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1999 Alabama Performance Comparison of Peanut Varieties

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Information contained herein is available to all persons regardless of race, color, sex, or national origin.

The 1999 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 1999 test was conducted at the Wiregrass Research and Extension Center 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 4, 1999, 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 3, 1999. These entries included AgraTech 1-1, AgraTech VC 2, Andru 93, NC 7, VA 93B, VA 92R, and ViruGard. All other entries except Southern Runner and Florida C99R were dug on September 14, 1999. Southern Runner and Florida C99R, considered to be later in maturity, were dug on September 29, 1999. Information concerning relative maturity was provided by the plant breeder responsible for developing the variety.

DISCUSSION

The information presented here represents data from three years at a single location. 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.

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 Research and Extension Center.*

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.

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TABLE 1. YIELD OF PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 1999

Variety	Yield lb/a	Variety or line	Yield lb/a
(R) Florida C99R	5,155	(V) NC-V11	4,084
(R) Georgia Green	4,910	(R) SunOleic 97R	4,066
(V) ¹ AgraTech VC 2	4,901	(R) AgraTech 201	4,048
(V) VA-C 92R	4,774	(R) GK 7	3,920
(V) Gregory	4,710	(R) Georgia Bold	3,920
(R) ViruGard	4,701	(R) Florunner	3,685
(V) NC 7	4,447	(R) Flavor Runner 596	3,666
(R) GK 7 High Oleic	4,401	(V) NC 12C	3,648
(R) ² AgraTech 1-1	4,374	(R) Flavor Runner 458	3,285
(V) VA 98R	4,338	(R) Tamrun 98	2,904
(R) Andru 93	4,265	(R) Coan	2,777
(V) VA-93B	4,229	(R) ³ Florida MDR 98	—
(R) Southern Runner	4,129		
Overall Average			4,139
CV (%)			10.2
LSD (.05)			597

¹ Formerly tested as Exp. 78-56. ² Formerly tested as Exp. 72-4344. ³ The validity of the 1999 data for this entry was inadvertently compromised. The data was not included in any yield or disease comparisons.

TABLE 2. TWO-YEAR AVERAGE YIELD OF PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 1998-99

Variety	1998 lb/a	1999 lb/a	Avg. yield lb/a
AgraTech VC 2	6,171	4,901	5,536
Georgia Green	5,990	4,910	5,450
ViruGard	6,089	4,701	5,395
NC 7	5,527	4,447	4,987
VA 93B	5,717	4,229	4,973
VA-C 92R	5,082	4,774	4,928
Andru 93	5,545	4,265	4,905
AgraTech 1-1	5,200	4,374	4,787
GK 7 High Oleic	5,028	4,401	4,715
Georgia Bold	5,427	3,920	4,674
Southern Runner	5,055	4,129	4,592
NC-V11	5,064	4,084	4,574
NC 12C	5,019	3,648	4,334
SunOleic 97R	4,492	4,066	4,279
GK 7	4,483	3,920	4,202
Florunner	4,601	3,685	4,143
Flavor Runner 458	2,940	3,285	3,113
Florida MDR 98	5,091	—	—
Overall Average			4,861
CV (%)			15.4
LSD (.05)			716

TABLE 3. THREE-YEAR AVERAGE YIELD OF PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 1997-99

Variety	1997 <i>lb/a</i>	1998 <i>lb/a</i>	1999 <i>lb/a</i>	Avg. yield <i>lb/a</i>
Georgia Green	5,118	5,990	4,910	5,339
VirusGard	4,774	6,089	4,701	5,188
VA-C 92R	4,411	5,082	4,774	4,756
Andru 93	4,365	5,545	4,265	4,725
Southern Runner	4,837	5,055	4,129	4,674
GK 7 High Oleic	4,274	5,028	4,401	4,568
NC 7	3,603	5,527	4,447	4,526
Georgia Bold	4,193	5,427	3,920	4,513
SunOleic 97R	4,147	4,492	4,066	4,235
GK 7	4,238	4,483	3,920	4,214
Florunner	3,930	4,601	3,685	4,072
Flavor Runner 458	3,630	2,940	3,285	3,285
Florida MDR 98	4,537	5,091	—	—
Overall Average				4,508
CV (%)				14.6
LSD (.05)				533

TABLE 4. AVERAGE SIZE AND GRADE ON PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 1999

Variety	SMKRS <i>g/100</i>	SMKRS <i>pct</i>	SS <i>pct</i>	TSMK <i>pct</i>	OK <i>pct</i>	DK <i>pct</i>	TK <i>pct</i>	Hulls <i>pct</i>
AgraTech 1-1	60	64	2	67	6	1	74	26
AgraTech 201	61	65	3	68	4	3	76	24
AgraTech VC 2	77	64	1	65	5	0	70	30
Andru 93	64	65	1	66	6	2	74	26
Coan	63	67	2	69	5	1	75	25
Flavor Runner 458	60	66	2	68	6	2	75	25
Flavor Runner 596	66	69	1	70	4	1	75	25
Florida C99R	75	71	2	73	3	1	77	24
Florunner	61	66	2	67	4	2	74	26
Georgia Bold	67	70	2	72	2	1	76	24
Georgia Green	60	71	1	72	4	1	77	23
GK 7	67	70	2	72	4	1	77	23
GK 7 High Oleic	76	68	3	71	4	1	76	24
Gregory	101	64	2	66	2	2	70	30
NC 7	91	65	1	66	3	1	70	30
NC 12C	91	66	2	68	2	1	71	29
NC-V11	90	66	2	68	3	1	75	25
Southern Runner	57	70	1	71	3	1	75	25
SunOleic 97R	65	70	2	72	3	2	77	23
Tamrun 98	59	67	1	68	5	2	75	25
VA 93B	88	60	3	63	4	1	67	32
VA 98R	84	66	1	67	3	1	71	29
VA-C 92R	96	66	2	68	2	2	72	28
VirusGard	74	68	4	72	4	1	77	24

TABLE 5. TWO-YEAR AVERAGE SIZE AND GRADE ON PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 1998-99

Variety	SMKRS <i>g/100</i>	SMKRS <i>pct</i>	SS <i>pct</i>	TSMK <i>pct</i>	OK <i>pct</i>	DK <i>pct</i>	TK <i>pct</i>	Hulls <i>pct</i>
AgraTech 1-1	62	66	2	69	5	1	75	26
AgraTech VC 2	89	66	2	68	4	1	72	28
Andru 93	64	67	1	68	6	2	75	26
Flavor Runner 458	62	67	2	69	6	2	76	25
Florunner	61	67	3	70	4	2	75	25
Georgia Bold	68	70	3	73	3	1	77	24
Georgia Green	63	72	2	73	4	1	78	22
GK 7	67	70	2	72	4	1	77	24
GK 7 High Oleic	78	68	4	72	4	2	78	23
NC 7	102	67	1	68	3	2	72	29
NC 12C	100	68	2	70	2	2	73	27
NC-V11	98	68	2	70	3	2	74	27
Southern Runner	59	70	2	71	4	1	76	25
SunOleic 97R	61	69	2	71	4	2	77	24
VA 93B	96	64	3	66	3	1	70	30
VA-C 92R	99	67	1	68	3	2	72	28
ViruGard	77	70	3	72	4	1	77	24

TABLE 6. THREE-YEAR AVERAGE SIZE AND GRADE ON PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 1997-99

Variety	SMKRS <i>g/100</i>	SMKRS <i>pct</i>	SS <i>pct</i>	TSMK <i>pct</i>	OK <i>pct</i>	DK <i>pct</i>	TK <i>pct</i>
Andru 93	65	67	1	68	5	2	75
Flavor Runner 458	62	67	2	69	6	2	76
Florunner	61	67	2	69	4	2	75
Georgia Bold	68	69	3	71	3	1	76
Georgia Green	61	71	1	72	4	1	77
GK 7	66	70	2	72	4	1	77
GK 7 High Oleic	75	69	3	72	4	2	77
NC 7	98	64	1	65	3	2	70
Southern Runner	58	69	1	70	4	1	75
SunOleic 97R	62	70	2	72	4	1	77
VA-C 92R	100	67	1	68	3	2	72
ViruGard	77	69	3	72	3	2	77

TABLE 7. AVERAGE SHELLED SEED SIZE DISTRIBUTION OF PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 1998-99

Variety	SMKRS Size Distribution					
	+21.0 Jumbo <i>pct</i>		-21.0 + 18.0 Medium <i>pct</i>		-18.0 + 16.0 No. 1 <i>pct</i>	
	1998	1999	1998	1999	1998	1999
AgraTech 1-1	41.5	28.1	49.0	60.5	9.5	11.4
AgraTech 201	— ¹	27.3	—	60.4	—	12.3
AgraTech VC 2	59.3	45.7	35.0	45.2	5.7	9.1
Andru 93	36.8	20.8	50.8	64.5	12.4	14.7
Coan	—	23.4	—	63.0	—	13.6
Flavor Runner 458	28.4	22.5	60.5	64.1	10.6	13.4
Flavor Runner 596	—	26.8	—	62.4	—	11.1
Florida C99R	—	52.3	—	41.8	—	5.9
Florunner	27.1	24.9	61.6	62.6	11.3	12.5
Georgia Bold	55.8	42.8	38.5	50.4	5.7	6.8
Georgia Green	39.8	24.6	54.1	65.1	6.1	10.3
GK 7	33.7	31.2	57.2	58.5	9.1	10.3
GK 7 High Oleic	49.1	34.8	43.1	54.9	7.8	10.3
Gregory	—	73.9	—	21.7	—	4.4
NC 7	82.3	65.9	14.3	28.1	3.4	6.0
NC 12C	86.0	74.5	10.4	21.8	3.6	3.7
NC-V11	72.1	61.1	23.1	33.3	4.8	5.6
Southern Runner	36.7	23.3	56.6	67.6	6.7	9.1
SunOleic 97R	36.0	35.0	56.5	56.2	7.5	8.8
Tamrun 98	—	31.7	—	55.1	—	13.2
VA 93B	72.2	60.2	21.9	32.4	5.9	7.4
VA 98R	—	53.1	—	40.7	—	6.2
VA-C 92R	76.4	62.5	21.1	33.0	2.5	4.5
ViruGard	54.4	46.3	40.7	47.3	4.9	6.4

¹ — Not tested in 1998.

TABLE 8. OCCURRENCE OF TOMATO SPOTTED WILT VIRUS HITS¹ IN THE PEANUT VARIETY TEST AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 1999

Variety	Hits per plot				Avg.
	Rep I	Rep II	Rep III	Rep IV	
Georgia Green	5	3	4	7	4.75
VirusGard	5	1	8	7	5.25
Gregory	3	14	7	5	7.25
Florida C99R	10	8	13	6	9.25
AgraTech 201	10	10	9	9	9.50
GK 7	7	7	14	12	10.00
VA-C 92R	16	12	7	8	10.75
Southern Runner	9	23	8	12	13.00
AgraTech VC 2	9	16	23	7	13.75
Coan	5	14	22	15	14.00
VA 98R	9	17	20	10	14.00
VA 93B	20	9	12	17	14.50
NC-V11	15	14	16	15	15.00
NC 7	16	18	15	19	17.00
Flavor Runner 458	15	30	13	19	19.25
Florunner	20	25	20	15	20.00
Andru 93	19	13	26	23	20.25
Georgia Bold	21	21	19	20	20.25
AgraTech 1-1	24	23	18	22	21.75
NC 12C	26	25	18	18	21.75
Flavor Runner 596	25	17	29	17	22.00
GK 7 High Oleic	23	17	25	23	22.00
SunOleic 97R	16	25	28	23	23.00
Tamrun 98	22	31	30	34	29.25
Overall Average					15.73
CV (%)					29.24
LSD (.05)					6.49

¹ Hits equal length of row up to one linear foot with severely diseased plants.

TABLE 9. OCCURRENCE OF WHITE MOLD HITS IN THE PEANUT VARIETY TEST AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 1999

Variety	Hits per plot				Avg.
	Rep I	Rep II	Rep III	Rep IV	
AgraTech VC 2	1	2	4	0	1.75
ViruGard	3	0	2	2	1.75
Andru 93	3	4	0	1	2.00
SunOleic 97R	1	4	4	4	3.25
Georgia Green	0	5	5	4	3.50
NC 7	2	2	5	5	3.50
VA 98R	1	3	2	8	3.50
Florunner	5	3	4	3	3.75
NC 12C	6	5	2	3	4.00
VA 93B	2	5	3	2	4.00
Southern Runner	4	4	5	6	4.75
Florida C99R	6	3	7	4	5.00
Georgia Bold	4	6	4	6	5.00
AgraTech 1-1	12	2	7	2	5.75
Coan	1	6	7	9	5.75
Gregory	4	14	6	1	6.25
Flavor Runner 458	5	9	6	6	6.50
Tamrun 98	4	8	8	7	6.75
GK 7	8	6	10	4	7.00
Flavor Runner 596	3	6	6	14	7.25
VA-C 92R	2	9	9	9	7.25
GK 7 High Oleic	9	3	8	11	7.75
AgraTech 201	4	7	21	7	9.75
NC-V11	10	18	6	15	12.25
Overall Average					5.29
CV(%)					61.64
LSD (.05)					4.60

TABLE 10. OCCURRENCE OF LEAFSPOT IN THE PEANUT VARIETY TEST AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 1999

Variety	Rating per plot ¹				Avg.
	Rep I	Rep II	Rep III	Rep IV	
AgraTech 1-1	3	3	4	3	3.25
VA 98R	3	4	3	3	3.25
Florida C99R	4	4	3	3	3.50
Georgia Green	4	3	4	4	3.75
AgraTech VC 2	3	4	4	5	4.00
GK 7	4	5	6	4	4.00
Southern Runner	5	4	4	4	4.25
Tamrun 98	4	5	4	4	4.25
VirusGard	3	5	4	5	4.25
Florunner	4	3	5	6	4.50
NC-V11	4	5	4	5	4.50
Georgia Bold	5	4	5	5	4.75
AgraTech 201	5	4	5	6	5.00
GK 7 High Oleic	5	5	5	5	5.00
VA-C 92R	5	4	5	6	5.00
Flavor Runner 596	5	5	6	5	5.25
NC 7	5	5	6	6	5.50
Andru 93	6	6	6	5	5.75
Flavor Runner 458	6	5	6	6	5.75
Coan	6	6	6	6	6.00
SunOleic 97R	6	6	6	7	6.25
VA 93B	4	7	7	7	6.25
NC 12C	6	6	6	7	6.25
Gregory	6	6	7	7	6.50
Overall Average					4.89
CV(%)					13.42
LSD (.05)					0.93

¹ Rating 1 (lowest) to 10 (highest).

PLANTING RATE CHART¹

Seed per pound	Seed per foot	Lbs. per acre	Seed per foot	Lbs. per acre	Seed per foot	Lbs. per acre
600	5	121	6	145	7	178
625	5	116	6	140	7	171
650	5	112	6	134	7	164
675	5	108	6	129	7	158
700	5	104	6	124	7	152
725	5	100	6	120	7	147
750	5	97	6	116	7	142
775	5	94	6	112	7	138
800	5	91	6	109	7	133
825	5	88	6	106	7	129
850	5	85	6	102	7	125
875	5	83	6	100	7	122
900	5	81	6	97	7	118
925	5	78	6	94	7	115
950	5	76	6	92	7	112
975	5	74	6	89	7	109
1000	5	73	5	87	7	107
1025	5	71	6	85	7	104
1050	5	69	6	83	7	102
1075	5	68	6	81	7	99
1100	5	66	6	79	7	97

¹ Pounds of peanut seed at various seed count per pound required to plant 1 acre at five, six, or seven seed per foot of row with single row width spacing. (For twin-rows at 36-inch centers, divide seed per foot for single row by two to determine seed per foot for each twin-row.)

To determine pounds per acre at 36-inch row spacing, use the following formula:

(A)
$$\frac{\text{Seed per foot} \times \text{linear feet in 1 acre}}{\text{Seed count per pound}} = \text{pounds per acre}$$

(B) To determine linear feet in one acre at 36-inch row spacing:

$$\frac{43,569 \text{ square feet per acre}}{3 \text{ square feet}} = 14,560 \text{ linear feet in 1 acre}$$

(C) Example:

$$\frac{6 \text{ seed per foot} \times 14,560 \text{ linear feet}}{800 \text{ seed per pound}} = 109 \text{ pounds per acre}$$

DESCRIPTIONS OF 1999 PEANUT VARIETY TEST ENTRIES

1. AgraTech 1-1

Developed by Dr. Kim Moore, AgraTech Seeds Inc. Released in 1999 with variety protection to be applied for under the 1994 Amendment of the Plant Variety Protection Act. Maturity is approximately 15 days earlier than Florunner. Seed and pod size slightly larger than Florunner, with high oleic/linoleic fatty acid ratio and typical runner growth habit. Has shown tolerance to tomato spotted wilt virus.

2. AgraTech 201

Developed by Dr. Kim Moore, AgraTech Seeds Inc. Released in 1999 with variety protection to be applied for under the 1994 Amendment of the Plant Variety Protection Act. Maturity range is same as Florunner with similar seed and pod size. The oleic/linoleic fatty acid ratio is high with typical runner growth habit with erect mainstem. Carries tolerance to tomato spotted wilt virus with thin hulls and dark green foliage.

3. AgraTech VC 2

Developed by Dr. Kim Moore, AgraTech Seeds Inc. Released in 1999 with variety protection to be applied for under the 1994 Amendment of the Plant Variety Protection Act. Maturity is about the same as NC 7 and has smaller seed and pod size than NC 7. The oleic/linoleic fatty acid ratio is high with 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.

4. Andru 93

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 1993 and 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.

5. Coan

Developed by Drs. Charles Simpson and James Starr, Texas A & M University. Released in 1999 with variety protection applied for under the 1994 Amendment of the Plant Variety Protection Act. Similar to Florunner in maturity, seed and pod size with normal oleic/linoleic fatty acid ratio and runner growth habit. Resistant to peanut root-knot nematode, smaller vine growth by about 17% than Florunner without erect mainstem. Under southeastern conditions, consideration should be given to planting in twin-row pattern.

6. Flavor Runner 458

Developed by Dr. James Sutton, Mycogen Seeds. 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. Flavor Runner 596

Developed by Dr. James Sutton, Mycogen Seeds. Released for contract production in 1998 with variety protection applied for under the 1994 Amendment of the Plant Variety Protection Act. Also has variety patent pending. Maturity range, seed, and pod size are similar to Florunner. High oleic/linoleic fatty acid ratio with runner growth habit. Has shown better yield potential than Flavor Runner 456 in some environments.

8. Florida C99R

Developed by Dr. Dan Gorbet, Florida Agricultural Experiment Station. Released in 1999 with variety protection applied for under the 1994 Amendment of the Plant Variety Protection Act. The maturity range is 10 to 14 days later than Florunner with large seed and pod size and normal oleic/linoleic fatty acid ratio. Runner growth habit with resistance to late leafspot, white mold, and tomato spotted wilt virus. Other characteristics include good yields and grades with multiple disease resistance (as noted); similar to Florida MDR 98 but more normal oleic fatty acid content (55 to 59%) with somewhat darker green foliage.

9. 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 Southern Runner. Has larger leaves than Southern Runner, but similar pod venation and seed coat color.

10. 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. Until the occurrence of tomato spotted wilt virus, Florunner had been the industry standard of comparison with respect to yield for runner varieties. It is still the standard of comparison for many milling characteristics for runner varieties. No known disease or insect resistance.

11. Georgia Bold

Developed by Dr. Bill 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 tolerance 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.

12. Georgia Green

Developed by Dr. Bill 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 considerable less vine growth than Florunner. Resistant to tomato spotted wilt virus, but carries no known insect resistance. Georgia Green has proven to have yield stability across a wide range of different environments under both irrigated and non-irrigated conditions and in both single and twin row patterns.

13. 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.

14. 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.

15. Gregory

Developed by Dr. T. G. Isleib, North Carolina Agricultural Research Service. Released in 1997 with plant variety protection applied for under the 1994 Amendment of the Plant Variety Protection Act. Maturity range is earlier than NC 7 with larger seed and pod size. Has normal oleic/linoleic fatty acid ratio and intermediate growth habit. The only known resistances of Gregory are to CBR (this is very slight; i.e., it is less susceptible than NC 7) and to tomato spotted wilt virus (6.5% infection rate compared with 9.2% for NC-V11). Like NC 7 and NC 12C, Gregory is extremely susceptible to sclerotinia blight. Gregory has a pink seed coat.

16. NC 7

Developed by North Carolina Agricultural Research Service. Released in 1978 and protected under the 1994 Amendment of 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 size.

17. 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.

18. NC-V11

Developed by North Carolina Agricultural Research Service, Virginia Agricultural Experiment Station, and USDA-ARS. Released in 1998 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).

19. 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.

20. 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.

21. Tamrun 98

Developed by Drs. Charles Simpson and the late O. D. Smith, Texas A & M University. Released in 1998 with plant variety protection applied for under the 1994 Amendment of the Plant Variety Protection Act. Similar to Florunner in maturity, seed and pod size, normal oleic/linoleic acid ratio, and runner growth habit. Primary reason for release was resistance to sclerotinia blight.

22. 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 made VA 93B the most preferred variety for in-shell products in the VC shelling industry.

23. VA 98R

Developed by Virginia Agricultural Experiment Station and USDA-ARS. Released in 1998 with plant variety protection applied for under the 1994 Amendment of the Plant Variety Protection Act. Maturity range is early, similar to NC 7 with smaller seed and pod size, normal oleic/linoleic fatty acid ratio, and runner growth habit. No known insect or disease resistance. However, early data indicate that it might be less susceptible to sclerotinia blight than some Virginia type varieties (NC 7, NC 10C, Gregory, and NC 12C). Other characteristics are high yield potential with excellent pod characteristics for in-shell processing (bright pod color and typical peanut shape). Its runner growth habit and prominent erect mainstem makes for easier digging with rows being easily determined.

24. 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.

25. ViruGard

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

Sources of Seed

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Gregory
NC 7
NC 12C
NC-V11
VA 93B
VA-C 92R

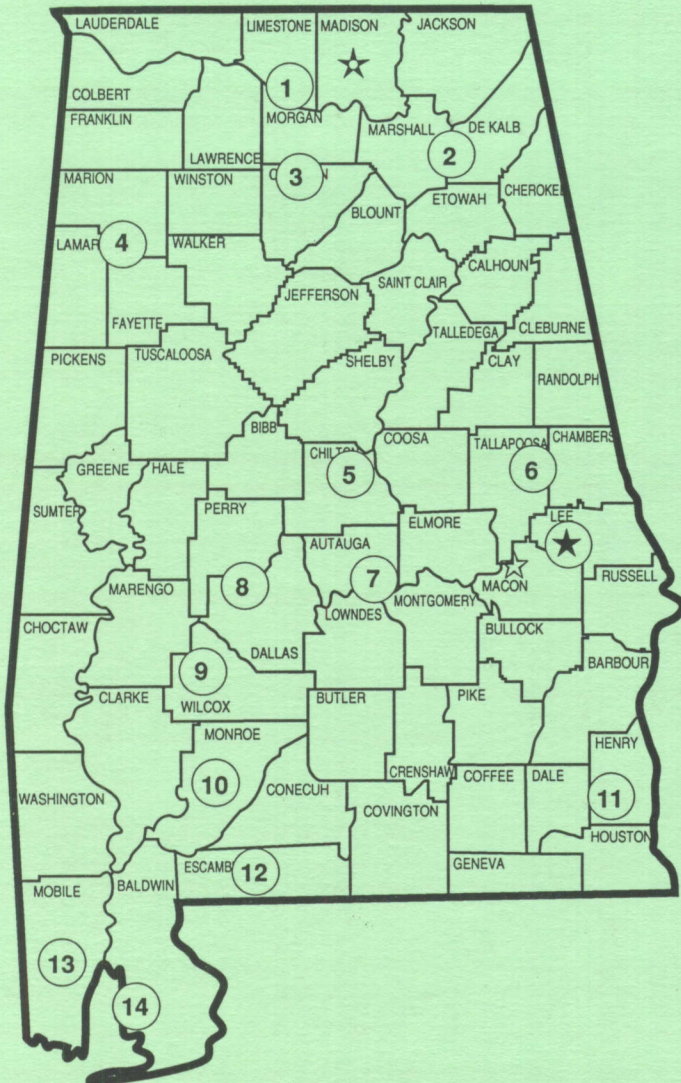
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- ★ Main Agricultural Experiment Station, Auburn.
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- ☆ E. V. Smith Research Center, Shorter.

1. Tennessee Valley Research and Extension Center, Belle Mina.
2. Sand Mountain Research and Extension Center, Crossville.
3. North Alabama Horticulture Station, Cullman.
4. Upper Coastal Plain Research Station, Winfield.
5. Chilton Area Horticulture Station, Clanton.
6. Piedmont Research Station, Camp Hill.
7. Prattville Experiment Field, Prattville.
8. Black Belt Research and Extension Center, Marion Junction.
9. Lower Coastal Plain Research Station, Camden.
10. Monroeville Experiment Field, Monroeville.
11. Wiregrass Research and Extension Center, Headland.
12. Brewton Experiment Field, Brewton.
13. Ornamental Horticulture Station, Spring Hill.
14. Gulf Coast Research and Extension Center, Fairhope.