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

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The 2003 Alabama Performance Comparison of Peanut Varieties

James P. Bostick, Larry W. Wells, and Brian E. Gamble¹

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 AND DISCUSSION

The 2003 tests were conducted at the Wiregrass Research and Extension Center in Headland, AL. Prior to 2000, comparisons were made only under irrigation. During 2003, 24 entries were evaluated under irrigation, 19 entries were evaluated dryland, and 13 entries were evaluated late-planted dryland.

The experimental design for each test was a randomized complete block consisting of two-row plots, 20 feet long, replicated four times. The irrigated and dryland tests were planted on May 6. The late-planted dryland test was planted on June 17. All tests were planted 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 in all tests.

The irrigated test entries considered to be earlier than Florunner in maturity were dug on September 9. These entries included Andru II, VA-C 92R, and ViruGard. All other entries were dug on September 15, except C34-24, C-99R, DP-1, GA 01R, Hull, and Southern Runner, which are considered later than Florunner, and were dug on October 6.

The dryland test entries considered to be earlier than Florunner were dug on September 9. These entries were Andru II, and ViruGard. All other entries were dug September 15, except C34-24, C-99R, DP-1, GA 01R, Hull, and Southern Runner, which are considered later than Florunner, and were dug on October 6.

In the late-planted dryland test, all entries were dug on November 4. Information concerning relative maturity for all test entries was provided by the plant breeder responsible for developing the variety.

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

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 associate superintendent of the Wiregrass Research and Extension Center.*

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

SMKRS count/lb. (number per pound of sound mature kernels riding screen)—Number of sound whole mature kernels from 1 pound of the shelled sample riding a 15/64 x 1-inch slotted screen or a 16/64 x 3/4-inch slotted screen for Virginia or Runner varieties, respectively.

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.

ADDITIONAL DATA EXPLANATION

The 2003 growing season presented unusually high rainfall. The test areas were basically flat and drained slowly. Slow drainage, compounded by soil compaction, resulted in some crop injury and irregular growth patterns in the irrigated test area. Coefficient of variations developed during statistical analysis indicated acceptable agronomic data; however, data from all tests presented should be reviewed in varietal evaluations. Extreme environmental influences could affect varietal characteristics other than just yield. Most notably, in these tests, seed size was smaller than usual.

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The authors express appreciation to Austin K. Hagan, professor of Entomology and 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 Amy Folger and Larry Savelle, Wiregrass Research and Extension Center, for their cooperation.

**TABLE 1. THREE-YEAR AVERAGE YIELD OF IRRIGATED PEANUT VARIETIES
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER,
HEADLAND, ALABAMA, 2001-2003**

Variety or line	2003 <i>lb/a</i>	Two-year avg. <i>lb/a</i>	Three-year avg. <i>lb/a</i>
C-99R	4,550	5,144	5,438
AP-3	4513	¹ _____	_____
Exp 3079A	4,417	_____	_____
C34-24	4,247	4,719	_____
Exp 3085A	4,187	_____	_____
Exp 3081B	4,175	_____	_____
Georgia-01R	4,150	5,528	_____
Southern Runner	4,114	4,828	4,816
VAC-92	4,005	4,646	4,910
Gregory	3,933	4,709	5,174
Carver	3,812	5,181	_____
ANorden	3,787	4,558	_____
NC-V11	3,739	4,512	4,930
DP 1	3,691	4,387	_____
Georgia Hi-O/L	3,654	4,761	5,168
Georgia-02C	3,618	4,812	5,204
Andru II	3,557	4,895	_____
Hull	3,521	4,615	_____
VA98R	3,473	4,563	4,742
AgraTech 201	3,279	4,947	5,306
Wilson	3,279	3,983	_____
C 156-47	3,122	4,169	4,894
Georgia Green	3,110	4,040	4,778
ViruGard	3,049	4,538	4,775
Overall Average	3,791	4,677	5,012
CV(%)	13.06	24.19	22.50
LSD (.05)	814	1198	952

¹ Not tested

**TABLE 2. AVERAGE SIZE AND GRADE OF IRRIGATED PEANUT VARIETIES
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2003**

Variety or line	SMKRS <i>count/lb</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>
Andru II	972	61	4	65	8	0	73	27
AP- 3	917	65	1	66	5	0	71	29
AgraTech 201	790	65	4	69	7	0	76	24
C34-24	926	66	4	70	4	0	74	26
C156-47	795	66	4	70	5	0	75	25
C-99R	717	69	4	73	3	0	76	24
Carver	826	65	1	66	6	1	73	27
DP-1	858	66	3	69	5	0	74	26
Exp 3079 A	740	60	7	67	5	0	72	28
Exp 3081 B	758	55	8	63	7	1	71	29
Exp 3085 A	749	58	10	68	4	0	72	28
Georgia-01R	672	67	7	74	2	0	76	24
Georgia-02C	985	64	5	69	5	0	74	26
Georgia Green	972	64	2	66	8	1	75	25
Georgia Hi-O/L	690	59	10	69	3	1	73	27
Gregory	504	67	1	68	1	1	70	30
Hull	931	65	4	69	5	0	74	26
NC-V11	681	63	2	65	5	0	70	30
ANorden	835	63	4	67	6	0	73	27
Southern Runner	985	70	1	71	4	0	75	25
VA98R	663	63	3	66	4	0	70	30
VAC-92R	581	64	2	66	5	0	71	29
ViruGard	799	65	5	70	5	0	75	25
Wilson	708	58	5	63	3	0	66	34

**TABLE 3. TWO-YEAR AVERAGE SIZE AND GRADE OF IRRIGATED PEANUT VARIETIES
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2002-2003**

Variety or line	SMKRS <i>count/lb</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 201	793	67	5	72	5	1	78	22
Andru II	899	63	4	67	7	0	74	26
C 34-24	804	67	4	71	4	0	75	25
C 156-47	727	67	5	72	3	1	76	24
C-99R	699	69	4	73	4	0	77	23
Carver	770	67	1	68	6	0	74	26
DP-1	790	66	4	70	5	0	75	25
Georgia-01R	640	68	7	75	2	0	77	23
Georgia-02C	817	65	6	71	5	0	76	24
Georgia Green	872	67	2	69	6	1	76	24
Georgia Hi-O/L	638	62	7	69	3	2	74	26
Gregory	472	66	2	68	1	2	71	29
Hull	806	64	7	71	3	0	74	26
NC-V11	602	63	3	66	3	1	70	30
ANorden	824	64	4	68	5	1	74	26
Southern Runner	866	69	3	71	4	0	75	25
VA98R	585	64	3	67	3	1	71	29
VA-C92R	534	65	2	67	4	0	71	29
ViruGard	740	68	4	72	4	0	76	24
Wilson	624	60	4	64	3	0	67	33

TABLE 4. THREE-YEAR AVERAGE SIZE AND GRADE OF IRRIGATED PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001-2003

Variety or line	SMKRS <i>count/lb</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 201	784	67	5	72	6	0	78	22
C 156-47	735	67	6	73	3	1	77	23
C-99R	690	69	4	73	4	0	77	23
Georgia-02C	827	67	5	72	5	0	77	23
Georgia Green	853	68	2	70	6	1	77	23
Georgia Hi-O/L	623	63	8	71	3	1	75	25
Gregory	496	66	2	68	2	1	71	29
NC-V11	604	64	3	67	3	1	71	29
Southern Runner	869	68	4	72	4	0	76	24
VA98R	599	64	4	68	3	0	71	29
VA-C92R	548	65	1	66	4	1	71	29
ViruGard	701	68	4	72	4	0	76	24

TABLE 5. AVERAGE SHELLED SEED SIZE DISTRIBUTION OF IRRIGATED PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001-2003

Variety or line	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>		
	-2003-	-2002-	-2001-	-2003-	-2002-	-2001-	-2003-	-2002-	-2001-
Andru II	16.6	20.5	¹ —	62.7	63.7	—	20.7	15.8	—
AP-3	33.2	—	—	54.8	—	—	12.1	—	—
AgraTech 201	19.0	34.8	27.3	65.8	56.1	61.4	15.2	9.1	11.3
C 34-24	38.5	58.2	—	54.3	34.0	—	7.2	7.8	—
C156-47	44.0	51.7	52.6	46.8	36.6	40.4	9.2	11.7	7.0
C-99R	38.3	51.4	52.1	52.7	36.0	41.3	9.0	6.6	6.6
Carver	8.8	22.3	—	73.1	63.9	—	18.1	13.8	—
DP-1	25.9	41.2	—	57.9	48.5	—	16.2	10.3	—
Exp 3079A	31.9	—	—	55.5	—	—	12.6	—	—
Exp 3081B	30.5	—	—	56.1	—	—	13.4	—	—
Exp 3085A	38.3	—	—	49.2	—	—	12.0	—	—
GA 01R	51.4	76.4	—	41.7	18.5	—	6.9	5.1	—
GA-02C	27.6	50.2	48.7	59.8	41.4	42.7	12.6	8.4	8.6
Georgia Green	8.5	23.1	26.1	72.9	64.5	64.2	18.6	12.4	9.7
Georgia Hi-O/L	52.7	65.0	73.0	34.2	24.8	23.3	13.1	10.2	3.7
Gregory	68.1	74.2	78.1	25.2	20.1	18.3	6.7	5.7	3.6
Hull	40.7	55.5	—	51.9	37.2	—	7.4	7.3	—
NC-V11	45.2	54.4	61.7	45.9	36.1	31.4	8.9	9.5	6.9
ANorden	18.2	26.7	—	66.1	60.9	—	15.7	12.4	—
Southern Runner	14.9	32.1	23.4	65.6	58.9	65.3	15.5	9.0	11.3
VA98R	46.0	57.1	60.6	45.0	34.5	32.0	9.0	8.4	7.4
VA-C92R	52.5	63.8	49.4	38.1	30.9	41.6	9.4	5.3	9.0
ViruGard	30.3	53.7	44.9	57.2	38.8	46.7	12.5	7.5	8.4
Wilson	38.5	52.1	—	48.9	39.4	—	12.6	8.5	—

¹ — = not tested.

TABLE 6. OCCURRENCE OF TOMATO SPOTTED WILT VIRUS (TSWV) HITS, WHITE MOLD (WM) HITS, AND LEAFSPOT (LS) IN THE IRRIGATED PEANUT VARIETY TEST AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2003

Variety or line	Avg. TSWV ¹ hits/plot	Variety or line	Avg. WM hits/plot	Variety or line	Avg. LS ² ratings/plot
Exp 3085A	4.50	Exp 3085A	0.00	AP- 3	4.00
Andru II	5.00	Georgia-02C	0.00	Georgia-02C	4.00
AP- 3	5.00	AgraTech 201	0.25	ANorden	4.75
C 34-24	7.00	Andru II	0.25	Andru II	5.00
VirusGard	7.00	Carver	0.25	DP-1	5.00
Georgia-02C	7.25	Georgia Green	0.25	Exp 3081B	5.00
Exp 3081B	8.50	Georgia HI O/L	0.25	Exp 3085A	5.00
Exp 3079A	9.75	ANorden	0.25	Georgia Green	5.00
NC-V11	10.25	Exp 3079A	0.50	NC-V11	5.00
DP-1	10.50	VirusGard	0.50	Carver	5.25
C 156-47	10.75	AP- 3	0.75	Exp 3079A	5.25
Gregory	10.75	Exp 3081B	0.75	VA98R	5.25
ANorden	10.75	DP-1	1.00	VirusGard	5.25
Wilson	11.50	Gregory	1.00	AgraTech 201	5.50
Carver	12.00	C 156-47	1.25	Georgia-01R	5.50
VA-C92R	12.50	Georgia-01R	1.50	Wilson	5.50
Hull	13.25	C-99R	2.00	C 34-24	5.75
Georgia-01R	13.75	Southern Runner	2.00	Georgia HI O/L	5.75
Southern Runner	13.75	VA-C92R	2.00	VA-C92R	5.75
Georgia HI O/L	14.00	Wilson	2.00	C 156-47	6.00
AgraTech 201	15.00	VA98R	2.25	Hull	6.25
C-99R	15.50	C 34-24	2.75	C-99R	6.75
VA98R	16.50	NC-V11	3.25	Gregory	6.75
Georgia Green	19.50	Hull	3.75	Southern Runner	6.75
Overall Average	11.01		1.20		5.42
CV (%)	43.14		98.56		16.31
LSD (.05)	6.73		1.69		1.25

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

² Rating 1 (lowest) to 10 (highest)

**TABLE 7. THREE-YEAR AVERAGE YIELD OF DRYLAND PEANUT VARIETIES
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER,
HEADLAND, ALABAMA, 2003**

Variety or line	2003 <i>lb/a</i>	Two-year avg. <i>lb/a</i>	Three-year avg. <i>lb/a</i>
Exp 3081B	4810	¹ —	—
Exp 3079A	4674	—	—
Exp 3085A	4646	—	—
DP-1	4256	3557	—
Georgia-02C	4229	3816	4099
C-99R	4029	3821	—
AP-3	3966	—	—
Carver	3948	3839	—
Georgia-01R	3920	3812	—
ANorden	3721	3426	—
Southern Runner	3557	3417	3697
C 34-24	3530	3471	—
AgraTech 201	3430	3031	3579
C 156-47	3367	3158	3712
Hull	3312	3426	—
Andru II	3167	—	—
Georgia Green	2949	3013	3657
VirusGard	2804	2968	3503
Georgia HI O/L	2741	—	—
Overall Average	3,740	3466	3708
CV (%)	15.55	19.12	25.93
LSD (.05)	823	660	784

¹ Not tested

**TABLE 8. AVERAGE SIZE AND GRADE OF DRYLAND PEANUT VARIETIES
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2003**

Variety or line	SMKRS <i>count/lb</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>
Andru II	903	57	4	61	10	0	71	29
AP-3	967	59	3	62	7	0	69	31
AgraTech 201	795	63	4	67	7	0	74	26
C 34-24	922	67	3	70	4	0	74	26
C 156-47	795	65	5	70	6	0	76	24
C-99R	867	67	4	71	4	0	75	25
Carver	831	62	4	66	7	0	73	27
DP-1	799	66	2	68	5	1	74	26
Exp 3079A	755	62	5	67	5	0	72	28
Exp 3081B	758	54	10	64	5	0	69	31
Exp 3085A	735	58	6	64	7	0	71	29
Georgia-01R	758	68	6	74	3	0	77	23
Georgia-02C	931	64	3	67	7	0	74	26
Georgia Green	953	64	3	67	8	0	75	25
Georgia HI O/L	840	58	11	69	4	0	73	27
Hull	831	65	5	70	4	0	74	26
ANorden	967	60	5	65	7	0	72	28
Southern Runner	922	65	2	67	7	0	74	26
VirusGard	731	63	4	67	6	0	73	27

**TABLE 9. TWO-YEAR AVERAGE SIZE AND GRADE OF DRYLAND PEANUT VARIETIES
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2002-2003**

Variety or line	SMKRS <i>count/lb</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>
Andru II	865	62	5	67	6	0	73	27
AgraTech 201	811	66	5	71	4	0	75	25
C 34-24	829	64	6	70	5	0	75	25
C156-47	777	65	7	72	4	0	76	24
C-99R	805	65	6	71	4	0	75	25
Carver	795	65	5	70	5	0	75	25
DP-1	806	65	4	69	5	1	75	25
Georgia-01R	729	69	6	75	2	0	77	23
Georgia-02C	895	67	4	71	5	0	76	24
Georgia Green	945	67	3	70	6	0	76	24
Hull	724	66	5	71	3	0	74	26
ANorden	883	63	5	68	6	0	74	26
Southern Runner	906	65	4	69	6	0	75	25
VirusGard	722	65	5	70	5	0	75	25

**TABLE 10. THREE-YEAR AVERAGE SIZE AND GRADE OF DRYLAND PEANUT VARIETIES
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001-2003**

Variety or line	SMKRS <i>count/lb</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 201	908	65	6	71	5	0	76	24
C 156-47	822	66	7	73	4	0	77	23
C-99R	783	68	5	73	3	0	76	24
Georgia-02C	906	68	4	72	5	0	77	23
Georgia Green	994	67	3	70	7	0	77	23
Southern Runner	908	67	4	71	4	0	75	25
VirusGard	807	65	6	71	5	0	76	24

**TABLE 11. THREE-YEAR AVERAGE YIELD OF LATE-PLANTED DRYLAND
PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER,
HEADLAND, ALABAMA, 2001-2003**

Variety or line	2002 <i>lb/a</i>	Two-year avg. <i>lb/a</i>	Three-year avg. <i>lb/a</i>
Georgia-02C	1,770	2,391	—
Exp 3081B	1,643	—	—
DP-1	1,588	—	—
AgraTech 201	1,379	1,429	1,815
Exp 3085A	1,352	—	—
ANorden	1,325	1,597	—
Carver	1,298	2,051	—
Georgia Green	1,080	1,434	1,969
AP-3	1,026	—	—
Exp 3079A	980	—	—
C 156-47	935	1,402	1,664
Andru II	799	1,516	—
VirusGard	381	1,225	1,219
Overall Average	1,197	1,631	1,667
CV (%)	26.32	42.98	47.86
LSD (.05)	452	703	658

**TABLE 12. AVERAGE SIZE AND GRADE OF LATE-PLANTED DRYLAND PEANUT VARIETIES
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2003**

Variety or line	SMKRS <i>count/lb</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 201	903	63	8	71	5	0	76	24
C156-47	857	64	9	73	4	0	77	23
Carver	787	65	5	70	5	0	75	25
DP-1	868	66	5	71	4	0	75	25
Exp 3079A	811	65	9	74	3	0	77	23
Exp 3081B	783	61	10	71	4	0	75	25
Exp 3085A	753	63	9	72	5	0	77	23
Georgia-02C	801	68	7	75	3	0	78	22
Georgia Green	960	66	7	73	5	0	78	22
ANorden	862	61	9	70	5	0	75	25
VirusGard	885	59	13	72	4	1	77	23

**TABLE 13. TWO-YEAR AVERAGE SIZE AND GRADE OF LATE-PLANTED DRYLAND PEANUT VARIETIES
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2002-2003**

Variety or line	SMKRS <i>count/lb</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 201	981	58	10	68	7	0	75	25
C156-47	874	62	12	74	3	0	77	23
Carver	900	63	5	68	6	1	75	25
Georgia-02C	773	67	9	76	3	0	79	21
Georgia Green	986	65	7	72	5	0	77	23
ANorden	915	60	9	69	6	0	75	25
VirusGard	856	59	13	72	4	0	76	24

**TABLE 14. THREE-YEAR AVERAGE SIZE AND GRADE OF LATE-PLANTED DRYLAND PEANUT VARIETIES
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001-2003**

Variety or line	SMKRS <i>count/lb</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 201	963	57	12	69	6	0	75	25
C 156-47	876	60	14	74	3	0	77	23
Georgia Green	972	63	8	71	5	1	77	23
VirusGard	821	59	14	73	3	0	76	24

¹ PLANTING RATE CHART

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	6	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) Seed per foot x linear feet in 1 acre = pounds per acre

Seed count per pound

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

43,560 square feet per acre = 14,520 linear feet in 1 acre

3 square feet

(C) Example:

6 seed per foot x 14,520 linear feet = 109 pounds per acre

800 seed per pound

**TESTS DURATION DAILY RAINFALL DATA RECORDED
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2003**

DATE	APR <i>in</i>	MAY <i>in</i>	JUNE <i>in</i>	JULY <i>in</i>	AUG <i>in</i>	SEPT <i>in</i>	OCT <i>in</i>	NOV <i>in</i>
1	—	—	—	2.47	0.81	—	—	—
2	—	—	—	0.83	0.13	—	—	—
3	—	0.47	1.15	0.24	0.69	1.85	—	—
4	—	—	0.15	0.19	—	—	—	—
5	—	—	—	—	0.15	—	—	0.12
6	1.38	—	0.08	0.05	0.15	2.02	—	—
7	0.02	—	1.32	—	0.17	—	—	—
8	1.79	—	1.89	—	0.14	—	—	—
9	1.75	—	—	—	0.08	—	—	—
10	0.04	—	—	—	—	—	—	—
11	—	—	—	—	—	—	0.48	—
12	—	—	1.13	1.17	0.44	—	0.13	—
13	—	—	0.04	—	0.08	—	0.06	—
14	—	—	1.51	0.02	0.22	—	—	—
15	—	—	0.36	—	—	—	—	—
16	—	0.23	0.32	—	—	—	—	—
17	—	0.19	—	0.15	0.14	—	—	—
18	—	—	0.29	0.04	1.40	—	—	—
19	—	0.86	0.19	—	—	—	—	—
20	1.61	—	0.15	0.26	—	—	—	—
21	—	—	0.02	—	0.49	—	—	—
22	—	0.08	—	—	—	0.05	—	—
23	—	1.51	—	0.54	0.01	0.73	—	—
24	—	0.01	—	0.31	—	—	—	0.34
25	1.75	—	—	—	—	—	—	—
26	0.88	—	—	—	—	—	—	—
27	—	—	—	—	0.03	—	0.34	—
28	—	—	—	—	—	—	0.38	—
29	—	—	—	0.03	—	—	0.43	—
30	—	—	0.16	1.20	0.59	—	—	—
31	—	—	—	—	0.45	—	—	—
¹ TOTALS	9.22	3.35	8.76	7.50	6.17	4.65	1.82	0.46

¹Total daily rainfall from April through November, 2003 = 41.93 in; 2002 = 30.00 in; 2001 = 31.19 in .

**TESTS DURATION DAILY MAXIMUM TEMPERATURES RECORDED
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2003**

DATE	APR °F	MAY °F	JUNE °F	JULY °F	AUG °F	SEPT °F	OCT °F	NOV °F
1	60	87	91	84	90	91	76	81
2	73	86	87	82	87	91	80	81
8	76	90	90	84	85	91	79	83
4	80	81	91	89	92	90	79	85
5	79	87	87	84	88	93	84	84
6	84	88	87	87	85	88	86	83
7	80	90	77	90	89	82	82	83
8	81	90	79	93	85	83	80	81
9	77	92	88	93	89	86	81	76
10	74	91	90	93	91	86	80	64
11	65	92	92	94	91	86	73	71
12	71	93	89	91	90	83	72	78
13	79	83	88	88	79	85	72	81
14	85	86	86	90	91	87	80	69
15	87	85	91	85	91	88	84	—
16	84	83	89	91	93	89	71	—
17	81	—	91	91	92	88	78	78
18	82	91	95	91	87	89	81	79
19	91	90	86	91	91	86	84	79
20	83	85	90	91	90	89	79	62
21	84	76	86	90	90	91	84	73
22	84	85	88	91	90	90	85	75
23	75	75	88	91	87	80	86	74
24	¹ —	79	90	82	90	85	82	77
25	79	86	91	87	94	87	88	70
26	74	88	91	89	94	83	85	58
27	76	80	91	89	93	87	77	67
28	80	83	91	93	94	88	70	80
29	83	83	86	90	94	80	61	53
30	87	87	87	90	89	85	76	52
31		87		89	91		79	

¹ Data not collected

**TESTS DURATION DAILY MINIMUM TEMPERATURES RECORDED
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2003**

DATE	APR °F	MAY °F	JUNE °F	JULY °F	AUG °F	SEPT °F	OCT °F	NOV °F
1	37	60	68	68	68	69	48	55
2	40	64	63	70	68	68	47	49
3	45	61	68	70	68	68	47	50
4	49	60	66	70	68	68	51	66
5	58	66	65	68	70	69	52	66
6	64	69	68	66	68	69	60	66
7	64	71	68	70	67	62	61	63
8	50	70	69	68	68	62	61	52
9	52	70	69	72	68	63	60	52
10	39	66	70	72	69	63	61	44
11	40	67	71	72	68	61	62	46
12	44	71	69	67	66	57	63	51
13	49	54	68	67	68	60	63	53
14	53	58	67	66	68	60	63	32
15	53	66	68	68	69	64	47	—
16	55	67	68	71	69	59	46	—
17	58	68	68	68	68	59	46	68
18	60	68	70	68	68	55	48	58
19	59	65	67	68	70	61	49	53
20	61	65	74	66	70	63	47	40
21	63	62	66	69	69	62	48	43
22	52	67	65	73	68	68	56	44
23	47	62	65	68	68	61	50	45
24	¹ —	60	69	68	69	57	53	54
25	50	61	68	70	70	60	55	26
26	56	65	66	68	68	62	55	32
27	50	55	69	68	70	61	60	48
28	58	60	69	68	70	63	54	50
29	57	64	69	69	67	47	45	29
30	60	58	68	66	68	47	48	27
31		68		68	69		52	

¹ Data not collected

DESCRIPTIONS OF 2003 PEANUT VARIETY TEST ENTRIES

1. **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.

2. **Andru II**

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 2002 under the 1994 Amendment of the Plant Variety Protection Act. Also carries a patent on the high oleic trait prohibiting non-licensed parties from saving seed for replanting. Andru II has early maturity (130+days) in Florida studies, but not quite as early as Andru 93 or ViruGard. It has excellent tomato spotted wilt virus resistance (equal to or better than Georgia Green), with excellent pod yields, good grades, and high oleic oil chemistry (80+% oleic fatty acid). Andru II has some white mold resistance equal to or better than Georgia Green. Its growth habit is intermediate to semi-runner with seed size similar to Georgia Green. Its pod yields have been equal to Georgia Green. Andru II should be an excellent choice for SE production, being the most productive early maturity high oleic cultivar currently available. Anderson's Peanut Company has the marketing contract on this variety.

3. **AP-3**

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 2003 under the 1994 Amendment of the Plant Variety Protection Act. AP-3 does not carry the high oleic trait and is medium (135 to 140 days) in maturity. It is resistant to tomato spotted wilt virus and white mold with some resistance to cylindrocladium black rot. Seed and pod size are similar to Florunner. Growth habit is intermediate with lighter green foliage than most varieties.

4. **C 34-24**

An advanced breeding line developed by Dr. Corley Holbrook, USDA-ARS, Tifton, Georgia. Late maturity range with slightly larger seed and pod size than Florunner. Has runner growth habit with prominent main stem. Resistance to tomato spotted wilt virus, and early and late leaf spot.

5. **C-99R**

Developed by Dr. Dan Gorbet, University of 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.

6. **C156-47**

An unreleased advanced breeding line developed by Dr. Corley Holbrook, ARS-USDA, Tifton, Georgia. Same maturity range as Florunner with similar seed and pod size as Florunner. Has runner growth habit with fairly prominent mainstem. Good yield and grade potential with resistance to tomato spotted wilt virus.

7. **Carver**

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 2002 under the 1994 Amendment of the Plant Variety Protection Act. Carver has medium maturity (135 to 140 days), runner growth habit (prominent center stem), runner pod and seed size, with tomato spotted wilt virus and white mold resistance somewhat better than Georgia Green, and resistance to cylindrocladium black rot and Rhizoctonia limb rot. Carver has excellent yield potential with somewhat larger and elongated seed with normal oil chemistry.

8. **DP-1**

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 2002 under the 1994 Amendment of the Plant Variety Protection Act. DP-1 is a late maturity (150+days) cultivar with excellent disease

resistance. DP-1 has the highest level of resistance to late leaf spot, tomato spotted wilt virus, and white mold currently available in a U.S. peanut cultivar. Yields of 4800 pounds per acre have been recorded in Florida tests with no fungicide applied for leaf spot control. DP-1 has normal oil chemistry and seed size similar to GK 7 and Florunner. It has somewhat less vine growth than C-99R. Seed will be marketed through Damascus Peanut Company.

9. Exp. 3079A; 10. Exp. 3081B; 11. Exp. 3085A

Advanced breeding lines developed by Dr. Ernest Harvey, Golden Peanut Company. These lines are similar to GK7 in growth habit with medium (135 to 140 days) maturity. Seed and pod size are also similar to GK7. They carry resistance to tomato spotted wilt virus and late leaf-spot. The high oleic trait is carried by 3081B and 3085A, while 3079A has the normal oleic/linoleic acid ratio.

12. Georgia-01R

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released under the 1994 amendment of the Plant Variety Protection Act. Late maturity range with mid-oleic oleic/linoleic fatty acid ratio with seed and pod size similar to C-99R. Is resistant to tomato spotted wilt virus and carries tolerance to leaf spot and white mold. Observations have indicated less occurrence of cylindrocladium black rot and leaf hopper damage than more susceptible varieties.

13. Georgia -02C

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Same maturity range as Florunner with seed and pod size slightly larger than Florunner. High oleic/linoleic fatty acid ratio with runner growth habit and vine growth more consistent with Florunner than Georgia Green. Resistant to tomato spotted wilt virus and cylindrocladium black rot.

14. 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 considerably 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.

15. Georgia Hi-O/L

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 1999 with plant variety protection applied for under the 1994 Amendment of the Plant Variety Protection Act. Same maturity range as Florunner with larger seed and pod size, high oleic/linoleic acid ratio, and intermediate growth habit. Resistant to tomato spotted wilt virus.

16. Gregory

Developed by Dr. Tom 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 cylindrocladium black rot (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.

17. Hull

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 2002 under the 1994 Amendment of the Plant Variety Protection Act. Also carries a patent on the high oleic trait prohibiting non-licensed parties from saving seed for replanting. Hull is a later maturity (150+days) jumbo runner seed size, high oleic cultivar with excellent pod yields and multiple disease resistance. Hull has resistance to tomato spotted wilt virus and late leaf spot similar to C-99R (better than Georgia Green). It has white mold resistance equal to or better than C-99R (better than Georgia Green). Hull also has some good resistance to cylindrocladium black rot and some root knot nematode resistance. Its seed size is similar to C-99R, with somewhat less vine growth.

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 *cylindrocladium* black rot, and is 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. ANorden

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 2002 under the 1994 Amendment of the Plant Variety Protection Act. Also carries a patent on the high oleic trait prohibiting non-licensed parties from saving seed for replanting. Norden is a medium maturity (135 to 140 days) variety, with runner growth habit (prominent center stem), runner size pods and seed, very good tomato spotted wilt virus resistance, and high oleic oil chemistry. It is a replacement for SunOleic 97R in FFSP program. Norden has shown pod yields and tomato spotted wilt virus resistance equal to or better than Georgia Green in Florida tests and a somewhat larger seed size. Norden has been equal to Georgia Green in resistance to white mold, leaf spot, and rhizoctonia disease.

20. 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 has more drought tolerance and usually has lower LSK and less alfatoxin than Florunner. Tan seedcoat and prominent exterior hull venation.

21. 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 make for easier digging with rows being easily determined.

22. 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 moderate field tolerance to tomato spotted wilt virus and is susceptible to early leafspot. Has intermediate growth habit and 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.

23. 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.

24. Wilson

Developed by Virginia Agricultural Experiment Station and USDA-ARS. Released in 2002 and protected under the 1994 Amendment of the Plant Variety Protection Act. Early maturity with smaller pod and seed size than NC 7. Normal oleic/linoleic fatty acid ratio with intermediate runner type growth habit. May have some tolerance to *cylindrocladium* black rot. Intermediate in susceptibility to tomato spotted wilt virus, Sclerotinia blight, leaf spot, and web blotch. Wilson has a pink to light pink seed coat.

SOURCES OF SEED

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Georgia-01R
Georgia-02C
Georgia Green
Georgia Hi-O/L

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North Florida Research & Education Center
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Andru II
AP-3
C-99R
Carver
DP-1
Hull
ANorden
Southern Runner

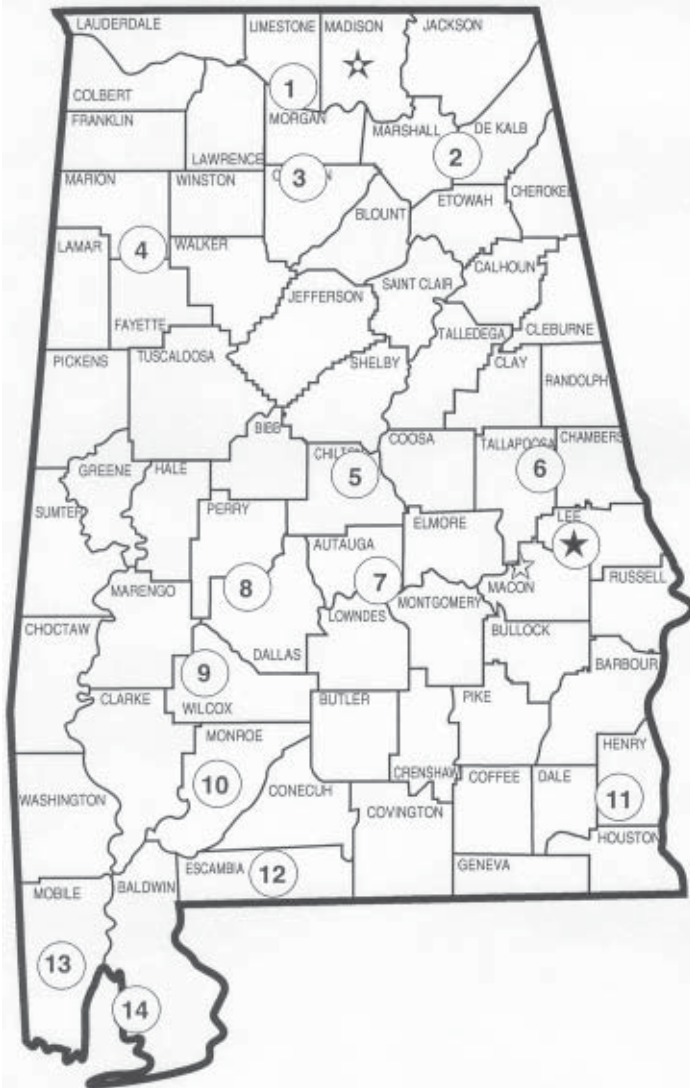
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AgraTech 201
Exp. 3079A
Exp. 3081B
Exp. 3085A
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VA 98R
VA-C 92R
Wilson

Alabama's Agricultural Experiment Station System AUBURN UNIVERSITY



- ★ Main Agricultural Experiment Station, Auburn.
- ★ Alabama A&M University
- ☆ 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 Research Center, Cullman
4. Upper Coastal Plains Agricultural Research Center, Winfield
5. Chilton Area Research and Extension Center, Clanton
6. *Piedmont Substation, Camp Hill
7. Prattville Agricultural Research Unit, Prattville
8. Black Belt Research and Extension Center, Marion Junction
9. Lower Coastal Plain Substation, Camden
10. *Monroeville Agricultural Research Unit, Monroeville
11. Wiregrass Research and Extension Center, Headland
12. Brewton Agricultural Research Unit, Brewton
13. Ornamental Horticulture Research Center, Spring Hill
14. Gulf Coast Research and Extension Center, Fairhope

*Temporarily inactive