



January 2003 • Agronomy and Soils Departmental Series No. 248
Alabama Agricultural Experiment Station • John Jensen, Interim Director
Auburn University • Auburn, Alabama

Printed in cooperation with the Alabama Cooperative Extension System (Alabama A&M University and Auburn University)

Printing costs for this publication were paid for by the following certified peanut seed companies:

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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 2002 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

The 2002 tests were conducted at the Wiregrass Research and Extension Center in Headland, Alabama. Prior to 2000, comparisons were made only under irrigation. During 2002, 22 entries were evaluated under irrigation, 16 entries were evaluated dryland, and 10 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 test was planted on May 6, the dryland test was planted on May 17, and the late-planted dryland test was planted on June 10. 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 13. These entries included Andru II, GP-1, VA-C 92R, and ViruGard. All other entries were dug on September 20, except for those that are considered later than Florunner—C34-24, C-99R, DP-1, Georgia-01R, Hull, and Southern Runner—which were dug on October 3.

The dryland test entries considered to be earlier than Florunner were dug on September 20. These entries were Andru II, GP-1, and ViruGard. All other entries were dug on September 30, except for those entries that are considered later than Florunner—C34-24, C-99R, DP-1, Georgia-01R, Hull, and Southern Runner—which were dug on October 9.

In the late-planted dryland test, Andru II and ViruGard were dug on October 23, and all other entries were dug on November 5. Information concerning relative maturity for all test entries was provided by the plant breeder responsible for developing the variety.

DISCUSSION

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.

¹Bostick 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.

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.

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.

ACKNOWLEDGMENTS

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. Yield of Irrigated Peanut Varieties	
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA,	2002

Variety or line	Yield <i>lb/a</i>	Variety or line	Yield <i>lb/a</i>
(R) C-99 R (R) Georgia Hi-O/L (R) C 156-47 (R) GP-1		(V) ¹ VA 98R (R) Southern Runner (V) Gregory (R) Georgia Green (R) Norden (V) VA-C 92 R (V) NC-V11 (R) C 34-24 (R) DP-1 (V) Wilson (R) Florunner	5,363 5,291 5,173 5,137 5,127 5,091 5,073 4,910 4,510
Overall Average			5,400
CV(%)			
LSD (.05)			866

¹ (R) Runner Type, (V) Virginia Type ² Weak stand

TABLE 2. TWO-YEAR AVERAGE YIELD OF IRRIGATED PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001-2002

Variety or line	2002	2001	Avg. yield
	lb/a	lb/a	lb/a
AgraTech 201	6,089	5,935	6,012
C 156-47	5,454	6,162	5,808
Georgia-02C	5,708	5,890	5,799
C-99R	5,590	5,953	5,772
Georgia Hi O/L	5,590	5,881	5,735
Gregory		5,990	5,640
Georgia Green		6,071	5,622
ViruGard	5,654	5,191	5,422
NC-V11	5,091	5,663	5,377
VA-C 92		5,372	5,250
VA 98R	5,381	5,055	5,218
Southern Runner		4,801	5,082
Florunner	3,675	4,528	4,102
Overall Average			5.433
CV(%)			12.31
LSD(.05)			667

TABLE 3. THREE-YEAR AVERAGE YIELD OF IRRIGATED PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2000-2002

Variety or line	2002	2001	2000	Avg. yield
	lb/a	lb/a	lb/a	lb/a
AgraTech 201	6,089	5,935	4,283	5,436
Georgia Hi O/L	5,590	5,881	4,783	5,418
Gregory		5,990	4,737	5,339
C-99R	5,590	5,953	4,447	5,330
ViruGard	5,654	5,191	5,037	5,294
Georgia Green	5,173	6,071	4,538	5,261
NC-V11		5,663	4,420	5,058
VA-C 92	5,127	5,372	4,483	4,994
VA98R	5,381	5,055	3,802	4,746
Southern Runner	5,363	4,801	3,866	4,677
Florunner	3,675	4,528	2,523	3,576
Overall Average				5,015
CV(%)				17.03
T CD (O.C)				691

TABLE 4. AVERAGE SIZE AND GRADE OF IRRIGATED PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2002

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	Hulls
•	count/lb	pct	pct	pct	pct	pct	pct	pct
AgraTech 201	795	69	5	74	4	1	79	21
Andru II	825	65	4	69	5	0	74	26
C34-24	681	67	5	72	4	0	76	24
C156-47	658	67	6	73	1	3	77	23
C-99R	681	69	4	73	4	0	77	23
Carver	713	68	2	70	6	0	76	24
DP-1	722	66	5	71	5	0	76	24
Florunner	876	62	3	65	8	2	75	25
Georgia-01R	608	68	8	76	2	0	78	22
Georgia-02C	649	66	6	72	5	1	78	22
Georgia Green	772	69	3	72	4	1	77	23
Georgia Hi-O/L	586	65	4	69	3	4	76	24
GP-1	745	64	4	68	7	0	75	25
Gregory	440	65	3	68	1	2	71	29
Hull		62	11	73	2	0	75	25
NC-V11	522	63	4	67	2	1	70	30
Norden	812	65	4	69	5	1	75	25
Southern Runner	758	67	4	71	5	0	76	24
VA98R	522	64	3	67	3	1	71	29
VA-C 92R	486	66	1	67	3	1	71	29
Wilson	540	61	3	64	3	1	68	32
ViruGard	681	70	4	74	2	1	77	23

TABLE 5. TWO-YEAR AVERAGE SIZE AND GRADE OF IRRIGATED PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001-2002

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	Hulls
	count/lb	pct	pct	pct	pct	pct	pct	pct
AgraTech 201	782	68	5	73	5	0	78	21
C 156-47	705	67	7	74	2	2	78	22
C-99R	677	69	4	73	4	0	77	23
Florunner	838	65	4	69	6	1	76	24
Georgia-02C	749	68	5	73	5	0	78	22
Georgia Green	794	70	3	73	5	0	78	22
Georgia Hi-O/L	589	65	7	72	3	2	77	23
Gregory		66	2	68	3	1	72	28
NC-V11	565	65	4	69	3	0	72	28
Southern Runner	811	68	4	72	4	0	76	24
VA98R	565	65	4	69	3	0	72	28
VA-C92 R	531	65	2	67	4	0	71	29
ViruGard	653	69	4	73	4	0	77	23

TABLE 6. THREE-YEAR AVERAGE SIZE AND GRADE OF IRRIGATED PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2000-2002

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	Hulls
	count/lb	pct	pct	pct	pct	pct	pct	pct
AgraTech 201	761	69	4	73	4	1	78	22
C-99R	670	68	5	73	4	0	77	23
Florunner	824	65	4	69	6	1	76	24
Georgia Green	800	71	2	73	4	1	78	22
Georgia Hi-O/L	567	66	6	72	2	2	76	24
Gregory	468	66	2	68	2	1	71	29
NC-V11	543	66	3	69	2	0	71	29
Southern Runner	821	68	5	73	4	0	77	23
VA98R	545	65	3	68	3	1	72	28
VA-C 92R	522	65	2	67	3	1	71	29
ViruGard	627	70	3	73	3	1	77	23

TABLE 7. AVERAGE SHELLED SEED SIZE DISTRIBUTION OF IRRIGATED PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2000-2002

				SMKRS	S Size Di	stribution				
Variety or line		+21.0			-21.0 + 18.0			-18.0 + 16.0		
		–Jumbo–	 		-Mediur	n		—No. 1–		
		pct			pct			pct		
	-2000-	-2001-	-2002-	-2000-	-2001-	-2002-	-2000-	-2001-	-2002-	
AgraTech 201	27.1	27.3	34.8	58.6	61.4	56.1	14.3	11.3	9.1	
Andru II	1		20.5			63.7			15.8	
C 34-24	—	_	58.2			34.0			7.8	
C156-47	—	52.6	51.7		40.4	36.6		7.0	11.7	
C-99R	59.7	52.1	51.4	34.0	41.3	36.0	6.3	6.6	6.6	
Carver	—		22.3			63.9			13.8	
DP-1	—		41.2			48.5			10.3	
Florunner	21.3	26.8	22.2	64.2	61.1	60.1	14.5	12.1	17.7	
GA 01R	—		76.4			18.5			5.1	
Georgia-02C	—	48.7	50.2		42.7	41.4		8.6	8.4	
Georgia Green	37.8	26.1	23.1	54.5	64.2	64.5	7.7	9.7	12.4	
Georgia Hi-O/L		73.0	65.0	22.8	23.3	24.8	6.8	3.7	10.2	
GP-1			19.4			64.0		—	16.6	
Gregory	81.0	78.1	74.2	15.4	18.3	20.1	3.6	3.6	5.7	
Hull			55.5			37.2			7.3	
NC-V11		61.7	54.4	36.3	31.4	36.1	6.1	6.9	9.5	
Norden	—		26.7			60.9			12.4	
Southern Runner	35.4	23.4	32.1	58.1	65.3	58.9	6.5	11.3	9.0	
VA98R	63.2	60.6	57.1	28.9	32.0	34.5	8.0	7.4	8.4	
VA-C 92R		49.4	63.8	30.4	41.6	30.9	6.3	9.0	5.3	
Wilson	—		52.1			39.4	_		8.5	
ViruGard		44.9	53.7	44.7	46.7	38.8	4.9	8.4	7.5	

 $[\]frac{1}{1}$ — = not tested.

Table 8. Occurrence of Tomato Spotted Wilt Virus Hits in the Irrigated Peanut Variety Test at the Wiregrass Research and Extension Center, Headland, Alabama, 2002

			—Hits per plot 1—		
Variety or line	Rep	Rep	Rep	Rep	Avg.
	I	II	III	IV	
Gregory	1	1	3	10	3.75
C34-24	3	5	4	5	4.25
DP-1	5	4	4	4	4.25
Georgia-01R	4	3	4	6	4.25
C 156-47		0	5	6	5.00
Andru II	6	6	5	4	5.25
Georgia Hi-O/L	6	8	1	8	5.75
ViruGard		4	5	12	6.00
AgraTech 201	1	4	14	9	7.00
C-99R	3	3	5	17	7.00
Carver	3	3	11	11	7.00
Georgia-02C	1	4	14	11	7.50
Norden		5	6	16	8.25
Hull	13	8	6	10	9.25
VA98R	7	13	5	15	10.00
GP-1	5	10	16	11	10.50
Southern Runner	11	8	17	9	11.25
Wilson	10	7	14	19	12.50
Georgia Green	23	8	7	15	13.25
NC-V11		16	17	12	14.00
Florunner	8	17	19	24	17.00
VA-C 92R	14	17	21	25	19.25
Overall Average					8.74
CV (%)					
LSD (.05)					

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

TABLE 9. OCCURRENCE OF WHITE MOLD HITS IN THE IRRIGATED PEANUT VARIETY TEST AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2002

			—Hits per plot 1—		
Variety or line	Rep	Rep	Rep	Rep	Avg.
	I	II	III	IV	
Andru II	0	0	1	0	0.25
Georgia Hi-O/L	0	0	1	1	0.50
C 156-47		1	0	0	0.75
Georgia-02C	0	0	2	1	0.75
Georgia-01R	0	2	2	0	1.00
Georgia Green		2	0	1	1.00
AgraTech 201	1	0	2	2	1.25
DP-1	2	0	0	3	1.25
ViruGard	2	1	0	2	1.25
Hull	3	1	0	2	1.50
Carver	1	1	3	2	1.75
Norden	1	1	4	1	1.75
C34-24	2	0	2	4	2.00
GP-1	0	0	3	5	2.00
Gregory	0	1	1	6	2.00
Southern Runner	3	1	2	6	3.00
C-99R	2	2	1	9	3.50
Florunner	11	3	1	5	5.00
VA 98R	5	3	5	8	5.25
NC-V11	6	9	9	6	7.50
Wilson.	6	7	7	11	7.75
Overall Average					2.45
CV(%)					
LSD(.05)					

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

TABLE 10. OCCURRENCE OF LEAFSPOT IN THE IRRIGATED PEANUT VARIETY TEST AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2002

			-Rating per plot1-		
Variety or line	Rep	Rep	Rep	Rep	Avg.
-	I	II	III	IV	_
Georgia-02C	2	5	4	4	3.75
DP-1		4	5	4	4.00
Georgia-01R		4	5	4	4.00
Norden		5	4	4	4.00
Southern Runner	4	4	4	5	4.25
Andru II	5	5	4	4	4.50
VA-C 92R	4	5	5	4	4.50
ViruGard	4	5	4	5	4.50
C34-24	5	5	4	5	4.75
C-99R	5	4	5	5	4.75
Georgia Green	5	6	3	5	4.75
Georgia Hi-O/L		4	5	5	4.75
Carver		5	5	4	5.00
VA98R	4	5	5	6	5.00
AgraTech 201	4	5	7	5	5.25
Hull		6	5	5	5.25
C 156-47	5	6	5	6	5.50
NC-V11	6	5	6	5	5.50
Florunner	5	6	7	5	5.75
GP-1	5	6	6	6	5.75
Wilson	5	6	6	7	6.00
Gregory		7	7	7	6.75
Overall Average					4.92
CV(%)					
LSD(.05)					

¹ Rating 1 (lowest) to 10 (highest).

TABLE 11. YIELD OF DRYLAND PEANUT VARIETIES
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2002

Variety or line	Yield <i>lb/a</i>	Variety or line	Yield lb/a
Carver. Georgia-01R C 99R Hull C 34-24 Georgia-02C Southern Runner Norden	3,692 3,620 3,539 3,412 3,403 3,276	Virugard Georgia Green C 156-47 Andru II DP-1 GP-1 Agra Tech 201 Florunner	3,076 2,949 2,931 2,858 2,640 2,631
Overall Average			

TABLE 12. TWO-YEAR AVERAGE YIELD OF DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001-2002

Variety or line	Yield	Variety or line	Yield
	lb/a		lb/a_
C-99R	4,337	Virugard	3,852
Georgia-02C	4.042	Southern Runner	3,766
Georgia Green	4,011	Agra Tech 201	3,652
C 156-47	3,884	Florunner	3,008
Overall Average			3,819
CV (%)			
LSD (.05)			972

TABLE 13. THREE-YEAR AVERAGE YIELD OF DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2000-2002

Variety or line	Yield	Variety or line	Yield
	lb/a		lb/a
C-99R	3,699	Southern Runner	
Georgia Green		AgraTech 201	
ViruGard	3,527	Florunner	2,619
Overall Average			3,304
CV (%)			
LSD (.05)			895

TABLE 14. AVERAGE SIZE AND GRADE OF DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2002

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	Hulls
	count/lb	pct	pct	pct	pct	pct	pct	pct
AgraTech 201	826	68	7	75	3	0	78	22
Andru I	826	67	5	72	3	0	75	25
C34-24	735	61	9	70	5	0	75	25
C156-47	758	64	9	73	3	0	76	24
C-99R	745	63	8	71	4	0	75	25
Carver	758	68	5	73	3	0	76	24
DP-1	813	64	6	70	6	0	76	24
Florunner	967	67	4	71	5	0	76	24
Georgia-01R	699	70	5	75	2	0	77	23
Georgia-02C	858	70	4	74	4	0	78	22
Georgia Green		69	4	73	4	0	77	23
GP-1		65	4	69	7	0	76	24
Hull	617	66	5	71	3	0	74	26
Norden		65	6	71	4	0	75	25
Southern Runner	889	64	6	70	5	0	75	25
ViruGard	713	67	6	73	4	0	77	23

TABLE 15. TWO-YEAR AVERAGE SIZE AND GRADE OF DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001-2002

Variety or line	SMKRS count/lb	SMKRS pct	SS pct	TSMK pct	OK pct	DK pct	TK pct	Hulls pct
AgraTech 201	965	66	7	73	5	0	78	22
C156-47	835	66	8	74	3	0	77	23
C-99R	741	68	6	74	3	0	77	23
Florunner	1004	66	4	70	6	0	76	24
Georgia-02C	893	70	4	74	4	0	78	22
Georgia Green	1015	69	3	72	6	0	78	22
Southern Runner	901	68	5	73	3	0	76	24
ViruGard	845	67	6	73	4	0	77	23

TABLE 16. THREE-YEAR AVERAGE SIZE AND GRADE OF DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2000-2002

Variety or line	SMKRS count/lb	SMKRS pct	SS pct	TSMK pct	OK pct	DK pct	TK pct	Hulls pct
AgraTech 201	1044	64	5	69	7	0	76	24
C-99R	740	68	5	73	3	0	76	24
Florunner	1018	64	4	68	7	0	75	25
Georgia Green	1037	67	3	70	7	0	77	23
Southern Runner	898	68	4	72	4	0	76	24
ViruGard	863	66	5	71	5	0	76	24

TABLE 17. YIELD OF LATE-PLANTED DRYLAND PEANUT VARIETIES OVER THREE YEARS AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2000-2002

Variety or line	2002	Two-year avg.	Three-year avg.
•	lb/a	lb/a	lb/a
Georgia-02C	3,013	1	<u>—</u>
Carver			
Andru II			
ViruGard	2,069	1,589	1,429
Norden	1,870	· <u>—</u>	· <u>—</u>
C156-47	1,870	1,887	_
Georgia Green		2,218	1,866
GP-1		· <u>—</u>	· <u>—</u>
AgraTech 201	1,479	1,866	1,461
Florunner		<u> </u>	<u> </u>
Overall Average	1,975	1,889	1,585
CV (%)		33.7	49.7
LSD (.05)		704	695

¹ Not tested

TABLE 18. AVERAGE SIZE AND GRADE OF LATE-PLANTED DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2002

Variety or line	SMKRS count/lb	SMKRS pct	SS pct	TSMK pct	OK pct	DK pct	TK pct	Hulls pct
AgraTech 201	1058	52	12	64	10	0	74	26
Andru II	1058	57	10	67	7	0	74	26
C156-47	890	59	15	74	2	1	77	23
Carver	1012	60	6	66	7	1	74	26
Florunner	1058	57	4	61	11	1	73	27
Georgia-02C	745	66	11	77	2	0	79	21
Georgia Green	1012	63	8	71	4	1	76	24
GP-1	949	53	7	60	12	1	73	27
Norden	967	59	8	67	7	1	75	25
ViruGard	826	59	13	72	3	0	75	25

TABLE 19. TWO-YEAR AVERAGE SIZE AND GRADE ON LATE-PLANTED DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001-2002

Variety or line	SMKRS count/lb	SMKRS pct	SS pct	TSMK pct	OK pct	DK pct	TK pct	Hulls pct
AgraTech 201	993	54	14	68	7	0	75	25
C156-47	885	59	15	74	2	1	77	23
Georgia Green	978	62	9	71	5	0	76	24
ViruGard	789	60	14	74	2	0	76	24

TABLE 20. THREE-YEAR AVERAGE SIZE AND GRADE OF LATE-PLANTED DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2000-2002

Variety or line	SMKRS count/lb	SMKRS pct	SS pct	TSMK pct	OK pct	DK pct	TK pct	Hulls pct
AgraTech 201	989	53	15	68	6	0	74	26
Georgia Green	981	60	11	71	5	0	76	24
ViruGard	806	59	15	74	2	0	76	24

PLANTING RATE CHART ¹								
Seed	Seed	Lbs.	Seed	Lbs.	Seed	Lbs.		
per	per	per	per	per	per	per		
pound	foot	acre	foot	acre	foot	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, 2002

							-	
DATE	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV
	in							
1	_	0.05	_	0.30	_	0.09	_	
2					0.66			_
3			_		0.11	_		0.03
4			0.02					0.16
5			0.57	0.02			0.38	0.12
6								0.40
7			0.04	0.11		0.10	0.05	
8			0.06					_
9	1.40		0.40	0.05		_		
10	0.88							0.43
11								0.10
12	0.22	0.73						3.20
13	0.12			1.29		0.05		0.05
14		0.89				0.33	0.14	_
15	0.19		0.74		1.26	0.69	0.48	_
16							0.71	0.86
17		0.25	0.49					0.08
18		0.18	0.05					
19								_
20					0.09	0.04		0.02
21				0.07			0.70	
22			0.06		0.05			_
23			0.38	0.65		_		_
24			0.02	0.14			0.41	_
25			_	1.02		0.86	0.10	_
26			0.05	0.10		0.15	0.05	_
27			0.03		0.25	0.60	0.61	_
28			0.03	0.24	0.07		0.10	_
29		0.51	0.97	0.29		_	0.27	_
30		_	0.03	0.08	0.02		0.26	
31		0.25		_	0.60			_
TOTALS ¹	3.35	2.86	3.94	4.15	3.11	2.91	4.26	5.45

 $^{^{1}}$ Total daily rainfall from April through November, 2002 = 30.00 in; 2001 = 31.19 in; 2000 = 19.81 in.

Tests Duration Daily Maximum Temperatures Recorded at the Wiregrass Research and Extension Center, Headland, Alabama, 2002

DATE	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV
	oF							
1	82	90	90	90	90	86	85	78
2	75	90	93	91	91	82	86	69
3	83	91	95	93	91	86	89	66
4	86	91	97	92	90	91	88	64
5	74	94	97	90	90	95	85	64
6	73	86	90	92	91	96	89	79
7	70	82	89	97	95	94	1	72
8	79	94	92	94	90	90		66
9	79	93	78	93	90	92		70
10	68	94	87	93	89	91		71
11	74	94	89	93	92	97		82
12	76	95	91	95	92	99		77
13	77	92	95	94	93	95		64
14	80	89	97	87	93	80		62
15	83	77	98	93	85	78		64
16	83	83	86	92	90	88		72
17	85	87	88	95	92	91	72	60
18	89	87	82	96	93	93	71	52
19	90	75	87	99	92	93	73	63
20	91	71	87	100	95	91	79	67
21	90	74	90	98	92	90	82	69
22	89	74	77	95	93	92	79	70
23	86	76	81	90	94	90	80	56
24	82	82	85	90	96	91	70	58
25	88	87	87	89	98	79	75	65
26	88	89	86	89	95	77		63
27	72	92	82	87	93	85		69
28	88	92	91	90	90	78		59
29	90	92	91	90	90	82		54
30	88	80	87	90	90	86	82	59
31		90		90	86		82	

¹ Data not collected.

Tests Duration Daily Minimum Temperatures Recorded at the Wiregrass Research and Extension Center, Headland, Alabama, 2002

DATE	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV
	oF	${}^{o}F$						
1	56	69	67	66	71	69	67	41
2	50	71	69	68	67	68	68	41
3	57	71	71	70	67	68	67	42
4	49	72	72	70	67	67	66	56
5	43	68	68	67	67	67	68	55
6	41	65	70	68	68	71	69	50
7	43	65	69	68	72	70	67	37
8	56	71	71	70	66	67	64	40
9	60	68	65	69	60	66	64	47
10	60	68	65	66	60	67	64	52
11	61	68	68	71	63	68	68	66
12	62	67	68	69	65	67	1	56
13	62	66	70	70	68	70		38
14	61	49	70	71	70	67	68	36
15	63	52	65	70	68	67	66	45
16	68	58	60	69	68	68	62	51
17	63	64	63	70	69	68	44	39
18	64	69	65	73	69	70	45	33
19	64	51	67	73	72	68	45	37
20	66	46	67	74	67	69	45	49
21	65	48	67	69	67	69	60	50
22	68	48	67	67	68	67	70	43
23	57	47	67	69	69	68	70	29
24	57	55	69	70	71	69	67	32
25	61	63	70	68	72	68	69	38
26	57	64	71	70	69	67	60	35
27	55	65	67	70	68	60	62	38
28	56	65	69	70	67	65	62	27
29	70	68	68	68	67	66	65	27
30	66	66	70	70	68	66	73	41
31		63		68	69		47	

¹ Data not collected

DESCRIPTIONS OF 2002 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. 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.

4. 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.

5. 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.

6. 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.

7. 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.

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. 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.

9. 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.

10. 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.

11. 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.

12. 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.

13. 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.

14. GP-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. Also carries a patent on the high oleic trait prohibiting non-licensed parties from saving seed for replanting. GP-1 has early maturity (125-130 days) in Florida tests, with high oleic oil chemistry, runner seed size, and intermediate runner growth habit. GP-1 has some tomato spotted wilt virus resistance, but not quite as good as Georgia Green, being most suitable for lower tomato spotted wilt virus pressure situations. Pod yields have been equal to Georgia Green in low tomato spotted wilt virus pressure situations, but less where tomato spotted wilt virus was high. Seed size is somewhat larger than Georgia Green. FFSP has a marketing contract with Golden on this variety.

15. 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.

16. 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).

17. Norden

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 (135-140 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.

18. 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.

19. 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.

20. 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.

21. 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.

22. 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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Coastal Plain Experiment Station
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Georgia-01R

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

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Andru II
C-99R
Carver
DP-1
Florunner
GP-1
Hull
Norden

Southern Runner

C156-47

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Alabama's Agricultural Experiment Station System AUBURN UNIVERSITY



- Main Agricultural Experiment Station, Auburn.
- Alabama A&M University
- E. V. Smith Research Center, Shorter.
 - Tennessee Valley Research and Extension Center, Belle Mina
 - Sand Mountain Research and Extension Center, Crossville
 - North Alabama Horticulture Research
 Center, Cullman
 - Upper Coastal Plains Agricultural Research Center, Winfield
 - Chilton Area Research and Extension Center, Clanton
 - 6. *Piedmont Substation, Camp Hill
 - Prattville Agricultural Research Unit, Prattville
 - Black Belt Research and Extension Center, Marion Junction
 - Lower Coastal Plain Substation, Camden
- *Monroeville Agricultural Research Unit Monroeville
- Wiregrass Research and Extension Center, Headland
- Brewton Agricultural Research Unit, Brewton
- Ornamental Horticulture Research Center, Spring Hill
- Gulf Coast Research and Extension Center, Fairhope

^{*}Temporarily inactive