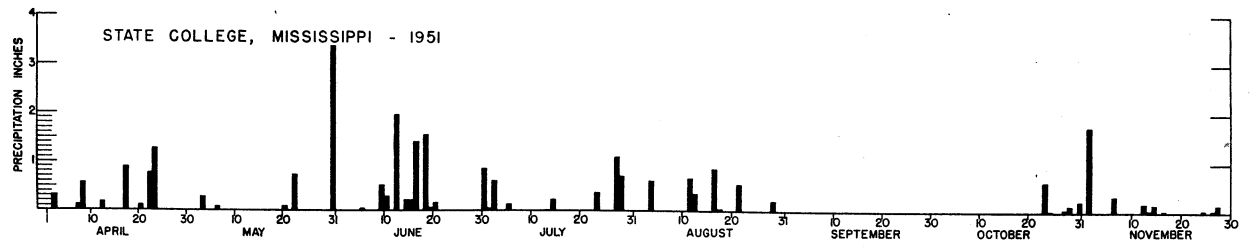
OCTOBER
NOVEMBER


STATE COLLEGE, MISSISSIPPI - 1951
PRECIPITATION INCHES
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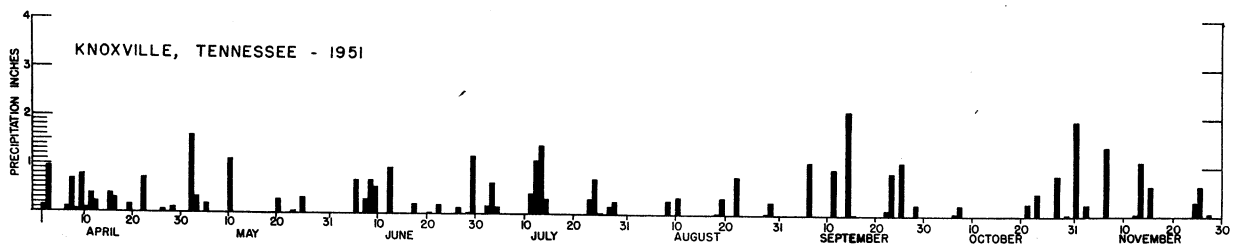
KNOXVILLE, TENNESSEE - 1951
PRECIPITATION INCHES
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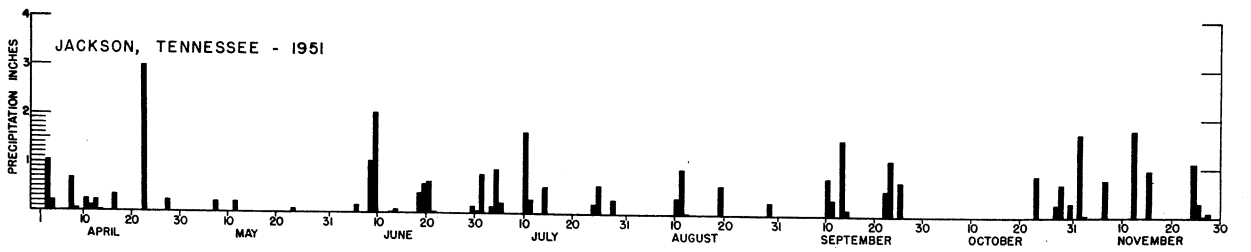
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER


JACKSON, TENNESSEE - 1951
PRECIPITATION INCHES
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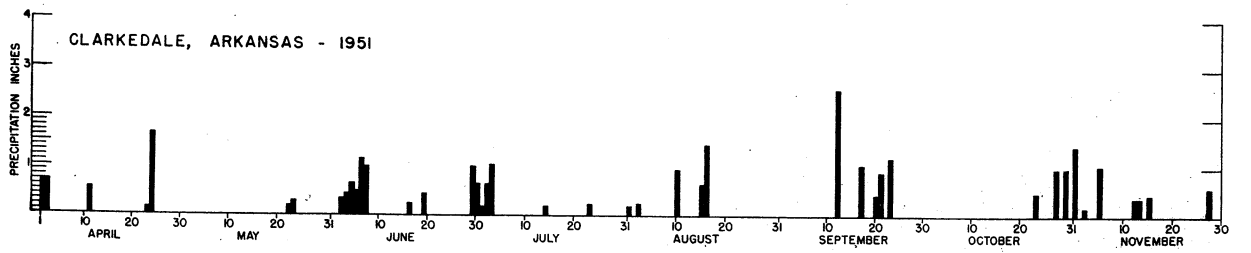
SEPTEMBER
OCTOBER
NOVEMBER


CLARKEDALE, ARKANSAS - 1951
PRECIPITATION INCHES
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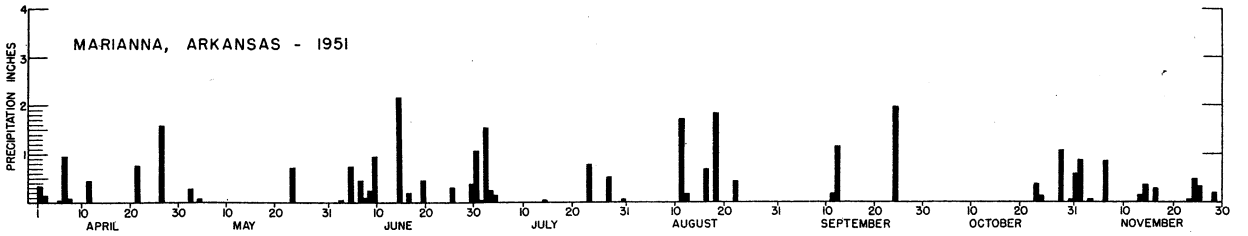
SEPTEMBER
OCTOBER
NOVEMBER


MARIANNA, ARKANSAS - 1951
PRECIPITATION INCHES
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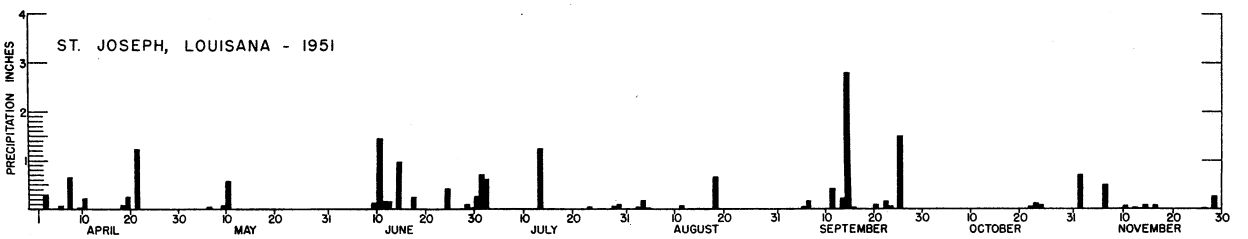
APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER


ST. JOSEPH, LOUISANA - 1951
PRECIPITATION INCHES
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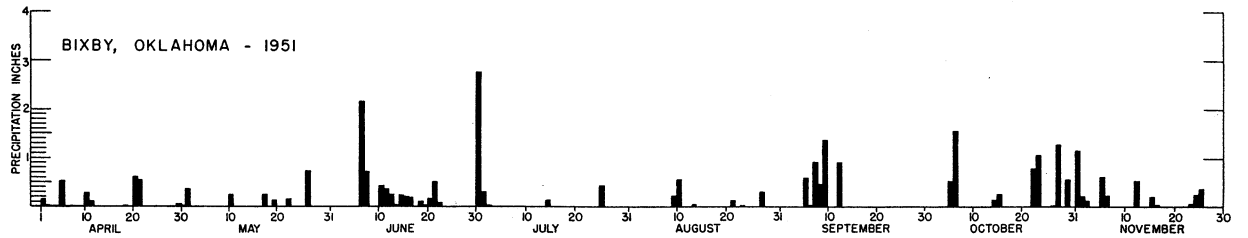
APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER


BIXBY, OKLAHOMA - 1951
PRECIPITATION INCHES
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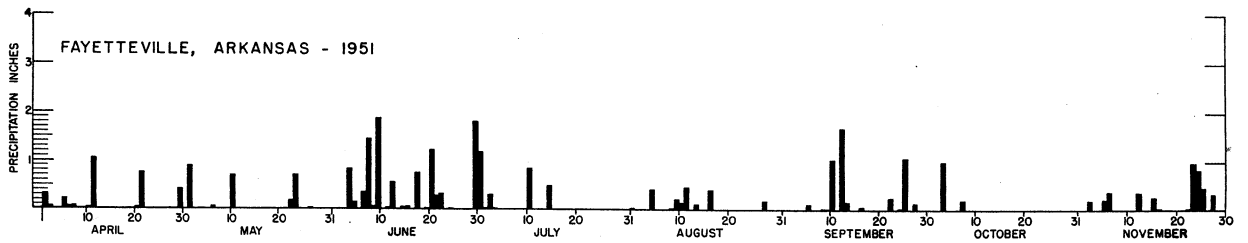
APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER


FAYETTEVILLE, ARKANSAS - 1951
PRECIPITATION INCHES
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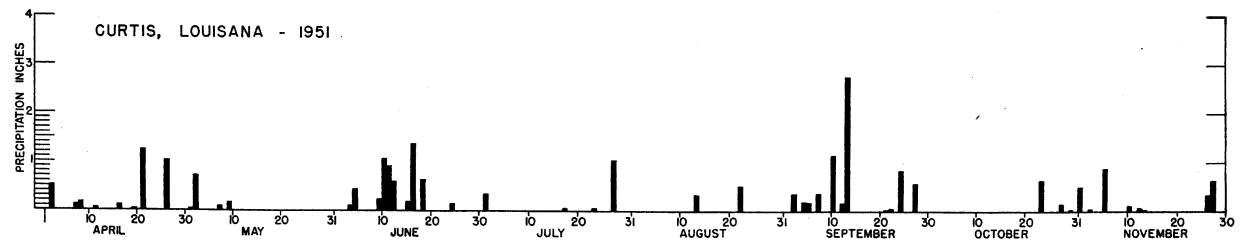
APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER


CURTIS, LOUISANA - 1951
PRECIPITATION INCHES
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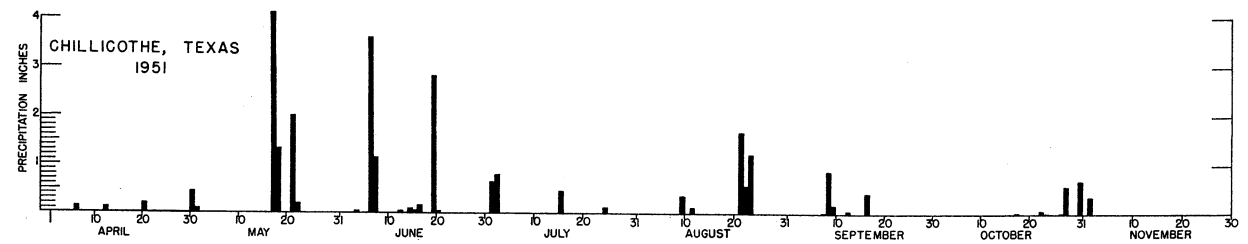
APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER


CHILLICOTHE, TEXAS
1951
PRECIPITATION INCHES
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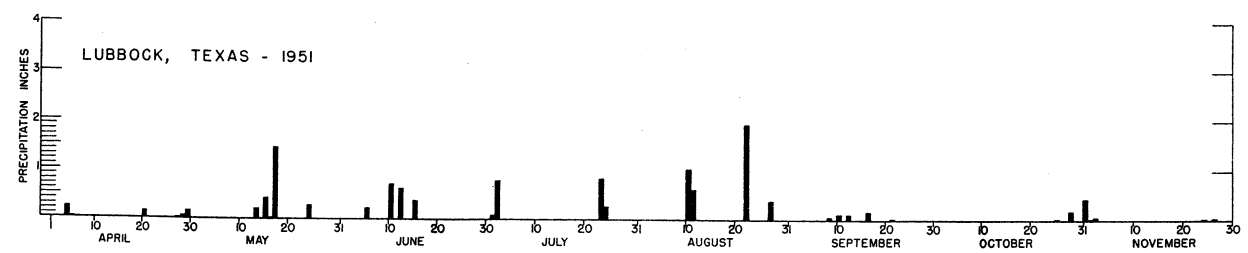
APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER


LUBBOCK, TEXAS - 1951
PRECIPITATION INCHES
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APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER