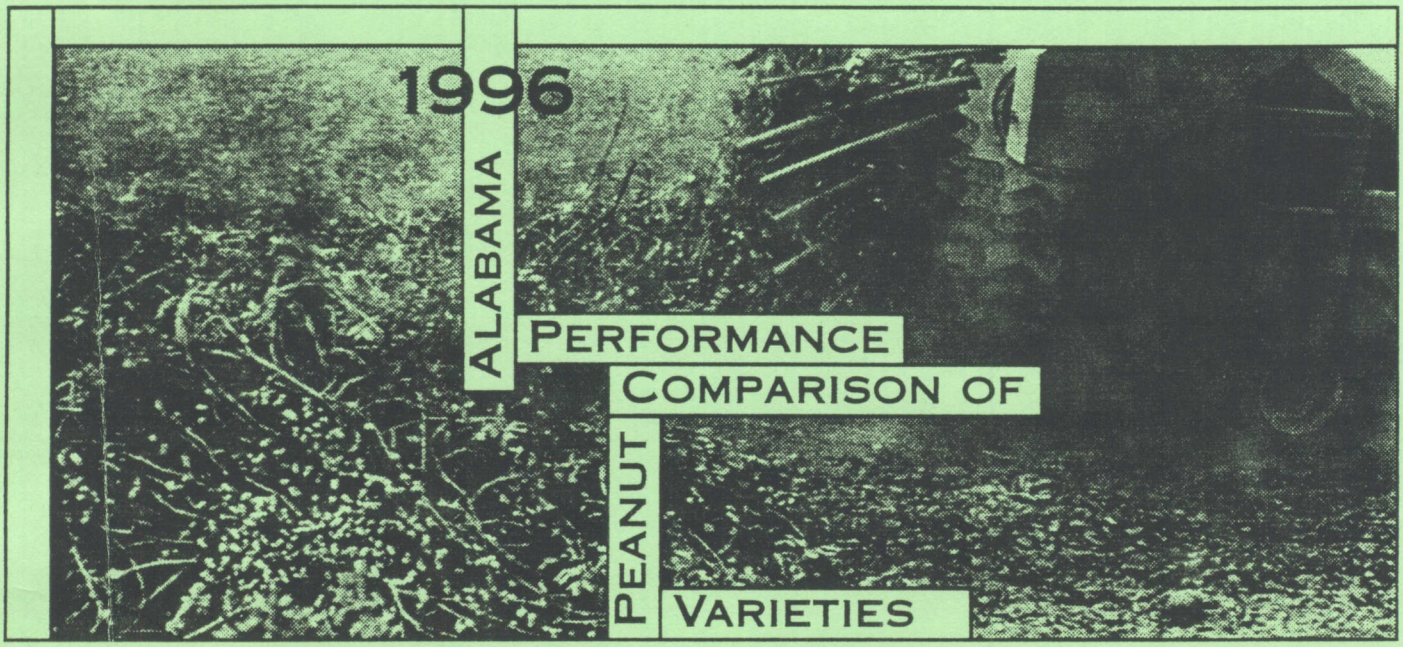

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1996 ALABAMA PERFORMANCE COMPARISON OF PEANUT VARIETIES

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INTRODUCTION

The number of peanut varieties available to Alabama growers has increased in recent years, thus placing greater need for unbiased performance data regarding varietal selection for production.

PRODUCTION

The 1996 test was conducted at the Wiregrass Substation, Headland, Alabama. The experimental design was a randomized complete block consisting of 2 row plots, 20 feet long, replicated 4 times. The test was planted on May 7, 1996 with a cone planter at a rate of six seed/ft. Recommended agronomic practices were followed regarding fertility, disease, insect, and weed control. The test was conducted under irrigation.

Entries considered to be earlier than Florunner in maturity were dug on September 20, 1996. These entries included AT 120, Andru 93, NC 7 and NC V11. All other entries except Southern Runner were dug on September 26, 1996. Southern Runner, considered to be later in maturity, was dug on October 14, 1996. Information concerning relative maturity was provided by the plant breeder responsible for developing the variety.

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DISCUSSION

The information presented here represents data from three years at a single location. Performance comparisons between varieties should be drawn judiciously under these circumstances. Tomato spotted wilt virus occurrence and yield data have been subjected to an analysis of variance and means separated by using Duncan's Multiple Range Test. Means followed by the same letter (A-I) are not significantly different at the 0.05 level of probability. Data is not presented for white mold or limb diseases since visual evaluation revealed none or only slight occurrence.

SIZE AND GRADE DATA TERMS

Data were collected and averaged on samples from replicates II, III, and IV for size and grade. The samples were graded following Federal-State Inspection Service procedures for grading farmer-stock peanuts.

Terms Used:

g[2]/100 SMKRS (grams per 100 sound mature kernels riding screen)-Weight in grams of 100 sound whole mature kernels from the shelled sample riding a 15/64 x 1 inch slotted screen or a 16/64 x 1 inch slotted screen for Virginia or Runner varieties respectively.

Pct. SMKRS (sound mature kernels riding screen)-Portion of shelled sample as described above.

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[2] One ounce equals 28.4 grams.

Pct. SS (sound splits)-Portion of shelled sample split or broken but not damaged.

Pct. TSMK (total sound mature kernels)-Portion of the shelled sample comprised of sound mature kernels plus sound splits.

Pct. OK (other kernels)-Kernels that pass through a 15/64 x 1 inch slotted screen or 16/64 x 1 inch slotted screen for Virginia or Runner varieties respectively.

Pct. DK (damaged kernels)-Kernels which are moldy, decayed, affected by insects or weather conditions resulting in seed coat or cotyledon discoloration or deterioration.

Pct. TK (total kernels)-All shelled sample kernels including TSMK, OK, DK.

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Table 1. Yield of Peanut Varieties at the Wiregrass Substation, Headland, Alabama, 1996

Variety or Line	Yield	Duncan Grouping
	Lb./ac.	
(V) NC 7	6,643	A
(R) Ga Green	6,598	A
(V) NC V11	6,334	A B
(R) GK 7	5,971	B C
(R) Sunrunner	5,953	B C
(R) Andru 93	5,853	B-D
(R) Florunner	5,772	B-D
(R) Ga Runner	5,763	B-D
(R) AT 120.	5,690	C-E
(R) Flavor Runner.	5,590	C-F
(V) Exp 256-1-78	5,418	C-G
(R) So. Runner	5,409	C-G
(R) Exp 8-2122	5,391	C-G
(R) Viruguard[a]	5,309	D-G
(V) Florigiant	5,091	E-H
(R) AT 108	4,973	F-H
(V) VA C92R	4,937	G H
(R) Tamrun 88	4,547	H I
(V) NC 9	4,492	H I
(R) SunOleic 95R	4,320	I

(R) Runner Type
(V) Virginia Type

[a] Formerly tested as Exp 51-3538.

Table 2. Two-Year Average Yield of Peanut Varieties at the Wiregrass Substation, Headland, Alabama, 1995-96

Variety or Line	1995	1996	Avg. Yield	Duncan Grouping Avg. Yield
	Lb./ac.	*Lb./ac.*	*Lb./ac.*	
Ga Green	6,244	6,598	6,421	A
NC V11	5,708	6,334	6,021	A B
NC 7	5,309	6,643	5,976	A B
GK 7	5,745	5,971	5,858	A-C
Viruguard	6,089	5,309	5,699	B C
Florunner	5,518	5,772	5,645	B C
Ga Runner	5,245	5,763	5,504	B-D
AT 108	5,980	4,973	5,477	B-D
Andru 93	4,982	5,853	5,418	B-D
So. Runner	5,409	5,409	5,409	B-D
VA C92R	5,708	4,937	5,323	C D
AT 120	4,882	5,690	5,286	C D
Florigiant	4,891	5,091	4,991	D E
SunOleic 95R	5,481	4,320	4,901	D E
NC 9	4,783	4,492	4,637	E
Tamrun 88	4,628	4,547	4,587	E

Table 3. Three-Year Average Yield of Peanut Varieties at the Wiregrass Substation, Headland, Alabama, 1994-96

Variety or Line	1994	1995	1996	Avg. Yield	Duncan Grouping Avg. Yield
	Lb./ac.	*Lb./ac.*	*Lb./ac.*	*Lb./ac.*	
GK 7	5,332	5,745	5,971	5,683	A
NC V11	4,977	5,708	6,334	5,673	A
So. Runner	6,083	5,409	5,409	5,634	A
NC 7	4,436	5,309	6,643	5,463	A B
AT 108	5,351	5,980	4,973	5,435	A B
Florunner	4,941	5,518	5,772	5,410	A B
Andru 93	5,375	4,982	5,853	5,403	A B
Viruguard	4,727	6,089	5,309	5,375	A B
Ga Runner	4,798	5,245	5,763	5269	A B
VA C92R	4,319	5,708	4,937	4,988	B C
Florigiant	4,195	4,891	5,091	4,726	C
Tamrun 88	4,887	4,628	4,547	4,687	C
NC 9	4,479	4,783	4,492	4,585	C

Table 4. Average Size and Grade of Peanut Varieties at the Wiregrass Substation, Headland, Alabama, 1996

Variety or Line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK
	g/100	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*
Andru 93	66	69	2	71	5	0	76
AT 108	65	69	3	74	5	0	79
AT 120	63	69	1	70	5	0	75
Exp 8-2122	67	70	4	74	5	0	79
Viruguard	76	71	4	75	4	0	79
Exp 256-1-78	79	68	4	72	2	0	74
Flavor Runner	61	72	2	74	5	0	79
Florigiant	88	69	3	71	2	0	73
Florunner	60	71	4	75	5	0	80
Ga Green	60	73	3	76	4	0	80
Ga Runner	64	69	4	73	5	0	78
GK 7	64	69	5	74	5	0	79
NC	89	68	1	69	2	1	72
NC 9	92	69	3	72	3	2	77
NC V11	91	67	1	68	3	1	72
So. Runner	53	72	1	73	4	0	77
SunOleic 95R	61	69	3	72	5	0	77
Sunrunner	59	70	4	74	5	0	79
VA C92R	87	66	3	69	3	2	72
Tamrun 88	64	71	3	74	6	0	80

Table 5. Two-Year Average Size and Grade of Peanut Varieties at the Wiregrass Substation, Headland, 1995-96

Variety or Line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK
	g/100	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*
Andru 93	63	68	3	71	5	1	77
AT 108	64	70	3	74	5	1	78
AT 120	64	66	3	69	6	1	76
Viruguard	76	71	4	75	4	0	79
Florigiant	84	69	3	71	3	1	75
Florunner	58	71	4	75	6	1	81
Ga Green	61	72	3	75	4	1	79
Ga Runner	61	69	4	73	5	1	79
GK 7	62	71	4	75	5	1	80
NC 7	92	68	2	70	2	2	74
NC 9	92	68	3	70	3	2	75
NC V11	85	68	2	69	3	1	73
So. Runner	55	73	2	74	4	1	78
SunOleic 95R	63	68	5	73	5	1	79
Tamrun 88	59	71	3	74	6	1	81
VA C92R	93	68	3	71	3	2	74

Table 6. Three-Year Average Size and Grade of Peanut Varieties at the Wiregrass Substation, Headland, Alabama, 1994-96

Variety or Line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK
	g/100	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*
Andru 93	61	69	3	71	5	1	77
AT 108	65	70	3	73	4	1	78
Viruguard	75	71	4	75	4	1	79
Florigiant	83	68	3	71	3	1	74
Florunner	61	72	3	75	5	1	80
Ga Runner	62	71	3	74	4	1	79
GK 7	63	72	3	75	4	1	80
NC 7	93	68	2	70	3	2	74
NC 9	91	67	3	70	2	2	75
NC V11	85	68	2	69	3	1	73
So. Runner	54	72	2	73	4	1	78
Tamrun 88	59	72	2	75	5	1	80
VA C92R	89	68	3	71	2	2	74

Table 7. Occurrence of Tomato Spotted Wilt Virus Hits in the Peanut Variety Test at the Wiregrass Substation, Headland, Alabama, 1996

Variety or Line	Hits				Total	Avg.	Duncan Grouping
	Rep. I	Rep. II	Rep. III	Rep. IV			
Tamrun 88	36	39	42	26	143	35.75	A
NC 9	28	11	16	15	70	17.50	B
Sunrunner	11	15	18	21	65	16.25	B C
Florigiant	18	16	17	13	64	16.00	B C
Florunner	5	26	12	17	60	15.00	B-D
AT 120	19	16	9	14	58	14.50	B-E
Andru 93	4	15	16	14	49	12.25	B-G
Flavor Runner	9	23	11	6	49	12.25	B-G
SunOleic 95R	11	12	8	17	48	12.00	B-G
VA C92R	4	4	21	10	39	9.75	B-G
Ga Runner	10	8	13	6	37	9.25	B-G
NC 7	8	3	7	19	37	9.25	B-G
So. Runner	10	2	14	10	36	9.00	B-G
AT 108	9	5	13	8	35	8.75	C-G
GK 7	4	2	8	19	33	8.25	C-G
Exp 8-2122	7	6	8	7	28	7.00	D-G
Viruguard	7	3	10	4	24	6.00	E-G
Exp 256-1-78	7	4	7	3	21	5.25	F-G
Ga Green	0	7	3	6	16	4.00	G
NC V11	3	7	2	3	15	3.75	G

Table 8. Two-Year Average Occurrence of Tomato Spotted Wilt Virus Hits in the Peanut Variety Test at the Wiregrass Substation, Headland, Alabama, 1995-96

Variety or Line	1995 Average	1996 Average	Two-Year Average	Duncan Grouping
Tamrun 88	23.00	35.75	29.38	A
NC 9	7.50	17.50	12.50	B
AT 120	8.00	14.50	11.25	B C
Florunner	7.50	15.00	11.25	B C
Florigiant	5.50	16.00	10.75	B-D
Andru 93	8.50	12.25	10.38	B-E
Ga Runner	10.75	9.25	10.00	B-F
AT 108	10.75	8.75	9.75	B-F
SunOleic 95R	7.25	12.00	9.63	B-F
VA C92R	7.50	9.75	8.63	B-F
GK 7	6.50	8.25	7.38	B-F
NC 7	4.50	9.25	6.88	B-F
So. Runner	2.25	9.00	5.63	C-F
Ga Green	5.75	4.00	4.88	D-F
Viruguard	2.75	6.00	4.38	E F
NC V11	4.25	3.75	4.00	F

Table 9. Three-Year Average Occurrence of Tomato Spotted Wilt Virus Hits in the Peanut Variety Test at the Wiregrass Substation, Headland, Alabama, 1994-96

Variety or Line	1994 Average	1995 Average	1996 Average	Three-Year Average	Duncan Grouping
Tamrun 88	2.25	23.00	35.75	29.38	A
NC 9	1.25	7.50	17.50	8.75	B
Florunner	3.00	7.50	15.00	8.50	B C
Florigiant	1.50	5.50	16.00	7.67	B C
Andru 93	1.50	8.50	12.25	7.42	B C
AT 108	2.25	10.75	8.75	7.25	B C
Ga Runner	1.00	10.00	9.25	7.00	B C
VA C92R	1.00	7.50	9.75	6.00	B C
NC 7	3.75	4.50	9.25	5.83	B C
GK 7	1.50	6.50	8.25	5.42	B C
So. Runner	1.25	2.25	9.00	4.17	B C
NC V11	3.75	4.25	3.75	3.92	B C
Viruguard	1.00	2.75	6.00	3.25	C

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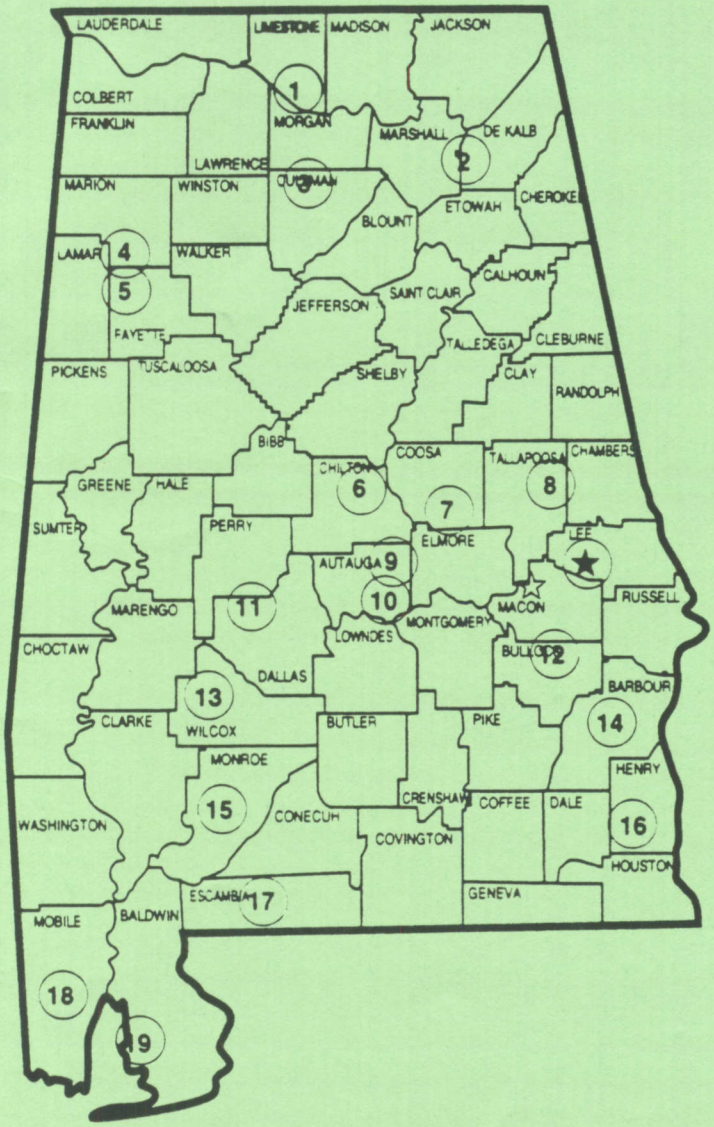

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