

**UNIFORM SOYBEAN TESTS  
SOUTHERN STATES  
1993**

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

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# UNIFORM SOYBEAN TESTS

## SOUTHERN STATES

1993

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## INTRODUCTION

The Uniform Soybean Testing Program has been directed toward the testing of elite breeding lines that ultimately leads to the release of varieties. Breeding lines are developed and evaluated in several participating federal and state research programs. As breeding lines demonstrate specific qualities in the individual programs, they are advanced to the preliminary and southern uniform regional tests, conducted in cooperation with research workers in the southern states. This testing program enables breeders to evaluate new strains under a wide variety of conditions, and permits new strains to be put into production in a minimum amount of time.

Eleven uniform test groups have been established to evaluate the best strains developed in the breeding programs. The groups 00 through IV are adapted in the northern part of the United States, and the groups IV-S through VIII are grown in the southern part. Within their area of adaptation, there is a maturity range of 12 to 18 days within each maturity class. The best standard varieties available of each maturity class are used as check varieties with which to compare new strains as to seed yield, chemical composition, maturity, height, lodging, seed quality, and reaction to diseases and nematodes. For the groups grown in the southern area, the major check varieties are: Manokin, Delsoy 4710, Holladay, Hutcheson, Bedford, Brim, Lyon, Centennial, Stonewall, Haskell, Braxton, Cook, and Maxcy.

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

On nearly all of the soils, other than the alluvial soils along the Mississippi River, fertilization is essential for satisfactory soybean production. The soil test information is based upon analyses run by laboratories with the states. Different methods are used for extraction and reporting by the various laboratories.



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**STRAIN DESIGNATION**

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

AS	-	Alabama A & M University, Normal
Au	-	Alabama Agricultural Experiment Station, Auburn
D	-	Delta Branch Experiment Station and USDA-ARS
F	-	Florida Agricultural Experiment Station and USDA-ARS
G	-	Georgia Agricultural Experiment Station
K	-	Kansas Agricultural Experiment Station
Ky	-	Kentucky Agricultural Experiment Station
LS	-	Southern Illinois University, Carbondale
Md	-	Maryland Agricultural Experiment Station and USDA-ARS
N	-	North Carolina Agricultural Experiment Station and USDA-ARS
NTCPR	-	North Carolina Agricultural Experiment Station and USDA-ARS
OK	-	Oklahoma Agricultural Experiment Station
R	-	Arkansas Agricultural Experiment Station
RJ	-	Arkansas State University, Jonesboro
S	-	Missouri Agricultural Experiment Station
SC	-	South Carolina Agricultural Experiment Station, Clemson
Tn	-	Tennessee Agricultural Experiment Station
TsB	-	Texas Agricultural Experiment Station, Beaumont, Texas
V	-	Virginia Agricultural Experiment Station

## LOCATION OF SOYBEAN NURSERIES ALONG WITH SOIL TYPE

LOCATION	IV	V	VI	VII	VIII	SOIL
<b>East Coast</b>						
Queenstown, MD	UP	UP				Mattapeake silt loam
Georgetown, DE	U	U				Evesboro loamy sand
Warsaw, VA	UP	UP	U			Kempsville loam
Plymouth, NC		UP	UP			Portsmouth silt loam
Kinston, NC			U	U		Norfolk sandy loam
Jackson Springs, NC				UP	U	Norfolk sandy loam
Florence, SC			U	U	U	Goldsboro sandy loam
<b>Southeast</b>						
Blackville, SC(A)			UP	UP	UP	Faceville sandy loam
Blackville, SC(B)				U	U	Norfolk sandy loam
Tifton, GA			U	U	U	Tifton sandy loam
Tallassee, AL			UP	UP	UP	Cahaba fine s. l.
Quincy, FL			U	U	UP	Orangeburg loamy fine sand
Jay, FL			UP	UP	UP	Red Bay sandy loam
Fairhope, AL			U	U	U	Malbis fine sandy loam
Baton Rouge, LA		U	U	U	U	Olivier silt loam
<b>Upper &amp; Central South</b>						
Orange, VA	U	U				Starr silty clay loam
Clemson, SC		U	U	U		Cecil sandy loam
Calhoun, GA		U	U	U		Rome gravelly clay loam
Athens, GA		U	UP	UP	U	Cecil coarse sand loam
Plains, GA					UP	Greenville sandy clay loam
Belle Mina, AL		U	U			Decatur silt loam
Knoxville, TN	U	U				Sequatchie silt loam
Ullin, IL	UP	UP				Stoy silt loam
Princeton, KY	UP	U				Crider silt loam
Martin, TN	U	U				Falaja silt loam
Jackson, TN		P				Lexington silt loam
Starkville, MS	U	U	U	U		Leeper silty clay
Suffolk, VA		U	U			Lynchburg fine sandy loam
<b>Delta</b>						
Portageville, MO(A)	UP	UP	U			Tiptonville s.l.
Portageville, MO(B)	U	U	U			Sharkey clay
Keiser, AR	UP	UP				Sharkey clay
Marianna, AR	U					Loring silt loam
Jonesboro, AR	U	U	U			Calloway silt loam
Pine Tree, AR	U	U	U			Calloway silt loam
Stoneville, MS(A)	U	UP				Boskett f.s.l.
Stoneville, MS(B)	UP	UP	UP	UP		Sharkey clay
Rohwer, AR			U	U		Perry clay
St. Joseph, LA		U	U	U		Sharkey clay
<b>West</b>						
Fredonia, KS	U					Kenoma silt loam
McCune, KS		U				Parsons silt loam
Ottawa, KS	UP					Woodson s. loam
Pittsburg, KS	UP	UP				Parsons silt loam
Chanute, KS	U	U				Parsons silt loam
Bixby, OK	U	U	U			Reinach silt loam
Stuttgart, AR		U	U	P		Crowley silt loam
Bossier City, LA		U	U	U		Latanier silt loam
Beaumont, TX			U	UP	UP	Midland silt loam
Lubbock, TX	U	U				Acuff loam

U Uniform nursery grown

P Preliminary nursery grown

## ROW SPACING OF UNIFORM TEST LOCATIONS

LOCATION	ROW SPACING
<b>EAST COAST</b>	
Queenstown, MD	30 inches
Georgetown, DE	20 inches
Warsaw, VA	30 inches
Plymouth, NC	38 inches
Kinston, NC	38 inches
Jackson Springs, NC	38 inches
Florence, SC	38 inches
<b>SOUTHEAST</b>	
Blackville, SC(A)	38 inches
Blackville, SC(B)	38 inches
Tifton, GA	30 inches
Tallassee, AL	30 inches
Quincy, FL	30 inches
Jay, FL	36 inches
Fairhope, AL	30 inches
Baton Rouge, LA	30 inches
<b>UPPER &amp; CENTRAL SOUTH</b>	
Orange, VA	30 inches
Clemson, SC	38 inches
Calhoun, GA	30 inches
Athens, GA	30 inches
Plains, GA	30 inches
Belle Mina, AL	36 inches
Knoxville, TN	30 inches
Ullin, IL	30 inches
Princeton, KY	30 inches
Martin, TN	38 inches
Jackson, TN	30 inches
Starkville, MS	38 inches
Suffolk, VA	20 inches
<b>DELTA</b>	
Portageville, MO(A)	30 inches
Portageville, MO(B)	30 inches
Keiser, AR	38 inches
Marianna, AR	38 inches
Jonesboro, AR	36 inches
Pine Tree, AR	36 inches
Stoneville, MS(A)	36 inches
Stoneville, MS(B)	36 inches
Rohwer, AR	38 inches
St. Joseph, LA	40 inches
<b>WEST</b>	
Fredonia, KS	30 inches
McCune, KS	30 inches
Ottawa, KS	30 inches
Pittsburg, KS	30 inches
Chanute, KS	30 inches
Bixby, OK	30 inches
Stuttgart, AR	32 inches
Bossier City, LA	40 inches
Beaumont, TX	32 inches
Lubbock, TX	40 inches

## METHODS

### Cultural Practices

The uniform nurseries were planted in four-row plots with three replications at all locations with the exception of one location which had three-row plots with three replications. The preliminary nurseries were planted similarly with two replications. Row widths at the locations varied from 20 to 40 inches with the majority planted in 30 inch rows. The recommended cultural and management practices were generally followed at each location.

### Maturity, Harvest, and Yield

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

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

Maturity was recorded as the date when 95% of the pods had reached mature pod color (Fehr and Caviness, 1977). Maturity in all summaries is expressed as days earlier (-) or later (+) than the reference variety. Reference varieties used in the different maturity groups were as follows: UIVS and PIVS, Manokin; UV, Holladay; PV, Manokin; UVI, Brim; PVI, Bedford; UVII, Stonewall; PVII, Centennial; UVIII, Cook; PVIII, Braxton.

After end trimming all plots, yields were measured by harvesting the middle row(s) of each plot. Actual seed weights were recorded after the seed of the strains had reached a uniform moisture content. Seed weights were converted to bushels per acre (60lbs./bu.) by using the appropriate conversion factor for each location with respect to harvested plot size.

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

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 strains at one location, considerable differences can exist among factors responsible for the poorer grades at different locations. Seed size for each strain was determined from a composite sample from all replications at a location. Seed size is reported as grams per 100 seed.

Oil and protein percentages were determined from representative locations of the uniform and preliminary tests. A 50-g composite sample of each strain from all replications at a location was sent to the USDA-ARS, National Center for Agricultural Utilization Research at Peoria, Illinois for analysis. Two samples of 18-20 g of seed were analyzed for protein and oil composition with a Model 1255 Infratec NIR food and feed grain analyzer. Analysis of the seed was conducted on an as is basis and then mathematically converted to a moisture-free basis for reporting.

### Pest Assessment

Aerial web blight. Ratings were made on uniform tests for Maturity Groups V, VI, VII, and VIII on August 19, 23, and 27, 1993 at Baton Rouge, Louisiana. The ratings are based on a 0 to 5 scale where 0 = aerial blight symptoms not observed and 5 = all plants affected, including pod loss. The scores reported are the means of the three dates.

Frogeye leaf spot. Ratings were made on preliminary and uniform tests for Maturity Groups VI, VII, and VIII on September 15, 1993 at Tallassee, Alabama. Ten leaves were randomly collected from each plot. Each leaf was scored for percent leaf area affected by comparing them to a Leaf Evaluation Guide that had schematics of leaves that exhibited a range of frogeye lesions from 0.5 to 20%. The scores presented are the means of all individual leaf scores across replications for each strain in each maturity group.

Root-knot nematode. Screenings of strains of UIVS - UVIII were conducted in a greenhouse at the University of Georgia.

Three seeds of each genotype were planted in Ray Leach Cone-tainers (20.6 cm long) filled with fumigated sandy loam soil to within 5 cm of the top and then covered with 2.5 cm of fumigated sand. Ten Cone-tainers each of a susceptible and resistant standard cultivar were included in each test. Forty-nine Cone-tainers were placed in a RL-98 tray, filling every other row of the tray. The trays (45) were placed on a greenhouse bench under supplemental light provided by 400-watt metal halide lamps and under an automatic irrigation system. Seven to 10 days after planting, plants were thinned to one seedling per Cone-tainer and inoculated with 3000 root-knot nematode eggs collected with 0.5% NaOCL (10% Clorox). The inoculum (3-5 ml depending on egg concentration) was placed with a digital dispensing pump in a soil at a depth of 2-3 cm. Plants were watered manually for 1-2 days following inoculation before turning on the automatic irrigation system. All plants were fertilized weekly with 20-20-20 (N = 20%, P = 8.7%, K = 16.6%) fertilizer solution.

Thirty days after inoculation, roots of two of the standard check plants were examined for galls to assess whether to begin the process of evaluating the entire test. For evaluation, shoots were excised and root systems removed from the Cone-tainers and washed free of soil. For screening advanced breeding lines, the total number of galls per root system was counted. For all other studies, the number of galls on the remainder of the susceptible and resistant check plants was used to develop a gall index of 1 (< 10 galls per plant) to 5 (> 90 galls per plant) for evaluating the genotypes.

Screenings for strains of PIVS-PVIII were conducted in a greenhouse at the USDA-ARS Nematology Investigations at Jackson, Tennessee.

Three seed of each genotype was planted in each of three pots filled with sterilized sandy loam soil. Approximately 3,000 eggs of the nematode was added to the potted soil just prior to planting. Plants were evaluated for amount of root galling at six weeks after planting. The ratings for galling were as follows:

- 1 = <10% of root system with small galls,
- 2 = 10-25% of root system galled with mostly small galls,
- 3 = 25-50% of root system galled with several large galls,
- 4 = 51-90% of root system galled with mostly large galls, and
- 5 = 91-100% of root system galled with large galls and some root rot.

A mean rating was calculated for each genotype.

The isolates of *Meloidogyne incognita* and *M. arenaria* were obtained from Dr. Gary Windham, USDA-ARS, Mississippi State, MS. The isolates of the nematodes used were different than those used by Dr. Roger Boerma at the University of Georgia.

Soybean cyst nematode. The SCN race 3 and 14 ratings reported for UIVS - UVIII were based on screenings made at Jackson, Tennessee in 1991. For the screening, seed of each strain was planted in sterile soil at a rate of one per pot for a total of seven pots per strain. At the time of planting, 1000 eggs of the race being evaluated were added to each pot. Approximately four weeks after planting, plants were rated based on the number of female cysts on the roots. The ratings were as follows:

R - resistant; MR - moderately resistant; S - susceptible

In some cases a rating of H was assigned when the reaction was considered to be heterozygous.

#### Stem Canker

Mississippi. Strains from UIVS-UVIII and PIVS-PVII were evaluated at the Delta Research and Extension Center, Stoneville, Mississippi. Strains were planted in single-row plots 1.8 m long on 18 May in a Boskett fine sandy loam in a randomized complete block design with four replications. A susceptible line (J77-339) was planted every ten plots. Inoculum was produced by aseptically culturing isolate 90-46 of the fungus on autoclaved toothpicks. Twelve plants per plot were inoculated on 2 July by forcing a toothpick through the stem in the upper one-third of the plant. Stem canker lesion development was rated on 20 September, after the susceptible check had been killed by the disease. Strains were assigned a rating based on the mean of four replications using the following scale:

- 1 = resistant (no lesion)
- 2 = moderately resistant (lesion 0-5cm)
- 3 = intermediate reaction (lesion 5-10 cm)
- 4 = moderately susceptible (lesion 10-25 cm)
- 5 = susceptible (lesion > 25 cm)
- 6 = very susceptible (plants dead)

Texas. Strains from UVI-UVIII and PVII-PVIII were evaluated under natural inoculum levels at the Texas Agricultural Research and Extension Center, Beaumont, Texas. All strains were evaluated on 21 September. The following rating scale was used:

<u>Score</u>	<u>Description</u>	<u>Reaction</u>
0	No Disease	R
1	Two or three plants dead or dying	MR
2	10% of plants dead or dying	MS
3	20% of plants dead or dying	S
4	35% of plants dead or dying	S
5	50% of plants dead or dying	S
6	65% of plants dead or dying	S
7	85% of plants dead or dying	S
8	95% of plants dead or dying	SS
9	All plants dead	SS

Sudden death syndrome. Soybean sudden death syndrome (SDS) was evaluated for UIVS and UV at Ridgeway, Illinois, in three replications of two-row plots 10 foot long. Trials were planted 22 May 1993. Percent of plants with visible leaf symptoms were scored weekly during pod fill, and interpolated to the R6 developmental stage (full seed stage). This interpolated score is abbreviated R6DI. Lattice analysis was used to adjust for positional differences in disease pressure, occasionally resulting in values less than 0 or more than 100. The entry with the lowest DI is marked \*\*, and those entries not significantly different from it (LSD test, P = 0.1) are marked \*.

Velvetbean Caterpillar. Strains from UVI-UVIII were evaluated for resistance to velvetbean caterpillar at the North Florida Education and Research Center, Quincy, Florida. The strains were planted in six replications of single rows eight foot long. The rows of strains were evaluated for defoliation on 27 September 1993. The following rating scale was used:

1	=	0-10%	defoliation
2	=	11-20%	defoliation
3	=	21-30%	defoliation
4	=	31-40%	defoliation
5	=	41-50%	defoliation
6	=	51-60%	defoliation
7	=	61-70%	defoliation
8	=	71-80%	defoliation
9	=	81-90%	defoliation
10	=	91-100%	defoliation

The scores reported are the mean of the six replicates.

#### Statistical Analyses

Yield data for each test at each location were analyzed by analysis of variance to obtain the coefficient of variability (C.V.) and LSD (P = 0.05) for that location. Locations with extremely low yields or extremely high C.V.'s were not included in the combined analysis or in calculating the means across locations. The yield was then analyzed across all locations within a maturity group by analysis of variance. The means of the various traits were calculated at the same time and are reported in this publication.

**MATURITY**

**GROUP**

**IV-S**

**UNIFORM GROUP IV-S****1993**

Uniform Group IV-S nurseries were planted at 22 locations. Data were obtained from all of the locations. The parentage for each strain is reported in Table 1. Table 2 gives a general summary of information for each strain including one-, two-, and three-year means for seed yield, oil, protein, botanical traits, and pest reactions. Results from individual locations are summarized in Tables 3 - 8.

The cultivar Manokin is the yield and maturity check. It had a mean yield of 41.4 bushels per acre and a mean maturity of September 29 at the 22 locations.

TABLE 1 - PARENTAGE OF THE STRAINS GROWN IN UNIFORM GROUP IV-S, 1993.

VARIETY OR STRAIN	PARENTAGE	GENERATION COMPOSITED
1. MANOKIN	L70-L3048 X D74-7824	F5
2. DELSOY 4710	L77-443 X L77-906	F5
3. K1192	SHERMAN X BAY	F5
4. Ky88-4080	K1099 X HUTCHESON	F5
5. LS88-1517	PYRAMID X DOUGLAS	F6
6. V87-299	ESSEX X V79-2856	F5
7. LS89-2820	LS77-952 X LS78W-124-1	F5
8. K1243	HUTCHESON X A2943	F5
9. K1246	STAFFORD X ELGIN	F5
10. Ky89-08137	COKER 425 X RA452	F4
11. Md89-5051	K1099 X S82-1443	F5
12. Md89-5289	MORGAN X Tn83-7	F5
13. OK88-5420	DOUGLAS X ESSEX	F4
14. S90-1056	FAYETTE X S81-2203	F5
15. S90-1058	FAYETTE X S81-2203	F5
16. V87-1457	N77-114 X A5474	F5

**Background of lines used as parents:**

- D74-7824** is a selection from Forrest X D70-3001. D70-3001 is of the same parentage as Centennial.
- K1099** is a selection from K1022 X Essex. K1022 is a selection from Williams X Columbus.
- L70-L3048** is a selection from L15 (Wayne Rps) X D64-31146.
- L77-443** is a selection from Union X L75-8020. L75-8020 is a Corsoy type resistant to phytophthora rot.
- L77-906** is a selection from Williams X PI 209332.
- LS77-952** is a selection from Essex X Clark 63.
- LS78W-124-1** is a selection from L71L-436 X J74-5.
- N77-114** is a selection from Essex X N70-2173. N70-2173 is a selection from Hutton X Ransom.
- R77-576** is a selection from Forrest X Mack.
- S81-2203** is a selection from Crawford X J74-67-7. J74-67-7 is a SCN race 4 resistant selection from D70-3045 X an F<sub>4</sub> selection from (D68-18 X PI 88788).
- S82-1443** is a selection from A5424 X Mack.
- Tn83-7** is a selection from Bedford X Crawford.
- V79-2856** is a selection from Hodgson X V73-1899.

TABLE 2 - GENERAL SUMMARY OF PERFORMANCE FOR THE STRAINS GROWN IN UNIFORM GROUP IV-S, 1993.

STRAIN	YIELD†			PROTEIN			OIL		
	1993	92-93	91-93	1993	92-93	91-93	1993	92-93	91-93
MANOKIN	41.4	44.8	46.8	40.2	39.7	39.5	21.2	20.9	21.0
DELLOY 4710	37.0	40.4	42.3	40.2	39.7	39.5	20.6	20.7	20.8
K1192	40.7	43.3	45.5	42.0	41.8	41.6	20.8	20.9	20.9
Ky88-4080	39.0	43.0	.	41.0	40.8	.	21.1	21.1	.
LS88-1517	37.0	41.2	.	42.3	41.6	.	20.7	20.7	.
V87-299	36.7	40.0	.	41.6	41.4	.	20.4	20.5	.
LS89-2820	37.5	.	.	40.8	.	.	19.2	.	.
K1243	37.7	.	.	40.6	.	.	22.0	.	.
K1246	40.4	.	.	40.9	.	.	21.9	.	.
Ky89-08137	38.8	.	.	40.8	.	.	20.9	.	.
Md89-5051	37.6	.	.	39.6	.	.	20.1	.	.
Md89-5289	37.4	.	.	42.2	.	.	20.6	.	.
OK88-5420	38.0	.	.	40.5	.	.	20.5	.	.
S90-1056	35.4	.	.	42.3	.	.	20.7	.	.
S90-1058	34.6	.	.	43.1	.	.	20.6	.	.
V87-1457	36.6	.	.	39.8	.	.	20.5	.	.

STRAIN	FL. COLOR	BOTANICAL TRAITS				PUB. COLOR	POD WALL	SEED SIZE	SEED QUALITY
		HEIGHT	MATURITY DATE	LODGING					
MANOKIN	W	26	09/29	1.8	T	T	12.4	1.8	
DELLOY 4710	P	35	-3	1.9	T	T	15.5	2.6	
K1192	P	35	-2	1.4	G	T	11.8	1.8	
Ky88-4080	W	20	-2	1.2	G	T	12.6	1.5	
LS88-1517	P	36	-6	1.9	G	Br	16.4	2.7	
V87-299	P	34	-6	1.4	G	T	14.0	1.9	
LS89-2820	P	27	+2	1.3	T	T	11.6	2.1	
K1243	W	33	+1	1.3	G	Br	14.5	2.2	
K1246	P	30	-2	1.2	G	T	12.1	1.9	
Ky89-08137	W	36	+1	1.3	G	T	13.5	2.1	
Md89-5051	W	24	0	1.4	T	T	14.6	2.0	
Md89-5289	P	38	-3	1.6	T	T	13.0	2.0	
OK88-5420	S	28	+8	1.5	G	Br	14.4	2.2	
S90-1056	W	32	-5	1.7	T	T	16.6	2.2	
S90-1058	W	32	-7	1.5	T	T	16.5	2.4	
V87-1457	W	28	+2	1.4	T	Br	11.7	1.8	

STRAIN	PEST REACTIONS					
	M. a.	M. i.	SCN RACE 3	SCN RACE 14	STEM CANKER MS	SDS
MANOKIN	3.3	1.0	R	S	1.0	5*
DELLOY 4710	2.8	4.3	MR	R	1.0	80
K1192	2.5	3.8	S	S	1.0	41
Ky88-4080	3.5	2.3	S	S	1.0	36
LS88-1517	3.3	5.0	MR	R	1.0	47
V87-299	1.8	3.3	S	S	1.0	88
LS89-2820	2.5	2.3	MR	MR	1.0	90
K1243	4.3	2.5	S	S	1.0	84
K1246	2.8	5.0	S	S	1.0	72
Ky89-08137	3.5	2.8	S	S	1.0	52
Md89-5051	2.8	5.0	H	S	1.0	10*
Md89-5289	2.3	3.5	S	S	1.0	46
OK88-5420	3.3	1.8	S	S	1.0	2*
S90-1056	2.0	2.0	R	R	1.0	81
S90-1058	3.3	4.3	R	R	1.0	94
V87-1457	2.8	3.8	S	S	1.3	19*

\*Not significantly different from the resistant check Pharoah (R6 DI=5) at P=0.1.  
†Data from Georgetown, DE (1993); Martin, TN (1991,1992); and Verona, MS (1992) not included in means.

TABLE 3 - SEED YIELD, IN BUSHEL PER ACRE, FOR THE STRAINS IN UNIFORM GROUP IV-S, 1993.

EAST COAST				
STRAIN	GEORGETOWN DE†	QUEENSTOWN MD	WARSAW VA	MEAN
MANOKIN	6.4	37.3	30.7	34.0
DELLOY 4710	9.1	42.2	33.1	37.7
K1192	8.6	46.8	35.4	41.1
Ky88-4080	7.5	41.7	27.4	34.6
LS88-1517	14.6	41.1	21.1	31.1
V87-299	14.4	42.4	23.0	32.7
LS89-2820	15.8	35.5	24.8	30.2
K1243	9.6	42.5	32.7	37.6
K1246	7.9	48.4	29.9	39.1
Ky89-08137	14.4	38.5	33.1	35.8
Md89-5051	20.6	35.3	31.5	33.4
Md89-5289	7.9	41.1	29.9	35.5
OK88-5420	9.0	34.6	33.6	34.1
S90-1056	10.9	34.0	23.5	28.7
S90-1058	14.3	32.3	25.5	28.9
V87-1457	8.1	43.1	34.7	38.9
Overall mean	11.2	39.8	29.4	
L.S.D. (0.05)	.	9.8	9.9	.
C.V. (%)	65.8	14.9	20.1	.

UPPER AND CENTRAL SOUTH							
STRAIN	KNOX- VILLE TN	MARTIN TN	ORANGE VA	PRINCETON KY	STARK- VILLE MS	ULLIN IL	MEAN
MANOKIN	51.2	48.9	49.9	44.6	26.2	49.9	45.1
DELLOY 4710	41.5	37.4	45.3	43.0	18.7	45.3	38.5
K1192	49.8	38.6	57.2	46.4	18.8	40.4	41.8
Ky88-4080	54.0	34.4	47.1	51.9	26.5	51.8	44.3
LS88-1517	35.9	37.0	39.6	46.9	21.8	45.3	37.8
V87-299	44.8	37.8	53.3	48.0	21.3	42.8	41.3
LS89-2820	39.2	44.9	48.5	38.9	17.7	44.0	38.9
K1243	41.8	37.4	49.5	43.1	18.8	41.3	38.6
K1246	47.3	34.0	50.3	51.1	20.8	44.6	41.4
Ky89-08137	43.9	33.4	45.5	45.9	19.1	44.3	38.7
Md89-5051	42.2	35.6	49.7	44.1	22.8	48.1	40.4
Md89-5289	45.1	38.2	48.5	44.8	14.6	41.1	38.7
OK88-5420	45.8	45.4	39.3	31.7	22.9	42.2	37.9
S90-1056	45.4	43.4	42.5	40.6	15.4	44.7	38.7
S90-1058	38.4	38.0	39.6	41.9	15.4	42.2	35.9
V87-1457	40.7	46.3	43.6	40.4	19.3	46.1	39.4
Overall mean	44.2	39.3	46.8	44.0	20.0	44.6	
L.S.D. (0.05)	7.4	15.4	10.4	11.5	4.8	3.7	.
C.V. (%)	10.1	23.1	13.3	15.7	14.3	4.9	.

†Not included in mean.

TABLE 3 - (Continued)

STRAIN	DELTA								MEAN
	JONES- BORO AR	KEI- SER AR	MARI- ANNA AR	PINE TREE AR	PORTAGE- VILLE MO(A)	PORTAGE- VILLE MO(B)	STONE- VILLE MS(A)	STONE- VILLE MS(B)	
MANOKIN	33.4	57.4	40.9	37.3	52.4	46.4	36.5	24.8	41.1
DELISOY 4710	30.0	44.2	33.3	29.9	50.5	49.5	36.7	20.9	36.9
K1192	28.8	51.5	35.4	35.8	50.4	44.9	42.6	34.5	40.5
Ky88-4080	25.4	55.5	41.3	33.3	51.3	35.9	40.2	21.2	38.0
LS88-1517	31.9	50.8	35.3	33.5	49.4	47.7	35.5	23.3	38.4
V87-299	28.5	52.7	33.1	34.7	44.6	41.9	30.6	23.7	36.2
LS89-2820	38.3	52.3	42.7	34.7	46.3	40.6	36.0	29.6	40.1
K1243	27.6	51.3	33.9	34.7	48.6	46.6	39.0	28.0	38.7
K1246	28.8	56.6	34.5	40.9	55.9	42.9	40.5	34.1	41.8
Ky89-08137	33.5	52.5	34.9	37.1	49.6	44.8	38.1	30.9	40.2
Md89-5051	32.0	53.0	37.4	36.8	48.1	34.0	32.6	20.5	36.8
Md89-5289	36.9	47.8	34.5	34.6	46.0	44.9	32.2	21.9	37.4
OK88-5420	31.1	51.7	40.6	35.7	49.5	48.0	33.1	29.9	39.9
S90-1056	32.9	40.9	33.5	38.8	45.1	43.6	32.5	19.5	35.8
S90-1058	28.9	44.5	32.6	38.6	48.8	40.7	31.2	22.4	36.0
V87-1457	29.9	48.3	37.0	29.3	44.4	30.0	36.9	30.4	35.8
Overall mean	31.1	50.7	36.3	35.4	48.8	42.7	35.9	26.0	
L.S.D. (0.05)	10.2	4.0	6.9	6.3	5.2	6.3	4.8	5.3	.
C.V. (%)	19.6	4.8	11.4	10.6	6.4	8.9	8.0	12.2	.

STRAIN	WEST					MEAN
	BIXBY OK	CHANUTE KS	FREDONIA KS	LUBBOCK TX	PITTSBURG KS	
MANOKIN	21.2	31.6	41.8	66.6	39.6	40.2
DELISOY 4710	19.0	25.4	29.2	63.0	39.0	35.1
K1192	23.1	31.5	35.9	66.5	41.0	39.6
Ky88-4080	18.7	28.1	27.4	67.1	39.5	36.2
LS88-1517	21.1	25.8	34.8	64.0	35.5	36.2
V87-299	11.5	30.1	29.5	62.4	34.3	33.6
LS89-2820	23.2	27.4	28.6	55.7	37.7	34.5
K1243	20.4	26.2	32.0	58.2	39.1	35.2
K1246	23.4	28.5	30.1	63.7	41.3	37.4
Ky89-08137	29.3	27.8	27.6	64.6	41.3	38.1
Md89-5051	21.4	21.7	36.6	65.7	40.6	37.2
Md89-5289	25.1	27.9	30.6	56.5	42.6	36.5
OK88-5420	27.6	23.8	35.4	55.3	40.1	36.4
S90-1056	16.7	25.3	29.6	59.1	36.0	33.3
S90-1058	16.7	22.0	32.2	59.9	33.9	32.9
V87-1457	19.2	25.2	30.0	60.8	33.4	33.7
Overall mean	21.1	26.8	32.0	61.8	38.4	
L.S.D. (0.05)	3.7	4.5	8.4	4.2	4.1	.
C.V. (%)	10.6	10.1	15.3	4.0	6.5	.

TABLE 4 - CHEMICAL COMPOSITION AND SEED SIZE FOR THE STRAINS IN UNIFORM GROUP IV-S, 1993.

OIL PERCENTAGE										
STRAIN	BIXBY OK	JONES- BORO AR	KEISER AR	KNOX- VILLE TN	LUBBOCK TX	MARI- ANNA AR	MARTIN TN	ORANGE VA	PINE TREE AR	PITTS- BURG KS
MANOKIN	19.6	.	21.4	21.4	21.5	20.6	.	22.8	.	21.7
DELLOY 4710	19.0	.	21.4	21.4	20.9	20.9	.	22.1	.	20.5
K1192	20.8	.	19.9	21.6	20.9	20.9	.	21.9	.	21.5
Ky88-4080	19.9	.	20.5	22.6	21.2	20.7	.	22.9	.	21.7
LS88-1517	19.6	.	20.5	21.8	20.2	20.7	.	21.6	.	21.9
V87-299	19.1	.	20.9	21.1	21.0	21.4	.	21.1	.	18.4
LS89-2820	19.2	.	18.5	20.4	20.1	18.5	.	20.5	.	20.5
K1243	20.4	.	22.4	23.5	21.7	21.5	.	23.3	.	21.6
K1246	21.1	.	21.9	21.9	21.6	22.2	.	23.3	.	21.1
Ky89-08137	20.6	.	20.6	22.5	21.8	20.6	.	22.9	.	20.5
Md89-5051	20.1	.	19.7	20.9	20.4	20.0	.	22.1	.	20.1
Md89-5289	20.2	.	21.0	22.6	21.1	20.1	.	22.6	.	21.8
OK88-5420	20.9	.	20.1	20.9	20.1	19.9	.	21.1	.	21.4
S90-1056	20.1	.	21.9	21.5	21.0	20.5	.	21.9	.	20.1
S90-1058	20.5	.	21.0	21.6	21.0	20.8	.	22.0	.	19.9
V87-1457	19.8	.	20.7	21.9	20.5	20.0	.	21.8	.	21.8

  

PROTEIN PERCENTAGE										
STRAIN	BIXBY OK	JONES- BORO AR	KEISER AR	KNOX- VILLE TN	LUBBOCK TX	MARI- ANNA AR	MARTIN TN	ORANGE VA	PINE TREE AR	PITTS- BURG KS
MANOKIN	39.1	.	39.4	41.3	38.8	41.6	.	35.9	.	40.3
DELLOY 4710	42.0	.	39.1	38.6	39.3	40.5	.	37.0	.	40.3
K1192	41.3	.	43.7	41.0	40.7	43.3	.	38.3	.	40.9
Ky88-4080	41.3	.	41.3	38.8	39.8	43.2	.	36.5	.	39.8
LS88-1517	42.3	.	42.4	40.1	42.6	43.8	.	40.5	.	38.9
V87-299	43.0	.	41.1	40.8	40.3	41.6	.	39.2	.	40.1
LS89-2820	38.8	.	42.8	40.2	38.7	43.8	.	35.6	.	36.2
K1243	40.1	.	41.0	39.5	39.7	42.5	.	36.8	.	38.8
K1246	42.1	.	42.0	41.4	40.2	41.9	.	37.3	.	40.5
Ky89-08137	39.7	.	41.9	38.9	39.2	42.5	.	35.9	.	40.7
Md89-5051	39.6	.	40.0	38.3	37.8	41.7	.	35.0	.	38.1
Md89-5289	40.2	.	42.4	39.2	41.6	45.2	.	38.6	.	38.8
OK88-5420	40.0	.	41.5	41.5	39.8	42.5	.	36.6	.	38.7
S90-1056	42.4	.	40.8	42.3	40.9	43.3	.	40.1	.	39.7
S90-1058	43.1	.	42.2	42.6	42.2	45.1	.	41.7	.	38.5
V87-1457	39.3	.	40.5	38.1	39.1	41.8	.	35.2	.	38.7

  

GRAMS PER 100 SEED										
STRAIN	BIXBY OK	JONES- BORO AR	KEISER AR	KNOX- VILLE TN	LUBBOCK TX	MARI- ANNA AR	MARTIN TN	ORANGE VA	PINE TREE AR	PITTS- BURG KS
MANOKIN	12.0	12.3	.	13.2	14.9	11.3	15.0	12.6	11.7	12.7
DELLOY 4710	16.2	15.4	.	17.3	17.1	13.7	18.1	16.7	15.4	15.0
K1192	11.6	10.9	.	12.6	14.4	12.8	12.6	13.0	11.1	10.9
Ky88-4080	12.6	11.0	.	12.7	16.2	12.2	12.7	12.3	11.2	11.8
LS88-1517	17.0	15.3	.	18.3	19.4	16.4	18.5	18.2	16.0	13.3
V87-299	13.9	14.4	.	16.1	16.6	12.9	15.6	15.5	13.0	11.5
LS89-2820	10.9	11.6	.	11.7	12.7	11.6	13.5	12.1	11.3	10.7
K1243	14.0	12.7	.	15.6	18.4	13.7	16.4	15.8	12.8	13.8
K1246	12.7	10.8	.	13.2	14.3	11.1	13.4	13.6	11.7	11.6
Ky89-08137	13.8	12.7	.	13.5	16.4	13.0	15.0	15.0	12.9	12.7
Md89-5051	14.2	14.2	.	13.4	17.7	13.6	15.5	15.5	12.9	16.6
Md89-5289	12.6	11.6	.	13.3	16.3	13.1	15.4	14.4	12.7	13.3
OK88-5420	14.5	13.2	.	15.1	16.0	14.0	15.8	13.7	13.4	14.8
S90-1056	17.3	16.6	.	17.5	20.1	15.2	21.1	19.2	16.1	17.0
S90-1058	16.6	15.1	.	17.9	21.0	15.5	18.2	19.4	16.4	15.6
V87-1457	11.3	11.5	.	12.2	13.0	11.4	13.6	12.9	11.0	10.4

TABLE 4 - (Continued)

OIL PERCENTAGE										
STRAIN	PORTAGE- VILLE MO(A)	PORTAGE- VILLE MO(B)	PRINCE- TON KY	QUEENS- TOWN MD	STARK- VILLE MS	STONE- VILLE MS(A)	STONE- VILLE MS(B)	ULLIN IL	WARSAW VA	MEAN
MANOKIN	20.4	.	21.1	19.6	20.6	21.6	22.0	.	22.1	21.2
DELLOY 4710	20.6	.	18.7	19.4	19.4	20.4	21.6	.	21.5	20.6
K1192	19.8	.	20.2	20.3	20.1	20.6	21.4	.	20.7	20.8
Ky88-4080	20.6	.	20.1	19.8	21.2	20.3	22.1	.	21.7	21.1
LS88-1517	20.3	.	20.0	19.6	19.8	20.8	21.4	.	20.9	20.7
V87-299	20.5	.	20.6	20.3	19.1	20.5	21.4	.	20.5	20.4
LS89-2820	18.0	.	18.5	17.6	18.3	18.2	19.9	.	20.0	19.2
K1243	21.8	.	20.6	21.6	21.8	21.9	23.2	.	22.2	22.0
K1246	21.5	.	20.3	21.4	22.1	21.3	23.6	.	22.9	21.9
Ky89-08137	20.0	.	19.6	19.7	20.8	20.0	22.1	.	21.2	20.9
Md89-5051	19.4	.	19.3	18.7	19.0	18.9	21.2	.	21.0	20.1
Md89-5289	19.8	.	19.4	19.8	19.1	19.3	20.9	.	21.3	20.6
OK88-5420	20.4	.	20.5	20.1	19.7	19.9	21.0	.	21.0	20.5
S90-1056	20.9	.	20.5	19.2	19.6	20.3	21.0	.	21.6	20.7
S90-1058	21.0	.	19.5	19.6	19.0	19.6	21.1	.	21.4	20.6
V87-1457	19.8	.	18.4	20.1	20.1	19.5	20.9	.	21.1	20.5

PROTEIN PERCENTAGE										
STRAIN	PORTAGE- VILLE MO(A)	PORTAGE- VILLE MO(B)	PRINCE- TON KY	QUEENS- TOWN MD	STARK- VILLE MS	STONE- VILLE MS(A)	STONE- VILLE MS(B)	ULLIN IL	WARSAW VA	MEAN
MANOKIN	40.5	.	38.7	41.6	43.2	42.5	40.7	.	38.6	40.2
DELLOY 4710	40.2	.	40.9	40.8	42.8	42.5	38.1	.	40.6	40.2
K1192	42.8	.	41.4	42.2	44.1	44.3	41.8	.	42.6	42.0
Ky88-4080	41.4	.	41.4	42.3	43.2	43.8	40.7	.	40.8	41.0
LS88-1517	42.3	.	42.1	44.0	45.4	44.1	40.4	.	43.2	42.3
V87-299	41.5	.	40.1	41.5	45.4	44.2	41.2	.	42.8	41.6
LS89-2820	41.8	.	40.0	42.3	44.6	45.2	41.0	.	40.8	40.8
K1243	41.2	.	41.3	41.0	42.5	43.0	39.5	.	41.3	40.6
K1246	41.1	.	41.3	40.2	40.7	43.6	38.9	.	40.8	40.9
Ky89-08137	42.0	.	41.6	41.6	42.0	44.1	39.9	.	40.9	40.8
Md89-5051	38.6	.	40.1	40.9	42.2	44.3	39.8	.	38.4	39.6
Md89-5289	43.1	.	42.1	43.3	45.4	46.2	42.0	.	43.3	42.2
OK88-5420	39.8	.	39.4	40.5	43.9	43.0	40.4	.	39.6	40.5
S90-1056	41.3	.	41.9	43.8	45.2	45.0	41.8	.	43.0	42.3
S90-1058	42.3	.	44.1	44.3	45.6	46.2	42.7	.	42.8	43.1
V87-1457	40.8	.	40.2	39.5	41.8	43.2	40.4	.	38.7	39.8

GRAMS PER 100 SEED										
STRAIN	PORTAGE- VILLE MO(A)	PORTAGE- VILLE MO(B)	PRINCE- TON KY	QUEENS- TOWN MD	STARK- VILLE MS	STONE- VILLE MS(A)	STONE- VILLE MS(B)	ULLIN IL	WARSAW VA	MEAN
MANOKIN	11.3	12.5	12.2	10.4	11.6	.	.	12.8	12.1	12.4
DELLOY 4710	16.3	15.5	13.5	15.4	12.3	.	.	14.7	16.0	15.5
K1192	11.5	11.4	10.5	11.5	11.1	.	.	11.2	12.4	11.8
Ky88-4080	11.7	12.5	14.5	11.2	13.4	.	.	12.5	12.4	12.6
LS88-1517	15.9	17.3	16.4	17.6	13.5	.	.	14.3	15.4	16.4
V87-299	13.4	14.4	13.4	15.1	11.8	.	.	12.0	14.0	14.0
LS89-2820	10.9	12.4	11.5	11.1	10.0	.	.	11.1	12.5	11.6
K1243	13.9	14.7	13.8	14.3	12.5	.	.	13.2	16.2	14.5
K1246	12.3	12.3	10.9	11.9	9.9	.	.	12.1	12.1	12.1
Ky89-08137	13.5	13.8	13.3	11.9	10.9	.	.	13.6	14.3	13.5
Md89-5051	14.1	14.6	13.0	13.6	13.5	.	.	15.0	15.6	14.6
Md89-5289	12.7	13.3	12.5	12.5	9.6	.	.	12.3	12.5	13.0
OK88-5420	14.3	14.1	14.7	13.3	13.4	.	.	14.0	15.4	14.4
S90-1056	15.0	16.9	16.2	13.7	11.6	.	.	15.6	16.3	16.6
S90-1058	15.6	16.1	15.9	14.3	13.7	.	.	15.4	16.7	16.5
V87-1457	11.4	12.7	10.1	11.6	10.7	.	.	11.8	12.3	11.7

TABLE 5 - RELATIVE MATURITY DATA, DAYS EARLIER (-) OR LATER (+) THAN MANOKIN FOR THE STRAINS IN UNIFORM GROUP IV-S, 1993.

EAST COAST				
STRAIN	GEORGETOWN DE	QUEENSTOWN MD	WARSAW VA	MEAN
MANOKIN	.	10/05	10/09	10/07
DELLOY 4710	.	-5	-5	-5
K1192	.	1	-3	-1
Ky88-4080	.	0	-1	-1
LS88-1517	.	-5	-8	-6
V87-299	.	-3	-8	-6
LS89-2820	.	3	2	3
K1243	.	4	5	4
K1246	.	1	-2	-1
Ky89-08137	.	1	0	1
Md89-5051	.	3	2	3
Md89-5289	.	-2	-8	-5
OK88-5420	.	10	13	12
S90-1056	.	-5	-7	-6
S90-1058	.	-6	-7	-6
V87-1457	.	4	5	5

UPPER AND CENTRAL SOUTH							
STRAIN	KNOX- VILLE TN	MARTIN TN	ORANGE VA	PRINCE- TON KY	STARK- VILLE MS	ULLIN IL	MEAN
MANOKIN	09/30	10/13	10/07	10/01	09/23	10/14	10/05
DELLOY 4710	-3	13	-3	-7	-1	-3	-1
K1192	-10	0	1	-5	0	-5	-3
Ky88-4080	-5	0	2	-5	-1	-5	-3
LS88-1517	-6	0	-11	-9	-6	-6	-7
V87-299	-13	0	-4	-9	-10	-7	-7
LS89-2820	2	0	3	0	1	3	1
K1243	-4	0	3	-3	0	-2	-1
K1246	-5	13	1	-7	-1	-4	-1
Ky89-08137	-6	13	2	-1	1	-2	1
Md89-5051	-1	0	4	-3	0	1	0
Md89-5289	5	0	-5	-8	-2	-3	-2
OK88-5420	6	13	14	11	5	8	9
S90-1056	-6	0	-6	-8	-10	-4	-6
S90-1058	-11	0	-7	-9	-12	-6	-8
V87-1457	1	0	4	-1	0	4	1

TABLE 5 - (Continued)

DELTA									
STRAIN	JONES- BORO AR	KEISER AR	MARI- ANNA AR	PINE TREE AR	PORTAGE- VILLE MO(A)	PORTAGE- VILLE MO(B)	STONE- VILLE MS(A)	STONE- VILLE MS(B)	MEAN
MANOKIN	09/29	09/24	09/27	09/30	09/06	09/08	09/14	09/27	09/21
DELLOY 4710	2	-1	-2	0	-10	-3	-3	-4	-3
K1192	-3	1	0	0	-3	-1	7	0	0
Ky88-4080	-2	1	-2	0	-4	-2	1	-1	-2
LS88-1517	-4	-2	-2	0	-13	-9	-3	-6	-5
V87-299	-3	-3	-2	0	-13	-5	-3	-6	-5
LS89-2820	4	2	5	1	0	1	2	0	2
K1243	-1	2	5	0	-1	2	7	-1	1
K1246	-4	0	-2	0	-2	-2	4	-3	-1
Ky89-08137	3	5	-2	1	0	3	7	0	2
Md89-5051	2	1	-2	0	0	1	2	0	0
Md89-5289	2	0	-2	0	-1	-4	1	-2	-1
OK88-5420	5	13	10	8	6	9	7	0	7
S90-1056	-1	-3	-2	0	-9	6	0	-4	-2
S90-1058	-4	-2	-2	0	-9	-8	-3	-5	-5
V87-1457	4	4	3	2	1	1	7	0	2

WEST						
STRAIN	BIXBY OK	CHANUTE KS	FREDONIA KS	LUBBOCK TX	PITTSBURG KS	MEAN
MANOKIN	.	.	.	10/15	.	10/15
DELLOY 4710	.	.	.	-15	.	-15
K1192	.	.	.	-18	.	-18
Ky88-4080	.	.	.	-6	.	-6
LS88-1517	.	.	.	-19	.	-19
V87-299	.	.	.	-18	.	-18
LS89-2820	.	.	.	-2	.	-2
K1243	.	.	.	-6	.	-6
K1246	.	.	.	-18	.	-18
Ky89-08137	.	.	.	-13	.	-13
Md89-5051	.	.	.	-7	.	-7
Md89-5289	.	.	.	-20	.	-20
OK88-5420	.	.	.	1	.	1
S90-1056	.	.	.	-21	.	-21
S90-1058	.	.	.	-21	.	-21
V87-1457	.	.	.	0	.	0

TABLE 6 - PLANT HEIGHT FOR THE STRAINS IN UNIFORM GROUP IV-S, 1993.

## EAST COAST

STRAIN	GEORGETOWN DE†	QUEENSTOWN MD	WARSAW VA	MEAN
MANOKIN	16	30	19	25
DELISOY 4710	19	33	27	30
K1192	15	38	29	33
Ky88-4080	16	24	17	20
LS88-1517	17	30	22	26
V87-299	16	31	21	26
LS89-2820	21	30	20	25
K1243	16	36	28	32
K1246	16	31	21	26
Ky89-08137	18	38	29	33
Md89-5051	21	26	19	22
Md89-5289	18	37	26	31
OK88-5420	18	31	21	26
S90-1056	16	29	21	25
S90-1058	21	30	23	26
V87-1457	17	34	23	29

## UPPER AND CENTRAL SOUTH

STRAIN	KNOX- VILLE TN	MARTIN TN	ORANGE VA	PRINCETON KY	STARK- VILLE MS	ULLIN IL	MEAN
MANOKIN	34	27	35	36	20	27	30
DELISOY 4710	38	21	39	45	29	40	35
K1192	38	40	41	41	29	34	37
Ky88-4080	26	20	27	27	15	24	23
LS88-1517	36	31	35	44	34	38	36
V87-299	36	28	38	45	28	38	35
LS89-2820	29	31	35	37	20	32	31
K1243	37	36	37	39	29	35	35
K1246	32	26	33	35	25	30	30
Ky89-08137	38	30	39	42	31	37	36
Md89-5051	30	31	30	33	18	26	28
Md89-5289	43	28	40	46	33	36	38
OK88-5420	33	32	33	39	22	29	31
S90-1056	33	34	34	38	26	34	33
S90-1058	32	27	34	38	26	35	32
V87-1457	34	30	40	42	21	29	33

†Not included in mean.

TABLE 6 - (Continued)

<b>DELTA</b>									
STRAIN	JONES - BORO AR	KEI - SER AR	MARI - ANNA AR	PINE TREE AR	PORTAGE - VILLE MO (A)	PORTAGE - VILLE MO (B)	STONE - VILLE MS (A)	STONE - VILLE MS (B)	MEAN
MANOKIN	27	30	25	28	32	18	22	20	25
DELLOY 4710	38	40	44	43	46	31	41	32	40
K1192	34	38	41	36	41	31	42	38	38
Ky88-4080	16	21	18	21	24	12	17	13	18
LS88-1517	38	47	44	41	45	31	39	35	40
V87-299	37	38	38	40	43	29	39	32	37
LS89-2820	25	32	27	28	31	17	25	16	25
K1243	31	39	35	33	40	29	39	30	34
K1246	28	39	35	32	40	23	38	27	33
Ky89-08137	38	44	42	37	43	32	46	34	40
Md89-5051	23	26	23	24	29	18	24	19	23
Md89-5289	41	45	46	44	50	32	47	39	43
OK88-5420	26	33	27	27	35	19	27	21	27
S90-1056	35	38	38	37	39	29	35	29	35
S90-1058	33	39	39	36	42	25	30	33	35
V87-1457	28	32	27	29	30	19	27	21	27

<b>WEST</b>						
STRAIN	BIXBY OK	CHANUTE KS	FREDONIA KS	LUBBOCK TX	PITTSBURG KS	MEAN
MANOKIN	16	23	22	31	29	24
DELLOY 4710	25	26	29	44	33	31
K1192	22	25	27	47	29	30
Ky88-4080	15	16	21	25	22	20
LS88-1517	26	28	30	39	34	31
V87-299	26	28	32	41	32	32
LS89-2820	19	23	26	34	27	26
K1243	20	25	27	44	30	29
K1246	22	22	25	41	27	27
Ky89-08137	27	29	30	47	32	33
Md89-5051	14	19	25	33	24	23
Md89-5289	23	28	30	48	34	33
OK88-5420	19	24	24	34	30	26
S90-1056	25	24	28	36	26	28
S90-1058	25	26	27	35	29	28
V87-1457	18	23	24	36	29	26

TABLE 7 - LODGING SCORES FOR THE STRAINS IN UNIFORM GROUP IV-S, 1993.

EAST COAST				
STRAIN	GEORGETOWN DE†	QUEENSTOWN MD	WARSAW VA	MEAN
MANOKIN	1.0	3.0	1.5	2.2
DELLOY 4710	1.0	2.7	1.6	2.1
K1192	1.0	1.7	1.2	1.5
Ky88-4080	1.0	1.3	1.0	1.2
LS88-1517	1.0	2.7	1.2	1.9
V87-299	1.0	1.8	1.0	1.4
LS89-2820	1.0	1.7	1.1	1.4
K1243	1.0	1.8	1.2	1.5
K1246	1.0	1.5	1.0	1.3
Ky89-08137	1.0	1.5	1.2	1.3
Md89-5051	1.0	2.2	1.3	1.7
Md89-5289	1.0	2.0	1.1	1.5
OK88-5420	1.0	2.2	1.5	1.8
S90-1056	1.0	1.8	1.2	1.5
S90-1058	1.0	2.0	1.3	1.7
V87-1457	1.0	2.2	1.2	1.7

UPPER AND CENTRAL SOUTH							
STRAIN	KNOXVILLE TN	MARTIN TN	ORANGE VA	PRINCETON KY	STARK- VILLE MS	ULLIN IL	MEAN
MANOKIN	3.5	2.0	3.3	1.3	1.0	1.8	2.2
DELLOY 4710	3.5	1.0	1.7	1.7	1.7	2.2	2.0
K1192	2.0	2.0	1.3	1.0	1.0	1.0	1.4
Ky88-4080	1.8	1.0	1.0	1.0	1.0	1.0	1.1
LS88-1517	2.8	2.0	1.0	1.0	1.7	2.3	1.8
V87-299	2.3	1.0	1.3	1.0	1.0	1.2	1.3
LS89-2820	1.7	2.0	1.7	1.0	1.0	1.0	1.4
K1243	2.2	1.0	1.0	1.0	1.0	1.0	1.2
K1246	1.5	1.0	1.0	1.0	1.0	1.0	1.1
Ky89-08137	2.0	1.0	1.0	1.0	1.0	1.0	1.2
Md89-5051	2.5	2.0	2.0	1.0	1.0	1.0	1.6
Md89-5289	2.8	1.0	1.3	1.0	1.3	1.2	1.4
OK88-5420	2.8	3.0	2.0	1.0	1.0	1.5	1.9
S90-1056	2.5	3.0	1.0	1.0	1.0	1.3	1.6
S90-1058	1.8	3.0	1.0	1.0	1.0	1.3	1.5
V87-1457	2.8	2.0	1.7	1.0	1.0	1.5	1.7

†Not included in mean.

TABLE 7 - (Continued)

STRAIN	DELTA								MEAN
	JONES- BORO AR	KEI- SER AR	MARI- ANNA AR	PINE TREE AR	PORTAGE- VILLE MO(A)	PORTAGE- VILLE MO(B)	STONE- VILLE MS(A)	STONE- VILLE MS(B)	
MANOKIN	1.3	1.0	1.0	2.3	1.5	1.0	2.0	2.0	1.5
DELLOY 4710	2.3	2.0	2.7	3.0	1.5	1.5	2.7	3.0	2.3
K1192	1.7	1.0	1.0	1.7	1.0	1.0	2.7	2.0	1.5
Ky88-4080	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	1.3
LS88-1517	2.3	2.0	2.3	4.0	1.5	1.0	3.0	3.0	2.4
V87-299	1.3	1.0	1.0	2.0	1.0	1.0	2.0	2.0	1.4
LS89-2820	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	1.3
K1243	1.0	1.0	1.3	1.0	1.0	1.0	3.0	2.0	1.4
K1246	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	1.3
Ky89-08137	2.0	1.3	1.0	1.7	1.0	1.0	2.7	2.0	1.6
Md89-5051	1.0	1.0	1.0	1.3	1.0	1.0	2.0	2.0	1.3
Md89-5289	1.3	1.7	1.7	2.3	1.5	1.0	3.0	2.7	1.9
OK88-5420	1.0	1.3	1.0	1.0	1.0	1.0	2.0	2.0	1.3
S90-1056	3.0	1.0	2.3	2.3	1.0	1.0	2.0	2.3	1.9
S90-1058	1.3	1.3	1.0	2.3	1.5	1.0	2.0	2.7	1.6
V87-1457	1.0	1.0	1.0	1.3	1.0	1.0	2.0	2.0	1.3

STRAIN	WEST				MEAN
	CHANUTE KS	FREDONIA KS	LUBBOCK TX	PITTSBURG KS	
MANOKIN	1.0	1.0	2.5	2.0	1.6
DELLOY 4710	1.0	1.0	2.0	1.0	1.2
K1192	1.0	1.0	1.7	1.0	1.2
Ky88-4080	1.0	1.0	1.0	1.0	1.0
LS88-1517	1.0	1.0	2.5	1.0	1.3
V87-299	1.0	1.0	2.5	1.0	1.4
LS89-2820	1.0	1.0	2.0	1.0	1.2
K1243	1.0	1.0	2.0	1.0	1.3
K1246	1.0	1.0	1.7	1.0	1.2
Ky89-08137	1.0	1.0	1.7	1.0	1.1
Md89-5051	1.0	1.0	1.0	1.0	1.0
Md89-5289	1.0	1.0	1.5	1.0	1.3
OK88-5420	1.0	1.0	2.5	1.0	1.4
S90-1056	1.0	1.0	2.0	1.0	1.4
S90-1058	1.0	1.0	2.0	1.0	1.2
V87-1457	1.0	1.0	2.2	1.0	1.3

TABLE 8 - SEED QUALITY FOR THE STRAINS IN UNIFORM GROUP IV-S, 1993.

## EAST COAST

STRAIN	QUEENSTOWN MD	WARSAW VA	MEAN
MANOKIN	1.7	2.0	1.8
DELLOY 4710	2.2	3.2	2.7
K1192	1.2	3.0	2.1
Ky88-4080	1.3	2.0	1.7
LS88-1517	3.3	2.7	3.0
V87-299	2.2	2.2	2.2
LS89-2820	2.5	2.1	2.3
K1243	1.8	2.5	2.2
K1246	1.3	2.7	2.0
Ky89-08137	1.5	2.0	1.8
Md89-5051	1.5	1.9	1.7
Md89-5289	1.3	2.3	1.8
OK88-5420	3.0	1.9	2.4
S90-1056	1.8	2.5	2.2
S90-1058	2.2	3.3	2.8
V87-1457	1.5	2.0	1.8

## UPPER AND CENTRAL SOUTH

STRAIN	KNOXVILLE TN	MARTIN TN	ORANGE VA	PRINCETON KY	ULLIN IL	MEAN
MANOKIN	1.5	2.0	1.5	3.0	1.0	1.8
DELLOY 4710	3.5	4.0	1.7	4.0	2.7	3.2
K1192	1.5	3.0	1.0	2.0	2.0	1.9
Ky88-4080	1.0	2.0	1.2	2.0	1.7	1.6
LS88-1517	3.0	3.0	1.5	5.0	2.3	3.0
V87-299	2.0	3.0	1.2	2.0	1.3	1.9
LS89-2820	2.5	2.0	1.0	4.0	2.0	2.3
K1243	2.5	2.0	1.0	3.0	2.0	2.1
K1246	1.5	2.0	1.2	3.0	2.0	1.9
Ky89-08137	1.5	2.0	1.0	5.0	2.3	2.4
Md89-5051	2.0	2.0	1.0	3.0	1.7	1.9
Md89-5289	2.0	3.0	1.3	3.0	2.3	2.3
OK88-5420	3.0	2.0	1.3	3.0	2.3	2.3
S90-1056	1.5	3.0	1.3	3.0	2.7	2.3
S90-1058	2.5	2.0	1.7	5.0	2.3	2.7
V87-1457	2.0	2.0	1.2	3.0	1.0	1.8

TABLE 8 - (Continued)

DELTA							
STRAIN	JONESBORO AR	PINE TREE AR	PORTAGE- VILLE MO(A)	PORTAGE- VILLE MO(B)	STONE- VILLE MS(A)	STONE- VILLE MS(B)	MEAN
MANOKIN	1.0	1.0	2.0	1.5	2.0	2.3	1.6
DELLOY 4710	2.7	1.7	2.5	2.0	2.7	2.7	2.4
K1192	1.3	1.3	2.0	2.0	2.0	2.0	1.8
Ky88-4080	1.0	1.3	1.5	1.5	2.0	2.0	1.6
LS88-1517	2.3	1.7	2.5	2.5	3.0	3.0	2.5
V87-299	1.3	2.0	1.5	1.5	3.0	2.3	1.9
LS89-2820	1.0	1.3	2.0	2.0	2.7	2.3	1.9
K1243	2.0	2.0	2.0	2.0	3.0	3.0	2.3
K1246	1.3	1.0	2.0	2.0	2.3	2.0	1.8
Ky89-08137	1.7	1.7	2.0	2.0	3.0	2.0	2.1
Md89-5051	1.0	1.3	2.5	2.0	3.0	2.7	2.1
Md89-5289	1.0	1.3	2.0	2.0	2.3	2.0	1.8
OK88-5420	2.0	1.7	2.0	2.5	2.7	2.0	2.1
S90-1056	1.3	2.0	2.0	2.5	3.0	2.7	2.3
S90-1058	1.0	2.3	2.0	2.0	3.0	2.7	2.2
V87-1457	1.3	1.0	2.5	2.0	2.0	2.0	1.8

WEST			
STRAIN	LUBBOCK TX	PITTSBURG KS	MEAN
MANOKIN	2.2	2.0	2.1
DELLOY 4710	2.0	2.0	2.0
K1192	1.2	1.0	1.1
Ky88-4080	1.5	1.0	1.3
LS88-1517	2.0	2.0	2.0
V87-299	1.7	2.0	1.9
LS89-2820	2.5	2.0	2.3
K1243	2.2	2.0	2.1
K1246	1.5	2.0	1.8
Ky89-08137	2.5	2.0	2.3
Md89-5051	2.0	2.0	2.0
Md89-5289	1.5	2.0	1.8
OK88-5420	2.2	2.0	2.1
S90-1056	1.7	2.0	1.9
S90-1058	1.5	2.0	1.8
V87-1457	2.2	2.0	2.1

**PRELIMINARY GROUP IV-S****1993**

Preliminary Group IV-S nurseries were planted at 8 locations. Data were obtained from all of these locations. The parentage for each strain is reported in Table 9. Table 10 gives a general summary of information for each strain including seed yield, oil and protein percentages, maturity index, and pest reactions. Results from individual locations are summarized in Tables 11 -17.

The cultivar Manokin is the yield and maturity check. It had a mean yield of 43.3 bushels per acre and a mean maturity of September 28 at the 8 locations.

The Tennessee Agricultural Experiment Stations have proposed the release of Tn90-03. Tn90-03 had a mean yield of 41.3 bushels per acre across all locations in 1993. Tn90-03 is resistant to soybean cyst nematode races 3 and 14, sudden death syndrome, frogeye leaf spot, and moderately resistant to stem canker.

TABLE 9 - PARENTAGE OF THE STRAINS GROWN IN PRELIMINARY GROUP IV-S, 1993.

VARIETY OR STRAIN	PARENTAGE	GENERATION COMPOSITED
1. MANOKIN	L70-L3048 X D74-7824	F5
2. DELSOY 4710	L77-443 X L77-906	F5
3. K1267	K1133 X K1106	F5
4. K1268	V74-315 X A3427	F5
5. K1269	PERSHING X A3659	F5
6. K1270	SHERMAN X K1103	F5
7. K1271	SHERMAN X V75-183	F5
8. K1272	V74-315 X ELGIN	F5
9. K1273	SHERMAN X PERSHING	F5
10. K1274	PERSHING X A3659	F5
11. Ky90-2736	SPENCER X HUTCHESON	F5
12. LS89-2920	LS77-952 X LS79-330	F6
13. LS90-1734	ESSEX X FAYETTE	F6
14. LS90-1920	ESSEX X FAYETTE	F6
15. Md90-5123	K1099 X A5474	F5
16. Md90-5473	D83-2886 X S82-1443	F5
17. S91-2469	WILLIAMS X PI 437,654	F4
18. S91-5371-18	WILLIAMS(2) X (FORREST X PI 437,654)	F4
19. S91-5371-19	WILLIAMS(2) X (FORREST X PI 437,654)	F4
20. S91-5364-4	WILLIAMS(2) X (FORREST X PI 437,654)	F4
21. S91-5364-10	WILLIAMS(2) X (FORREST X PI 437,654)	F4
22. Tn90-03	TN 4-86 X TN84-87	F6
23. Tn90-09	TN 4-86 X TN84-87	F6
24. V89-2896	V80-2476 X V80-2165	F6

TABLE 10 - GENERAL SUMMARY OF PERFORMANCE FOR THE STRAINS GROWN IN PRELIMINARY GROUP IV-S, 1993.

STRAIN	SEED YIELD	MAT. INDEX	-----PERCENT-----			M.a.	M.i.	SCN 3	SCN 14	STEM CANKER MS
			HT.	OIL	PROTEIN					
MANOKIN	43.3	09/28	29	21.2	40.2	1.2	1.0	R	S	1.0
DELSOY 4710	39.6	5-	37	20.5	40.1	2.6	2.1	R	R	1.0
K1267	47.9+	9+	39	22.0	38.2-	2.8	1.6	S	S	4.9
K1268	46.5	10+	39	21.7	37.7-	2.8	2.4	S	S	1.0
K1269	42.6	4+	36	20.9	40.2	2.6	2.5	S	S	---
K1270	41.9	2-	36	21.5	39.9	3.1	2.3	S	S	1.0
K1271	40.8	1-	37	21.3	40.2	2.9	1.4	S	S	5.0
K1272	41.5	3+	40	20.3	40.3	2.9	1.9	S	S	1.0
K1273	42.9	1+	37	21.6	39.8	2.8	1.1	S	S	1.0
K1274	44.9	4+	37	21.3	40.1	2.6	1.3	S	S	---
Ky90-2736	40.8	2-	37	20.7	40.9	2.7	1.9	S	S	1.0
LS89-2920	36.1-	7-	27	19.5-	41.6	3.0	2.6	R	R	1.5
LS90-1734	38.9-	6-	28	21.1	40.6	1.8	1.0	R	S	1.0
LS90-1920	39.5	6-	26	21.4	40.7	1.2	1.0	R	S	1.0
Md90-5123	40.6	0	23	20.3	41.6	2.6	1.2	R	MR	5.0
Md90-5473	44.2	4-	28	21.0	40.2	2.6	1.0	R	S	1.0
S91-2469	40.6	7-	36	20.5	40.9	2.9	2.1	S	S	1.0
S91-5371-18	35.0-	7-	36	20.7	42.4+	3.1	2.6	R	R	1.0
S91-5371-19	38.7-	8-	37	20.6	42.0+	3.1	2.4	R	R	---
S91-5364-4	33.4-	9-	35	20.3	41.3	3.0	2.7	R	R	---
S91-5364-10	37.9-	9-	32	21.1	41.9+	2.4	2.4	R	R	5.0
Tn90-03	41.3	1-	38	21.5	39.2	1.5	1.0	R	R	---
Tn90-09	40.8	2-	37	21.2	38.9	2.2	1.1	H	H	---
V89-2896	40.1	2-	30	20.5	40.9	2.7	2.0	S	S	---
L.S.D. (0.05)	4.3			0.9	1.5					
C.V.(%)	10.7			3.8	3.3					

(+) OR (-) designations refer to significant differences to Manokin at the 0.05 probability level.

TABLE 11 - SEED YIELD, IN BUSHEL PER ACRE, FOR THE STRAINS IN  
PRELIMINARY GROUP IV-S, 1993.

STRAIN	KEI- SER AR	PITTS- BURG KS	POR-			STONE- VILLE MS(B)	ULLIN IL	WAR- SAW VA	MEAN
			TAGE- VILLE MO	PRINCE- TON KY	QUEENS- TOWN MD				
MANOKIN	57.0	39.9	55.2	40.1	38.2	27.7	47.9	40.5	43.3
DELSOY 4710	41.7-	39.9	49.2-	35.8	41.3	26.6	41.8-	40.4	39.6
K1267	54.8	47.7+	54.3	46.9	48.8+	39.9+	45.7	45.0	47.9+
K1268	46.7-	47.6+	50.3	45.1	49.8+	33.9+	42.1-	56.6	46.5
K1269	47.7-	34.5	47.8-	48.1	45.2	30.1	43.2	44.3	42.6
K1270	49.4-	33.3-	49.4-	41.7	50.8+	27.8	46.7	36.5	41.9
K1271	48.5-	42.4	43.6-	39.2	43.0	28.6	43.1	38.2	40.8
K1272	47.6-	44.1	38.8-	39.3	45.1	31.0	41.6-	44.8	41.5
K1273	46.7-	44.1	52.4	38.3	48.3+	31.4	42.1-	39.9	42.9
K1274	47.7-	47.7+	46.1-	39.9	54.0+	32.7+	45.9	44.9	44.9
Ky90-2736	50.2-	44.7	44.5-	37.2	42.0	32.3+	42.6	33.3	40.8
LS89-2920	45.4-	37.0	43.4-	38.8	26.1-	15.6-	43.0	39.2	36.1-
LS90-1734	46.1-	39.2	45.0-	37.6	31.0	23.0-	48.7	40.7	38.9-
LS90-1920	50.4-	39.1	47.9-	37.7	34.4	22.3-	46.8	37.7	39.5
Md90-5123	51.8-	41.1	46.3-	43.5	40.1	21.7-	45.7	34.8	40.6
Md90-5473	51.5-	37.4	57.0	46.2	43.6	27.2	51.6	39.1	44.2
S91-2469	56.0	36.3	49.3-	35.0	42.3	21.8-	41.7-	42.9	40.6
S91-5371-18	42.6-	31.1-	40.5-	39.8	30.2-	19.9-	41.2-	35.0	35.0-
S91-5371-19	48.1-	36.1	46.4-	38.3	41.1	20.9-	40.7-	37.9	38.7-
S91-5364-4	46.0-	37.2	46.9-	36.7	27.8-	13.4-	34.9-	24.1	33.4-
S91-5364-10	45.3-	26.8-	48.5-	39.8	40.1	21.0-	38.1-	43.7	37.9-
Tn90-03	51.4-	40.3	42.7-	40.4	44.6	27.9	43.4	39.5	41.3
Tn90-09	48.9-	49.6+	44.5-	44.1	29.8-	23.0-	40.0-	46.2	40.8
V89-2896	47.7-	36.6	52.1	34.7	42.5	28.5	38.7-	39.9	40.1
Overall Mean	48.7	39.7	47.6	40.2	40.8	26.2	43.2	40.2	
L.S.D. (0.05)	4.7	6.2	5.4	10.7	7.8	4.0	5.5	20.4	4.3
C.V.(%)	4.6	9.1	5.5	12.9	9.3	7.5	6.2	24.6	10.7

TABLE 12 - OIL PERCENTAGES FOR THE STRAINS IN PRELIMINARY GROUP IV-S, 1993.

STRAIN	PITTS- BURG KS	PORTAGE- VILLE MO	PRINCE- TON KY	QUEENS- TOWN MD	STONE- VILLE MS(B)	WARSAW VA	MEAN
MANOKIN	21.4	20.7	21.9	19.0	21.9	22.2	21.2
DELSOY 4710	19.4	20.1	21.1	20.3	20.6	21.3	20.5
K1267	21.5	21.4	21.6	21.5	23.4	22.6	22.0
K1268	21.4	20.7	22.5	21.0	22.9	21.8	21.7
K1269	21.4	19.9	20.7	20.0	21.7	21.8	20.9
K1270	20.0	21.5	20.9	21.4	22.7	22.5	21.5
K1271	22.4	20.4	20.9	20.9	21.7	21.7	21.3
K1272	20.9	18.9	19.9	19.5	21.4	21.1	20.3
K1273	21.6	21.4	22.0	20.0	21.9	22.4	21.6
K1274	22.1	20.2	20.2	20.7	22.0	22.3	21.3
Ky90-2736	21.4	20.4	19.8	19.7	22.0	20.9	20.7
LS89-2920	21.0	19.4	18.1	18.7	19.6	20.1	19.5
LS90-1734	20.7	21.0	22.2	20.0	20.7	22.2	21.1
LS90-1920	21.8	21.0	22.0	20.5	21.1	22.2	21.4
Md90-5123	21.9	18.6	20.3	18.6	21.5	21.1	20.3
Md90-5473	21.2	21.3	20.8	20.4	21.1	21.4	21.0
S91-2469	22.1	20.4	19.6	20.0	19.6	21.2	20.5
S91-5371-18	20.4	21.1	21.0	20.4	20.2	20.9	20.7
S91-5371-19	20.2	21.2	20.6	20.9	19.1	21.4	20.6
S91-5364-4	21.8	20.6	19.4	19.9	18.9	21.2	20.3
S91-5364-10	20.6	21.8	21.5	20.8	20.3	21.5	21.1
Tn90-03	20.4	20.4	22.9	20.8	22.4	21.8	21.5
Tn90-09	19.5	21.3	22.2	20.3	21.9	21.7	21.2
V89-2896	21.6	20.0	21.7	19.1	20.2	20.6	20.5

TABLE 13 - PROTEIN PERCENTAGES FOR THE STRAINS IN PRELIMINARY GROUP IV-S, 1993.

STRAIN	PITTS- BURG KS	PORTAGE- VILLE MO	PRINCE- TON KY	QUEENS- TOWN MD	STONE- VILLE MS(B)	WARSAW VA	MEAN
MANOKIN	39.0	40.2	40.3	42.5	40.3	38.8	40.2
DELISOY 4710	40.7	40.5	37.8	40.8	40.0	41.0	40.1
K1267	36.6	39.3	38.6	38.7	37.7	38.3	38.2
K1268	39.1	39.2	35.1	37.6	37.5	37.5	37.7
K1269	39.4	41.0	39.4	40.8	40.6	40.2	40.2
K1270	39.5	39.6	39.8	42.3	38.0	40.3	39.9
K1271	37.8	40.8	39.4	41.4	41.0	41.0	40.2
K1272	40.7	41.2	40.3	40.1	40.2	39.0	40.3
K1273	38.4	40.6	37.9	41.6	40.2	39.8	39.8
K1274	40.0	40.8	40.5	40.3	40.1	39.0	40.1
Ky90-2736	36.5	41.6	40.6	43.5	39.8	43.2	40.9
LS89-2920	40.0	40.0	42.7	42.8	42.8	41.1	41.6
LS90-1734	37.4	40.6	38.1	43.3	43.0	40.9	40.6
LS90-1920	39.1	41.3	38.1	42.1	42.3	41.3	40.7
Md90-5123	40.6	42.7	39.3	43.8	40.9	42.3	41.6
Md90-5473	39.9	39.4	39.5	40.7	40.7	40.9	40.2
S91-2469	37.0	41.2	41.6	42.2	41.3	41.8	40.9
S91-5371-18	38.5	42.1	41.0	45.4	43.4	43.7	42.4
S91-5371-19	41.8	41.0	41.0	42.0	43.5	42.4	42.0
S91-5364-4	37.4	40.5	42.3	42.4	43.1	41.9	41.3
S91-5364-10	37.3	41.0	41.7	43.9	44.5	43.2	41.9
Tn90-03	39.3	41.2	35.2	40.5	38.8	40.3	39.2
Tn90-09	37.2	40.2	37.1	41.5	38.1	39.5	38.9
V89-2896	39.5	41.8	36.6	43.6	41.8	42.0	40.9

TABLE 14 - SEED SIZE FOR THE STRAINS IN PRELIMINARY GROUP IV-S, 1993.

STRAIN	KEISER AR	PITTS- BURG KS	PORTAGE- VILLE MO	PRINCE- TON KY	QUEENS- TOWN MD	ULLIN IL	WARSAW VA	MEAN
MANOKIN	11.8	11.6	16.5	13.1	9.9	12.7	11.7	12.4
DELLOY 4710	14.4	14.6	16.1	12.5	14.7	13.4	15.5	14.4
K1267	15.5	15.8	15.1	13.5	15.1	14.7	15.8	15.1
K1268	13.5	14.2	13.8	13.1	13.2	12.6	14.4	13.5
K1269	12.5	13.2	12.9	13.6	12.2	13.0	15.0	13.2
K1270	13.1	11.4	13.0	12.6	11.8	12.5	11.2	12.2
K1271	13.8	12.5	12.8	12.2	12.2	13.2	13.9	12.9
K1272	12.2	11.9	12.1	11.5	11.8	11.1	12.9	11.9
K1273	13.4	11.7	13.3	12.1	12.7	13.9	13.7	13.0
K1274	13.6	14.2	13.4	13.1	13.3	12.6	14.8	13.6
Ky90-2736	14.8	14.5	14.9	12.9	14.1	14.0	14.2	14.2
LS89-2920	11.5	10.2	11.0	11.3	8.4	11.3	11.0	10.7
LS90-1734	12.5	11.0	12.2	10.8	9.8	11.4	11.6	11.3
LS90-1920	12.5	11.1	12.7	11.0	10.1	11.4	10.6	11.3
Md90-5123	11.4	10.8	11.2	11.3	10.3	11.1	12.8	11.3
Md90-5473	14.7	12.8	15.5	14.6	14.2	14.8	13.8	14.3
S91-2469	15.5	13.2	15.5	12.8	15.7	13.4	15.6	14.5
S91-5371-18	15.9	12.8	14.8	14.9	13.9	14.6	15.5	14.6
S91-5371-19	14.3	12.2	16.6	13.9	16.8	14.2	15.7	14.8
S91-5364-4	15.0	12.3	15.8	12.7	15.3	14.6	15.0	14.4
S91-5364-10	16.3	12.7	16.0	16.2	18.2	15.4	18.8	16.2
Tn90-03	13.1	12.9	13.5	12.0	12.4	12.8	13.4	12.9
Tn90-09	14.8	13.9	13.2	13.3	11.1	12.8	14.9	13.4
V89-2896	12.2	10.9	11.5	10.8	10.1	12.2	13.0	11.5

TABLE 15 - PLANT HEIGHT FOR THE STRAINS IN PRELIMINARY GROUP IV-S, 1993.

STRAIN	KEISER AR	PITTS- BURG KS	PORTAGE- VILLE MO	PRINCE- TON KY	QUEENS- TOWN MD	STONE- VILLE MS(B)	ULLIN IL	WARSAW VA	MEAN
MANOKIN	27	28	35	39	30	27	28	23	29
DELROY 4710	40	35	47	42	31	39	37	27	37
K1267	44	31	46	41	39	39	40	30	39
K1268	44	30	51	39	37	37	40	32	39
K1269	39	28	47	41	32	37	34	28	36
K1270	42	28	46	40	37	36	35	28	36
K1271	42	30	48	42	34	36	36	27	37
K1272	45	32	51	42	37	42	39	34	40
K1273	40	32	48	44	34	32	38	28	37
K1274	41	28	49	40	38	38	33	30	37
Ky90-2736	44	33	48	40	32	38	37	25	37
LS89-2920	26	30	32	36	29	18	25	24	27
LS90-1734	25	27	33	37	29	19	30	23	28
LS90-1920	26	26	33	33	28	18	28	20	26
Md90-5123	23	22	27	31	23	17	25	19	23
Md90-5473	28	28	31	34	28	23	34	20	28
S91-2469	39	31	46	39	31	37	39	26	36
S91-5371-18	44	33	48	40	28	35	38	26	36
S91-5371-19	44	31	40	41	38	38	36	26	37
S91-5364-4	42	30	43	45	27	37	36	25	35
S91-5364-10	38	27	45	36	23	33	31	24	32
Tn90-03	43	28	54	43	37	38	34	29	38
Tn90-09	45	34	52	38	28	35	37	32	37
V89-2896	31	26	36	36	29	22	33	25	30

TABLE 16 - LODGING SCORES FOR THE STRAINS IN PRELIMINARY GROUP IV-S, 1993.

	KEISER AR	PITTS- BURG KS	PORTAGE- VILLE MO	PRINCE- TON KY	QUEENS- TOWN MD	STONE- VILLE MS(B)	ULLIN IL	WARSAW VA	MEAN
MANOKIN	1.0	2.2	2.0	1.5	2.8	2.5	1.8	1.4	1.9
DELSOY 4710	2.0	1.0	2.0	1.0	2.5	2.5	2.0	1.4	1.8
K1267	1.0	1.1	1.0	1.0	1.8	2.0	1.5	1.4	1.3
K1268	2.0	1.0	2.5	1.5	2.3	2.5	2.8	1.8	2.0
K1269	1.0	1.0	1.0	1.0	2.0	2.0	1.0	1.1	1.3
K1270	1.0	1.1	1.5	1.0	1.8	2.0	1.3	1.1	1.3
K1271	1.5	1.0	1.5	1.0	1.5	2.0	1.3	1.1	1.4
K1272	1.0	1.0	1.0	1.0	1.5	2.0	1.3	1.3	1.3
K1273	2.0	2.3	1.5	1.0	1.8	2.5	1.5	1.1	1.7
K1274	1.5	1.0	1.0	1.0	2.0	2.0	1.0	1.1	1.3
Ky90-2736	1.0	1.0	1.5	1.0	2.0	2.0	1.8	1.2	1.4
LS89-2920	1.0	1.0	1.0	1.0	2.8	2.0	1.0	1.4	1.4
LS90-1734	1.0	1.7	1.0	1.0	2.8	2.0	1.5	1.3	1.5
LS90-1920	1.0	1.4	1.0	1.0	2.5	2.0	1.0	1.0	1.4
Md90-5123	1.0	1.0	1.0	1.0	1.5	2.0	1.0	1.1	1.2
Md90-5473	1.0	1.0	1.0	1.0	2.8	2.0	1.5	1.4	1.5
S91-2469	2.0	1.0	1.5	1.0	2.8	3.0	1.0	1.1	1.7
S91-5371-18	3.0	1.1	3.5	2.5	3.3	2.5	1.3	1.5	2.3
S91-5371-19	3.0	1.0	2.5	2.5	3.5	3.5	1.3	1.7	2.4
S91-5364-4	3.0	1.8	2.5	4.0	4.3	3.0	2.5	1.6	2.8
S91-5364-10	2.0	1.4	3.0	1.0	3.3	3.0	1.0	1.7	2.0
Tn90-03	2.0	1.1	1.0	1.0	2.0	2.0	1.3	1.2	1.4
Tn90-09	1.0	1.0	1.5	1.0	1.3	2.0	1.0	1.1	1.2
V89-2896	1.0	1.1	2.0	1.0	1.5	2.0	1.0	1.4	1.4

TABLE 17 - SEED QUALITY SCORES FOR THE STRAINS IN PRELIMINARY GROUP IV-S, 1993.

STRAIN	PITTS- BURG KS	PORTAGE- VILLE MO	PRINCE- TON KY	QUEENS- TOWN MD	STONE- VILLE MS(B)	ULLIN IL	WARSAW VA	MEAN
MANOKIN	2.0	2.0	3.0	1.5	3.0	1.0	1.5	2.0
DELSOY 4710	2.0	2.5	4.0	2.3	3.0	2.0	3.0	2.7
K1267	1.0	2.0	2.0	1.0	2.0	2.5	1.8	1.8
K1268	2.0	2.0	1.0	1.0	2.0	2.5	1.2	1.7
K1269	2.0	2.0	2.0	1.3	2.0	2.0	1.5	1.8
K1270	2.0	2.0	3.0	1.5	2.0	2.5	2.3	2.2
K1271	1.0	2.0	1.0	1.3	2.0	2.5	1.5	1.6
K1272	2.0	2.5	2.0	1.3	2.0	2.5	1.5	2.0
K1273	1.0	2.0	3.0	1.0	2.0	1.5	2.0	1.8
K1274	2.0	2.5	3.0	1.0	2.0	2.5	1.4	2.1
Ky90-2736	2.0	2.0	2.0	2.0	2.0	2.5	3.3	2.3
LS89-2920	2.0	2.0	3.0	1.5	2.5	2.0	1.7	2.1
LS90-1734	2.0	2.0	2.0	1.3	2.0	1.0	1.7	1.7
LS90-1920	2.0	2.0	2.0	1.5	2.0	1.0	1.5	1.7
Md90-5123	2.0	2.0	3.0	1.0	2.0	2.0	2.1	2.0
Md90-5473	2.0	1.5	1.0	1.5	2.0	1.0	1.6	1.5
S91-2469	3.0	2.0	4.0	1.5	2.5	1.5	2.2	2.4
S91-5371-18	2.0	2.5	3.0	2.8	3.0	2.5	2.4	2.6
S91-5371-19	3.0	2.0	4.0	2.0	3.0	2.0	2.4	2.6
S91-5364-4	3.0	2.0	5.0	2.0	2.5	2.5	3.3	2.9
S91-5364-10	2.0	2.0	5.0	2.5	2.5	3.0	3.3	2.9
Tn90-03	2.0	2.0	1.0	1.8	2.0	2.5	1.9	1.9
Tn90-09	2.0	2.0	3.0	1.3	2.0	2.0	1.8	2.0
V89-2896	2.0	2.0	3.0	1.0	2.0	2.0	1.9	2.0

**MATURITY**

**GROUP**

**V**

**UNIFORM GROUP V****1993**

Uniform Group V nurseries were planted at 32 locations. Data were obtained from 30 of these locations. The parentage for each strain is reported in Table 18. Table 19 gives a general summary of information for each strain including one-, two-, and three-year means for seed yield, oil and protein percentages, botanical traits, and pest reactions. Results from individual locations are summarized in Tables 20 - 25.

The cultivar Holladay is the yield and maturity check. It had a mean yield of 42.5 bushels per acre and a mean maturity of September 29 at the 30 locations.

The Tennessee Agricultural Experiment Stations have proposed the release of Tn88-87. Tn88-87 had a mean yield of 41.2 bushels per acre across all locations in 1993. Tn88-87 is resistant to soybean cyst nematode races 3 and 14, stem canker, frogeye leaf spot, and is moderately resistant to sudden death syndrome.

TABLE 18 - PARENTAGE OF THE STRAINS GROWN IN UNIFORM GROUP V, 1993.

VARIETY OR STRAIN	PARENTAGE	GENERATION COMPOSITED
1. HOLLADAY	N77-179 X JOHNSTON	F6
2. HUTCHESON	V68-1034 X ESSEX	F5
3. N86-7682	N77-114 X PIXIE	F5
4. D88-5547	D82-3298 X D77-6056	F5
5. R89-332	PERSHING X NAROW	F5
6. V87-396	ESSEX X LS79-330	F5
7. K1242	STAFFORD X HUTCHESON	F5
8. K1248	STAFFORD X HUTCHESON	F5
9. N90-403	G81-152 X N83-375	F6
10. N90-516	HUTCHESON X N83-1014	F6
11. OK88-5409	FORREST X ESSEX	F4
12. S88-1854	HUTCHESON X S81-2524	F5
13. S89-1097	HUTCHESON X S81-2524	F6
14. Tn88-87	A5474 X Tn83-167	F5
15. V88-466	COKER 237 X TOANO	F5
16. V88-1234	D77-6056 X LS79-330	F6

**Background of lines used as parents:**

<b>D77-6056</b>	is a selection from Centennial X J74-47 grown in Uniform Group V in 1982-84.
<b>D82-3298</b>	is a selection from Bedford X sel (Forrest X D75-10169) grown in Uniform Group V in 1985.
<b>G81-152</b>	is a selection from D74-7741 X Coker 237. D74-7741 is a selection from Forrest X D70-3001. D70-3001 is of the same parentage as Centennial.
<b>K1099</b>	is a selection from K1022 X Essex. K1022 is a selection from Williams X Columbus.
<b>LS79-330</b>	is a selection from Forrest X V71-480. V71-480 is a selection from V63-76 X V66-318 which was grown in Uniform Group V in 1974.
<b>N77-114</b>	is a selection from Essex X N70-2173. N70-2173 is a selection from Hutton X Ransom.
<b>N77-179</b>	is a selection from N70-1549 X N72-3213. N70-1549 is a selection from Dare X D65-6765 which was grown in Uniform Group V in 1974. N72-3213 is a selection from D67-B5 X N64-2451 which was grown in Preliminary Group VII in 1974.
<b>N83-375</b>	is a selection from N76-098 X N76-683. N76-098 is a selection from N70-1741 X Essex. N76-683 is a selection from N70-1501 X N70-2173.
<b>N83-1014</b>	is a selection from Gasoy 17 X N77-940. N77-940 is a selection from N70-1549 X Centennial.
<b>S81-2524</b>	is a selection from Davis X J74-122. J74-122 is a SCN race 4 resistant line having the same parentage as Bedford.
<b>Tn83-167</b>	is a selection from Lee 74 X Tn76-32. Tn76-32 is a selection from Jill X York.
<b>V68-1034</b>	is a selection from Dare X PI 71506.

TABLE 19 - GENERAL SUMMARY OF PERFORMANCE FOR THE STRAINS GROWN IN UNIFORM GROUP V, 1993.

STRAIN	YIELD†			PROTEIN			OIL		
	1993	92-93	91-93	1993	92-93	91-93	1993	92-93	91-93
HOLLADAY	42.5	.	.	38.5	.	.	21.7	.	.
HUTCHESON	42.5	.	.	39.6	.	.	21.6	.	.
N86-7682	40.5	44.3	45.4	39.7	39.9	39.8	21.3	21.2	21.4
D88-5547	38.4	41.6	.	41.2	41.5	.	20.2	20.0	.
R89-332	40.0	43.5	.	39.7	39.8	.	20.9	20.8	.
V87-396	39.8	43.4	.	41.7	42.3	.	20.7	20.6	.
K1242	40.0	.	.	40.0	.	.	21.3	.	.
K1248	41.8	.	.	39.4	.	.	21.4	.	.
N90-403	41.3	.	.	40.6	.	.	20.8	.	.
N90-516	43.2	.	.	39.4	.	.	21.3	.	.
OK88-5409	37.8	.	.	40.3	.	.	20.7	.	.
S88-1854	42.2	.	.	39.9	.	.	21.5	.	.
S89-1097	40.3	.	.	39.7	.	.	20.7	.	.
Tn88-87	41.2	.	.	40.5	.	.	19.9	.	.
V88-466	41.9	.	.	40.1	.	.	21.1	.	.
V88-1234	42.9	.	.	39.2	.	.	21.7	.	.

STRAIN	BOTANICAL TRAITS							
	FL. COLOR	HEIGHT	MATURITY DATE	LODGING	PUB. COLOR	POD WALL	SEED SIZE	SEED QUALITY
HOLLADAY	P	23	09/29	1.3	G	T	13.6	2.0
HUTCHESON	W	25	+3	1.3	G	T	13.9	1.6
N86-7682	P	26	+5	1.4	G	Br	13.2	1.8
D88-5547	W	29	+2	2.3	T	T	11.7	2.0
R89-332	P	23	+3	1.2	G	T	12.8	1.7
V87-396	P	26	+5	1.5	G	T	13.6	1.6
K1242	P	23	+1	1.2	G	T	12.6	1.7
K1248	P	26	+6	1.3	G	T	14.4	1.6
N90-403	W	28	+8	1.6	T	T	13.2	1.7
N90-516	W	26	+2	1.5	G	T	13.8	2.0
OK88-5409	P	23	+4	1.3	G	T	10.7	1.7
S88-1854	W	27	+5	1.3	T	T	13.9	1.8
S89-1097	W	27	+6	1.5	G	T	12.0	1.5
Tn88-87	P	28	+2	1.5	T	Br	12.0	1.7
V88-466	W	26	+5	1.3	T	T	14.7	1.9
V88-1234	P	30	+6	1.8	T	T	13.1	1.6

STRAIN	PEST REACTIONS						AERIAL WEB BLIGHT
	M.a.	M.i.	SCN RACE 3	SCN RACE 14	STEM CANKER MS	SDS	
HOLLADAY	3.0	2.5	S	S	1.0	96	5.0
HUTCHESON	4.5	3.5	S	S	1.0	98	2.7
N86-7682	3.5	1.5	S	S	1.8	93	3.0
D88-5547	1.3	1.0	R	MR	1.0	13*	3.0
R89-332	2.5	4.5	H	S	1.0	99	2.7
V87-396	1.0	4.3	S	S	1.0	98	2.7
K1242	3.5	4.5	S	S	1.0	94	2.0
K1248	2.0	4.0	S	S	1.0	100	3.7
N90-403	3.0	4.8	R	S	1.0	73	2.5
N90-516	2.5	2.3	S	S	1.0	97	2.0
OK88-5409	1.8	4.0	S	S	5.0	5**	3.3
S88-1854	4.8	3.8	MR	MR	1.0	98	1.7
S89-1097	3.5	2.5	R	MR	4.8	78	3.0
Tn88-87	4.3	4.8	MR	R	3.3	60	0.7
V88-466	4.0	2.8	S	S	---	93	3.3
V88-1234	1.8	1.0	H	S	3.5	91	3.0

\* Not significantly different from the most desirable score at P=0.1

\*\* Most desirable score obtained

† Data from Georgetown, DE (1993); Clemson, SC (1993); Pine Tree, AR (1991); and Bossier City, LA (1991) not included in means.

TABLE 20 - SEED YIELD, IN BUSHELS PER ACRE, FOR THE STRAINS IN UNIFORM GROUP V, 1993.

STRAIN	EAST					MEAN
	GEORGE- TOWN DE†	PLYMOUTH NC	QUEENSTOWN MD	SUFFOLK VA	WARSAW VA	
HOLLADAY	25.2	61.7	49.6	36.8	51.9	50.0
HUTCHESON	20.6	50.1	48.5	40.3	54.4	48.3
N86-7682	20.2	54.5	51.9	34.5	53.5	48.6
D88-5547	21.5	51.8	42.9	31.0	54.9	45.1
R89-332	30.1	52.2	45.3	39.6	49.7	46.7
V87-396	25.2	53.4	46.1	33.6	46.9	45.0
K1242	21.7	51.9	51.9	35.6	56.3	49.0
K1248	30.7	53.5	48.4	42.2	53.6	49.4
N90-403	20.4	52.4	47.9	41.1	50.6	48.0
N90-516	25.9	52.0	47.4	38.9	56.9	48.8
OK88-5409	20.2	47.7	43.5	40.0	54.2	46.4
S88-1854	17.4	51.0	46.3	40.5	51.7	47.3
S89-1097	30.0	51.2	43.2	40.5	48.5	45.8
Tn88-87	20.0	56.1	43.3	35.1	44.9	44.8
V88-466	22.8	56.8	49.3	40.7	52.6	49.8
V88-1234	24.3	54.5	49.1	30.9	50.8	46.3
Overall mean	23.5	53.2	47.2	37.5	52.0	
L.S.D. (0.05)	.	5.4	5.5	5.6	8.4	.
C.V. (%)	28.5	6.1	7.0	8.5	9.7	.

STRAIN	UPPER AND CENTRAL SOUTH										MEAN
	ATHENS GA	BELLE MINA AL	CAL- HOUN GA	CLEM- SON SC†	KNOX- VILLE TN	MAR- TIN TN	ORANGE VA	PRINCE- TON KY	STARK- VILLE MS	ULL- IN IL	
HOLLADAY	29.5	59.9	32.6	16.8	53.1	32.4	44.2	41.0	30.7	51.0	41.6
HUTCHESON	33.0	62.0	22.7	16.2	52.2	36.0	44.3	32.0	24.2	45.8	39.1
N86-7682	32.2	55.7	28.8	18.3	37.1	33.8	41.0	39.5	25.7	43.7	37.5
D88-5547	37.9	47.8	15.6	23.9	35.7	39.4	40.8	35.9	20.9	42.2	35.1
R89-332	29.2	58.1	26.6	16.4	41.8	32.0	38.8	48.2	25.3	45.8	38.4
V87-396	34.0	54.1	14.2	16.5	40.6	35.2	38.3	32.4	31.0	43.2	35.9
K1242	33.7	53.2	18.9	13.3	47.9	28.6	50.6	48.0	21.4	44.8	38.6
K1248	35.5	58.4	27.0	20.6	52.5	39.8	45.3	29.3	21.8	45.7	39.5
N90-403	41.2	52.9	17.3	24.7	43.3	45.2	34.1	48.7	21.1	47.5	39.0
N90-516	32.6	57.2	22.1	13.3	54.4	39.6	42.4	49.4	23.1	51.9	41.4
OK88-5409	35.6	49.6	17.9	20.1	36.4	37.8	37.0	43.0	20.2	46.1	36.0
S88-1854	36.3	54.8	21.9	16.7	45.3	38.0	41.7	34.3	24.5	48.3	38.3
S89-1097	39.7	53.8	20.9	14.0	42.5	43.8	35.7	29.1	23.8	47.8	37.5
Tn88-87	35.9	54.8	23.7	16.6	41.2	42.4	38.4	37.8	20.5	48.7	38.1
V88-466	35.3	52.9	18.7	20.4	50.1	35.4	46.8	47.4	25.1	45.2	39.7
V88-1234	45.4	58.1	31.4	23.8	42.9	43.6	49.4	40.7	21.9	49.1	42.5
Overall mean	35.4	55.2	22.1	18.2	44.8	37.7	41.8	39.8	23.8	46.7	
L.S.D. (0.05)	8.9	7.1	7.9	6.9	9.2	12.2	8.9	22.0	6.5	3.2	.
C.V. (%)	15.0	7.7	20.4	22.7	12.3	19.4	12.7	33.3	16.3	4.2	.

†Not included in means.

TABLE 20 - (Continued)

STRAIN	DELTA									
	BATON ROUGE LA	JONES- BORO AR	KEISER AR	PINE TREE AR	POR- TAGE- VILLE MO(A)	POR- TAGE- VILLE MO(B)	ST. JOSEPH LA	STONE- VILLE MS(A)	STONE- VILLE MS(B)	MEAN
HOLLADAY	47.9	32.0	59.3	44.3	58.8	35.5	35.3	46.7	35.8	43.9
HUTCHESON	60.2	24.2	55.4	42.0	54.3	48.1	49.2	43.7	35.8	45.9
N86-7682	60.0	29.2	55.4	41.7	51.8	41.9	46.1	40.1	27.9	43.8
D88-5547	49.7	29.0	57.5	30.9	46.6	49.7	39.2	44.8	33.2	42.3
R89-332	53.4	25.4	61.5	39.4	59.6	40.4	35.3	42.4	30.2	43.1
V87-396	59.7	26.0	58.6	41.4	50.2	46.3	40.5	42.5	35.0	44.5
K1242	61.1	25.2	56.2	35.2	56.8	32.5	30.5	36.0	25.9	39.9
K1248	50.5	20.6	55.1	42.6	59.1	48.2	42.8	35.8	33.8	43.2
N90-403	46.8	27.1	55.1	37.3	57.9	52.8	39.8	38.9	27.1	42.5
N90-516	65.4	33.4	59.4	42.9	58.5	41.3	41.3	44.6	35.7	47.0
OK88-5409	60.7	27.6	52.8	31.0	50.1	34.4	26.6	35.3	28.4	38.5
S88-1854	53.6	26.9	55.8	44.8	52.1	48.6	47.1	44.9	34.4	45.3
S89-1097	48.7	34.9	50.2	36.6	57.5	48.0	33.5	38.0	35.5	42.6
Tn88-87	58.9	35.7	56.2	37.5	55.9	47.0	31.2	46.2	34.9	44.8
V88-466	56.5	28.8	55.9	35.4	52.6	49.1	36.8	45.9	36.9	44.2
V88-1234	66.7	32.9	57.1	37.9	59.0	48.9	45.6	40.8	27.0	46.2
Overall mean	56.5	28.7	56.4	38.8	55.1	44.5	38.8	41.7	32.3	
L.S.D. (0.05)	9.9	8.6	4.2	8.4	8.6	5.9	8.5	4.4	4.6	.
C.V. (%)	9.9	17.9	4.5	12.9	9.3	7.9	13.2	6.3	8.6	.

STRAIN	WEST						MEAN
	BIXBY OK	BOSSIER CITY LA	CHANUTE KS	MCCUN KS	PITTS- BURG KS	STUTT- GART AR	
HOLLADAY	29.5	46.2	28.4	38.0	45.8	33.0	36.8
HUTCHESON	23.5	44.4	31.9	42.3	47.2	41.5	38.5
N86-7682	25.7	44.6	27.7	34.9	41.6	33.9	34.7
D88-5547	28.6	45.4	27.7	34.6	37.8	24.8	33.2
R89-332	27.4	40.0	20.3	35.9	43.7	32.4	33.3
V87-396	20.4	46.3	26.8	39.4	43.2	35.9	35.3
K1242	26.3	38.7	28.1	45.4	45.0	34.5	36.3
K1248	30.2	48.0	32.3	37.4	45.6	36.3	38.3
N90-403	32.9	47.8	31.3	35.9	45.5	36.6	38.3
N90-516	21.1	42.5	30.6	40.9	42.9	40.4	36.4
OK88-5409	27.3	44.5	23.9	40.1	36.4	31.1	33.9
S88-1854	31.7	50.2	33.2	39.4	46.4	39.4	40.1
S89-1097	27.5	49.6	26.5	40.4	45.3	34.5	37.3
Tn88-87	31.3	50.4	27.7	39.1	45.3	33.7	37.9
V88-466	23.7	50.3	27.4	36.5	45.5	35.9	36.5
V88-1234	26.7	45.8	29.7	35.6	43.0	37.1	36.3
Overall mean	27.1	45.9	28.3	38.5	43.8	35.1	
L.S.D. (0.05)	5.7	7.2	3.5	5.1	6.4	7.7	.
C.V. (%)	12.6	9.4	9.2	7.8	8.7	13.3	.

TABLE 21- CHEMICAL COMPOSITION AND SEED SIZE FOR THE STRAINS IN UNIFORM GROUP V, 1993.

STRAIN	OIL PERCENTAGE												
	ATHENS GA	BELLE MINA AL	BIXBY OK	CLEM- SON SC†	JONES- BORO AR	KEI- SER AR	KNOX- VILLE TN	MAR- TIN TN	ORANGE VA	PINE TREE AR	PITTS- BURG KS	PLY- MOUTH NC	PORTAGE- VILLE MO(A)
HOLLADAY	22.4	21.1	21.5	21.3	.	21.9	.	.	22.9	.	20.5	.	21.4
HUTCHESON	20.9	22.2	20.9	21.0	.	21.0	.	.	22.5	.	20.4	.	21.6
N86-7682	21.0	21.9	21.3	21.4	.	20.9	.	.	22.4	.	20.2	.	20.9
D88-5547	22.9	19.7	19.7	20.3	.	19.0	.	.	20.6	.	20.5	.	19.4
R89-332	21.8	20.5	21.0	20.9	.	20.3	.	.	21.8	.	19.6	.	20.4
V87-396	20.9	20.5	20.4	20.7	.	20.5	.	.	21.7	.	19.9	.	20.5
K1242	20.4	21.8	21.9	22.7	.	20.9	.	.	22.4	.	20.9	.	21.1
K1248	21.8	21.4	21.4	22.1	.	20.0	.	.	22.1	.	21.4	.	21.1
N90-403	21.9	20.9	20.5	21.0	.	19.6	.	.	21.3	.	19.5	.	19.4
N90-516	22.0	21.2	20.3	21.4	.	20.1	.	.	21.8	.	21.6	.	20.4
OK88-5409	22.9	20.1	21.1	21.4	.	18.6	.	.	21.4	.	21.4	.	19.4
S88-1854	21.7	21.5	20.7	21.4	.	20.8	.	.	21.6	.	20.9	.	21.1
S89-1097	21.8	20.6	20.7	21.0	.	19.2	.	.	21.3	.	20.6	.	20.3
Tr88-87	23.1	19.5	20.2	21.1	.	17.5	.	.	20.5	.	21.7	.	18.6
V88-466	21.9	22.0	21.3	21.5	.	20.5	.	.	21.6	.	21.4	.	20.2
V88-1234	22.8	21.3	21.5	21.7	.	20.8	.	.	22.7	.	19.9	.	21.6

STRAIN	PROTEIN PERCENTAGE												
	ATHENS GA	BELLE MINA AL	BIXBY OK	CLEM- SON SC	JONES- BORO AR	KEI- SER AR	KNOX- VILLE TN	MAR- TIN TN	ORANGE VA	PINE TREE AR	PITTS- BURG KS	PLY- MOUTH NC	PORTAGE- VILLE MO(A)
HOLLADAY	40.3	40.7	37.5	40.6	.	38.1	.	.	34.8	.	37.4	.	37.2
HUTCHESON	43.6	39.8	38.4	41.8	.	39.6	.	.	36.1	.	38.2	.	38.6
N86-7682	43.3	40.2	38.5	41.5	.	39.7	.	.	35.0	.	40.1	.	39.1
D88-5547	40.6	43.1	38.1	43.8	.	42.6	.	.	35.6	.	40.8	.	41.9
R89-332	41.2	42.0	38.3	43.0	.	38.9	.	.	33.5	.	41.1	.	38.4
V87-396	42.6	44.5	40.1	45.1	.	42.6	.	.	37.8	.	36.8	.	40.8
K1242	43.2	40.6	38.8	40.5	.	39.3	.	.	36.1	.	37.4	.	39.8
K1248	41.5	40.7	38.0	42.4	.	39.5	.	.	35.4	.	39.9	.	37.6
N90-403	41.0	41.9	38.0	42.8	.	42.7	.	.	36.9	.	37.4	.	40.3
N90-516	43.3	40.9	38.3	41.0	.	39.8	.	.	34.9	.	38.4	.	39.0
OK88-5409	40.8	42.8	37.9	41.9	.	42.1	.	.	35.3	.	35.8	.	40.7
S88-1854	42.1	41.5	38.0	42.5	.	40.0	.	.	35.9	.	35.7	.	39.5
S89-1097	41.2	41.5	38.0	42.6	.	39.5	.	.	34.4	.	39.0	.	38.4
Tr88-87	39.5	42.5	38.1	41.8	.	41.8	.	.	35.9	.	37.0	.	40.2
V88-466	39.2	41.6	37.8	42.2	.	40.5	.	.	36.1	.	38.1	.	39.2
V88-1234	40.3	41.3	36.2	42.6	.	39.3	.	.	33.4	.	38.4	.	37.6

STRAIN	GRAMS PER 100 SEED												
	ATHENS GA	BELLE MINA AL	BIXBY OK	CLEM- SON SC	JONES- BORO AR	KEI- SER AR	KNOX- VILLE TN	MAR- TIN TN	ORANGE VA	PINE TREE AR	PITTS- BURG KS	PLY- MOUTH NC	PORTAGE- VILLE MO(A)
HOLLADAY	16.1	16.3	13.6	15.5	11.8	.	15.9	13.8	12.6	13.5	12.2	15.0	13.0
HUTCHESON	17.0	15.2	13.0	18.0	12.4	.	14.5	13.4	13.3	14.0	14.8	15.1	12.8
N86-7682	16.7	13.9	13.5	16.2	11.4	.	14.9	12.8	11.7	13.4	13.1	14.0	12.3
D88-5547	14.0	12.2	11.5	13.6	9.8	.	12.9	12.4	10.8	10.9	12.1	12.7	12.4
R89-332	16.1	14.0	14.3	16.9	11.3	.	12.8	14.1	10.7	13.0	12.0	13.6	12.0
V87-396	15.0	16.1	13.2	14.9	11.0	.	12.1	16.2	12.9	13.3	13.8	14.9	12.6
K1242	16.0	15.1	12.4	15.8	10.2	.	13.6	13.1	12.2	11.6	11.3	13.5	13.4
K1248	18.5	15.9	14.9	18.8	12.0	.	14.3	14.4	13.9	14.2	14.6	15.9	13.9
N90-403	17.5	14.0	12.9	15.2	9.9	.	12.4	16.3	11.7	12.2	13.2	15.0	12.4
N90-516	16.5	15.7	12.1	13.9	12.3	.	16.5	14.1	12.6	13.3	13.3	14.9	13.4
OK88-5409	13.5	12.9	11.4	13.3	9.0	.	9.8	11.3	9.4	10.4	10.2	11.5	9.7
S88-1854	16.7	15.3	13.7	16.5	11.5	.	13.8	16.3	13.0	13.6	14.3	15.6	13.7
S89-1097	14.8	13.1	13.1	15.7	10.9	.	11.6	12.4	11.4	11.4	12.0	13.1	11.8
Tr88-87	15.6	13.4	12.0	14.6	12.0	.	12.5	11.3	11.8	11.3	11.4	13.5	11.8
V88-466	18.5	13.4	14.7	18.3	12.5	.	17.3	16.2	13.2	13.5	13.5	16.6	13.8
V88-1234	15.5	16.5	11.3	13.7	11.5	.	13.8	14.7	12.7	12.0	13.7	14.6	12.6

†Not included in mean.

TABLE 21 - (Continued)

OIL PERCENTAGE												
STRAIN	PORTAGE- VILLE MO(B)	PRINCE- TON KY	QUEENS- TOWN MD	ST. JOSEPH LA	STARK- VILLE MS	STONE- VILLE MS(A)	STONE- VILLE MS(B)	STUTT- GART AR	SUF- FOLK VA	ULLIN IL	WARSAW VA	MEAN
HOLLADAY	.	20.6	20.9	22.9	22.1	22.4	22.6	.	22.7	.	19.6	21.7
HUTCHESON	.	21.4	21.1	22.9	22.2	20.8	22.7	.	23.8	.	19.9	21.6
N86-7682	.	20.6	20.4	23.1	21.7	21.1	22.6	.	22.5	.	18.5	21.3
D88-5547	.	20.1	18.9	21.6	19.9	18.8	19.7	.	21.4	.	20.3	20.2
R89-332	.	20.0	19.8	22.0	21.3	19.4	21.5	.	22.7	.	21.0	20.9
V87-396	.	20.4	19.2	21.9	20.8	20.1	21.4	.	21.4	.	20.8	20.7
K1242	.	20.2	20.5	23.4	20.4	21.3	23.3	.	22.5	.	19.2	21.3
K1248	.	20.1	20.4	23.2	21.6	21.6	22.5	.	22.8	.	20.2	21.4
N90-403	.	19.8	19.5	23.4	20.1	19.3	21.1	.	21.7	.	23.3	20.8
N90-516	.	21.2	20.0	23.2	21.4	20.5	22.4	.	22.9	.	20.2	21.3
OK88-5409	.	20.5	19.2	21.9	20.2	19.2	20.9	.	22.3	.	21.1	20.7
S88-1854	.	21.5	20.5	23.6	21.5	20.8	21.9	.	22.9	.	21.1	21.5
S89-1097	.	20.2	19.5	22.0	20.9	19.0	20.8	.	22.2	.	21.8	20.7
Tn88-87	.	18.3	18.2	21.5	19.1	18.9	20.0	.	20.6	.	21.3	19.9
V88-466	.	20.1	19.7	22.7	20.7	21.1	21.4	.	21.4	.	19.9	21.1
V88-1234	.	21.5	20.9	23.9	22.2	20.9	21.7	.	22.3	.	21.3	21.7

PROTEIN PERCENTAGE												
STRAIN	PORTAGE- VILLE MO(B)	PRINCE- TON KY	QUEENS- TOWN MD	ST. JOSEPH LA	STARK- VILLE MS	STONE- VILLE MS(A)	STONE- VILLE MS(B)	STUTT- GART AR	SUF- FOLK VA	ULLIN IL	WARSAW VA	MEAN
HOLLADAY	.	38.8	39.0	38.7	39.1	39.5	38.0	.	36.6	.	41.5	38.5
HUTCHESON	.	38.9	39.3	39.7	40.7	42.8	39.6	.	38.6	.	40.6	39.6
N86-7682	.	39.7	39.3	39.2	40.3	42.0	39.2	.	39.1	.	40.8	39.7
D88-5547	.	41.1	41.0	41.5	41.9	46.3	42.6	.	41.0	.	40.1	41.2
R89-332	.	39.1	39.4	40.9	40.5	43.7	40.2	.	37.7	.	40.6	39.7
V87-396	.	42.1	42.2	43.2	42.8	44.8	43.2	.	44.2	.	38.0	41.7
K1242	.	41.3	39.7	39.1	42.1	42.5	38.4	.	40.3	.	41.0	40.0
K1248	.	40.2	39.5	39.4	40.9	40.8	39.1	.	38.8	.	39.8	39.4
N90-403	.	41.1	40.2	39.8	43.2	44.7	42.3	.	41.5	.	38.7	40.6
N90-516	.	37.7	39.5	39.0	40.6	42.0	38.7	.	39.3	.	39.4	39.4
OK88-5409	.	39.6	40.9	41.5	42.0	44.6	41.8	.	39.7	.	38.4	40.3
S88-1854	.	39.1	38.6	40.0	41.8	43.4	40.7	.	40.4	.	41.8	39.9
S89-1097	.	40.1	38.7	40.5	41.1	42.8	40.8	.	40.0	.	39.0	39.7
Tn88-87	.	42.8	40.6	40.1	41.9	43.6	41.9	.	40.9	.	40.4	40.5
V88-466	.	39.6	40.2	40.3	43.2	43.0	41.7	.	41.0	.	40.5	40.1
V88-1234	.	38.5	38.3	39.4	40.3	42.7	41.2	.	41.0	.	40.4	39.2

GRAMS PER 100 SEED												
STRAIN	PORTAGE- VILLE MO(B)	PRINCE- TON KY	QUEENS- TOWN MD	ST. JOSEPH LA	STARK- VILLE MS	STONE- VILLE MS(A)	STONE- VILLE MS(B)	STUTT- GART AR	SUF- FOLK VA	ULLIN IL	WARSAW VA	MEAN
HOLLADAY	12.4	11.4	13.5	13.2	12.2	.	.	14.3	14.1	12.5	14.1	13.6
HUTCHESON	12.5	11.2	14.4	13.3	12.5	.	.	15.3	15.6	13.5	14.8	13.9
N86-7682	12.7	13.3	12.7	11.4	10.8	.	.	14.3	14.7	11.9	15.0	13.2
D88-5547	10.6	12.0	10.9	10.6	9.8	.	.	10.7	12.6	11.0	13.3	11.7
R89-332	11.5	12.6	11.7	11.6	11.6	.	.	14.0	14.5	11.5	13.7	12.8
V87-396	12.2	13.4	12.9	12.8	11.6	.	.	14.7	16.0	12.8	14.4	13.6
K1242	11.1	11.1	13.2	11.8	10.0	.	.	13.0	13.9	11.9	14.1	12.6
K1248	13.0	13.5	14.3	12.8	10.6	.	.	14.7	16.5	13.7	16.4	14.4
N90-403	12.6	11.9	12.7	11.9	9.7	.	.	15.0	15.5	11.9	14.7	13.2
N90-516	12.3	13.4	13.5	11.8	11.0	.	.	14.3	15.5	13.4	15.8	13.8
OK88-5409	10.0	10.9	10.0	10.3	9.6	.	.	11.3	12.0	10.1	11.6	10.7
S88-1854	12.3	13.7	12.4	12.7	11.8	.	.	14.0	15.6	13.4	15.4	13.9
S89-1097	11.1	11.8	11.5	11.4	9.9	.	.	11.3	13.6	11.4	13.3	12.0
Tn88-87	11.3	11.2	10.9	11.4	9.9	.	.	11.3	13.6	10.9	12.7	12.0
V88-466	13.9	13.2	14.2	13.6	14.4	.	.	16.3	15.7	13.2	16.7	14.7
V88-1234	11.8	12.8	13.5	10.9	11.6	.	.	11.7	13.8	12.4	14.4	13.1

TABLE 22 - RELATIVE MATURITY DATA, DAYS EARLIER (-) OR LATER (+) THAN HOLLADAY FOR THE STRAINS IN UNIFORM GROUP V, 1993.

EAST COAST						
STRAIN	GEORGETOWN DE	PLYMOUTH NC	QUEENS- TOWN MD	SUFFOLK VA	WARSAW VA	MEAN
HOLLADAY	.	10/08	10/09	10/01	10/09	10/07
HUTCHESON	.	7	6	6	6	6
N86-7682	.	7	4	3	11	6
D88-5547	.	-4	4	3	5	2
R89-332	.	0	3	3	3	2
V87-396	.	7	7	8	8	7
K1242	.	0	3	1	5	2
K1248	.	7	7	7	12	8
N90-403	.	12	11	10	12	11
N90-516	.	0	2	3	7	3
OK88-5409	.	7	3	6	8	6
S88-1854	.	7	6	8	9	7
S89-1097	.	7	7	9	11	8
Tn88-87	.	0	3	4	4	2
V88-466	.	9	7	5	9	7
V88-1234	.	9	7	5	11	8

UPPER AND CENTRAL SOUTH											
STRAIN	ATHENS GA	BELLE MINA AL	CAL- HOUN GA	CLEM- SON SC†	KNOX- VILLE TN	MARTIN TN	ORANGE VA	PRINCE- TON KY	STARK- VILLE MS	ULL- IN IL	MEAN
HOLLADAY	9/25	9/27	9/17	10/2	10/5	10/13	10/7	10/4	9/24	10/18	10/2
HUTCHESON	3	3	2	11	4	0	10	1	3	1	3
N86-7682	7	3	3	8	4	13	4	8	3	4	6
D88-5547	2	-3	1	10	-1	13	4	4	1	4	3
R89-332	2	1	0	3	2	13	7	3	4	2	4
V87-396	5	1	0	10	3	13	11	7	4	5	6
K1242	-3	0	1	-2	2	0	8	1	2	0	1
K1248	3	4	2	6	5	13	14	4	4	3	6
N90-403	8	8	3	8	5	13	11	9	6	10	8
N90-516	-1	0	1	0	5	0	8	2	0	6	3
OK88-5409	3	2	1	3	1	13	11	2	3	7	5
S88-1854	3	4	5	9	4	13	10	7	4	7	6
S89-1097	4	3	6	8	3	13	13	6	5	3	6
Tn88-87	2	-3	1	5	-2	13	6	0	3	3	3
V88-466	7	2	3	9	4	0	9	3	4	6	4
V88-1234	8	8	1	7	3	13	9	9	4	8	7

†Not included in mean.

TABLE 22 - (Continued)

DELTA										
STRAIN	BATON ROUGE LA	JONES- BORO AR	KEI- SER AR	PINE TREE AR	POR- TAGE- VILLE MO(A)	POR- TAGE- VILLE MO(B)	ST. JOSEPH LA	STONE VILLE MS(A)	STONE- VILLE MS(B)	MEAN
HOLLADAY	10/08	10/01	09/30	09/30	09/05	09/09	09/17	09/22	10/04	09/24
HUTCHESON	-3	4	3	3	6	5	2	0	0	2
N86-7682	-4	3	4	8	8	8	1	3	1	4
D88-5547	.	0	3	3	4	1	2	-1	-1	0
R89-332	-7	1	3	7	4	5	0	0	0	2
V87-396	-3	6	4	9	5	8	2	2	0	4
K1242	1	-2	3	2	2	-2	0	-1	-7	0
K1248	0	1	6	10	11	7	2	2	0	4
N90-403	-6	2	7	9	16	13	7	3	2	6
N90-516	1	1	2	3	4	1	0	0	-7	1
OK88-5409	-7	1	5	8	6	7	0	-1	-1	2
S88-1854	-5	1	4	9	6	9	4	2	1	3
S89-1097	-2	6	6	9	9	7	4	0	1	5
Tn88-87	1	3	0	6	3	1	1	-1	-1	2
V88-466	1	3	7	5	11	10	4	3	2	5
V88-1234	-1	7	8	9	7	8	4	0	0	5

WEST							
STRAIN	BIXBY OK	BOSSIER CITY LA	CHANUTE KS	MCCUNE KS	PITTBURG KS	STUTTGART AR	MEAN
HOLLADAY	.	09/23	.	.	.	09/27	09/25
HUTCHESON	.	-1	.	.	.	3	1
N86-7682	.	0	.	.	.	3	2
D88-5547	.	-3	.	.	.	-2	-2
R89-332	.	-1	.	.	.	2	1
V87-396	.	-1	.	.	.	3	1
K1242	.	-2	.	.	.	-2	-2
K1248	.	-2	.	.	.	7	3
N90-403	.	0	.	.	.	8	4
N90-516	.	0	.	.	.	2	1
OK88-5409	.	-2	.	.	.	4	1
S88-1854	.	-2	.	.	.	4	1
S89-1097	.	-1	.	.	.	5	2
Tn88-87	.	-3	.	.	.	1	-1
V88-466	.	-3	.	.	.	6	1
V88-1234	.	-2	.	.	.	3	1

TABLE 23 - PLANT HEIGHT FOR THE STRAINS IN UNIFORM GROUP V, 1993.

EAST COAST						
STRAIN	GEORGETOWN DE†	PLYMOUTH NC	QUEENS- TOWN MD	SUFFOLK VA	WARSAW VA	MEAN
HOLLADAY	23	26	27	31	20	26
HUTCHESON	21	28	30	32	24	29
N86-7682	21	31	33	37	24	31
D88-5547	19	32	34	38	31	34
R89-332	21	26	27	29	21	26
V87-396	22	34	29	36	24	31
K1242	22	27	30	33	24	28
K1248	23	27	30	33	24	28
N90-403	19	29	34	34	27	31
N90-516	26	28	30	33	26	29
OK88-5409	20	28	26	30	21	26
S88-1854	20	31	32	33	28	31
S89-1097	22	28	32	37	28	31
Tn88-87	19	35	36	38	29	34
V88-466	20	29	29	37	24	30
V88-1234	22	35	39	39	30	36

  

UPPER AND CENTRAL SOUTH											
STRAIN	ATHENS GA	BELLE MINA AL	CAL- HOUN GA	CLEM- SON SCT†	KNOX- VILLE TN	MAR- TIN TN	ORANGE VA	PRINCE- TON KY	STONE- VILLE MS	ULL- IN IL	MEAN
HOLLADAY	18	20	27	17	29	27	33	35	19	27	26
HUTCHESON	19	26	31	19	31	29	32	35	18	28	28
N86-7682	21	24	35	18	31	29	39	39	19	30	30
D88-5547	24	29	35	23	37	25	39	41	20	28	31
R89-332	19	21	29	16	28	30	30	35	18	22	26
V87-396	20	24	32	19	33	28	33	39	18	29	28
K1242	20	24	30	16	31	25	33	38	16	24	27
K1248	20	24	34	19	34	34	33	36	18	29	29
N90-403	21	26	35	21	37	30	39	36	21	30	31
N90-516	19	25	31	19	31	28	35	36	20	29	28
OK88-5409	20	22	28	18	28	29	29	32	18	24	25
S88-1854	23	26	33	19	34	23	33	37	21	28	29
S89-1097	23	26	36	19	32	28	34	40	19	30	30
Tn88-87	22	26	35	22	34	29	34	42	20	29	30
V88-466	23	31	31	20	34	32	34	40	18	32	30
V88-1234	24	25	40	25	38	34	42	41	19	33	33

†Not included in means.

TABLE 23 - (Continued)

DELTA										
STRAIN	BATON ROUGE LA	JONES- BORO AR	KEI- SER AR	PINE TREE AR	POR- TAGE- VILLE MO(A)	POR- TAGE- VILLE MO(B)	ST. JOSEPH LA	STONE- VILLE MS(A)	STONE- VILLE MS(B)	MEAN
HOLLADAY	20	20	26	22	22	15	15	24	19	20
HUTCHESON	20	17	30	25	24	18	17	24	21	22
N86-7682	20	22	28	30	23	15	18	30	19	23
D88-5547	18	25	36	32	22	18	21	33	23	25
R89-332	22	19	27	24	26	15	14	23	16	21
V87-396	18	21	29	25	29	19	13	29	20	23
K1242	21	17	28	25	24	13	13	21	18	20
K1248	29	18	26	28	33	15	16	27	21	24
N90-403	16	23	35	33	33	24	19	30	23	26
N90-516	26	22	30	26	34	16	16	29	25	25
OK88-5409	24	18	25	22	19	16	15	23	16	20
S88-1854	21	21	34	30	27	21	21	29	24	25
S89-1097	14	25	32	31	34	20	19	28	19	25
Tn88-87	25	27	33	31	34	20	17	31	19	26
V88-466	20	21	29	24	18	19	17	29	18	22
V88-1234	20	29	35	32	37	21	17	35	18	27

WEST							
STRAIN	BIXBY OK	BOSSIER CITY LA	CHANUTE KS	MCCUNE KS	PITTSBURG KS	STUTT- GART AR	MEAN
HOLLADAY	20	19	23	26	25	15	21
HUTCHESON	17	19	22	26	25	20	22
N86-7682	20	21	23	27	27	16	22
D88-5547	30	23	26	31	29	20	27
R89-332	17	18	20	26	23	14	20
V87-396	18	22	21	28	31	18	23
K1242	20	19	20	26	24	14	21
K1248	24	23	22	29	29	15	24
N90-403	24	24	25	31	31	24	27
N90-516	18	20	23	27	26	17	22
OK88-5409	22	18	19	24	21	15	20
S88-1854	25	22	22	28	27	23	25
S89-1097	23	22	22	28	27	19	24
Tn88-87	22	25	23	30	29	21	25
V88-466	17	21	20	28	28	15	22
V88-1234	23	27	26	32	33	21	27

TABLE 24 - LODGING SCORES FOR THE STRAINS IN UNIFORM GROUP V, 1993.

EAST COAST						
STRAIN	GEORGE- TOWN DE†	PLY- MOUTH NC	QUEENS- TOWN MD	SUFFOLK VA	WARSAW VA	MEAN
HOLLADAY	2.0	2.5	2.0	1.2	1.2	1.7
HUTCHESON	2.0	2.2	2.0	1.3	1.7	1.8
N86-7682	2.0	2.5	2.2	1.5	1.4	1.9
D88-5547	1.0	3.0	3.5	2.3	3.7	3.1
R89-332	2.0	2.0	1.2	1.0	1.1	1.3
V87-396	1.0	2.3	2.3	1.5	1.8	2.0
K1242	1.0	2.0	1.7	1.2	1.4	1.6
K1248	2.0	2.0	1.8	1.3	1.4	1.6
N90-403	1.0	2.0	3.7	1.7	3.0	2.6
N90-516	2.0	2.3	2.8	1.8	2.2	2.3
OK88-5409	1.0	2.0	1.7	1.3	1.2	1.6
S88-1854	1.0	2.0	2.0	1.2	1.8	1.8
S89-1097	2.0	2.0	2.8	1.7	2.2	2.2
Tn88-87	1.0	3.0	2.7	1.7	2.0	2.3
V88-466	1.0	2.3	1.5	1.3	1.1	1.6
V88-1234	2.0	2.7	3.2	1.8	2.5	2.5

UPPER AND CENTRAL SOUTH										
STRAIN	ATHENS GA	BELLE MINA AL	CAL- HOUN GA	KNOX- VILLE TN	MAR- TIN TN	ORANGE VA	PRINCE- TON KY	STARK- VILLE MS	ULLIN IL	MEAN
HOLLADAY	1.6	1.0	1.0	1.8	1.0	1.3	1.0	1.7	1.2	1.3
HUTCHESON	1.6	1.0	1.0	2.3	1.0	1.0	1.0	1.7	1.2	1.3
N86-7682	1.6	1.0	1.0	1.8	1.0	1.3	1.0	2.0	1.0	1.3
D88-5547	1.9	2.3	4.2	4.5	4.0	3.3	1.0	2.0	2.3	2.8
R89-332	1.6	1.0	1.0	1.5	1.0	1.0	1.0	2.0	1.0	1.2
V87-396	1.5	1.3	1.0	2.8	1.0	1.7	1.0	2.0	1.7	1.6
K1242	1.6	1.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.2
K1248	1.7	1.0	1.0	2.5	2.0	1.0	1.0	1.3	1.0	1.4
N90-403	1.7	1.0	1.0	3.0	1.0	2.3	1.0	2.0	1.7	1.6
N90-516	1.6	1.0	1.2	2.7	3.0	1.3	1.0	1.0	1.2	1.5
OK88-5409	1.6	1.0	1.0	1.8	1.0	1.0	1.0	1.0	1.0	1.2
S88-1854	1.6	1.3	1.0	2.3	1.0	1.3	1.0	2.0	1.0	1.4
S89-1097	1.6	1.3	1.0	2.7	3.0	1.0	1.0	2.0	1.3	1.7
Tn88-87	1.6	1.3	1.2	2.7	1.0	1.7	1.0	2.0	1.5	1.5
V88-466	1.6	1.7	1.0	2.5	2.0	1.0	1.0	1.7	1.2	1.5
V88-1234	1.8	1.3	1.5	3.3	2.0	2.3	1.0	1.7	1.8	1.9

†Not included in mean.

TABLE 24 - (Continued)

DELTA										
STRAIN	BATON ROUGE LA	JONES- BORO AR	KEISER AR	PINE TREE AR	POR- TAGE- VILLE MO(A)	POR- TAGE- VILLE MO(B)	ST. JOSEPH LA	STONE- VILLE MS(A)	STONE- VILLE MS(B)	MEAN
HOLLADAY	1.5	1.0	1.0	1.0	1.0	1.0	1.2	2.0	2.0	1.3
HUTCHESON	1.0	1.0	1.0	1.0	1.0	1.0	1.2	2.0	2.0	1.2
N86-7682	1.0	1.0	1.0	1.7	1.0	1.0	1.2	2.0	2.0	1.3
D88-5547	1.0	1.3	3.0	2.0	2.0	1.0	1.3	3.0	2.7	1.9
R89-332	1.0	1.0	1.0	1.0	1.0	1.0	1.2	2.0	2.0	1.2
V87-396	1.0	1.0	1.0	1.3	1.0	1.0	1.2	2.0	2.0	1.3
K1242	1.0	1.0	1.0	1.0	1.0	1.0	1.2	2.0	2.0	1.2
K1248	1.0	1.0	1.0	1.0	1.0	1.0	1.2	2.0	2.0	1.2
N90-403	1.0	1.0	1.0	1.7	1.0	1.0	1.3	2.0	2.0	1.3
N90-516	1.0	1.0	1.0	1.3	1.0	1.0	1.2	2.0	2.0	1.3
OK88-5409	1.0	1.0	1.0	1.0	1.0	1.0	1.2	2.0	2.0	1.2
S88-1854	1.0	1.0	1.0	1.0	1.0	1.0	1.2	2.0	2.0	1.2
S89-1097	1.0	1.0	1.0	1.7	1.5	1.0	1.2	2.0	2.0	1.4
Tn88-87	1.0	1.0	1.0	2.0	1.0	1.0	1.2	2.0	2.0	1.4
V88-466	1.0	1.0	1.0	1.0	1.0	1.0	1.2	2.0	2.0	1.2
V88-1234	1.0	1.0	1.3	1.7	1.5	1.0	1.2	2.0	2.0	1.4

WEST						
STRAIN	BOSSIER CITY LA	CHANUTE KS	MCCUNE KS	PITTSBURG KS	STUTT- GART AR	MEAN
HOLLADAY	1.0	1.0	1.0	1.0	1.0	1.0
HUTCHESON	1.0	1.0	1.0	1.0	1.0	1.0
N86-7682	1.0	1.0	3.0	1.0	1.0	1.4
D88-5547	1.0	1.0	3.0	3.0	1.0	1.7
R89-332	1.0	1.0	1.0	1.0	1.0	1.0
V87-396	1.0	1.0	3.0	2.0	1.0	1.6
K1242	1.0	1.0	1.0	1.0	1.0	1.0
K1248	1.0	1.0	1.0	1.0	1.0	1.0
N90-403	1.0	1.0	3.0	1.0	1.0	1.4
N90-516	1.0	1.0	3.0	1.0	1.0	1.4
OK88-5409	1.0	1.0	2.0	1.0	1.0	1.2
S88-1854	1.0	1.0	1.0	1.0	1.0	1.0
S89-1097	1.0	1.0	2.0	1.0	1.0	1.2
Tn88-87	1.0	1.0	2.0	1.0	1.0	1.2
V88-466	1.0	1.0	1.0	1.0	1.0	1.0
V88-1234	1.0	1.0	3.0	3.0	1.0	1.7

TABLE 25 - SEED QUALITY FOR THE STRAINS IN UNIFORM GROUP V, 1993.

EAST COAST					
STRAIN	PLYMOUTH NC	QUEENSTOWN MD	SUFFOLK VA	WARSAW VA	MEAN
HOLLADAY	2.5	1.0	2.7	1.8	2.0
HUTCHESON	2.0	1.0	2.0	1.1	1.5
N86-7682	2.0	1.0	2.0	1.3	1.6
D88-5547	2.0	1.5	3.0	1.6	2.0
R89-332	2.0	1.0	2.0	1.4	1.6
V87-396	2.0	1.0	2.0	1.1	1.5
K1242	2.0	1.0	2.0	1.1	1.5
K1248	2.5	1.0	2.3	1.0	1.7
N90-403	2.5	1.0	1.7	1.3	1.6
N90-516	2.5	1.0	3.0	1.1	1.9
OK88-5409	2.5	1.0	1.7	1.4	1.6
S88-1854	2.0	1.0	2.0	1.3	1.6
S89-1097	2.0	1.0	1.3	1.1	1.4
Tn88-87	2.0	1.2	2.0	1.6	1.7
V88-466	2.0	1.0	2.0	1.1	1.5
V88-1234	2.0	1.0	2.0	1.6	1.7

UPPER AND CENTRAL SOUTH								
STRAIN	ATHENS GA	BELLE MINA AL	KNOX- VILLE TN	MARTIN TN	ORANGE VA	PRINCE- TON KY	ULLIN IL	MEAN
HOLLADAY	3.4	1.5	2.0	2.0	1.0	4.0	1.0	2.1
HUTCHESON	2.4	1.0	1.5	2.0	1.0	2.0	1.3	1.6
N86-7682	3.1	1.0	1.5	2.0	1.0	3.0	1.0	1.8
D88-5547	2.2	1.5	3.0	2.0	1.0	4.0	2.0	2.2
R89-332	2.4	1.0	1.5	2.0	1.0	2.0	2.0	1.7
V87-396	2.0	1.0	1.5	1.0	1.0	3.0	1.0	1.5
K1242	2.9	1.5	2.0	2.0	1.0	2.0	1.3	1.8
K1248	2.2	1.0	1.0	1.0	1.0	1.0	1.3	1.2
N90-403	1.7	1.5	2.5	2.0	1.0	1.0	1.3	1.6
N90-516	3.2	1.5	2.0	2.0	1.0	4.0	1.7	2.2
OK88-5409	1.9	1.5	2.5	2.0	1.0	1.0	1.3	1.6
S88-1854	1.9	1.5	1.5	2.0	1.0	2.0	2.3	1.7
S89-1097	1.7	1.5	1.0	2.0	1.0	2.0	1.3	1.5
Tn88-87	2.2	1.5	2.5	2.0	1.0	3.0	1.0	1.9
V88-466	2.3	1.5	2.0	2.0	1.0	4.0	1.7	2.1
V88-1234	1.7	1.5	2.0	1.0	1.0	2.0	1.0	1.5

TABLE 25 - (Continued)

STRAIN	DELTA								MEAN
	BATON ROUGE LA	JONES- BORO AR	PINE TREE AR	POR- TAGE- VILLE MO(A)	POR- TAGE- VILLE MO(B)	ST. JOSEPH LA	STONE- VILLE MS(A)	STONE- VILLE MS(B)	
HOLLADAY	2.0	1.3	1.0	1.5	1.5	2.3	2.0	2.0	1.7
HUTCHESON	2.0	1.3	1.0	1.5	1.5	2.2	2.0	2.0	1.7
N86-7682	1.8	1.3	1.0	2.0	2.0	2.3	2.0	2.0	1.8
D88-5547	2.3	1.0	1.3	1.5	1.5	2.3	2.0	2.0	1.7
R89-332	2.0	1.0	1.0	1.5	1.5	2.1	2.0	2.0	1.6
V87-396	1.8	1.3	1.0	1.0	1.5	1.9	2.0	2.0	1.6
K1242	1.3	1.0	1.0	1.5	1.5	2.2	2.0	2.0	1.6
K1248	1.7	1.0	2.0	1.5	1.5	1.9	2.0	2.0	1.7
N90-403	1.5	1.3	1.7	2.0	1.5	2.4	2.0	2.0	1.8
N90-516	1.7	1.7	1.3	1.5	1.5	2.3	2.0	2.0	1.7
OK88-5409	1.2	1.7	1.0	2.0	2.0	2.1	2.0	2.0	1.7
S88-1854	1.9	1.3	1.3	2.0	1.5	2.2	2.0	2.0	1.8
S89-1097	2.3	1.0	1.0	1.0	1.0	1.9	2.0	2.0	1.5
Tn88-87	1.2	1.3	1.0	1.5	1.5	2.2	2.0	2.0	1.6
V88-466	2.5	1.3	1.0	2.0	2.0	2.3	2.0	2.0	1.9
V88-1234	2.0	1.0	1.3	1.0	1.0	2.2	2.0	2.0	1.6

STRAIN	WEST		MEAN
	BOSSIER CITY LA	PITTSBURG KS	
HOLLADAY	3.0	2.0	2.5
HUTCHESON	1.7	2.0	1.8
N86-7682	2.0	2.0	2.0
D88-5547	2.3	2.0	2.2
R89-332	1.7	2.0	1.8
V87-396	3.0	2.0	2.5
K1242	2.7	2.0	2.3
K1248	2.0	2.0	2.0
N90-403	2.3	2.0	2.2
N90-516	3.7	2.0	2.8
OK88-5409	1.0	2.0	1.5
S88-1854	2.0	2.0	2.0
S89-1097	1.0	2.0	1.5
Tn88-87	2.0	2.0	2.0
V88-466	2.3	2.0	2.2
V88-1234	2.3	2.0	2.2

**PRELIMINARY GROUP V****1993**

Preliminary Group V nurseries were planted at 10 locations. Data were obtained from all of the locations. The parentage for each strain is reported in Table 26. Table 27 gives a general summary of information for each strain including seed yield, oil and protein percentages, maturity index, and pest reactions. Results from individual locations are summarized in Tables 28 - 34.

The cultivar Manokin is the yield and maturity check. It had a mean yield of 39.5 bushels per acre and a mean maturity of September 28 at the 10 locations.

TABLE 26 - PARENTAGE OF THE STRAINS GROWN IN PRELIMINARY GROUP V, 1993.

VARIETY OR STRAIN	PARENTAGE	GENERATION COMPOSITED
1. MANOKIN	L70-L3048 X D74-7824	F5
2. BEDFORD	FORREST(2) X D68-18 X PI88788	F4
3. HOLLADAY	N77-179 X JOHNSTON	F6
4. HUTCHESON	V68-1034 X ESSEX	F5
5. AS1015	LEE X PEKING	F6
6. AS1026	DARE X FORREST	F6
7. AS1029	PI 90763 X ESSEX	F6
8. D91-4561	EPPS X SHARKEY	F5
9. D91-4619	EPPS X SHARKEY	F5
10. D91-4643	EPPS X SHARKEY	F5
11. D91-9321	D87-5963 X (EPPS X SHARKEY)	F4
12. D91-9384	D87-5963 X (EPPS X SHARKEY)	F4
13. K1275	HC 77-2204 X BAY	F5
14. K1276	COKER 425 X A3427	F5
15. K1277	HUTCHESON X A3966	F5
16. Ky90-1836	HUTCHESON X S42-40	F5
17. Ky90-2786	SPENCER X HUTCHESON	F5
18. Ky90-3036	SPENCER X RIPLEY	F5
19. Ky90-3072	SPENCER X RIPLEY	F5
20. LS89-138	FRANKLIN X NATHAN	F5
21. LS90-618	ESSEX X FAYETTE	F5
22. LS90-1716	ESSEX X FAYETTE	F5
23. LS90-2110	ESSEX X FAYETTE	F5
24. N89-1284	ESSEX X VANCE	F4
25. N91-78	N84-564 X HOWARD	F6
26. N91-207	NRS V SELECTION X	F6
27. N91-220	NRS V SELECTION X	F6
28. N91-245	NRS V SELECTION X	F6
29. N91-721	HUTCHESON X N84-878	F6
30. R88-638	JEFF X (PERSHING X EPPS)	F5
31. R90-133	R82-1145 X R81-824	F5
32. R90-723	(WALTERS X LLOYD) X NAROW	F5
33. R90-1219	RPSLK X JEFF	F5
34. R90-1695	HARTZ 6381 X WALTERS	F5
35. S91-1381	HARTZ 5370 X (FORREST(3) x PI 437,654)	F5
36. S91-1614	PIONEER 9571 X (FORREST(3) X PI 437,654)	F5
37. S91-1661	PIONEER 9571 X (FORREST(3) X PI 437,654)	F5
38. S91-1866	(FORREST(3) X PI437,654) X COKER 485	F5
39. S91-7029-1	PIONEER 9521 X (FORREST(3) X PI 437,654)	F4
40. Tn91-263	TN 4-86 X HUTCHESON	F6
41. Tn91-264	TN 4-86 X HUTCHESON	F6
42. V89-387	RIPLEY X MORGAN	F5
43. V89-805	HUTCHESON X (V80-2476 X V80-2165)	F5
44. V89-873	V79-882 X MORGAN	F5
45. V89-1984	RIPLEY X ESSEX	F5

TABLE 27 - GENERAL SUMMARY OF PERFORMANCE FOR THE STRAINS GROWN IN PRELIMINARY GROUP V, 1993.

STRAIN	SEED YIELD	MAT. INDEX	-----PERCENT-----			M. a.	M. i.	SCN 3	SCN 14	STEM CANKER MS
			HT.	OIL	PROTEIN					
MANOKIN	43.5	09/28	28	21.2	40.3	1.4	1.0	R	S	1.0
BEDFORD	39.6	9+	36	20.2-	38.6-	1.0	1.0	R	MR	5.0
HOLLADAY	47.6+	3+	25	21.5	38.2-	2.9	1.1	S	S	1.0
HUTCHESON	47.5+	6+	27	22.0+	39.0	2.8	1.4	S	S	1.5
AS1015	36.8-	5+	27	20.5	41.2	2.9	1.5	S	S	1.0
AS1026	32.3-	10+	34	19.9-	39.3	1.0	1.0	R	--	4.5
AS1029	33.1-	6+	29	20.7	39.4	2.9	2.0	S	--	--
D91-4561	41.2	5+	35	20.3-	41.4	2.9	1.1	MR	S	1.5
D91-4619	44.1	6+	31	19.8-	42.2+	2.8	1.1	R	S	1.0
D91-4643	42.1	4+	31	19.4-	42.3+	2.8	1.3	R	S	1.0
D91-9321	42.1	4+	30	21.2	39.6	3.0	1.0	R	MR	1.0
D91-9384	40.2	7+	35	19.6-	40.6	2.6	1.1	R	MR	1.0
K1275	45.3	5+	23	20.5	41.2	2.8	1.1	S	S	1.0
K1276	46.3	7+	24	22.0+	38.8-	2.2	1.4	S	S	--
K1277	45.8	9+	38	21.8	39.2	2.6	1.1	S	S	4.5
Ky90-1836	45.9	1+	22	22.2+	39.9	2.7	1.0	S	S	--
Ky90-2786	44.8	3+	26	21.0	39.8	2.8	1.1	S	S	1.0
Ky90-3036	41.0	2+	24	21.8	40.2	2.3	1.0	S	S	--
Ky90-3072	42.4	4+	25	21.4	39.7	2.8	1.0	S	S	1.0
LS89-138	35.2-	2+	26	20.2-	41.1	2.9	1.9	R	R	--
LS90-618	39.2-	2+	27	19.7-	41.8+	2.2	1.0	R	R	1.0
LS90-1716	41.5	3+	28	20.1-	42.0+	2.9	1.2	R	MR	--
LS90-2110	38.8-	3+	28	20.0-	41.2	2.9	1.0	R	H	4.0
N89-1284	38.9-	5+	23	19.9-	41.9+	2.8	1.0	S	S	--
N91-78	41.9	9+	34	20.7	40.9	1.1	1.0	R	S	--
N91-207	42.5	10+	35	21.4	39.2	1.1	1.0	S	S	1.0
N91-220	42.5	11+	33	21.3	38.4-	1.4	1.0	S	S	--
N91-245	43.8	8+	32	21.3	38.7-	1.0	1.0	S	S	--
N91-721	43.5	12+	31	19.9-	39.4	2.8	1.1	S	S	4.3
R88-638	43.4	7+	27	20.8	39.2	1.9	1.2	H	MR	--
R90-133	41.2	10+	33	20.3-	40.6	2.8	1.3	R	S	--
R90-723	41.1	10+	30	20.6	39.6	1.0	1.0	R	MR	4.8
R90-1219	42.8	10+	30	19.9-	40.3	1.6	1.0	R	H	4.9
R90-1695	43.6	10+	30	20.5	39.1	1.0	1.0	R	S	--
S91-1381	43.0	7+	31	20.0-	40.0	1.0	1.0	R	R	--
S91-1614	40.4	8+	33	20.3-	39.5	1.0	1.0	R	R	5.0
S91-1661	43.7	9+	35	20.6	39.3	2.7	1.9	R	R	4.6
S91-1866	42.8	11+	32	20.6	39.6	1.1	1.0	R	R	--
S91-7029-1	42.5	9+	32	19.3-	40.8	1.0	1.0	R	R	--
Tn91-263	40.5	11+	28	20.8	39.8	2.1	1.0	R	MR	1.0
Tn91-264	41.5	11+	32	20.6	40.3	2.2	1.0	H	H	1.0
V89-387	40.2	4+	25	20.8	40.4	2.7	1.4	R	S	1.0
V89-805	46.4	5+	31	21.4	39.2	2.8	1.2	R	S	1.0
V89-873	44.5	6+	25	20.9	41.0	2.8	1.1	R	S	--
V89-1984	41.8	3+	24	20.0-	40.9	2.8	1.0	R	S	1.0
L.S.D. (0.05)	4.0			0.7	1.3					
C.V. (%)	10.8			3.4	3.1					

(+) or (-) designations refer to significant differences to Manokin at the 0.05 probability level.

TABLE 28 - SEED YIELD, IN BUSHEL PER ACRE, FOR THE STRAINS IN PRELIMINARY GROUP V, 1993.

STRAIN	POR-										MEAN
	JACK- SON TN	KER- SER AR	PITTS- BURG KS	PLY- MOUTH NC	TAGE- VILLE MO	QUEENS- TOWN MD	STONE- VILLE MS(A)	STONE- VILLE MS(B)	ULL- IN IL	WAR- SAW VA	
MANOKIN	39.5	59.5	42.8	50.7	52.1	35.9	38.5	23.6	50.6	41.6	43.5
BEDFORD	37.7	48.5-	39.8	43.4	51.3	40.1	40.2	26.1	34.6-	34.2	39.6
HOLLADAY	43.9	61.1	46.1	60.4+	52.6	44.1	47.0+	26.5	48.1	46.7	47.6+
HUTCHESON	50.3+	55.9	42.2	56.7	58.3	49.7+	44.8+	39.2+	42.4-	35.8	47.5
AS1015	34.7	49.7-	22.9-	52.4	50.5	.	33.6	18.7	26.7-	42.2	36.8-
AS1026	28.9-	39.3-	20.4-	38.5-	46.1	.	37.7	20.3	28.1-	31.7-	32.3-
AS1029	25.0-	45.2-	21.7-	42.7-	49.9	.	25.4-	20.2	32.9-	35.2	33.1-
D91-4561	33.7	50.1-	29.5-	43.7	51.7	43.9	42.3	38.2+	39.3-	40.3	41.2
D91-4619	40.4	50.7-	45.8	48.7	55.4	42.4	37.7	35.7+	47.6	36.5	44.1
D91-4643	34.7	52.6-	36.4	47.8	55.4	40.3	42.0	38.3+	39.9-	33.2	42.1
D91-9321	38.1	54.2	34.1-	47.0	50.8	44.9+	40.5	34.8+	39.3-	37.7	42.1
D91-9384	34.4	49.3-	34.8-	47.6	44.5	38.2	40.1	35.8+	38.2-	39.0	40.2
K1275	35.4	60.1	43.9	59.7+	53.5	49.1+	38.6	22.6	45.0	45.1	45.3
K1276	32.7	63.7	44.9	58.4	52.4	54.0+	41.3	26.3	45.0	44.6	46.3
K1277	39.4	57.0	51.7+	58.8+	56.1	45.4+	37.4	38.2+	36.4-	37.9	45.8
Ky90-1836	39.3	57.0	51.1+	52.8	52.0	52.1+	43.9	30.1	47.2	33.0	45.9
Ky90-2786	38.3	61.2	50.7+	59.1+	51.8	47.6+	36.6	22.0	42.1-	39.0	44.8
Ky90-3036	31.7	55.0	44.6	50.0	53.1	42.0	37.8	22.1	42.7-	31.5-	41.0
Ky90-3072	32.6	50.7-	44.5	52.4	53.7	43.2	34.9	27.1	45.7	39.6	42.4
LS89-138	33.2	45.1-	41.3	40.6-	42.1-	35.0	31.4-	18.0	40.9-	24.8-	35.2-
LS90-618	29.5-	52.9-	41.1	51.7	53.5	32.0	31.5-	24.0	47.0	28.8-	39.2-
LS90-1716	35.8	55.2	37.9	53.0	50.5	41.4	36.4	27.5	44.7	32.8	41.5
LS90-2110	30.4-	53.1-	36.4	50.5	45.6	37.7	37.7	18.5	45.4	32.7	38.8-
N89-1284	28.8-	55.9	40.7	40.8-	52.6	43.9	28.2-	18.3	41.6-	38.0	38.9-
N91-78	39.9	56.0	38.0	60.0+	50.1	38.2	35.9	28.8	36.9-	35.2	41.9
N91-207	42.4	48.9-	40.3	59.8+	45.6	46.9+	34.4	32.8+	34.0-	39.7	42.5
N91-220	41.3	47.0-	33.2-	54.0	47.7	44.0	37.6	33.8+	39.4-	46.8	42.5
N91-245	40.4	51.5-	45.0	51.0	54.1	48.9+	39.9	27.0	37.4-	42.9	43.8
N91-721	36.9	48.1-	44.7	59.5+	54.3	42.9	32.3-	38.7+	40.7-	37.3	43.5
R88-638	38.6	58.8	49.1	50.4	44.4-	39.3	40.0	25.6	47.9	39.8	43.4
R90-133	42.2	48.5-	36.7	46.7	52.3	38.0	35.2	31.1	41.6-	40.1	41.2
R90-723	42.4	51.3-	38.3	55.0	47.9	32.4	36.6	23.6	47.1	36.9	41.1
R90-1219	39.1	52.6-	40.8	52.0	58.5	39.0	33.2	25.8	49.5	38.0	42.8
R90-1695	40.1	53.1-	38.4	52.9	61.7+	40.3	36.4	29.1	44.2	39.9	43.6
S91-1381	33.8	50.2-	44.4	49.7	52.5	39.9	39.3	32.4+	47.4	40.6	43.0
S91-1614	40.7	50.0-	38.3	47.1	48.1	41.9	40.6	22.4	42.1-	32.6	40.4
S91-1661	34.8	54.1	40.7	49.9	54.2	45.8+	43.3	30.4	46.6	37.7	43.7
S91-1866	39.7	56.1	37.4	52.1	53.9	46.7+	39.7	20.5	44.8	37.7	42.8
S91-7029-1	35.4	53.8	34.8-	53.6	59.8	38.0	42.0	17.2	49.5	41.1	42.5
Tn91-263	41.3	45.3-	44.8	48.5	48.8	41.5	32.9-	21.3	46.1	34.7	40.5
Tn91-264	40.2	47.2-	41.2	46.5	48.1	44.8+	32.5-	33.5+	43.2	38.1	41.5
V89-387	37.1	48.4-	42.5	52.7	51.7	50.0+	31.5-	18.1	39.1-	30.7-	40.2
V89-805	44.3	56.7	37.8	54.1	49.9	51.3+	43.7	31.6	47.0	48.2	46.4
V89-873	32.3	53.9	47.7	53.9	54.4	53.6+	39.2	27.4	42.4-	40.4	44.5
V89-1984	40.9	58.3	37.6	54.1	41.4-	43.1	37.7	30.6	40.2-	34.3	41.8
Overall Mean	37.2	52.7	39.9	51.4	51.4	43.1	37.5	27.4	42.2	37.6	
L.S.D. (0.05)	8.8	6.3	6.7	7.8	7.7	8.5	5.5	8.3	7.4	9.0	4.0
C.V. (%)	11.8	6.0	9.9	7.6	7.4	9.7	7.2	14.9	8.7	12.0	10.8

TABLE 29 - OIL PERCENTAGES FOR THE STRAINS IN PRELIMINARY GROUP V, 1993.

STRAIN	JACKSON TN	PITTS- BURG KS	PORTAGE- VILLE MO	QUEENS- TOWN MD	STONE- VILLE MS(A)	STONE- VILLE MS(B)	WARSAW VA	MEAN
MANOKIN	23.0	20.8	20.2	20.1	21.0	21.8	21.8	21.2
BEDFORD	21.0	19.6	19.9	20.1	19.3	20.4	21.0	20.2
HOLLADAY	22.6	19.7	20.8	20.5	22.1	22.9	22.1	21.5
HUTCHESON	22.3	21.7	21.2	21.3	21.6	23.0	22.7	22.0
AS1015	20.9	20.8	19.4	20.3	19.5	21.1	21.2	20.5
AS1026	20.2	18.4	19.6	20.9	19.1	20.5	20.8	19.9
AS1029	20.9	20.2	20.3	21.7	18.4	21.0	22.4	20.7
D91-4561	21.5	19.9	19.4	19.9	19.6	20.4	21.3	20.3
D91-4619	19.6	21.3	18.4	19.2	19.1	20.2	21.1	19.8
D91-4643	19.6	22.7	18.0	18.4	17.8	19.4	19.9	19.4
D91-9321	21.2	22.0	19.9	20.5	21.1	21.6	21.9	21.2
D91-9384	20.6	20.3	18.4	18.9	19.3	20.0	19.6	19.6
K1275	20.9	18.4	19.6	20.2	21.0	21.7	21.7	20.5
K1276	22.0	20.7	21.5	21.6	22.3	23.3	22.9	22.0
K1277	22.9	19.6	21.0	21.9	22.1	23.0	21.9	21.8
Ky90-1836	22.1	21.2	21.6	21.8	23.2	23.2	22.6	22.2
Ky90-2786	22.2	20.3	20.4	20.4	20.1	22.0	21.7	21.0
Ky90-3036	21.9	20.3	21.4	21.4	22.2	22.9	22.3	21.8
Ky90-3072	22.0	19.7	20.6	21.2	21.4	22.9	22.2	21.4
LS89-138	21.1	20.4	19.0	20.1	19.6	21.2	20.0	20.2
LS90-618	19.9	19.2	19.0	19.2	19.2	20.8	20.4	19.7
LS90-1716	20.8	18.5	18.9	20.1	19.6	21.1	21.6	20.1
LS90-2110	20.4	20.0	19.2	19.7	18.7	20.6	21.5	20.0
N89-1284	19.9	21.7	19.0	19.4	18.8	20.1	20.1	19.9
N91-78	21.4	19.5	20.1	19.8	21.1	21.5	21.6	20.7
N91-207	21.9	20.4	20.5	20.8	21.2	22.7	22.6	21.4
N91-220	22.3	19.9	20.6	21.1	21.3	22.5	21.7	21.3
N91-245	22.4	18.9	20.1	21.2	20.8	22.4	23.3	21.3
N91-721	19.7	20.4	19.5	19.8	18.4	21.0	20.6	19.9
R88-638	21.7	20.4	19.9	20.4	19.5	22.0	21.8	20.8
R90-133	22.5	18.2	19.4	20.0	19.9	21.5	20.6	20.3
R90-723	21.5	19.7	19.4	20.2	20.0	21.5	22.0	20.6
R90-1219	20.0	20.9	19.0	19.7	18.6	19.9	21.0	19.9
R90-1695	20.7	21.7	19.3	20.3	19.2	20.6	21.4	20.5
S91-1381	21.3	18.7	19.1	19.5	18.9	20.6	21.8	20.0
S91-1614	20.3	20.7	19.9	19.7	19.2	21.0	21.6	20.3
S91-1661	20.7	21.4	19.9	20.4	19.6	21.2	21.0	20.6
S91-1866	21.7	20.1	20.4	20.7	19.4	20.1	21.8	20.6
S91-7029-1	19.2	19.2	18.6	19.1	18.4	19.8	20.7	19.3
Tn91-263	22.2	19.7	19.9	20.6	19.4	21.7	22.0	20.8
Tn91-264	21.7	20.4	19.0	20.7	19.5	21.4	21.5	20.6
V89-387	21.5	19.3	20.4	20.6	19.7	22.1	22.1	20.8
V89-805	21.6	20.2	20.2	21.8	20.9	23.0	22.3	21.4
V89-873	21.1	21.5	19.9	20.5	20.0	21.5	21.9	20.9
V89-1984	20.1	18.5	19.5	19.6	20.1	20.7	21.5	20.0

TABLE 30 - PROTEIN PERCENTAGES FOR THE STRAINS IN PRELIMINARY GROUP V, 1993.

STRAIN	JACKSON TN	PITTS- BURG KS	PORTAGE- VILLE MO	QUEENS- TOWN MD	STONE- VILLE MS(A)	STONE- VILLE MS(B)	WARSAW VA	MEAN
MANOKIN	40.0	37.4	40.0	41.3	43.2	41.0	38.9	40.3
BEDFORD	38.2	40.0	37.7	35.8	42.8	39.2	36.2	38.6
HOLLADAY	37.2	38.3	37.8	38.7	39.0	38.5	37.7	38.2
HUTCHESON	40.4	37.3	38.2	38.2	41.5	38.7	38.6	39.0
AS1015	41.7	38.2	41.3	40.0	44.7	41.7	40.6	41.2
AS1026	37.7	41.6	38.7	35.8	42.9	41.4	37.1	39.3
AS1029	39.6	37.8	38.5	37.0	44.8	40.3	37.5	39.4
D91-4561	42.4	34.6	42.0	40.7	46.3	43.3	40.2	41.4
D91-4619	44.3	36.2	42.6	41.3	47.1	43.4	40.8	42.2
D91-4643	43.6	38.5	42.1	41.5	46.4	42.5	41.2	42.3
D91-9321	42.1	36.3	39.2	38.8	42.1	40.4	38.6	39.6
D91-9384	39.8	39.3	40.1	39.6	44.0	41.0	40.3	40.6
K1275	40.8	42.8	40.1	40.3	43.5	41.1	39.5	41.2
K1276	41.0	38.7	37.5	37.3	40.7	38.5	37.8	38.8
K1277	39.1	40.9	38.0	37.8	41.8	39.0	38.1	39.2
Ky90-1836	40.4	39.2	39.5	39.7	41.8	38.8	39.7	39.9
Ky90-2786	40.5	36.9	39.6	39.6	43.2	39.5	39.3	39.8
Ky90-3036	41.6	41.8	38.4	39.2	41.8	39.1	39.8	40.2
Ky90-3072	41.5	39.3	39.5	39.0	41.9	38.7	38.3	39.7
LS89-138	41.2	38.1	40.7	41.8	44.5	40.2	41.5	41.1
LS90-618	43.1	39.9	41.3	41.3	44.9	40.8	41.6	41.8
LS90-1716	43.4	40.1	42.0	42.1	44.0	41.5	40.9	42.0
LS90-2110	42.1	38.2	41.1	41.8	44.0	41.0	40.3	41.2
N89-1284	43.8	38.3	41.3	41.3	45.4	42.3	40.7	41.9
N91-78	40.6	39.0	40.0	41.3	44.0	41.6	39.6	40.9
N91-207	40.2	38.7	38.0	38.8	42.1	39.0	37.5	39.2
N91-220	38.0	40.5	36.9	37.2	40.8	38.1	37.3	38.4
N91-245	39.3	36.3	38.5	37.7	42.3	40.2	36.8	38.7
N91-721	42.2	35.7	38.5	38.3	43.2	39.3	38.3	39.4
R88-638	40.8	36.9	39.1	38.0	43.0	38.9	37.5	39.2
R90-133	38.4	40.4	39.2	40.4	44.5	42.0	39.3	40.6
R90-723	39.7	36.7	39.4	39.1	43.5	40.3	38.7	39.6
R90-1219	41.3	38.7	39.2	38.5	44.5	42.0	38.0	40.3
R90-1695	39.8	37.4	38.3	37.0	43.2	40.7	37.5	39.1
S91-1381	40.3	36.2	40.0	39.5	44.5	42.0	37.3	40.0
S91-1614	41.1	38.7	37.9	38.5	43.3	39.4	37.6	39.5
S91-1661	40.0	39.0	38.0	38.2	42.4	39.9	37.6	39.3
S91-1866	38.5	38.1	38.8	40.2	42.7	40.8	38.0	39.6
S91-7029-1	42.0	40.5	39.5	38.9	44.2	42.2	38.3	40.8
Tn91-263	38.8	38.9	39.3	39.0	42.8	41.0	38.8	39.8
Tn91-264	38.5	37.8	41.0	40.0	43.8	41.0	39.8	40.3
V89-387	41.1	42.2	39.5	37.5	43.0	40.2	39.2	40.4
V89-805	40.7	40.2	39.0	37.8	40.8	37.7	38.0	39.2
V89-873	41.9	38.1	41.0	39.8	44.7	41.1	40.5	41.0
V89-1984	41.5	41.4	41.3	39.3	42.5	41.1	39.3	40.9

TABLE 31 - SEED SIZE FOR THE STRAINS IN PRELIMINARY GROUP V, 1993.

STRAIN	KEISER AR	PITTS- BURG KS	PLY- MOUTH NC	PORTAGE- VILLE MO	QUEENS- TOWN MD	ULLIN IL	WARSAW VA	MEAN
MANOKIN	12.3	11.3	14.1	11.8	10.8	13.0	12.0	12.2
BEDFORD	11.8	11.7	13.0	11.0	12.3	11.9	13.1	12.1
HOLLADAY	13.8	12.3	15.2	12.5	12.8	12.6	13.8	13.3
HUTCHESON	12.5	14.7	16.4	12.7	15.5	14.1	14.3	14.3
AS1015	11.8	11.4	14.0	12.3	14.1	11.8	13.0	12.6
AS1026	11.2	11.9	12.3	11.8	12.1	11.5	13.1	12.0
AS1029	11.6	12.6	12.2	12.0	13.1	10.4	12.3	12.0
D91-4561	10.7	14.4	13.3	11.1	13.0	12.9	12.6	12.6
D91-4619	11.4	12.6	13.1	11.2	12.9	12.4	13.1	12.4
D91-4643	12.0	13.5	13.7	11.8	12.5	12.2	13.1	12.7
D91-9321	11.7	11.7	12.8	10.7	12.8	11.9	12.4	12.0
D91-9384	12.8	13.7	13.5	11.9	13.8	12.1	14.0	13.1
K1275	12.8	11.1	15.6	11.7	12.9	12.6	13.7	12.9
K1276	13.4	12.9	15.0	11.8	14.1	12.7	14.8	13.5
K1277	13.9	16.0	17.0	14.1	15.9	14.2	15.8	15.3
Ky90-1836	13.4	13.0	14.8	12.5	14.2	13.6	13.0	13.5
Ky90-2786	14.1	13.8	16.1	13.7	14.0	13.5	14.2	14.2
Ky90-3036	14.1	13.8	16.4	13.8	14.9	13.3	14.4	14.4
Ky90-3072	12.9	13.1	15.6	13.2	14.7	12.9	13.3	13.7
LS89-138	13.1	13.3	14.5	12.6	13.8	14.3	12.7	13.5
LS90-618	11.8	12.5	14.0	11.4	11.3	12.0	11.9	12.1
LS90-1716	12.6	13.6	16.0	12.6	12.6	13.8	13.0	13.5
LS90-2110	11.4	10.7	12.9	11.4	12.4	11.8	12.5	11.9
N89-1284	9.0	8.8	9.8	9.4	9.2	8.2	10.0	9.2
N91-78	14.6	14.4	16.5	13.1	14.4	16.1	17.7	15.2
N91-207	12.0	13.6	14.0	11.6	13.7	12.1	13.4	12.9
N91-220	11.4	12.2	13.2	11.8	12.8	11.2	13.5	12.3
N91-245	10.7	11.8	12.9	10.5	12.4	10.1	12.8	11.6
N91-721	13.0	15.2	15.8	13.6	15.7	13.6	16.3	14.7
R88-638	11.5	11.9	13.9	12.0	11.6	12.0	12.8	12.2
R90-133	12.2	12.7	13.9	11.6	14.0	13.0	15.4	13.3
R90-723	12.1	12.6	16.4	12.9	14.1	13.2	16.0	13.9
R90-1219	11.9	13.7	15.2	12.7	13.5	14.2	15.0	13.7
R90-1695	12.1	12.1	14.9	13.1	12.7	13.5	14.1	13.2
S91-1381	12.8	12.2	14.4	13.2	12.7	12.9	13.2	13.0
S91-1614	12.2	12.9	15.2	12.6	13.7	13.1	14.0	13.4
S91-1661	13.8	12.5	14.9	13.8	15.3	13.6	14.8	14.1
S91-1866	13.7	13.9	15.8	14.0	15.5	14.8	15.9	14.8
S91-7029-1	11.7	12.9	13.5	12.3	12.5	11.8	13.4	12.6
Tn91-263	9.8	11.5	12.3	10.8	11.4	11.5	11.9	11.3
Tn91-264	11.3	11.7	13.4	11.6	12.5	11.2	12.7	12.1
V89-387	13.8	11.4	15.8	11.8	14.3	12.8	13.8	13.4
V89-805	11.9	12.2	14.5	11.6	15.2	12.8	15.3	13.3
V89-873	11.6	11.0	12.9	11.0	11.8	11.7	12.0	11.7
V89-1984	10.6	9.3	12.3	11.3	10.5	10.6	12.0	10.9

TABLE 32 - PLANT HEIGHT FOR THE STRAINS IN PRELIMINARY GROUP V, 1993.

STRAIN	JACK- SON TN	KEI- SER AR	PITTS- BURG KS	PLY- MOUTH NC	POR- TAGE- VILLE MO	QUEENS- TOWN MD	STONE- VILLE MS(A)	STONE- VILLE MS(B)	ULL- IN IL	WAR- SAW VA	MEAN
MANOKIN	27	31	31	27	34	32	29	17	30	22	28
BEDFORD	39	44	40	35	23	38	38	25	45	34	36
HOLLADAY	26	29	29	26	25	26	26	18	27	20	25
HUTCHESON	29	32	29	27	29	27	27	19	30	21	27
AS1015	29	30	24	27	36	23	31	18	30	22	27
AS1026	38	35	34	29	41	32	35	26	38	31	34
AS1029	35	33	23	31	39	25	27	21	33	26	29
D91-4561	35	34	37	36	41	30	39	28	37	31	35
D91-4619	34	32	34	28	32	32	35	25	39	26	31
D91-4643	32	32	32	32	33	33	33	23	34	28	31
D91-9321	29	29	32	31	34	32	31	26	30	27	30
D91-9384	36	40	39	32	39	36	36	27	35	30	35
K1275	22	26	27	24	27	26	20	16	27	18	23
K1276	25	25	27	27	31	25	21	15	30	18	24
K1277	37	47	33	37	41	37	51	33	35	29	38
Ky90-1836	21	21	26	24	24	24	21	15	25	17	22
Ky90-2786	25	29	29	35	25	26	25	18	29	20	26
Ky90-3036	25	23	30	27	26	27	23	16	28	18	24
Ky90-3072	22	27	29	25	27	27	23	17	31	19	25
LS89-138	25	28	30	27	29	30	23	15	30	22	26
LS90-618	24	31	31	27	33	28	28	16	31	22	27
LS90-1716	26	30	32	32	31	33	26	21	34	21	28
LS90-2110	27	31	30	30	31	34	25	19	35	22	28
N89-1284	22	25	23	23	28	29	18	15	27	17	23
N91-78	36	37	32	34	39	39	38	22	33	28	34
N91-207	37	41	37	34	36	40	32	28	39	29	35
N91-220	33	37	36	33	33	36	31	24	39	29	33
N91-245	31	36	32	31	39	33	31	24	34	27	32
N91-721	31	35	35	32	35	32	32	20	32	27	31
R88-638	28	30	29	26	26	29	27	19	31	22	27
R90-133	36	38	38	30	38	35	30	20	37	28	33
R90-723	29	34	31	32	30	32	30	21	37	27	30
R90-1219	26	34	32	33	32	33	30	17	35	25	30
R90-1695	29	36	35	29	36	33	30	17	33	24	30
S91-1381	31	34	34	31	32	34	31	17	39	26	31
S91-1614	34	35	34	37	38	37	35	19	33	30	33
S91-1661	35	41	34	34	36	37	34	24	40	33	35
S91-1866	35	30	35	34	34	36	29	23	36	26	32
S91-7029-1	31	36	38	34	39	38	29	20	33	27	32
Tn91-263	28	28	29	33	32	32	30	20	30	22	28
Tn91-264	29	35	33	31	35	37	40	21	33	24	32
V89-387	26	29	28	27	31	30	21	14	30	18	25
V89-805	32	34	30	30	38	36	28	20	34	26	31
V89-873	21	28	28	26	28	30	26	16	27	21	25
V89-1984	27	27	25	27	24	24	23	14	28	18	24

TABLE 33 - LODGING SCORES FOR THE STRAINS IN PRELIMINARY GROUP V, 1993.

STRAIN	JACK- SON TN	KEI- SER AR	PITTS- BURG KS	PLY- MOUTH NC	POR- TAGE- VILLE MO	QUEENS- TOWN MD	STONE- VILLE MS(A)	STONE VILLE MS(B)	ULL- IN IL	WAR- SAW VA	MEAN
MANOKIN	1.0	1.0	2.5	2.0	1.5	3.0	2.0	2.0	1.8	2.0	1.9
BEDFORD	1.0	3.0	3.5	2.0	1.5	3.0	2.5	3.0	2.5	2.3	2.4
HOLLADAY	1.0	1.0	1.0	2.0	1.0	2.0	2.0	2.0	1.0	1.0	1.4
HUTCHESON	1.0	1.0	1.0	1.5	1.0	1.8	2.0	2.0	1.5	1.4	1.4
AS1015	1.0	1.0	1.5	2.3	1.0	2.0	2.0	2.0	1.3	1.5	1.6
AS1026	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.5	2.0	1.9
AS1029	1.0	1.0	1.0	2.0	1.0	2.0	2.0	2.0	1.3	1.6	1.5
D91-4561	2.0	4.0	4.0	4.0	2.5	3.5	3.0	2.5	3.0	3.3	3.2
D91-4619	2.0	3.0	3.5	3.3	2.5	2.8	3.0	3.0	3.0	2.5	2.9
D91-4643	2.0	2.0	4.0	3.0	1.5	3.0	3.0	2.5	1.5	2.5	2.5
D91-9321	2.0	2.0	4.0	3.3	2.0	3.5	2.5	2.5	2.8	2.5	2.7
D91-9384	2.0	4.0	4.0	3.0	2.0	3.5	4.0	2.0	2.3	2.8	3.0
K1275	1.0	1.0	1.0	1.5	1.0	1.8	2.0	2.0	1.3	1.4	1.4
K1276	1.0	1.0	1.0	1.5	1.0	1.5	2.0	2.0	1.0	1.0	1.3
K1277	1.0	2.0	1.0	2.0	1.0	1.8	3.0	2.0	1.3	1.3	1.6
Ky90-1836	1.0	1.0	1.0	1.5	1.0	1.5	2.0	2.0	1.0	1.0	1.3
Ky90-2786	1.0	1.0	1.0	1.8	1.0	1.8	2.0	2.0	1.0	1.1	1.4
Ky90-3036	1.0	1.0	1.0	1.5	1.0	1.5	2.0	2.0	1.0	1.0	1.3
Ky90-3072	1.0	1.0	1.0	1.5	1.0	1.8	2.0	2.0	1.0	1.2	1.3
LS89-138	1.0	1.0	1.0	2.0	1.0	1.8	2.0	2.0	1.3	1.5	1.5
LS90-618	1.0	1.0	1.0	1.8	1.0	1.8	2.0	2.0	1.3	1.1	1.4
LS90-1716	1.0	1.0	2.0	2.3	1.0	2.5	2.0	2.0	1.5	1.2	1.6
LS90-2110	1.0	1.0	1.0	1.3	1.0	2.5	2.0	2.0	1.3	1.3	1.4
N89-1284	1.0	1.0	1.0	1.5	1.0	2.0	2.0	2.0	1.0	1.0	1.4
N91-78	1.0	3.0	3.0	2.0	1.0	3.0	2.5	2.0	1.8	1.4	2.1
N91-207	1.5	2.0	2.5	2.0	1.0	2.5	2.0	2.0	1.5	1.8	1.9
N91-220	1.0	3.0	4.0	2.5	1.0	3.3	2.0	2.0	2.5	2.0	2.3
N91-245	1.0	2.0	1.5	2.0	1.0	1.8	2.0	2.0	1.5	1.2	1.6
N91-721	1.0	1.0	1.0	2.0	1.0	2.3	2.0	2.0	1.3	1.5	1.5
R88-638	1.0	1.0	1.5	1.5	1.0	1.8	2.0	2.0	1.3	1.6	1.5
R90-133	1.0	2.5	3.0	2.0	1.5	3.3	2.0	2.0	1.8	2.0	2.1
R90-723	1.0	1.5	2.5	2.0	1.0	3.0	2.0	2.0	1.8	1.8	1.9
R90-1219	1.0	2.0	3.5	2.0	1.5	3.5	2.0	2.0	2.0	1.8	2.1
R90-1695	1.0	2.0	3.0	2.0	1.5	2.3	2.0	2.0	2.0	1.5	1.9
S91-1381	1.0	1.0	2.0	2.5	1.0	2.8	2.0	2.0	2.3	1.4	1.8
S91-1614	1.0	1.0	2.5	2.0	1.0	3.3	2.0	2.0	2.0	1.8	1.9
S91-1661	1.0	1.5	2.0	2.0	1.0	2.5	2.0	2.0	2.3	1.4	1.8
S91-1866	1.5	2.5	3.0	2.5	1.0	3.5	2.0	2.5	2.5	2.0	2.3
S91-7029-1	1.0	2.5	4.5	2.5	2.0	3.5	2.0	2.0	2.3	2.0	2.4
Tn91-263	1.0	1.0	1.0	1.5	1.0	1.5	2.0	2.0	1.0	1.2	1.3
Tn91-264	1.0	1.0	1.0	1.0	1.0	1.8	2.0	2.0	1.0	1.2	1.3
V89-387	1.0	1.0	1.0	1.3	1.0	2.0	2.0	2.0	1.0	1.1	1.3
V89-805	1.0	1.0	1.5	1.8	1.0	2.5	2.0	2.0	1.5	1.8	1.6
V89-873	1.0	1.0	1.0	2.0	1.0	2.3	2.0	2.0	1.0	1.4	1.5
V89-1984	1.0	1.0	1.0	1.5	1.0	1.5	2.0	2.0	1.0	1.0	1.3

TABLE 34 - SEED QUALITY SCORES FOR THE STRAINS IN PRELIMINARY GROUP V, 1993.

STRAIN	PITTS- BURG KS	PLY- MOUTH NC	PORTAGE- VILLE MO	QUEENS- TOWN MD	STONE- VILLE MS(A)	STONE- VILLE MS(B)	ULLIN IL	WARSAW VA	MEAN
MANOKIN	2.0	2.0	1.5	1.8	2.0	2.0	1.0	1.6	1.7
BEDFORD	2.0	1.5	2.0	1.0	2.0	2.0	2.0	1.7	1.8
HOLLADAY	2.0	2.5	2.0	2.0	2.0	2.0	1.5	1.7	2.0
HUTCHESON	2.0	2.0	1.5	1.8	2.0	2.0	2.0	1.4	1.8
AS1015	2.0	2.0	1.5	1.0	2.0	2.0	2.0	1.1	1.7
AS1026	2.0	2.0	2.0	1.5	2.0	2.0	1.5	1.8	1.9
AS1029	2.0	1.5	2.0	1.5	2.0	2.0	1.5	1.4	1.7
D91-4561	2.0	2.0	1.5	1.0	2.0	2.0	2.5	1.5	1.8
D91-4619	2.0	1.5	2.0	1.5	2.0	2.0	2.0	1.8	1.9
D91-4643	2.0	2.0	1.5	1.3	2.0	2.0	1.5	1.7	1.7
D91-9321	2.0	1.5	2.0	1.3	2.0	2.0	2.0	1.8	1.8
D91-9384	2.0	2.0	2.0	1.0	2.0	2.0	2.0	1.5	1.8
K1275	2.0	2.0	1.0	1.0	2.0	2.0	2.0	1.5	1.7
K1276	1.0	1.5	2.0	1.8	2.0	2.0	1.5	1.5	1.7
K1277	2.0	2.0	2.0	2.3	2.0	2.0	2.5	2.4	2.1
Ky90-1836	1.0	2.5	2.0	1.0	2.0	2.0	1.5	2.2	1.8
Ky90-2786	2.0	2.0	2.0	1.5	2.0	2.0	2.0	2.0	1.9
Ky90-3036	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.6	2.0
Ky90-3072	2.0	2.0	2.0	1.3	2.0	2.0	2.5	1.3	1.9
LS89-138	2.0	1.5	2.0	2.0	2.0	2.0	1.5	2.4	1.9
LS90-618	2.0	2.5	2.0	1.8	2.0	2.0	2.0	1.5	2.0
LS90-1716	2.0	2.0	2.0	1.5	2.0	2.0	2.5	1.8	2.0
LS90-2110	2.0	1.5	2.0	1.5	2.0	2.0	2.0	1.4	1.8
N89-1284	2.0	2.0	1.5	1.3	2.0	2.0	1.5	1.4	1.7
N91-78	2.0	2.5	2.0	1.5	2.0	2.0	3.0	1.8	2.1
N91-207	2.0	2.0	2.0	1.8	2.0	2.0	1.5	1.2	1.8
N91-220	2.0	2.0	2.0	1.5	2.0	2.0	2.0	1.4	1.9
N91-245	1.0	1.5	2.0	1.0	2.0	2.0	1.0	1.2	1.5
N91-721	2.0	2.0	2.0	1.3	2.0	2.0	2.0	1.4	1.8
R88-638	2.0	1.5	2.0	1.5	2.0	2.0	2.5	1.5	1.9
R90-133	2.0	1.5	2.0	2.0	2.0	2.0	2.0	1.8	1.9
R90-723	2.0	2.0	2.0	2.0	2.0	2.0	1.5	2.3	2.0
R90-1219	2.0	2.0	2.0	1.5	2.0	2.0	1.5	1.5	1.8
R90-1695	2.0	1.5	2.0	1.3	2.0	2.0	2.0	1.5	1.8
S91-1381	2.0	2.0	2.0	1.5	2.0	2.0	2.5	1.5	1.9
S91-1614	2.0	1.5	1.0	1.5	2.0	2.0	1.5	1.7	1.6
S91-1661	2.0	2.0	2.5	1.5	2.0	2.0	2.5	2.2	2.1
S91-1866	2.0	1.0	2.0	1.5	2.0	2.0	2.0	1.7	1.8
S91-7029-1	2.0	2.0	2.0	1.3	2.0	2.0	2.0	1.5	1.8
Tn91-263	2.0	1.5	2.0	1.0	2.0	2.0	2.0	1.6	1.8
Tn91-264	2.0	2.0	2.0	1.3	2.0	2.0	2.5	1.5	1.9
V89-387	2.0	2.0	2.0	1.5	2.0	2.0	1.5	1.3	1.8
V89-805	2.0	2.0	2.0	1.5	2.0	2.0	2.0	1.4	1.9
V89-873	2.0	2.0	1.5	1.0	2.0	2.0	1.5	1.5	1.7
V89-1984	2.0	2.0	2.0	1.3	2.0	2.0	1.5	1.4	1.8

**MATURITY**

**GROUP**

**VI**

## UNIFORM GROUP VI

1993

Uniform Group VI nurseries were planted at 29 locations. Data were obtained from 27 of these locations. The parentage for each strain is reported in Table 35. Table 36 gives a general summary of information for each strain including one-, two-, and three-year means for seed yield, oil and protein percentages, botanical traits, and pest reactions. Results from individual locations are summarized in Tables 37 - 42.

The cultivar Brim is the yield and maturity check. It had a mean yield of 39.3 bushels per acre and a mean maturity of October 15 at the 27 locations.

The South Carolina Agricultural Experiment Station has proposed the release of SC84-931 as 'Dillion'. It has performed best in the Southeast, Delta, and East Coast Regions. Dillion is resistant to *Meloidogyne incognita* and common races of frogeye leafspot. Dillion is named after a county in the northeast area of South Carolina.

TABLE 35 - PARENTAGE OF THE STRAINS GROWN IN UNIFORM GROUP VI, 1993.

VARIETY OR STRAIN	PARENTAGE	GENERATION COMPOSITED
1. BRIM	YOUNG X N73-1102	F7
2. LYON	D82-2218 X LAMAR	F5
3. D87-4429	SHARKEY X LEFLORE	F5
4. SC84-931	CENTENNIAL X YOUNG	F5
5. N89-566	YOUNG X NCR84-V248	F6
6. RJ85-9116	J77-255 X BEDFORD	F5
7. R89-131	(R80-437 X LEFLORE) X (JEFF X R80-64K)	F5
8. Au89-1424	G80-1515 X STONEWALL	F6
9. N90-541	HUTCHESON X N83-1014	F6
10. N90-1101	BRIM X N80-777	F6
11. R90-844	(WALTERS X LLOYD) X NAROW	F5
12. S90-1218	S81-2876 X N83-375	F6
13. S90-1245	D81-7857 X N83-375	F6
14. SC89-147	HUTCHESON X LEFLORE	F5
15. SC89-181	HUTCHESON X LEFLORE	F5
16. V88-494	V79-881 X TOANO	F5

**Background of lines used as parents:**

- D81-7857** is a selection from Bedford X (J74-45 X D74-7445). J74-45 is a SCN race 4 resistant line having the same parentage as Bedford. D74-7445 is a selection from D65-3426 X D67-8423.
- D82-2218** is a selection from Bedford X Tracy-M.
- G80-1515** is a selection from Pickett 71 X Bedford.
- J77-255** is a selection from D74-7631 X J74-57. D74-7631 is a selection from Forrest X D70-3001 and J74-57 is a selection from an F<sub>4</sub> selection from D68-18 X PI 88788.
- N73-1102** is a selection from Tracy X Ransom.
- N80-777** is a selection from N70-1501 X (N72-40 X N73-538). N70-1501 is a selection from Dare X D65-6765. N72-40 is a selection from D64-3253 X D65-3168 and N73-538 is a selection from Tracy X Ransom.
- N83-375** is a selection from N76-098 X N76-683. N76-098 is a selection from N70-1741 X Essex and N76-683 is a selection from N70-1501 X N70-2173.
- N83-1014** is a selection from Gasoy 17 X N77-940. N77-940 is a selection from N70-1549 X Centennial.
- R80-437** is a selection from (Centennial X R75-12) X (Pickett 71 X PI 90763R).
- S81-2876** is a selection from Bedford X S77-114.
- V79-881** is a selection from Essex X Ransom.

TABLE 36 - GENERAL SUMMARY OF PERFORMANCE FOR THE STRAINS GROWN IN UNIFORM GROUP VI, 1993.

STRAIN	YIELD†			PROTEIN			OIL		
	1993	92-93	91-93	1993	92-93	91-93	1993	92-93	91-93
BRIM	39.3	.	.	41.4	.	.	20.1	.	.
D87-4429	38.0	43.3	44.8	41.0	41.5	41.4	20.2	20.1	19.9
SC84-931	37.6	43.1	44.4	41.4	41.5	41.4	20.8	20.8	20.8
LYON	36.0	40.6	41.0	40.8	41.2	41.1	20.6	20.5	20.5
N89-566	37.3	41.3	.	41.9	42.0	.	20.8	20.8	.
RJ85-9116	36.7	40.4	.	40.3	40.4	.	21.0	20.9	.
R89-131	38.6	41.9	.	41.4	42.0	.	20.2	20.1	.
Au89-1424	38.3	.	.	39.3	.	.	21.3	.	.
N90-541	37.5	.	.	40.3	.	.	23.2	.	.
N90-1101	37.7	.	.	40.7	.	.	20.5	.	.
R90-844	37.0	.	.	39.7	.	.	21.8	.	.
S90-1218	34.5	.	.	42.1	.	.	21.7	.	.
S90-1245	34.6	.	.	40.8	.	.	23.9	.	.
SC89-147	40.8	.	.	40.9	.	.	20.6	.	.
SC89-181	41.8	.	.	39.9	.	.	20.3	.	.
V88-494	40.1	.	.	40.3	.	.	21.3	.	.

## BOTANICAL TRAITS

STRAIN	FL. COLOR	HEIGHT	MATURITY DATE	LODGING	PUB. COLOR	POD WALL	SEED SIZE	SEED QUALITY
BRIM	W	33	10/15	1.4	G	Br	12.9	1.7
LYON	W	29	0	1.7	T	T	13.7	1.8
D87-4429	P	29	+3	1.7	T	T	16.1	2.0
SC84-931	P	29	-5	1.3	G	T	14.9	1.8
N89-566	W	32	-2	1.5	G	T	14.2	2.0
RJ85-9116	W	30	-1	1.5	T	T	12.4	2.2
R89-131	W	32	+4	1.7	T	T	14.0	2.0
Au89-1424	W	30	+2	1.4	T	T	15.0	1.8
N90-541	W	25	-6	1.2	T	T	14.3	2.0
N90-1101	W	29	0	1.4	G	Br	13.0	1.9
R90-844	P	28	-8	1.5	G	T	14.6	2.0
S90-1218	W	28	-7	1.2	T	T	14.7	2.5
S90-1245	W	29	-9	1.4	T	T	15.2	2.0
SC89-147	W	31	+5	1.6	G	T	14.7	1.7
SC89-181	W	32	+5	1.6	G	T	12.4	1.8
V88-494	P	29	+3	1.6	G	T	13.3	1.8

## PEST REACTIONS

STRAIN	M. a.	M. i.	SCN		VBC††	STEM	STEM	FROG	AERIAL
			RACE 3	RACE 14		CANKER MS	CANKER TX		
BRIM	4.3	3.8	S	S	6.67	4.8	4.0	0.02	4.7
LYON	1.5	1.0	MR	MR	7.00	1.0	0	0.22	4.7
D87-4429	4.5	1.0	MR	H	6.17	1.8	0	0.07	4.0
SC84-931	2.8	1.5	S	S	3.33	2.8	7.0	0.03	1.3
N89-566	3.0	2.5	S	S	7.33	4.5	7.3	0.05	3.3
RJ85-9116	3.0	1.3	R	R	7.17	5.0	5.0	0.15	2.0
R89-131	2.8	4.0	R	S	7.00	---	1.7	0.48	3.3
Au89-1424	1.8	3.0	R	H	6.83	---	1.0	0.13	3.5
N90-541	2.3	1.5	S	H	8.33	---	7.7	0.02	1.3
N90-1101	3.8	1.8	S	S	6.33	4.4	5.7	0.02	4.7
R90-844	2.0	1.0	MR	S	6.67	5.0	8.7	0.77	4.5
S90-1218	2.3	3.0	MR	MR	8.83	5.0	9.0	0.07	2.7
S90-1245	3.5	2.5	R	MR	7.00	5.0	8.7	0.55	3.3
SC89-147	4.8	5.0	MR	MR	5.17	1.0	0	0.08	4.0
SC89-181	3.8	1.0	R	MR	6.83	1.0	0	0.17	4.3
V88-494	3.5	2.0	S	S	6.50	1.0	0	0.27	4.5

†Data from Bossier City, LA (1991) not included in means.  
 ††Centennial had a mean rating of 8.50 (based on 12 reps).

TABLE 37 - SEED YIELD, IN BUSHEL PER ACRE, FOR THE STRAINS IN UNIFORM GROUP VI, 1993.

EAST COAST						
STRAIN	FLORENCE SC	KINSTON NC	PLYMOUTH NC	SUFFOLK VA	WARSAW VA	MEAN
BRIM	21.2	22.9	50.3	30.8	48.3	34.7
LYON	22.4	26.4	49.4	28.5	47.4	34.8
D87-4429	25.1	30.8	48.6	31.3	44.2	36.0
SC84-931	22.8	22.4	50.2	30.2	47.2	34.5
N89-566	34.8	27.9	49.6	35.4	46.5	38.8
RJ85-9116	22.9	32.4	48.7	33.4	48.4	37.2
R89-131	24.0	24.8	49.0	32.7	44.9	35.1
Au89-1424	22.5	33.8	50.5	37.6	42.9	37.5
N90-541	26.6	21.3	54.9	29.7	47.7	36.0
N90-1101	28.3	29.5	48.9	35.7	50.3	38.6
R90-844	21.8	22.7	55.2	34.6	44.4	35.7
S90-1218	20.4	22.3	46.2	29.8	50.5	33.8
S90-1245	21.3	29.3	46.9	31.1	52.3	36.2
SC89-147	22.4	31.9	50.8	35.0	44.7	36.9
SC89-181	24.0	35.9	48.5	32.3	45.1	37.1
V88-494	26.3	27.8	53.1	38.0	46.9	38.4
Overall mean	24.2	27.6	50.1	32.9	47.0	
L.S.D. (0.05)	6.6	6.0	5.5	5.3	4.3	.
C.V. (%)	16.4	13.1	6.5	9.7	5.4	.

SOUTHEAST								
STRAIN	BATON ROUGE LA	BLACK- VILLE SC	FAIR- HOPE AL	JAY FL	QUINCY FL	TALLA- SSEE AL	TIFTON GA	MEAN
BRIM	50.9	34.6	52.6	52.4	37.5	49.8	39.2	45.3
LYON	51.6	26.8	42.4	38.9	37.8	46.2	32.2	39.4
D87-4429	58.4	32.2	41.7	48.4	44.3	53.6	31.1	44.2
SC84-931	65.0	26.2	45.1	48.8	40.8	45.9	31.4	43.3
N89-566	57.6	31.7	46.0	44.7	40.4	43.1	40.3	43.4
RJ85-9116	64.6	26.6	41.7	42.5	39.5	36.6	32.5	40.6
R89-131	63.7	30.5	34.2	42.2	44.6	48.9	41.0	43.6
Au89-1424	58.6	31.6	42.7	49.1	33.9	49.0	43.9	44.1
N90-541	59.2	28.5	47.8	44.4	42.2	41.3	36.0	42.8
N90-1101	57.2	30.8	45.4	51.7	42.4	50.4	41.1	45.6
R90-844	60.3	30.6	42.7	49.5	38.3	48.6	33.8	43.4
S90-1218	60.1	24.2	44.8	35.2	27.9	39.6	27.0	37.0
S90-1245	56.5	22.5	44.2	38.5	32.6	47.7	28.1	38.6
SC89-147	62.3	32.8	48.7	41.1	46.0	60.2	38.3	47.1
SC89-181	56.4	37.0	55.1	57.9	51.2	62.6	40.2	51.5
V88-494	45.7	37.2	53.8	52.8	40.6	47.4	38.8	45.2
Overall mean	58.2	30.2	45.5	46.1	40.0	48.2	35.9	
L.S.D. (0.05)	9.6	5.3	12.8	12.5	5.9	6.9	5.4	.
C.V. (%)	9.3	10.4	16.8	16.3	8.9	8.6	9.0	.

UPPER AND CENTRAL SOUTH						
STRAIN	ATHENS GA	BELLE MINA AL	CALHOUN GA	CLEMSON SC	STARKVILLE MS	MEAN
BRIM	39.9	44.8	26.4	24.0	31.8	33.4
LYON	44.2	50.8	18.7	19.9	17.7	30.3
D87-4429	50.5	50.8	19.4	21.1	25.1	33.4
SC84-931	37.8	47.2	20.6	23.4	31.6	32.1
N89-566	37.5	45.7	23.2	27.2	19.8	30.7
RJ85-9116	44.1	49.0	22.0	22.5	15.5	30.6
R89-131	47.6	45.1	20.2	25.0	28.5	33.3
Au89-1424	43.1	48.4	23.0	27.3	19.3	32.2
N90-541	37.8	51.1	27.7	21.6	22.7	32.2
N90-1101	40.9	40.5	18.8	22.4	22.1	28.9
R90-844	44.5	40.5	22.3	24.1	21.5	30.6
S90-1218	42.0	46.0	19.2	17.0	18.1	28.5
S90-1245	42.6	38.4	20.5	16.0	18.5	27.2
SC89-147	53.2	48.4	19.1	20.6	19.7	32.2
SC89-181	52.6	46.6	19.1	30.1	15.3	32.7
V88-494	44.1	44.8	21.2	23.2	25.2	31.7
Overall mean	43.9	46.1	21.1	22.9	22.0	
L.S.D. (0.05)	6.4	6.4	5.8	7.4	7.3	.
C.V. (%)	8.8	8.3	15.3	19.4	19.8	.

TABLE 37 - (Continued)

STRAIN	DELTA						MEAN
	JONES-BORO AR	PINE TREE AR	PORTAGE- VILLE MO(A)	PORTAGE- VILLE MO(B)	ST. JOSEPH LA	STONE- VILLE MS(B)	
BRIM	34.2	41.6	52.8	57.1	54.0	35.2	45.8
LYON	35.1	43.5	46.7	51.8	46.7	27.4	41.8
D87-4429	38.3	46.6	45.3	49.1	51.8	25.9	42.8
SC84-931	33.1	46.1	44.8	54.5	39.0	36.9	42.4
N89-566	33.5	43.2	48.2	58.5	32.6	29.5	40.9
RJ85-9116	37.2	47.0	50.1	54.0	42.2	27.5	43.0
R89-131	33.6	44.1	48.8	57.1	53.2	31.2	44.7
Au89-1424	34.3	42.4	45.2	51.4	46.0	25.5	40.8
N90-541	35.2	41.9	45.4	49.2	39.0	37.6	41.4
N90-1101	31.4	39.3	47.6	52.7	38.3	30.4	40.0
R90-844	39.0	44.7	53.5	55.3	39.3	21.0	42.1
S90-1218	31.5	44.4	53.5	50.7	45.8	29.9	42.6
S90-1245	34.6	43.1	49.8	57.8	39.3	29.5	42.3
SC89-147	35.9	45.0	49.9	51.6	56.0	46.0	47.4
SC89-181	32.0	43.6	52.3	48.6	55.4	38.2	45.0
V88-494	36.3	42.0	48.9	53.7	44.6	40.9	44.4
Overall mean	34.7	43.6	48.9	53.3	45.2	32.0	
L.S.D. (0.05)	7.3	4.4	6.3	6.2	7.2	6.4	.
C.V. (%)	12.7	6.0	7.7	7.0	9.5	12.0	.

STRAIN	WEST				MEAN
	BEAUMONT TX	BIXBY OK	BOSSIER CITY LA	STUTTART AR	
BRIM	19.5	36.1	40.3	33.6	32.4
LYON	27.5	37.2	17.5	37.9	30.0
D87-4429	20.3	36.0	12.4	44.3	28.3
SC84-931	19.9	31.6	31.6	40.1	30.8
N89-566	12.4	30.2	30.4	32.5	26.4
RJ85-9116	15.0	36.9	28.9	28.4	27.3
R89-131	25.0	32.2	21.0	48.7	31.7
Au89-1424	26.5	39.8	24.3	42.6	33.3
N90-541	18.0	32.5	22.1	52.1	31.2
N90-1101	13.3	32.4	30.2	44.9	30.2
R90-844	13.6	33.4	26.7	37.1	27.7
S90-1218	11.2	32.3	24.0	38.6	26.5
S90-1245	17.8	29.9	15.6	30.3	23.4
SC89-147	24.1	34.9	35.8	48.3	35.8
SC89-181	25.1	42.0	34.8	46.6	37.1
V88-494	21.0	38.7	44.3	46.5	37.6
Overall mean	19.4	34.8	27.8	40.8	
L.S.D. (0.05)	7.8	4.9	3.9	7.2	.
C.V. (%)	24.1	8.4	8.4	10.6	.

TABLE 38 - CHEMICAL COMPOSITION AND SEED SIZE FOR THE STRAINS IN UNIFORM GROUP VI, 1993.

OIL PERCENTAGE												
STRAIN	ATHENS GA	BEAU- MONT TX	BELLE MINA AL	BIXBY OK	BLACK- VILLE SC	CAL- HOUN GA	CLEM- SON SC	FLORENCE SC	JAY FL	JONES- BORO AR	KINS- TON NC	PINE TREE AR
BRIM	21.0	19.1	20.3	18.1	18.7	.	18.7	21.9	21.5	.	.	.
LYON	21.1	20.5	21.0	19.0	18.6	.	19.4	21.7	22.9	.	.	.
D87-4429	23.5	19.7	21.2	18.9	19.0	.	19.0	20.2	22.3	.	.	.
SC84-931	22.2	20.0	21.1	18.9	19.7	.	20.5	22.2	22.2	.	.	.
N89-566	21.4	19.6	20.7	20.7	19.8	.	21.1	21.9	21.8	.	.	.
RJ85-9116	21.4	20.5	20.9	20.2	20.9	.	21.1	22.4	23.4	.	.	.
R89-131	21.3	19.9	20.7	18.8	19.5	.	19.5	20.9	22.3	.	.	.
Au89-1424	21.8	19.7	21.6	20.1	20.1	.	20.5	22.4	23.3	.	.	.
N90-541	22.2	25.0	23.4	22.7	22.0	.	23.2	25.2	24.7	.	.	.
N90-1101	21.2	19.9	21.3	18.8	18.9	.	19.2	21.2	22.5	.	.	.
R90-844	21.3	21.2	20.9	21.1	20.4	.	21.1	23.6	24.4	.	.	.
S90-1218	20.6	21.8	21.4	21.4	20.0	.	22.1	23.6	24.5	.	.	.
S90-1245	20.9	21.9	22.2	20.1	20.8	.	21.7	23.7	25.0	.	.	.
SC89-147	20.3	20.4	21.3	20.0	19.4	.	19.1	21.9	21.8	.	.	.
SC89-181	21.1	19.8	20.3	19.0	19.5	.	19.0	20.9	22.4	.	.	.
V88-494	21.5	20.7	21.5	19.9	20.2	.	20.9	21.7	21.7	.	.	.

  

PROTEIN PERCENTAGE												
STRAIN	ATHENS GA	BEAU- MONT TX	BELLE MINA AL	BIXBY OK	BLACK- VILLE SC	CAL- HOUN GA	CLEM- SON SC	FLORENCE SC	JAY FL	JONES- BORO AR	KINS- TON NC	PINE TREE AR
BRIM	42.2	45.8	42.0	41.3	43.7	.	42.0	41.1	43.2	.	.	.
LYON	39.6	46.7	42.2	38.8	43.5	.	40.0	42.0	41.6	.	.	.
D87-4429	41.8	46.6	40.8	39.2	41.5	.	40.0	42.8	41.6	.	.	.
SC84-931	43.6	45.8	42.5	40.4	43.3	.	41.4	40.7	42.0	.	.	.
N89-566	42.2	45.6	43.3	39.4	43.7	.	42.1	42.6	43.6	.	.	.
RJ85-9116	44.6	45.3	41.7	37.3	40.8	.	40.5	39.7	39.7	.	.	.
R89-131	41.3	45.9	41.6	39.8	41.5	.	40.3	42.2	42.0	.	.	.
Au89-1424	41.1	46.2	39.6	37.5	39.4	.	37.2	39.3	41.3	.	.	.
N90-541	37.8	42.7	40.6	36.8	42.0	.	41.7	39.7	42.1	.	.	.
N90-1101	42.3	45.3	41.6	40.0	42.5	.	40.6	41.5	42.4	.	.	.
R90-844	40.8	44.1	41.6	36.0	42.4	.	40.7	39.5	40.4	.	.	.
S90-1218	42.4	43.7	44.2	38.4	44.3	.	43.0	41.1	42.6	.	.	.
S90-1245	41.0	45.3	42.9	38.5	41.3	.	41.5	40.3	42.0	.	.	.
SC89-147	41.4	45.1	41.6	39.5	42.3	.	41.0	41.0	41.8	.	.	.
SC89-181	40.5	45.1	40.4	38.8	41.0	.	39.3	41.0	39.2	.	.	.
V88-494	40.8	44.0	41.0	40.0	42.1	.	39.3	40.8	41.6	.	.	.

  

GRAMS PER 100 SEED												
STRAIN	ATHENS GA	BEAU- MONT TX	BELLE MINA AL	BIXBY OK	BLACK- VILLE SC	CAL- HOUN GA	CLEM- SON SC	FLORENCE SC	JAY FL	JONES- BORO AR	KINS- TON NC	PINE TREE AR
BRIM	13.7	12.5	13.3	12.9	16.4	10.8	12.5	14.8	14.0	11.3	14.4	12.3
LYON	15.1	14.3	12.4	13.2	15.4	11.5	13.0	15.7	13.7	12.2	15.6	13.4
D87-4429	17.5	16.4	14.9	15.4	17.3	14.0	14.6	18.7	15.7	16.2	19.5	15.5
SC84-931	17.0	13.8	14.5	15.1	17.0	11.6	15.0	16.5	17.7	13.6	18.9	14.1
N89-566	16.0	12.1	13.8	16.0	16.6	10.5	15.1	16.7	18.7	12.7	15.3	12.2
RJ85-9116	15.5	10.0	12.0	12.8	13.9	10.4	14.2	12.7	14.0	11.8	15.5	12.4
R89-131	14.7	13.5	12.9	14.1	14.9	13.5	12.8	17.0	14.0	13.9	15.3	12.7
Au89-1424	14.4	14.3	14.1	14.6	15.1	12.8	12.9	17.0	18.0	14.3	20.5	14.2
N90-541	15.7	10.3	15.0	14.3	16.2	10.6	14.2	15.0	16.7	13.7	15.4	13.8
N90-1101	13.8	10.8	11.6	12.1	14.3	11.2	12.4	16.6	13.7	11.6	17.0	12.8
R90-844	17.6	12.3	13.4	15.5	17.5	12.2	15.8	16.7	14.7	13.4	18.4	13.6
S90-1218	16.9	10.4	16.2	15.3	16.3	10.8	15.7	15.1	17.3	13.8	17.6	12.6
S90-1245	19.2	13.1	14.2	15.1	16.7	11.4	15.6	17.6	17.7	14.8	19.5	14.7
SC89-147	15.9	15.7	14.4	15.1	15.0	11.5	12.5	17.4	16.0	14.7	18.6	14.3
SC89-181	12.8	13.2	12.1	12.2	14.0	10.9	10.7	15.4	13.3	11.0	14.5	11.9
V88-494	14.0	13.4	12.4	14.1	14.5	10.5	11.5	16.4	13.0	13.0	15.8	12.7

TABLE 38 - (Continued)

OIL PERCENTAGE												
STRAIN	PLY-MOUTH NC	POR-TAGE-VILLE MO(A)	POR-TAGE-VILLE MO(B)	ST. JOSEPH LA	STARK-VILLE MS	STONE-VILLE MS(B)	STUTT-GART AR	SUFFOLK VA	TALLA-SSEE AL	TIFTON GA	WAR-SAW VA	MEAN
BRIM	.	18.6	.	21.2	19.1	19.3	23.1	20.1	19.5	.	21.6	20.1
LYON	.	19.4	.	21.9	20.0	19.3	21.4	20.2	20.9	.	22.6	20.6
D87-4429	.	18.8	.	21.5	18.9	19.4	20.8	19.0	20.1	.	21.4	20.2
SC84-931	.	19.9	.	21.8	20.4	20.2	22.9	20.2	19.9	.	20.6	20.8
N89-566	.	20.1	.	21.7	20.1	20.6	22.2	20.9	20.3	.	20.6	20.8
RJ85-9116	.	19.9	.	22.3	18.7	19.7	21.9	21.0	20.1	.	20.9	21.0
R89-131	.	18.9	.	21.7	19.1	19.5	20.1	19.2	19.7	.	21.9	20.2
Au89-1424	.	19.9	.	23.1	21.1	21.6	21.4	21.2	21.1	.	21.6	21.3
N90-541	.	22.2	.	23.9	22.5	23.5	23.6	23.3	22.1	.	21.7	23.2
N90-1101	.	18.9	.	22.5	19.9	19.5	20.5	20.9	20.5	.	22.0	20.5
R90-844	.	19.9	.	22.9	22.1	22.6	22.7	22.2	20.8	.	21.2	21.8
S90-1218	.	20.8	.	22.8	19.8	21.2	23.1	21.2	20.6	.	22.0	21.7
S90-1245	.	20.5	.	23.3	20.1	51.8	23.8	22.2	22.1	.	21.6	23.9
SC89-147	.	19.9	.	22.1	20.5	21.0	20.5	21.1	20.4	.	19.8	20.6
SC89-181	.	19.2	.	21.7	19.2	20.5	20.1	20.7	19.5	.	21.5	20.3
V88-494	.	21.3	.	22.5	20.9	21.7	21.5	21.4	20.4	.	22.4	21.3

PROTEIN PERCENTAGE												
STRAIN	PLY-MOUTH NC	POR-TAGE-VILLE MO(A)	POR-TAGE-VILLE MO(B)	ST. JOSEPH LA	STARK-VILLE MS	STONE-VILLE MS(B)	STUTT-GART AR	SUFFOLK VA	TALLA-SSEE AL	TIFTON GA	WAR-SAW VA	MEAN
BRIM	.	41.5	.	40.7	43.6	42.8	32.1	40.9	41.4	.	37.9	41.4
LYON	.	40.3	.	40.3	40.5	41.0	35.7	41.8	39.8	.	38.5	40.8
D87-4429	.	40.6	.	39.5	42.9	40.7	38.3	40.8	39.7	.	39.2	41.0
SC84-931	.	40.2	.	41.3	41.0	41.0	35.3	41.6	42.7	.	39.3	41.4
N89-566	.	40.8	.	42.0	42.2	41.3	38.0	42.1	42.6	.	39.3	41.9
RJ85-9116	.	39.2	.	39.1	40.0	39.5	35.2	40.4	40.3	.	41.3	40.3
R89-131	.	41.2	.	40.6	43.3	41.8	40.5	40.8	40.7	.	39.4	41.4
Au89-1424	.	39.6	.	38.0	39.4	37.7	37.6	36.8	39.0	.	39.2	39.3
N90-541	.	39.2	.	39.4	40.9	39.1	39.2	41.5	42.1	.	39.2	40.3
N90-1101	.	40.0	.	39.4	40.9	41.0	38.2	38.5	38.6	.	38.0	40.7
R90-844	.	38.9	.	40.6	38.6	38.2	35.2	39.5	40.0	.	38.9	39.7
S90-1218	.	40.9	.	42.0	45.0	42.6	39.2	43.3	43.7	.	37.9	42.1
S90-1245	.	39.6	.	40.0	43.3	41.0	34.6	41.8	41.2	.	38.5	40.8
SC89-147	.	40.3	.	39.2	40.4	39.5	40.9	39.7	40.6	.	39.9	40.9
SC89-181	.	39.3	.	38.6	41.1	38.0	38.9	38.9	39.6	.	38.9	39.9
V88-494	.	40.8	.	39.5	40.1	38.3	38.9	39.7	40.7	.	37.5	40.3

GRAMS PER 100 SEED												
STRAIN	PLY-MOUTH NC	POR-TAGE-VILLE MO(A)	POR-TAGE-VILLE MO(B)	ST. JOSEPH LA	STARK-VILLE MS	STONE-VILLE MS(B)	STUTT-GART AR	SUFFOLK VA	TALLA-SSEE AL	TIFTON GA	WAR-SAW VA	MEAN
BRIM	14.0	11.4	10.6	11.9	11.0	.	11.0	15.5	11.7	13.7	13.4	12.9
LYON	14.5	12.8	13.5	11.7	10.4	.	12.3	17.2	12.6	15.2	15.0	13.7
D87-4429	17.2	14.4	13.1	14.0	13.7	.	16.3	19.1	15.1	18.2	17.4	16.1
SC84-931	15.1	12.3	12.4	12.1	12.7	.	13.0	17.9	14.1	16.6	16.6	14.9
N89-566	14.4	12.5	11.6	12.8	11.3	.	13.3	17.3	13.3	15.0	14.2	14.2
RJ85-9116	14.4	11.6	10.6	11.6	0.9	.	12.0	16.1	12.6	13.9	14.1	12.4
R89-131	14.5	13.4	12.3	13.3	12.1	.	14.0	18.0	11.3	15.8	14.5	14.0
Au89-1424	16.1	14.2	12.9	13.8	11.4	.	15.0	18.4	13.2	17.5	15.7	15.0
N90-541	15.3	13.1	13.6	11.3	12.5	.	16.0	15.7	14.7	15.4	15.9	14.3
N90-1101	13.2	11.9	10.7	11.8	11.8	.	13.3	16.0	12.2	14.5	13.9	13.0
R90-844	16.5	12.1	11.4	12.4	11.2	.	12.7	17.8	14.7	15.5	15.0	14.6
S90-1218	16.3	14.0	13.1	13.2	12.4	.	14.3	15.9	15.3	14.5	15.5	14.7
S90-1245	15.7	13.1	12.6	13.4	12.2	.	12.7	17.4	16.0	15.7	15.5	15.2
SC89-147	14.2	13.2	12.2	13.0	11.9	.	16.3	16.5	14.6	16.0	14.0	14.7
SC89-181	12.6	11.4	10.5	10.5	10.8	.	13.0	13.7	12.2	14.7	11.6	12.4
V88-494	14.6	12.9	11.2	10.8	11.2	.	13.3	15.4	12.7	15.2	14.2	13.3

TABLE 39 - RELATIVE MATURITY DATA, DAYS EARLIER (-) OR LATER (+) THAN BRIM FOR THE STRAINS IN UNIFORM GROUP VI, 1993.

EAST						
STRAIN	FLORENCE SC	KINSTON NC	PLYMOUTH NC	SUFFOLK VA	WARSAW VA	MEAN
BRIM	10/23	10/25	10/19	10/22	10/27	10/23
LYON	-1	1	3	2	5	2
D87-4429	2	7	6	-2	4	3
SC84-931	-2	1	3	-1	0	0
N89-566	1	-1	3	0	-1	0
RJ85-9116	-3	0	6	2	0	1
R89-131	4	6	6	9	5	6
Au89-1424	2	8	6	3	2	4
N90-541	-6	1	3	0	-8	-2
N90-1101	5	4	3	1	-1	3
R90-844	-7	-3	0	-12	-6	-6
S90-1218	-7	-1	0	-1	-8	-3
S90-1245	-7	-2	0	-11	-8	-6
SC89-147	5	7	3	6	3	5
SC89-181	6	7	8	6	3	6
V88-494	1	7	8	3	6	5

SOUTHEAST								
STRAIN	BATON ROUGE LA	BLACK- VILLE SC	FAIRHOPE AL	JAY FL	QUINCY FL	TALLASSEE AL	TIFTON GA	MEAN
BRIM	10/20	10/27	10/08	10/22	.	10/06	10/14	10/16
LYON	-11	-1	1	-15	.	0	-3	-5
D87-4429	0	-2	1	-8	.	1	9	1
SC84-931	-1	-2	-6	-8	.	-6	-8	-5
N89-566	-5	-1	-2	7	.	-2	-8	-2
RJ85-9116	0	-1	1	7	.	-3	-6	0
R89-131	1	-3	0	-8	.	1	5	0
Au89-1424	0	-3	0	-4	.	1	2	0
N90-541	-7	-2	-4	7	.	-4	-8	-3
N90-1101	-2	-2	-1	-8	.	3	-6	-2
R90-844	3	-3	-6	-10	.	-6	-14	-6
S90-1218	6	-1	-6	7	.	-6	-11	-1
S90-1245	3	-4	-6	2	.	-7	-20	-5
SC89-147	5	-1	4	7	.	9	7	5
SC89-181	0	0	7	7	.	9	5	5
V88-494	-3	-2	1	7	.	7	15	4

UPPER AND CENTRAL SOUTH						
STRAIN	ATHENS GA	BELLE MINA AL	CALHOUN GA	CLEMSON SC	STARKVILLE MS	MEAN
BRIM	10/11	10/12	10/11	10/20	10/08	10/12
LYON	-1	0	5	-3	6	2
D87-4429	2	0	18	1	9	6
SC84-931	-6	-3	-14	-6	-5	-6
N89-566	-2	0	-9	-4	-5	-4
RJ85-9116	-3	0	-6	-6	-1	-3
R89-131	1	3	15	1	10	6
Au89-1424	1	1	12	0	3	4
N90-541	-6	0	-20	-6	-8	-8
N90-1101	1	0	0	-1	0	0
R90-844	-9	-11	-20	-9	-8	-11
S90-1218	-9	0	-19	-8	-10	-9
S90-1245	-8	-12	-21	-8	-10	-11
SC89-147	4	3	12	2	9	6
SC89-181	6	3	10	1	8	6
V88-494	4	2	4	2	7	4

TABLE 39 - (Continued)

DELTA							
STRAIN	JONES- BORO AR	PINE TREE AR	PORTAGE- VILLE MO(A)	PORTAGE- VILLE MO(B)	ST. JOSEPH LA	STONE- VILLE MS(B)	MEAN
BRIM	10/20	10/19	09/23	09/27	10/04	10/11	10/08
LYON	6	4	3	0	4	0	3
D87-4429	7	7	4	1	6	1	4
SC84-931	-8	-3	-3	0	-6	-2	-4
N89-566	-3	-5	-2	-1	-5	-1	-3
RJ85-9116	0	2	0	-4	1	-2	0
R89-131	10	7	7	3	9	3	6
Au89-1424	6	7	6	1	9	2	5
N90-541	-7	-5	-5	-4	-12	-2	-6
N90-1101	3	1	0	-1	2	0	1
R90-844	-6	-7	-9	-9	-10	-11	-9
S90-1218	-12	-10	-10	-7	-9	-3	-9
S90-1245	-7	-8	-9	-9	-11	-9	-9
SC89-147	20	8	6	3	8	3	8
SC89-181	20	9	6	3	11	3	9
V88-494	2	1	4	2	6	3	3

WEST					
STRAIN	BEAUMONT TX	BIXBY OK	BOSSIER .CITY LA	STUTTGART AR	MEAN
BRIM	10/08	.	10/26	10/13	10/16
LYON	7	.	.	0	-2
D87-4429	7	.	.	0	-2
SC84-931	-1	.	-22	-8	-11
N89-566	0	.	0	1	0
RJ85-9116	0	.	.	2	-5
R89-131	6	.	.	2	-1
Au89-1424	8	.	.	2	0
N90-541	.	.	-32	-3	-14
N90-1101	.	.	2	0	5
R90-844	.	.	-13	-8	-7
S90-1218	.	.	-33	-7	-16
S90-1245	.	.	-34	-12	-19
SC89-147	7	.	.	4	0
SC89-181	8	.	.	4	0
V88-494	1	.	.	1	-4

TABLE 40 - PLANT HEIGHT FOR THE STRAINS IN UNIFORM GROUP VI, 1993.

## EAST COAST

	FLORENCE SC	KINSTON NC	PLYMOUTH NC	SUFFOLK VA	WARSAW VA	MEAN
BRIM	24	33	44	38	41	36
LYON	19	33	40	35	37	33
D87-4429	22	35	37	38	37	34
SC84-931	20	33	39	37	35	33
N89-566	25	36	43	45	42	38
RJ85-9116	19	35	39	42	33	34
R89-131	23	37	40	42	37	36
Au89-1424	21	35	42	37	39	35
N90-541	17	31	33	32	29	29
N90-1101	21	33	39	38	37	34
R90-844	19	33	39	38	33	32
S90-1218	18	32	37	38	31	31
S90-1245	21	36	43	42	31	35
SC89-147	20	35	39	36	36	33
SC89-181	21	35	41	36	39	34
V88-494	21	34	40	36	37	34

## SOUTHEAST

STRAIN	BATON ROUGE LA	BLACKVILLE SC	FAIRHOPE AL	JAY FL	TALLASSEE AL	TIFTON GA	MEAN
BRIM	26	26	35	32	34	25	30
LYON	30	23	26	26	26	23	26
D87-4429	34	26	28	26	26	21	27
SC84-931	30	24	34	30	27	26	29
N89-566	31	26	33	34	33	21	30
RJ85-9116	34	25	27	32	28	24	28
R89-131	27	26	34	31	30	25	29
Au89-1424	22	23	27	31	29	24	26
N90-541	29	26	25	26	23	23	26
N90-1101	23	26	28	30	27	22	26
R90-844	30	25	28	30	28	26	28
S90-1218	32	25	30	30	26	26	28
S90-1245	33	22	30	31	28	23	28
SC89-147	28	24	29	34	29	26	28
SC89-181	32	25	32	32	30	25	29
V88-494	30	27	31	29	27	20	27

## UPPER AND CENTRAL SOUTH

STRAIN	ATHENS GA	BELLE MINA AL	CALHOUN GA	CLEMSON SC	STARKVILLE MS	MEAN
BRIM	35	33	43	27	36	35
LYON	30	29	36	25	27	29
D87-4429	31	30	38	25	32	31
SC84-931	27	30	42	24	29	31
N89-566	37	33	42	26	27	33
RJ85-9116	30	33	39	25	27	31
R89-131	32	34	38	29	29	32
Au89-1424	32	32	37	27	29	32
N90-541	26	27	34	23	23	27
N90-1101	33	28	37	25	27	30
R90-844	28	30	39	25	27	30
S90-1218	30	28	36	23	27	29
S90-1245	27	29	36	23	26	28
SC89-147	31	33	39	24	29	31
SC89-181	34	34	39	26	28	32
V88-494	31	29	37	25	29	30

TABLE 40 - (Continued)

DELTA							
STRAIN	JONES- BORO AR	PINE TREE AR	PORTAGE- VILLE MO(A)	PORTAGE- VILLE MO(B)	ST. JOSEPH LA	STONE- VILLE MS(B)	MEAN
BRIM	42	26	45	42	27	31	35
LYON	30	34	41	33	22	28	31
D87-4429	33	33	34	30	21	23	29
SC84-931	33	31	40	29	21	26	30
N89-566	36	34	40	31	19	25	31
RJ85-9116	32	33	43	23	22	27	30
R89-131	41	40	46	35	23	26	35
Au89-1424	31	36	45	29	23	25	31
N90-541	23	26	35	20	17	19	24
N90-1101	35	33	42	34	22	27	32
R90-844	32	30	41	25	18	23	28
S90-1218	27	32	43	12	21	25	27
S90-1245	34	35	44	24	23	25	31
SC89-147	35	36	47	28	24	27	33
SC89-181	34	36	44	37	24	30	34
V88-494	32	34	42	33	20	27	31

WEST						
STRAIN	BEAUMONT TX	BIXBY OK	BOSSIER CITY LA	STUTTGART AR	MEAN	
BRIM	20	27	32	38	30	
LYON	20	25	23	29	24	
D87-4429	20	24	24	28	24	
SC84-931	25	23	25	23	24	
N89-566	22	30	28	26	26	
RJ85-9116	24	28	23	24	25	
R89-131	21	29	28	32	28	
Au89-1424	20	28	24	29	25	
N90-541	18	22	21	20	21	
N90-1101	20	23	27	28	25	
R90-844	19	25	22	24	23	
S90-1218	24	23	19	23	22	
S90-1245	24	23	24	26	24	
SC89-147	22	26	28	31	27	
SC89-181	22	20	28	34	26	
V88-494	16	25	24	29	24	

TABLE 41 - LODGING SCORES FOR THE STRAINS IN UNIFORM GROUP VI, 1993.

## EAST COAST

STRAIN	KINSTON NC	PLYMOUTH NC	SUFFOLK VA	WARSAW VA	MEAN
BRIM	1.3	2.7	1.3	2.5	2.0
LYON	2.7	2.5	2.2	2.3	2.4
D87-4429	1.7	3.0	1.7	2.8	2.3
SC84-931	1.0	2.0	1.5	1.5	1.5
N89-566	2.0	2.5	1.8	2.7	2.3
RJ85-9116	2.0	2.0	2.0	1.8	2.0
R89-131	1.3	3.0	2.3	3.7	2.6
Au89-1424	1.3	2.5	1.5	2.2	1.9
N90-541	1.0	2.0	1.5	1.5	1.5
N90-1101	1.0	2.2	1.5	2.5	1.8
R90-844	1.0	2.8	1.8	1.8	1.9
S90-1218	1.0	2.0	1.3	1.5	1.5
S90-1245	1.0	2.2	1.8	2.0	1.8
SC89-147	1.3	3.2	1.5	2.5	2.1
SC89-181	1.0	3.3	1.5	2.0	2.0
V88-494	1.7	3.0	1.7	2.0	2.1

## SOUTHEAST

STRAIN	BATON ROUGE LA	FAIRHOPE AL	JAY FL	TALLASSEE AL	TIFTON GA	MEAN
BRIM	1.0	1.0	1.7	1.2	1.1	1.2
LYON	1.0	2.0	1.3	1.0	1.1	1.3
D87-4429	1.5	1.0	1.0	1.0	1.0	1.1
SC84-931	2.0	1.3	1.0	1.0	1.2	1.3
N89-566	1.0	1.7	1.7	1.0	1.3	1.3
RJ85-9116	2.0	2.7	1.0	1.0	1.0	1.5
R89-131	1.0	1.7	1.7	1.0	1.0	1.3
Au89-1424	1.0	1.7	1.0	1.0	1.0	1.1
N90-541	1.0	1.0	1.0	1.0	1.0	1.0
N90-1101	1.0	1.7	1.0	1.0	1.6	1.3
R90-844	2.0	2.0	1.0	1.0	1.2	1.4
S90-1218	1.0	1.0	1.0	1.0	1.0	1.0
S90-1245	1.5	1.3	1.0	1.0	1.4	1.3
SC89-147	1.0	1.0	1.0	1.0	1.0	1.0
SC89-181	1.5	1.0	1.0	1.2	1.0	1.1
V88-494	2.5	2.0	1.0	1.0	1.0	1.5

## UPPER AND CENTRAL SOUTH

STRAIN	ATHENS GA	BELLE MINA AL	CALHOUN GA	STARKVILLE MS	MEAN
BRIM	1.5	1.3	1.0	2.3	1.5
LYON	1.5	2.0	1.0	2.0	1.6
D87-4429	1.5	2.0	1.0	2.0	1.6
SC84-931	1.5	1.0	1.0	2.0	1.4
N89-566	1.5	1.3	1.3	2.0	1.5
RJ85-9116	1.5	1.0	1.0	2.0	1.4
R89-131	1.5	1.7	1.0	2.0	1.5
Au89-1424	1.5	1.3	1.0	2.0	1.5
N90-541	1.5	1.0	1.0	1.0	1.1
N90-1101	1.5	1.0	1.0	2.0	1.4
R90-844	1.5	1.0	1.2	1.7	1.3
S90-1218	1.5	1.0	1.0	1.0	1.1
S90-1245	1.5	1.0	1.0	1.0	1.1
SC89-147	1.7	2.0	1.0	2.0	1.7
SC89-181	1.5	2.0	1.0	1.7	1.5
V88-494	1.7	2.0	1.0	2.0	1.7

TABLE 41 - (Continued)

DELTA							
STRAIN	JONES- BORO AR	PINE TREE AR	PORTAGE- VILLE MO(A)	PORTAGE- VILLE MO(B)	ST. JOSEPH LA	STONE- VILLE MS(B)	MEAN
BRIM	1.0	1.0	1.5	1.5	1.3	2.0	1.4
LYON	1.7	2.0	3.5	1.0	1.3	2.3	2.0
D87-4429	2.3	2.3	2.5	1.0	1.4	2.0	1.9
SC84-931	1.0	1.0	1.0	1.0	1.3	2.0	1.2
N89-566	2.0	1.3	1.5	1.0	1.3	2.0	1.5
RJ85-9116	1.0	2.0	2.0	1.0	1.3	2.0	1.6
R89-131	2.0	2.7	2.5	1.5	1.4	2.0	2.0
Au89-1424	1.3	2.3	1.5	1.0	1.3	2.0	1.6
N90-541	1.0	1.0	1.0	1.0	1.3	2.0	1.2
N90-1101	1.0	1.7	1.5	1.0	1.3	2.0	1.4
R90-844	2.0	1.7	2.0	1.0	1.3	2.0	1.7
S90-1218	1.0	1.0	1.0	1.0	1.3	2.0	1.2
S90-1245	2.0	1.3	2.0	1.0	1.3	2.0	1.6
SC89-147	1.7	3.0	2.0	1.0	1.5	2.0	1.9
SC89-181	1.7	3.0	2.5	1.5	1.5	2.0	2.0
V88-494	2.0	1.7	2.0	1.0	1.3	2.0	1.7

WEST				
STRAIN	BEAUMONT TX	BOSSIER CITY LA	STUTTGART AR	MEAN
BRIM	1.0	1.0	1.3	1.1
LYON	1.0	1.0	2.7	1.4
D87-4429	1.0	1.0	2.0	1.3
SC84-931	1.0	1.0	1.0	1.0
N89-566	1.0	1.0	1.3	1.1
RJ85-9116	1.0	1.0	1.0	1.0
R89-131	1.0	1.0	2.0	1.3
Au89-1424	1.0	1.0	1.0	1.0
N90-541	1.0	1.0	1.0	1.0
N90-1101	1.0	1.0	1.3	1.1
R90-844	1.0	1.0	1.0	1.0
S90-1218	1.0	1.0	1.0	1.0
S90-1245	1.0	1.0	1.0	1.0
SC89-147	1.0	1.0	1.0	1.0
SC89-181	1.0	1.0	1.0	1.0
V88-494	1.0	1.0	1.3	1.1

TABLE 42 - SEED QUALITY FOR THE STRAINS IN UNIFORM GROUP VI, 1993.

## EAST COAST

STRAIN	KINSTON NC	PLYMOUTH NC	SUFFOLK VA	WARSAW VA	MEAN
BRIM	2.0	2.5	2.0	1.3	2.0
LYON	2.0	2.0	2.0	1.6	1.9
D87-4429	2.0	2.0	2.0	1.5	1.9
SC84-931	2.0	2.0	3.0	1.2	2.1
N89-566	2.0	2.0	2.3	1.3	1.9
RJ85-9116	2.0	2.5	3.0	2.1	2.4
R89-131	2.0	2.0	2.7	1.4	2.0
Au89-1424	2.0	2.0	2.0	1.7	1.9
N90-541	2.5	2.0	3.0	1.4	2.2
N90-1101	2.0	2.0	3.0	1.5	2.1
R90-844	2.0	2.0	2.7	1.3	2.0
S90-1218	2.5	2.0	3.7	1.8	2.5
S90-1245	2.0	2.0	3.0	1.3	2.1
SC89-147	2.0	2.0	2.0	1.1	1.8
SC89-181	2.0	2.0	2.0	1.4	1.9
V88-494	2.0	2.0	2.3	1.2	1.9

## SOUTHEAST

STRAIN	BATON ROUGE LA	JAY FL	TALLASSEE AL	TIFTON GA	MEAN
BRIM	1.0	2.0	1.6	2.0	1.6
LYON	1.1	2.7	1.0	2.5	1.8
D87-4429	1.7	3.0	1.5	2.9	2.3
SC84-931	1.5	2.0	1.5	2.7	1.9
N89-566	1.4	3.7	1.5	2.1	2.2
RJ85-9116	1.3	3.0	1.5	2.7	2.1
R89-131	1.2	3.7	1.0	1.9	1.9
Au89-1424	1.2	2.3	1.0	1.8	1.6
N90-541	1.8	3.7	1.5	2.6	2.4
N90-1101	1.7	2.0	1.0	2.0	1.7
R90-844	2.0	3.0	1.5	3.2	2.4
S90-1218	2.3	3.7	2.0	4.0	3.0
S90-1245	1.5	3.3	1.5	3.1	2.4
SC89-147	1.5	2.7	1.0	1.5	1.7
SC89-181	1.2	2.7	1.0	2.0	1.7
V88-494	2.2	3.0	1.0	2.2	2.1

## UPPER AND CENTRAL SOUTH

STRAIN	ATHENS GA	BELLE MINA AL	CALHOUN GA	MEAN
BRIM	1.7	1.0	2.0	1.6
LYON	1.8	1.0	1.7	1.5
D87-4429	1.7	1.0	2.5	1.7
SC84-931	1.5	1.0	2.2	1.6
N89-566	2.0	1.0	2.5	1.8
RJ85-9116	2.2	1.0	2.2	1.8
R89-131	1.5	1.0	2.2	1.6
Au89-1424	1.7	1.0	1.8	1.5
N90-541	2.7	1.0	1.0	1.6
N90-1101	2.0	1.0	3.0	2.0
R90-844	2.0	1.0	2.5	1.8
S90-1218	2.5	1.5	2.5	2.2
S90-1245	2.2	1.5	1.7	1.8
SC89-147	1.5	1.0	1.7	1.4
SC89-181	1.5	1.0	2.3	1.6
V88-494	1.5	1.0	1.8	1.4

TABLE 42 - (Continued)

DELTA							
STRAIN	JONES- BORO AR	PINE TREE AR	PORTAGE- VILLE MO(A)	PORTAGE- VILLE MO(B)	ST. JOSEPH LA	STONE- VILLE MS(B)	MEAN
BRIM	1.7	1.0	1.5	1.5	2.1	2.0	1.6
LYON	1.3	1.3	2.0	2.0	2.3	2.0	1.8
D87-4429	1.7	1.3	2.0	2.0	2.5	2.0	1.9
SC84-931	1.0	1.0	1.5	1.5	2.6	2.0	1.6
N89-566	1.7	1.0	1.5	1.5	2.7	2.0	1.7
RJ85-9116	1.0	1.0	2.0	2.5	2.8	2.0	1.9
R89-131	2.0	2.0	2.0	2.0	2.6	2.0	2.1
Au89-1424	1.0	1.3	2.0	2.0	2.5	2.0	1.8
N90-541	1.0	1.0	2.0	1.5	2.5	2.0	1.7
N90-1101	1.3	1.0	1.5	1.5	2.7	2.0	1.7
R90-844	1.3	1.0	1.5	1.5	2.6	2.0	1.7
S90-1218	1.7	1.3	2.0	2.0	2.8	2.3	2.0
S90-1245	1.7	1.0	1.5	1.5	3.3	2.0	1.8
SC89-147	1.3	2.0	2.0	2.0	2.0	2.0	1.9
SC89-181	1.3	1.3	2.0	2.0	2.2	2.0	1.8
V88-494	1.0	1.0	2.0	2.0	1.9	2.0	1.7

WEST		
STRAIN	BEAUMONT TX	MEAN
BRIM	1.8	1.8
LYON	2.3	2.3
D87-4429	3.2	3.2
SC84-931	1.7	1.7
N89-566	3.5	3.5
RJ85-9116	4.7	4.7
R89-131	2.7	2.7
Au89-1424	3.7	3.7
N90-541	3.3	3.3
N90-1101	3.8	3.8
R90-844	3.3	3.3
S90-1218	3.7	3.7
S90-1245	2.2	2.2
SC89-147	1.7	1.7
SC89-181	1.7	1.7
V88-494	1.7	1.7

**PRELIMINARY GROUP VI****1993**

Preliminary Group VI nurseries were planted at 7 locations. Data were obtained from all of the locations. The parentage for each strain is reported in Table 43. Table 44 gives a general summary of information for each strain including seed yield, oil and protein percentages, maturity index, and pest reactions. Results from individual locations are summarized in Tables 45 - 51.

The cultivar Bedford is the yield and maturity check. It had a mean yield of 32.4 bushels per acre and a mean maturity of October 9 at the 7 locations.

TABLE 43 - PARENTAGE OF THE STRAINS GROWN IN PRELIMINARY GROUP VI, 1993.

VARIETY OR STRAIN	PARENTAGE	GENERATION COMPOSITED
1. BEDFORD	FORREST(2) X D68-18 X PI 88788	F4
2. CENTENNIAL	D64-4636 X D68-8847	F5
3. BRIM	YOUNG X N73-1102	F7
4. LYON	D82-2218 X LAMAR	F5
5. Au90-87	G81-152 X R83-980	F6
6. Au90-442	HUTCHESON X Au82-589	F6
7. Au90-585	HUTCHESON X Au82-589	F6
8. Au90-592	HUTCHESON X Au82-589	F6
9. Au90-2373	Au82-211 X HOWARD	F6
10. D91-4609	EPPS X SHARKEY	F5
11. D91-4715	EPPS X SHARKEY	F5
12. D91-4759	EPPS X SHARKEY	F5
13. D91-9543	D87-5963 X (EPPS X SHARKEY)	F4
14. D91-10244	D67-4793(2) X SHARKEY	F4
15. G89-300	HUTCHESON X COLQUITT	F7
16. G89-2223	G81-152 X COKER 6738	F7
17. G89-2235	G81-152 X COKER 6738	F7
18. G89-2272	G81-152 X COKER 6738	F7
19. G89-2273	G81-152 X COKER 6738	F7
20. N87-984	NRS IV SELECTION X	F10
21. N91-140	NRS V SELECTION X	F6
22. N91-299	NRS V SELECTION X	F6
23. N91-386	N85-4085 X BRAXTON	F6
24. N91-1265	N84-1299(2) X NC143	F6
25. NTCPR92-62	YOUNG X SUZUYATAKA	F4
26. NTCPR92-60	YOUNG X SUZUYATAKA	F4
27. N91-6025	GASOY X AMCOR	F4
28. R89-155	(R80-437 X D79-6162 X (JEFF X R80-64K)	F5
29. R90-555	(TRACY-M X JEFF) X (NAROW X D79-6162)	F5
30. R90-1433	(R80-437 X D79-6162) X (JEFF X R80-64K)	F5
31. R90-1682	HARTZ 6381 X WALTERS	F5
32. R91-347	(R80-437 X D79-6162) X (JEFF X R80-64K)	F6
33. SC90-1027	HUTCHESON X COKER 6738	F5
34. SC90-1949	YOUNG X COKER 6847	F5
35. SC90-2010	YOUNG X COKER 6847	F5
36. SC90-2089	COKER 6847 X HUTCHESON	F5
37. SC90-2839	COKER 6847 X THOMAS	F5
38. TsB88-2437	BRAXTON X N77-940	F7
39. TsB90-59	RANSOM X HAROSOY	F7
40. V89-878	V89-882 X MORGAN	F5

TABLE 44 - GENERAL SUMMARY OF PERFORMANCE FOR THE STRAINS GROWN IN PRELIMINARY GROUP VI, 1993.

STRAIN	SEED YIELD	MAT. INDEX	-----PERCENT-----			M.a.	M.i.	SCN 3	SCN 14	STEM	
			HT.	OIL	PROTEIN					CANKER MS	FROG EYE
BEDFORD	32.4	10/09	34	20.3	41.8	1.0	1.0	R	R	5.0	0.2
CENTENNIAL	39.3+	9+	35	19.9	42.7	1.0	1.0	R	S	4.6	1.8
BRIM	37.5+	7+	37	20.1	42.1	2.7	1.0	S	S	5.0	0.0
LYON	35.5	5+	32	20.3	41.7	1.1	1.0	MR	MR	1.0	1.0
Au90-87	41.2+	8+	33	20.6	40.8	2.8	1.0	MR	S	4.4	1.3
Au90-442	42.7+	7+	34	21.6+	40.7	1.1	1.0	S	S	5.0	0.0
Au90-585	42.2+	9+	35	20.4	41.3	1.2	1.0	S	S	2.5	0.2
Au90-592	42.7+	8+	34	20.0	42.2	1.2	1.0	S	S	1.0	0.2
Au90-2373	40.1+	6+	36	20.2	41.7	1.4	1.0	R	MR	4.0	0.9
D91-4609	36.4	4+	34	20.1	42.6	3.0	1.0	R	S	1.0	0.2
D91-4715	36.3	5+	36	18.6-	44.8+	2.8	1.0	R	MR	1.0	0.7
D91-4759	37.6+	11+	33	19.5	43.7	2.1	1.0	R	R	1.0	0.7
D91-9543	37.5+	11+	34	19.8	43.4	2.2	1.0	R	MR	1.0	2.1
D91-10244	31.6	6+	27	16.4-	49.2+	2.5	1.0	S	S	1.0	0.1
G89-300	41.2+	9+	34	20.5	40.3	1.4	1.0	S	S	1.0	0.0
G89-2223	42.4+	6+	31	20.7	42.3	1.0	1.0	R	S	1.0	0.9
G89-2235	40.4+	5+	35	20.6	41.1	1.1	1.0	R	S	1.0	2.1
G89-2272	41.6+	6+	33	21.8+	41.3	1.0	1.0	R	S	5.0	3.2
G89-2273	38.8+	7+	30	21.3	41.1	1.0	1.0	R	S	1.0	1.0
N87-984	34.1	4+	34	20.0	45.0+	2.8	1.1	S	S	--	0.1
N91-140	38.0+	4+	32	21.0	40.9	1.4	1.0	S	S	4.9	1.2
N91-299	38.1+	2+	31	21.2	40.7	1.4	1.0	S	S	4.5	3.5
N91-386	38.8+	9+	37	19.6	42.6	1.0	1.0	S	S	1.0	0.3
N91-1265	36.5	7+	33	20.4	44.5+	2.9	1.0	S	S	4.8	0.0
NTCPR92-62	34.1	4+	31	20.4	43.4	2.6	1.0	S	S	5.0	0.0
NTCPR92-60	33.0	1+	27	21.0	41.5	2.6	1.0	S	S	1.0	0.0
N91-6025	33.8	9+	40	20.5	40.1	1.2	1.0	S	S	5.0	0.1
R89-155	39.9+	7+	32	20.1	42.1	1.0	1.0	MR	H	1.0	1.1
R90-555	38.9+	6+	36	20.5	41.5	2.2	1.0	MR	MR	1.0	2.3
R90-1433	33.8	5+	27	20.0	42.8	2.8	1.1	R	S	--	2.2
R90-1682	38.7+	8+	34	19.2	42.9	1.3	1.0	R	S	--	4.0
R91-347	37.7+	8+	28	20.5	42.3	2.7	1.0	MR	R	--	0.9
SC90-1027	41.1+	9+	36	21.0	40.8	1.2	1.0	S	H	1.0	0.0
SC90-1949	39.1+	3+	36	21.0	40.9	1.0	1.0	S	S	1.0	0.1
SC90-2010	39.7+	11+	31	20.5	42.3	3.0	1.0	S	S	1.0	1.1
SC90-2089	42.0+	10+	35	19.3	42.8	1.0	1.0	R	S	1.0	0.2
SC90-2839	40.8+	8+	33	20.4	40.6	1.0	1.0	R	S	1.0	1.6
TsB88-2437	36.2	11+	32	20.1	40.5	2.6	1.0	S	S	1.0	0.0
TsB90-59	37.2	6+	40	19.9	40.6	3.0	1.1	S	S	--	1.2
V89-878	34.2	5+	26	21.5	43.2	1.7	1.0	S	S	--	0.3
L.S.D. (0.05)	5.0			1.2	2.0						
C.V. (%)	12.4			4.8	3.8						

(+) or (-) designations refer to significant differences to Bedford at the 0.05 probability level.

TABLE 45 - SEED YIELD, IN BUSHEL PER ACRE, FOR THE STRAINS IN PRELIMINARY GROUP VI, 1993.

STRAIN	ATHENS GA	BLACK- VILLE SC	JAY FL	PLY- MOUTH NC	STONE- VILLE MS(B)	STUTT- GART AR	TALLA- SSEE AL	MEAN
BEDFORD	33.1	26.8	41.3	36.2	23.6	28.7	37.2	32.4
CENTENNIAL	41.0	27.0	46.8	47.3+	29.6	38.6+	44.9	39.3+
BRIM	33.3	24.3	48.4	48.2+	38.2+	35.9	34.1	37.5+
LYON	31.6	29.4	41.8	49.5+	27.6	39.0+	29.8	35.5
Au90-87	33.5	32.1	53.9+	53.2+	35.0+	33.3	47.2	41.2+
Au90-442	39.1	30.6	44.0	52.0+	37.8+	47.4+	47.8	42.7+
Au90-585	30.4	24.2	58.9+	52.1+	38.8+	47.8+	43.1	42.2+
Au90-592	34.1	30.4	44.6	52.6+	35.5+	45.8+	55.9+	42.7+
Au90-2373	37.7	27.6	42.9	45.2+	29.4	46.2+	52.0	40.1+
D91-4609	25.6	33.0+	41.8	44.5+	35.9+	39.4+	34.5	36.4
D91-4715	36.4	32.0	42.4	47.2+	31.4+	32.8	32.1	36.3
D91-4759	35.3	32.0	42.9	44.0+	31.4+	33.8	43.9	37.6+
D91-9543	35.4	26.6	42.4	44.6+	30.9+	41.0+	42.1	37.5+
D91-10244	29.9	25.6	36.3	40.9	30.9+	27.6	29.9	31.6
G89-300	38.9	32.6+	50.6	52.2+	27.4	47.7+	39.2	41.2+
G89-2223	40.4	29.4	52.8	54.2+	35.6+	44.0+	40.3	42.4+
G89-2235	28.4	35.1+	46.8	50.1+	39.7+	42.0+	40.6	40.4+
G89-2272	43.6+	30.9	46.2	56.2+	28.6	43.0+	42.7	41.6+
G89-2273	28.5	25.8	50.6	54.0+	33.0+	44.8+	35.1	38.8+
N87-984	29.5	24.9	46.2	40.7	31.7+	34.0	31.5	34.1
N91-140	24.1-	32.0	49.0	58.0+	29.7	41.5+	32.1	38.0+
N91-299	32.0	27.9	43.5	56.3+	37.6+	38.6+	31.0	38.1+
N91-386	30.3	25.5	45.7	51.4+	37.4+	44.1+	37.1	38.8+
N91-1265	32.1	30.1	43.5	50.1+	34.4+	35.8	29.7	36.5
NTCPR92-62	26.1	25.4	40.2	47.0+	32.4+	32.1	35.4	34.1
NTCPR92-60	23.8-	25.2	45.1	47.1+	30.7+	43.4+	15.9-	33.0
N91-6025	34.0	28.8	38.5	43.2+	25.3	37.0	29.5	33.8
R89-155	38.5	27.8	44.0	49.8+	31.1+	36.8	51.3	39.9+
R90-555	34.9	27.0	44.6	47.4+	34.6+	44.8+	39.0	38.9+
R90-1433	34.1	26.7	34.1	49.3+	29.9	32.8	29.6	33.8
R90-1682	35.8	28.8	46.8	50.2+	31.3+	36.1	42.1	38.7+
R91-347	24.2-	28.5	41.3	51.5+	33.1+	42.4+	42.7	37.7+
SC90-1027	35.6	29.0	47.9	52.7+	33.0+	46.3+	43.1	41.1+
SC90-1949	40.8	34.1+	41.3	47.7+	41.9+	35.8	32.2	39.1+
SC90-2010	29.6	33.8+	52.8	49.9+	38.0+	34.2	39.9	39.7+
SC90-2089	36.6	36.2+	44.0	49.2+	39.3+	44.1+	45.0	42.0+
SC90-2839	34.3	39.6+	52.3	49.3+	30.8+	37.1+	42.4	40.8+
TsB88-2437	33.2	29.5	41.3	47.9+	34.5+	41.5+	25.5	36.2
TsB90-59	43.7+	33.0+	41.3	47.2+	23.8	31.9	39.7	37.2
V89-878	22.9-	25.5	38.5	48.7+	29.6	43.5+	30.9	34.2
Overall Mean	33.3	29.4	44.9	49.0	32.8	39.3	37.9	
L.S.D. (0.05)	8.7	5.6	11.8	5.4	6.7	8.4	16.1	5.0
C.V. (%)	12.9	9.4	13.0	5.4	10.1	10.6	21.0	12.4

TABLE 46 - OIL PERCENTAGES FOR THE STRAINS IN PRELIMINARY GROUP VI, 1993.

STRAIN	ATHENS GA	BLACKVILLE SC	JAY FL	STONEVILLE MS(B)	TALLASSEE AL	MEAN
BEDFORD	19.6	19.5	22.5	20.4	19.5	20.3
CENTENNIAL	20.3	16.9	22.2	19.4	20.6	19.9
BRIM	19.1	19.4	22.1	18.9	21.0	20.1
LYON	19.8	18.2	22.9	19.0	21.4	20.3
Au90-87	20.1	19.8	22.6	19.9	20.8	20.6
Au90-442	19.5	22.5	23.8	20.7	21.3	21.6
Au90-585	18.9	19.7	22.1	20.6	20.6	20.4
Au90-592	18.8	19.1	22.2	20.2	19.5	20.0
Au90-2373	21.2	19.7	21.6	19.6	19.1	20.2
D91-4609	19.4	17.9	23.1	19.7	20.6	20.1
D91-4715	16.9	17.0	21.1	17.9	20.0	18.6
D91-4759	19.1	18.6	21.3	18.7	19.7	19.5
D91-9543	20.9	18.5	21.3	19.4	19.0	19.8
D91-10244	20.6	14.0	15.7	16.4	15.1	16.4
G89-300	18.3	19.6	22.9	20.7	20.9	20.5
G89-2223	19.3	20.1	22.8	20.6	20.9	20.7
G89-2235	20.0	20.8	21.6	19.8	20.8	20.6
G89-2272	21.9	20.3	23.9	20.9	21.9	21.8
G89-2273	21.4	20.4	23.1	19.6	21.9	21.3
N87-984	19.9	19.1	21.7	19.5	19.6	20.0
N91-140	19.9	20.2	23.9	19.2	21.8	21.0
N91-299	19.9	20.4	23.4	21.8	20.6	21.2
N91-386	19.7	18.8	21.2	18.9	19.6	19.6
N91-1265	18.1	20.0	22.3	20.0	21.7	20.4
NTCPR92-62	19.0	19.7	22.5	20.3	20.5	20.4
NTCPR92-60	19.6	19.7	23.9	20.3	21.4	21.0
N91-6025	19.6	19.9	23.5	18.9	20.5	20.5
R89-155	21.4	18.3	21.7	18.4	20.6	20.1
R90-555	21.4	19.6	22.4	19.7	19.6	20.5
R90-1433	19.5	18.6	22.6	18.7	20.4	20.0
R90-1682	15.7	19.3	21.9	20.1	18.9	19.2
R91-347	22.1	18.4	22.0	19.3	20.6	20.5
SC90-1027	19.5	20.0	23.6	20.4	21.6	21.0
SC90-1949	20.7	20.2	22.4	19.5	22.0	21.0
SC90-2010	21.1	19.4	22.1	19.9	20.0	20.5
SC90-2089	20.8	18.7	20.9	18.1	18.0	19.3
SC90-2839	20.3	19.4	22.2	19.3	20.7	20.4
TsB88-2437	21.4	18.5	21.4	18.7	20.4	20.1
TsB90-59	20.1	19.4	21.4	18.0	20.6	19.9
V89-878	20.1	20.9	23.4	21.3	21.6	21.5

TABLE 47 - PROTEIN PERCENTAGES FOR THE STRAINS IN PRELIMINARY GROUP VI, 1993.

STRAIN	ATHENS GA	BLACKVILLE SC	JAY FL	STONEVILLE MS(B)	TALLASSEE AL	MEAN
BEDFORD	43.5	39.6	41.8	40.0	44.1	41.8
CENTENNIAL	42.3	42.7	42.6	43.0	42.7	42.7
BRIM	43.9	41.5	41.7	42.8	40.6	42.1
LYON	42.8	42.4	41.8	41.6	39.8	41.7
Au90-87	39.8	42.1	40.7	40.3	41.1	40.8
Au90-442	42.5	39.0	39.7	41.1	41.4	40.7
Au90-585	43.6	40.8	40.9	40.3	40.7	41.3
Au90-592	44.6	41.6	41.0	40.9	42.9	42.2
Au90-2373	42.6	40.2	42.1	41.2	42.4	41.7
D91-4609	43.2	43.3	41.6	42.7	42.2	42.6
D91-4715	47.2	44.0	44.3	45.2	43.5	44.8
D91-4759	46.6	41.8	43.3	43.0	43.9	43.7
D91-9543	42.5	42.7	43.2	43.5	44.9	43.4
D91-10244	42.3	52.1	52.6	48.3	50.5	49.2
G89-300	44.8	40.1	38.6	38.6	39.5	40.3
G89-2223	43.8	41.3	42.8	40.9	42.7	42.3
G89-2235	40.2	39.8	43.3	41.1	40.9	41.1
G89-2272	40.9	41.4	41.2	41.1	41.8	41.3
G89-2273	40.0	41.1	42.1	41.2	41.0	41.1
N87-984	40.6	46.4	46.0	45.7	46.2	45.0
N91-140	43.2	40.5	39.2	41.8	39.8	40.9
N91-299	41.4	41.9	38.7	39.5	42.2	40.7
N91-386	42.6	40.9	43.0	43.5	42.8	42.6
N91-1265	45.2	43.0	46.3	44.2	43.7	44.5
NTCPR92-62	44.8	42.2	43.5	43.1	43.5	43.4
NTCPR92-60	41.7	42.1	41.0	41.2	41.7	41.5
N91-6025	41.0	38.1	39.7	41.1	40.7	40.1
R89-155	41.3	42.3	42.8	43.5	40.8	42.1
R90-555	41.2	40.7	42.0	40.7	42.7	41.5
R90-1433	42.6	42.3	43.1	43.5	42.5	42.8
R90-1682	50.5	39.8	41.9	39.3	42.9	42.9
R91-347	40.6	41.6	43.9	42.8	42.6	42.3
SC90-1027	41.7	40.0	40.6	41.3	40.6	40.8
SC90-1949	40.9	40.6	42.2	42.7	38.1	40.9
SC90-2010	39.5	41.7	43.4	43.1	43.8	42.3
SC90-2089	41.6	41.8	43.0	43.6	44.1	42.8
SC90-2839	41.7	39.9	41.0	41.2	39.1	40.6
TsB88-2437	40.0	38.7	42.3	41.4	40.0	40.5
TsB90-59	40.9	38.1	42.4	42.2	39.6	40.6
V89-878	45.3	42.8	42.9	41.7	43.2	43.2

TABLE 48 - SEED SIZE FOR THE STRAINS IN PRELIMINARY GROUP VI, 1993.

STRAIN	ATHENS GA	BLACK- VILLE SC	JAY FL	PLYMOUTH NC	STUTT GART AR	TALLA- SSEE AL	MEAN
BEDFORD	13.1	12.8	13.5	13.0	11.0	12.8	12.7
CENTENNIAL	14.7	12.3	15.0	14.4	12.5	13.0	13.6
BRIM	13.9	13.8	16.0	14.5	12.0	11.6	13.6
LYON	15.0	14.6	14.0	15.1	14.0	10.1	13.8
Au90-87	15.7	14.6	15.5	15.2	13.0	12.8	14.5
Au90-442	13.2	12.6	14.0	12.5	12.0	11.3	12.6
Au90-585	12.0	10.9	11.0	12.7	13.0	10.5	11.7
Au90-592	13.0	10.9	16.0	12.5	13.0	11.1	12.7
Au90-2373	14.0	14.4	18.0	14.6	14.0	12.3	14.6
D91-4609	12.6	11.4	19.0	12.5	11.5	11.4	13.1
D91-4715	14.5	13.5	17.5	15.0	11.5	12.1	14.0
D91-4759	14.2	15.8	17.0	15.3	13.0	13.0	14.7
D91-9543	13.6	12.5	16.0	13.6	12.0	11.5	13.2
D91-10244	13.3	12.8	18.0	13.7	11.5	10.8	13.3
G89-300	17.1	14.9	13.5	17.1	16.0	13.6	15.4
G89-2223	14.6	14.3	17.0	13.6	13.5	11.3	14.0
G89-2235	14.2	15.7	18.0	15.2	14.0	12.4	14.9
G89-2272	14.4	17.2	17.0	16.4	15.0	13.8	15.6
G89-2273	13.8	13.5	16.0	14.0	14.0	12.1	13.9
N87-984	16.8	16.2	17.0	17.5	15.5	14.8	16.3
N91-140	12.9	14.1	17.0	13.6	12.5	11.1	13.5
N91-299	16.0	16.2	14.0	15.4	12.5	12.8	14.5
N91-386	21.3	17.5	17.5	20.2	19.5	15.4	18.6
N91-1265	18.1	17.5	18.0	19.9	17.5	16.5	17.9
NTCPR92-62	19.0	19.6	13.5	19.4	16.0	16.5	17.3
NTCPR92-60	17.7	22.4	18.0	17.2	16.5	17.7	18.3
N91-6025	14.7	14.5	14.0	15.7	13.5	12.1	14.1
R89-155	13.3	11.8	14.0	13.6	12.5	11.5	12.8
R90-555	15.7	16.9	16.0	15.7	15.5	13.5	15.6
R90-1433	15.1	13.0	16.0	14.5	14.0	12.6	14.2
R90-1682	12.6	14.1	12.5	13.2	11.5	11.7	12.6
R91-347	14.6	13.0	16.0	16.1	14.5	13.0	14.5
SC90-1027	14.5	12.4	16.0	15.2	14.0	13.5	14.3
SC90-1949	17.5	16.7	19.0	15.1	14.5	11.9	15.8
SC90-2010	17.0	16.5	23.0	16.9	14.0	13.7	16.8
SC90-2089	13.7	12.3	15.0	14.1	12.5	11.3	13.1
SC90-2839	13.6	15.0	18.0	13.8	12.0	12.1	14.1
TsB88-2437	13.5	13.8	15.0	15.9	15.5	13.1	14.5
TsB90-59	14.1	12.6	14.0	15.4	11.5	11.4	13.2
V89-878	14.3	17.0	17.0	14.6	15.0	15.8	15.6

TABLE 49 - PLANT HEIGHT FOR THE STRAINS IN PRELIMINARY GROUP VI, 1993.

STRAIN	ATHENS GA	JAY FL	PLYMOUTH NC	STONE- VILLE MS(B)	STUTTGART AR	TALLA- SSEE AL	MEAN
BEDFORD	33	34	42	37	27	31	34
CENTENNIAL	34	38	42	33	32	33	35
BRIM	34	35	45	40	38	32	37
LYON	30	34	41	34	29	24	32
Au90-87	31	34	41	40	26	26	33
Au90-442	33	37	42	34	27	32	34
Au90-585	33	34	43	38	33	32	35
Au90-592	34	38	41	34	30	28	34
Au90-2373	35	36	46	36	33	29	36
D91-4609	32	33	42	34	28	33	34
D91-4715	35	35	43	38	33	30	36
D91-4759	31	36	40	31	30	28	33
D91-9543	34	35	42	35	25	33	34
D91-10244	27	26	33	32	22	23	27
G89-300	31	34	42	37	37	25	34
G89-2223	30	36	38	31	22	28	31
G89-2235	32	36	44	38	29	31	35
G89-2272	32	37	40	32	31	27	33
G89-2273	28	35	37	32	23	28	30
N87-984	34	36	43	31	29	32	34
N91-140	30	34	42	34	28	26	32
N91-299	29	33	41	35	22	25	31
N91-386	38	36	46	41	34	29	37
N91-1265	31	30	46	39	29	23	33
NTCPR92-62	32	33	38	34	23	27	31
NTCPR92-60	24	31	34	28	23	22	27
N91-6025	41	37	53	42	28	37	40
R89-155	31	34	39	37	24	31	32
R90-555	37	33	45	38	35	31	36
R90-1433	25	22	38	34	22	23	27
R90-1682	31	36	44	35	28	31	34
R91-347	25	23	39	32	23	25	28
SC90-1027	33	34	45	39	35	31	36
SC90-1949	36	36	43	38	29	36	36
SC90-2010	31	19	43	37	30	29	31
SC90-2089	36	34	42	36	31	33	35
SC90-2839	31	31	41	32	31	31	33
TsB88-2437	31	34	40	34	26	29	32
TsB90-59	39	37	49	41	35	39	40
V89-878	21	33	33	26	22	22	26

TABLE 50 - LODGING SCORES FOR THE STRAINS IN PRELIMINARY GROUP VI, 1993.

STRAIN	ATHENS GA	JAY FL	PLYMOUTH NC	STONE- VILLE MS(B)	STUTTGART AR	TALLA- SSEE AL	MEAN
BEDFORD	1.5	2.0	3.0	3.0	1.5	1.3	2.0
CENTENNIAL	2.0	2.0	3.0	3.0	2.5	1.0	2.3
BRIM	1.5	1.5	2.5	3.0	2.0	1.0	1.9
LYON	2.0	2.0	2.5	3.0	3.0	1.0	2.3
Au90-87	1.8	1.5	2.5	2.0	1.0	1.0	1.6
Au90-442	1.8	1.5	2.3	2.0	1.0	1.0	1.6
Au90-585	2.0	2.0	3.0	2.5	3.0	1.0	2.3
Au90-592	1.8	1.0	3.0	2.5	2.5	1.0	2.0
Au90-2373	1.8	1.0	2.0	2.5	2.0	1.0	1.7
D91-4609	2.0	3.0	3.0	3.0	4.0	1.3	2.7
D91-4715	2.3	2.0	2.8	3.0	2.5	1.0	2.3
D91-4759	2.0	2.0	3.8	2.5	2.0	1.0	2.2
D91-9543	2.0	2.0	3.5	3.5	3.0	1.0	2.5
D91-10244	1.8	1.0	2.0	2.0	1.0	1.0	1.5
G89-300	1.5	1.0	2.0	2.0	1.5	1.0	1.5
G89-2223	1.8	2.0	2.0	2.0	1.5	1.0	1.7
G89-2235	1.5	2.0	1.8	2.0	1.0	1.0	1.5
G89-2272	1.5	1.0	2.0	2.0	1.0	1.0	1.4
G89-2273	1.5	1.5	2.0	2.0	1.0	1.0	1.5
N87-984	1.8	2.0	2.0	2.0	3.0	1.3	2.0
N91-140	1.5	2.0	2.5	2.5	1.0	1.0	1.8
N91-299	1.5	2.0	2.3	2.0	1.0	1.0	1.6
N91-386	1.8	1.0	2.0	2.0	2.0	1.0	1.6
N91-1265	1.5	1.0	2.3	2.5	1.5	1.0	1.6
NTCPR92-62	2.0	1.5	2.0	2.0	1.0	1.0	1.6
NTCPR92-60	2.0	1.5	2.5	2.0	1.0	1.0	1.7
N91-6025	2.0	1.5	3.0	2.5	1.5	1.0	1.9
R89-155	2.0	2.0	3.0	2.5	1.5	1.0	2.0
R90-555	2.0	1.5	2.0	3.0	2.5	1.0	2.0
R90-1433	1.5	1.5	2.5	2.0	1.0	1.0	1.6
R90-1682	2.0	1.0	2.0	2.0	1.5	1.0	1.6
R91-347	1.5	1.0	2.5	2.0	1.0	1.0	1.5
SC90-1027	1.5	1.0	2.0	2.0	1.0	1.0	1.4
SC90-1949	1.8	1.5	2.0	2.0	1.0	1.0	1.5
SC90-2010	1.8	4.1	3.0	2.0	2.0	1.0	2.3
SC90-2089	1.8	1.0	2.8	2.5	1.0	1.0	1.7
SC90-2839	1.5	1.0	2.0	2.0	1.0	1.0	1.4
TsB88-2437	1.8	1.0	3.0	2.0	2.0	1.0	1.8
TsB90-59	2.0	1.0	2.0	3.0	1.5	1.3	1.8
V89-878	1.5	1.5	3.0	2.0	1.0	1.0	1.7

TABLE 51 - SEED QUALITY SCORES FOR THE STRAINS IN PRELIMINARY GROUP VI, 1993.

STRAIN	ATHENS GA	JAY FL	PLYMOUTH NC	STONEVILLE MS(B)	TALLASSEE AL	MEAN
BEDFORD	2.8	3.5	2.0	2.0	2.0	2.5
CENTENNIAL	1.6	3.0	2.0	2.0	1.0	1.9
BRIM	1.4	3.0	1.5	2.0	1.0	1.8
LYON	2.0	3.0	1.0	2.0	1.0	1.8
Au90-87	1.7	2.0	1.0	2.0	1.0	1.5
Au90-442	1.3	3.0	2.0	2.0	1.0	1.9
Au90-585	1.8	3.0	2.5	2.0	1.0	2.1
Au90-592	1.6	3.0	2.0	2.0	1.0	1.9
Au90-2373	1.5	3.0	1.5	2.0	1.0	1.8
D91-4609	2.1	3.0	2.0	2.0	1.0	2.0
D91-4715	1.8	3.0	1.5	2.0	1.0	1.9
D91-4759	1.6	3.0	2.0	2.0	1.0	1.9
D91-9543	2.2	3.0	1.5	2.0	1.0	1.9
D91-10244	1.5	3.0	1.0	2.0	1.0	1.7
G89-300	1.4	3.0	2.0	2.0	1.0	1.9
G89-2223	1.5	3.0	2.0	2.0	1.0	1.9
G89-2235	1.5	3.0	1.5	2.0	1.0	1.8
G89-2272	1.4	3.0	2.0	2.0	1.0	1.9
G89-2273	1.6	3.0	2.0	2.0	1.0	1.9
N87-984	2.4	3.0	2.5	2.0	1.5	2.3
N91-140	1.8	3.0	2.0	2.0	1.0	2.0
N91-299	2.5	3.0	2.0	2.0	1.0	2.1
N91-386	2.3	3.0	1.5	2.0	1.0	2.0
N91-1265	1.8	3.0	2.0	2.0	1.5	2.1
NTCPR92-62	3.0	3.0	2.5	2.0	1.5	2.4
NTCPR92-60	3.6	4.0	2.0	2.0	1.0	2.5
N91-6025	2.5	3.0	2.0	2.0	1.0	2.1
R89-155	1.9	3.0	1.5	2.0	1.0	1.9
R90-555	1.4	4.0	2.0	2.0	1.0	2.1
R90-1433	1.9	3.0	2.0	2.0	1.0	2.0
R90-1682	1.8	3.0	2.0	2.0	1.0	2.0
R91-347	2.2	3.0	2.0	2.0	1.0	2.0
SC90-1027	1.5	3.0	2.5	2.0	1.0	2.0
SC90-1949	1.8	3.0	2.0	2.0	1.0	2.0
SC90-2010	2.0	3.0	2.0	2.0	1.0	2.0
SC90-2089	1.7	3.0	2.0	2.0	1.0	1.9
SC90-2839	1.9	3.0	1.5	2.0	1.0	1.9
TsB88-2437	1.1	3.0	1.5	2.0	1.0	1.7
TsB90-59	1.4	3.0	2.0	2.0	1.0	1.9
V89-878	2.4	3.0	1.5	2.0	1.0	2.0

## UNIFORM GROUP VII

1993

Uniform Group VII nurseries were planted at 21 locations. Data were obtained from 18 of these locations. The parentage for each strain is reported in Table 52. Table 53 gives a general summary of information for each strain including one-, two-, and three-year means for seed yield, oil and protein percentages, botanical traits, and pest reactions. Results from individual locations are summarized in Tables 54 - 59.

The cultivar Stonewall is the yield and maturity check. It had a mean yield of 37.1 bushels per acre and a mean maturity of October 21 at the 18 locations.

The Alabama Agricultural Experiment Stations have proposed the release of Au87-547 as 'Carver'. Carver had a mean yield of 36.2 bushels per acre across all locations in 1993 and a three-year mean yield of 41.3 bushels per acre. Carver is resistant to soybean cyst nematode races 3 and 14, *Meloidogne arenaria*, *M. incognita*, and frogeye leaf spot. Carver is named after Dr. George Washington Carver for his earlier work conducted on soybean utilization.

**MATURITY**

**GROUP**

**VII**

TABLE 52 - PARENTAGE OF THE STRAINS GROWN IN UNIFORM GROUP VII, 1993.

VARIETY OR STRAIN	PARENTAGE	GENERATION COMPOSITED
1. STONEWALL	N73-693 X F76-8757	F6
2. HASKELL	JOHNSTON X BRAXTON	F5
3. Au87-547	J80-293 X N81-1756	F6
4. G86-1267	D76-9665 X BRAXTON	F6
5. SC88-1568	CO 368 X D77-6056	F5
6. SC88-2872	CO 368 X LEFLORE	F5
7. Au89-2363	STONEWALL X COKER 6738	F6
8. G88-3266	HUTCHESON X COKER 6738	F6
9. G89-9111	HUTCHESON X COKER 6738	F6
10. N90-804	BRIM X N80-777	F6
11. N90-845	BRIM X N80-777	F6
12. N90-1072	BRIM X N80-777	F6
13. N90-1085	BRIM X N80-777	F6
14. SC89-328	HUTCHESON X LEFLORE	F5
15. SC89-983	BRIM X COKER 6738	F5
16. SC89-1093	BRIM X COKER 6738	F5

**Background of lines used as parents:**

- D77-6056** is a selection from Centennial X J74-47. J74-47 is a SCN race 4 selection of the same parentage as Bedford.
- D77-9665** is a selection from Forrest X Centennial.
- F76-8757** is a SCN race 3 resistant line from (Centennial X Forrest) X (Cobb X D68-216).
- J80-293** is a selection from J74-39 X Centennial. J74-39 is of the same parentage as Bedford.
- N73-693** is a selection from D68-216 X Ransom which was grown in Uniform Group VI in 1977. D68-216 is a SCN race 3 resistant selection of the same parentage as Forrest.
- N80-777** is a selection from N70-1501 X (N72-40 X N73-538). N70-1501 is a selection from Dare X D65-6765. N72-40 is a selection from D64-3253 X D65-3168 and N73-538 is a selection from Tracy X Ransom.
- N81-1756** is a selection from Ransom X N72-2703.

TABLE 53 - GENERAL SUMMARY OF PERFORMANCE FOR THE STRAINS GROWN IN UNIFORM GROUP VII, 1993.

STRAIN	YIELD†			PROTEIN			OIL		
	1993	92-93	91-93	1993	92-93	91-93	1993	92-93	91-93
STONEWALL	37.1	41.1	42.7	41.1	41.5	41.4	21.1	21.1	21.1
HASKELL	38.7	41.9	43.3	39.8	40.0	39.9	21.2	20.9	21.0
Au87-547	36.2	39.3	41.3	40.6	41.5	41.6	21.1	20.9	20.9
G86-1267	37.4	40.7	41.7	40.6	40.3	40.0	20.6	20.6	20.6
SC88-1568	36.8	39.3	.	39.7	39.7	.	21.7	21.6	.
SC88-2872	37.0	40.1	.	40.8	41.1	.	20.5	20.3	.
Au89-2363	37.6	.	.	41.6	.	.	21.0	.	.
G88-3266	39.5	.	.	40.6	.	.	21.4	.	.
G89-9111	38.0	.	.	40.3	.	.	21.5	.	.
N90-804	32.5	.	.	41.0	.	.	20.8	.	.
N90-845	33.3	.	.	41.2	.	.	20.6	.	.
N90-1072	35.0	.	.	41.5	.	.	20.3	.	.
N90-1085	34.0	.	.	42.6	.	.	20.3	.	.
SC89-328	38.1	.	.	41.2	.	.	20.5	.	.
SC89-983	37.7	.	.	41.5	.	.	20.7	.	.
SC89-1093	37.4	.	.	42.2	.	.	20.5	.	.

## BOTANICAL TRAITS

STRAIN	FL. COLOR	HEIGHT	MATURITY DATE	LODGING	PUB. COLOR	POD WALL	SEED SIZE	SEED QUALITY
STONEWALL	W	30	10/21	1.5	T	T	15.9	1.9
HASKELL	P	31	+2	1.9	T	T	15.5	1.8
Au87-547	W	27	0	1.3	T	T	14.4	1.9
G86-1267	P	29	+1	1.4	T	T	13.5	1.9
SC88-1568	W	29	0	1.4	T	T	14.1	1.9
SC88-2872	W	29	+1	1.4	G	T	14.3	1.7
Au89-2363	W	31	+4	1.5	T	T	15.3	1.8
G88-3266	P	31	+2	1.3	T	T	15.2	1.9
G89-9111	W	29	+2	1.2	T	T	14.1	1.7
N90-804	P	26	+1	1.4	G	T	13.1	2.1
N90-845	P	26	+4	1.4	G	T	13.7	1.9
N90-1072	P	27	+4	1.5	G	Br	13.0	1.9
N90-1085	W	30	+1	1.4	G	T	13.6	1.8
SC89-328	W	31	0	1.5	G	T	14.7	1.8
SC89-983	W	35	0	1.4	G	T	14.0	1.8
SC89-1093	P	29	0	1.5	G	Br	15.2	1.8

## PEST REACTIONS

STRAIN	M.a.	M.i.	SCN RACE 3	SCN RACE 14	VBC††	STEM CANKER MS	STEM CANKER TX	FROG EYE	AERIAL WEB BLIGHT
STONEWALL	5.0	2.0	R	H	5.00	---	0	0	3.0
HASKELL	2.0	1.3	S	S	4.33	1.0	0.3	0	3.7
Au87-547	3.3	2.0	H	H	5.00	4.3	3.3	0	3.7
G86-1267	3.0	1.0	R	S	6.17	---	2.3	2.90	3.3
SC88-1568	4.5	1.0	R	S	5.50	4.8	6.7	3.55	4.3
SC88-2872	5.0	1.0	MR	R	6.50	3.6	3.0	6.50	4.3
Au89-2363	1.5	2.0	H	S	5.50	1.0	0.7	0	1.7
G88-3266	3.3	1.0	R	S	6.83	1.0	0.7	0	4.7
G89-9111	3.8	1.3	R	S	4.67	---	1.0	1.78	4.3
N90-804	4.0	1.5	S	S	5.50	---	1.7	0.03	5.0
N90-845	4.3	2.0	S	S	3.83	3.9	3.0	0	5.0
N90-1072	4.0	4.5	S	S	4.67	---	3.7	0.02	5.0
N90-1085	3.8	3.0	S	S	6.33	5.0	4.7	0.00	5.0
SC89-328	5.0	1.0	S	S	4.00	1.0	0	0.20	3.0
SC89-983	4.8	4.3	MR	S	2.83	4.5	3.7	0.08	3.7
SC89-1093	3.8	1.3	S	S	6.33	1.0	0.3	8.83	4.7

†Data from Bossier City, LA (1993); Jackson Springs, NC (1993); Quincy, FL (1993); and Gainesville, FL (1991, 1992) are not included in means.  
 ††Centennial had a mean rating of 7.92 (based on 12 reps).

TABLE 54 - SEED YIELD, IN BUSHELS PER ACRE, FOR THE STRAINS IN UNIFORM GROUP VII, 1993.

EAST COAST								
STRAIN	FLORENCE SC		JACKSON SPRINGS NC†		KINSTON NC		MEAN	
STONEWALL	23.0		31.6		30.4		26.7	
HASKELL	22.5		38.0		21.3		21.9	
Au87-547	20.2		29.1		33.9		27.1	
G86-1267	24.7		29.8		30.7		27.7	
SC88-1568	28.1		29.4		32.8		30.5	
SC88-2872	25.9		34.1		41.6		33.8	
Au89-2363	25.1		31.2		32.0		28.6	
G88-3266	21.3		32.3		26.5		23.9	
G89-9111	23.6		33.3		27.7		25.6	
N90-804	25.3		38.2		22.1		23.7	
N90-845	25.5		39.6		22.1		23.8	
N90-1072	32.5		43.7		27.6		30.0	
N90-1085	23.0		36.2		30.3		26.6	
SC89-328	28.4		48.9		35.8		32.1	
SC89-983	26.8		27.7		29.8		28.3	
SC89-1093	23.7		32.7		27.2		25.4	
Overall mean	25.0		34.7		29.5			
L.S.D. (0.05)	6.3		6.9		7.6		.	
C.V. (%)	15.2		11.9		15.4		.	

  

SOUTHEAST								
STRAIN	BATON ROUGE LA	BLACK- VILLE SC(A)	FAIR- HOPE AL	JAY FL	QUINCY FL†	TALLA- SSEE AL	TIFTON GA	MEAN
STONEWALL	60.1	43.1	47.2	38.5	45.1	36.5	34.9	43.4
HASKELL	54.4	45.5	50.5	41.4	48.4	37.8	43.7	45.6
Au87-547	59.5	40.8	46.0	56.1	43.7	31.3	37.1	45.1
G86-1267	54.8	44.3	48.7	48.0	47.6	37.9	43.6	46.2
SC88-1568	54.7	42.9	49.3	43.6	44.1	40.5	41.2	45.4
SC88-2872	53.4	38.2	49.0	33.4	49.1	36.2	43.3	42.2
Au89-2363	57.5	40.0	46.9	32.3	43.8	38.3	43.0	43.0
G88-3266	55.7	45.1	56.6	43.6	52.4	46.1	41.4	48.1
G89-9111	53.4	41.3	47.5	46.6	.	41.1	39.1	44.8
N90-804	37.1	42.9	53.8	36.7	43.0	35.0	36.8	40.4
N90-845	49.2	36.6	58.4	29.0	38.1	33.7	38.1	40.8
N90-1072	41.8	42.4	51.1	38.1	45.3	35.5	39.8	41.4
N90-1085	43.8	36.8	46.3	35.6	46.3	38.5	42.6	40.6
SC89-328	54.8	41.7	49.9	35.2	44.1	44.4	46.9	45.5
SC89-983	62.3	37.1	53.5	31.2	48.7	42.8	44.6	45.2
SC89-1093	54.3	38.3	53.2	40.7	47.0	34.1	43.3	44.0
Overall mean	52.9	41.1	50.5	39.4	45.2	38.1	41.1	
L.S.D. (0.05)	7.5	6.8	7.3	15.0	10.3	12.8	4.6	.
C.V. (%)	8.5	10.0	8.7	22.9	9.5	20.2	6.6	.

†Not included in means.

TABLE 54 - (Continued)

UPPER AND CENTRAL SOUTH					
STRAIN	ATHENS GA	CALHOUN GA	CLEMSON SC	STARKVILLE MS	MEAN
STONEWALL	41.4	18.3	26.2	35.8	30.4
HASKELL	40.5	17.0	35.1	33.0	31.4
Au87-547	39.3	17.0	29.0	34.1	29.8
G86-1267	40.2	19.5	25.3	31.5	29.1
SC88-1568	46.3	13.1	25.9	39.7	31.3
SC88-2872	42.8	21.6	27.7	39.1	32.8
Au89-2363	38.6	21.5	28.0	35.2	30.8
G88-3266	38.5	22.9	32.4	35.6	32.3
G89-9111	44.6	19.9	25.6	37.7	32.0
N90-804	31.5	13.9	24.5	35.5	26.3
N90-845	34.0	12.9	24.4	35.5	26.7
N90-1072	34.6	14.5	30.0	40.4	29.9
N90-1085	39.4	17.8	24.3	33.3	28.7
SC89-328	38.2	10.9	25.2	29.3	25.9
SC89-983	47.0	20.3	29.5	37.5	33.6
SC89-1093	33.4	21.3	28.8	42.9	31.6
Overall mean	39.4	17.5	27.6	36.0	
L.S.D. (0.05)	9.1	5.7	7.3	8.1	.
C.V. (%)	13.9	18.4	15.8	13.5	.

DELTA AND WEST					
STRAIN	BEAUMONT TX	BOSSIER CITY LA†	ST. JOSEPH LA	STONE- VILLE MS(B)	MEAN
STONEWALL	28.5	7.6	50.4	42.3	40.4
HASKELL	36.8	11.5	60.0	40.8	45.9
Au87-547	18.7	10.7	40.7	39.3	32.9
G86-1267	24.3	8.9	52.3	35.9	37.5
SC88-1568	13.2	21.4	39.1	41.6	31.3
SC88-2872	17.1	23.4	48.6	36.9	34.2
Au89-2363	29.7	13.4	60.5	36.1	42.1
G88-3266	20.0	20.6	63.8	42.4	42.1
G89-9111	23.8	28.4	53.9	44.3	40.7
N90-804	16.2	36.5	41.3	35.3	30.9
N90-845	13.5	23.0	43.2	43.7	33.5
N90-1072	14.3	16.1	44.2	38.9	32.5
N90-1085	12.2	22.6	44.4	41.3	32.6
SC89-328	27.5	18.6	60.5	43.4	43.8
SC89-983	14.3	18.0	48.8	40.0	34.4
SC89-1093	23.4	23.0	50.2	45.8	39.8
Overall mean	20.8	19.3	50.1	40.5	
L.S.D. (0.05)	6.7	18.0	7.0	5.9	.
C.V. (%)	19.3	52.2	8.3	8.8	.

†Not included in mean.

TABLE 55 - CHEMICAL COMPOSITION AND SEED SIZE FOR THE STRAINS IN UNIFORM GROUP VII, 1993.

## OIL PERCENTAGE

STRAIN	ATHENS GA	BEAUMONT TX	BLACKVILLE SC(A)	CALHOUN GA	CLEMSON SC	FLORENCE SC	JACKSON SPRINGS NC
STONEWALL	21.4	20.1	19.6	.	19.7	21.8	.
HASKELL	20.9	20.8	20.5	.	20.4	20.2	.
Au87-547	21.0	21.4	18.4	.	20.0	22.6	.
G86-1267	22.5	19.9	19.7	.	20.4	21.4	.
SC88-1568	21.1	21.7	19.7	.	20.1	22.4	.
SC88-2872	20.6	20.8	18.4	.	19.9	20.8	.
Au89-2363	22.1	20.9	19.4	.	19.4	22.0	.
G88-3266	22.1	21.0	20.9	.	20.6	22.1	.
G89-9111	20.5	20.0	20.5	.	20.6	22.6	.
N90-804	21.3	19.4	19.9	.	19.6	21.7	.
N90-845	20.8	19.1	19.5	.	19.4	21.8	.
N90-1072	22.2	18.5	20.4	.	19.0	20.9	.
N90-1085	21.3	18.8	18.1	.	20.0	22.5	.
SC89-328	19.9	20.2	19.8	.	20.2	21.1	.
SC89-983	21.4	19.9	18.4	.	19.7	20.6	.
SC89-1093	21.0	18.7	19.7	.	19.2	20.5	.

## PROTEIN PERCENTAGE

STRAIN	ATHENS GA	BEAUMONT TX	BLACKVILLE SC(A)	CALHOUN GA	CLEMSON SC	FLORENCE SC	JACKSON SPRINGS NC
STONEWALL	38.1	45.3	42.5	.	39.7	40.5	.
HASKELL	40.0	43.3	41.1	.	37.5	40.0	.
Au87-547	39.7	43.0	42.5	.	39.8	38.1	.
G86-1267	38.4	45.6	41.2	.	38.6	40.3	.
SC88-1568	41.4	42.1	42.3	.	38.7	38.3	.
SC88-2872	40.7	43.5	41.0	.	39.2	39.9	.
Au89-2363	39.8	44.9	42.9	.	41.0	39.1	.
G88-3266	38.2	44.0	40.5	.	39.3	39.8	.
G89-9111	39.2	46.1	39.9	.	39.7	38.7	.
N90-804	40.7	45.6	39.1	.	40.7	41.0	.
N90-845	38.7	46.0	39.8	.	41.2	41.3	.
N90-1072	38.9	46.6	38.9	.	41.7	41.2	.
N90-1085	41.0	47.8	40.2	.	42.3	41.0	.
SC89-328	41.2	45.2	40.6	.	39.9	40.0	.
SC89-983	40.3	45.1	41.6	.	42.0	40.7	.
SC89-1093	42.2	47.6	40.2	.	41.2	41.9	.

## GRAMS PER 100 SEED

STRAIN	ATHENS GA	BEAUMONT TX	BLACKVILLE SC(A)	CALHOUN GA	CLEMSON SC	FLORENCE SC	JACKSON SPRINGS NC†
STONEWALL	15.7	15.6	15.4	13.9	13.9	17.6	14.5
HASKELL	14.8	16.2	18.6	12.6	12.8	18.2	13.0
Au87-547	14.4	12.4	15.3	11.6	12.3	16.3	11.5
G86-1267	13.8	12.3	15.9	11.5	12.0	14.2	11.1
SC88-1568	14.1	12.6	14.6	12.3	12.4	15.9	11.0
SC88-2872	15.3	12.3	16.8	13.3	12.6	16.0	11.8
Au89-2363	15.3	15.2	14.9	15.3	13.2	17.3	12.1
G88-3266	14.2	14.3	15.4	13.2	14.0	18.4	10.4
G89-9111	14.0	12.8	15.6	11.0	11.0	16.1	11.1
N90-804	13.4	11.3	16.7	10.7	11.3	15.5	10.7
N90-845	12.7	12.3	14.6	12.0	10.9	16.4	11.0
N90-1072	12.5	10.6	16.4	11.5	11.6	15.0	12.9
N90-1085	14.3	11.5	14.7	10.7	12.0	15.9	10.6
SC89-328	14.8	14.6	17.8	13.9	12.6	15.4	13.8
SC89-983	16.9	11.7	14.1	11.5	13.2	16.5	10.6
SC89-1093	14.0	15.1	14.5	14.1	13.9	17.9	12.5

†Not included in mean.

TABLE 55 - (Continued)

OIL PERCENTAGE								
STRAIN	JAY FL	KINSTON NC	ST. JOSEPH LA	STARKVILLE MS	STONE- VILLE MS(B)	TALLASSEE AL	TIFTON GA	MEAN
STONEWALL	23.5	.	22.1	19.7	20.9	22.6	.	21.1
HASKELL	23.1	.	22.8	20.7	20.3	22.2	.	21.2
Au87-547	22.6	.	22.0	20.5	20.1	22.8	.	21.1
G86-1267	21.6	.	21.1	19.5	19.5	20.8	.	20.6
SC88-1568	24.2	.	23.0	21.2	21.0	22.9	.	21.7
SC88-2872	22.4	.	21.8	20.0	20.1	20.6	.	20.5
Au89-2363	23.0	.	21.7	19.8	20.4	21.1	.	21.0
G88-3266	23.4	.	21.9	20.7	20.4	21.2	.	21.4
G89-9111	23.0	.	22.1	21.5	21.2	22.9	.	21.5
N90-804	22.4	.	20.8	20.6	20.4	21.7	.	20.8
N90-845	22.4	.	21.3	20.4	20.5	20.6	.	20.6
N90-1072	22.0	.	20.7	18.9	19.7	20.4	.	20.3
N90-1085	21.9	.	20.7	18.5	20.6	20.3	.	20.3
SC89-328	22.0	.	21.4	19.4	20.1	21.0	.	20.5
SC89-983	23.6	.	21.7	19.9	20.1	21.3	.	20.7
SC89-1093	23.4	.	22.1	20.6	19.0	21.1	.	20.5

PROTEIN PERCENTAGE								
STRAIN	JAY FL	KINSTON NC	ST. JOSEPH LA	STARKVILLE MS	STONE- VILLE MS(B)	TALLASSEE AL	TIFTON GA	MEAN
STONEWALL	41.1	.	41.4	43.2	40.4	38.7	.	41.1
HASKELL	39.6	.	39.2	40.3	39.4	37.9	.	39.8
Au87-547	41.3	.	39.7	42.0	41.7	38.5	.	40.6
G86-1267	40.8	.	40.0	42.2	40.0	38.5	.	40.6
SC88-1568	38.8	.	38.2	40.6	38.5	38.0	.	39.7
SC88-2872	41.2	.	40.1	41.4	39.7	40.8	.	40.8
Au89-2363	41.9	.	41.0	43.5	41.3	40.2	.	41.6
G88-3266	40.5	.	40.2	41.7	41.1	40.6	.	40.6
G89-9111	40.7	.	40.5	41.5	39.4	37.5	.	40.3
N90-804	41.5	.	40.0	41.8	40.3	39.7	.	41.0
N90-845	40.7	.	41.2	41.4	39.8	42.0	.	41.2
N90-1072	40.9	.	41.1	44.1	41.4	40.4	.	41.5
N90-1085	42.1	.	42.8	44.3	41.5	42.8	.	42.6
SC89-328	41.5	.	39.5	43.0	41.5	39.9	.	41.2
SC89-983	40.8	.	40.6	43.5	40.3	40.2	.	41.5
SC89-1093	40.7	.	40.2	42.5	44.2	40.8	.	42.2

GRAMS PER 100 SEED								
STRAIN	JAY FL	KINSTON NC	ST. JOSEPH LA	STARKVILLE MS	STONE- VILLE MS(B)	TALLASSEE AL	TIFTON GA	MEAN
STONEWALL	17.0	21.3	15.3	14.5	.	12.2	18.5	15.9
HASKELL	16.0	18.8	15.4	12.9	.	11.7	17.7	15.5
Au87-547	18.7	18.0	14.0	12.3	.	11.8	15.4	14.4
G86-1267	17.7	16.0	11.9	12.2	.	10.4	14.3	13.5
SC88-1568	16.0	18.2	12.6	12.7	.	12.0	16.2	14.1
SC88-2872	14.7	17.7	12.7	12.6	.	11.2	16.7	14.3
Au89-2363	16.0	18.3	15.2	14.2	.	10.7	18.1	15.3
G88-3266	15.3	17.6	14.0	14.8	.	12.4	18.4	15.2
G89-9111	17.0	16.8	13.2	12.2	.	12.1	17.1	14.1
N90-804	14.0	15.3	10.3	12.6	.	11.0	14.5	13.1
N90-845	17.3	16.2	13.3	12.9	.	11.5	14.4	13.7
N90-1072	12.3	16.0	12.1	13.3	.	10.6	14.1	13.0
N90-1085	16.3	15.5	12.9	13.3	.	11.1	15.4	13.6
SC89-328	15.7	16.7	12.6	12.9	.	12.3	16.9	14.7
SC89-983	16.3	16.9	12.4	12.0	.	10.6	16.2	14.0
SC89-1093	15.3	18.4	14.4	14.2	.	12.5	17.8	15.2

TABLE 56 - RELATIVE MATURITY DATA, DAYS EARLIER (-) OR LATER (+) THAN STONEWALL FOR THE STRAINS IN UNIFORM GROUP VII, 1993.

EAST COAST								
STRAIN	FLORENCE SC	JACKSON SPRINGS NC†	KINSTON NC	MEAN				
STONEWALL	10/29	10/30	.	10/29				
HASKELL	6	-5	.	6				
Au87-547	-4	-7	.	0				
G86-1267	2	-7	.	2				
SC88-1568	1	-5	.	1				
SC88-2872	0	-5	.	0				
Au89-2363	5	0	.	5				
G88-3266	4	-3	.	4				
G89-9111	6	-5	.	6				
N90-804	5	-5	.	5				
N90-845	9	0	.	9				
N90-1072	6	.	.	6				
N90-1085	6	0	.	6				
SC89-328	2	0	.	2				
SC89-983	2	-5	.	2				
SC89-1093	3	-9	.	3				

  

SOUTHEAST								
STRAIN	BATON ROUGE LA	BLACK- VILLE SC(A)	FAIR- HOPE AL	JAY FL	QUINCY FL	TALLA- SSEE AL	TIFTON GA	MEAN
STONEWALL	10/27	10/28	10/13	10/22	.	10/13	10/17	10/20
HASKELL	-1	4	1	1	.	1	1	1
Au87-547	6	8	-1	-2	.	0	-7	1
G86-1267	0	4	0	2	.	1	2	2
SC88-1568	6	3	0	1	.	0	-2	1
SC88-2872	6	5	2	2	.	0	1	3
Au89-2363	6	6	3	4	.	2	4	4
G88-3266	6	6	-1	-1	.	1	-1	2
G89-9111	-1	3	0	3	.	3	4	2
N90-804	-1	2	5	0	.	4	0	2
N90-845	2	1	7	0	.	9	6	4
N90-1072	6	4	7	-8	.	8	12	5
N90-1085	0	6	2	-4	.	4	4	2
SC89-328	6	1	-1	-1	.	2	-1	1
SC89-983	-1	3	2	5	.	-1	0	1
SC89-1093	0	3	0	-4	.	-1	0	-1

†Not included in mean.

TABLE 56 - (Continued)

## UPPER AND CENTRAL SOUTH

STRAIN	ATHENS	CALHOUN	CLEMSON	STARKVILLE	MEAN
	GA	GA	SC	MS	
STONEWALL	10/18	10/23	10/25	10/19	10/21
HASKELL	1	-1	-2	5	1
Au87-547	-4	-5	-5	-1	-3
G86-1267	0	-1	-3	2	0
SC88-1568	0	-2	-2	0	-1
SC88-2872	3	2	-2	0	1
Au89-2363	6	.	4	7	5
G88-3266	2	2	1	5	3
G89-9111	2	1	0	7	3
N90-804	4	-8	0	5	0
N90-845	6	-4	2	8	3
N90-1072	5	-2	3	8	4
N90-1085	4	-6	2	3	1
SC89-328	4	.	-1	0	1
SC89-983	0	1	-1	1	1
SC89-1093	2	3	0	1	2

## DELTA AND WEST

STRAIN	BEAUMONT	BOSSIER	ST. JOSEPH	STONE-	MEAN
	TX	CITY	LA	VILLE	
STONEWALL	10/21	.	10/14	10/21	10/19
HASKELL	8	.	8	0	5
Au87-547	-3	.	0	1	-1
G86-1267	0	.	3	0	1
SC88-1568	.	.	0	3	0
SC88-2872	-3	.	2	1	0
Au89-2363	3	.	8	2	4
G88-3266	-2	.	4	0	0
G89-9111	-2	.	7	0	2
N90-804	-1	.	7	2	2
N90-845	-2	.	10	8	5
N90-1072	-4	.	9	4	3
N90-1085	-7	.	0	0	-3
SC89-328	-2	.	0	0	-1
SC89-983	-2	.	2	0	0
SC89-1093	-2	.	1	0	-1

TABLE 57 - PLANT HEIGHT FOR THE STRAINS IN UNIFORM GROUP VII, 1993.

## EAST COAST

STRAIN	FLORENCE SC	JACKSON SPRINGS NC†	KINSTON NC	MEAN
STONEWALL	21	34	39	30
HASKELL	25	35	35	30
Au87-547	20	30	33	26
G86-1267	21	33	33	27
SC88-1568	21	34	34	28
SC88-2872	18	33	36	27
Au89-2363	24	34	35	30
G88-3266	25	34	37	31
G89-9111	22	33	35	28
N90-804	20	27	30	25
N90-845	18	27	29	24
N90-1072	21	32	33	27
N90-1085	24	32	35	29
SC89-328	21	34	37	29
SC89-983	27	41	42	34
SC89-1093	20	31	35	27

## SOUTHEAST

STRAIN	BATON ROUGE LA	BLACK- VILLE SC(A)	FAIR- HOPE AL	JAY FL	TALLASSEE AL	TIFTON GA	MEAN
STONEWALL	37	28	32	30	28	26	30
HASKELL	32	29	32	33	32	20	30
Au87-547	.	24	28	31	29	22	27
G86-1267	28	30	31	33	33	22	30
SC88-1568	.	28	31	34	31	26	30
SC88-2872	.	30	29	37	29	25	30
Au89-2363	.	28	31	36	33	27	31
G88-3266	.	27	33	36	33	28	31
G89-9111	28	29	29	30	30	21	28
N90-804	33	26	27	28	25	19	26
N90-845	30	27	29	27	25	17	26
N90-1072	.	27	28	30	28	21	27
N90-1085	38	26	32	32	29	26	31
SC89-328	.	28	31	34	33	22	30
SC89-983	38	29	37	36	35	27	34
SC89-1093	32	24	30	32	29	23	28

†Not included in mean.

TABLE 57 - (Continued)

## UPPER AND CENTRAL SOUTH

STRAIN	ATHENS GA	CALHOUN GA	CLEMSON SC	STARKVILLE MS	MEAN
STONEWALL	32	43	27	32	33
HASKELL	31	43	30	33	34
Au87-547	29	38	26	29	30
G86-1267	34	41	28	31	33
SC88-1568	30	41	26	30	32
SC88-2872	31	43	26	32	33
Au89-2363	36	40	29	29	34
G88-3266	31	42	31	29	33
G89-9111	31	41	26	32	32
N90-804	28	34	24	29	29
N90-845	28	40	23	30	30
N90-1072	30	36	24	30	30
N90-1085	32	40	25	31	32
SC89-328	32	41	30	33	34
SC89-983	39	49	32	36	39
SC89-1093	30	43	26	31	32

## DELTA AND WEST

STRAIN	BEAUMONT TX	BOSSIER CITY LA†	ST. JOSEPH LA	STONE- VILLE MS(B)	MEAN
STONEWALL	21	22	23	34	26
HASKELL	24	24	31	35	30
Au87-547	18	22	21	35	25
G86-1267	20	20	22	34	25
SC88-1568	22	24	21	33	25
SC88-2872	21	23	20	32	24
Au89-2363	24	23	27	34	28
G88-3266	22	25	24	35	27
G89-9111	21	22	23	36	27
N90-804	14	18	18	30	21
N90-845	17	22	20	32	23
N90-1072	19	19	17	31	22
N90-1085	19	22	20	37	25
SC89-328	26	25	25	38	30
SC89-983	24	29	28	41	31
SC89-1093	21	23	20	38	26

†Not included in mean.

TABLE 58 - LODGING SCORES FOR THE STRAINS IN UNIFORM GROUP VII, 1993.

EAST COAST				
STRAIN	JACKSON SPRINGS NC†	KINSTON NC	MEAN	
STONEWALL	1.0	1.3	1.3	
HASKELL	2.0	2.0	2.0	
Au87-547	1.0	1.3	1.3	
G86-1267	2.0	2.0	2.0	
SC88-1568	1.0	1.7	1.7	
SC88-2872	1.7	1.7	1.7	
Au89-2363	1.0	2.0	2.0	
G88-3266	1.3	1.3	1.3	
G89-9111	1.0	1.0	1.0	
N90-804	1.0	2.3	2.3	
N90-845	1.0	1.7	1.7	
N90-1072	1.7	2.3	2.3	
N90-1085	1.0	2.0	2.0	
SC89-328	1.7	1.7	1.7	
SC89-983	1.0	2.0	2.0	
SC89-1093	1.0	2.0	2.0	

SOUTHEAST						
STRAIN	BATON ROUGE LA	FAIR- HOPE AL	JAY FL	TALLASSEE AL	TIFTON GA	MEAN
STONEWALL	2.0	2.0	1.0	1.0	1.2	1.4
HASKELL	2.0	2.7	2.0	1.0	1.5	1.8
Au87-547	.	1.0	1.0	1.0	1.2	1.0
G86-1267	1.0	1.0	2.0	1.0	1.0	1.2
SC88-1568	.	1.0	1.3	1.2	1.0	1.1
SC88-2872	.	1.3	1.0	1.0	1.0	1.1
Au89-2363	.	1.0	1.0	1.0	1.0	1.0
G88-3266	.	1.0	1.0	1.0	1.0	1.0
G89-9111	1.0	1.0	1.0	1.0	1.0	1.0
N90-804	1.0	1.3	1.0	1.0	1.0	1.1
N90-845	2.0	1.7	1.0	1.0	1.0	1.3
N90-1072	.	2.0	1.0	1.0	1.0	1.3
N90-1085	2.0	1.0	1.0	1.0	1.0	1.2
SC89-328	.	1.3	1.0	1.0	1.0	1.1
SC89-983	1.0	1.0	1.0	1.2	1.0	1.0
SC89-1093	3.0	1.0	1.0	1.0	1.0	1.4

†Not included in mean.

TABLE 58 - (Continued)

## UPPER AND CENTRAL SOUTH

STRAIN	ATHENS GA	CALHOUN GA	STARKVILLE MS	MEAN
STONEWALL	1.5	1.0	2.0	1.5
HASKELL	1.5	1.0	3.0	1.8
Au87-547	1.5	1.0	2.0	1.5
G86-1267	1.5	1.0	2.0	1.5
SC88-1568	1.5	1.0	2.0	1.5
SC88-2872	1.5	1.0	2.0	1.5
Au89-2363	1.5	1.0	2.3	1.6
G88-3266	1.5	1.0	2.0	1.5
G89-9111	1.5	1.0	2.0	1.5
N90-804	1.5	1.0	2.0	1.5
N90-845	1.5	1.0	2.0	1.5
N90-1072	1.5	1.0	2.0	1.5
N90-1085	1.5	1.0	2.0	1.5
SC89-328	1.5	1.0	3.0	1.8
SC89-983	1.5	1.0	2.3	1.6
SC89-1093	1.5	1.0	2.0	1.5

## DELTA AND WEST

STRAIN	BEAUMONT TX	BOSSIER CITY LA†	ST. JOSEPH LA	STONE- VILLE MS(B)	MEAN
STONEWALL	1.0	1.0	1.5	2.0	1.5
HASKELL	1.0	1.0	1.8	3.0	1.9
Au87-547	1.0	1.0	1.4	2.0	1.5
G86-1267	1.0	1.0	1.6	2.0	1.5
SC88-1568	1.0	1.0	1.6	2.0	1.5
SC88-2872	1.0	1.0	1.5	2.0	1.5
Au89-2363	1.0	1.0	1.7	2.7	1.8
G88-3266	1.0	1.0	1.5	2.0	1.5
G89-9111	1.0	1.0	1.5	2.0	1.5
N90-804	1.0	1.0	1.4	2.0	1.5
N90-845	1.0	1.0	1.4	2.0	1.5
N90-1072	1.0	1.0	1.4	2.0	1.5
N90-1085	1.0	1.0	1.4	2.0	1.5
SC89-328	1.0	1.0	1.5	2.0	1.5
SC89-983	1.0	1.0	1.6	2.3	1.6
SC89-1093	1.0	1.0	1.4	2.0	1.5

†Not included in mean.

TABLE 59 - SEED QUALITY FOR THE STRAINS IN UNIFORM GROUP VII, 1993.

EAST COAST				
STRAIN	JACKSON SPRINGS NC†	KINSTON NC	MEAN	
STONEWALL	2.0	2.0	2.0	
HASKELL	2.0	2.0	2.0	
Au87-547	2.0	2.0	2.0	
G86-1267	2.0	2.0	2.0	
SC88-1568	2.0	2.0	2.0	
SC88-2872	2.0	2.0	2.0	
Au89-2363	2.0	2.0	2.0	
G88-3266	2.0	2.0	2.0	
G89-9111	2.0	2.0	2.0	
N90-804	2.0	2.0	2.0	
N90-845	2.0	2.0	2.0	
N90-1072	2.0	1.5	1.5	
N90-1085	2.0	2.0	2.0	
SC89-328	2.0	2.0	2.0	
SC89-983	2.0	2.0	2.0	
SC89-1093	2.0	2.0	2.0	

SOUTHEAST					
STRAIN	BATON ROUGE LA	JAY FL	TALLASSEE AL	TIFTON GA	MEAN
STONEWALL	1.3	3.0	1.0	1.8	1.8
HASKELL	1.2	3.0	1.0	1.4	1.6
Au87-547	1.7	3.0	1.0	1.5	1.8
G86-1267	1.0	3.0	1.0	1.7	1.7
SC88-1568	1.0	3.0	1.0	1.8	1.7
SC88-2872	1.1	2.7	1.0	1.7	1.6
Au89-2363	1.2	2.3	1.0	1.3	1.5
G88-3266	2.0	2.7	1.0	1.5	1.8
G89-9111	1.0	3.0	1.0	1.5	1.6
N90-804	1.5	3.0	1.5	1.9	2.0
N90-845	1.3	3.0	1.0	1.8	1.8
N90-1072	1.0	3.0	1.0	2.1	1.8
N90-1085	1.0	3.0	1.0	1.6	1.7
SC89-328	1.0	3.0	1.0	1.3	1.6
SC89-983	1.0	3.0	1.0	1.8	1.7
SC89-1093	1.0	3.0	1.0	1.5	1.6

†Not included in mean.

TABLE 59 - (Continued)

## UPPER AND CENTRAL SOUTH

STRAIN	ATHENS GA	CALHOUN GA	MEAN
STONEWALL	1.5	2.8	2.2
HASKELL	1.5	1.8	1.7
Au87-547	1.6	2.2	1.9
G86-1267	1.5	1.8	1.7
SC88-1568	1.5	2.0	1.8
SC88-2872	1.6	1.8	1.7
Au89-2363	1.6	2.5	2.0
G88-3266	1.5	2.3	1.9
G89-9111	1.5	1.8	1.7
N90-804	1.6	3.2	2.4
N90-845	1.5	2.5	2.0
N90-1072	1.6	2.7	2.1
N90-1085	1.6	2.0	1.8
SC89-328	1.5	2.5	2.0
SC89-983	1.5	2.0	1.8
SC89-1093	1.5	2.0	1.8

## DELTA AND WEST

STRAIN	BEAUMONT TX	ST. JOSEPH LA	STONEVILLE MS(B)	MEAN
STONEWALL	2.0	2.0	2.0	2.0
HASKELL	1.5	2.6	2.0	2.0
Au87-547	1.5	2.1	2.0	1.9
G86-1267	2.7	2.3	2.0	2.3
SC88-1568	2.7	2.1	2.0	2.3
SC88-2872	1.5	2.0	2.0	1.8
Au89-2363	1.8	2.2	2.0	2.0
G88-3266	2.2	2.0	2.0	2.0
G89-9111	1.5	2.1	2.0	1.9
N90-804	2.0	1.9	2.0	2.0
N90-845	1.7	2.5	2.0	2.1
N90-1072	2.0	2.3	2.0	2.1
N90-1085	1.8	1.8	2.0	1.9
SC89-328	1.5	1.9	2.0	1.8
SC89-983	2.3	1.8	2.0	2.1
SC89-1093	1.7	1.9	2.0	1.9

**PRELIMINARY GROUP VII****1993**

Preliminary Group VII nurseries were planted at 7 locations. Data were obtained from all of the locations. The parentage for each strain is reported in Table 60. Table 61 gives a general summary of information for each strain including seed yield, oil and protein percentages, maturity index, and pest reactions. Results from individual locations are summarized in Tables 62 - 68.

The cultivar Centennial is the yield and maturity check. It had a mean yield of 36.3 bushels per acre and a mean maturity of October 19 at the 7 locations.

TABLE 60 - PARENTAGE OF THE STRAINS GROWN IN PRELIMINARY GROUP VII, 1993.

VARIETY OR STRAIN	PARENTAGE	GENERATION COMPOSITED
1. CENTENNIAL	D64-4636 X D68-8847	F5
2. BRAXTON	F59-1501 X (BRAGG(3) X D60-7965)	F5
3. STONEWALL	N73-693 X F76-8757	F6
4. HASKELL	JOHNSTON X BRAXTON	F5
5. Au90-519	HUTCHESON X Au82-589	F6
6. Au90-648	HUTCHESON X Au82-589	F6
7. Au90-1378	G82-321 X Au82-589	F6
8. Au90-2006	D82-2228 X HOWARD	F6
9. Au90-2047	D82-2228 X HOWARD	F6
10. G89-1066	G80-1515 X COKER 6738	F6
11. G89-1146	G80-1515 X COKER 6738	F6
12. G89-1343	G80-1515 X COKER 6738	F6
13. G89-2372	G80-1515 X COKER 6738	F6
14. G89-5172	GATIR81-296 X D82-3213	F7
15. N91-404	NRS IV SELECTION X	F5
16. N91-515	N84-564 X HOWARD	F6
17. N91-548	N84-564 X HOWARD	F6
18. N91-639	HUTCHESON X N84-878	F6
19. N91-1062	HUTCHESON X N84-878	F6
20. N91-6021	GASOY X AMCOR	F4
21. N91-6168	MS2 GASOY X 7-297	F4
22. N91-8006	N77-114 X 416937	F4
23. SC90-80	YOUNG X LEFLORE	F6
24. SC90-831	HUTCHESON X COKER 6738	F5
25. SC90-968	HUTCHESON X COKER 6738	F5
26. SC90-999	HUTCHESON X COKER 6738	F5
27. SC90-2772	COKER 6847 X LEFLORE	F5
28. TsB88-1228	BRAXTON X N77-940	F9
29. TsB90-184	DOWLING X BRAXTON	F5
30. TsB90-185	DOWLING X BRAXTON	F5

TABLE 61 - GENERAL SUMMARY OF PERFORMANCE FOR THE STRAINS GROWN IN PRELIMINARY GROUP VII, 1993.

STRAIN	SEED YIELD	MAT. INDEX	-----PERCENT-----				M.a.	M.i.	SCN		STEM	STEM	FROG EYE
			HT.	OIL	PROTEIN				3	14	CANKER MS	CANKER TX	
CENTENNIAL	36.3	10/19	32	20.3	42.6	1.0	1.0	R	S	4.6	3.0	2.2	
BRAXTON	35.2	6+	33	20.3	41.4	1.0	1.0	H	S	1.5	0	1.1	
STONEWALL	39.2	1+	31	21.3+	41.1-	2.9	1.0	R	S	--	0	0.0	
HASKELL	39.6	4+	34	21.2	40.2-	1.1	1.0	S	S	1.0	0	0.0	
Au90-519	41.3	5+	35	21.3+	40.4-	2.6	1.0	S	S	--	0.5	0.0	
Au90-648	38.3	4+	28	21.2	41.2-	2.4	1.0	S	H	1.0	2.0	0.8	
Au90-1378	39.3	0	33	20.5	42.0	2.8	1.0	S	S	5.3	2.5	0.0	
Au90-2006	34.0	3+	31	20.3	41.7	1.7	1.1	R	H	5.3	1.5	2.4	
Au90-2047	36.4	2+	34	20.1	41.3-	2.0	1.2	R	MR	1.0	0.5	1.5	
G89-1066	36.0	5+	30	20.0	40.9-	1.0	1.0	R	MR	--	1.0	1.9	
G89-1146	37.3	4+	35	21.2	40.0-	1.0	1.0	R	MR	--	3.5	0.3	
G89-1343	31.3	6+	23	20.5	40.2-	1.1	1.0	R	MR	--	3.0	4.4	
G89-2372	37.4	4+	32	20.4	42.2	1.0	1.0	R	R	1.0	0	1.3	
G89-5172	36.2	5+	30	19.2-	42.5	1.0	1.0	MR	MR	1.0	2.0	0.2	
N91-404	38.3	2+	32	21.0	41.0-	1.1	1.0	S	S	2.0	0	0.3	
N91-515	37.2	2+	29	20.4	41.5	1.4	1.0	S	S	--	4.0	0.0	
N91-548	38.2	4+	32	21.3+	41.0-	2.6	1.0	S	S	5.0	3.0	10.6	
N91-639	44.1+	3+	33	21.0	40.7-	2.7	1.1	S	S	1.0	0.5	0.0	
N91-1062	42.9	8+	35	21.2	40.5-	2.0	1.1	S	S	1.0	0	0.3	
N91-6021	30.1	3+	34	20.5	39.9-	1.4	1.2	S	S	--	1.5	3.6	
N91-6168	33.1	4+	35	21.4+	40.5-	2.6	1.0	S	S	--	4.5	0.0	
N91-8006	28.9-	2-	22	20.3	42.3	2.0	1.0	S	S	--	1.0	0.0	
SC90-80	41.3	3+	33	20.8	41.4	2.6	1.1	R	R	--	0.5	0.6	
SC90-831	42.7	4+	37	22.2+	39.9-	2.3	1.0	R	R	1.0	0	0.4	
SC90-968	38.4	5+	32	21.3+	39.7-	3.0	1.0	H	H	1.0	0	0.0	
SC90-999	30.4	3+	32	20.8	40.9-	2.4	1.2	S	S	1.0	0	2.6	
SC90-2772	38.3	3+	31	19.6	41.5	1.0	1.0	R	MR	1.0	0	4.2	
TsB88-1228	35.2	6+	35	21.3+	40.0-	1.0	1.0	S	H	1.0	0	0.1	
TsB90-184	36.5	4+	33	20.9	41.0-	1.0	1.0	S	H	1.0	0	0.2	
TsB90-185	38.1	5+	34	20.7	40.7-	1.0	1.0	S	S	1.0	0	0.2	
L.S.D. (0.05)	6.7			0.9	1.3								
C.V. (%)	15.8			3.7	2.7								

(+) or (-) designations refer to significant differences to Centennial at the 0.05 probability level.

TABLE 62 - SEED YIELD, IN BUSHELS PER ACRE, FOR THE STRAINS IN PRELIMINARY GROUP VII, 1993.

STRAIN	ATHENS GA	BEAU- MONT TX	BLACK- VILLE SC	JACKSON SPRINGS NC	JAY FL	STONE- VILLE MS(B)	TALLA- SSEE AL	MEAN
CENTENNIAL	51.7	18.9	29.0	38.4	41.8	30.9	45.6	36.3
BRAXTON	49.1	29.2	37.1+	40.4	34.1	32.9	28.9-	35.2
STONEWALL	53.2	30.1+	26.4	41.3	31.9	41.6+	51.9	39.2
HASKELL	56.5	35.6+	34.4	44.9	38.5	37.4+	35.4	39.6
Au90-519	48.9	33.8+	36.8+	37.2	39.6	37.9+	50.6	41.3
Au90-648	52.8	25.1	27.2	36.4	43.5	31.4	50.2	38.3
Au90-1378	54.6	18.2	31.0	42.5	44.0	43.0+	44.8	39.3
Au90-2006	44.6	25.3	30.9	27.0	44.0	28.4	30.9-	34.0
Au90-2047	45.7	25.7	28.4	28.8	42.4	34.8	41.5	36.4
G89-1066	55.6	30.5+	30.1	32.8	35.8	29.4	34.6	36.0
G89-1146	46.5	27.6	31.4	38.4	33.0	29.7	55.8	37.3
G89-1343	51.9	15.6	23.2	25.9-	33.0	28.1	36.3	31.3
G89-2372	50.4	31.6+	29.1	29.9	47.3	31.8	34.2	37.4
G89-5172	45.9	21.9	25.6	27.5	44.0	36.3	43.3	36.2
N91-404	53.2	19.1	32.9	49.1	41.3	36.1	47.3	38.3
N91-515	56.3	14.5	33.2	38.9	44.0	33.0	42.4	37.2
N91-548	50.0	30.0+	37.4+	42.4	40.7	31.5	39.9	38.2
N91-639	53.4	38.2+	32.4	33.9	44.0	38.7+	58.1	44.1+
N91-1062	60.2	30.0+	37.4+	39.2	41.3	38.6+	49.7	42.9
N91-6021	41.6-	18.4	33.0	41.8	27.0-	28.9	31.9	30.1
N91-6168	48.4	9.7	30.6	40.8	40.2	32.6	37.0	33.1
N91-8006	43.9	17.8	22.9	43.8	31.4	27.6	29.7-	28.9-
SC90-80	49.5	24.7	36.5+	39.6	34.7	40.5+	61.7+	41.3
SC90-831	50.6	40.3+	33.8	50.6+	38.0	38.8+	54.9	42.7
SC90-968	46.6	28.0	30.1	41.1	24.2-	41.7+	59.7	38.4
SC90-999	50.4	15.4	27.0	29.2	15.4-	37.7+	36.5	30.4
SC90-2772	56.9	28.6	30.5	29.2	28.6	38.4+	47.1	38.3
TsB88-1228	46.1	35.7+	33.7	39.1	33.0	29.7	33.1	35.2
TsB90-184	44.1	31.5+	35.7	36.0	35.2	33.5	39.2	36.5
TsB90-185	49.4	29.8	34.6	43.1	40.7	35.2	38.8	38.1
Overall Mean	50.2	25.5	31.4	37.6	37.1	34.5	43.0	
L.S.D. (0.05)	10.0	11.0	6.9	11.8	13.8	5.9	14.7	6.7
C.V. (%)	9.7	19.3	10.8	15.3	18.2	8.4	16.7	15.8

TABLE 63 - OIL PERCENTAGES FOR THE STRAINS IN PRELIMINARY GROUP VII, 1993.

STRAIN	ATHENS GA	BEAUMONT TX	BLACK- VILLE SC	JAY FL	STONE- VILLE MS(B)	TALLASSEE AL	MEAN
CENTENNIAL	20.7	21.3	19.0	22.2	18.5	20.1	20.3
BRAXTON	21.3	20.8	18.7	22.0	18.9	20.0	20.3
STONEWALL	20.2	22.6	20.2	22.5	20.8	21.3	21.3
HASKELL	20.4	21.4	20.4	23.4	20.3	21.2	21.2
Au90-519	20.7	22.0	20.5	22.3	20.4	21.7	21.3
Au90-648	19.7	21.8	21.9	22.6	20.3	21.1	21.2
Au90-1378	21.2	19.6	19.6	22.4	19.0	21.1	20.5
Au90-2006	20.0	20.9	19.9	21.9	19.1	20.1	20.3
Au90-2047	23.2	20.3	18.5	21.5	18.7	18.5	20.1
G89-1066	19.8	20.4	18.7	21.8	19.8	19.5	20.0
G89-1146	21.3	22.1	20.4	22.2	20.3	20.9	21.2
G89-1343	21.3	19.7	19.9	21.7	20.2	20.1	20.5
G89-2372	21.4	20.3	19.6	21.4	19.5	19.9	20.4
G89-5172	21.1	18.8	18.4	20.1	18.1	18.4	19.2
N91-404	19.7	21.8	20.3	22.6	20.6	21.0	21.0
N91-515	20.0	21.4	19.2	22.0	18.9	20.7	20.4
N91-548	20.7	21.9	21.0	23.0	20.2	20.8	21.3
N91-639	21.0	20.7	21.0	21.9	20.0	21.3	21.0
N91-1062	20.9	21.3	19.9	22.0	20.9	22.4	21.2
N91-6021	20.5	21.2	18.9	21.6	19.9	20.6	20.5
N91-6168	19.9	20.1	20.6	23.8	20.9	22.9	21.4
N91-8006	19.9	19.9	20.4	22.3	18.7	20.4	20.3
SC90-80	21.3	20.8	20.7	21.9	19.7	20.6	20.8
SC90-831	20.5	22.4	20.7	24.6	21.7	23.2	22.2
SC90-968	20.6	20.6	20.2	23.3	21.0	22.1	21.3
SC90-999	19.1	21.0	20.5	22.2	20.6	21.3	20.8
SC90-2772	20.6	19.4	18.3	21.4	18.6	19.0	19.6
TsB88-1228	23.0	21.7	19.9	22.2	20.1	20.7	21.3
TsB90-184	20.6	21.8	20.4	22.3	19.9	20.6	20.9
TsB90-185	18.6	21.6	20.3	23.0	19.7	20.8	20.7

TABLE 64 - PROTEIN PERCENTAGES FOR THE STRAINS IN PRELIMINARY GROUP VII, 1993.

STRAIN	ATHENS GA	BEAUMONT TX	BLACK- VILLE SC	JAY FL	STONE- VILLE MS(B)	TALLASSEE AL	MEAN
CENTENNIAL	41.6	43.0	40.7	42.6	44.2	43.5	42.6
BRAXTON	39.3	43.3	40.0	41.5	42.3	42.0	41.4
STONEWALL	40.5	41.6	41.4	42.0	39.8	41.3	41.1
HASKELL	41.4	42.3	38.1	40.0	39.8	39.5	40.2
Au90-519	39.6	42.1	39.5	40.6	41.3	39.3	40.4
Au90-648	42.4	42.9	38.6	40.9	41.3	40.9	41.2
Au90-1378	39.8	44.3	42.7	42.0	42.5	40.4	42.0
Au90-2006	40.0	43.0	40.3	41.8	42.5	42.7	41.7
Au90-2047	40.9	42.3	40.8	40.6	41.1	41.8	41.3
G89-1066	39.9	43.0	39.7	41.3	39.5	41.8	40.9
G89-1146	38.6	42.6	38.0	41.8	39.3	39.8	40.0
G89-1343	37.9	44.0	37.5	41.4	39.5	41.0	40.2
G89-2372	40.9	44.2	41.6	42.2	41.4	42.7	42.2
G89-5172	40.9	44.7	41.8	42.6	43.2	42.0	42.5
N91-404	41.4	43.0	39.5	41.0	40.0	40.9	41.0
N91-515	41.5	41.5	41.3	42.1	41.9	40.8	41.5
N91-548	38.5	42.5	39.6	41.6	41.6	42.3	41.0
N91-639	41.8	43.1	40.1	41.3	38.8	39.3	40.7
N91-1062	40.1	42.3	41.3	41.4	39.8	38.2	40.5
N91-6021	40.2	41.8	39.0	40.7	38.8	39.0	39.9
N91-6168	41.0	44.4	38.8	41.2	40.1	37.3	40.5
N91-8006	39.9	43.8	41.5	44.0	41.7	42.6	42.3
SC90-80	39.0	43.4	40.1	42.3	41.3	42.5	41.4
SC90-831	41.7	42.0	39.0	39.3	39.3	38.1	39.9
SC90-968	40.8	43.0	39.4	38.1	38.5	38.1	39.7
SC90-999	40.1	42.5	40.8	40.5	40.4	41.1	40.9
SC90-2772	42.2	44.0	40.8	40.2	40.7	41.2	41.5
TsB88-1228	37.4	42.1	39.1	41.6	39.9	40.1	40.0
TsB90-184	40.6	41.0	39.5	41.5	41.5	41.6	41.0
TsB90-185	42.6	41.3	38.5	40.0	41.0	40.5	40.7

TABLE 65 - SEED SIZE FOR THE STRAINS IN PRELIMINARY GROUP VII, 1993.

STRAIN	ATHENS GA	BEAUMONT TX	BLACK- VILLE SC	JACKSON SPRINGS NC	JAY FL	TALLASSEE AL	MEAN
CENTENNIAL	14.1	12.3	15.1	12.8	12.5	12.7	13.3
BRAXTON	15.6	15.0	17.0	14.5	16.0	13.2	15.4
STONEWALL	16.2	14.5	17.0	14.9	11.5	15.0	14.8
HASKELL	15.1	16.0	16.4	14.4	16.0	11.6	15.0
Au90-519	14.5	15.9	16.4	13.2	17.0	11.2	15.0
Au90-648	12.9	12.9	13.9	9.8	13.5	10.4	12.7
Au90-1378	13.3	13.7	15.8	11.2	13.0	11.8	13.5
Au90-2006	13.0	11.7	13.5	10.1	13.5	11.0	12.5
Au90-2047	13.7	13.6	14.5	10.9	16.0	10.2	13.6
G89-1066	13.2	13.3	14.3	11.7	14.0	10.7	13.1
G89-1146	14.4	13.3	15.0	12.4	15.5	13.3	14.3
G89-1343	12.4	12.0	13.2	10.3	17.0	11.1	13.1
G89-2372	12.5	12.0	13.4	10.4	14.0	11.1	12.6
G89-5172	12.1	11.7	13.4	9.7	14.0	9.7	12.2
N91-404	19.3	15.1	18.6	17.6	15.5	16.7	17.0
N91-515	15.2	12.7	14.7	13.4	18.5	13.1	14.8
N91-548	14.1	13.9	15.5	14.0	18.0	13.0	14.9
N91-639	14.0	14.1	15.5	10.4	14.5	12.0	14.0
N91-1062	16.1	15.6	18.2	14.2	18.0	13.1	16.2
N91-6021	14.0	13.0	15.9	13.1	15.0	12.3	14.0
N91-6168	19.5	16.3	19.7	19.0	21.0	18.0	18.9
N91-8006	15.4	13.0	16.0	14.4	16.5	13.4	14.8
SC90-80	16.7	15.2	16.9	13.2	16.0	15.0	16.0
SC90-831	15.0	14.5	15.2	12.6	17.0	14.5	15.2
SC90-968	14.9	18.0	17.8	13.3	14.5	14.2	15.9
SC90-999	13.8	12.4	13.2	10.4	13.0	11.3	12.7
SC90-2772	14.3	12.9	15.0	10.2	16.0	12.1	14.1
TsB88-1228	13.2	14.1	13.4	12.2	14.5	11.3	13.3
TsB90-184	15.8	14.2	16.2	13.9	17.0	11.6	15.0
TsB90-185	14.7	13.6	15.9	14.2	15.5	13.2	14.6

TABLE 66 - PLANT HEIGHT FOR THE STRAINS IN PRELIMINARY GROUP VII, 1993.

STRAIN	ATHENS GA	BEAUMONT TX	BLACK- VILLE SC	JACKSON SPRINGS NC	JAY FL	STONE- VILLE MS(B)	TALLA- SSEE AL	MEAN
CENTENNIAL	41	25	24	32	33	35	33	32
BRAXTON	43	26	28	40	34	37	34	33
STONEWALL	37	25	24	34	35	34	32	31
HASKELL	41	27	28	34	37	39	33	34
Au90-519	42	28	29	36	37	34	38	35
Au90-648	36	22	19	32	34	26	30	28
Au90-1378	44	21	26	37	33	37	36	33
Au90-2006	36	25	24	32	34	32	33	31
Au90-2047	39	29	28	35	38	37	34	34
G89-1066	38	25	26	31	30	29	32	30
G89-1146	41	28	31	37	36	38	39	35
G89-1343	31	17	20	31	25	20	28	23
G89-2372	39	27	25	34	37	33	30	32
G89-5172	37	23	24	32	34	34	30	30
N91-404	39	26	27	30	35	34	32	32
N91-515	35	24	23	28	36	30	27	29
N91-548	41	24	27	34	35	34	32	32
N91-639	40	28	24	34	36	36	36	33
N91-1062	44	27	26	39	39	36	37	35
N91-6021	43	30	26	33	38	34	33	34
N91-6168	45	27	29	37	40	33	35	35
N91-8006	24	20	23	29	25	19	23	22
SC90-80	42	28	30	35	35	35	31	33
SC90-831	42	28	33	42	39	38	40	37
SC90-968	38	26	24	33	37	34	34	32
SC90-999	39	26	26	33	32	36	31	32
SC90-2772	39	25	24	33	32	33	33	31
TsB88-1228	46	29	31	37	36	33	36	35
TsB90-184	43	28	29	38	34	33	34	33
TsB90-185	44	27	28	38	40	29	36	34

TABLE 67 - LODGING SCORES FOR THE STRAINS IN PRELIMINARY GROUP VII, 1993.

STRAIN	ATHENS GA	BEAUMONT TX	JACKSON SPRINGS NC	JAY FL	STONE- VILLE MS(B)	TALLA- SSEE AL	MEAN
CENTENNIAL	1.5	1.0	1.5	1.5	2.0	1.3	1.4
BRAXTON	1.5	1.0	2.0	1.0	2.5	1.0	1.4
STONEWALL	1.5	1.0	1.0	1.0	2.0	1.0	1.3
HASKELL	2.3	1.3	2.0	2.0	2.5	1.3	1.9
Au90-519	1.2	1.0	2.0	1.5	2.0	1.0	1.3
Au90-648	1.5	1.0	1.5	1.0	2.0	1.0	1.3
Au90-1378	1.5	1.0	1.0	1.0	2.0	1.0	1.3
Au90-2006	1.7	1.0	1.0	1.0	2.0	1.0	1.3
Au90-2047	1.5	1.0	2.0	1.0	2.5	1.0	1.4
G89-1066	1.5	1.0	1.0	1.0	2.0	1.0	1.3
G89-1146	1.6	1.5	2.0	1.5	2.5	1.0	1.6
G89-1343	1.5	1.0	1.0	1.0	2.0	1.0	1.3
G89-2372	1.2	1.0	1.0	1.0	2.0	1.0	1.2
G89-5172	2.3	1.0	2.0	1.0	2.0	1.0	1.5
N91-404	1.5	1.3	1.0	1.0	2.5	1.0	1.5
N91-515	1.5	1.0	1.0	1.0	2.0	1.0	1.3
N91-548	1.5	1.0	1.5	1.0	2.0	1.3	1.4
N91-639	1.6	1.3	1.0	1.0	2.0	1.3	1.4
N91-1062	2.0	1.0	2.0	1.5	2.0	1.5	1.6
N91-6021	1.9	1.0	1.5	1.0	2.0	1.0	1.4
N91-6168	1.5	1.0	1.0	1.0	2.0	1.0	1.3
N91-8006	1.6	1.0	2.0	1.0	2.0	1.0	1.3
SC90-80	1.6	1.0	1.5	1.0	2.5	1.0	1.4
SC90-831	1.7	1.0	1.5	1.0	2.0	1.3	1.4
SC90-968	1.6	1.0	1.0	1.0	2.0	1.0	1.3
SC90-999	1.5	1.0	1.0	1.0	2.0	1.0	1.3
SC90-2772	1.5	1.0	1.5	1.0	2.0	1.0	1.3
TsB88-1228	2.0	1.5	2.0	1.0	2.0	1.0	1.5
TsB90-184	1.9	1.0	2.0	2.0	2.5	1.0	1.7
TsB90-185	1.5	1.0	1.0	2.0	2.0	1.0	1.5

TABLE 68 - SEED QUALITY SCORES FOR THE STRAINS IN PRELIMINARY GROUP VII, 1993.

STRAIN	ATHENS GA	BEAUMONT TX	JACKSON SPRINGS NC	JAY FL	STONE- VILLE MS(B)	TALLA- SSEE AL	MEAN
CENTENNIAL	1.5	1.8	2.0	3.0	2.0	1.0	1.9
BRAXTON	1.5	1.3	1.5	3.0	2.0	1.5	1.8
STONEWALL	1.5	1.5	1.5	4.0	2.0	1.0	2.0
HASKELL	1.5	1.5	1.5	3.0	2.0	1.0	1.8
Au90-519	1.4	1.0	2.0	3.0	2.0	1.0	1.7
Au90-648	1.7	1.5	2.0	3.0	2.0	1.0	1.8
Au90-1378	1.4	1.0	1.5	3.0	2.0	1.0	1.7
Au90-2006	1.6	1.5	1.5	3.0	2.0	1.0	1.8
Au90-2047	1.4	1.3	1.5	3.0	2.0	1.0	1.7
G89-1066	1.8	1.0	1.5	3.0	2.0	1.5	1.9
G89-1146	1.9	1.8	1.5	3.0	2.0	1.0	1.9
G89-1343	1.5	1.5	2.0	4.0	2.0	1.5	2.1
G89-2372	1.5	1.5	2.0	3.0	2.0	1.0	1.8
G89-5172	1.5	1.5	2.0	3.0	2.0	1.0	1.8
N91-404	1.5	1.8	2.0	3.0	2.0	1.0	1.8
N91-515	1.5	2.3	1.5	3.0	2.0	1.5	2.1
N91-548	1.4	1.0	2.0	3.0	2.0	1.0	1.7
N91-639	1.5	1.0	1.5	3.0	2.0	1.0	1.7
N91-1062	1.4	1.0	2.0	3.0	2.0	1.0	1.7
N91-6021	1.7	2.0	1.5	4.0	2.0	1.0	2.1
N91-6168	2.0	1.5	1.5	3.0	2.0	1.0	1.9
N91-8006	1.9	1.3	2.0	4.0	2.0	1.0	2.0
SC90-80	1.7	1.5	2.0	2.0	2.0	1.0	1.6
SC90-831	1.4	1.5	2.0	3.0	2.0	1.0	1.8
SC90-968	1.6	2.8	2.0	4.0	2.0	1.0	2.3
SC90-999	1.6	1.3	2.0	3.0	2.0	1.0	1.8
SC90-2772	1.5	1.3	1.5	3.0	2.0	1.0	1.7
TsB88-1228	1.5	1.0	2.0	3.0	2.0	1.0	1.7
TsB90-184	2.2	1.0	1.5	4.0	2.0	1.0	2.0
TsB90-185	1.8	1.0	2.0	3.0	2.0	1.0	1.8

**MATURITY**

**GROUP**

**VIII**

## **UNIFORM GROUP VIII**

**1993**

Uniform Group VIII nurseries were planted at 13 locations. Data were obtained from all of the locations. The parentage for each strain is reported in Table 69. Table 70 gives a general summary of information for each strain including one-, two-, and three-year means for seed yield, oil and protein percentages, botanical traits, and pest reactions. Results from individual locations are summarized in Tables 71 - 76.

The cultivar Cook is the yield and maturity check. It had a mean yield of 40.6 bushels per acre and a mean maturity of October 24 at the 13 locations.

TABLE 69 - PARENTAGE OF THE STRAINS GROWN IN UNIFORM GROUP VIII, 1993.

VARIETY OR STRAIN	PARENTAGE	GENERATION COMPOSITED
1. COOK	BRAXTON X YOUNG	F6
2. MAXCY	D76-9665 X JOHNSTON	F6
3. Au89-2256	STONEWALL X COKER 6738	F6
4. Au89-2511	STONEWALL X COKER 6738	F6
5. Au89-1479	G80-1515 X STONEWALL	F6
6. G88-3129	HUTCHESON X COKER 6738	F6
7. G87-3533	CO 368 X GORDON	F5
8. F88-8692	KIRBY X F84-1569	F6
9. F88-9160	F77-2000 X BRAXTON	F6
10. F88-8626	F83-1969 X F79-6429	F6
11. SC89-551	A6785 X COKER 6738	F5
12. SC88-2537	KIRBY X (N79-491 X FORREST)	F5

**Background of lines used as parents:**

<b>D76-9665</b>	is a selection from Forrest X Centennial.
<b>F77-2000</b>	is a selection from Centennial X [Forrest X (Cobb X D68-216)]. D68-216 is a selection from Dyer X Bragg.
<b>F79-6429</b>	is a selection from Davis X Cobb.
<b>F83-1969</b>	is a selection from Bedford X Kirby.
<b>F84-1569</b>	is a selection from F73-3376 X [Late Giant (2) X (Jupiter X F66-1534)].
<b>G80-1515</b>	is a selection from Pickett 71 X Bedford.
<b>N79-491</b>	is a selection from N70-1501 X Centennial. N70-1501 is a selection from Dare X D65-6765.

TABLE 70 - GENERAL SUMMARY OF PERFORMANCE FOR THE STRAINS GROWN IN UNIFORM GROUP VIII, 1993.

STRAIN	YIELD†			PROTEIN			OIL		
	1993	92-93	91-93	1993	92-93	91-93	1993	92-93	91-93
COOK	40.6	43.0	44.1	41.9	41.9	42.1	20.4	20.5	20.3
MAXCY	40.6	41.0	42.0	41.6	41.1	40.8	20.7	20.6	20.6
Au89-2256	41.0	.	.	40.7	.	.	20.9	.	.
Au89-2511	39.0	.	.	40.1	.	.	21.0	.	.
Au89-1479	40.5	.	.	41.7	.	.	20.2	.	.
G88-3129	41.3	.	.	41.5	.	.	21.5	.	.
G87-3533	38.9	39.7	.	39.3	38.5	.	21.7	21.9	.
F88-8692	38.6	39.5	39.4	42.0	42.0	42.2	20.5	20.4	20.3
F88-9160	39.3	39.6	39.6	41.5	41.5	41.5	20.4	20.2	20.1
F88-8626	38.9	39.5	.	41.8	41.6	.	20.2	20.3	.
SC89-551	41.1	.	.	40.3	.	.	20.9	.	.
SC88-2537	39.4	40.0	.	41.3	41.4	.	20.7	20.6	.

## BOTANICAL TRAITS

STRAIN	FL. COLOR	HEIGHT	MATURITY		PUB. COLOR	POD WALL	SEED SIZE	SEED QUALITY
			DATE	LODGING				
COOK	P	32	10/24	1.6	T	T	16.7	1.8
MAXCY	P	33	+1	1.7	T	T	14.4	1.7
Au89-2256	W	29	+5	1.5	T	T	14.9	1.8
Au89-2511	P	33	+4	1.6	T	T	15.4	1.6
Au89-1479	W	32	0	1.9	G	T	14.3	1.8
G88-3129	W	31	-1	1.8	G	T	16.3	1.7
G87-3533	W	32	0	1.7	G	T	14.8	1.8
F88-8692	P	31	+7	1.8	T	T	16.7	1.9
F88-9160	P	37	+6	1.8	G	T	14.6	1.6
F88-8626	W	35	+2	2.3	T	T	13.6	1.7
SC89-551	P	32	+2	1.6	T	T	14.7	1.7
SC88-2537	P	30	-1	1.6	G	T	12.8	1.8

## PEST REACTIONS

STRAIN	M. a.	M. i.	SCN		VBC††	STEM	STEM	FROG EYE	AERIAL
			RACE 3	RACE 14		CANKER MS	CANKER TX		WEB BLIGHT
COOK	4.0	1.3	S	S	5.00	3.0	0	0	4.3
MAXCY	3.3	1.3	R	S	4.83	5.0	6.0	0	5.0
Au89-2256	3.0	2.0	MR	S	4.50	2.0	0	0	4.7
Au89-2511	2.8	1.0	R	S	3.83	1.0	0	0	4.7
Au89-1479	3.3	1.0	MR	R	5.17	---	2.3	0	4.3
G88-3129	3.8	1.3	R	S	3.33	1.0	0.3	0.03	3.7
G87-3533	4.0	1.0	H	S	4.00	5.0	5.0	0.80	3.3
F88-8692	2.0	1.3	R	S	4.33	1.7	2.0	0	3.3
F88-9160	2.3	1.0	R	S	4.00	---	0.3	0	4.3
F88-8626	3.3	1.0	MR	R	6.33	---	6.0	0	4.3
SC89-551	2.8	1.0	MR	S	2.83	1.0	0	0.83	5.0
SC88-2537	1.8	1.0	R	S	5.17	---	3.3	1.43	4.3

†Data from Blackville, SC(A) and (B) (1993); Jackson Springs, NC (1993); Quincy, FL (1993); and Gainesville, FL (1991, 1992) not included in means.

††Centennial had a mean rating of 7.00 (based 6 reps).

TABLE 71 - SEED YIELD, IN BUSHEL PER ACRE, FOR THE STRAINS IN UNIFORM GROUP VIII, 1993.

STRAIN	ATHENS GA	BATON ROUGE LA	BEAU- MONT TX	BLACK- VILLE SC(A)	BLACK- VILLE SC(B)	FAIR- HOPE AL	FLORENCE SC
COOK	39.4	57.8	22.7	33.3	20.6	47.2	26.8
MAXCY	48.8	55.2	5.9	31.8	25.9	47.5	34.0
Au89-2256	50.6	55.9	25.1	18.7	24.9	45.7	23.3
Au89-2511	38.9	55.5	26.3	28.9	33.5	42.4	23.9
Au89-1479	42.3	64.5	17.5	36.7	28.3	43.0	27.0
G88-3129	47.0	61.8	21.9	25.6	27.9	44.5	22.6
G87-3533	44.1	56.4	9.1	24.3	23.3	44.8	19.7
F88-8692	39.8	53.9	20.0	36.6	27.3	43.0	29.7
F88-9160	45.5	55.3	22.2	23.8	24.9	42.4	25.9
F88-8626	44.5	50.9	7.8	33.0	29.3	48.4	28.4
SC89-551	49.3	57.9	25.3	32.7	18.1	45.1	24.3
SC88-2537	48.3	55.3	13.0	24.5	25.9	47.5	23.3
Overall mean	44.9	56.7	18.1	28.9	25.8	45.1	25.7
L.S.D. (0.05)	6.9	10.3	8.3	4.5	11.4	5.8	7.8
C.V. (%)	9.1	7.9	11.6	6.7	26.0	7.6	17.9

STRAIN	JACKSON SPRINGS NC	JAY FL	PLAINS GA	QUINCY FL	TALLASSEE AL	TIFTON GA	MEAN
COOK	27.2	45.8	48.1	35.5	34.4	43.5	40.6
MAXCY	24.4	39.2	48.3	39.3	44.3	42.5	40.6
Au89-2256	27.4	42.5	43.2	45.1	45.2	37.9	41.0
Au89-2511	25.0	38.1	42.7	45.3	45.6	37.7	39.0
Au89-1479	21.5	38.5	42.7	41.4	50.2	38.9	40.5
G88-3129	21.3	45.8	43.3	42.5	45.1	39.9	41.3
G87-3533	23.7	44.0	47.8	44.4	40.5	43.6	38.9
F88-8692	19.0	46.9	37.6	43.3	39.5	37.4	38.6
F88-9160	.	41.8	42.1	40.6	36.0	42.5	39.3
F88-8626	21.7	43.6	42.0	36.8	46.7	37.3	38.9
SC89-551	27.0	38.1	43.4	31.9	43.4	42.6	41.1
SC88-2537	19.7	42.9	45.1	44.8	41.4	38.2	39.4
Overall mean	23.5	42.3	43.9	41.6	42.7	40.2	
L.S.D. (0.05)	6.5	8.3	3.9	5.0	7.0	4.5	3.9
C.V. (%)	16.4	11.6	5.3	4.7	9.7	6.7	10.4

TABLE 72 - CHEMICAL COMPOSITION AND SEED SIZE FOR THE STRAINS IN UNIFORM GROUP VIII, 1993.

OIL PERCENTAGE					
STRAIN	ATHENS GA	BEAUMONT TX	BLACKVILLE SC(A)†	FLORENCE SC	JACKSON SPRINGS NC
COOK	21.0	18.9	19.3	20.4	.
MAXCY	20.4	19.5	18.4	20.7	.
Au89-2256	21.8	19.6	18.9	21.1	.
Au89-2511	19.0	20.0	19.4	22.2	.
Au89-1479	21.4	19.0	19.8	21.1	.
G88-3129	19.7	20.3	21.2	22.6	.
G87-3533	19.6	20.5	19.5	22.7	.
F88-8692	20.8	20.0	18.7	21.5	.
F88-9160	19.8	20.1	20.0	21.2	.
F88-8626	20.0	19.1	18.8	21.1	.
SC89-551	20.6	19.9	19.6	22.0	.
SC88-2537	20.1	20.2	18.7	21.0	.

  

PROTEIN PERCENTAGE					
STRAIN	ATHENS GA	BEAUMONT TX	BLACKVILLE SC(A)	FLORENCE SC	JACKSON SPRINGS NC
COOK	38.3	47.1	41.1	41.2	.
MAXCY	40.4	45.6	39.2	38.5	.
Au89-2256	35.9	45.8	38.1	36.6	.
Au89-2511	41.0	44.6	37.8	34.5	.
Au89-1479	41.9	46.0	37.6	37.5	.
G88-3129	40.4	47.6	39.1	39.2	.
G87-3533	40.9	43.4	35.2	33.7	.
F88-8692	39.3	46.7	40.8	37.6	.
F88-9160	39.8	44.9	38.0	37.9	.
F88-8626	41.1	46.2	39.3	38.3	.
SC89-551	40.4	44.1	38.1	35.8	.
SC88-2537	39.6	45.3	39.7	38.5	.

  

GRAMS PER 100 SEED					
STRAIN	ATHENS GA	BEAUMONT TX	BLACKVILLE SC(A)	FLORENCE SC	JACKSON SPRINGS NC
COOK	15.4	15.7	15.6	19.0	11.7
MAXCY	13.9	11.3	13.5	16.9	11.6
Au89-2256	13.5	16.8	12.0	16.3	11.9
Au89-2511	13.4	16.4	12.3	16.5	11.9
Au89-1479	13.6	14.1	13.1	14.1	10.7
G88-3129	16.2	14.8	13.4	18.2	10.9
G87-3533	13.2	12.4	12.7	15.8	10.9
F88-8692	15.5	19.5	13.4	17.7	13.7
F88-9160	14.2	12.8	12.7	17.2	.
F88-8626	13.3	11.5	12.5	14.8	11.6
SC89-551	13.5	12.9	13.7	16.1	10.8
SC88-2537	12.3	10.6	11.9	13.7	10.2

†Not included in mean.

TABLE 72 - (Continued)

## OIL PERCENTAGE

STRAIN	JAY FL	PLAINS GA	TALLASSEE AL	TIFTON GA	MEAN
COOK	22.0	20.7	19.4	.	20.4
MAXCY	22.4	20.8	20.1	.	20.7
Au89-2256	21.5	21.5	19.7	.	20.9
Au89-2511	21.3	22.5	20.8	.	21.0
Au89-1479	20.7	20.4	18.8	.	20.2
G88-3129	23.1	21.5	21.7	.	21.5
G87-3533	24.4	20.4	22.3	.	21.7
F88-8692	20.9	21.0	18.9	.	20.5
F88-9160	21.3	20.1	19.6	.	20.4
F88-8626	20.4	20.0	20.4	.	20.2
SC89-551	21.0	20.2	21.4	.	20.9
SC88-2537	21.5	20.2	21.1	.	20.7

## PROTEIN PERCENTAGE

STRAIN	JAY FL	PLAINS GA	TALLASSEE AL	TIFTON GA	MEAN
COOK	40.5	41.7	42.3	.	41.9
MAXCY	42.0	42.4	40.6	.	41.6
Au89-2256	41.9	43.1	41.1	.	40.7
Au89-2511	42.8	38.3	39.2	.	40.1
Au89-1479	42.3	42.5	40.0	.	41.7
G88-3129	41.5	40.5	39.7	.	41.5
G87-3533	37.5	43.8	36.5	.	39.3
F88-8692	43.0	41.7	43.4	.	42.0
F88-9160	42.6	42.9	40.7	.	41.5
F88-8626	42.2	43.1	40.0	.	41.8
SC89-551	41.1	42.4	37.7	.	40.3
SC88-2537	41.8	42.7	39.8	.	41.3

## GRAMS PER 100 SEED

STRAIN	JAY FL	PLAINS GA	TALLASSEE AL	TIFTON GA	MEAN
COOK	18.7	17.8	12.3	18.4	16.7
MAXCY	14.0	16.0	12.7	15.7	14.4
Au89-2256	14.7	16.8	11.6	15.0	14.9
Au89-2511	16.0	18.0	12.9	14.9	15.4
Au89-1479	15.0	15.8	12.1	15.6	14.3
G88-3129	16.7	17.2	12.1	18.9	16.3
G87-3533	16.7	16.7	11.8	17.1	14.8
F88-8692	18.0	16.2	14.6	15.6	16.7
F88-9160	15.0	16.0	11.8	15.4	14.6
F88-8626	15.7	15.2	11.1	13.4	13.6
SC89-551	18.0	16.0	10.9	15.5	14.7
SC88-2537	14.0	14.3	11.2	13.7	12.8

TABLE 73 - RELATIVE MATURITY DATA, DAYS EARLIER (-) OR LATER (+) THAN COOK, FOR THE STRAINS IN UNIFORM GROUP VIII, 1993.

STRAIN	ATHENS GA	BATON ROUGE LA	BEAUMONT TX	BLACK- VILLE SC(A)†	BLACK- VILLE SC(B)	FAIR- HOPE AL	FLORENCE SC
COOK	10/23	.	10/27	10/30	.	10/16	11/07
MAXCY	-2	.	.	1	.	6	-1
Au89-2256	6	.	5	2	.	10	2
Au89-2511	3	.	5	0	.	6	1
Au89-1479	1	.	-1	1	.	3	-3
G88-3129	0	.	-2	-1	.	0	-3
G87-3533	-1	.	-3	-1	.	-1	-4
F88-8692	7	.	5	4	.	10	5
F88-9160	13	.	3	7	.	10	6
F88-8626	5	.	-8	2	.	6	0
SC89-551	5	.	1	1	.	4	-2
SC88-2537	0	.	-7	-1	.	3	-5

STRAIN	JACKSON SPRINGS NC	JAY FL	PLAINS GA	QUINCY FL	TALLA- SSEE AL	TIFTON GA	MEAN
COOK	10/30	10/26	.	.	10/19	10/21	10/24
MAXCY	6	0	.	.	5	-3	1
Au89-2256	.	1	.	.	8	2	5
Au89-2511	2	1	.	.	8	2	4
Au89-1479	4	1	.	.	0	-4	0
G88-3129	2	-1	.	.	0	-1	-1
G87-3533	4	2	.	.	2	0	0
F88-8692	.	2	.	.	8	8	7
F88-9160	.	-2	.	.	8	3	6
F88-8626	.	2	.	.	7	-2	2
SC89-551	0	2	.	.	7	-2	2
SC88-2537	0	1	.	.	2	0	-1

†Not included in mean.

TABLE 74 - PLANT HEIGHT FOR THE STRAINS IN UNIFORM GROUP VIII, 1993.

STRAIN	ATHENS GA	BATON ROUGE LA	BEAUMONT TX	BLACK- VILLE SC(A)†	BLACK- VILLE SC(B)†	FAIR- HOPE AL	FLORENCE SC
COOK	26	37	26	27	21	32	22
MAXCY	26	42	23	23	20	33	29
Au89-2256	25	35	24	23	20	29	19
Au89-2511	28	36	26	25	23	36	23
Au89-1479	28	37	26	27	22	33	26
G88-3129	28	32	24	24	24	35	25
G87-3533	25	43	23	27	20	32	20
F88-8692	26	40	23	26	20	32	22
F88-9160	31	38	31	24	23	40	28
F88-8626	32	35	30	27	24	36	30
SC89-551	31	37	24	28	17	36	22
SC88-2537	26	38	24	25	18	31	24

STRAIN	JACKSON SPRINGS NC	JAY FL	PLAINS GA	TALLASSEE AL	TIFTON GA	MEAN
COOK	34	35	41	37	28	32
MAXCY	36	36	41	39	26	33
Au89-2256	39	33	42	33	25	29
Au89-2511	38	36	44	42	26	33
Au89-1479	37	37	41	38	26	32
G88-3129	35	35	37	38	25	31
G87-3533	37	36	43	38	26	32
F88-8692	42	35	38	37	27	31
F88-9160	44	37	48	44	33	37
F88-8626	41	36	42	44	31	35
SC89-551	37	37	44	39	24	32
SC88-2537	33	35	39	32	25	30

†Not included in means.

TABLE 75 - LODGING SCORES FOR THE STRAINS IN UNIFORM GROUP VIII, 1993.

STRAIN	ATHENS GA	BATON ROUGE LA	BEAUMONT TX	FAIRHOPE AL	JACKSON SPRINGS NC
COOK	1.6	3.0	1.0	1.3	1.3
MAXCY	1.7	3.0	1.0	1.3	1.3
Au89-2256	1.4	3.0	1.0	1.0	1.0
Au89-2511	1.6	3.0	1.0	1.0	1.0
Au89-1479	1.6	3.5	1.0	2.3	1.3
G88-3129	2.3	2.5	1.0	2.0	2.0
G87-3533	1.6	4.0	1.0	1.3	1.7
F88-8692	1.5	5.0	1.0	1.3	1.7
F88-9160	1.5	3.5	1.0	1.0	1.3
F88-8626	2.7	2.0	1.0	2.7	2.3
SC89-551	1.5	2.0	1.0	2.0	1.7
SC88-2537	1.5	3.0	1.0	1.7	1.0

STRAIN	JAY FL	PLAINS GA	TALLASSEE AL	TIFTON GA	MEAN
COOK	1.3	2.5	1.0	1.2	1.6
MAXCY	1.7	2.5	1.2	1.0	1.7
Au89-2256	1.0	2.0	1.0	1.2	1.5
Au89-2511	1.3	2.3	1.2	1.0	1.6
Au89-1479	1.3	2.7	1.2	1.3	1.9
G88-3129	1.7	2.5	1.3	1.2	1.8
G87-3533	1.3	2.3	1.0	1.2	1.7
F88-8692	1.0	1.5	1.2	2.0	1.8
F88-9160	2.0	2.3	1.0	1.8	1.8
F88-8626	1.7	3.3	2.3	2.8	2.3
SC89-551	1.7	2.2	1.0	1.3	1.6
SC88-2537	1.3	2.0	1.0	1.2	1.6

TABLE 76 - SEED QUALITY FOR THE STRAINS IN UNIFORM GROUP VIII, 1993.

STRAIN	ATHENS	BATON ROUGE	BEAUMONT	JACKSON	JAY
	GA	LA	TX	SPRINGS NC	FL
COOK	1.7	1.0	2.2	1.0	3.0
MAXCY	1.4	1.0	2.7	1.5	3.0
Au89-2256	1.5	.	1.7	2.0	3.0
Au89-2511	1.5	1.0	1.5	2.0	3.0
Au89-1479	1.4	.	2.5	1.5	2.7
G88-3129	1.4	.	2.7	2.0	2.0
G87-3533	1.6	1.0	2.5	1.5	3.7
F88-8692	1.6	.	2.2	2.0	3.0
F88-9160	1.6	1.0	2.0	.	3.0
F88-8626	1.5	1.0	2.3	2.0	3.0
SC89-551	1.4	.	1.3	2.0	3.0
SC88-2537	1.5	1.5	2.2	2.0	3.0

STRAIN	PLAINS	TALLASSEE	TIFTON	MEAN
	GA	AL	GA	
COOK	1.7	1.0	1.8	1.8
MAXCY	1.4	1.0	1.6	1.7
Au89-2256	1.7	1.5	1.5	1.8
Au89-2511	1.8	1.0	1.4	1.6
Au89-1479	1.7	1.0	1.4	1.8
G88-3129	1.6	1.0	1.5	1.7
G87-3533	1.6	1.0	1.5	1.8
F88-8692	1.7	1.5	1.6	1.9
F88-9160	1.3	1.0	1.4	1.6
F88-8626	1.7	1.0	1.3	1.7
SC89-551	1.3	1.5	1.8	1.7
SC88-2537	1.5	1.0	1.6	1.8

## PRELIMINARY GROUP VIII

1993

Preliminary Group VIII nurseries were planted at 6 locations. Data were obtained from all of the locations. The parentage for each strain is reported in Table 77. Table 78 gives a general summary of information for each strain including seed yield, oil and protein percentages, maturity index, and pest reactions. Results from individual locations are summarized in Tables 79 - 85.

The cultivar Braxton is the yield and maturity check. It had a mean yield of 35.7 bushels per acre and a mean maturity of October 24 at the 6 locations.

TABLE 77 - PARENTAGE OF THE STRAINS GROWN IN PRELIMINARY GROUP VIII, 1993.

VARIETY OR STRAIN	PARENTAGE	GENERATION COMPOSITED
1. BRAXTON	F59-1501 X (BRAGG(3) X D60-7965)	F5
2. COOK	BRAXTON X YOUNG	F6
3. MAXCY	D76-9665 X JOHNSTON	F6
4. Au90-513	HUTCHESON X Au82-589	F6
5. Au90-1698	D82-2228 X Co6738	F6
6. Au90-1973	D82-2228 X HOWARD	F6
7. Au90-2511	Au82-211 X HOWARD	F6
8. Au90-2516	Au82-211 X HOWARD	F6
9. Au90-2663	Au82-211 X HOWARD	F5
10. F88-8723	KIRBY X F84-1569	F6
11. F88-9542	D81-9788 X F81-5923	F5
12. F90-2480	BEDFORD X F84-6291	F6
13. F90-3126	F77-2000 X BRAXTON	F8
14. G89-1025	G80-1515 X THOMAS	F6
15. G89-1053	G80-1515 X THOMAS	F6
16. G89-1323	G80-1515 X COKER 6738	F6
17. G89-1386	G80-1515 X COKER 6738	F6
18. G89-1709	F81-2815 X COKER 6738	F7
19. G89-2328	G81-152 X COKER 6738	F7
20. SC90-165	COKER 6738 X JOHNSTON	F5
21. SC90-867	HUTCHESON X COKER 6738	F5
22. SC90-1704	YOUNG X COKER 6847	F5
23. SC90-2878	COKER 6847 X THOMAS	F5
24. SC90-2969	COKER 6738 X HOWARD	F5
25. SC90-3014	COKER 6738 X HOWARD	F5
26. TsB88-1068	DUOCROP X DOWLING	F5
27. TsB88-1266	BRAXTON X N77-889	F9
28. TsB90-247	DOWLING X BRAXTON	F5
29. TsB90-277	DOWLING X BRAXTON	F5
30. TsB90-319	DOWLING X BRAXTON	F5

TABLE 78 - GENERAL SUMMARY OF PERFORMANCE FOR THE STRAINS GROWN IN PRELIMINARY GROUP VIII, 1993.

STRAIN	SEED YIELD	MAT. INDEX	-----PERCENT-----				SCN		STEM		STEM CANKER TX	FROG EYE
			HT.	OIL	PROTEIN	M.a.	M.i.	3	14	MS		
BRAXTON	35.7	10/24	32	20.6	41.3	1.0	1.0	S	S	1.5	0	1.7
COOK	39.4	1+	33	20.1	42.2	1.2	1.0	S	S	1.0	0	0.0
MAXCY	33.0	0	33	20.1	41.8	1.5	1.0	R	S	5.0	6.5	0.0
Au90-513	35.4	0	36	21.1	40.6	2.4	1.0	S	S	--	1.5	0.0
Au90-1698	39.0	2-	33	20.1	41.3	1.0	1.0	S	H	1.0	0	1.0
Au90-1973	32.6	1-	34	20.2	42.5	2.4	1.0	S	S	1.0	0	8.5
Au90-2511	33.3	1-	32	20.5	41.4	2.2	1.0	R	R	--	2.0	0.0
Au90-2516	36.6	3-	28	20.4	42.4	1.1	1.0	R	S	4.8	2.0	0.0
Au90-2663	33.6	0	34	19.8	42.8	2.4	1.3	R	S	5.0	4.5	0.0
F88-8723	36.6	7+	31	19.6-	41.7	1.3	1.0	R	S	1.0	0	0.0
F88-9542	27.1-	1-	37	19.7	42.0	1.3	1.0	R	H	5.0	7.0	1.9
F90-2480	28.1-	3-	33	20.0	42.6	1.0	1.0	R	MR	1.0	0	0.0
F90-3126	37.7	4+	38	19.6-	42.8	1.0	1.0	R	S	1.0	1.0	0.0
G89-1025	33.7	0	32	19.8	42.0	1.0	1.0	R	MR	1.0	0.5	1.7
G89-1053	39.1	1-	34	19.7	41.5	1.1	1.0	R	MR	1.0	0	1.6
G89-1323	32.6	3+	26	20.3	41.1	1.0	1.0	R	MR	--	2.0	1.6
G89-1386	34.5	1+	26	19.8	42.9+	1.0	1.0	R	R	1.3	0	7.8
G89-1709	31.3	6+	37	19.3-	41.3	1.0	1.0	R	S	--	5.5	2.1
G89-2328	37.3	4+	35	20.4	42.0	1.0	1.0	R	S	1.0	0	4.3
SC90-165	36.5	2+	31	20.3	40.9	1.2	1.0	R	S	1.0	0	6.8
SC90-867	33.9	0	38	20.3	43.0+	1.0	1.0	S	S	1.0	0	2.7
SC90-1704	36.4	3+	35	20.5	42.0	2.6	1.0	H	S	1.0	0	0.0
SC90-2878	39.1	3+	32	20.7	41.7	1.0	1.0	R	H	1.0	0	4.0
SC90-2969	31.9	0	33	20.3	42.1	1.0	1.0	R	R	--	5.0	3.4
SC90-3014	41.5	1-	31	20.7	41.2	1.0	1.0	H	H	1.0	0	4.6
TsB88-1068	35.3	5+	34	20.0	41.9	2.2	1.1	S	H	1.0	0	0.0
TsB88-1266	35.1	4+	35	21.0	40.2	2.4	1.2	S	S	1.0	0	0.0
TsB90-247	34.2	4+	34	20.7	42.0	1.3	1.0	S	S	1.0	0	2.4
TsB90-277	31.7	6+	38	19.8	41.0	2.5	1.1	S	S	1.0	0	1.4
TsB90-319	32.3	6+	39	19.9	41.6	2.4	1.2	S	S	1.0	0	4.1
L.S.D. (0.05)	6.6			1.0	1.6							
C.V. (%)	15			4	3							

(+) or (-) designations refer to significant differences to Braxton at the 0.05 probability level.

TABLE 79 - SEED YIELD, IN BUSHELS PER ACRE, FOR THE STRAINS IN  
PRELIMINARY GROUP VIII, 1993.

STRAIN	BEAUMONT TX	BLACK- VILLE SC	JAY FL	PLAINS GA	QUINCY FL	TALLASSEE AL	MEAN
BRAXTON	27.2	46.1	38.5	39.6	.	27.4	35.7
COOK	25.8	47.8	34.1	50.5+	28.1	38.8	39.4
MAXCY	5.7-	41.6	44.6	44.2	45.1	29.0	33.0
Au90-513	23.5	45.4	42.4	47.5+	38.9	18.4	35.4
Au90-1698	30.5	39.0	43.5	44.7	.	37.6	39.0
Au90-1973	22.2	41.5	37.4	43.8	32.4	17.9	32.6
Au90-2511	22.3	38.8	38.5	46.4+	.	20.7	33.3
Au90-2516	19.9	44.2	42.4	44.3	.	32.1	36.6
Au90-2663	14.8-	43.5	38.0	48.4+	44.2	23.5	33.6
F88-8723	32.6	46.6	42.9	41.6	47.4	19.5	36.6
F88-9542	3.8-	35.5-	34.7	43.4	44.0	18.2	27.1-
F90-2480	21.5	36.6-	31.4	34.6	45.3	16.7	28.1-
F90-3126	28.6	44.3	41.3	47.7+	32.7	26.9	37.7
G89-1025	31.3	41.0	29.2	44.9	.	22.1	33.7
G89-1053	29.3	43.0	41.8	50.5+	45.9	31.2	39.1
G89-1323	19.8	44.0	29.2	48.7+	35.6	21.6	32.6
G89-1386	23.5	45.2	38.0	45.9+	40.3	20.1	34.5
G89-1709	3.7-	44.9	38.5	44.9	49.1	24.4	31.3
G89-2328	25.6	44.6	38.5	45.3	44.6	32.8	37.3
SC90-165	24.7	41.7	38.5	50.3+	30.7	27.4	36.5
SC90-867	22.9	40.0	34.7	44.5	44.1	27.4	33.9
SC90-1704	22.4	44.3	38.0	49.9+	46.8	27.5	36.4
SC90-2878	22.4	49.9	41.8	45.7+	44.5	35.6	39.1
SC90-2969	9.4-	43.2	41.8	41.4	35.1	23.7	31.9
SC90-3014	28.1	43.7	44.0	50.4+	45.8	41.4+	41.5
TsB88-1068	34.1	31.8-	37.4	45.4	36.5	27.6	35.3
TsB88-1266	33.2	43.3	37.4	42.6	28.7	19.0	35.1
TsB90-247	25.7	44.4	36.3	37.4	27.1	27.1	34.2
TsB90-277	28.3	41.5	31.4	42.3	28.9	15.4	31.7
TsB90-319	30.0	39.1	28.1	41.6	28.3	22.9	32.3
Overall Mean	22.9	42.6	37.8	44.9	38.9	25.8	
L.S.D. (0.05)	7.6	8.5	11.4	5.8	6.4	13.6	6.6
C.V. (%)	5.2	9.8	14.8	6.3	5.8	25.8	15.2

TABLE 80 - OIL PERCENTAGES FOR THE STRAINS IN PRELIMINARY GROUP VIII, 1993.

STRAIN	BEAUMONT TX	BLACK- VILLE SC	JAY FL	PLAINS GA	TALLASSEE AL	MEAN
BRAXTON	20.4	19.4	21.1	21.0	20.9	20.6
COOK	19.1	19.0	20.9	21.0	20.4	20.1
MAXCY	18.8	18.2	22.0	20.7	20.9	20.1
Au90-513	20.8	19.2	21.7	21.1	22.6	21.1
Au90-1698	19.5	17.0	21.9	21.4	20.7	20.1
Au90-1973	20.2	18.4	21.9	20.4	20.2	20.2
Au90-2511	19.1	19.0	21.8	21.2	21.4	20.5
Au90-2516	19.9	18.8	22.2	20.2	20.7	20.4
Au90-2663	19.8	18.4	20.3	20.8	19.7	19.8
F88-8723	19.9	18.4	19.7	20.7	19.3	19.6
F88-9542	18.0	18.4	20.8	21.3	20.0	19.7
F90-2480	20.0	18.9	20.7	20.4	20.1	20.0
F90-3126	19.5	19.2	18.8	20.5	19.8	19.6
G89-1025	19.6	19.0	20.5	19.5	20.3	19.8
G89-1053	19.6	18.8	21.0	18.9	20.4	19.7
G89-1323	19.9	18.9	21.1	20.5	20.9	20.3
G89-1386	20.0	17.6	21.0	20.7	19.5	19.8
G89-1709	18.5	19.4	20.8	19.3	18.4	19.3
G89-2328	21.1	18.3	21.5	20.4	20.6	20.4
SC90-165	21.0	18.1	22.2	19.4	20.8	20.3
SC90-867	19.4	18.2	21.5	22.4	20.1	20.3
SC90-1704	20.4	17.7	21.6	21.2	21.4	20.5
SC90-2878	21.2	20.5	21.2	19.9	20.9	20.7
SC90-2969	19.6	19.5	21.9	20.0	20.5	20.3
SC90-3014	21.0	19.6	22.4	19.4	20.9	20.7
TsB88-1068	21.6	16.6	20.7	21.1	19.8	20.0
TsB88-1266	21.7	20.1	21.7	20.5	20.9	21.0
TsB90-247	21.2	20.0	21.4	20.3	20.4	20.7
TsB90-277	20.4	18.2	20.6	20.2	19.6	19.8
TsB90-319	20.8	18.6	20.2	20.5	19.4	19.9

TABLE 81 - PROTEIN PERCENTAGES FOR THE STRAINS IN PRELIMINARY GROUP VIII, 1993.

STRAIN	BEAUMONT TX	BLACK- VILLE SC	JAY FL	PLAINS GA	TALLASSEE AL	MEAN
BRAXTON	43.5	39.4	41.5	42.2	40.1	41.3
COOK	45.2	42.1	41.3	41.8	40.8	42.2
MAXCY	44.5	40.8	40.2	43.5	40.0	41.8
Au90-513	42.3	39.9	39.0	44.0	37.8	40.6
Au90-1698	44.6	41.3	40.1	40.5	40.0	41.3
Au90-1973	45.2	42.1	40.9	42.7	41.7	42.5
Au90-2511	44.8	39.8	41.3	42.3	38.6	41.4
Au90-2516	44.9	42.2	41.0	41.7	42.0	42.4
Au90-2663	44.1	41.7	43.7	42.6	42.1	42.8
F88-8723	44.5	40.9	42.1	40.1	40.8	41.7
F88-9542	46.0	40.2	41.2	40.6	41.8	42.0
F90-2480	44.6	40.7	42.3	43.5	41.7	42.6
F90-3126	44.5	41.0	45.5	42.2	41.0	42.8
G89-1025	44.5	39.8	43.1	42.5	40.3	42.0
G89-1053	42.5	40.6	40.1	45.6	38.5	41.5
G89-1323	43.8	39.6	42.2	40.0	39.8	41.1
G89-1386	44.6	41.3	43.2	42.9	42.3	42.9
G89-1709	41.5	39.2	41.1	44.1	40.5	41.3
G89-2328	42.5	41.2	42.1	42.4	41.6	42.0
SC90-165	42.3	39.5	40.5	42.7	39.5	40.9
SC90-867	45.9	44.3	41.8	40.4	42.7	43.0
SC90-1704	43.6	42.3	42.2	42.1	39.9	42.0
SC90-2878	41.6	40.1	42.5	43.1	41.0	41.7
SC90-2969	44.7	41.5	41.5	42.0	40.8	42.1
SC90-3014	41.8	38.9	40.0	44.8	40.3	41.2
TsB88-1068	41.4	43.1	42.8	40.9	41.3	41.9
TsB88-1266	41.0	38.9	40.2	42.2	38.6	40.2
TsB90-247	41.9	40.3	42.5	44.0	41.4	42.0
TsB90-277	42.3	39.8	41.5	42.2	39.3	41.0
TsB90-319	42.0	40.5	41.6	43.0	41.0	41.6

TABLE 82 - SEED SIZE FOR THE STRAINS IN PRELIMINARY GROUP VIII, 1993.

STRAIN	BEAUMONT TX	BLACK- VILLE SC	JAY FL	PLAINS GA	TALLASSEE AL	MEAN
BRAXTON	13.6	16.6	15.0	16.6	11.8	14.7
COOK	15.8	17.3	18.5	17.7	11.9	16.2
MAXCY	10.6	13.2	15.0	15.5	11.9	13.2
Au90-513	14.1	13.3	14.5	17.0	10.4	13.8
Au90-1698	15.7	18.3	16.0	17.8	13.5	16.3
Au90-1973	14.9	18.8	15.0	18.0	12.0	15.7
Au90-2511	12.7	13.8	16.5	14.7	11.0	13.7
Au90-2516	12.1	15.0	15.0	16.0	11.2	13.9
Au90-2663	11.3	14.6	13.5	15.4	10.9	13.1
F88-8723	18.8	17.5	14.5	18.4	15.3	16.9
F88-9542	9.8	11.6	12.0	15.6	9.5	11.7
F90-2480	12.9	15.8	13.5	14.0	10.9	13.4
F90-3126	12.8	13.6	13.5	15.4	9.4	12.9
G89-1025	13.8	15.5	18.0	15.3	12.2	15.0
G89-1053	11.5	14.7	14.0	15.7	10.0	13.2
G89-1323	12.5	14.2	15.0	16.4	11.1	13.8
G89-1386	11.2	13.3	13.0	14.5	9.8	12.4
G89-1709	10.3	13.9	14.5	15.9	11.1	13.1
G89-2328	13.4	13.6	16.0	16.2	11.2	14.1
SC90-165	14.1	14.1	16.0	17.2	11.6	14.6
SC90-867	12.4	16.2	19.0	16.5	11.8	15.2
SC90-1704	13.5	14.7	13.0	16.0	10.9	13.6
SC90-2878	12.5	17.1	17.0	19.0	11.3	15.4
SC90-2969	10.7	14.4	15.5	14.7	9.9	13.0
SC90-3014	10.7	10.9	13.0	15.3	10.1	12.0
TsB88-1068	15.2	11.2	17.0	15.8	10.6	14.0
TsB88-1266	14.1	14.4	22.0	15.3	10.5	15.2
TsB90-247	13.2	15.5	15.0	16.6	11.1	14.3
TsB90-277	12.9	13.0	13.5	16.3	9.8	13.1
TsB90-319	14.8	14.3	15.0	15.0	10.7	14.0

TABLE 83 - PLANT HEIGHT FOR THE STRAINS IN PRELIMINARY GROUP VIII, 1993.

STRAIN	BEAUMONT TX	JAY FL	PLAINS GA	TALLASSEE AL	MEAN
BRAXTON	24	33	39	32	32
COOK	25	32	41	37	33
MAXCY	25	37	36	35	33
Au90-513	27	39	46	31	36
Au90-1698	30	32	40	31	33
Au90-1973	27	32	43	33	34
Au90-2511	27	33	36	31	32
Au90-2516	24	33	30	27	28
Au90-2663	28	36	42	32	34
F88-8723	25	36	36	29	31
F88-9542	28	37	48	35	37
F90-2480	26	36	42	31	33
F90-3126	27	38	48	39	38
G89-1025	23	36	40	29	32
G89-1053	24	35	41	36	34
G89-1323	18	30	35	24	26
G89-1386	18	29	30	26	26
G89-1709	28	36	48	35	37
G89-2328	28	37	43	33	35
SC90-165	25	32	37	28	31
SC90-867	32	38	48	34	38
SC90-1704	25	37	44	33	35
SC90-2878	22	37	37	33	32
SC90-2969	27	37	37	31	33
SC90-3014	25	32	40	26	31
TsB88-1068	25	39	38	34	34
TsB88-1266	29	35	45	32	35
TsB90-247	24	37	41	36	34
TsB90-277	26	38	46	42	38
TsB90-319	29	38	48	41	39

TABLE 84 - LODGING SCORES FOR THE STRAINS IN PRELIMINARY GROUP VIII, 1993.

	BEAUMONT TX	JAY FL	PLAINS GA	TALLASSEE AL	MEAN
BRAXTON	1.0	1.0	2.5	1.0	1.4
COOK	1.0	1.0	2.3	1.0	1.3
MAXCY	1.0	1.0	2.0	1.0	1.3
Au90-513	1.0	1.0	1.8	1.0	1.2
Au90-1698	1.3	1.0	2.0	1.0	1.3
Au90-1973	1.0	1.0	1.8	1.0	1.2
Au90-2511	1.0	1.0	1.8	1.0	1.2
Au90-2516	1.0	1.0	1.5	1.0	1.1
Au90-2663	1.0	1.0	2.0	1.0	1.3
F88-8723	1.0	1.0	1.8	1.0	1.2
F88-9542	1.3	1.0	3.3	1.5	1.8
F90-2480	1.0	1.0	2.3	1.0	1.3
F90-3126	1.0	2.0	2.0	1.0	1.5
G89-1025	1.0	1.0	1.8	1.0	1.2
G89-1053	1.0	1.5	2.8	1.0	1.6
G89-1323	1.0	1.0	1.5	1.0	1.1
G89-1386	1.0	1.0	1.5	1.0	1.1
G89-1709	1.0	1.0	2.5	1.3	1.4
G89-2328	1.0	1.0	2.0	1.3	1.3
SC90-165	1.0	1.0	1.5	1.0	1.1
SC90-867	1.3	1.0	2.0	1.0	1.3
SC90-1704	1.0	1.0	2.8	1.0	1.4
SC90-2878	1.0	1.0	1.8	1.0	1.2
SC90-2969	1.0	1.0	1.5	1.0	1.1
SC90-3014	1.0	1.0	1.5	1.0	1.1
TsB88-1068	1.0	1.0	3.3	1.0	1.6
TsB88-1266	1.0	2.0	3.3	1.0	1.8
TsB90-247	1.0	1.5	3.3	1.0	1.7
TsB90-277	1.0	2.0	3.5	1.0	1.9
TsB90-319	1.0	2.0	2.5	1.0	1.6

TABLE 85 - SEED QUALITY FOR THE STRAINS IN PRELIMINARY GROUP VIII, 1993.

STRAIN	BEAUMONT TX	JAY FL	PLAINS GA	TALLASSEE AL	MEAN
BRAXTON	1.3	3.0	2.0	1.0	1.8
COOK	1.8	3.5	1.5	1.0	1.9
MAXCY	2.3	3.0	2.0	1.0	2.1
Au90-513	1.0	2.0	1.5	1.0	1.4
Au90-1698	2.8	3.0	2.9	2.0	2.7
Au90-1973	2.0	3.0	1.7	1.0	1.9
Au90-2511	1.3	3.0	1.5	1.5	1.8
Au90-2516	1.3	3.0	1.9	1.5	1.9
Au90-2663	1.8	3.0	1.5	1.0	1.8
F88-8723	1.3	3.0	1.5	1.0	1.7
F88-9542	2.5	3.0	1.6	1.0	2.0
F90-2480	1.8	3.0	2.2	1.5	2.1
F90-3126	1.0	3.0	1.6	1.0	1.7
G89-1025	1.0	3.0	2.1	1.5	1.9
G89-1053	1.0	3.0	1.6	1.0	1.7
G89-1323	1.0	3.0	1.8	1.5	1.8
G89-1386	1.0	3.0	1.5	1.0	1.6
G89-1709	1.5	4.0	1.8	1.0	2.1
G89-2328	1.0	3.0	1.7	1.0	1.7
SC90-165	1.0	3.0	1.7	1.0	1.7
SC90-867	1.3	3.0	2.0	1.0	1.8
SC90-1704	1.0	3.0	1.6	1.0	1.7
SC90-2878	1.0	3.0	1.5	1.0	1.6
SC90-2969	1.8	3.0	2.0	1.0	1.9
SC90-3014	1.0	3.0	1.6	1.0	1.7
TsB88-1068	1.0	3.0	1.5	1.0	1.6
TsB88-1266	1.0	3.0	1.9	1.5	1.9
TsB90-247	1.0	3.0	2.0	1.5	1.9
TsB90-277	1.0	3.0	1.7	1.0	1.7
TsB90-319	1.0	3.0	1.6	1.0	1.7