January 1999 Agronomy and Soils Departmental Series No. 215
Alabama Agricultural Experiment Station
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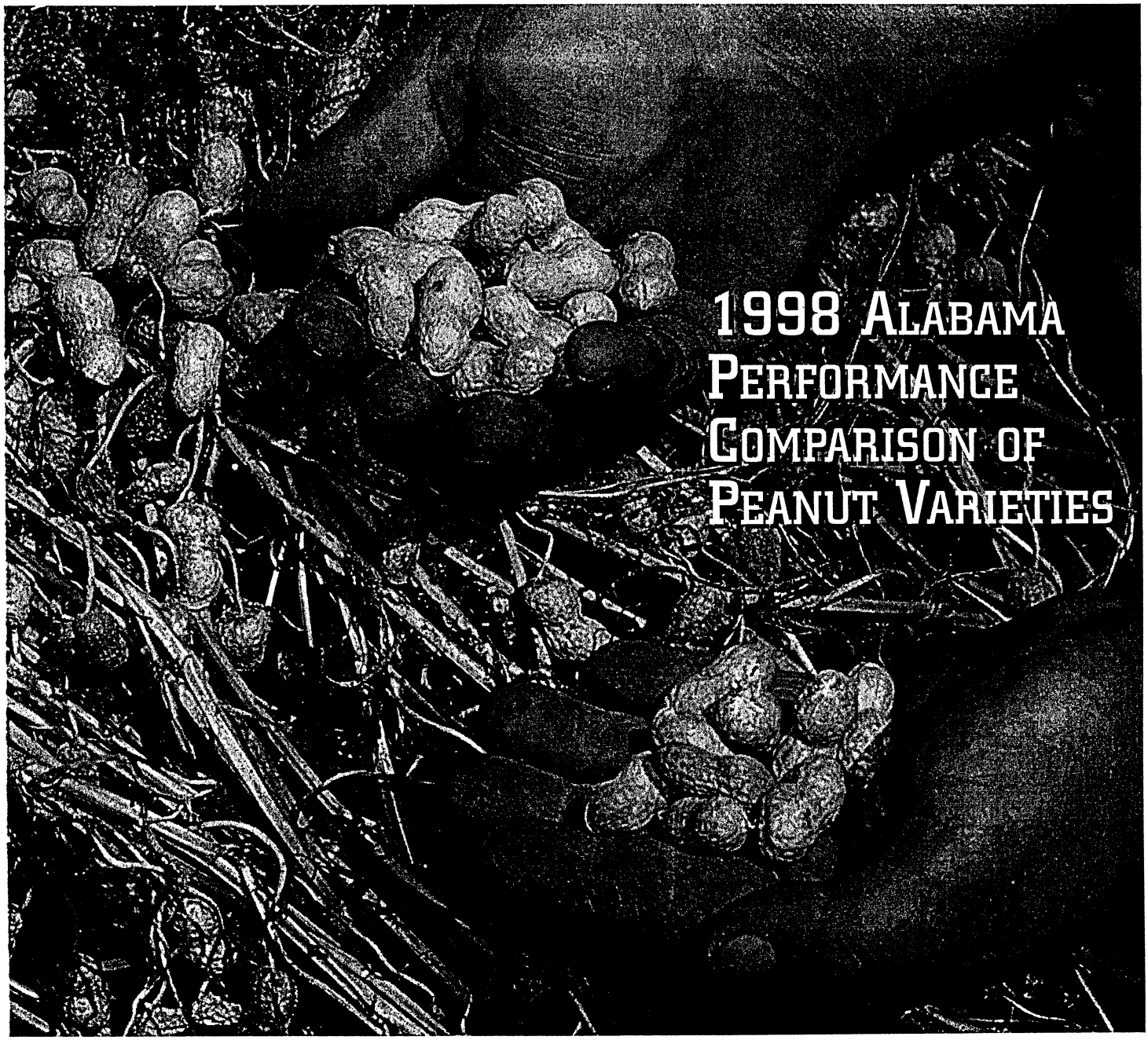
Auburn University Auburn, Alabama



1998 Alabama Performance Comparison of Peanut Varieties

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The 1998 Alabama Performance Comparison of PeanutVarieties

James P. Bostick, Larry W. Wells, and Brian E. Gamble[1]

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 1998 test was conducted at the Wiregrass Substation in Headland, Alabama. The experimental design was a randomized complete block consisting of two-row plots, 20 feet long, replicated four times. The test was planted on May 5, 1998, with a cone planter at a rate of six seed per foot of row. 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 17, 1998. These entries included AT 120, Andru 93, Exp 72-4344, NC 7, ViruGard, and VA 93B. All other entries except Southern Runner and Florida MDR 98 were dug on September 25, 1998. Southern Runner and Florida MDR 98, considered to be later in maturity, were dug on October 12, 1998. Information concerning relative maturity was provided by the plant breeder responsible for developing the variety.

DISCUSSION

Performance comparisons among varieties should be drawn judiciously under these circumstances. Yield and disease occurrence data have been subjected to an analysis of variance. This statistical evaluation determined the overall averages for all varieties, coefficient of variation (CV) and the least significant differences (LSD). The LSD values represent the difference required for the averages of two varieties to be considered statistically different. The (.05) following the LSD value indicates that the LSD was calculated at the 95 percent level of confidence.

The CV, which is expressed as a percentage, is a relative measure of variation within a set of data. CV values of 8 to 12 percent are generally considered acceptable for yield data of agronomic crops. CV values in the disease data are considerably higher than this. However, this is expected due to random occurrence of disease in the field.

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.

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[1]*Bostick is an adjunct professor of the Auburn University Department of Agronomy and Soils and executive secretary of the Alabama Crop Improvement Association; Wells is superintendent and Gamble is assistant superintendent of the Wiregrass Substation.*

Terms Used

g/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 screen or a 16/64 x 3/4-inch slotted screen for Virginia or Runner varieties, respectively. (Note: one ounce equals 28.4 grams)

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

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 3/4-inch slotted screen for Virginia or Runner varieties, respectively.

Pct. DK (damaged kernels)–Kernels that 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, and DK.

Pct. Hulls–All hulls from the shelled sample.

+21.0 (Generally considered as the Jumbo commercial grade)–Portion of SMKRS riding a 21/64 x 3/4-inch slotted screen.

-21.0 +18.0 (Generally considered as the Medium commercial grade)–Portion of the SMKRS falling through a 21/64 x 3/4-inch slotted screen and riding a 18/64 x 3/4-inch slotted screen.

-18.0+ 16.0 (Generally considered as the No.1 commercial grade)–Portion of the SMKRS falling through a 18/64 x 3/4-inch slotted screen and riding a 16/64 x 3/4-inch slotted screen.

ACKNOWLEDGMENTS

The authors express appreciation to Austin K. Hagan, Professor of Plant Pathology, for providing the disease evaluation data and to Glenn Wehtje, Professor of Agronomy and Soils, for the statistical analysis. Appreciation is also expressed to Sara Casey and Larry Savelle, Wiregrass ~~Substation~~, for their cooperation.

TABLE 1. YIELD OF PEANUT VARIETIES AT THE WIREGRASS SUBSTATION, HEADLAND, ALABAMA, 1998

Variety or line	Yield *lb/a*	Variety or line	Yield *lb/a*
(V)[1] Exp 78-56	6,171	(R) NC-V11	5,064
(R) ViruGard	6,089	(R) Southern Runner	5,055
(R) Georgia Green	5,990	(R) GK 7 High Oleic	5,028
(R) Tamrun 96	5,917	(V) NC 12C	5,019
(V) VA 93B	5,717	(R) AT 120	4,846
(R) Andru 93	5,545	(R) Florunner	4,601
(V) NC 7	5,527	(R) SunOleic 97R	4,492
(R) [2]Georgia Bold	5,427	(R) GK 7	4,483
(R) Exp 72-4344	5,200	(R) AT 108	3,966
(R) Florida MDR 98	5,091	(R) Georgia Runner	3,866
(V) VA-C 92R	5,082	(R) Flavor Runner 458	2,940

Overall Average	5,051
CV (%)	11.1
LSD (.05)	561

[1](V) Virginia Type (R) Runner Type
[2]Formerly tested as GA 921302

TABLE 2. TWO-YEAR AVERAGE YIELD OF PEANUT VARIETIES AT THE WIREGRASS SUBSTATION, HEADLAND, ALABAMA, 1997-98

Variety or line	1997 *lb/a*	1998 *lb/a*	Avg. yield *lb/a*
Georgia Green	5,118	5,990	5,554
ViruGard	4,774	6,089	5,432
Andru 93	4,365	5,545	4,955
Southern Runner	4,837	5,055	4,946
Florida MDR 98	4,537	5,091	4,814
Georgia Bold	4,193	5,427	4,810
VA-C 92R	4,411	5,082	4,747
GK 7 High Oleic	4,274	5,028	4,651
NC 7	3,603	5,527	4,565
AT 120	4,165	4,846	4,506
GK 7	4,238	4,483	4,361
SunOleic 97R	4,147	4,492	4,320
Florunner	3,930	4,601	4,266
AT 108	4,401	3,966	4,184
Georgia Runner	4,211	3,866	4,039
Flavor Runner 458	3,630	2,940	3,285

Overall Average	4,589
CV (%)	13.3
LSD (.05)	610

TABLE 3. THREE-YEAR AVERAGE YIELD OF PEANUT VARIETIES AT THE WIREGRASS SUBSTATION, HEADLAND, ALABAMA, 1996-98

Variety or line	1996 *lb/a*	1997 *lb/a*	1998 *lb/a*	Avg. yield *lb/a*
Georgia Green	6,598	5,123	5,990	5,904
ViruGard	5,309	4,774	6,089	5,391
NC 7	6,643	3,603	5,527	5,258
Andru 93	5,853	4,365	5,545	5,245
Southern Runner	5,409	4,837	5,055	5,100
AT 120	5,690	4,165	4,846	4,900
GK 7 High Oleic	5,391	4,274	5,028	4,898
GK 7	5,971	4,238	4,483	4,897
VA-C 92R	4,937	4,411	5,082	4,810
Florunner	5,772	3,930	4,601	4,768
Georgia Runner	5,763	4,211	3,866	4,613
AT 108	4,973	4,401	3,966	4,447
Flavor Runner 458	5,590	3,630	2,940	4,053
Overall Average				4,946
CV (%)				12.8
LSD (.05)				631

TABLE 4. AVERAGE SIZE AND GRADE ON PEANUT VARIETIES AT THE WIREGRASS SUBSTATION, HEADLAND, ALABAMA, 1998

Variety or line	SMKRS *g/100*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*	Hulls *pct*
Andru 93	63	68	1	69	5	1	75	25
AT 108	75	66	3	69	4	2	75	26
AT 120	67	68	1	69	4	1	74	25
Exp 72-4344	63	68	2	70	4	1	75	25
Exp 78-56	100	68	2	70	2	2	74	25
Flavor Runner 458	64	67	2	69	6	1	76	24
Florida MDR 98	75	68	4	72	4	1	77	23
Florunner	66	68	4	72	3	1	76	24
Georgia Bold	69	69	4	73	3	1	77	23
Georgia Green	66	72	2	74	4	1	79	21
Georgia Runner	64	67	2	69	6	1	76	24
GK 7	67	69	2	71	4	1	76	24
GK 7 High Oleic	79	68	5	73	4	2	79	21
NC 7	112	68	1	69	2	2	73	27
NC-12C	109	70	1	71	2	2	75	25
NC-V11	105	69	2	71	2	2	75	25
Southern Runner	60	69	2	71	4	1	76	24
SunOleic 97R	67	68	1	69	5	2	76	24
Tamrun 96	66	64	4	68	3	2	73	27
VA 93B	104	67	2	69	2	1	72	28
VA-C 92R	113	68	1	69	2	2	73	26
ViruGard	79	71	1	72	3	1	76	24

TABLE 5. TWO-YEAR AVERAGE SIZE AND GRADE ON PEANUT VARIETIES AT THE WIREGRASS SUBSTATION, HEADLAND, ALABAMA, 1997-98

Variety or line	SMKRS *g/100*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*
Andru 93	66	68	2	69	5	2	76
AT 108	73	67	2	70	4	2	75
AT 120	69	66	2	67	5	2	74
Flavor Runner 458	63	68	2	69	6	2	77
Florida MDR 98	71	69	3	72	4	1	77
Florunner	64	68	3	70	4	2	76
Georgia Bold	69	68	3	71	4	2	76
Georgia Green	62	71	2	72	4	1	77
Georgia Runner	64	69	2	70	5	2	77
GK 7	66	70	2	72	4	2	77
GK 7 High Oleic	74	69	3	72	4	2	78
NC 7	96	62	2	64	3	3	69
Southern Runner	59	68	2	70	5	1	75
VA-C 92R	101	67	1	68	2	2	72
ViruGard	79	70	2	72	3	2	77

TABLE 6. THREE-YEAR AVERAGE SIZE AND GRADE ON PEANUT VARIETIES AT THE WIREGRASS SUBSTATION, HEADLAND, ALABAMA, 1996-98

Variety or line	SMKRS *g/100*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*
Andru 93	66	68	2	70	5	1	76
AT 108	70	68	2	71	4	1	76
AT 120	67	67	2	68	5	1	74
Flavor Runner 458	62	69	2	71	6	1	77
Florunner	63	69	3	72	4	1	77
Georgia Green	61	71	2	73	4	1	78
Georgia Runner	64	69	2	71	5	1	77
GK 7	65	70	3	72	4	1	78
GK 7 High Oleic	72	69	3	73	4	1	78
NC 7	93	64	1	65	2	2	70
Southern Runner	57	69	1	71	4	1	76
VA-C 92R	96	66	2	68	3	2	72
ViruGard	78	70	2	73	3	1	77

TABLE 7. AVERAGE SHELLED SEED SIZE DISTRIBUTION OF PEANUT VARIETIES AT THE WIREGRASS SUBSTATION, HEADLAND, ALABAMA, ~~1998~~ 1998-99

Variety or line	SMKRS Size Distribution		
	+21.0 Jumbo	-21.0 + 18.0 Medium	-18.0 + 16.0 No. 1
	pct	*pct*	*pct*
Andru 93	36.8	50.8	12.4
AT 108	43.2	48.2	8.6
AT 120	48.4	44.7	6.9
Exp 72-4344	41.5	49.0	9.5
Exp 78-56	59.3	35.0	5.7
Flavor Runner 458	28,9	60.5	10.6
Florida MDR 98	72.0	24.5	3.5
Florunner	27.1	61.6	11.3
Georgia Bold	55.8	38.5	5.7
Georgia Green	39.8	54.1	6.1
Georgia Runner	36.8	54.7	8.5
GK 7	33.7	57.2	9.1
GK 7 High Oleic	49.1	43.1	7.8
NC 7	82.3	14.3	3.4
NC-12C	86.0	10.4	3.6
NC-V11	72.1	23.1	4.8
Southern Runner	36.7	56.6	6.7
SunOleic 97R	36.0	56.5	7.5
Tamrun 96	54.2	41.0	4.8
VA 93B	72.2	21.9	5.9
VA-C 92R	76.4	21.1	2.5
ViruGard	54.4	40.7	4.9

TABLE 8. OCCURRENCE OF TOMATO SPOTTED WILT VIRUS HITS[1] IN THE PEANUT VARIETY TEST AT THE WIREGRASS ~~SUBSTATION~~, HEADLAND, ALABAMA, ~~1998~~ 1999

Variety or line	Hits per plot					
	Rep I	Rep II	Rep III	Rep IV	Total	Avg.
Flavor Runner 458	63	59	73	108	303	75.75
Georgia Runner	60	51	74	104	289	72.25
SunOleic 97R	36	68	48	75	227	51.75
GK 7	47	52	32	70	201	50.25
Florunner	40	70	30	61	201	50.25
Andru 93	43	42	38	72	195	48.75
AT 120	43	53	41	57	194	48.50
Georgia Bold	47	61	38	48	194	48.50
NC 7	52	35	52	34	173	43.25
AT 108	34	26	50	41	151	37.75
NC 12C	31	34	44	42	151	37.75
Florida MDR 98	41	42	34	33	150	37.50
Tamrun 96	16	18	*50*	40	124	31.00
VA 93B	16	18	50	40	124	31.00
GK 7 High Oleic	17	21	41	38	117	29.25
VA-C 92R	16	24	39	36	115	28.75
Georgia Green	15	45	39	7	106	26.50
Exp 72-4344	21	22	17	25	85	21.25
NC-V11	22	23	9	22	76	19.00
Southern Runner	12	26	10	21	69	17.25
Exp 78-56	8	19	24	10	61	15.25
ViruGard	6	12	10	7	35	8.75
Overall Average						37.75
CV(%)						33.30
LSD (.05)						12.30

[1]Hits equal ~~number of diseased plants per plot~~ length of row (ft) to 1 linear foot with severely diseased plants.

Table 10. Peter Dobbs T.8

TABLE 9. ~~TWO-YEAR AVERAGE~~ OCCURRENCE OF ~~TOMATO SPOTTED WILT VIRUS~~ HITS IN THE PEANUT VARIETY TEST AT THE WIREGRASS ~~SUBSTATION~~, HEADLAND, ALABAMA, ~~1997-98~~

Variety or line	——Average number of hits in four replications per variety per year—— 1997 avg.	1998 avg.	Two -year avg.
Flavor Runner 458	27.50	75.75	51.63
Georgia Runner	30.25	72.25	51.25
Georgia Bold	30.50	48.50	39.50
Andru 93	28.00	48.75	38.38
GK 7	26.25	50.25	38.25
Florunner	22.25	50.25	36.25
SunOleic 97R	17.75	51.75	34.75
NC 7	21.25	43.25	32.25
AT 120	15.50	48.50	32.00
AT 108	18.00	37.75	27.88
Florida MDR 98	12.75	37.50	25.13
GK 7 High Oleic	16.25	29.25	22.75
VA-C 92R	10.50	28.75	19.63
Georgia Green	9.00	26.50	17.75
Southern Runner	6.25	17.25	11.75
ViruGard	7.50	8.75	8.13
Overall Average			29.86
CV(%)			58.00
LSD (.05)			17.70

TABLE 10. THREE-YEAR AVERAGE OCCURRENCE OF TOMATO SPOTTED WILT VIRUS HITS IN THE PEANUT VARIETY TEST AT THE WIREGRASS ~~SUBSTATION~~, HEADLAND, ALABAMA, ~~1996-98~~

Variety or line	——Average number of hits in four replications per variety per year—— 1996 avg.	1997 avg.	1998 avg.	Three-year avg.
Florunner	15.00	27.50	75.75	39.42
Flavor Runner 458	12.25	27.50	75.75	38.50
Georgia Runner	9.25	30.25	72.25	37.25
Andru 93	12.25	28.00	48.75	29.67
GK 7	8.25	26.25	50.25	28.25
AT 120	14.50	15.50	48.50	26.17
NC 7	9.25	21.25	43.25	24.59
AT 108	8.75	18.00	37.75	21.50
GK 7 High Oleic	7.00	16.25	29.25	17.50
VA-C92R	9.75	10.50	28.75	16.34
Georgia Green	4.00	9.00	26.50	13.17
Southern Runner	9.00	6.25	17.25	10.84
ViruGard	6.00	7.50	8.75	7.42
Overall Average				23.90
CV (%)				54.40
LSD (.05)				12.80

TABLE 11. OCCURRENCE OF WHITE MOLD HITS IN THE PEANUT VARIETY TEST AT THE WIREGRASS ~~SUBSTATION~~, ~~HEADLAND~~, ALABAMA, ~~1998~~ 1994

Variety or line	Hits per plot Rep I	Rep II	Rep III	Rep IV	Total	Avg.
Georgia Runner	15	5	10	9	39	9.75
Andru 93	11	5	7	15	38	9.50
Southern Runner	4	9	9	15	37	9.25
Exp 78-56	3	12	6	15	36	9.00
SunOleic 97R	12	11	8	5	36	9.00
AT 108	5	7	14	9	35	8.75
NC12C	4	9	15	3	31	7.75
Florunner	8	11	3	8	30	7.50
NC-V11	2	14	7	7	30	7.50
Florida MDR 98	9	8	5	7	29	7.25
VA-C 92R	1	6	15	6	28	7.00
Georgia Green	12	5	4	6	27	6.75
GK 7 High Oleic	9	4	2	11	26	6.50
AT 120	2	4	10	9	25	6.25
NC 7	9	7	5	3	24	6.00
VA 93B	6	3	13	2	24	6.00
Flavor Runner 458	8	11	3	8	23	5.75
GK 7	4	8	5	6	23	5.75
Exp 72-4344	3	3	4	9	19	4.75
Tamrun 96	8	2	1	8	19	4.75
ViruGard	4	6	5	4	19	4.75
Georgia Bold	1	2	4	3	10	2.50
Overall Average						6.91
CV(%)						55.90
LSD (.05)						3.90

TABLE 12. OCCURRENCE OF LEAFSPOT IN THE PEANUT VARIETY TEST AT THE WIREGRASS SUBSTATION, HEADLAND, ALABAMA, 1998

Variety or line	Rating[1] per plot Rep I	Rep II	Rep III	Rep IV	Total	Avg.
Audru 93	4	5	5	5	19	4.75
Exp 78-56	5	5	4	5	19	4.75
SunOleic 97R	5	5	5	4	19	4.75
Tamrun 96	5	4	5	5	19	4.75
VA 93B	5	4	5	5	19	4.75
ViruGard	5	4	5	5	19	4.75
Florunner	4	5	5	4	18	4.50
GK 7 High Oleic	4	4	4	5	17	4.25
NC-12C	4	4	4	5	17	4.25
Flavor Runner 458	4	4	4	3	15	3.75
Georgia Green	2	4	4	4	14	3.50
Georgia Runner	3	3	4	4	14	3.50
NC 7	2	4	5	3	14	3.50
GK 7	4	3	4	3	14	3.50
Georgia Bold	3	3	4	3	13	3.25
VA-C 92R	3	4	4	2	13	3.25
AT 120	2	3	3	4	12	3.00
Exp 72-4344	3	4	3	2	12	3.00
Southern Runner	3	3	3	3	12	3.00
AT 108	3	2	4	2	11	2.75
Florida MDR 98	3	3	3	2	11	2.75
NC-V11	3	2	2	2	9	2.75
Overall average						3.78
CV (%)						17.40
LSD (.05)						0.65

[1]Rating 1 (lowest) to 5 (highest)

DESCRIPTIONS OF 1998 PEANUT VARIETY TEST ENTRIES

1. Andru 93

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 1993 and is a protected variety to be sold only as a class of certified seed. Earlier in maturity by seven to ten days than Florunner. Has slightly larger seed and pod size than Florunner, normal oleic/linoleic fatty acid ratio, and typical runner growth habit. Has no known disease or insect resistance, Released primarily due to earliness and high yields. Has prominent center stem and more jumbo kernels than Florunner.

2. AT 108

Developed by Dr. Ernest Harvey, AgraTech Seeds, Inc. Released in 1996 and is a protected variety under the 1994 Amendment of the Plant Variety Protection Act. Earlier in maturity by about five days than Florunner. Slightly larger seed and pod size than Florunner. Has normal oleic/linoleic fatty acid ratio. Has typical runner growth habit and more closely resembles GK 7 than any other variety. Has slightly smaller leaves and slightly shorter mainstem than GK 7. No known disease or insect resistance. Released due to yield potential and slightly larger kernel size than Florunner or GK 7.

3. AT 120

Developed by Dr. Ernest Harvey, AgraTech Seeds Inc. Released in 1997 under the 1994 Amendment of the Plant Variety Protection Act. Earlier in maturity than Florunner by 10 to 15 days. Slightly larger seed and pod size than Florunner with seed having lighter color than Florunner. Has normal oleic/linoleic fatty acid ratio and typical runner growth habit. No known disease or insect resistance. Has the characteristic of flowering at each node on the mainstem contributing to good yield potential.

4. Exp 72-4344

Developed by Dr. Kim Moore, AgraTech Seeds Inc. This line is still under evaluation and has not been named or released at this point. Maturity is approximately 15 days earlier than Florunner. Seed and pod size about the same as Florunner, has high oleic/linoleic fatty acid ratio and typical runner growth habit. No known disease or insect resistance.

5. Exp 78-56

Developed by Dr. Kim Moore, AgraTech Seeds Inc. This line is still under evaluation and has not been named or released at this point. Maturity is same as Florunner. Smaller seed and pod size than NC 7. The oleic/linoleic fatty acid ratio is high and the line has runner type growth habit. No known insect resistance, but has shown some tolerance to tomato spotted wilt virus. Has slightly less vine growth than NC 7.

6. Flavor Runner 458

Developed by Dr. James Sutton, Mycogen Plant Sciences. Released in 1996 and is protected under the 1994 Amendment of the Plant Variety Protection Act. Was also granted a variety patent in 1997. Similar to Florunner in maturity, seed and pod size, and growth habit. Has high oleic/linoleic fatty acid ratio. No known resistance to disease or insects.

7. Florida MDR 98

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 1998. Variety protection has been applied for under the 1994 Amendment of the Plant Variety Protection Act. (MDR stands for Multiple Disease Resistance.) Later in maturity than Florunner by approximately 15 days. Larger seed and pod size than Florunner and has mid-level oleic/linoleic fatty acid ratio. Has better resistance than Southern Runner to late leafspot, white mold, rust, tomato spotted wilt virus, and web blotch. No known insect resistance. Released due to significantly larger seed, better yields and grade than Souther Runner. Has larger leaves than Southern Runner, but similar pod venation and seed coat color.

8. Florunner

Developed by Dr. Al Norden, University of Florida Agricultural Experiment Station. Released in 1969. Matures in approximately 135 days and has normal oleic/linoleic fatty acid ratio. Has been the industry standard to compare other runner varieties to since its release. No known disease or insect resistance.

9. Georgia Bold

Developed by Dr. William D. Branch, University of Georgia Agricultural Experiment Station. Released in 1997 and protected under the 1994 Amendment of the Plant Variety Protection Act. Same maturity range as Florunner with larger seed and pod size with slightly higher oleic/linoleic fatty acid ratio. No known insect resistance, but has moderate resistance to tomato spotted wilt virus. Georgia Bold has excellent yield and grade combination with significantly larger seed size than Florunner for both seed weight and percentage of extra large kernels.

10. Georgia Green

Developed by Dr. William D. Branch, University of Georgia Agricultural Experiment Station. Released in 1995 and protected under the 1994 Amendment of the Plant Variety Protection Act. Same maturity range as Florunner with seed and pod size similar to or slightly more round than Florunner. Normal oleic/linoleic fatty acid ratio with intermediate growth habit and considerably less vine growth than Florunner. Resistant to tomato spotted wilt virus, but carries no known insect resistance.

11. Georgia Runner

Developed by Dr. William D. Branch, University of Georgia Agricultural Experiment Station. Released in 1990 and protected under the 1994 Amendment of the Plant Variety Protection Act. The maturity range is same as Florunner with larger seed and pod size, normal oleic/linoleic fatty acid ratio, and typical runner growth habit. No known disease or insect resistance. Typically has quick emergence and vigorous early season growth under favorable conditions.

12. GK 7

Developed by Dr. Ernest Harvey, AgraTech Seeds Inc. Released in 1984 and protected under the Plant Variety Protection Act. Has slightly larger seed and pod size than Florunner and the same maturity range. Normal oleic/linoleic fatty acid range with some tomato spotted wilt virus tolerance. No other known disease tolerance and no known insect resistance. Typical runner growth habit with an erect mainstem.

13. GK 7 High Oleic

Developed by Dr. Kim Moore, AgraTech Seeds Inc. Released in 1997 and protected under the 1994 Amendment of the Plant Variety Protection Act. Maturity range similar to Florunner with seed and pod size slightly larger. High oleic/linoleic fatty acid ratio and some tolerance to tomato spotted wilt virus. No other known disease or insect resistance. Typical runner growth habit with erect mainstem.

14. NC 7

Developed by North Carolina Agricultural Research Service. Released in 1978 and protected under the Plant Variety Protection Act. Has become the industry standard for virginia variety development comparisons as Florunner has for runner varieties. Maturity range is early compared with other virginia varieties. Has normal oleic/linoleic fatty acid ratio and intermediate growth habit. Highly susceptible to early leafspot, CBR, and sclerotinia blight but has moderate tolerance to tomato spotted wilt virus. No known insect resistance. It is preferred for the in-shell export market due to its large pod and seed size.

15. NC-12C

Developed by North Carolina Agricultural Research Service. Released in 1996 and protected under the 1994 Amendment of the Plant Variety Protection Act. Same maturity group as NC 7 with about the same seed and pod size, normal oleic/linoleic fatty acid ratio, and intermediate growth habit. Intermediate resistance to CBR (similar to NC 10C), low level of resistance to early leafspot (similar to NC 6), low level of tolerance to tomato spotted wilt virus, and highly susceptible to sclerotinia blight. No known insect resistance. Pod and seed characteristics similar to NC 7.

16. NC-V11

Developed by North Carolina Agricultural Research Service, Virginia Agricultural Experiment Station, and USDA-ARS. Released in 1989 and protected under the Plant Variety Protection Act. Maturity range same as NC 7 with smaller seed and pod size, normal oleic/linoleic fatty acid ratio, and runner growth habit, Has field tolerance to tomato spotted wilt virus, low level of resistance to CBR, susceptible to early leafspot and sclerotinia blight. No known insect resistance. Bright shapely pods make NC-V11 one of the three varieties preferred by VC area shellers (VA 93B first, NC 10C second, NC-V11 third).

17. Southern Runner

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 1986 and protected under the Plant Variety Protection Act. Matures 15 to 20 days later than Florunner with smaller seed and pod size. Has normal oleic/linoleic fatty acid ratio with runner growth habit. Has resistance to late leafspot, white mold, rust, and tomato spotted wilt virus. Possibly has some resistance to Southern corn rootworm, possibly more drought tolerant and usually lower LSK and less aflatoxin than Florunner. Tan seedcoat and prominent exterior hull venation.

18. SunOleic 97R

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 1997 and protected under the 1994 Amendment of the Plant Variety Protection Act. Same maturity group as Florunner, with about the same seed and pod size. High oleic/linoleic fatty acid ratio with typical runner growth habit. No known disease or insect resistance. Generally very similar to Sunrunner, but with high oleic oil chemistry.

19. Tamrun 96

Developed by Drs. Olin Smith and Charles Simpson, Texas Agricultural Experiment Station. Released in 1996 and protected under the 1994 Amendment of the Plant Variety Protection Act. Maturity range same as Florunner with slightly larger seed and pod size. Normal oleic/linoleic fatty acid ratio with typical runner growth habit. Partial resistance to tomato spotted wilt virus, white mold, pod rot, and sclerotinia blight. No known insect resistance. Primary lateral branch tips slightly more elevated than Florunner.

20. VA 93B

Developed by Virginia Agricultural Experiment Station and USDA-ARS. Released in 1993 and protected under the Plant Variety Protection Act. Maturity range is earlier than NC 7 by about seven days in the VC area. Has smaller seed and pod size than NC 7, normal oleic/linoleic fatty acid ratio, and bunch growth habit. No known insect resistance and has a moderate resistance to sclerotinia blight. Bright, shapely, fancy pods make VA 93B the most preferred variety for in-shell products in the VC shelling industry.

21. VA-C 92R

Developed by Virginia Agricultural Experiment Station, North Carolina Agricultural Research Service, and USDA-ARS. Released in 1992 and protected under the Plant Variety Protection Act. Maturity range same as NC 7 with smaller seed and pod size and normal oleic/linoleic fatty acid ratio. Has intermediate growth habit with moderate field tolerance to tomato spotted wilt virus, susceptible to early leafspot. Has uniform pink seed. Its high yield potential made it very popular in the VC area until area shellers voiced concerns over its relatively dark hulls.

22. ViruGard

Developed by Dr. Ernest Harvey, AgraTech Seeds Inc. Released in 1997 under the 1994 Amendment of the Plant Variety Protection Act. Considered to be in the same maturity group as Florunner with larger seed and pod size, mid-level oleic/linoleic fatty acid ratio, and intermediate growth habit. Generally smaller leaf size than Florunner. No known insect resistance. Resistant to tomato spotted wilt virus. Seedcoat color lighter than Florunner.

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25

Sources of Seed

Dr. William D. Branch
University of Georgia
Department of Crop and Soil Sciences
Coastal Plain Experiment Station
Tifton, Georgia 31793
Georgia Bold
Georgia Green
~~**Georgia Runner**~~

Dr. D. W. Gorbet
University of Florida
North Florida Research and Education Center
3925 Highway 71
Marianna, Florida 32446
Andru 93
Florida ~~MDR 98~~ C 99R
Florunner
Southern Runner
SunOleic 97R

Dr. T.G. Isleib
North Carolina State University
Department of Crop Science
Unit 3: 840 Method Road
Raleigh, North Carolina 27695
NC 7 ← Gregory
NC-12C
NC-V11
VA 93B
VA-C 92R

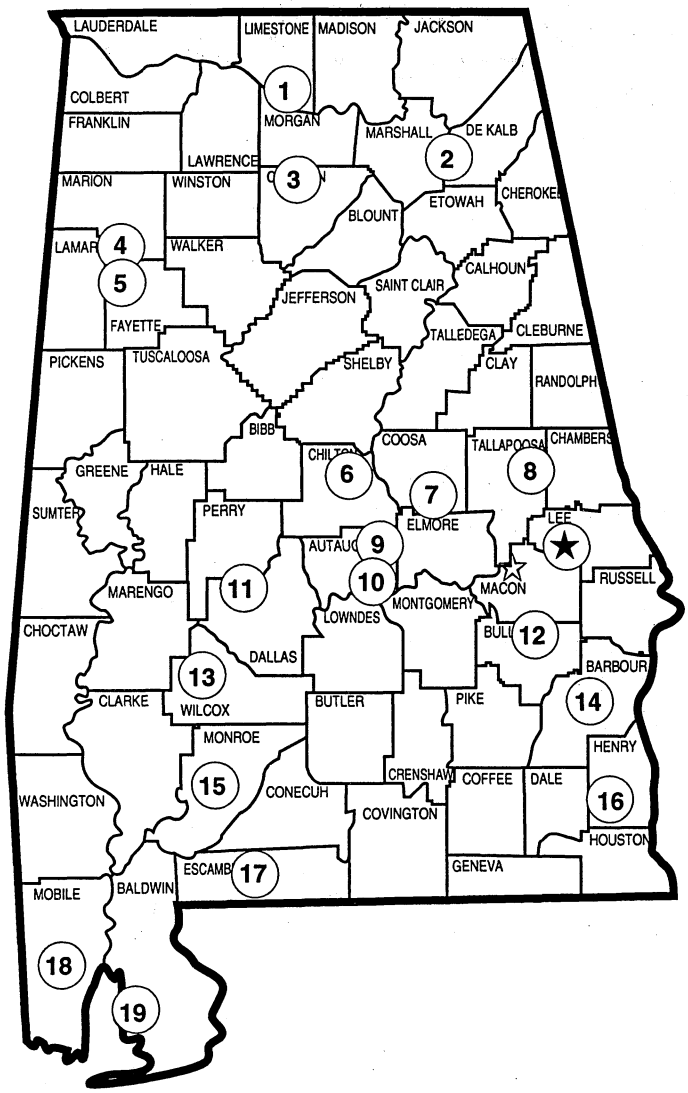
Dr. Kim Moore AgraTech Seeds Incorporated
Peanut Seed Research Center
P.O. Box 644
Ashburn, Georgia 31714
~~**AT 108**~~ AgriTech 1-1
~~**AT 120**~~ " " 201
~~**Exp 72-344**~~ " " VC 2
~~**Exp 76-5b**~~
GK 7
GK 7 High Oleic
ViruGard

~~Dr. Olin Smith~~ add Simpson
~~Texas A&M University~~
~~Department of Soil and Crop Sciences~~
~~College Station, Texas 77843~~
Tamrun 96

Dr. James Sutton
Mycogen Plant Sciences
1523 Kell Lane
Suite #5
Griffin, Georgia 30223
Flavor Runner 458
" " 59R

add Mozingo

Alabama's Agricultural Experiment Station System
AUBURN UNIVERSITY



★ Main Agricultural Experiment Station, Auburn.

☆ E. V. Smith Research Center, Shorter.

1. Tennessee Valley Substation, Belle Mina.
2. Sand Mountain Substation, Crossville.
3. North Alabama Horticulture Substation, Cullman.
4. Upper Coastal Plain Substation, Winfield.
5. Forestry Unit, Fayette County.
6. Chilton Area Horticulture Substation, Clanton.
7. Forestry Unit, Coosa County.
8. Piedmont Substation, Camp Hill.
9. Forestry Unit, Autauga County.
10. Prattville Experiment Field, Prattville.
11. Black Belt Substation, Marion Junction.
12. The Turnipseed-Ikenberry Place, Union Springs.
13. Lower Coastal Plain Substation, Camden.
14. Forestry Unit, Barbour County.
15. Monroeville Experiment Field, Monroeville.
16. Wiregrass Substation, Headland.
17. Brewton Experiment Field, Brewton.
18. Ornamental Horticulture Substation, Spring Hill.
19. Gulf Coast Substation, Fairhope.