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ALABAMA SOYBEAN VARIETY TESTS 1978



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1978

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The following is a suggested list of varieties by planting dates for Northern, Central, and Southern Alabama. Within planting dates, varieties are listed in order of maturity with early maturity ones listed first.

Northern Alabama

Plantings May 1 to 31

Essex, Forrest, McNair 500, Coker 156, FFR 666, Lancer, Lee 74, McNair 600, Tracy

Plantings June 1 to 30

Coker 136, Essex, Forrest; Centennial, Coker 156, Davis, Lancer, Lee 74, McNair 600, Tracy; Bragg, Ransom.

Central Alabama

Plantings April 25 to May 15

Coker 136, Forrest; Centennial, Coker 156, Davis, FFR 666, Lee 74, McNair 600, Tracy

Plantings May 16 to June 5

Coker 136, Forrest, Centennial, Coker 156, Davis, Lee 74, McNair 600, Tracy; Bragg, RA 700, Ransom, Coker 338, Hutton

Plantings June 6 to 30

Centennial, Davis; Bragg, RA 700, Ransom; Coker 338, Hutton, Cobb

Southern Alabama

Plantings May 15 to 31

Centennial, Coker 156, Davis, Lee 74, McNair 600, Tracy; Bragg, Ransom; Coker 338, Hutton, Cobb

Plantings June 1 to 30

Davis; Bragg, Ransom; Coker 338, Hutton, Cobb

* Not suggested for Black Belt Soils during this planting date.

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INTRODUCTION

To properly evaluate a soybean variety it is necessary that it be grown at a number of locations, at various planting dates, and over a period of years. This will subject the variety to differences in soil and climatic conditions that occur throughout the State. The most common limiting factor in soybean production is inadequate moisture during pod development and filling. Since soybeans are highly photoperiodic, the blooming period, period of pod development and fill, and maturity date of a particular variety do not vary greatly from year to year. Thus, it is important that varieties from more than one maturity group be evaluated at each location. Continued testing and evaluation of soybean varieties and experimental strains by agricultural experiment stations are essential if farmers, County Extension Agents, seedsmen, and other agricultural workers are to be provided with information to help them select varieties best adapted to their locality and best suited to meet individual requirements.

EXPERIMENTAL PROCEDURES

Tests in 1978 were conducted at outlying units of the Alabama Agricultural Experiment Station of Auburn University and two locations on cyst infested fields on Henninger Brothers Farm, Stephenson, Alabama, and Engel Farm, Summerdale, Alabama. A randomized block design with 4 replications was used at each location with the first planting made at the optimum time for maximum yield. Plots were planted with regular commercial soybean planters equipped with special seed hoppers adapted for small plots. Plots were four rows wide and 23 feet long with 16 feet of the two inner rows harvested for yield determinations. Harvest was done with a K.E.M. plot combine at all locations. Row width varied from 36 to 40 inches depending on location. Seeding rates were 10 viable seed per foot of row based on germination at 75° F. All plot areas were fertilized according to soil test.

The entries in these tests included varieties released prior to 1978, a number of unreleased strains in the late stages of development from the USDA Regional Testing Program, and some commercial lines. Sources of seed are listed on pages 6 and 7.

DISCUSSION OF DATA

Since results of field plot research are influenced by inherent soil differences and soil moisture availability, it is not possible to determine exactly the yield potential of a variety at a given location. Varietal performance may also vary from year to year because of variation in rainfall, temperature, diseases, and nematodes. Therefore, long term yield averages are more reliable in evaluating varietal performance.

Differences in yield for 1978 have been computed using Duncan's New Multiple Range Test at the 5% level of probability. Yields followed by the same letter are not considered to be significantly different. Coefficients of variation (C.V.) are footnoted in the tables. This value reflects the relative precision of the experiment; a small C.V. indicates more precision in estimating the relative performance of varieties.

SEASONAL CONDITIONS

Early season moisture was quite variable during the growing season in 1978. Northern Alabama had sufficient moisture early for good stands and early growth, but midsummer drought was quite severe. Late June and early July were dry at both Crossville and Winfield, whereas Belle Mina had adequate moisture during this period. These conditions resulted in tall plants with considerable lodging at Belle Mina, whereas at the drier locations plant growth was limited and lodging was not a problem. All northern Alabama locations were without rain from mid August almost through September. Only light showers occurred from September 10 through 15 with 1.2 and 1.8 inches total for Winfield and Belle Mina, respectively. However, Crossville had 2.43 inches during this period, which probably accounts for the difference in yields of the three locations.

Rainfall in central Alabama was deficient in late June and early July at Prattville and Camden; however, Marion Junction had adequate moisture throughout the vegetative period. Prattville and Camden were severely drought stressed in late August and September during the pod fill stage of full season varieties. The tests at Marion Junction had a similar rainfall pattern but did not suffer as much at the early planting date. This was probably due to the greater reserve of moisture held in the heavy clay soil.

Rainfall in southern Alabama during early plant growth was about normal for June at Monroeville and Headland, but was above normal at Brewton and Fairhope. June and July rainfall for Brewton and Fairhope was 18.9 and 36.0 inches, respectively. Rainfall in pod fill stage (late August and September) was limited at Brewton, Monroeville, and Headland. However, Fairhope had good August moisture but only .25 inches from August 29 until September 23. All Southern locations had good rains in latter part of September which may explain in part the good performance of the full season varieties at these locations.

Highest yield for two consecutive year's were in southern Alabama at Fairhope, where average yields of 43.7 bu/A were recorded for 30 cultivars. In central Alabama on the heavy clay soils of the Black Belt Substation, average yields were 33.4 bu/A across first two planting dates and 63 cultivars. The early maturity varieties (Group V) were the best yielding varieties at the early planting dates in northern Alabama and Prattville in central Alabama. However, the full season and late varieties were the highest yielding varieties in late planting dates in northern, central, and southern Alabama, with the exception of Prattville Field.

The full- to late-season varieties have tended to yield the best in central and southern Alabama locations for the past 4 to 5 years. At Prattville Field, however, the early varieties of maturity Groups V and VI have out yielded the full- and late-season varieties at the early May planting date.

Lodging was a problem only at Belle Mina where excessive plant height was obtained. Seed quality and purple stain were not a problem due to the dry weather during early pod development and very dry conditions at harvest time.

Table 1. Rainfall by Location During the Period August 15 through September 30 for 1974 through 1978

Location	1974	1975	1976	1977	1978
	In.	In.	In.	In.	In.
Black Belt Substation (Marion Junction)	9.87	7.72	6.20	6.31	2.75
Brewton Experiment Field (Brewton)	8.19	9.77	5.43	8.97	3.18
Gulf Coast Substation (Fairhope)	10.40	14.54	8.33	9.96	6.49
Lower Coastal Plain Substation (Camden)	--	--	9.37	5.76	1.80
Monroeville Experiment Field (Monroeville)	--	--	7.06	6.32	3.75
Prattville Experiment Field (Prattville)	10.12	9.09	9.76	5.88	2.36
Sand Mountain Substation (Crossville)	3.96	6.95	3.37	11.07	3.05
Upper Coastal Plain Substation (Winfield)	8.71	7.45	5.15	9.01	1.98
Tennessee Valley Substation (Belle Mina)	4.49	5.76	5.87	6.20	3.11
Wiregrass Substation (Headland)	8.73	6.41	7.42	9.59	4.34

DATA RECORDED

The yield of a crop is the primary factor of production when profits are to be maximized. Other characteristics which are important are plant height, height of lowest pod, maturity, lodging, and size and quality of seed.

Yield of soybeans was determined by harvesting the two center rows of each plot with a small plot combine. Plot yields were adjusted to 13% moisture and converted to bushels (60 pounds) per acre.

First bloom was taken as the date when there was one flower at any node on 10% of the plants.

Maturity was rated as the date when the pods were dry and most of the leaves had dropped. Under most conditions, the stems were also dry. Harvest date was approximately 7-10 days later than maturity date.

Lodging was based on a scale of 1 to 5 according to the following criteria, see page 5 for illustrations:

- 1 - almost all plants erect.
- 2 - either all plants leaning slightly (less than 45°) or a few plants down.
- 3 - either all plants leaning moderately (approximately 45°) or 25 to 50% of the plants down.
- 4 - either all plants leaning considerably (more than 45°) or 50 to 80% of the plants down.
- 5 - all plants down.

Shattering ratings were based on shattering of the border rows 14 days after maturity. The visual estimates were rated on a scale of 1 to 5 as follows:

- 1 - no shattering
- 2 - 1 to 3% shattering
- 3 - 4 to 8% shattering
- 4 - 9 to 19% shattering
- 5 - 20% or more shattering

Plant height was determined as the average length of plants from the ground to the top extremity at time of maturity.

Height of first pod was determined as the average height of the lowest pods from the ground at maturity.

Seed size for each variety was determined from a composite sample of all replications at a given planting date and location. Seed size is reported as grams per 100 seeds.

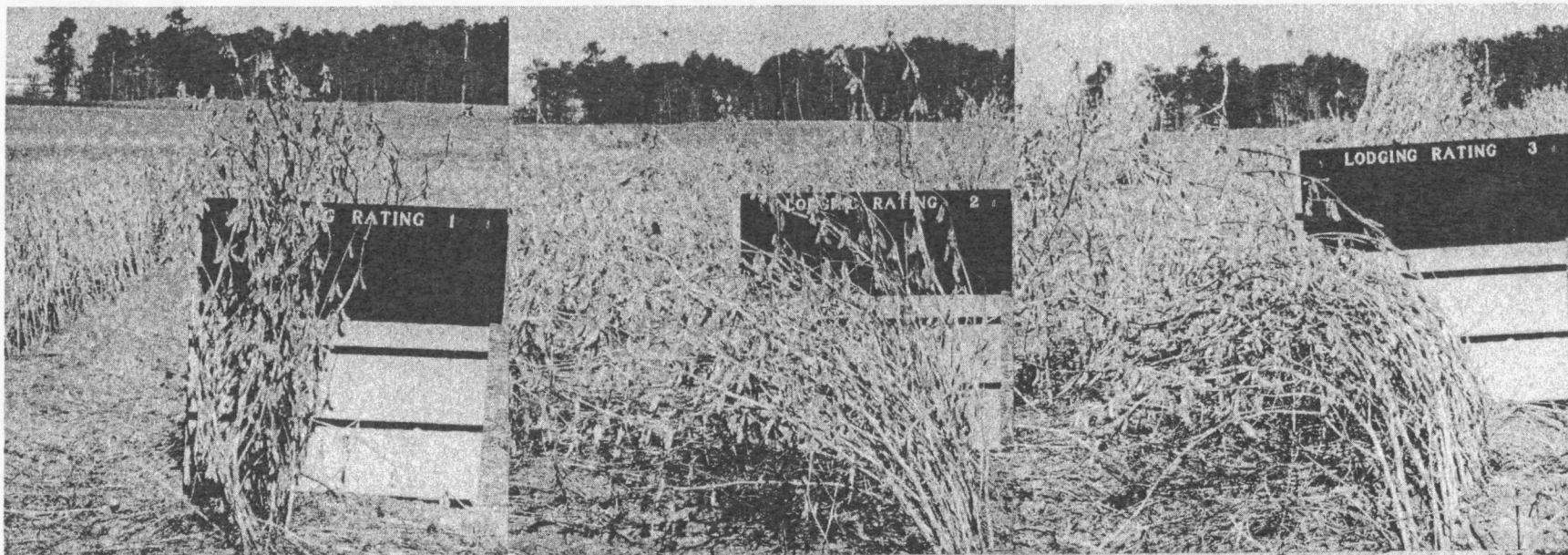
Seed quality was based on a rating from 1 to 5 according to the following scale: (1) very good, (2) good, (3) fair, (4) poor, and (5) very poor. The factors considered were development of seed, wrinkling due to late harvesting and to excessive rain.

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

- | | |
|-----------------------------|--------------------------|
| 1 - no purple staining | 4 - 9 to 19% staining |
| 2 - 1 to 3% purple staining | 5 - 20% or more staining |
| 3 - 4 to 8% purple staining | |

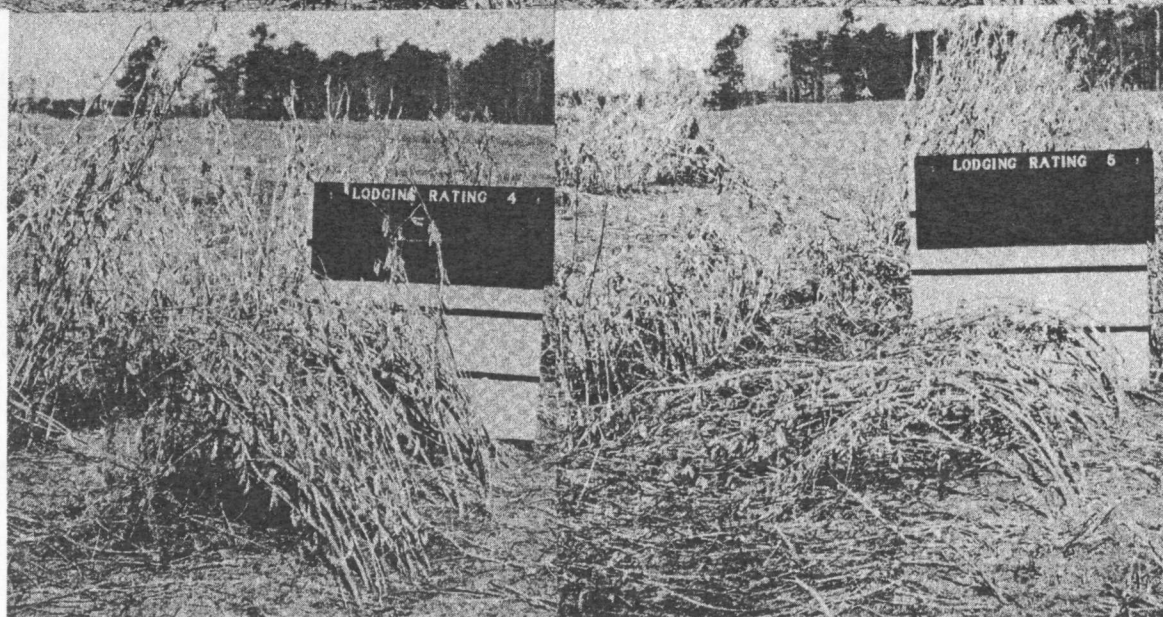
VARIETY DATA

Soybean varieties grown in Alabama are in Maturity Groups V, VI, VII, and VIII. The following is a list of the varieties and strains with source of seed for 1976 listed by maturity groups. For more information on these varieties see table 2.



Lodging was based on a scale of 1 to 5 according to the following criteria and illustrated by figures 1 through 5 respectively.

- 1 - almost all plants erect.
- 2 - either all plants leaning slightly (less than 45°) or a few plants down.
- 3 - either all plants leaning moderately (approximately 45°) or 25 to 50% of the plants down.
- 4 - either all plants leaning considerably (more than 45°) or 50 to 80% of the plants down.
- 5 - all plants down.



Very Early Varieties - Maturity Group V

Bedford	USDA, Delta Center, Portageville, MO
Coker 136	Coker's Pedigreed Seed Co., Hartsville, SC
D&PL 345*	Delta & Pine Land Company, Scott, MS
Essex	Alabama Foundation Seed Stocks Farm, Auburn, AL
FFR 557	Farmers Forage Research, Lafayette, IN
Forrest	Alabama Foundation Seed Stocks Farm, Auburn, AL
Mack	Phizer Genetics Inc., Cleveland, MS
McNair 500	McNair Seed Co., Laurinburg, NC
NK Blend 100	Northrup King Co., Bolivar, TN
RA 401 (IV-S)* ^{1/}	Ring Around Research, Plainview, TX
RA 604*	Ring Around Research, Plainview, TX
RA 501 A	Ring Around Research, Plainview, TX
RA 526	Ring Around Research, Plainview, TX

Early Varieties - Maturity Group VI

Centennial	Alabama Foundation Seed Stocks Farm, Auburn, AL
Coker 156	Coker's Pedigreed Seed Co., Hartsville, SC
D&PL 5*	Delta & Pine Sand Company, Scott, MS
Davis	Alabama Foundation Seed Stock Farm, Auburn, AL
D74-7741*	USDA, Delta Center, Portageville, MO
FFR 6253*	Farmers Forage Research, Lafayette, IN
FFR 666	Farmers Forage Research, Lafayette, IN
Green Soy 64*	Green Seed Co., Gallatin, TN
Lancer	North American Plant Breeders, W. Memphis, AR
Lee 74	Alabama Foundation Seed Stocks Farm, Auburn, AL
McNair 3181*	McNair Seed Co., Laurinburg, NC

^{1/} RA 401 (IV-S)* is a Group IV Maturity Line.

McNair 600	McNair Seed Co., Laurinburg, NC
RA 680*	Ring Around Research, Plainview, TX
RA 603*	Ring Around Research, Plainview, TX
Tracy	Alabama Foundation Seed Stocks Farm, Auburn, AL

Mid-Season Varieties - Maturity Group VII

Agripro 70	North American Plant Breeders, W. Memphis, AR
Bragg	Alabama Foundation Seed Stocks Farm, Auburn, AL
Brooks	Gold Kist Inc., Asburn, GA
Coker 237	Coker's Pedigreed Seed Co., Hartsville, SC
FFR 6143*	Farmer's Forage Research, Lafayette, IN
F71-1180*	USDA Delta Branch Exp. Station, Stoneville, MS
Ga Soy 17	Coastal Plains Exp. Sta., Tifton, GA
Govan	USDA Delta Branch Exp. Station, Stoneville, MS
McNair 3129	McNair Seed Co., Laurinburg, NC
McNair 3167*	McNair Seed Co., Laurinburg, NC
McNair 3182*	McNair Seed Co., Laurinburg, NC
RA 700	Ring Around Research, Plainview, TX
Ransom	Alabama Foundation Seed Stocks Farm, Auburn, AL
Terra-Vig 708	Terral-Norris Seed Co., Inc., Lake Providence, LA

Late-Season Varieties - Maturity Group VIII

Cobb	Alabama Foundation Seed Stocks Farm, Auburn, AL
Coker 388	Coker's Pedigreed Seed Co., Hartsville, SC
Coker 488	Coker's Pedigreed Seed Co., Hartsville, SC
Dowling	Texas A&M, College Station, TX
F70-2060*	USDA Delta Branch Exp. Station.
Hutton	Alabama Foundation Seed Stocks Farm, Auburn, AL
McNair 3183*	McNair Seed Co., Laurinburg, NC

*Breeding line; selections not yet released by seed company.

Table 2. Physical Descriptions and Disease Resistance of Some Soybean Varieties Tested

Group	Variety	Plant characteristics				Reaction to individual diseases ^{1/}					Nematode resistance ^{1/}		
		Pubes- cence	Flower color	Pod color	Hilum color	Bacteria pustule	Wild- fire	Tar- get spot	Phyto- phthora rot	Purple seed stain	Cyst (Race 3)	Root-Knot <i>incognita</i> <i>arenaria</i>	
V	Bedford	Tawny	White	Tan	Black	R	R	R	R	R	R ^{3/}	MR	R
	Essex	Gray	Purple	Tan	Buff	R	R	R	MR	R	S	MR	S
	Forrest	Tawny	White	Tan	Black	R	R	R	MR	MR	R	R	R
	Mack	Tawny	Purple	Tan	Black	R	R	R	R	R	R	S	S
	RA 526	Tawny	Purple	Tan	Brown	R	R	R	R	R	R	S	S
VI	Coker 156 ^{2/}	Gray	White	Tan	Buff	R	R	R	--	R	S	S	S
	Davis	Gray	White	Lt. Tan	Buff	R	R	R	R	MR	S	S	S
	McNair 600	Tawny	Purple	Lt. Tan	Black	R	R	R	S	R	S	R	MR
	Centennial	Tawny	Purple	Tan	Black	R	R	R	R	MR	R	R	S
	Tracy ^{2/}	Tawny	White	Tan	Black	R	R	R	R	MR	S	S	S
	Lee 74	Tawny	Purple	Tan	Black	R	R	R	MR	R	S	R	MR
VII	Bragg	Tawny	White	Tan	Black	R	R	R	R	S	S	R	R
	Ga Soy 17	Gray	White	Tan	Buff	R	R	R	R	MR	S	S	MR
	Govan ^{2/}	Gray	White	Tan	Black	R	R	R	R	S	S	R	R
	Ransom	Tawny	Purple	Tan	Black	R	R	R	MS	R	S	S	MR
VIII	Cobb	Gray	White	Tan	Buff	R	R	R	S	S	S	R	S
	Coker 388	Gray	Purple	Lt. Tan	Buff	R	R	MR	MS	S	S	MR	S
	Coker 488	Tawny	Purple		Brown	R	R	R	S	S	S	MR	S
	Dowling	Gray	White	Tan	Buff	R	R	R	R	R	S	S	S
	Hutton	Brown	Purple	Tan	Black	R	R	R	S	S	S	R	S

^{1/} VR-very resistant; R-resistant; MR-moderately resistant; S-susceptible; VS-very susceptible. These are ratings given these varieties by the breeders and are not based on performance in Alabama alone.

^{2/} Sensitive to herbicide metubuzin, however, Tracy has good Tolerance to Herbicide 2,4-DB.

^{3/} Resistant to Race 4 cyst nematode.

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J.A. Little
G.V. Grenade
Lower Coastal Plains Substation
Camden, Ala.

F.T. Glaze
Prattville Field
Prattville, Ala.

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Sand Mountain Substation
Crossville, Ala.

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Northern Alabama

The tests in northern Alabama were located on Decatur clay loam at Belle Mina, Hartsells fine sandy loam at Crossville, and Savannah fine sandy loam at Winfield. Soybeans of Maturity Group VI are full-season varieties for this area. Varieties of Group VII maturity tend to be taller and later maturing in northern Alabama than at more southern locations. Thus, lodging may be expected for Group VII varieties in northern Alabama; however, lodging was not a problem in 1978 at Crossville or Winfield. Lodging has been severe for 2 and 3 of the past 5 years at both Crossville and Belle Mina, respectively, and the taller varieties have not yielded well. It has been the shorter varieties of Group V maturity that have been the best-yielding varieties in early plantings at Crossville and Belle Mina.

Essex has been the highest yielding variety for the past 5 years at Crossville and Belle Mina with 36 and 41 bu/A, respectively, outyielding the second variety Tracy at Crossville and Forrest at Belle Mina by 3 and 6 bu/A, respectively.

The best Maturity Group VI variety was Tracy in the early plantings at Crossville and Belle Mina. At Winfield, McNair 600, Lee 74, and Davis yielded best for mid-May plantings.

New early lines that have performed well in northern Alabama for the past 2 to 4 years are Coker 156, Lancer, and Centennial. Coker 156 was the highest or second highest yielding variety at five of the six experiments in northern Alabama for the 4-year average.

Table 3. Yields, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, Shattering^{4/}, Seed Quality^{5/}, Purple Stain, and Seed Size of Soybean Varieties when Planted May 12, 1978 at Sand Mountain Substation.

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
Coker 156	38.6 a	7/18	10/10	35	7.0	1.8	1	13.9
Essex	36.3 a	7/14	9/21	27	6.5	1.0	1	13.3
N72-580	35.7 ab	7/15	9/20	39	4.5	2.0	2	15.7
Centennial	31.4 bc	7/18	10/15	39	8.0	2.0	2	15.2
NK Blend 100	30.4 bcd	7/14	9/20	34	5.8	3.0	2	13.0
Lee 74	29.9 bcd	7/20	10/20	36	7/8	2.5	1	15.5
Forrest	29.8 bcde	7/14	9/21	38	7/8	2.3	1	11.3
RA 680	29.8 bcde	7/16	10/15	39	8.5	2.0	1	15.4
Tracy	29.1 bcde	7/15	10/15	39	9.0	2.3	1	18.0
RA 603	29.0 bcdef	7/14	10/15	49	7.0	2.8	2	13.8
D&PL 5	28.6 bcdefg	7/19	3/	41	9.0	2.8	1	16.0
Coker 136	28.5 bcdefg	7/16	9.20	38	8.0	1.8	1	11.4
Lancer	28.4 bcdefg	7/16	10/08	37	8.8	2.0	2	14.9
FFR 6253	28.4 bcdefg	7/19	10/15	35	8.0	2.0	2	14.1
FFR 666	28.3 bcdefg	7/16	10/15	33	9.8	2.0	1	14.6
Bedford	28.3 bcdefg	7/15	9/21	44	6.5	2.3	1	11.0
D74-7741	28.2 bcdefg	7/15	10/15	38	9.5	2.0	1	11.7
McNair 3181	28.0 bcdefg	7/22	3/	38	8.5	2.3	2	16.2
FFR 557	27.8 bcdefg	7/16	10/05	38	9.0	2.0	1	15.2
RA 501A	27.7 bcdefg	7/14	9/21	44	5.3	2.0	1	14.7
Greensoy 64	27.5 bcdefg	7/16	3/	40	8.8	2.5	1	16.2
McNair 500	27.4 bcdefg	7/15	9/21	37	5.5	2.5	1	10.6
Mack	27.3 bcdefg	7/14	9/20	37	6.0	2.3	1	14.1
Bragg	27.2 bcdefg	7/22	3/	44	10.8	3.0	1	15.2
McNair 600	26.9 bcdefg	7/17	10/10	40	9.0	2.5	2	13.4
RA 526	26.8 bcdefg	7/15	9/20	36	6.5	2.3	1	13.0
D&PL 345	26.6 bcdefg	7/15	9/21	38	6.5	2.0	1	12.7

(Continued)

Table 3. Yields, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, Shattering^{4/}, Seed Quality^{5/}, Purple Stain, and Seed Size of Soybean Varieties when Planted May 12, 1978 at Sand Mountain Substation

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
Ransom	26.5 bcdefg	7/19	10/20	39	10.0	2.5	1	16.8
Hutton	26.5 cdefg	7/24	3/	41	11.0	2.3	1	12.6
Ga. Soy 17	26.0 cdefg	7/26	3/	45	6.5	2.5	1	15.8
RA 604	25.7 cdefg	7/17	10/05	40	9.8	2.0	1	14.7
F71-1180	25.0 defg	7/25	3/	45	10.0	2.5	1	17.7
Davis	24.5 efg	7/23	10/15	41	8.0	2.5	1	15.7
RA 401 (IV-S)	23.6 fg	7/12	9/15	31	3.8	1.0	2	16.4
Brooks	23.5 g	7/26	3/	48	8.8	2.8	1	16.2

C.V.% = 10.4 L.S.D. .05 = 4.1

- ^{1/} Yield adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).
^{2/} An explanation of data and ratings is given on page 3 of this report.
^{3/} No data taken.
^{4/} There was no shattering of any variety.
^{5/} Seed quality for all varieties was very good.

Table 4: Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, Shattering^{4/}, Seed Quality^{5/}, Purple Stain, and Seed Size of Soybean Varieties Planted May 29, 1978 at Sand Mountain Substation.

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
D&PL 5	23.9 a	7/29	10/20	37	7.5	2.5	1	14.3
Coker 156	23.3 ab	7/29	10/10	33	7.5	1.3	1	13.9
Lee 74	22.1 abc	7/29	10/20	35	9.5	2.0	1	12.9
Centennial	21.7 abcd	7/28	10/20	38	9.5	2.0	2	13.3
Forrest	19.6 abcde	7/21	10/08	35	8.0	1.8	2	10.2
Ransom	19.4 bcde	7/30	3/	37	9.0	1.5	1	14.7
Tracy	18.8 cde	7/26	10/15	36	7.5	2.3	1	16.8
FFR 666	18.6 cde	7/28	10/12	33	9.3	2.0	1	11.9
Hutton	18.5 cdef	8/05	3/	38	12.0	2.0	1	15.9
Lancer	18.2 cdef	7/29	10/12	34	9.0	1.3	2	16.1
Govan	18.1 cdef	8/02	3/	37	7.5	1.5	1	12.2
Essex	18.0 cdef	7/17	10/01	22	6.0	1.0	2	10.9
Davis	17.4 cdef	8/03	10/12	38	8.8	2.0	2	15.7
FFR 557	17.1 def	7/26	10/08	35	6.5	1.5	1	14.3
NK Blend 100	17.0 def	7/18	10/08	29	6.3	2.0	2	10.8
Ga. Soy 17	17.0 ef	7/29	10/08	39	8.8	2.0	2	12.6
Bragg	16.8 ef	8/04	3/	44	10.8	2.5	2	14.4
McNair 500	16.7 ef	7/24	10/08	34	7.0	2.0	2	10/8
McNair 600	16.5 ef	7/28	10/12	37	8.8	1.8	2	12.8
Coker 136	16.5 ef	7/26	10/08	35	9.8	1.8	2	13.1
F71-1180	16.2 ef	8/03	3/	41	7.3	2.0	2	14.8
Brooks	16.2 ef	8/06	3/	42	10.8	2.0	2	14.6
RA 526	15.5 ef	7/25	10/07	31	8.5	2.0	1	11.6
RA 501A	13.7 f	7/23	10/10	37	7.8	2.0	2	13.2

C.V.% = 15.4 L.S.D. .05 = 3.95

^{1/} Yield adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).
^{2/} An explanation of data and ratings is given on page 3 of this report.
^{3/} No data taken.
^{4/} No varieties shattered.
^{5/} Seed quality was very good for all varieties.

Table 5. Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, Shattering^{4/}, Seed Quality^{5/}, Purple Stain and Seed Size of Soybean Varieties when Planted June 19, 1978 at Sand Mountain Substation

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant Ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
McNair 500	33.1 a	8/10	3/	33	7.3	1.3	1	10.9
D&PL 5	26.7 ab	8/11	3/	38	9.8	1.8	1	14.3
Bragg	25.9 ab	8/14	10/12	38	10.0	1.8	1	14.3
McNair 600	24.5 b	8/17	3/	30	6.3	1.0	2	13.1
Davis	24.1 b	8/17	3/	36	9.3	1.0	2	15.0
Hutton	23.5 b	8/16	3/	34	10.0	1.3	1	15.1
F71-1180	23.5 b	8/16	3/	37	8.5	1.0	2	14.9
Ransom	23.4 b	8/13	3/	34	8.8	1.0	2	14.7
Coker 156	23.3 b	8/11	10/10	30	6.5	1.0	2	13.5
Ga. Soy 17	23.3 b	8/19	10/12	31	7.8	1.0	2	13.7
Tracy	22.8 b	8/10	3/	36	9.0	1.0	1	15.8
Forrest	22.4 b	8/07	3/	36	7.8	1.0	1	12.2
Govan	22.4 b	8/15	3/	32	8.5	1.0	1	13.0
Brooks	22.0 b	8/15	3/	42	9.3	1.3	2	14.3
Lee 74	21.7 b	8/12	3/	35	8.0	1.3	1	13.0
RA 501A	20.6 b	8/10	3/	33	4.8	1.0	2	14.9
Essex	20.4 b	8/07	3/	23	7.3	1.0	2	13.1
Coker 136	20.2 b	8/12	3/	33	8.8	1.0	1	15.3
Centennial	20.0 b	8/12	10/10	38	9.8	1.0	1	14.6
RA 526	19.9 b	8/09	10/15	32	7.8	1.0	1	14.0

C.V.% = 24 L.S.D. .05 = 7.9

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} Data not taken.

^{4/} No varieties shattered except Essex which shattered from 1 to 3%.

^{5/} Seed quality was very good for all varieties.

Table 6. Two and Three-Year Average Yield, First Bloom and Maturity Dates, Plant and First Pod heights, Lodging, and Shattering of Soybean Varieties Planted Early on Sand Mountain Substation

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ^{2/} ht. In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating
-----Two-Year Average Planting Date May 8, 1977 and 1978-----						
Coker 156	36.9	7/16	10/18	34	5.0	1.9
D&PL 5	32.5	7/17	10/26 ^{3/}	38	6.0	2.8
Centennial	32.3	7/15	10/20	38	6.0	2.4
Lee 74	31.6	7/19	10/22	34	5.6	2.6
Hutton	31.6	7/23	10/28 ^{3/}	39	7.0	2.8
Tracy	31.1	7/13	10/19	38	6.3	2.5
McNair 600	31.0	7/13	10/18	38	6.5	2.6
Bragg	30.7	7/21	10/26 ^{3/}	42	7.4	2.8
Essex	30.3	7/07	9/15	26	4/	1.1
FFR 666	29.8	7/16	10/19	33	6.5	2.4
FFR 557	29.6	7/12	10/10	37	6.3	2.0
NK Blend 100	27.6	7/07	9/18	32	4/	2.0
Lancer	27.0	7/15	10/10	35	6.1	1.8
Forrest	26.9	7/09	9/17	36	4.9	2.0
Coker 136	26.0	7/13	9/24	37	4/	1.8
Davis	23.8	7/20	10/14	38	5.4	2.5
Mack	23.7	7/10	9/17	34	2.8 ^{5/}	2.5
RA 501A	23.3	7/08	9/18	39	2.0 ^{5/}	1.9
RA 526	23.1	7/12	9/17	32	4/	3.0
McNair 500	22.4	7/13	9/22	34	4/	2.3
-----Three-Year Average Planting Date May 6, 1976 through 1978-----						
Coker 156	36.2	7/18	10/14	34	5.8	1.8
Essex	33.5	7/09	9/17	26	4/	1.2
Hutton	32.6	7/24	10/21 ^{6/}	39	8.0	3.4
Lee 74	32.5	7/20	10/17	35	6.8	2.6
Centennial	31.9	7/17	10/17	40	7.4	2.6
FFR 666	31.7	7/18	10/14	33	6.9	2.5
McNair 600	31.5	7/16	10/12	39	7.2	2.8
Bragg	31.4	7/22	10/20 ^{6/}	43	8.5	2.8
Tracy	30.8	7/14	10/13	37	6.8	2.6
Forrest	30.2	7/12	9/20	36	5.8	2.0
Lancer	29.8	7/19	10/09	38	6.9	1.6
Coker 136	28.1	7/16	9/26	38	4/	1.8
Davis	28.0	7/22	10/12	38	6.3	2.5
Mack	27.0	7/12	9/19	35	4.1 ^{7/}	2.7
McNair 500	26.5	7/14	9/25	35	4/	2.3

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} Average data for 1977.

^{4/} Data unavailable.

^{5/} Average height to first pod 1977.

^{6/} Average maturity dates for 1976 through 1977.

^{7/} Average height to first pod 1976 through 1977.

Table 7. Two and Three-Year Average Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted Middle Season on Sand Mountain Substation

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ^{2/} ht. In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating
-----Two-Year Average Planting Date May 30, 1977 and 1978-----						
Coker 156	31.4	7/28	10/17	32	5.3	1.6
Centennial	30.6	7/28	10/22	37	7.8	2.1
Lancer	28.7	7/28	10/16	32	6.5	1.6
Lee 74	28.5	7/30	10/22	33	7.0	3.0
Ransom	28.5	7/30	10/28 ^{3/}	34	6.5	2.0
Forrest	28.2	7/21	10/09	33	6.0	2.0
Ga. Soy 17	27.5	8/03	10/18	39	5.9	3.3
FFR 666	27.0	7/28	10/17	30	6.5	2.4
MaNair 600	26.9	7/29	10/16	36	5.9	2.4
Tracy	26.8	7/26	10/18	35	5.0	2.9
Coker 136	26.2	7/26	10/10	32	6.9	1.4
Bragg	25.6	8/03	10/28 ^{3/}	42	7.9	3.4
Hutton	25.6	8/05	10/28 ^{3/}	37	8.0	3.1
McNair 500	25.2	7/24	10/10	31	5.4	2.1
Davis	22.8	8/02	10/19	34	6.0	2.8
Essex	21.6	7/20	10/01	20	4.4	1.0
-----Three-Year Average Planting Date May 28, 1976 through 1978-----						
Coker 156	33.3	7/30	10/15	34	6.5	1.7
Lancer	31.3	7/30	10/14	35	7.0	1.9
Centennial	31.1	7/29	10/19	38	9.0	2.3
Lee 74	30.4	7/31	10/18	34	7.3	3.1
Forrest	30.3	7/23	10/07	34	6.6	2.1
Coker 136	29.7	7/28	10/09	35	8.2	1.7
Ransom	29.6	7/30	10/21 ^{4/}	35	7.7	2.0
Tracy	28.8	7/27	10/14	36	5.8	2.8
McNair 500	28.8	7/25	10/08	33	6.3	2.3
Hutton	28.3	8/05	10/22 ^{4/}	37	9.4	3.6
McNair 600	28.2	7/29	10/13	37	6.8	2.5
Bragg	28.0	8/03	10/21 ^{4/}	42	8.9	3.2
Essex	26.9	7/22	9/29	23	5.2	1.1
Davis	26.0	8/04	10/18	36	7.2	2.7

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1977 maturity date.

^{4/} 1976-1977 average maturity date.

Table 8 . Two and Three-Year Average Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted Late Season on Sand Mountain Substation.

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ^{2/} ht. In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating
-----Two-Year Average Planting Date June 19, 1977 and 1978-----						
McNair 500	33.4	8/09	10/17 ^{3/}	30	5.8	1.8
McNair 600	31.4	8/14	10/26 ^{3/}	32	5.5	2.1
Forrest	30.9	8/06	10/20 ^{3/}	33	5.9	1.6
Ransom	30.3	8/12	10/30 ^{3/}	33	7.9	1.4
Coker 156	29.9	8/12	10/18	31	5.1	1.4
Bragg	29.7	8/13	10/21	37	8.0	2.5
Hutton	29.7	8/15	10/30 ^{3/}	34	7.8	2.0
Ga. Soy 17	29.7	8/17	10/20	33	6.9	2.0
Davis	29.6	8/15	10/28 ^{3/}	35	7.5	2.3
Coker 136	29.0	8/11	10/23 ^{3/}	32	7.4	1.6
Lee 74	28.2	8/12	10/27 ^{3/}	34	7.0	2.6
Essex	28.0	8/05	10/12 ^{3/}	23	5.6	1.1
Tracy	26.5	8/10	10/21 ^{3/}	34	6.8	2.0
Centennial	26.5	8/10	10/20	35	7.6	1.8
-----Three-Year Average Planting Date June 19, 1976 through 1978-----						
McNair 500	34.1	8/11	10/19 ^{4/}	28	5.5	1.8
Hutton	32.7	8/16	10/27 ^{4/}	31	7.2	2.0
Coker 156	32.4	8/14	10/19	28	4.7	1.3
Bragg	32.0	8/15	10/21	33	7.5	2.2
Forrest	31.8	8/10	10/20 ^{4/}	30	5.7	1.8
McNair 600	31.7	8/15	10/23 ^{4/}	30	5.0	1.9
Ransom	31.3	8/14	10/26 ^{4/}	30	6.9	1.4
Coker 136	30.4	8/13	10/22 ^{4/}	29	6.7	1.4
Tracy	29.9	8/12	10/19 ^{4/}	30	5.8	2.1
Lee 74	29.5	8/14	10/24 ^{4/}	30	6.3	2.5
Davis	29.3	8/18	10/26 ^{4/}	33	6.8	2.2
Essex	29.2	8/08	10/14 ^{4/}	21	5.1	1.2
Centennial	28.7	8/12	10/20	33	6.8	1.8

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1977 maturity date.

^{4/} 1976-1977 average maturity date.

Table 9. Four and Five-Year Average, Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted Early on Sand Mountain Substation

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ^{2/} ht. In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating
-----Four-Year Average Early Planting Date May 5, 1975 through 1978-----						
Coker 156	35.1	7/16	10/09	34	6.1	1.8
Essex	33.6	7/08	9/18	26	6.0 ^{5/}	1.1
Hutton	31.3	7/23	10/18 ^{3/}	38	7.7	3.2
Tracy	30.6	7/13	10/12	37	6.7	2.3
McNair 600	30.6	7/15	10/11	38	7.2	2.5
Lee 74	30.6	7/18	10/13	35	6.8	2.4
FFR 666	30.4	7/16	10/12	33	6.7	2.1
Centennial	29.6	7/16	10/15	39	7.9	2.4
Bragg	29.5	7/22	10/18 ^{3/}	42	8.6	2.8
Lancer	29.3	7/18	10/09	38	7.4	1.5
Forrest	28.7	7/10	9/21	36	5.8	2.0
Davis	28.0	7/23	10/12	38	7.1	2.6
Coker 136	27.2	7/15	9/28	38	9.0 ^{5/}	1.6
Mack	26.8	7/11	9/21	35	4.8 ^{6/}	2.8
-----Five-Year Average Early Planting date May 5, 1974 through 1978-----						
Essex	35.9	7/08	9/19	26	6.0 ^{7/}	1.1
Tracy	33.3	7/12	10/10	37	6.3	2.8
Lee 74	32.7	7/18	10/11 ^{4/}	35	7.5	2.4
FFR 666	31.9	7/15	10/10	32	6.6	2.1
Forrest	31.7	7/10	9/23	37	6.0	2.4
McNair 600	31.5	7/16	10/09 ^{4/}	39	7.3	2.8
Hutton	31.0	7/26	10/19 ^{4/}	39	8.2	3.2
Bragg	30.6	7/22	10/18 ^{4/}	43	8.6	3.2
Coker 136	30.1	7/17	9/28	40	8.0 ^{7/}	2.1
Davis	29.6	7/25	10/11 ^{4/}	39	7.0	3.0

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1975-1977 average maturity date:

^{4/} 1973, 1975-1977 average maturity date.

^{5/} Average pod height for 1975 through 1976.

^{6/} Average pod height for 1974 through 1977.

^{7/} Average pod height for 1974 through 1976.

Table 10. Four and Five-Year Average Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted Middle Season on Sand Mountain Substation

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ^{2/} ht. In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating
-----Four-Year Average Planting Date May 28, 1975 through 1978-----						
Coker 156	32.8	7/29	10/13	35	6.4	1.8
Ransom	30.6	7/30	10/20 ^{3/}	35	8.0	2.1
Lee 74	30.2	7/30	10/16	34	6.9	3.2
Tracy	29.9	7/27	10/15	36	6.0	2.7
Hutton	29.9	8/05	10/20 ^{3/}	38	9.1	3.6
Coker 136	29.6	7/28	10/09	37	8.3	1.8
Forrest	29.3	7/24	10/06	34	6.4	2.2
Centennial	29.1	7/28	10/17	38	8.6	2.1
McNair 600	28.7	7/29	10/12	37	6.5	2.6
Bragg	28.5	8/03	10/20 ^{3/}	43	8.9	3.1
Davis	27.5	8/04	10/17	37	7.1	2.7
Essex	27.0	7/20	9/29	24	5.5	1.1
-----Five-Year Average Planting Date May 27, 1974 through 1978-----						
Ransom	31.5	8/00	10/20 ^{4/}	36	7.8	2.3
Lee 74	30.8	8/01	10/15 ^{4/}	34	6.9	3.3
Tracy	30.3	7/29	10/14 ^{4/}	36	6.0	2.8
Forrest	30.2	7/25	10/05 ^{4/}	35	6.5	2.5
Coker 136	30.0	7/30	10/09 ^{4/}	37	8.3	1.9
Hutton	29.5	8/06	10/21 ^{4/}	38	8.8	3.7
McNair 600	29.3	7/31	10/13 ^{4/}	36	6.6	2.9
Essex	29.0	7/22	9/29	25	5.9	1.3
Bragg	28.5	8/04	10/20 ^{4/}	41	8.5	3.0
Davis	27.9	8/06	10/23 ^{4/}	37	7.0	2.8

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} Average maturity for 1975 through 1977.

^{4/} Average maturity for 1973, 1975, 1976, and 1977; frost killed soybeans on October 3, 1974.

Table 11. Four and Five-Year Average Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties, Planted Late Season on Sand Mountain Substation *

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ^{2/} ht. In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating
-----Four-Year Average. Planting Date June 19, 1975 through 1977-----						
Hutton	32.5	8/17	10/26 ^{3/}	32	8.0	2.3
Bragg	32.2	8/15	10/22	34	7.4	2.4
Coker 156	32.0	8/13	10/18	30	5.6	1.9
Ransom	31.3	8/14	10/25 ^{3/}	32	9.1	1.8
Forrest	30.4	8/09	10/16 ^{3/}	32	6.8	2.2
McNair 600	30.3	8/14	10/20 ^{3/}	32	5.7	2.3
Coker 136	30.1	8/13	10/19 ^{3/}	30	7.1	1.9
Tracy	29.9	8/12	10/18 ^{3/}	32	6.4	2.3
Davis	29.4	8/18	10/23 ^{3/}	33	7.3	2.4
Lee 74	29.2	8/14	10/20 ^{3/}	30	6.8	2.8
Essex	29.2	8/08	10/10 ^{3/}	24	5.9	1.6
Centennial	28.1	8/12	10/20 ^{3/}	34	7.1	2.2
-----Five-Year Average. Planting Date June 20, 1974 through 1978-----						
Bragg	29.9	8/16	10/24 ^{4/}	35	7.8	2.5
Essex	29.7	8/10	10/11 ^{4/}	25	5.9	1.8
Coker 136	28.9	8/14	10/18 ^{4/}	31	7.3	2.1
Ransom	28.9	8/15	10/24 ^{4/}	32	8.6	2.2
Forrest	28.9	8/11	10/16 ^{4/}	32	7.0	2.4
Tracy	28.8	8/13	10/17 ^{4/}	32	6.3	2.6
McNair 600	28.8	8/15	10/21 ^{4/}	32	5.7	2.4
Hutton	28.8	8/17	10/26 ^{4/}	31	7.5	2.6
Lee 74	27.1	8/16	10/20 ^{4/}	30	7.1	3.1
Davis	26.8	8/19	10/23 ^{4/}	33	7.1	2.5

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} Average maturity for 1975 through 1977.

^{4/} Average maturity for 1973, 1975, 1976, and 1977; Frost killed soybeans on October 3, 1974.

Table 12. Yield, First Bloom and Maturity Dates, Plant and First Pod Height, Lodging, Shattering^{3/}, Seed Quality^{4/}, Purple Stain and Seed Size of Soybean Varieties when Planted May 11, 1978 at Tennessee Valley Substation

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
Essex	32.1 a	7/04	— 5/	34	5.3	2.1	1	10.0
RA 401 (IV-S)	31.5 a	7/03	— 5/	44	7.0	1.5	1	11.7
D74-7741	25.8 b	7/08	9/25 5/	42	5.8	3.5	1	9.7
Mack	25.4 b	7/06	— 5/	42	4.5	3.8	1	10.1
Forrest	24.0 bc	7/04	— 5/	40	4.8	3.0	2	9.0
NK Blend 100	23.7 bc	7/04	— 5/	40	6.0	2.9	2	9.1
V72-580	23.6 bc	7/06	— 5/	41	6.0	2.9	1	11.6
Lancer	23.0 bcd	7/14	9/25 5/	37	8.5	2.1	2	12.0
Bedford	21.7 bcde	7/10	— 5/	47	6.8	4.0	2	9.4
RA 501A	21.3 bcdef	7/06	— 5/	49	6.5	2.4	1	10.7
Coker 156	20.6 bcdefg	7/18	10/15	42	6.0	1.5	1	9.9
Ga. Soy 17	20.1 bcdefgh	7/25	10/30 5/	38	6.8	2.0	2	14.8
RA 526	19.6 bcdefgh	7/09	— 5/	37	6.3	2.4	1	10.1
Greensoy 64	19.0 cdefgh	7/08	10/23 5/	42	8.3	2.4	2	12.2
D&PL 345	18.9 cdefgh	7/09	— 5/	44	6.3	2.8	2	9.9
RA 603	18.2 cdefgh	7/05	10/19	44	7.0	3.3	2	10.6
RA 604	18.1 cdefgh	7/12	10/10	45	6.5	2.5	2	10.5
Tracy	17.7 cdefgh	7/09	10/10	43	5.5	2.1	2	13.3
Centennial	17.2 defgh	7/12	10/26	41	7.0	1.9	2	13.1
Lee 74	17.0 defgh	7/16	10/15	38	8.3	1.9	1	9.8
Hutton	16.9 defgh	7/23	11/02 5/	43	9.8	3.1	2	14.1
Coker 136	16.7 defgh	7/07	— 5/	44	10.0	1.6	2	9.8
Ransom	16.7 defgh	7/22	10/22	42	9.0	1.6	2	13.2
RA 680	16.3 efgh	7/14	10/24	43	9.0	1.4	2	12.1
FFR 666	16.2 efgh	7/12	10/05	35	8.3	1.5	1	10.0
FFR 557	16.2 efgh	7/08	10/06	44	8.3	1.9	1	10.5
F71-1180	16.1 efgh	7/21	11/01	44	9.0	1.8	2	14.8

(Continued)

Table 12. Yield, First Bloom and Maturity Dates, Plant and First Pod Height, Lodging, Shattering^{3/}, Seed Quality^{4/}, Purple Stain and Seed Size of Soybean Varieties when Planted May 11, 1978 at Tennessee Valley Substation

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod. ^{2/} In.	Lodging ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
Bragg	15.8	efgh 7/22	10/29	44	11.8	3.3	2	12.8
Davis	15.5	efgh 7/20	9/20	42	6.3	2.3	1	12.5
D&PL 5	15.4	efgh 7/17	10/23	43	7.5	2.4	2	12.9
McNair 500	14.9	fgh 7/07	----- ^{5/}	40	5.5	3.5	1	8.8
McNair 3181	14.6	gh 7/19	10/21	39	7.5	2.9	1	11.7
Brooks	14.4	gh 7/21	11/02	42	8.3	1.8	2	13.4
FFR 6253	14.1	gh 7/17	10/18	35	7.0	2.3	1	11.0
McNair 600	13.9	h 7/09	10/01	43	8.0	3.3	2	9.3

C.V.% = 19.6 L.S.D. .05 = 5.2

- ^{1/} Yield adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).
^{2/} An explanation of data and ratings is given on page 3 of this report.
^{3/} There was no shattering of any variety except for RA 401 which shattered from 1 to 3%.
^{4/} Seed quality for all varieties was very good.
^{5/} Matured prior to 9/20/78 date not recorded.

Table 13. Two and Three Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Height and Lodging of Soybean Varieties Planted at Tennessee Valley Substation, 1977 through 1978 and 1976 through 1978 respectively

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Date	Maturity ^{2/} Date	Plant ^{2/} ht. In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating
-----Two-Year Average Planting Date May 8-----						
Essex	25.8	7/04	9/15 ^{4/}	30	5.8	1.9
Coker 156	22.4	7/13	10/16	40	5.0	1.5
Mack	22.0	7/07	9/16 ^{4/}	37	5.1	3.2
NK Blend 100	21.9	7/03	9/17 ^{4/}	37	5.6	2.4
Forrest	20.4	7/05	9/14 ^{4/}	37	5.6	2.3
Lancer	20.4	7/11	10/05	36	6.1	1.7
Lee 74	19.2	7/13	10/16	35	5.5	1.9
Centennial	19.0	7/09	10/20 ^{4/}	41	5.9	1.8
RA 501A	18.4	7/05	9/19 ^{4/}	42	6.0	2.1
RA 526	18.3	7/07	9/13 ^{4/}	34	5.6	2.4
FFR 557	18.2	7/09	10/09	42	6.0	1.7
Tracy	17.8	7/07	10/13	41	4.5	2.1
D&PL 5	17.5	7/12	10/19	40	5.5	2.1
McNair 600	17.4	7/07	10/08	42	6.0	2.4
FFR 666	17.4	7/11	10/10	33	5.5	1.6
Hutton	17.2	7/19	10/27	42	6.3	2.6
Bragg	17.1	7/16	10/23	43	8.3	2.6
Coker 136	16.1	7/07	9/20 ^{4/}	41	9.0	1.8
McNair 500	15.0	7/04	9/21 ^{4/}	39	5.6	3.2
Davis	14.7	7/15	10/02	41	5.6	1.8
-----Three-Year Average Planting Date May 7-----						
Essex	31.1	7/05	9/23 ^{5/}	31	3/	1.7
Coker 156	27.8	7/15	10/15	41	3/	2.0
Lancer	26.9	7/15	10/06	39	3/	1.9
Forrest	26.3	7/08	9/23 ^{5/}	38	3/	2.2
Lee 74	26.2	7/16	10/14	37	3/	2.3
Mack	26.0	7/10	9/23 ^{5/}	39	3/	3.0
Centennial	25.4	7/13	10/18	42	3/	2.4
McNair 600	24.9	7/11	10/08	42	3/	2.7
Bragg	24.7	7/19	10/20	45	3/	3.0
McNair 500	23.8	7/09	9/26 ^{5/}	39	3/	3.1
Tracy	23.6	7/10	10/10	41	3/	2.5
FFR 666	23.6	7/14	10/09	35	3/	1.9
Hutton	23.5	7/21	10/24	42	3/	3.2
Coker 136	22.2	7/11	9/27 ^{5/}	43	3/	1.8
Davis	21.2	7/19	10/04	41	3/	2.4

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} Data unavailable.

^{4/} Maturity data for 1977 only.

^{5/} Maturity data for 1976 and 1977(2-year average).

Table 14. Four- and Five-Year Averages for Yield, First Bloom and Maturity Dates, Plant Height, and Lodging of Soybean Varieties at Tennessee Valley Substation, 1975 through 1978 and 1974 through 1978, respectively

Variety	Yield ^{1/} Bu/A	1st bloom ^{3/} Dates	Maturity ^{3/} Dates	Plant ht. ^{3/} In.	Lodging ^{3/} Rating
-----Four-year average planting date May 7-----					
Essex	38.9	7/06	9/26 ^{5/}	32	1.5
Coker 156	32.9	7/15	10/14	41	2.2
Forrest	32.7	7/08	9/26 ^{5/}	37	2.1
Lancer	32.7	7/15	10/05	41	2.1
Mack	32.5	7/10	9/26 ^{5/}	38	3.0
Bragg	31.8	7/19	10/20	46	3.2
Centennial	31.6	7/12	10/16	43	2.8
Tracy	31.5	7/10	10/10	42	2.7
Lee 74	31.4	7/14	10/13	37	2.3
McNair 600	30.7	7/11	10/08	42	3.0
FFR 666	30.5	7/13	10/08	34	1.9
Hutton	27.7	7/21	10/24	43	3.5
Coker 136	27.1	7/11	9/29 ^{5/}	43	2.0
Davis	26.9	7/19	10/05	42	2.9
-----Five-year average planting date May 6-----					
Essex	41.0	7/07	9/26 ^{6/}	31	1.5
Forrest	35.2	7/08	9/27 ^{6/}	37	2.3
Tracy	34.0	7/09	10/10 ^{2/}	41	2.8
Lee 74	32.4	7/15	10/19 ^{4/}	37	2.7
McNair 600	32.0	7/11	10/08 ^{4/}	42	3.1
Bragg	31.8	7/20	10/18 ^{4/}	45	3.4
FFR 666	31.5	7/13	10/18 ^{4/}	34	2.1
Coker 136	29.4	7/12	10/01 ^{6/}	43	2.0
Hutton	28.8	7/22	10/23 ^{4/}	42	3.7
Davis	27.8	7/21	10/07 ^{4/}	42	3.3

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} Four year average 1975 through 1978 Frost killed soybeans Oct. 3, 1974.

^{3/} An explanation of data and ratings is given on page 3 of this report.

^{4/} Five year average includes 1973 maturity data as frost killed soybeans.

^{5/} Maturity date for 1975-1977 (3-year

^{6/} Maturity date for 1974-1977 (4-year

Table 15. Yield, Maturity Dates, Plant Height, Lodging, Shattering, Seed Quality^{3/}, Purple Stain, and Seed Size of Soybean Varieties when Planted May 17, 1978, at Upper Coastal Plain Substation

Variety	Yield ^{1/} Bu/A	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
Ga. Soy 17	15.2 a	10/30	37	1.3	1.0	2	13.9
D&PL 5	15.0 ab	10/28	38	2.0	1.0	2	14.5
F71-1180	14.7 abc	10/31	38	1.0	1.0	2	15.6
RA 680	14.7 abc	10/27	36	1.0	1.0	2	14.2
Coker 156	14.2 abc	10/27	34	1.0	1.3	1	14.9
Essex	13.9 abcd	9/14	25	1.0	2.3	2	11.5
Ransom	13.5 abcde	10/21	33	1.0	1.0	1	14.6
Brooks	13.5 abcde	10/30	46	2.3	1.0	2	13.6
Centennial	13.4 abcde	10/28	36	1.0	1.0	1	13.3
Lee 74	13.1 abcdef	10/25	33	1.3	1.0	2	14.2
FFR 6253	13.1 abcdef	10/25	35	2.0	1.0	1	14.1
McNair 3181	13.0 abcdef	10/25	34	1.3	1.0	1	14.4
McNair 600	12.7 abcdef	10/19	37	1.5	1.0	2	15.0
FFR 666	11.7 abcdefg	10/19	31	1.0	1.0	2	13.8
Lancer	11.6 abcdefgh	10/13	31	1.0	1.5	2	16.7
Greensoy 64	11.6 abcdefgh	10/31	34	1.0	1.3	2	14.6
Bragg	11.5 bcdefgh	10/30	45	2.3	1.0	2	14.5
Tracy	11.2 cdefghi	10/31	37	1.5	1.0	2	15.4
RA 401 (IV-5)	10.5 defghij	9/06	31	1.0	2.5	2	14.2
FFR 557	10.4 defghij	10/13	34	1.0	1.0	2	14.1
RA 604	10.3 defghij	10/16	35	1.0	1.0	3	16.6
D74-7741	10.3 defghij	10/09	35	1.0	1.0	3	12.5
NK Blend 100	10.0 efghij	9/14	33	1.3	1.5	2	12.0
RA 603	9.7 fghij	10/28	38	1.5	1.3	2	13.3
Forrest	9.6 fghijk	9/14	36	1.0	1.0	2	11.2
Hutton	9.6 fghijk	10/21	36	1.0	1.0	1	17.2
Davis	9.0 ghijk	10/14	36	1.0	2.0	2	16.4
Coker 136	8.9 ghijk	10/02	35	1.0	1.0	2	13.5

(Continued)

Table 15. Yield, Maturity Dates, Plant Height, Lodging, Shattering, Seed Quality^{3/}, Purple Stain, and Seed Size of Soybean Varieties when Planted May 17, 1978, at Upper Coastal Plain Substation (Cont)

Variety	Yield ^{1/} Bu/A		Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
V74-580	8.9	ghijk	9/16	33	1.3	1.5	2	13.9
RA 526	8.5	ghijk	9/15	33	1.3	1.0	2	12.1
Mack	8.9	ghijk	9/14	31	1.3	1.0	2	12.0
Bedford	7.9	hijk	9/14	37	1.8	1.0	2	11.2
D&PL 345	7.8	ijk	9/25	35	1.0	1.3	2	13.0
Ra 501A	7.4	jk	9/14	36	1.0	1.0	2	13.7
McNair 500	6.1	k	9/16	33	1.0	1.0	2	11.3

C.V. = 19.1 L.S.D. .05 = 3.0

- ^{1/} Yield adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).
^{2/} An explanation of data and ratings is given on page ³ of this report.
^{3/} Seed quality for all varieties was very good.

Table 16. Yield, Maturity Dates, Plant Height, Lodging, Shattering, Seed Quality^{3/}, Purple Stain and Seed Size of Soybean Varieties when Planted June 15, 1978 at Upper Coastal Plain Substation

Variety	Yield ^{1/} Bu/A	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
Coker 156	19.4 a	10/27	29	1.0	1.0	1	14.9
F71-1180	18.6 ab	10/26	40	1.0	1.0	2	13.8
D&PL 5	18.3 abc	10/21	39	2.0	1.0	2	13.4
Ga. Soy 17	18.3 abc	10/30	38	1.0	1.0	2	13.8
Lee 74	18.0 abcd	10/18	34	1.3	1.0	1	14.2
McNair 600	17.7 abcde	10/18	36	1.3	1.0	2	13.6
Ransom	17.2 abcdef	10/19	34	1.0	1.0	1	16.4
Centennial	17.1 abcdef	10/24	36	1.8	1.0	2	13.0
Tracy	16.8 abcdefg	10/19	37	1.5	1.3	2	15.2
Davis	16.2 abcdefg	10/14	39	1.0	1.0	2	15.7
Bragg	16.1 abcdefg	10/25	41	1.8	1.0	1	12.4
Hutton	16.1 abcdefg	10/29	38	1.0	1.0	1	15.9
Lancer	16.0 abcdefg	10/19	34	1.0	1.0	1	15.5
Forrest	14.9 bcdefg	10/02	35	1.5	1.5	2	11.7
Govan	14.7 bcdefg	10/22	34	1.0	1.0	1	11.7
RA 526	14.3 cdefg	10/02	33	1.0	1.5	2	15.5
RA 501A	14.0 defg	10/04	35	1.0	1.3	1	14.0
Coker 136	13.6 efg	10/10	36	1.0	1.0	2	15.3
McNair 500	13.4 fg	10/04	35	1.0	1.5	2	12.1
Essex	12.9 g	9/29	25	1.0	3.5	2	11.0

C.V. % = 14.9 L.S.D. .05 = 3.4

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} Seed Quality of all varieties was very good.

Table 17. Two-Year Averages for Yield, First Bloom and Maturity Dates, Plant Height, Lodging, and Shattering of Soybean Varieties Planted May 14 on Upper Coastal Plain Substation 1977 through 1978

Variety	Yield ^{1/}	1st bloom ^{2/3/}	Maturity ^{2/}	Plant ht. ^{2/}	Lodging ^{2/}	Shattering ^{2/}
	Bu/A	Dates	Dates	In.	Rating	Rating
Coker 156	23.0	7/16	10/21	33	1.1	1.5
D&PL 5	22.8	7/16	10/24	37	2.1	1.4
McNair 600	21.5	7/15	10/13	36	1.4	1.0
Lee 74	20.7	7/19	10/19	33	1.9	1.5
Bragg	20.1	7/20	10/26	41	2.4	1.1
FFR 666	19.8	7/15	10/16	29	1.4	1.0
FFR 557	19.7	7/15	10/06	34	1.4	1.0
Centennial	19.7	7/15	10/23	36	1.1	1.0
Hutton	19.1	7/20	10/23	37	1.8	1.4
Davis	18.5	7/17	10/09	36	1.3	1.8
Lancer	18.4	7/16	10/09	32	1.3	1.6
Tracy	17.3	7/15	10/21	34	1.8	1.1
Coker 136	17.2	7/14	9/26	34	1.1	1.0
NK Blend 100	16.8	7/13	9/15	31	1.1	1.3
Essex	15.7	7/14	9/14	24	1.1	2.0
Forrest	14.6	7/14	9/15	34	1.0	1.0
Mack	14.4	7/14	9/14	30	1.5	1.0
RA 526	12.4	7/14	9/15	29	1.3	1.0
McNair 500	11.7	7/14	9/19	31	1.1	1.0
RA 501A	11.5	7/13	9/16	36	1.8	1.8

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1977 bloom dates only.

Table 18. Two-Year Averages for Yield, First Bloom and Maturity Dates, Plant Height, Lodging, and Shattering of Soybean Varieties Planted June 13 at Upper Coastal Plains Substation 1977 through 1978

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/3/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Coker 156	22.5	8/05	10/26	31	1.6	1.8
Ga. Soy 17	21.4	8/08	10/31	40	2.0	1.8
Lancer	21.3	8/06	10/18	35	1.8	1.9
Ransom	20.6	8/07	10/24	34	1.9	1.6
Centennial	19.6	8/04	10/23	36	2.3	1.4
Lee 74	19.3	8/07	10/20	32	2.1	1.6
Hutton	19.3	8/08	10/29	37	2.3	1.6
Bragg	18.9	8/07	10/26	42	2.4	1.6
Davis	18.8	8/06	10/16	38	2.3	2.0
McNair 600	18.2	8/05	10/17	35	2.1	1.9
Essex	17.2	8/02	9/30	23	1.3	2.3
Forrest	17.1	8/02	10/01	31	1.6	1.3
McNair 500	17.0	8/02	10/02	31	1.1	1.3
Tracy	16.8	8/03	10/16	36	2.5	2.0
Coker 136	15.2	8/02	10/05	32	1.9	1.9

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1977 bloom dates only.

Table 19. Three Year Average Yield, First Bloom and Maturity Dates, Plant Height, Lodging, and Shattering of Soybean Varieties at Upper Coastal Plain Substation, 1976 through 1978

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/3/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
-----Three-Year Average Early Planting May 16-----						
McNair 600	29.1	7/20	10/11	37	1.7	1.0
Coker 156	28.3	7/21	10/17	35	1.1	1.3
Lee 74	27.0	7/22	10/16	33	2.4	1.3
Bragg	27.0	7/25	10/21	43	2.8	1.1
Hutton	25.6	7/26	10/20	37	2.7	1.3
Davis	25.3	7/25	10/08	37	1.5	1.5
FR 666	24.7	7/20	10/12	31	1.6	1.0
Tracy	24.3	7/28	10/19	36	2.3	1.1
Centennial	24.3	7/20	10/18	37	1.3	1.0
Forrest	24.0	7/17	9/21	35	1.6	1.0
Lancer	23.9	7/22	10/07	35	1.2	1.4
Essex	23.7	7/18	9/21	26	1.3	1.7
Coker 136	23.2	7/20	9/29	36	1.2	1.0
Mack	22.2	7/17	9/21	32	2.3	1.0
McNair 500	19.4	7/18	9/24	33	1.5	1.0
-----Three-Year Average Late Planting Date June 17-----						
Coker 156	23.7	8/10	10/21	31	1.4	1.5
Lancer	21.6	8/12	10/16	34	1.5	1.6
Lee 74	21.5	8/12	10/17	32	2.3	1.4
Essex	21.4	8/06	10/02	23	1.2	1.8
Ransom	21.2	8/13	10/22	34	1.8	1.4
Forrest	20.9	8/06	10/03	31	1.5	1.2
McNair 600	20.4	8/08	10/15	34	1.8	1.6
Centennial	20.3	8/09	10/20	35	2.0	1.3
McNair 500	19.7	8/06	10/03	31	1.3	1.2
Hutton	19.7	8/14	10/26	36	2.4	1.4
Bragg	19.6	8/13	10/23	41	2.4	1.4
Coker 136	18.6	8/08	10/07	33	1.7	1.6
Tracy	17.8	8/07	10/13	34	2.0	1.7
Davis	17.5	8/15	10/17	35	2.0	1.7

^{1/}Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/}An explanation of data and ratings is given on page 3 of this report.

^{3/}1976 and 1977 bloom dates.

Table 20. Four-Year Average Yield, First Bloom and Maturity Dates, Plant Height, Lodging, and Shattering of Soybean Varieties at Upper Coastal Plains Experiment Station, 1975 through 1978

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/3/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Four-Year Average Early Planting Date May 15						
Coker 156	36.1	7/20	10/16	35	1.2	1.3
McNair 600	36.0	7/19	10/13	36	1.6	1.3
Hutton	34.4	7/25	10/22	39	2.8	1.3
Lee 74	34.1	7/19	10/17	32	2.0	1.3
Davis	33.6	7/25	10/09	37	1.6	1.5
Bragg	33.5	7/24	10/21	42	2.7	1.1
Tracy	32.9	7/17	10/18	36	2.1	1.1
Centennial	32.3	7/18	10/19	38	1.3	1.0
Essex	31.5	7/15	9/23	27	1.2	1.7
Lancer	31.2	7/21	10/28	35	1.2	1.4
FFR 666	30.7	7/19	10/13	30	1.4	1.0
Coker 136	30.3	7/18	9/30	35	1.2	1.0
Forrest	30.2	7/15	9/23	34	1.5	1.0
Mack	29.1	7/16	9/22	32	2.2	1.0
Four-Year Average Late Planting Date June 17						
Lee 74	27.1	8/13	10/18	31	2.1	1.4
Coker 136	26.4	8/13	10/21	31	1.3	1.5
Ransom	26.0	8/15	10/24	34	1.8	1.4
McNair 600	25.4	8/12	10/16	33	1.6	1.6
Bragg	25.2	8/15	10/24	39	2.5	1.4
Forrest	24.9	8/09	10/07	31	1.4	1.2
Hutton	24.5	8/16	10/28	36	2.6	1.4
Centennial	24.1	8/13	10/20	35	1.9	1.3
Essex	23.9	8/09	10/05	23	1.1	1.8
Tracy	23.5	8/12	10/16	33	2.2	1.7
Coker 136	23.1	8/10	10/09	32	1.7	1.6
Davis	22.8	8/16	10/18	34	2.1	1.7

1/ Yields adjusted to 13% moisture and 60 pounds per bushel.

2/ An explanation of data and ratings is given on page 3 of this report.

Table 21. Five-Year Average Yield, First Bloom and Maturity Dates, Plant Height, Lodging, and Shattering of Soybean Varieties at Upper Coastal Plain Substation, 1974 through 1978.

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/3/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
-----Five-Year Average Early Planting Date May 13-----						
McNair 600	37.3	7/17	10/11	36	1.5	1.0
Lee 74	37.1	7/17	10/15	32	2.1	1.3
Hutton	36.7	7/24	10/22	37	2.7	1.3
Davis	36.0	7/25	10/08	38	1.8	1.5
Bragg	36.0	7/22	10/20	42	2.5	1.1
Tracy	35.1	7/15	10/15	35	2.1	1.1
Essex	33.5	7/14	9/22	27	1.1	1.7
Coker 136	32.7	7/16	9/30	36	1.2	1.0
Forrest	32.3	7/13	9/25	34	1.6	1.0
FFR 666	31.8	7/17	10/11	29	1.4	1.0
-----Five-Year Average Late Planting Date June 16-----						
Lee 74	29.7	8/13	10/18	32	2.3	1.4
Ransom	28.8	8/14	10/23	34	1.8	1.4
Forrest	28.0	8/08	10/07	32	1.6	1.2
Bragg	27.2	8/15	10/23	40	2.5	1.4
Tracy	27.0	8/12	10/16	34	2.3	1.7
McNair 600	27.0	8/12	10/15	34	1.7	1.6
Essex	26.9	8/08	10/04	24	1.1	1.8
Hutton	26.8	8/16	10/26	36	2.4	1.4
Coker 136	25.8	8/11	10/10	33	1.7	1.6
Davis	24.9	8/16	10/18	35	2.1	1.7

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1975 through 1977 average bloom dates.

Central Alabama

The tests in central Alabama were located on Houston clay at Marion Junction, Lucedale sandy loam at Prattville, and Forkland sandy loam at Camden. Soybeans of Maturity Group VII are full season varieties in this area. Varieties of maturity Groups V and VI are very early and early, respectively. Maturity Group V varieties were approximately 5 inches shorter in central than northern Alabama locations in 1978.

Coker 136 and Forrest are the tallest Group V varieties planted in the central tests. Their yields are not as high as the full season varieties, but they could be used for early-harvest varieties as they mature between September 20 and 30. At Prattville, Essex has produced slightly better yields than either Coker 136 or Forrest, but its leaf drop tends to be erratic in central and southern locations.

When planted mid-May at central Alabama locations, the maximum yielding varieties for the past 4 to 5 years are: Group V varieties Essex, Forrest, and Coker 136; Group VI varieties Coker 156, Davis, and Lee 74 at Prattville and Coker 156, FFR 666, and Tracy at Marion Junction. Davis and Coker 156 performed better than other Group VI varieties at later plantings at Marion Junction; Group VII varieties Bragg, and Ransom, were superior at the late May and early June plantings; Group VIII varieties Coker 338, Hutton and Cobb performed well at later plantings at Marion Junction and Prattville.

New lines that performed well in 1978 at Marion Junction were Coker 488, Coker 237, McNair 500, F71-1180, and NK Blend 100 for early plantings; and Agripro 70, F71-1180, McNair 3129, Terra Vig 708 when planted at later dates.

Table 22. Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, Shattering, Seed Quality, Purple Stain, and Seed Size of Soybean Varieties when Planted May 15, 1978 at Black Belt Substation

Variety	Yield1/ Bu/A	1st bloom2/ Dates	Maturity2/ Dates	Plant ht.2/ In.	Ht.1st pod2/ In.	Lodging2/ Rating	Shattering2/ Rating	Purple stain2/ Rating	Seed size g/100 seed
Coker 136	40.7 a	7/04	9/14	32	3.0	1.1	1.0	2	12.0
McNair 500	40.4 ab	6/30	9/17	31	2.0	1.5	1.3	1	11.2
Coker 237	40.0 abc	3/	9/29	34	3.8	1.1	1.3	1	11.9
NK Blend 100	39.4 abcd	7/04	9/13	26	2.5	1.0	1.3	1	13.4
Forrest	39.0 abcde	6.28	9/13	25	1.8	1.3	1.0	1	13.0
F71-1180	38.5 abcdef	3/	10/16	40	2.3	1.6	1.0	1	14.8
Coker 488	37.9 abcdef	3/	10/23	41	4.5	1.3	1.0	1	13.4
Davis	37.0 abcdef	3/	9/22	34	2.3	1.4	1.0	1	12.0
RA 700	36.7 abcdef	3/	10/20	42	3.5	2.1	1.5	2	12.5
FFR 557	36.4 abcdef	6/28	9/22	36	3.3	1.1	1.0	1	13.0
Coker 156	36.1 abcdef	3/	9/29	33	3.0	1.0	1.0	2	12.1
Tracy	35.5 abcdef	3/	9/25	36	3.3	2.4	1.0	1	13.9
Coker 338	35.5 abcdef	3/	10/28	38	4.5	1.3	1.0	1	14.3
Essex	35.0 abcdef	6/28	9/12	18	1.5	1.0	1.0	1	14.3
McNair 600	34.8 abcdef	3/	9/27	33	2.0	1.3	1.0	1	11.9
Agripro 70	34.8 abcdef	3/	10/18	43	3.8	1.3	1.1	2	12.2
McNair 3129	34.5 abcdef	3/	10/15	34	3.3	1.0	1.0	3	15.8
Greensoy 64	34.4 abcdef	3/	10/11	32	3.8	1.0	1.0	2	13.3
Govan	34.2 abcdef	3/	10/08	35	3.0	1.0	1.0	1	10.8
McNair 3183	34.1 abcdef	3/	10/10	35	2.5	1.4	1.0	2	13.0
RA 603	33.9 abcdef	3/	10/14	34	2.3	1.0	1.0	2	13.2
McNair 3167	33.6 abcdef	3/	10/04	35	3.5	1.0	1.0	2	11.9
Lancer	33.0 abcdef	7/01	9/21	33	3.5	1.3	1.3	1	12.5
Ransom	32.8 abcdef	3/	10/17	33	4.3	1.1	1.0	2	13.3
FFR 666	32.3 abcdef	3/	9/29	24	2.0	1.0	1.0	2	11.4
FFR 668	32.2 abcdef	3/	10/10	34	3.3	1.3	1.1	2	12.0
Terra Vig 708	32.1 abcdef	3/	10/14	34	3.3	1.0	1.1	2	13.4

Table 22 Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, Shattering, Seed Quality Purple Stain, and Seed Size of Soybean Varieties when Planted May 15, 1978 at Black Belt Substation (Continued)

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating	Purple stain ^{2/} Rating	Seed quality g/100 seed
Hutton	31.7 abcdef	7/22	10/20	39	4.0	2.6	1.1	1	14.5
Ga. Soy 17	31.6 abcdef	3/	10/13	41	5.0	2.3	1.0	1	11.4
Bragg	31.4 bcdef	3/	10/11	41	3.5	1.9	1.0	2	12.3
Cobb	31.3 bcdef	3/	10/29	42	4.5	2.1	1.8	2	12.2
D&PL 5	31.3 bcdef	3/	10/06	33	2.0	1.3	1.0	2	12.2
McNair 3181	31.0 cdef	7/21	10/10	29	2.0	1.0	1.0	1	12.2
F70-2060	30.4 def	3/	10/20	36	4.3	1.3	1.0	2	10.1
FFR 6253	30.0 ef	3/	10/01	30	2.3	1.9	1.5	2	11.3
Dowling	29.9 ef	3/	10/24	38	5.0	1.8	1.6	2	12.1
Centennial	29.6 f	3/	10/08	36	2.8	1.6	1.0	1	10.8
Lee 74	29.5 f	3/	10/06	26	2.5	1.0	1.0	2	12.1
FFR 6143	29.2 f	3/	10/09	32	2.3	1.6	1.0	2	11.2

C.V.% = 15.5 L.S.D. .05 = 7.3

- ^{1/} Adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).
^{2/} An explanation of data and ratings is given on page 3 of this report.
^{3/} Data not taken.
^{4/} Seed quality for all varieties was very good except for F71-1180 which was good.

Table 23. Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, Shattering, Seed Quality^{3/}, Purple Stain, and Seed Size of Soybean Varieties when Planted June 5, 1978 at Black Belt Substation

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
McNair 3129	40.4 a	7/31	10/24	35	3.8	1.0	1.0	2	16.5
F71-1180	37.9 ab	7/30	10/28	40	5.3	1.3	1.0	3	15.5
Agripro 70	36.9 ab	7/31	10/24	40	3.3	1.5	1.0	1	12.6
Terra Vig 708	35.5 abc	7/28	10/24	30	3.3	1.1	1.1	2	13.8
Greensoy 64	35.3 abc	7/26	10/21	31	4.3	1.0	1.0	2	12.4
Coker 338	34.9 abc	8/04	11/11	39	5.0	1.3	1.1	2	15.3
Govan	33.7 abcd	7/31	10/16	33	3.3	1.0	1.0	2	11.4
Ransom	33.5 abcd	7/30	10/22	32	4.5	1.3	1.0	1	13.9
RA 700	33.3 abcd	8/04	10/23	40	5.0	2.3	1.0	1	12.0
Bragg	32.8 abcd	7/30	10/22	38	4.5	2.3	1.0	2	13.8
Ga. Soy 17	32.8 abcd	8/01	10/19	37	4.5	2.4	1.1	1	12.6
Coker 237	32.6 abcd	7/30	10/12	33	4.3	1.4	1.0	2	13.0
FFR 668	32.4 abcd	7/31	10/13	34	4.3	1.8	1.0	3	12.8
Davis	32.2 abcd	7/29	10/03	34	3.0	1.0	1.8	2	11.5
Forrest	31.9 bcd	7/21	9/21	24	3.0	1.0	1.0	1	10/4
Coker 156	31.8 bcd	7/29	10/11	29	3.8	1.0	1.0	2	10/7
Coker 136	31.2 bcd	7/25	9/23	29	3.5	1.1	1.0	1	12.8
Centennial	30.8 bcd	7/28	10/15	36	3.8	1.4	1.0	2	11.7
Lancer	30.2 bcd	7/28	10/02	31	3.8	1.0	1.5	3	12.1
Coker 488	29.8 bcd	8/05	10/30	36	7.0	1.4	1.0	1	14.8
Hutton	28.0 cd	8/02	10/26	36	6.0	2.6	1.0	1	14.0
Dowling	27.9 cd	8/04	10/31	38	6.3	2.5	1.0	1	13.1
Tracy	26.9 cd	7/27	10/02	34	4.8	2.5	1.0	1	12.4
Cobb	26.0 d	8/06	11/07	41	7.8	2.0	1.0	1	13.5

C.V.% = 15.3. L.S.D..05 = 7.0

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).
^{2/} An explanation of data and ratings is given on page 3 of this report.
^{3/} Seed quality was very good for all varieties except Ransom and Cobb which rated good.

Table 24. Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging^{3/}, Shattering^{4/}, Seed Quality, Purple Stain and Seed Size of Soybean Varieties when Planted June 26, 1978 at Black Belt Substation

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Seed quality ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
Coker 338	27.1 a	8/16	11/28	28	6.8	1	1	15.6
Terra Vig 708	25.7 ab	8/14	11/13	28	4.0	1	1	15.6
Cobb	25.4 abc	8/19	11/06	33	5.8	1	1	14.2
F71-1180	24.6 abcd	8/14	11/09	28	5.0	2	2	17.6
McNair 3129	24.2 abcd	8/14	10/31	25	4.0	1	1	17.2
Coker 156	24.0 abcde	8/13	10/24	22	2.8	1	1	14.1
Agripro 70	22.6 abcdef	8/14	11/03	28	4.8	1	1	14.4
Bragg	22.4 abcdef	8/13	10/30	30	5.3	1	1	17.6
RA 700	21.8 abcdef	8/18	11/07	30	4.8	1	1	14.7
Ga. Soy 17	21.2 abcdef	8/14	11/01	27	3.5	1	1	14.8
Hutton	21.0 abcdef	8/15	11/10	25	5.0	1	2	16.7
Greensoy 64	19.5 abcdef	8/12	11/00	21	2.5	1	2	15.6
Govan	18.6 abcdef	8/14	10/29	23	3.3	1	1	11.8
Coker 237	17.6 bcdef	8/13	10/27	21	3.3	1	1	14.3
Coker 488	16.9 bcdef	8/18	11/14	25	3.8	1	1	16.3
Tracy	16.6 cdef	8/12	10/23	25	4.3	1	1	15.2
Dowling	16.2 def	8/17	11/08	26	5.8	2	1	13.7
Davis	15.7 defg	8/14	10/24	22	3.0	1	1	5
Forrest	15.3 efg	8/11	10/14	22	2.0	1	1	10/7
Coker 130	14.8 efg	8/12	10/19	24	4.0	2	2	12.4
Centennial	14.6 fg	8/14	10/25	24	3.5	1	1	14.1
Ransom	7.4 g	8/13	11/05	16	1.8	1	1	14.2

C.V.% 27.7 L.S.D. .05 7.6

^{1/} Adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).

^{2/} An explanation of data and ragings is given on page 3 of this report.

^{3/} There was lodging for any variety except for Bragg and RA 700 which lodged slightly.

^{4/} There was no shattering for any variety except RA 700 which shattered less than 1%.

^{5/} Sample lost.

Table 25 Two-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted May 18 on Black Belt Substation during 1977 and 1978.

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Coker 237	36.8	7/21 ^{3/}	10/08	33	3.1	1.1	1.1
Coker 156	35.4	7/19 ^{3/}	10/06	29	3.0	1.0	1.0
Coker 338	33.8	8/02 ^{3/}	10/29	34	3.5	1.3	1.0
Coker 488	33.4	7/26 ^{3/}	10/25	37	4.0	1.2	1.0
RA 700	33.3	7/27 ^{3/}	10/22	39	3.0	2.1	1.3
Ransom	32.9	7/21 ^{3/}	10/21	31	3.5	1.1	1.0
Davis	32.8	7/25 ^{3/}	9/29	29	2.9	1.2	1.5
Tracy	32.8	7/20 ^{3/}	10/02	31	3.1	2.2	1.0
Ga. Soy 17	32.7	8/01 ^{3/}	10/17	38	4.8	1.8	1.0
Agripro 70	32.7	7/29 ^{3/}	10/19	38	3.9	1.3	1.1
Govan	32.1	7/21 ^{3/}	10/14	30	2.8	1.1	1.0
McNair 600	32.0	7/21 ^{3/}	10/03	32	2.6	1.1	1.0
McNair 3183	31.7	7/20 ^{3/}	10/14	29	2.3	1.3	1.0
D&PL 5	31.5	7/19 ^{3/}	10/10	31	2.3	1.3	1.0
Cobb	30.4	7/27 ^{3/}	10/31	38	3.8	1.6	1.4
Hutton	30.4	7/24 ^{3/}	10/22	34	3.9	1.8	1.1
Centennial	30.1	7/18 ^{3/}	10/10	32	2.8	1.4	1.0
FFR 666	30.0	7/21 ^{3/}	10/04	21	1.9	1.0	1.0
Bragg	29.6	7/25 ^{3/}	10/16	37	3.6	1.7	1.0
Coker 136	29.3	7/15 ^{3/}	9/23	25	2.6	1.1	1.0
Terra Vig 708	28.6	7/26 ^{3/}	10/16	29	3.3	1.0	1.1
Lee 74	28.4	7/19 ^{3/}	10/09	23	2.0	1.0	1.0
Forrest	26.9	7/09	9/21	20	1.6	1.1	1.0
Essex	24.9	7/05	9/13	16	1.5	1.0	1.4
Lancer	23.4	7/12	10/02	25	2.8	1.1	1.1

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1977 Bloom dates only.

Table 26 Two-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, and Lodging of Soybean Varieties Planted on Black Belt Substation During 1977 and 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st Pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
-----Two-year average planting June 6-----							
Ransom	34.1	7/31	10/25	29	4.0	1.1	1.0
Coker 156	32.5	7/30	10/14	28	3.8	1.0	1.0
Bragg	30.6	8/00	10/22	34	3.9	1.8	1.0
Centennial	30.2	7/28	10/15	31	3.6	1.3	1.0
Coker 338	30.0	8/06	11/05	35	3.6	1.4	1.1
Davis	28.8	7/29	10/07	29	2.9	1.0	1.4
Hutton	28.6	8/03	10/25	32	4.1	1.8	1.0
Tracy	26.4	7/28	10/08	29	3.8	2.5	1.0
Forrest	25.2	7/23	9/28	20	2.3	1.0	1.0
Lancer	25.2	8/02	10/08	25	2.6	1.0	1.3
Cobb	24.4	8/05	11/05	36	5.1	1.6	1.0
Coker 136	23.5	7/27	11/02	22	2.6	1.1	1.1
-----Two-year average planting June 27-----							
Coker 338	23.7	8/17	11/17	26	4.8	1.1	1.0
Bragg	23.2	8/14	10/29	26	3.9	1.4	1.0
Cobb	20.6	8/19	11/06	29	4.4	1.1	1.1
Coker 156	18.2	8/12	10/24	20	2.3	1.0	1.0
Hutton	16.8	8/16	11/05	23	3.4	1.1	1.0
Davis	16.6	8/15	10/24	21	2.3	1.1	1.2
Centennial	15.3	8/14	10/27	21	2.4	1.1	1.0
Forrest	14.0	8/11	10/18	20	1.5	1.0	1.0
Coker 136	13.3	8/13	10/25	21	3.0	1.0	1.0
Tracy	12.9	8/14	10/27	20	2.6	1.1	1.0
Ransom	10.8	8/14	11/08	18	1.8	1.0	1.0

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1977 shattering average only.

Table 27 Three-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties when Planted May 16 on Black Belt Substation 1976 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Coker 156	38.3	7/18 ^{3/}	10/08	30	3.3	1.0	1.0
FFR 666	35.4	7/17 ^{3/}	10/05	23	2.5	1.0	1.1
McNair 600	34.8	7/19 ^{3/}	10/04	31	2.8	1.3	1.0
Coker 338	34.4	7/28 ^{3/}	10/25	35	3.6	1.4	1.1
Tracy	33.9	7/17 ^{3/}	10/04	31	3.7	2.1	1.3
Centennial	33.3	7/17 ^{3/}	10/10	32	2.8	1.5	1.2
Ransom	32.5	7/20 ^{3/}	10/18	31	3.8	1.1	1.0
Davis	32.3	7/23 ^{3/}	9/30	29	2.5	1.2	1.5
Coker 136	31.9	7/14	9/24	27	2.9	1.2	1.0
Lee 74	31.7	7/18 ^{3/}	10/09	25	2.7	1.3	1.1
Hutton	30.8	7/23	10/20	34	3.8	2.0	1.0
Cobb	30.1	7/27 ^{3/}	10/27	39	3.9	1.6	1.6
Bragg	29.9	7/23 ^{3/}	10/15	36	3.9	1.8	1.1
Essex	29.6	7/05	9/15	18	1.7	1.1	1.4
Forrest	29.5	7/10	9/21	23	2.1	1.1	1.0
Lancer	26.2	7/13	10/02	27	2.7	1.2	1.3

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1976 and 1977 average bloom date.

Table 28 Three-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties when Planted on Black Belt Substation During 1976 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st Pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
-----Three-year averages planted June 4-----							
Ransom	36.3	7/29	10/22	32	4.1	1.4	1.0
Coker 156	35.4	7/27	10/14	32	3.8	1.3	1.0
Bragg	31.4	7/30	10/19	37	3.8	2.1	1.0
Centennial	31.3	7/26	10/14	33	3.3	1.4	1.0
Coker 338	31.1	8/04	10/31	37	3.8	2.0	1.1
Davis	30.7	7/30	10/09	31	3.1	1.2	1.3
Hutton	30.6	8/01	10/22	33	4.2	2.3	1.0
Tracy	29.3	7/26	10/11	31	3.5	2.5	1.3
Forrest	29.0	7/22	9/28	25	2.8	1.3	1.0
Lancer	28.4	7/31	10/08	29	2.9	1.3	1.4
Cobb	27.1	8/03	11/01	38	4.9	1.8	1.3
Coker 136	26.7	7/26	10/02	27	3.4	1.4	1.1
-----Three-year average planting June 25-----							
Coker 338	27.2	8/16	11/10	29	4.3	1.1	1.0 ^{4/}
Bragg	26.4	8/12	10/26	29	3.8	1.3	1.0
Hutton	23.6	8/15	11/01	26	3.5	1.3	1.0
Coker 156	23.5	8/10	10/23	23	2.3	1.0	1.1
Davis	23.3	8/14	10/24	24	2.0	1.0	1.1
Cobb	23.0	8/16	11/05	32	4.8	0	1.0 ^{4/}
Forrest	21.9	8/09	10/15	23	1.8	1.0	1.0
Centennial	20.8	8/12	10/24	25	2.3	1.1	1.1
Tracy	20.7	8/11	10/26	24	2.4	1.2	1.2
Coker 135	17.1	8/11	10/21	23	2.7	1.0	1.2
Ransom	16.1	8/12	11/03	21	2.0	1.0	1.0

^{1/} Adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1977 Shattering average only.

^{4/} 1977 and 1978 shattering rating.

Table 29 Four-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted May 16 on Black Belt Substation during 1975 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Coker 156	37.8	7/16 ^{3/}	10/06	30	3.2	1.1	1.0
FFR 666	34.9	7/15 ^{3/}	10/05	23	2.4	1.0	1.1
Tracy	34.3	7/16 ^{3/}	10/04	31	3.9	2.2	1.3
McNair 600	33.9	7/17 ^{3/}	10/04	31	3.1	1.3	1.0
Centennial	33.7	7/15 ^{3/}	10/09	33	3.4	1.5	1.2
Ransom	33.0	7/18 ^{3/}	10/18	31	4.4	1.2	1.0
Davis	32.4	7/22 ^{3/}	9/30	30	2.8	1.3	1.5
Lee 74	32.4	7/17 ^{3/}	10/08	26	2.9	1.3	1.1
Hutton	31.0	7/23	10/20	34	4.0	2.1	1.0
Coker 136	30.9	7/14	9/23	28	3.3	1.2	1.0
Bragg	30.5	7/22 ^{3/}	10/16	36	4.8	1.8	1.1
Essex	29.5	7/04	9/13	19	1.8	1.1	1.4
Forrest	28.9	7/09	9/20	24	2.6	1.1	1.0
Lancer	27.4	7/14	10/02	29	2.9	1.3	1.3

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page ³ of this report.

^{3/} 1975 through 1977 bloom dates only.

Table 30 Four-Year Average Yield, Date of First Bloom and Maturity, Plant and First Pod Height, Lodging and Shattering of Soybean Varieties when Planted on Black Belt Substation During 1975 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
-----Four-year averages planted June 4-----							
Ransom	33.4	7/28	10/20	31	4.4	1.3	1.0
Coker 156	33.0	7/26	10/13	31	3.8	1.2	1.0
Centennial	30.5	7/25	10/14	34	3.7	1.6	1.0
Davis	29.4	7/29	10/08	32	3.6	1.4	1.3
Bragg	29.2	7/39	10/19	36	4.4	1.9	1.0
Coker 338	29.0	8/03	10/29	36	4.3	2.1	1.1
Tracy	28.7	7/25	10/10	32	3.9	2.3	1.3
Hutton	28.5	8/00	10/23	33	4.9	2.2	1.0
Forrest	26.7	7/21	9/28	26	3.1	1.3	1.0
Coker 136	25.1	7/25	10/02	28	3.8	1.4	1.1
-----Four-year averages planted June 23-----							
Coker 338	26.6	8/14	11/06	30	4.9	1.2	
Hutton	25.0	8/14	10/29	27	4.4	1.7	1.0
Bragg	24.8	8/11	10/25	28	4.3	1.4	1.0
Davis	24.6	8/13	10/21	26	2.6	1.5	1.1
Cobb	24.0	8/15	11/03	34	5.1	1.4	1.0
Coker 156	23.5	8/09	10/20	24	2.6	1.0	1.1
Centennial	23.4	8/10	10/22	27	2.9	1.3	1.1
Tracy	22.6	8/09	10/23	26	2.8	1.3	1.2
Forrest	21.8	8/07	10/13	24	2.4	1.1	1.0
Coker 136	19.0	8/09	10/17	25	3.4	1.1	1.2
Ransom	17.7	8/11	10/31	23	2.9	1.0	1.0

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

Table 31 Five-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted at Two Planting Dates on Black Belt Substation during 1974 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
-----Five-year average planting date May 17-----							
Tracy	37.1	7/14 ^{3/}	10/04	31	3.6	2.0	1.3
FFR 666	36.4	7/13 ^{3/}	10/04	21	2.1	1.0	1.1
Ransom	35.3	7/16 ^{3/}	10/17	30	4.3	1.2	1.0
McNair 600	35.1	7/15 ^{3/}	10/04	31	3.3	1.3	1.0
Davis	34.3	7/21 ^{3/}	9/29	32	2.9	1.4	1.5
Coker 136	33.6	7/13	9/23	28	3.5	1.3	1.0
Lee 74	33.6	7/15 ^{3/}	10/08	25	2.8	1.2	1.1
Hutton	32.8	7/22	10/19	35	4.3	2.0	1.0
Forrest	32.2	7/08	9/19	25	2.9	1.1	1.0
Bragg	31.8	7/20 ^{3/}	10/15	37	5.1	1.6	1.1
Essex	31.2	7/05	9/12	19	1.8	1.0	1.4
-----Five-year average planting date June 22-----							
Coker 338	28.8	8/14	11/05	31	4.8	1.4	1.0 ^{4/}
Davis	26.8	8/13	10/21	28	2.8	1.4	1.1
Bragg	26.0	8/11	10/24	31	4.3	1.4	1.0
Hutton	25.6	8/14	10/28	28	4.3	1.6	1.0
Tracy	25.3	8/09	10/21	27	2.8	1.4	1.2
Cobb	24.9	8/16	11/04	36	5.0	1.5	1.0
Forrest	23.2	8/07	10/13	25	2.6	1.2	1.0
Coker 136	21.4	8/10	10/16	27	3.6	1.2	1.2
Ransom	20.6	8/10	10/30	25	3.1	1.1	1.0

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1974-1977 bloom dates.

^{4/} 1977 and 1978 shattering ratings only.

Table 32. Two-year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, and Shattering of Soybean Varieties Planted May 20 on Lower Coastal Plain Substation, 1976 and 1978^{3/}

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Date	Maturity ^{2/} Date	Plant ^{2/} ht. In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating
McNair 3129	28.0	7/30	10/18	28.5	5.4	2.1
Bragg	26.9	8/02	10/20	32.5	5.4	1.9
Coker 156	26.2	7/27	10/07	25.5	4.2	1.2
Ransom	26.0	8/02	10/20	28.5	5.8	1.2
Coker 338	25.5	8/04	10/27	32.0	5.4	2.1
McNair 600	25.5	7/27	10/07	26.5	4.2	2.1
Lancer	24.8	7/31	10/05	26.5	4.4	1.3
FFR 666	24.7	7/21	10/08	21.5	2.9	1.8
Hutton	24.5	8/06	10/21	31.5	4.8	1.4
Centennial	24.5	7/29	10/12	28.5	3.5	1.7
Cobb	24.1	8/09	10/25	35.0	5.0	1.8
Tracy	23.8	7/27	10/06	26.5	3.9	1.8
Davis	23.5	8/02	10/06	26.0	4.3	1.8
Forrest	22.6	7/21	9/25	24.0	4.7	1.8
McNair 500	22.5	7/25	9/27	22.5	3.5	1.8
Lee 74	22.2	7/27	10/09	22.0	3.3	1.8
Essex	21.4	7/19	9/22	18.0	3.9	1.0
Coker 136	21.2	7/25	9/25	26.0	5.4	1.5

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} There were no yields taken in 1977 due to lesser corn stalk borer and dry weather.

Table 33 Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, Shattering^{3/}, Seed Quality, Purple Stain, and Seed Size of Soybean Varieties Planted May 1978 on Lower Coastal Plain Substation, 1978

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Seed ^{2/} quality Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
Coker 237	15.8 a	8/08	10/14	29	5.0	1.3	1	2	10.2
McNair 3129	15.0 ab	8/10	10/23	30	4.8	1.8	1	1	14.3
RA 700	15.0 ab	8/15	10/24	37	5.8	2.0	1	1	10.5
Ga. Soy 17	14.9 ab	8/11	10/23	38	7.0	1.0	1	1	12.1
Essex	14.6 ab	7/25	9/26	17	2.8	1.0	1	2	11.0
Coker 156	14.5 abc	8/03	10/09	28	4.3	1.0	2	1	10.2
Ransom	14.4 abc	8/11	10/22	30	5.5	1.0	1	1	10.9
McNair 600	14.2 abcd	8/05	10/10	26	4.3	1.8	1	2	9.7
F71-1180	14.1 abcd	8/08	10/27	35	6.0	1.0	1	1	13.1
Centennial	14.0 abcd	8/06	10/16	29	4.0	1.8	1	1	10.1
Agripro 70	13.4 abcde	8/12	10/23	38	7.3	1.0	1	1	10.5
Forrest	13.1 abcdef	7/28	9/27	23	4.3	1.8	1	1	9.0
McNair 3183	13.1 abcdef	8/13	10/26	26	4.0	1.0	1	2	12.0
D74-7741	13.1 abcdef	7/29	10/10	27	3.8	1.5	1	2	9.9
Davis	12.9 abcdef	8/08	10/10	27	4.5	1.8	1	3	10.2
Greensoy 64	12.8 abcdef	7/30	10/12	24	4.0	1.0	2	1	9.7
Tracy	12.7 abcdef	8/03	10/10	28	4.8	1.5	2	2	11.0
FFR 666	12.7 abcdef	7/27	10/11	21	2.8	1.3	1	2	9.3
FFR 557	12.7 abcdef	8/04	9/28	32	5.0	1.3	1	1	10.4
RA 680	12.7 abcdef	8/06	10/13	29	5.3	1.3	2	1	10.4
Bragg	12.5 abcdef	8/11	10/24	33	5.8	1.8	1	1	11.2
Hutton	12.5 abcdef	8/12	10/28	34	6.5	1.0	1	1	13.0
Coker 488	12.5 abcdef	8/13	11/00	37	6.3	1.3	1	2	13.2
FFR 668	12.4 abcdef	8/11	10/22	32	5.0	1.3	1	1	11.1

(Continued)
 Table 32 Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, Shattering^{3/}, Seed Quality, Purple Stain, and Seed Size of Soybean Varieties Planted May 1978 on Lower Coastal Plain Experiment Station

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Seed ^{2/} quality Rating	Purple stain ^{2/} Rating	Seed size gm/100 seed
McNair 500	12.3 abcdef	7/30	9/27	24	4.0	1.5	1	1	6.7
F70-2060	12.3 abcdef	8/11	10/24	31	5.3	1.5	1	2	8.9
Coker 136	12.1 abcdef	7/30	9/28	26	4.8	1.5	2	2	11.6
Lee 74	12.1 abcdef	8/02	10/12	22	2.5	1.5	1	2	9.8
Terra Vig 708	12.1 abcdef	8/07	10/26	28	4.5	1.5	2	2	11.4
KN Blend 100	11.7 abcdef	7/26	9/27	22	4.0	1.5	1	1	12.0
RA 603	11.7 abcdef	7/27	10/15	26	4.0	1.3	1	1	10.1
Lancer	11.6 abcdef	8/08	10/11	28	4.8	1.3	2	3	12.6
McNair 3182	11.5 abcdef	8/02	10/15	27	5.5	1.0	2	3	10.8
D&PL 5	11.3 abcdef	8/05	10/13	26	4.0	2.0	1	2	9.9
Coker 338	10.6 bcdef	8/12	11/01	34	5.8	1.8	1	1	12.0
McNair 3167	9.9 cdef	7/31	10/12	29	4.5	1.3	1	1	9.6
Govan	9.6 def	8/11	10/21	32	5.3	1.0	1	2	10.0
Dowling	8.9 ef	8/12	11/01	34	6.5	1.3	1	2	11.5
Cobb	8.4 f	8/15	11/01	37	6.0	1.3	1	2	11.0

C.V.% = 21.4 L.S.D. .05 = 3.73

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} There were none that shattered except for Cobb which shattered less than 1%

Table 34. Yield, First Bloom, Date of Maturity, Plant and 1st Pod Height, Lodging^{3/}, Shattering, Seed Quality, Purple Stain, and Seed Size of Soybean Varieties when Planted May 16, 1978 at Prattville Experiment Field.

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Shattering ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
Essex	29.7 a	7/01	9/09	18	4.3	1.8	2	15.6
Forrest	27.1 ab	7/05	9/12	28	5.0	1.8	1	11.2
Coker 136	25.2 abc	7/07	9/11	31	7.8	1.5	1	12.5
D74-7741	24.2 bc	7/07	9/20	29	6.3	1.6	1	10.9
NK Blend 100	23.3 bc	7/01	9/11	26	4.8	2.1	1	12.8
McNair 500	22.3 bcd	7/06	9/11	31	6.3	2.0	1	10.4
Davis	20.5 cde	7/15	9/23	36	6.5	2.0	1	10.3
Lancer	20.3 cde	7/10	9/18	29	6.8	1.6	1	11.2
Greensoy 64	17.2 def	7/06	9/29	32	6.0	1.1	2	11.0
Coker 156	16.8 ef	7/09	10/02	27	2.8	1.0	1	8.9
McNair 3182	16.5 ef	7/09	10/02	29	4.8	1.0	1	12.3
Tracy	16.2 efg	7/05	10/02	34	3.8	1.5	1	11.9
McNair 3129	15.9 efg	7/15	10/11	35	4.5	1.0	3	12.0
RA 680	14.6 fgh	7/07	9/28	33	2.8	1.0	1	8.8
FFR 557	14.5 fgh	7/09	9/22	31	4.0	1.4	1	10.8
Lee 74	14.0 fghi	7/13	10/09	22	2.5	1.0	1	10.5
F71-1180	13.9 fghij	7/17	10/20	37	6.3	1.0	2	12.3
McNair 600	13.8 fghij	7/07	9/30	30	4.0	1.1	2	10.2
McNair 3183	13.8 fghij	7/17	10/07	30	6.0	1.0	1	11.4
Coker 338	12.9 fghij	7/19	10/25	36	7.0	1.0	1	12.0
Dowling	12.9 fghij	7/20	10/26	40	8.3	1.0	1	11.7
Coker 488	12.8 fghij	7/20	10/23	39	8.0	1.0	1	12.6
FFR 668	12.3 fghij	7/17	10/16	31	5.0	1.0	1	11.4
Ransom	11.9 fghij	7/13	10/10	34	6.5	1.1	1	10.7
Coker 237	11.9 fghij	7/12	10/05	31	5.3	1.0	1	12.2
Centennial	11.7 fghij	7/11	10/10	33	5.3	1.0	2	10.2

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Table 34 Yield, First Bloom, Date of Maturity, Plant and 1st Pod Height, Lodging^{3/}, Shattering, Seed Quality, Purple Stain, and Seed Size of Soybean Varieties when Planted May 16, 1978 at Prattville Experiment

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st Pod ^{2/} In.	Shattering ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
Terra Vig 708	11.6	fghij 7/12	10/11	33	5.8	1.0	1	10.7
Govan	11.4	fghij 7/15	10/12	33	5.5	1.0	1	9.5
Ga. Soy 17	11.3	fghij 7/18	10/20	39	7.0	1.0	2	12.4
McNair 3181	10.5	ghij 7/17	10/03	27	3.0	1.0	2	8.9
Hutton	10.3	ghij 7/17	10/21	37	6.3	1.0	1	12.2
FFR 6143	10.3	ghij 7/18	10/15	31	5.5	1.0	2	10.5
FFR 666	9.8	hij 7/07	9/27	16	1.0	1.4	1	11.1
Agripro 70	9.6	hij 7/21	10/15	43	6.3	1.0	1	10.1
Cobb	9.5	hij 7/20	10/25	42	8.0	1.0	1	11.5
RA 700	9.4	hij 7/21	10/18	42	6.8	1.1	1	12.3
Bragg	8.5	hij 7/15	10/11	39	5.8	1.0	2	9.4
F70-2060	8.0	ij 7/17	10/09	34	6.3	1.0	1	9.0
D&PL 5	7.9	j 7/11	10/09	31	3.8	1.0	1	11.2

C.V. = 24 L.S.D. = 4.9

^{1/} Yield adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} There was no lodging for any variety except for McNair 500, Davis, and Hutton which averaged a lodging rating of two.

^{4/} The seed quality for all varieties was very good.

Table 35. Yield, Maturity Dates, Plant and First Pod Heights, Lodging, Shattering, Seed Quality, Purple Stain, and Seed Size of Soybean Varieties when Planted July 5, 1978 at Prattville Experiment Field

Variety	Yield ^{1/} Bu/A	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating	Seed size g/100 seed
F71-1180	26.0 a	10/27	31	4.8	1.3	1.0	16.6
Ga. Soy 17	24.6 ab	10/28	32	4.5	1.3	1.0	14.3
Coker 488	24.5 ab	10/28	31	5.5	1.5	1.1	13.2
Dowling	24.3 abc	11/01	31	4.3	1.3	1.0	13.4
Davis	23.8 abc	10/20	28	3.5	1.1	1.9	13.0
McNair 3129	23.6 abc	10/28	31	4.0	1.8	1.0	14.0
Govan	23.5 abc	10/25	30	4.5	1.0	1.0	12.1
Terra Vig 708	23.3 abc	10/30	32	4.0	1.5	1.0	13.4
Bragg	23.2 abc	10/24	32	4.5	1.9	1.0	13.5
Hutton	23.2 abc	10/28	31	6.3	1.1	1.1	14.4
Coker 338	22.7 abc	11/01	33	4.8	1.9	1.0	15.7
Centennial	22.6 abc	10/20	30	5.0	1.0	1.1	11.9
Coker 156	22.6 abc	10/23	24	3.0	1.0	1.3	13.6
Cobb	22.3 abc	11/01	36	4.3	2.0	1.3	13.5
Agripro 70	22.1 abc	10/23	34	5.0	1.0	1.0	12.9
Coker 237	21.7 abc	10/22	27	4.5	1.0	1.9	13.2
RA 700	21.3 abc	10/30	33	4.3	1.4	1.0	13.9
Ransom	21.0 abc	10/28	26	4.5	1.0	1.1	14.7
Tracy	19.0 bc	10/20	29	4.0	1.3	1.4	13.4
Forrest	18.3 bc	10/12	28	4.0	1.3	1.6	9.7
Coker 136	17.3 c	10/14	28	4.8	1.6	1.0	12.0

C.V.% = 17.9 L.S.D. .05 = 22.4

- 1/ Yield adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).
- 2/ An explanation of data and ratings is given on page 3 of this report.
- 3/ Seed quality was very good for all varieties.
- 4/ Purple stain was absent from all varieties except for Forrest and Coker 136 which rated from 1 to 3%.

Table 36 Two-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted May 21 at Prattville Experiment Field, 1977 and 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Essex	27.6	7/07	9/06	18	3.1	1.0	1.9
McNair 3183	25.4	7/21	10/14	35	5.3	1.1	1.0
Coker 156	25.2	7/14	10/06	31	3.6	1.0	1.0
Forrest	25.0	7/09	9/10	26	4.4	1.0	1.4
Lancer	24.0	7/15	9/23	30	6.0	1.0	1.6
Coker 136	23.7	7/11	9/12	29	6.3	1.0	1.3
Lee 74	23.3	7/17	10/13	25	3.5	1.2	1.0
Ga. Soy 17	23.1	7/27	10/21	43	7.1	1.4	1.0
Coker 237	23.1	7/18	10/11	34	5.4	1.1	1.0
Davis	23.0	7/17	9/26	38	6.1	1.9	1.6
Tracy	23.0	7/11	10/03	37	4.1	1.9	1.3
Terra Vig 708	22.8	7/17	10/10	35	5.4	1.2	1.0
Govan	22.1	7/21	10/18	38	5.9	1.2	1.0
McNair 600	21.6	7/14	10/03	36	4.4	1.6	1.1
Ransom	21.6	7/18	10/14	37	5.3	1.3	1.1
D&PL 5	21.2	7/17	10/12	35	4.4	1.5	1.0
Bragg	21.1	7/20	10/16	42	6.5	1.5	1.0
Coker 488	21.0	7/24	10/25	43	7.4	1.1	1.0
Cobb	20.8	7/23	10/25	44	7.6	1.3	1.0
Centennial	20.8	7/13	10/11	31	5.0	1.3	1.0
Coker 338	20.3	7/24	10/26	40	6.6	1.6	1.0
Hutton	20.0	7/22	10/22	40	6.3	1.8	1.0
RA 700	20.0	7/25	10/20	43	6.9	1.6	1.1
Agripro 70	20.0	7/21	10/16	45	7.4	1.6	1.0
FFR 666	19.1	7/14	10/00	21	2.1	1.1	1.2

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report. First bloom not taken 1976.

Table 37. Three-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted May 19 at Prattville Field 1976 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Coker 156	31.2	7/14 ^{3/}	10/08	31	3.3	1.1	1.0
Essex	30.8	7/07 ^{3/}	9/12	19	3.5	1.0	1.9
Lancer	29.9	7/15 ^{3/}	9/26	30	4.9	1.0	1.4
Ransom	29.6	7/18 ^{3/}	10/14	35	5.9	1.7	1.0
Davis	29.5	7/17 ^{3/}	9/29	34	4.8	1.9	1.4
Lee 74	29.2	7/17 ^{3/}	10/13	27	2.9	1.5	1.0
Forrest	28.8	7/09 ^{3/}	9/18	27	4.4	1.3	1.3
McNair 600	28.7	7/14 ^{3/}	10/06	34	3.7	1.9	1.0
Cobb	28.4	7/23 ^{3/}	10/22	42	6.7	1.8	1.0
Coker 338	28.3	7/24 ^{3/}	10/23	39	5.8	1.9	1.0
Coker 136	28.1	7/11 ^{3/}	9/16	31	6.0	1.2	1.2
Bragg	28.1	7/20 ^{3/}	10/16	41	5.8	2.0	1.0
Centennial	26.6	7/13 ^{3/}	10/11	32	4.4	1.5	1.0
Hutton	26.5	7/22 ^{3/}	10/20	39	5.2	2.5	1.0
Tracy	26.4	7/11 ^{3/}	10/04	35	3.3	1.9	1.2
FFR 666	26.1	7/14 ^{3/}	10/04	23	2.0	1.4	1.1

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report. First bloom not taken 1976 on first planting.

^{3/} First bloom dates for 1977 and 1978 only.

Table 38 Two and Three Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging and Shattering of Soybean Varieties Planted at Prattville Experiment Field

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
-----Two-year average, planted June 28, 1977 and 1978-----							
Hutton	31.6	8/10 ^{3/}	10/29	32	5.0	1.3	1.1
Cobb	31.2	8/15 ^{3/}	11/01	34	3.4	1.6	1.1
Coker 338	31.1	8/13 ^{3/}	11/01	33	4.1	1.8	1.0
Bragg	29.7	8/09 ^{3/}	10/26	31	3.6	1.8	1.0
Ransom	27.7	8/09 ^{3/}	10/29	27	3.6	1.2	1.1
Centennial	27.1	8/04 ^{3/}	10/19	31	4.6	1.4	1.1
Davis	26.8	8/08 ^{3/}	10/19	29	3.6	1.3	1.4
Tracy	24.4	8/05 ^{3/}	10/20	30	3.8	1.7	1.2
Coker 136	24.2	8/02 ^{3/}	10/13	27	4.1	1.5	1.0
Forrest	20.3	8/01 ^{3/}	10/12	26	3.3	1.5	1.3
-----Three-year average planted June 26, 1976 through 1978-----							
Coker 338	33.1	8/13 ^{4/}	10/28	33	3.8	2.1	1.0
Cobb	33.0	8/14 ^{4/}	10/29	34	3.4	1.9	1.1
Hutton	32.9	8/12 ^{4/}	10/26	32	4.3	1.9	1.0
Bragg	31.7	8/09 ^{4/}	10/24	33	3.9	2.3	1.0
Ransom	30.9	8/09 ^{4/}	10/26	28	4.2	1.6	1.0
Centennial	29.7	8/05 ^{4/}	10/18	31	4.3	1.5	1.0
Tracy	28.7	8/05 ^{4/}	10/17	30	3.9	1.9	1.1
Coker 136	28.2	8/03 ^{4/}	10/11	28	4.5	1.4	1.0
Davis	27.9	8/10 ^{4/}	10/17	28	3.3	1.5	1.3
Forrest	26.1	8/01 ^{4/}	10/09	27	3.6	1.5	1.2

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1st blooming dates are for 1977 only.

^{4/} 1st blooming dates are averages for 1976 and 1977.

Table 39 Four-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Shattering, and Lodging of Soybean Varieties Planted at Prattville Experiment Field, 1975 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
-----Four-year average early planting date May 20-----							
Essex	35.0	7/06 ^{3/}	9/13	22	3.6	1.1	1.9
Coker 156	32.2	7/15 ^{3/}	10/08	33	4.3	1.5	1.0
Ransom	31.3	7/18 ^{3/}	10/15	36	6.0	1.9	1.0
Coker 338	31.3	7/24 ^{3/}	10/24	39	5.7	2.1	1.0
Coker 136	31.1	7/12 ^{3/}	9/17	32	6.3	1.7	1.2
Forrest	31.0	7/08 ^{3/}	9/18	29	5.2	1.8	1.3
Davis	30.7	7/26 ^{3/}	9/29	35	5.4	2.3	1.4
Lee 74	30.1	7/16 ^{3/}	10/13	28	3.8	1.8	1.0
McNair 600	29.9	7/16 ^{3/}	10/07	35	4.4	2.2	1.0
Lancer	29.5	7/16 ^{3/}	9/27	32	5.8	1.3	1.4
Hutton	29.3	7/23 ^{3/}	10/21	39	5.3	2.9	1.0
Tracy	29.0	7/09 ^{3/}	10/05	36	5.8	2.1	1.2
Bragg	29.0	7/20 ^{3/}	10/16	41	6.5	2.5	1.0
FFR 666	28.5	7/13 ^{3/}	10/04	25	2.7	1.6	1.1
Centennial	28.1	7/12 ^{3/}	10/11	34	5.2	1.8	1.0
-----Four-year average late planting date June 25-----							
Cobb	33.4	8/14 ^{4/}	10/30	35	3.5	2.1	1.1
Coker 338	32.5	8/11 ^{4/}	10/27	33	3.6	2.2	1.0
Hutton	32.4	8/11 ^{4/}	10/26	32	4.4	2.3	1.0
Bragg	31.1	8/08 ^{4/}	10/23	33	3.9	2.4	1.0
Ransom	29.6	8/08 ^{4/}	10/25	28	4.4	1.8	1.0
Tracy	29.2	8/05 ^{4/}	10/17	30	3.9	2.0	1.1
Centennial	28.9	8/04 ^{4/}	10/17	32	4.7	2.0	1.0
Coker 136	27.9	8/04 ^{4/}	10/10	29	4.6	1.7	1.0
Davis	27.5	8/09 ^{4/}	10/17	30	3.4	2.0	1.3
Forrest	27.5	8/01 ^{4/}	10/08	27	3.6	2.1	1.2

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} First bloom date for 1975, 1977, and 1978.

^{4/} First bloom date for 1975 through 1977 only.

Table 40 Five-Year Averages for Yield, First Bloom, and Maturity Dates, Plant and First Pod Heights, Lodging and Shattering of Soybean Varieties Planted at Prattville Experiment Field 1974 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
-----Five year average early planting May 19-----							
Essex	37.0	7/09 ^{3/}	9/15	22	3.8	1.1	1.9
Ransom	34.5	7/20 ^{3/}	10/16	37	6.3	1.9	1.0
Forrest	33.8	7/10 ^{3/}	9/19	30	5.1	1.7	1.3
Davis	33.7	7/21 ^{3/}	10/00	36	5.5	2.4	1.4
Coker 136	33.6	7/15 ^{3/}	9/19	34	6.4	1.6	1.2
Coker 338	33.5	7/24 ^{3/}	10/24	40	5.5	2.2	1.0
Tracy	33.2	7/14 ^{3/}	10/06	37	5.9	2.4	1.2
Lee 74	33.1	7/18 ^{3/}	10/13	30	4.4	1.9	1.0
McNair 600	32.4	7/15 ^{3/}	10/07	36	4.8	2.5	1.0
Hutton	32.1	7/25 ^{3/}	10/21	39	5.5	3.1	1.0
Bragg	31.6	7/22 ^{3/}	10/16	42	6.8	2.9	1.0
FFR 666	31.3	7/15 ^{3/}	10/05	26	2.9	1.6	1.1
-----Five year average late planting date June 24-----							
Cobb	34.5	8/10 ^{4/}	11/01	36	3.8	2.3	1.1
Coker 338	32.6	8/10 ^{4/}	10/28	34	3.8	2.3	1.0
Hutton	32.3	8/11 ^{4/}	10/27	32	4.3	2.3	1.0
Bragg	31.5	8/08 ^{4/}	10/25	33	4.1	2.6	1.0
Tracy	29.3	8/05 ^{4/}	10/21	31	3.8	2.2	1.1
Davis	28.9	8/09 ^{4/}	10/17	30	3.1	2.1	1.3
Ransom	28.5	8/08 ^{4/}	10/27	29	4.3	1.7	1.0
Coker 136	28.3	8/05 ^{4/}	10/11	29	4.3	1.8	1.0
Forrest	27.5	8/02 ^{4/}	10/09	27	3.4	2.3	1.2

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} First bloom dates for 1974, 1975, 1977, and 1978 only for early planting date.

^{4/} First bloom dates for 1974, 1975, and 1977 only for late planting date.

Southern Alabama

The tests in southern Alabama were on Benndale sandy loam at Brewton, Malbis fine sandy loam at Fairhope, Lucedale sandy loam at Monroeville, and Dothan sandy loam at Headland. Soybean of Maturity Group VIII are full season varieties in the southern Alabama locations. For a full season variety to yield well it must have good rainfall during pod fill period (usually during September and early October). As can be seen by Table 1, there has been excellent rainfall at all southern locations for 4 of the past 5 years at Brewton and Headland, 2 of the past 3 years at Monroeville, and for each of the past 5 years at Fairhope. Because of excellent rainfall during pod fill the leading 4 or 5 varieties at each location are Maturity Group VII or VIII varieties.

Hutton, Coker 338, and Cobb have been consistent high yielders at both Brewton and Fairhope.

Ransom and Bragg were frequently among the five or six top yielding varieties in the southern locations for the past 5 years.

McNair 600, Davis, and Tracy have been the best yielding Group VI varieties in southern locations.

Lines that have performed well for the past 3 years were Coker 156 at Fairhope, Brewton and Monroeville. For the past 2 years Ga Soy 17, McNair 3183, Coker 237, and Agripro 70 were high yielding lines at Brewton (early planting), Fairhope, and Monroeville.

New lines that performed well in southern Alabama in 1978 were Dowling, F71-1180, F70-2060, FFR 668, and FFR 6143. These lines were among the top three yielding entries in one or more of the four southern locations with Dowling yielding 41 bu/A at Brewton in late planting.

Table 41 Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging^{3/}, Shattering^{4/}, Seed Quality^{5/}, Purple Stain, and Seed Size of Soybean Varieties when Planted May 30, 1978 on Brewton Experiment Field

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Purple stain ^{2/} Rating	Seed size g/100 seed
Dowling	36.5 a	7/30	10/24	40	3.0	1	13.0
Coker 488	34.6 ab	7/30	10/18	27	2.5	1	13.4
F71-1180	33.1 abc	7/27	10/15	29	2.3	2	13.2
Cobb	32.9 abcd	8/03	10/24	36	3.3	1	13.0
Coker 338	32.5 abcd	7/31	10/18	26	3.0	1	12.9
F70-2060	32.5 abcd	7/28	10/12	25	2.3	1	10.7
Coker 156	31.2 abcde	7/23	10/03	19	2.3	2	10.8
FFR 6143	31.0 abcde	7/30	10/12	20	2.3	1	11.4
McNair 3167	30.6 abcdef	7/25	10/08	20	2.3	2	11.6
Hutton	30.1 bcdef	7/30	10/18	29	3.3	1	13.4
Coker 237	29.9 bcdef	7/25	10/08	19	1.8	2	11.8
McNair 3183	29.7 bcdef	7/28	10/09	23	2.8	1	11.6
Agripro 70	29.5 bcdef	7/30	10/12	30	2.5	1	10.3
Davis	29.3 bcdef	7/24	10/08	22	2.3	1	11.0
RA 700	29.3 bcdef	8/01	10/13	37	3.3	1	11.4
FFR 668	28.6 bcdef	7/27	10/09	24	2.5	1	11.8
Ransom	28.4 bcdef	7/28	10/10	22	3.3	1	11.7
McNair 3129	28.4 bcdef	7/26	10/09	23	3.0	2	11.2
Ga. Soy 17	28.4 bcdef	7/29	10/11	27	3.3	1	11.7
Terra Vig 708	28.2 bcdef	7/24	10/08	23	2.5	1	11.5
Forrest	28.0 cdef	7/15	9/20	22	2.0	1	10.3
Tracy	27.0 cdef	7/21	10/05	25	2.3	1	12.1
Bragg	27.0 cdef	7/26	10/11	30	2.8	2	11.1
Lancer	27.0 cdef	7/25	10/03	24	2.8	1	11.5

(Continued)
 Table 41. Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging^{3/}, Shattering^{4/}, Seed Quality^{5/}, Purple Stain, and Seed Size of Soybean Varieties when Planted May 30, 1978 on Brewton Experiment Field

Variety	Yield ^{1/} Bu/A		1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Purple stain ^{2/} Rating	Seed size g/100 seed
Coker 136	26.7	cdef	7/19	9/20	25	4.0	1	10.8
Centennial	26.5	def	7/24	10/06	25	2.5	2	10.4
Govan	25.9	ef	7/28	10/08	25	2.5	1	9.5
Lee 74	24.4	f	7/24	10/06	19	2.0	1	11.0

C.V.% = 13.0 : L.S.D. .05 = 5.28

- ^{1/} Yield to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).
^{2/} An explanation of data and ratings is given on page 3 of this report.
^{3/} There was no lodging for any variety except for Bragg and Hutton which averaged a lodging rating of 2.
^{4/} There was no shattering for any variety except Tracy and Lee 74 which shattered 1 to 3%.

Table 42 Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, Shattering, Seed Quality^{3/}, Purple Stain^{4/}, and Seed Size of Soybean Varieties when Planted June 22, 1978 on Brewton Experiment Field

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating	Seed size g/100 seed
Dowling	41.0 a	8/19	10/29	25	2.3	1.3	2.3	14.1
Govan	35.7 ab	8/16	10/22	20	1.8	1.0	1.0	13.1
Coker 488	34.4 ab	8/19	10/25	23	3.3	1.0	1.0	15.8
McNair 3129	32.9 bc	8/17	10/23	25	3.0	1.0	1.3	16.0
Bragg	32.3 bcd	8/16	10/23	27	3.0	1.5	1.0	14.7
Coker 338	32.3 bcd	8/18	10/26	25	2.8	1.8	1.5	15.3
Coker 237	31.6 bcde	8/15	10/20	17	2.0	1.0	1.3	15.5
RA 700	31.4 bcde	8/19	10/25	23	2.5	1.0	1.3	14.4
F71-1180	31.0 bcde	8/17	10/22	24	2.8	1.5	1.0	16.8
Ga. Soy 17	30.8 bcde	8/16	10/22	21	2.8	1.0	1.0	14.2
Hutton	30.4 bcde	8/18	10/25	22	3.5	1.0	1.0	17.2
Cobb	30.1 bcde	8/23	10/28	23	3.0	1.8	2.3	14.8
F70-2060	29.7 bcde	8/19	10/24	20	2.0	1.0	2.0	12.7
Coker 136	29.3 bcde	8/18	10/17	22	2.8	1.0	1.0	13.3
Davis	28.6 bcde	8/20	10/22	22	2.0	1.0	2.5	15.0
Terra Vig 708	28.0 bcdef	8/16	10/21	20	2.5	1.0	2.0	14.0
Coker 156	27.8 bcdef	8/13	10/20	16	1.8	1.0	1.0	14.5
Agripro 70	25.3 cdef	8/17	10/20	16	2.0	1.0	1.0	14.2
Ransom	24.8 cdef	8/18	10/22	20	2.5	1.0	1.8	15.9
Centennial	24.6 def	8/17	10/17	19	2.0	1.0	1.0	12.9
Tracy	23.4 ef	8/11	10/18	21	2.0	2.8	3.3	14.8
Forrest	20.4 f	8/13	10/17	17	2.0	1.0	1.5	12.9

C.V.% = 16.0

L.S.D. .05 = 6.74

^{1/} Yield Adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} Seed quality for all varieties was very good except for Davis and Ransom which rated good.

^{4/} Purple Stain was not present on any variety.

Table 43. Two-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties when Planted June 2 on Brewton Field, 1977-78

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Coker 237	46.1	7/24	10/12	26	2.3	1.0	1.2
Cobb	45.5	8/01	10/26	35	3.0	1.2	1.0
Coker 488	43.9	7/28	10/19	33	2.4	1.0	1.0
Hutton	43.3	7/27	10/16	31	3.3	1.0	1.0
Coker 156	42.7	7/21	10/06	24	2.5	1.0	1.0
Ga. Soy 17	42.7	7/27	10/12	29	3.3	1.0	1.0
Agripro 70	42.4	7/27	10/14	32	2.8	1.0	1.0
Coker 338	41.7	7/28	10/20	31	2.9	1.3	1.2
Terra Vig. 708	40.8	7/22	10/11	27	2.3	1.0	1.2
Davis	40.3	7/22	10/07	26	3.1	1.0	1.2
Ransom	40.3	7/26	10/14	26	2.8	1.0	1.0
Bragg	39.9	7/24	10/14	32	2.8	1.4	1.0
RA 700	38.6	7/30	10/14	39	2.9	1.2	1.0
Govan	38.0	7/26	10/11	28	2.6	1.0	1.0
Tracy	37.4	7/18	10/05	29	2.8	1.3	1.8
Centennial	37.2	7/20	10/06	29	2.9	1.0	1.0
Lee 74	35.4	7/22	10/07	22	2.3	1.0	1.3
Forrest	34.9	7/13	9/18	23	2.9	1.0	1.0
Lancer	34.1	7/23	9/28	27	3.3	1.0	1.0
Coker 136	32.7	7/17	9/18	27	4.6	1.0	1.0

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

Table 44 Two-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties when Planted June 29 on Brewton Field, 1977-78

<u>Variety</u> ^{1/}	<u>Yield</u> ^{2/} Bu/A	<u>1st bloom</u> ^{2/} Dates	<u>Maturity</u> ^{2/} Dates	<u>Plant ht.</u> ^{2/} In.	<u>Ht. 1st pod</u> ^{2/} In.	<u>Lodging</u> ^{2/} Rating	<u>Shattering</u> ^{2/} Rating
Cobb	40.6	8/17	11/01	28	3.1	1.4	1.7
Coker 488	40.5	8/15	10/25	27	2.6	1.0	1.0
Coker 338	40.0	8/14	10/26	26	2.5	1.55	1.3
Hutton	39.3	8/13	10/21	26	3.0	1.0	1.0
Ga. Soy 17	38.7	8/12	10/19	23	2.5	1.0	1.0
Bragg	38.6	8/12	10/20	26	2.6	1.25	1.0
Davis	37.6	8/14	10/18	25	2.0	1.0	1.8
Coker 156	35.1	8/09	10/15	19	2.3	1.0	1.3
Ransom	34.8	8/12	10/21	25	2.5	1.0	1.4
Tracy	34.0	8/09	10/12	25	2.6	1.9	3.1
Centennial	32.0	8/10	10/11	24	3.1	1.0	1.2
Coker 136	30.7	8/11	10/08	23	3.6	1.0	1.0
Forrest	27.4	8/07	10/07	22	2.9	1.2	1.3

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

Table 45 Three-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted on Brewton Experiment Field During 1976 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
-----Three-year average early planting June 4-----							
Cobb	46.8	8/03	10/29	37	2.9	1.3	1.0
Hutton	45.3	7/31	10/18	33	3.3	1.2	1.0
Coker 338	43.4	7/31	10/20	32	2.8	1.2	1.1
Coker 156	42.7	7/23	10/07	24	2.2	1.2	1.0
Ransom	42.4	7/28	10/16	28	2.8	1.0	1.0
Bragg	42.0	7/28	10/14	34	3.1	1.0	1.3
Davis	39.0	7/26	10/08	28	3.0	1.0	1.1
Tracy	37.3	7/21	10/09	30	2.2	1.2	2.3
Centennial	36.8	7/24	10/08	29	2.5	1.0	1.0
Lancer	36.4	7/27	9/30	29	3.3	1.0	1.1
Lee 74	36.2	7/25	10/10	23	2.2	1.0	1.2
Forrest	35.4	7/18	9/19	24	2.8	1.0	1.0
Coker 136	33.5	7/21	9/20	28	4.3	1.0	1.0
-----Three-year average late planting June 25-----							
Davis	45.2	8/13	10/19	29	2.5	1.1	1.5
Coker 338	45.0	8/12	10/27	30	3.7	1.5	1.2
Hutton	44.2	8/11	10/24	29	3.8	1.6	1.0
Bragg	43.5	8/11	10/21	31	3.0	1.5	1.0
Cobb	43.2	8/16	11/01	32	3.8	1.7	1.4
Ransom	41.3	8/10	10/23	27	3.2	1.2	1.3
Tracy	39.0	8/07	10/15	29	2.4	1.9	2.8
Centennial	38.8	8/08	10/13	28	3.3	1.3	1.1
Coker 136	35.2	8/09	10/04	27	4.9	1.4	1.0
Forrest	34.9	8/05	10/04	26	3.7	1.6	1.2

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

Table 46. Four-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Height, Lodging, and Shattering of Soybean Varieties Planted at Two Dates on Brewton Experiment Field During 1975 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
-----Four-year average early planting May 30-----							
Hutton	46.8	7/30	10/20	30	3.6	1.5	1.0
Cobb	45.0	8/03	10/29	35	3.6	1.3	1.0
Coker 338	44.4	7/30	10/22	30	3.2	1.3	1.1
Ransom	42.8	7/26	10/17	27	3.3	1.0	1.0
Bragg	41.1	7/26	10/16	33	3.6	1.3	1.0
Coker 156	40.8	7/22	10/09	23	2.3	1.1	1.0
Tracy	39.4	7/20	10/09	28	2.5	1.3	1.5
Centennial	39.4	7/22	10/10	29	2.8	1.2	1.0
Davis	39.3	7/25	10/09	27	3.4	1.5	1.1
Lee 74	37.7	7/24	10/12	22	2.3	1.0	1.1
Lancer	36.7	7/26	10/02	28	3.8	1.0	1.1
Forrest	36.6	7/16	9/23	24	3.2	1.0	1.0
Coker 136	36.2	7/20	9/24	28	4.6	1.1	1.0
-----Four-year average late planting June 25-----							
Coker 338	43.5	8/12	10/27	30	4.4	1.4	1.1
Davis	42.7	8/13	10/20	29	3.4	1.1	1.4
Hutton	42.5	8/11	10/25	28	4.1	1.5	1.0
Cobb	41.8	8/17	11/02	31	4.4	1.6	1.3
Bragg	41.7	8/11	10/22	31	3.6	1.4	1.0
Ransom	40.4	8/10	10/24	28	3.9	1.1	1.2
Tracy	38.5	8/06	10/15	28	3.0	1.6	2.3
Forrest	33.8	8/04	10/07	26	4.1	1.6	1.7
Coker 136	33.5	8/08	10/09	26	4.5	1.4	1.0

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

Table 47. Five-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted on Brewton Experiment Field During 1974 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
-----Five-year average early planting May 30-----							
Hutton	47.6	7/29	10/19	31	4.0	1.6	1.2
Coker 338	45.5	7/29	10/21	31	3.4	1.5	1.3
Ransom	43.0	7/25	10/17	27	3.5	1.3	1.2
Bragg	40.7	7/26	10/15	33	3.9	1.5	1.2
Davis	40.6	7/26	10/08	29	3.5	1.6	1.2
Tracy	40.4	7/20	10/08	29	2.5	1.5	2.2
Lee 74	37.4	7/23	10/11	22	2.2	1.2	1.3
Forrest	37.3	7/16	9/23	25	3.4	1.2	1.2
Coker 136	35.7	7/21	9/24	28	4.9	1.2	1.2
-----Five-year average late planting June 29-----							
Cobb	40.5	8/19	10/31	30	4.3	1.6	1.4
Davis	40.1	8/15	10/19	27	3.3	1.3	1.5
Coker 338	39.9	8/13	10/26	28	4.0	1.5	1.3
Hutton	37.6	8/14	10/23	26	3.6	1.6	1.2
Bragg	37.4	8/13	10/21	28	3.3	1.5	1.2
Ransom	36.2	8/12	10/23	26	3.4	1.3	1.3
Tracy	34.8	8/08	10/15	26	2.8	1.7	2.4
Forrest	31.7	8/07	10/07	25	3.9	1.7	1.3
Coker 136	29.4	8/11	10/09	23	4.0	1.5	1.2

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

Table 48 Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging^{3/}, Shattering, Seed Quality^{4/}, Purple Stain, and Seed Quality of Soybeans Varieties when Planted June 3, 1978 on Gulf Coast Substation

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Shattering ^{2/} Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
Coker 237	49.8 a	7/31	10/19	35	6.3	1.0	1	16.0
McNair 3183	49.1 ab	8/03	10/22	33	6.0	1.0	2	14.6
Ransom	48.9 ab	8/02	10/27	38	7.5	1.0	2	16.8
Coker 156	48.6 ab	7/31	10/16	36	6.8	1.0	1	13.3
Cobb	48.4 ab	8/10	11/04	38	6.0	1.0	1	13.9
Coker 488	47.5 ab	8/07	10/26	41	7.3	1.3	1	15.8
F70-2060	47.1 ab	8/06	10/27	39	7.8	1.3	2	12.9
McNair 3182	46.8 ab	7/31	10/28	33	6.8	1.3	2	15.3
FFR 6143	46.8 abc	8/02	10/22	36	6.8	1.3	1	13.0
FFR 668	45.9 abc	8/01	10/15	39	8.0	1.0	1	15.8
Dowling	45.9 abcd	8/08	11/06	39	6.8	1.0	2	14.4
Ga. Soy 17	45.0 abcde	8/03	10/21	40	6.3	1.0	2	14.9
Hutton	44.4 abcdef	8/06	10/30	38	6.5	1.5	2	18.0
McNair 3167	44.4 abcdef	8/01	10/21	35	6.8	1.3	1	15.5
Coker 338	43.9 bcdefg	8/06	10/31	36	7.0	1.3	1	16.6
Davis	43.5 bcdefg	8/03	10/17	37	6.3	1.0	2	15.1
Greensoy 64	43.5 cdefg	7/27	10/20	37	7.3	1.3	1	14.4
Terra Vig 708	43.5 cdefg	7/31	10/30	36	6.8	1.8	2	15.2
Bragg	41.6 cdefg	8/01	10/24	36	6.5	1.3	2	14.9
McNair 3129	41.6 defg	8/03	10/23	36	6.3	1.5	1	16.5
Agripro 70	41.2 defg	8/04	10/26	40	7.3	1.5	1	13.2
RA 700	41.0 defg	8/08	10/30	40	6.3	1.3	1	15.1
F71-1180	40.7 defg	8/04	10/31	38	6.0	1.8	1	17.7
Tracy	40.3 defg	7/26	10/14	38	5.5	1.0	2	16.1
Centennial	39.8 efg	8/01	10/14	38	8.3	1.0	2	12.9

(Continued)
 Table 48. Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging^{3/}, Shattering, Seed Quality^{3/}, Purple Stain, and Seed Quality of Soybeans Varieties when Planted June 3, 1978 on Gulf Coast Substation

Variety	Yield ^{1/}		1st bloom ^{2/}	Maturity ^{2/}	Plant ht. ^{2/}	Ht. 1st pod ^{2/}	Shattering ^{2/}	Purple stain ^{2/}	Seed size
	Bu/A		Dates	Dates	In.	In.	Rating	Rating	g/100 seeds
Govan	39.4	efg	8/03	10/21	40	7.8	1.0	1	12.4
Lee 74	39.2	fg	7/31	10/18	32	5.0	1.3	1	13.8
Lancer	39.1	fg	8/03	10/15	39	6.3	1.3	2	15.2
Coker 136	38.4	gh	8/01	10/22	35	7.5	1.3	3	15.6
Forrest	34.0	h	7/24	10/11	31	5.5	1.3	3	12.9
C.V.%	7.5	L.S.D.	.05	4.57					

^{1/} Yield adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} There was no lodging for any variety.

^{4/} Seed quality was very good except for Greensoy 64 and F71-1180 which rated good.

Table 49 Two-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted June 3 on Gulf Coast Substation, 1977 and 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Coker 237	50.0	7/28	10/17	31	5.4	1.0	1.0
Ransom	48.5	7/30	10/23	31	6.1	1.0	1.0
McNair 3183	47.6	7/30	10/18	30	5.3	1.0	1.0
Coker 156	47.4	7/26	10/12	29	4.8	1.0	1.0
Coker 338	46.4	8/02	10/27	32	5.4	1.1	1.1
Ga. Soy 17	46.4	7/29	10/19	35	5.5	1.0	1.0
Agripro 70	46.1	7/30	10/21	35	5.9	1.0	1.3
Terra Vig 708	45.9	7/29	10/22	30	5.1	1.0	1.4
Bragg	44.7	7/29	10/21	33	5.8	1.0	1.1
Cobb	44.4	8/04	11/03	35	5.1	1.0	1.0
Tracy	43.9	7/23	10/12	33	4.8	1.0	1.0
Hutton	43.8	8/01	10/25	34	5.8	1.0	1.3
Davis	43.7	7/29	10/14	30	5.1	1.0	1.0
Govan	43.5	7/29	10/20	33	5.9	1.0	1.0
Coker 488	42.2	8/01	10/24	36	5.9	1.0	1.1
Centennial	42.0	7/25	10/11	33	6.0	1.0	1.0
Lee 74	41.2	7/26	10/16	28	4.4	1.0	1.1
Coker 136	40.1	7/25	10/09	28	5.5	1.0	1.1
Lancer	40.1	7/29	10/10	32	4.8	1.0	1.1
Forrest	36.5	7/20	10/02	25	3.9	1.0	1.1

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

Table 50. Three and Four-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted June on Gulf Coast Substation, 1975 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
-----Three-year average planting date June 3-----							
Coker 156	48.2	7/26	10/14	30	4.8	1.0	1.0
Ransom	47.8	7/29	10/21	33	6.3	1.1	1.0
Coker 338	46.9	8/01	10/26	35	6.3	1.4	1.1
Cobb	46.7	8/03	11/00	38	6.3	1.3	1.0
Bragg	46.4	7/28	10/20	35	6.4	1.3	1.1
Hutton	45.9	8/00	10/24	35	6.5	1.4	1.2
Tracy	43.1	7/24	10/13	33	5.2	1.4	1.3
Davis	42.3	7/30	10/11	32	5.6	1.2	1.0
Lee 74	42.3	7/26	10/16	30	5.3	1.1	1.1
Centennial	41.4	7/26	10/12	34	6.1	1.1	1.0
Coker 136	39.4	7/25	10/06	32	6.5	1.3	1.1
Forrest	38.6	7/20	10/01	28	4.6	1.3	1.1
Lancer	38.4	7/29	10/09	34	5.6	1.2	1.1
-----Four-year average planting June 3-----							
Ransom	49.8	7/27	10/19	33	6.1	1.3	1.0
Coker 156	49.7	7/23	10/14	31	4.8	1.0	1.0
Bragg	48.0	7/26	10/19	35	6.4	1.4	1.1
Hutton	47.6	7/30	10/23	36	6.5	1.6	1.2
Coker 338	46.6	7/30	10/25	35	6.3	1.6	1.1
Cobb	46.1	8/01	10/31	38	6.5	1.6	1.0
Tracy	46.0	7/22	10/12	33	4.9	1.7	1.3
Lee 74	44.6	7/24	10/15	30	5.5	1.1	1.1
Davis	44.5	7/29	10/11	33	5.6	1.3	1.0
Centennial	43.5	7/24	10/12	35	6.0	1.2	1.0
Coker 136	42.8	7/23	10/05	33	6.3	1.3	1.1
Forrest	42.2	7/19	10/02	29	4.9	1.2	1.1
Lancer	40.3	7/27	10/08	35	5.8	1.1	1.1

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

Table 51 Five-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging and Shattering of Soybean Varieties Planted June 4 on Gulf Coast Substation during 1974 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Ransom	51.3	7/24	10/18	32	6.1	1.3	1.0
Hutton	50.4	7/28	10/23	36	6.1	1.6	1.2
Bragg	49.4	7/24	10/18	36	6.3	1.5	1.1
Coker 338	48.9	7/27	10/25	35	6.1	1.8	1.1
Tracy	48.4	7/20	10/10	34	4.6	1.9	1.3
Cobb	47.1	7/31	10/29	39	6.1	2.1	1.0
Lee 74	47.0	7/22	10/14	30	5.3	1.1	1.1
Davis	46.3	7/28	10/10	34	5.5	1.6	1.0
Coker 136	44.3	7/22	10/03	33	5.8	1.3	1.1
Forrest	44.3	7/17	10/00	29	4.4	1.2	1.1

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

Table 52 Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, Shattering, Seed Quality, Purple Stain, and Seed Size of Soybeans Varieties when Planted May 26, 1978 on Monroeville Experiment Station

Variety	Yield ¹ / Bu/A	1st bloom ² / Dates	Maturity ² / Dates	Plant Ht. ² / In.	Ht. 1st pod ² / In.	Lodging ² / Rating	Shattering ² / Rating	Seed ² / quality Rating	Purple stain ² / Rating	Seed size g/100 seed
Cobb.	28.0 a	7/26	10/24	32	1.8	1.0	4.0	1	1	14.4
Coker 488	27.2 ab	7/27	10/24	30	2.5	1.0	1.0	2	1	14.9
Dowling	27.0 abc	7/27	10/26	32	1.8	1.0	2.3	1	1	14.4
FFR 668	24.8 abcd	7/22	10/11	27	3.5	1.0	1.0	2	1	12.7
Coker 338	24.2 abcd	7/25	10/23	28	2.5	1.0	1.0	2	1	14.0
Ga. Soy 17	24.2 abcde	7/24	10/23	31	2.5	1.3	1.0	1	1	13.6
Coker 237	23.8 bcdef	7/22	10/09	23	2.3	1.0	2.0	1	1	12.6
F71-1180	23.6 bcdef	7/22	10/26	30	2.3	1.0	1.0	1	2	14.4
Terra Vig. 708	23.4 bcdef	7/20	10/12	26	2.5	1.0	1.5	2	1	13.1
Hutton	23.3 cdef	7/26	10/26	30	2.0	1.3	1.5	1	1	15.5
Agripro 70	22.7 defg	7/27	10/19	33	2.3	1.0	1.0	2	1	11.5
Forrest	22.5 defg	7/13	9/15	21	1.3	1.5	2.0	1	1	9.3
RA 700	22.5 defg	7/29	10/25	37	2.3	1.5	1.5	1	1	14.3
McNair 3129	22.3 defg	7/23	10/15	26	3.0	1.0	1.0	2	1	15.1
F70-2060	22.1 defgh	7/24	10/13	27	2.5	1.0	1.0	1	1	9.8
Ransom	21.7 defghi	7/23	10/17	26	2.5	1.0	1.5	2	2	13.1
McNair 3183	21.7 defghi	7/25	10/11	24	2.8	1.0	1.0	2	1	12.2
Coker 136	21.6 defghi	7/14	9/15	20	1.8	1.5	1.8	1	1	9.7
Coker 156	21.6 defghi	7/20	10/03	21	2.5	1.0	1.0	2	1	10.4
Bragg	21.0 defghij	7/22	10/19	31	2.8	1.3	1.0	2	1	11.7
Lancer	20.6 efghij	7/20	9/18	22	1.8	1.8	1.8	1	2	9.7

(Continued)

Table 52 Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, Shattering, Seed Quality Purple Stain, and Seed Size of Soybeans Varieties when Planted May 26, 1978 on Monroeville Experiment Station

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating	Seed ^{2/} quality Rating	Purple stain ^{2/} Rating	Seed size g/100 s	
Govan	20.2	efghij	7/24	10/15	22	2.0	1.0	1.0	1	1	10.6
Greensoy 64	19.9	fghij	7/17	10/08	23	3.0	1.0	1.5	2	1	11.4
Lee 74	18.7	ghij	7/20	10/08	21	2.0	1.3	1.5	1	1	10.1
Davis	18.2	hij	7/21	9/25	24	2.0	1.8	1.8	1	1	9.1
McNair 3182	18.2	ijh	7/20	10/09	21	3.0	1.0	1.0	2	2	11.0
Centennial	18.0	ij	7/21	10/09	29	2.8	1.0	1.8	2	2	10.9
Tracy	17.4	j	7/18	10/02	27	2.5	1.0	1.8	1	2	11.2

C.V.% = 11.0 L.S.D. .05 = 4.05

^{1/} Yield adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).

^{2/} An explanation of data and ratings is given on page 3 of this report.

Table 53 Two-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted May 28 on Monroeville Experiment Field during 1977 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{2/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Ga. Soy 17	40.7	7/22	10/23	35	2.5	1.2	1.0
Ransom	39.8	7/19	10/19	31	2.3	1.0	1.3
McNair 3183	39.6	7/22	10/15	30	2.5	1.0	1.0
Cobb	39.1	7/26	10/29	36	2.3	1.0	2.5
Hutton	39.0	7/23	10/26	35	2.1	1.2	1.3
Coker 488	39.0	7/23	10/24	37	1.9	1.0	1.0
RA 700	38.9	7/25	10/24	38	2.3	1.3	1.3
Coker 156	38.7	7/15	10/08	27	2.8	1.0	1.0
Terra Vig 708	38.0	7/17	10/14	31	2.8	1.0	1.3
Coker 338	37.5	7/23	10/24	34	2.4	1.0	1.0
Bragg	37.2	7/20	10/21	35	2.6	1.2	1.0
Agripro 70	36.6	7/23	10/18	36	2.6	1.0	1.0
Govan	35.2	7/21	10/16	30	2.1	1.0	1.0
Davis	34.8	7/17	9/30	30	2.8	1.4	1.4
Tracy	33.5	7/17	10/06	30	2.5	1.0	1.7
Forrest	33.3	7/14	9/19	25	2.3	1.3	1.5
Centennial	33.2	7/17	10/09	32	2.9	1.0	1.4
Lancer	33.2	7/17	9/23	28	2.1	1.4	1.4
Lee 74	32.5	7/17	10/11	25	2.3	1.2	1.3
Coker 136	29.1	7/14	9/20	26	2.5	1.3	1.4

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1977 first bloom dates only.

Table 54. Three-Year Averages for Yield, First Bloom and Maturity Dates, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties Planted May 26 on Monroeville Field During 1976 through 1978

Variety ^{1/}	Yield ^{2/} Bu/A	1st bloom ^{3/} Dates	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Hutton	39.8	7/20	10/24	33	2.1	1.7	1.1
Coker 338	39.7	7/20	10/23	34	2.4	1.2	1.0
Cobb	39.5	7/25	10/30	36	2.4	1.4	1.2
Ransom	39.3	7/16	10/18	30	2.5	1.1	1.2
Coker 156	39.2	7/10	10/10	26	2.3	1.1	1.0
Bragg	39.1	7/18	10/20	35	2.7	1.4	1.0
Davis	36.6	7/14	10/04	29	2.3	1.3	1.3
Lancer	35.4	7/14	9/29	29	2.4	1.3	1.3
Centennial	34.5	7/14	10/10	33	2.5	1.1	1.3
Forrest	34.3	7/14	9/24	25	2.6	1.1	1.3
Tracy	33.0	7/15	10/07	31	2.0	1.3	1.2
Lee 74	32.2	7/14	10/11	24	1.8	1.1	1.1
Coker 136	30.5	7/13	9/22	28	3.1	1.7	1.3

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1976-1977 bloom dates.

Table 55 Yield, Maturity Date, Plant and First Pod Heights, Lodging^{3/}, Shattering^{4/}, Seed Quality Purple Stain, and Seed Size of Soybean Varieties Planted June 6 on Wiregrass Substation, 1978

Variety	Yield ^{1/} Bu/A	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Seed ^{2/} size Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
GA. Soy 17	32.5 a	10/23	31	1.5	1	1	12.6
FFR 668	32.0 ab	10/13	30	1.8	1	1	13.5
FFR 6143	32.0 ab	10/11	26	1.0	1	1	13.7
Bragg	31.8 ab	10/17	31	1.8	1	2	12.2
McNair 3129	31.0 abc	10/15	27	1.0	1	2	15.7
Coker 237	30.4 abc	10/10	28	1.8	1	2	11.3
McNair 3183	29.9 abcd	10/13	24	1.0	1	1	13.6
McNair 3182	29.7 abcd	10/18	24	1.3	1	2	12.7
Coker 338	29.5 abcd	10/27	30	1.8	1	1	12.4
Dowling	29.3 abcd	10/29	31	1.5	1	1	12.3
Coker 488	29.2 abcd	10/24	29	2.0	1	1	13.8
Agripro 70	29.2 abcd	10/25	32	1.5	1	1	11.7
Ransom	29.0 abcd	10/18	36	1.5	2	1	14.8
RA 700	28.4 abcd	10/28	39	1.8	2	1	13.8
Greensoy 64	28.0 abcd	10/13	24	1.3	2	1	12.1
Terra Vig 708	28.0 abcd	10/18	26	1.0	1	1	12.9
McNair 3167	28.0 abcd	10/15	22	1.5	1	2	11.2
Forrest	27.5 abcd	10/08	20	1.0	1	2	11.2
Hutton	27.4 abcd	10/26	31	1.0	2	1	14.7
Centennial	26.1 abcd	10/06	29	1.3	1	1	12.3
Tracy	25.7 abcd	10/10	32	1.3	1	2	13.5
Cobb	25.7 abcd	10/29	32	1.5	1	1	12.9
Coker 156	25.7 bcd	10/10	22	1.0	1	1	11.0
Coker 136	25.5 bcd	10/06	21	1.5	1	2	11.2
Govan	25.3 bcd	10/22	26	1.5	1	1	11.2
Davis	25.1 bcd	10/11	26	1.3	1	1	11.2

Table 55. Yield, Maturity Date, Plant and First Pod Heights, Lodging^{3/}, Shattering^{4/}, Seed Quality, Purple Stain, and Seed Size of Soybean Varieties Planted June 6 on Wiregrass Substation, 1978 (Continued)

Variety	Yield ^{1/} Bu/A	Maturity ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Seed ^{2/} quality Rating	Purple stain ^{2/} Rating	Seed size g/100 seed
Lee 74	24.5 cd	10/11	20	1.0	1	1	12.5
Lancer	23.1 d	10/06	22	1.3	2	1	11.9

C.V.% = 14.3 L.S.D. .05 = 5.56

^{1/} Yield adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} There was no lodging for any variety.

^{4/} There was no shattering for any variety.

Table 56 Two-Year Average Yield, First Bloom, Plant and First Pod Heights, Lodging, and Shattering of Soybean Varieties, Planted May 25 at Wiregrass Substation During 1976 and 1978^{4/}

Variety	Yield ^{1/} Bu/A	1st bloom ^{2/} Dates	Plant ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Bragg	38.3	7/22	33.5	3.4	1.4	1.0
Ransom	36.4	7/22	27.5	2.8	1.0	1.0
McNair 3129	36.2	7/23	28.5	2.0	1.3	1.0
Coker 156	34.7	7/21	25.0	1.5	1.0	1.0
Coker 338	33.6	7/24	31.0	2.4	1.3	1.0
Lee 74	32.6	7/20	24.5	1.5	1.2	1.0
Davis	32.9	7/18	28.5	2.7	1.1	1.0
Centennial	32.5	7/20	30.0	2.2	1.0	1.0
Hutton	32.4	7/20	31.5	2.5	1.4	1.0
Cobb	32.0	7/28	35.5	2.8	1.9	1.0
Tracy	31.7	7/20	29.5	1.7	1.1	1.0
Lancer	29.2	7/22	26.0	3.2	1.0	1.0
Forrest	27.6	7/21	23.0	2.0	1.2	1.2
Coker 136	24.2	7/20	25.5	3.3	1.0	1.2

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} 1976 Bloom Date.

^{4/} The 1977 variety data was not included because of damage to stand by the loss of cornstalk borer.

Table 57. Three-year Average Yield, Plant and First Pod Height, Lodging and Shattering of Soybean Varieties Planted May 22 on Wiregrass Substation 1975, 1976, and 1978 ^{3/}

Variety	Yield ^{1/} Bu/A	Plant Ht. ^{2/} In.	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating	Shattering ^{2/} Rating
Ransom	36.3	27.7	2.0	1.2	1.0
Coker 156	36.2	26.0	1.7	1.1	1.0
Bragg	35.6	35.0	3.9	2.2	1.0
Davis	33.5	30.7	3.1	1.9	1.0
Centennial	33.2	31.7	1.8	1.5	1.2
Hutton	32.2	33.7	2.3	2.1	1.0
Lee 74	32.1	23.3	1.7	1.2	1.0
Coker 338	31.1	32.7	1.9	1.9	1.0
Cobb	30.5	34.0	2.5	2.7	1.0
Lancer	30.4	28.7	3.1	1.2	1.2
Tracy	30.1	30.0	1.8	1.3	1.0
Forrest	29.8	24.0	2.3	1.1	1.7
Coker 136	26.8	27.7	3.8	1.1	1.6

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report.

^{3/} The 1977 variety data was not included because of damage to stand by the lesser cornstalk borer.

Table 58 Four and Five Year Average Yields, Plant and First Pod Height and Lodging of Soybean Varieties when Planted on Wiregrass Substation 1973-1976 and 1978^{3/}

Variety	Yield ^{1/} Bu/A	Plant t. ^{2/} In,	Ht. 1st pod ^{2/} In.	Lodging ^{2/} Rating
-----Four-Year Average Planting Date May 21, 1974-1976 and 1978-----				
Ransom	37.7	32	3	1.4
Davis	36.8	33	3	2.1
Tracy	36.8	30	2	1.5
Bragg	36.4	34	4	2.0
Hutton	34.5	34	3	2.1
Lee 74	34.0	23	1	1.2
Coker 338	34.0	33	3	2.1
Forrest	32.8	25.3	3	1.2
Cobb	31.9	35.8	3	2.8
Coker 136	30.0	29.3	4	1.2
-----Five-Year Average Planting Date May 26, 1973-1976 and 1978-----				
Bragg	34.5	33	3	1.8
Ransom	34.3	29	3	1.2
Hutton	32.5	32	3	2.0
Davis	33.3	30	4	1.9
Lee 74	31.1	22	2	1.2
Coker 338	30.8	31	3	1.8
Forrest	29.9	23	3	1.1

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel.

^{2/} An explanation of data and ratings is given on page 3 of this report

^{3/} The 1977 variety data was not included because of damage to stand by the lesser cornstalk borer.

Soybean Yields on Cyst Nematode Infested Fields

The soybean cyst nematode, Heterodera glycines, is a small microscopic round worm which attacks the root systems of soybeans, snapbeans, lespedeza, common vetch, and lupine.

In July of 1972 the Alabama State Department of Agriculture and Industries indicated that the soybean cyst nematodes had been found in a soybean field in Escambia County. By October, 1977 Dr. F. A. Gray of the Alabama Cooperative Extension Service had indicated the soybean cyst nematode had been found in soybean fields in 23 counties in Alabama.

In 1978 three field tests using from 8 to 12 soybean varieties were placed on two fields on which the soybean cyst nematodes had been found. Two tests were planted June 15, 1978 on the Henninger Brothers farm near Stephenson in Jackson county and one test was planted June 16, 1978 on the Engle Farm near Summerdale in Baldwin County. The tests contain 4 and 6 replications of each variety at each location respectively, and plots were four rows with 36-inch spacing wide and 23 feet long. The varieties used are listed in tables 59 and 60. The three varieties that have resistance to the cyst nematodes are Centennial (Group VI maturity) and Bedford and Forrest (Group V maturity). The yields from the Jackson county location shown in Table 59 were low due to an extended drought during late August and early September. However, the very low yields in the Baldwin county field, Table 60, were due to a severe problem of root-knot nematode Meloidogyne arenaria. The variety Centennial is not resistant to this nematode. Bedford and Forrest have a fair amount of resistance to this root-knot nematode but are not well adapted to southern Alabama.

Table 59. Average Yield^{1/} for Varieties Grown on Cyst Infested Field, Jackson County, 1978

	Test A Bu/A	Test B Bu/A	Av. Bu/A
Centennial	28.1 a	36.0 a	32.1 a
Forrest	27.5 a	29.6 ab	28.5 ab
Bedford	24.0 ab		
Tracy	18.5 c	31.5 ab	25.0 bc
Davis	18.7 bc	26.8 bc	22.8 cd
Lee 74	16.5 cd	24.5 bcd	20.5 cde
Bragg	16.9 cd	19.1 cd	18.0 de
Essex	12.6 d	16.4 d	14.5 e
FFR 667		25.7 bcd	
Coker 136		24.0 bcd	
Ransom		23.4 bcd	
McNair 500		22.7 bcd	
McNair 600		19.8 cd	
L.S.D. .05 ⁼	5.27	6.8	4.83

^{1/} Yields adjusted to 13% moisture and 60 lb. per bushel.
Yields with a common letter are not different (P=.05).



Figure 2. Left photo shows Centennial on left vs Lee 74 on right. Right photo shows Lee 74 on left vs Bedford on Right. Photos taken on Cyst infested field in Jackson Co. 1978.

Table 60. Average Yield, Plant Height, and Maturity Date for Varieties Grown on Cyst Infested Field, Baldwin County, 1978

	Yield ^{1/} Bu/A	Plant ht. ^{2/} In.	Maturity ^{2/} Date
Centennial	14.6 a	36	10-3
Bedford	13.0 ab	28	9-23
Forrest	11.4 ab	25	9-23
Lee 74	10.8 b	24	10-1
Ransom	6.5 c	28	10-3
Davis	6.2 c	29	10-1
Tracy	5.7 c	27	9-28
Bragg	4.6 cd	33	10-5
Hutton	3.3 cd	30	10-4
F71-1180	2.0 d	29	10-4
L.S.D. .05 = 3.49			

^{1/} Yields adjusted to 13% moisture and 60 pounds per bushel. Yields with a common letter are not different (P=.05).

^{2/} An explanation of data and ratings is given on page 3 of this report.



Figure 2. Left photo show Centennial on left vs Bragg on right in Cyst infested field in Baldwin County. Right photo shows a strip of centennial soybean with root knot damage.

Soybean Protein and Oil

Soybean protein and oil contents were determined on samples taken from the 1977 variety by planting date studies in northern, central, and southern Alabama. These are shown in tables 61 through 65. Protein and oil content of soybeans grown at Crossville, Alabama were 43 and 22%, respectively, at the early May planting date and decreased to 41 and 20%, respectively, by late June date. With the exception of the early planting date at Crossville and the three planting dates on the Marion Junction all locations and planting dates had similar protein and oil content. The protein contents of varieties grown on the Black Belt soil were similar to those at the early planting at the Sand Mountain Substation, which average 43.4 to 44.4%. However, the oil content at the Marion Junction varied from 18.6 to 19.8%, which was considerably less than the 22% average for the early planting in northern Alabama.

Table 61. Protein Content^{2/} of Soybean Varieties that were grown in Northern Alabama near Crossville and Winfield in 1977

Variety ^{1/}	Sand Mountain Substation Planted;			Upper Coastal Plain Planted,		Northern Alabama Average
	May 3	June 1	June 30	May 10	June 10	
Coker 136	41.4	41.0	40.6	38.7	38.1	40.0
Essex	43.2	43.5	43.3	41.9	39.5	42.3
FFR 556	42.1	40.6	40.0	40.5	38.8	40.4
FFR 557	44.9	---	---	41.8	---	43.4
Forrest	42.4	41.6	39.3	42.7	38.7	40.9
Mack	43.2	43.5	42.6	42.0	39.7	42.2
McNair 500	43.3	43.7	42.9	43.8	40.4	42.8
M-K Blend 100	41.8	---	---	40.0	---	40.9
N-K Entry 30	43.5	---	---	40.3	---	41.9
RA 501	43.1	---	---	41.5	---	42.3
RA 526	44.1	---	---	44.3	---	44.2
Centennial	43.0	41.1	40.8	41.2	39.2	41.1
Coker 156	41.7	40.4	40.0	39.3	38.5	40.0
Davis	43.3	42.1	41.6	42.1	38.8	41.6
D&PL 5	41.9	---	---	40.4	---	41.2
D&PL 154	41.9	---	---	39.7	---	40.8
FFR 666	44.7	42.7	42.8	40.5	40.0	42.1
FFR 667	44.6	---	---	37.8	---	41.2
Green Soy 64	42.8	---	---	41.0	---	41.9
Lancer	42.4	40.7	40.4	40.4	39.1	40.6
Lee 74	43.4	42.0	41.8	41.8	39.6	41.7
McNair 600	41.8	38.5	39.1	39.0	37.5	39.2
McNair 3161	43.0	---	---	42.1	---	42.6
RA(A) 23	43.0	---	---	41.6	---	42.3
RA 601	41.9	---	---	40.3	---	41.1
RA 602	44.0	---	---	41.2	---	42.6
Tracy	44.1	44.2	42.7	42.9	40.6	42.9
Bragg	41.9	41.2	40.4	41.0	39.0	40.7
Ga Soy 17	---	41.1	40.1	---	37.8	39.7
McNair 800	---	40.9	40.1	---	39.2	40.1
Ransom	---	38.8	38.0	---	38.0	38.3
Coker 338	---	40.8	40.5	---	40.0	40.4
Hutton	43.8	43.9	43.6	41.6	42.3	43.0

^{1/} Varieties arranged alphabetically by Maturity Groups.

^{2/} Protein content is listed as a percent of dry weight. Analysis by the USDA Horticultural and Special Crops Laboratory, Peoria, Ill.

Table 62 Oil Content^{2/} of Soybean Varieties that were Grown in Northern Alabama near Crossville and Winfield in 1977

Variety ^{1/}	Sand Mountain Substation Planted;			Upper Coastal Plain Substation Planted;		Northern Alabama Average
	May 3	June 1	June 20	May 10	June 10	
	SMS 1	SMS 2	SMS 3	UCPS 1	UCPS 2	
Coker 136	20.0	21.2	20.2	21.7	24.4	21.5
Essex	21.2	27.7	21.9	24.0	21.6	23.3
FFR 556	20.0	20.5	19.9	21.4	22.0	20.8
FFR 557	22.7	---	---	20.5	---	21.6
Forrest	21.0	23.3	21.4	20.1	21.7	21.5
Mack	21.1	27.5	23.7	20.7	21.9	23.0
McNair 500	18.9	21.6	19.6	19.9	21.1	20.2
N-K Entry 30	21.0	---	---	22.7	---	21.9
N-K Blend 100	21.0	---	---	22.4	---	21.7
RA 501	20.6	---	---	24.9	---	22.8
RA 526	22.3	---	---	22.5	---	22.4
Centennial	19.4	20.1	19.3	20.3	20.0	19.8
Coker 156	22.5	21.9	20.9	22.3	21.5	21.8
Davis	25.9	20.2	19.9	22.9	21.6	22.1
D&PL 5	20.0	---	---	20.5	---	20.3
D&PL 154	24.0	---	---	22.0	---	23.0
FFR 666	20.1	20.4	19.7	22.1	21.5	20.8
FFR 667	26.3	---	---	23.4	---	24.9
Green Soy 64	21.5	---	---	21.0	---	21.3
Lancer	28.0	22.1	19.8	23.4	21.5	23.0
Lee 74	20.7	19.9	19.8	20.7	20.6	20.3
McNair 600	21.1	21.8	20.4	22.6	21.4	21.5
McNair 3161	20.0	---	---	21.4	---	20.7
RA(A) 23	19.8	---	---	19.6	---	19.7
RA 602	20.5	---	---	22.0	---	21.3
RA 601	21.0	---	---	22.5	---	21.8
Tracy	18.8	18.1	18.1	19.5	19.5	18.8
Bragg	21.2	19.3	18.9	19.9	19.6	19.8
Ga Soy 17	---	19.4	18.9	---	20.0	19.4
McNair 800	---	19.6	20.0	---	19.0	19.5
Ransom	---	22.0	21.2	---	22.4	21.9
Coker 338	---	19.4	19.1	---	19.6	19.4
Hutton	20.6	17.4	16.9	19.2	17.3	18.3

^{1/} Varieties arranged alphabetically by Maturity groups

^{2/} Oil content is listed as a percent of dry weight. Analyses by the USDA Horticultural and Special Crops Laboratory, Peoria, Ill.

Table 63 Protein Content^{2/} of Soybean Varieties that were Grown in Central Alabama near Prattville and Marion Junction in 1977.

Variety ^{1/}	Black Belt Substation			Prattville Field		Central
	Planted			Planted		Ala.
	May 20	June 6	June 28	May 26	June 20	Average
	BBS 1	BBS 2	BBS 3	PF 1	PF 2	
Coker 136	42.8	43.2	44.1	39.3	38.5	41.6
Essex	44.2	45.0	44.7	43.0	40.3	43.4
Forrest	42.4	42.6	44.2	41.4	39.5	42.0
FFR 556	42.8	43.5	44.9	38.8	38.2	41.6
Mack	42.6	43.3	46.8	42.1	39.2	42.8
Centennial	44.7	45.7	45.9	41.0	41.3	43.7
Coker 156	42.6	43.4	43.9	39.1	39.5	41.7
Davis	43.7	43.5	43.9	40.7	39.7	42.3
D&PL 5	43.6	---	---	41.1	---	42.4
D&PL 154	41.6	---	---	40.0	---	40.8
FFR 666	43.5	46.4	45.4	41.8	41.1	43.6
FFR 667	43.0	---	---	38.0	---	40.5
Green Soy 64	43.9	43.1	43.9	40.6	40.0	42.3
Lancer	43.5	42.6	43.9	38.0	38.9	41.4
Lee 74	43.8	46.3	45.4	41.7	40.8	43.6
McNair 600	42.0	43.4	42.8	39.5	38.9	41.3
McNair 3161	43.5	---	---	41.5	---	42.5
RA(A) 23	44.0	---	---	42.2	---	43.1
RA 602	43.6	---	---	42.2	---	42.9
RA 601	43.2	---	---	39.8	---	41.5
Tracy	46.0	44.9	45.2	42.5	41.0	43.9
Agripro AP 70	43.1	---	---	40.5	---	41.8
Bragg	44.3	43.6	43.5	42.0	39.6	42.4
Coker 237	41.6	---	---	40.1	---	40.9
FFR 6111	44.6	---	---	---	---	44.6
FFR 7027	46.0	---	---	39.9	---	43.0
Ga. Soy 17	42.1	---	---	39.2	---	40.7
Govan	44.9	---	---	42.8	---	43.9
McNair 800	44.2	44.0	44.4	39.5	38.2	42.1
McNair 3131	43.5	---	---	39.5	---	41.5
McNair 3183	42.1	---	---	39.9	---	41.0
Ransom	42.9	43.3	44.8	37.9	38.0	41.4
RA 700	43.4	---	---	41.3	---	42.4
Terra Vig 708	43.7	---	---	41.9	---	42.8
Agripro AP 80	42.7	---	---	38.7	---	40.7
Cobb	41.3	42.2	42.9	38.1	37.6	40.4
Coker 338	43.4	43.7	43.3	41.8	40.1	42.5
Coker 488	42.3	---	---	38.4	---	40.4
FFR 6105	---	---	---	41.3	---	41.3
Hutton	44.0	44.7	43.6	42.9	42.5	43.5

^{1/} Varieties arranged alphabetically by Maturity groups.

^{2/} Protein content is listed as a percent of dry weight. Analyses by the USDA Horticultural and Special Crops Laboratory, Peoria, Ill.

Table 64 Oil Content^{2/} of Soybean Varieties that were Grown in Central Alabama near Prattville and Marion Junction in 1977

Variety ^{1/}	Black Belt Substation Planted;			Prattville Field Planted;		Central Ala. Average
	May 20	June 6	June 28	May 26	June 20	
	BBS 1	BBS 2	BBS 3	PF 1	PF 2	
Coker 136	20.0	20.5	19.5	21.7	22.3	20.8
Essex	20.3	20.1	19.2	20.8	22.5	20.6
FFR 556	20.4	20.0	17.6	23.2	23.2	20.9
Forrest	20.7	20.4	18.7	20.7	23.0	20.7
Mack	21.6	21.9	20.0	21.0	23.0	21.5
Centennial	18.8	18.7	17.8	22.5	21.0	19.8
Coker 156	20.2	19.7	19.5	22.7	22.0	20.8
Davis	20.0	19.8	18.2	22.0	21.7	20.3
D&PL 5	20.0	---	---	20.8	---	20.4
D&PL 154	21.0	---	---	23.4	---	22.2
FFR 666	18.9	18.3	18.4	21.5	21.4	19.7
FFR 667	20.6	---	---	24.4	---	22.5
Green Soy 64	19.7	19.5	18.4	21.0	21.2	20.0
Lancer	19.8	19.9	18.6	25.0	24.7	21.6
Lee 74	19.2	18.2	18.7	20.8	20.9	19.6
McNair 600	20.4	19.9	19.2	21.6	21.9	20.6
McNair 3161	20.1	---	---	23.3	---	21.7
RA(A) 23	19.3	---	---	21.1	---	20.2
RA 602	20.2	---	---	20.7	---	20.5
RA 601	20.3	---	---	22.8	---	21.6
Tracy	19.0	18.1	16.8	20.9	21.5	19.3
Agripro AP70	18.8	---	---	20.7	---	19.8
Bragg	19.4	19.7	18.7	20.6	21.0	19.9
Coker 237	20.6	---	---	21.4	---	21.0
FFR 6111	18.5	---	---	---	---	18.5
FFR 7027	18.8	---	---	21.4	---	20.1
Ga. Soy 17	19.5	---	---	20.9	---	20.2
Govan	18.0	---	---	20.1	---	19.1
McNair 800	18.2	18.7	18.0	21.2	21.7	19.6
McNair 3131	21.0	---	---	23.2	---	22.1
Ransom	20.1	20.2	18.7	24.1	23.2	21.3
RA 700	18.6	---	---	20.5	---	19.6
Terra Vig 708	19.8	---	---	22.2	---	21.0
Agripro 80	18.9	---	---	22.4	---	20.7
Cobb	19.5	18.6	19.1	22.0	21.0	20.0
Coker 338	19.9	19.8	18.7	22.3	21.0	20.3
Coker 488	20.0	---	---	22.2	---	21.1
FFR 6105	---	---	---	20.9	---	20.9
Hutton	18.6	18.6	18.1	20.6	20.3	19.2

^{1/} Varieties arranged alphabetically by Maturity Groups.

^{2/} Oil content is listed as a percent of dry weight. Analyses by the USDA Horticultural and Special Crops Laboratory, Peoria, Ill.

Table 65 Protein and Oil Contents^{2/} of Soybean Varieties that were Grown in South Alabama near Brewton and Monroeville in 1977

Variety ^{1/}	Percent Oil				Percent Protein			
	Brewton Field		Monroeville	Southern	Brewton Field		Monroeville	Southern
	Planted		Field Planted	Ala.	Planted		Field Planted	Ala.
	May 30	June 22	May 26	Average	May 30	June 22	May 26	Average
BF 1	BF 2	MF 1		BF 1	BF 2	MF 1		
Coker 136	22.6	23.5	23.2	23.1	39.7	38.1	39.1	39.0
Essex	22.0	22.5	21.9	22.1	41.7	41.2	42.0	41.6
Forrest	22.4	22.7	22.0	22.4	40.1	39.5	39.4	39.7
Mack	22.8	23.9	22.8	23.2	41.2	40.0	41.2	40.8
Centennial	20.8	21.6	21.4	21.3	42.7	41.7	42.0	42.1
Coker 156	22.9	22.6	22.5	22.7	39.6	39.4	38.7	39.2
Davis	23.0	23.0	22.7	22.9	40.1	39.3	38.3	39.3
FFR 666	20.6	20.4	21.6	20.9	44.1	44.0	42.4	43.5
Lancer	27.1	25.1	26.1	26.1	36.8	37.3	36.5	36.9
Lee 74	20.7	21.2	21.0	21.0	42.5	42.2	40.8	41.8
McNair 600	21.2	22.5	20.9	21.5	41.6	38.9	39.7	40.1
Tracy	21.4	21.0	20.3	20.9	43.4	43.1	42.6	43.0
Agripro 70	20.7	---	20.1	20.4	40.8	---	40.3	40.6
Bragg	21.4	21.9	20.8	21.4	41.5	41.3	40.9	41.2
Coker 237	23.0	---	000	23.0	40.5	---	---	40.5
FFR 6105	21.8	---	21.8	21.8	41.0	---	40.4	40.7
FFR 6111	22.4	---	22.5	22.5	40.3	---	40.0	40.2
FFR 7027	21.6	---	21.1	21.3	41.6	---	41.3	41.4
Ga. Soy 17	22.7	22.9	21.4	22.3	38.9	38.4	39.0	38.8
Govan	20.5	---	20.6	20.6	42.0	---	41.8	41.9
McNair 800	21.4	21.1	21.2	21.2	40.1	39.5	39.4	39.7
McNair 3131	22.6	---	23.1	22.3	41.1	---	40.3	40.7
RA 700	22.3	---	22.1	22.2	40.2	---	39.7	40.0
Ransom	25.2	23.6	24.3	24.4	39.3	40.1	39.3	39.6
Terra Vig 708	22.5	---	22.3	22.4	41.5	---	41.5	41.5
Agripro 80	22.8	---	22.1	22.5	38.7	---	38.1	38.4
Cobb	21.8	21.9	21.6	21.8	39.0	38.7	38.9	38.9
Coker 338	23.4	24.1	24.3	24.3	40.1	39.4	39.6	39.7
Coker 488	23.1	23.6	23.6	23.4	38.9	38.5	38.5	38.6
Hutton	20.4	20.4	20.4	20.4	42.5	42.6	42.6	42.6
McNair 3183	---	---	21.1	21.1	---	---	38.8	38.8

^{1/} Varieties arranged alphabetically by Maturity Groups.

^{2/} Protein and Oil content is listed as a percent of dry weight. Analyses by the USDA Horticultural and Special Crops Laboratory, Peoria, Ill.