



February 2005 • Agronomy and Soils Departmental Series No. 266 Alabama Agricultural Experiment Station • Michael Weiss, Director Auburn University • Auburn, Alabama

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

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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 2004 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 and Discussion

The 2004 tests were conducted at the Wiregrass Research and Extension Center in Headland, AL. Prior to 2000, comparisons were made only under irrigation. During 2004, 22 entries were evaluated under irrigation, 15 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 and dryland tests were planted on May 11. The late-planted dryland test was planted on June 23. 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 10. These entries included Andru II, Exp 215, and NC 7. All other entries were dug on September 21, except Georgia-02C (October 1), Tifrunner, C-99R, DP-1, Georgia-01R, and Hull, which are considered later than Florunner and were dug on October 7.

The dryland test entries considered to be earlier than Florunner were dug on September 10. These entries included Andru II and Exp 215. All other entries were dug on September 21, except Georgia-02C (October 1), Tifrunner, C-99, DP-1, and Georgia-01R, which are considered later than Florunner and were dug on October 7.

In the late-planted dryland test, all 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.

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 8-12 percent are generally considered acceptable for yield data of

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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.

Acknowledgements

The authors express appreciation to Austin K. Hagan, Auburn University professor of Entomology and Plant Pathology, for providing the disease evaluation data and to Glenn Wehtje, Auburn University 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 2002-2004

Variety or line	2004 lb/a	2-year avg.	3-year avg.
Exp 3085A	6,180	5,326	
Exp 3081B	6,098	5,274	
Georgia-03L	6,026	1	
Georgia Hi-O/L	5,953	4,968	5,194
Exp 215	5,826		
Georgia-02C	5,808	4,869	5,174
Georgia Green	5,400	4,418	4,534
Carver	5,300	4,662	5,224
C-99R	5,300	4,978	5,201
Georgia-01R	5,254	4,781	5,429
ANorden	5,245	4,621	4,808
² Tifrunner	5,200	4,792	4,894
AP-3	5,182	4,895	
Andru II	5,064	4,418	4,957
Gregory	4,891	4,481	4,775
NC-V11	4,728	4,304	4,590
DP-1	4,465	4,133	4,415
Hull	4,401	4,024	4,538
VT9506102-6-552	4,202		
VA 98R	4,066	3,811	4,382
NC 7	4,038		
Wilson	4,002	3,692	3,990
Overall Average	5,120	4,580	4,807
CV (%)	12.1	20.4	20.2
LSD (.05)	878	991	818

¹ Not tested. ² Previously tested as C 34-24

Table 2. Average Size and Grade of Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2004

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	Hulls
	count/lb	pct	pct	pct	pct	pct	pct	pct
Andru II	796	65	3	68	6	0	74	26
ANorden	678	70	2	72	4	0	76	24
AP-3	688	67	2	69	4	0	73	27
Tifrunner	698	73	2	75	2	0	77	23
C-99R	582	72	4	76	2	0	78	22
Carver	622	71	1	72	4	0	76	24
DP-1	698	70	4	74	3	0	77	23
Exp 215	560	71	2	73	3	0	76	24
Exp 3081B	614	70	2	72	2	0	74	26
Exp 3085A	597	72	1	73	2	0	75	25
Georgia-01R	589	69	6	75	2	0	77	23
Georgia-02C	678	75	2	77	2	0	79	21
Georgia-03L	614	71	1	72	2	0	74	26
Georgia Green	678	73	2	75	4	0	79	21
Georgia Hi-O/L	510	69	4	73	3	0	76	24
Gregory	416	69	1	70	1	0	71	29
Hull	658	70	4	74	2	0	76	24
NC 7	504	63	5	68	3	0	71	29
NC-VII	478	68	2	70	2	0	72	28
VA 98R	463	69	1	70	2	0	72	28
VT9506102-6-552	437	71	1	72	2	0	74	26
Wilson	450	66	1	67	3	0	70	30

Table 3. Two-Year Average Size and Grade on Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2003-2004

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	Hulls
	count/lb	pct	pct	pct	pct	pct	pct	pct
Andru II	884	63	4	67	7	0	74	26
ANorden	757	67	3	70	4	1	75	25
AP-3	802	66	2	68	4	0	72	28
Tifrunner	812	70	3	73	2	0	75	25
C-99R	650	71	4	75	2	0	77	23
Carver	724	68	1	69	6	0	75	25
DP-1	790	66	4	70	5	0	75	25
Exp 3081B	686	63	5	68	5	0	73	27
Exp 3085A	673	65	6	71	4	0	75	26
Georgia-01R	631	68	7	75	2	0	77	23
Georgia-02C	832	70	3	73	3	0	76	24
Georgia Green	825	69	2	71	5	1	77	23
Georgia-Hi O/L	600	64	7	71	3	1	75	25
Gregory	460	68	1	69	2	0	71	29
Hull	795	68	4	72	3	0	75	25
NC-V11	580	66	2	68	3	0	71	29
VA 98R	563	66	2	68	3	0	71	29
Wilson	579	62	3	65	3	0	68	32

Table 4. Three-Year Average Size and Grade on Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2002-2004

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	ĎΚ	TK	Hulls
	count/lb	pct	pct	pct	pct	pct	pct	pct
Andru II	864	64	4	68	6	1	75	25
ANorden	775	66	3	69	5	1	75	25
Tifrunner	768	69	4	73	3	1	76	24
C-99R	690	69	4	73	4	0	77	23
Carver	720	68	1	69	5	1	75	25
DP-1	759	67	4	71	4	1	76	24
Georgia-01R	623	68	7	75	2	0	77	23
Georgia-02C	771	68	4	72	4	1	77	23
Georgia Green	807	69	2	71	5	1	77	23
Georgia Hi-O/L	595	64	6	70	4	1	75	25
Gregory	453	67	2	69	1	1	71	29
Hull	757	66	7	73	3	0	76	24
NC-V11	560	65	3	68	3	0	71	29
VA 98R	599	64	4	68	3	0	71	29
Wilson	566	62	3	65	3	0	68	32

Table 5. Average Shelled Seed Size Distribution of Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2002-2004

					S Size Dist			-	
Variety or		+21.0		-21.0 +18.0			-	<i>18.0</i> + <i>16</i> .	0
line		Jumbo			Medium		No. 1		
		pct			pct			pct	
	2004	2003	2002	2004	2003	2002	2004	2003	2002
Andru II	22.9	16.6	20.5	62.2	62.7	63.7	14.9	20.7	15.8
ANorden	27.3	18.2	26.7	60.3	60.9	60.9	12.4	15.7	12.4
AP-3	44.4	33.2	1	46.7	54.8		8.9	12.1	
Tifrunner	58.1	38.5	58.2	37.5	54.3	34.0	4.4	7.2	7.8
C-99R	55.1	38.3	51.4	40.2	52.7	36.0	5.0	9.0	6.6
Carver	27.1	8.8	22.3	61.8	73.1	63.9	11.0	18.1	13.8
DP-1	39.1	25.9	41.2	51.7	57.9	48.5	9.0	16.2	10.3
Exp 215	48.5			44.7			6.7		
Exp 3081B	48.4	30.5		45.4	56.1		5.6	13.4	
Exp 3085A	64.5	38.3		31.5	49.2		3.9	12.0	
Georgia-01R	70.5	51.4	76.4	26.2	41.7	18.5	3.4	6.9	5.1
Georgia-02C	46.6	27.6	50.2	46.8	59.8	41.4	6.4	12.6	8.4
Georgia-03L	51.6			43.2			5.2		
Georgia Green	30.6	8.5	23.1	61.4	72.9	64.5	8.0	18.6	12.4
Georgia Hi-O/L	72.8	52.7	65.0	22.3	34.2	24.8	4.8	13.1	10.2
Gregory	83.0	68.1	74.2	14.9	25.2	20.1	2.1	6.7	5.7
Hull	53.6	40.7	55.5	40.9	51.9	37.2	5.6	7.4	7.3
NC 7	62.8			27.8			9.4		
NC-V11	63.1	45.2	54.4	32.1	45.9	36.1	4.8	8.9	9.5
VA98R	61.3	46.0	57.1	34.4	45.0	34.5	4.6	9.0	8.4
VT9506102-6-552	67.5			27.9			4.4		
Wilson	63.5	38.5	52.1	32.1	48.9	39.4	4.3	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 2004

Variety or line	Avg. TSWV	Variety or line	Avg. WM	Variety or line	Avg. LS
_	¹ hits/plot	,	hits/plot	·	² ratings/
					plot
Exp 215	3	Georgia-03L	0.00	Exp 215	
Georgia-03L	10.25	Exp 215	0.25	DP-1	2.50
Georgia-02C	11.00	Andru II	0.25	Hull	2.50
Exp 3085A	12.00	NC 7	0.25	C-99R	2.63
Tifrunner	13.75	Exp 3081B	0.50	Georgia-01R	2.88
Andru II	14.50	ANorden	0.50	Andru II	3.25
AP-3	14.75	AP-3	0.50	Georgia-02C	3.25
DP-1	16.00	Exp 3085A	0.75	Tifrunner	3.38
ANorden	17.00	Georgia Hi-O/L	1.00	Georgia-03L	3.50
Georgia-01R	17.75	DP-1	1.00	AP- 3	3.75
Georgia Hi-O/L	18.25	Georgia-02C	1.25	Georgia Hi-O/L	3.75
Georgia Green	19.00	Georgia Green	1.25	NC 7	3.88
Hull	20.25	Hull	1.50	Exp 3081B	4.25
VT 9506102-6-552	20.25	Carver	1.50	ANorden	4.25
C-99R	21.75	Georgia-01R	1.56	NC-V11	4.38
Exp 3081B	21.75	Tifrunner	1.75	Georgia Green	4.50
Carver	23.00	Wilson	1.88	Carver	4.50
Gregory	23.25	C-99R	2.00	Gregory	4.50
NC 7	23.50	Gregory	2.50	Exp 3085A	4.50
Wilson	24.25	NC-V11	3.75	VA 98R	4.63
VA 98R	25.50	VA 98R	4.00	Wilson	5.50
NC-V11	26.00	VT9506102-6-552	5.25	VT9506102-6-552	5.75
Overall Average	18.75		1.51		3.905
CV (%)	23.2		72.3		16.2
LSD (.05)	6.152		1.541		1.893

 1 Hits equal length of row up to one linear foot with severely diseased plants. 2 Rating 1 (lowest) to 10 (highest). 3 Data not taken.

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Table 7. Three-Year Average Yield of Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2002-2004

Research and Extension Center, Treatment, Alabama 202-2004									
Variety or line	2004 avg.	2-year avg.	3-year avg.						
	lb/a	lb/a	lb/a						
Georgia-03L	5,318	1							
Exp 3085A	5,200	4,923							
Exp 3081B	5,064	4,937							
Georgia Green	5,055	4,002	3,694						
Georgia Hi-O/L	5,046	3,893							
C-99R	5,019	4,519	4,220						
Georgia-02C	4,937	4,583	4,190						
AP-3	4,774	4,370							
Carver	4,719	4,333	4,132						
Georgia-01R	4,646	4,283	4,090						
Andru II	4,465	3,816	3,521						
Exp 215	4,392								
DP-1	4,247	4,252	3,787						
Tifrunner	4,202	3,866	3,715						
ANorden	4,111	3,916	3,654						
Overall Average	4,746	4,284	3,889						
CV (%)	9.6	20.1	21.2						
LSD (.05)	650.4	853.1	663.5						

Table 8. Average Size and Grade on Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2004

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	Hulls
	count/lb	pct	pct	pct	pct	pct	pct	pct
Andru II	756	71	1	72	3	0	75	25
ANorden	687	70	2	72	4	0	76	24
AP-3	698	67	2	69	4	0	73	27
Tifrunner	677	70	3	73	3	0	76	24
C-99R	605	70	3	73	3	0	76	24
Carver	613	71	2	73	3	0	76	24
DP-1	720	69	2	71	5	0	76	24
Exp 215	582	75	2	77	1	0	78	22
Exp 3081B	639	71	2	73	2	0	75	25
Exp 3085A	597	69	1	70	4	0	74	26
Georgia-01R	613	68	7	75	2	0	77	23
Georgia-02C	667	74	2	76	3	0	79	21
Georgia-03L	613	73	1	74	1	0	75	25
Georgia Green	709	74	2	76	3	0	79	21
Georgia Hi-O/L	504	73	2	75	2	0	77	23

¹ Not tested.

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Table 9. Two-Year Average Size and Grade on Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2003-2004

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	Hulls
variety of time								
	count/lb	pct	pct	pct	pct	pct	pct	pct
Andru II	830	64	3	67	6	0	73	27
ANorden	827	65	4	69	5	0	74	26
AP-3	833	63	3	66	5	0	71	29
Tifrunner	736	68	4	72	4	0	76	24
C-99R	736	69	3	72	4	0	76	24
Carver	722	67	3	70	5	0	75	25
DP-1	760	68	2	70	5	0	75	25
Epx 3081B	699	63	6	69	3	0	72	28
Exp 3085A	666	64	4	68	5	0	73	27
Georgia-01R	686	68	7	75	2	0	77	23
Georgia-02C	799	69	3	72	5	0	77	23
Georgia Green	831	69	2	71	5	0	76	24
Georgia Hi-O/L	672	66	6	72	3	0	75	25

Table 10. Three-Year Average Size and Grade on Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2002-2004

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	Hulls
-	count/lb	pct	pct	pct	pct	pct	pct	pct
Andru II	828	65	3	68	5	0	73	27
ANorden	818	65	4	69	5	0	74	26
Tifrunner	778	66	5	71	4	0	75	25
C-99R	739	67	5	72	3	0	75	25
Carver	734	67	4	71	4	0	75	25
DP-1	777	66	4	70	5	0	75	25
Georgia-01R	690	69	6	75	2	0	77	23
Georgia-02C	819	69	3	72	5	0	77	23
Georgia Green	863	69	3	72	5	0	77	23

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Table 11. Occurrence of Tomato Spotted Wilt Virus (TSWV) Hits, White Mold (WM) Hits, and Leafspot (LS) in the Dryland Peanut Variety Test at the Wiregrass Research and Extension Center, Headland, Alabama 2004

Variety or line	Avg.	Variety or line	Avg.	Variety or line	Avg. LS
	TSWV	-	WM	-	
	¹ hits/plot		hits/plot		² ratings/
					plot
AP- 3	12.75	Andru II	0.50	DP-1	1.25
Georgia-02C	14.00	Georgia-01R	0.75	Georgia-03L	1.25
Georgia-03L	14.00	Tifrunner	1.00	Georgia-01R	1.50
Andru II	14.75	Georgia-02C	1.25	Andru II	1.75
Exp 3085A	15.00	C-99R	1.50	Tifrunner	1.75
Tifrunner	15.50	DP-1	1.50	Exp 215	1.88
Georgia-01R	15.50	Exp 3081B	1.75	AP- 3	2.00
DP-1	15.75	Georgia-03L	2.00	Georgia-02C	2.00
Exp 3081B	16.00	AP- 3	2.25	ANorden	2.25
ANorden	17.50	Carver	2.25	Carver	2.25
Georgia Hi-O/L	18.75	Georgia Green	3.00	C-99R	2.38
Exp 215	19.00	Exp 3085A	4.00	Georgia Hi-O/L	2.38
C-99R	20.00	Georgia Hi-O/L	4.00	Georgia Green	2.50
Carver	20.00	Exp 215	4.25	Exp 3081B	2.75
Georgia Green	21.00	ANorden	5.25	Exp 3085A	2.75
Overall average	16.63		2.35		2.04
CV (%)	26.63		74.50		24.74
LSD (.05)	6.32		2.53		0.72

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

² Rating 1 (lowest) to 10 (highest).

Table 12. Three-Year Average Yield of Late-Planted Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2002-2004

Variety or line	2004 avg.	2-year avg.	3-year avg.
	lb/a	lb/a	lb/a
AP-3	4,075	2,550	1
Exp 3085A	3,920	2,636	
Georgia-02C	3,757		
Georgia-03L	3,421		
Carver	3,194	2,246	2,432
Exp 3081B	3,067	2,355	
Exp 215	2,614		
Andru II	2,481	1,638	1,836
ANorden	2,432	1,879	1,876
Georgia Green	2,260	1,670	1,709
Overall average	3,122	2,139	1,963
CV (%)	14.4	53.2	38.2
LSD (.05)	652	1,146	618

¹ Not tested.

Table 13. Average Size and Grade on Late-Planted Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2004

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	ĎΚ	TK	HULLS
raitely of time	count/lb	pct	pct	pct	pct	pct	pct	pct
Andru II	769	61	6	67	6	0	73	27
ANorden	704	64	3	67	5	0	72	28
AP-3	648	68	1	69	4	0	73	27
Carver	667	67	1	68	7	0	75	25
Exp 215	630	69	4	73	3	0	76	24
Exp 3081B	648	66	4	70	4	0	74	26
Exp 3085A	648	67	4	71	4	0	75	25
Georgia-02C	709	71	3	74	3	0	77	23
Georgia-03L	648	66	3	69	4	0	73	27
Georgia Green	744	66	7	73	4	0	77	23

Table 14. Two-Year Average Size and Grade on Late-Planted Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2003-2004

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	HULLS
	count/lb	pct	pct	pct	pct	pct	pct	pct
ANorden	783	63	7	70	5	0	75	25
Carver	727	66	3	69	6	0	75	25
Exp 3081B	716	64	7	71	4	0	75	25
Exp 3085A	701	65	7	72	4	0	76	24
Georgia-02C	755	70	5	75	3	0	78	22
Georgia Green	852	66	7	73	5	0	78	22

Table15. Three-Year Average Size and Grade on Late-Planted Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2002-2004

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	HULLS
	count/lb	pct	pct	pct	pct	pct	pct	pct
ANorden	844	61	7	68	4	0	72	28
Carver	822	64	4	68	7	0	75	25
Georgia-02C	752	68	7	75	3	0	78	22
Georgia Green	905	65	7	72	5	0	77	23

Table16. Occurrence of Tomato Spotted Wilt Virus (TSWV) Hits, White Mold (WM) Hits, and Leafspot (LS) in the Late-Planted Dryland Peanut Variety Test at the Wiregrass Research and Extension Center, Headland, Alabama 2004

THE GLUSS RESCUE OF WHAT ELECTION CONTEST, ITEMATING, THE SUME 2001									
Variety or line	Avg. TSWV	Variety or line	Avg. WM	Variety or line	Avg. LS				
	¹ hits/plot		hits/plot		² ratings/plot				
Exp 3085A	10.50	AP-3	0.00	Exp 215	2.50				
AP-3	11.50	Exp 3081B	0.00	Georgia-03L	2.50				
Georgia-03L	11.75	Georgia-02C	0.00	Exp 3081B	2.63				
Georgia-02C	13.25	Carver	0.25	Exp 3085A	2.75				
Exp 3081B	17.75	Exp 3085A	0.50	Carver	2.88				
Exp 215	21.75	ANorden	0.75	Georgia Green	3.00				
Carver	22.50	Georgia-03L	0.75	Andru II	3.13				
Andru II	25.00	Andru II	1.00	ANorden	3.25				
ANorden	25.50	Exp 215	1.25	Georgia-02C	3.38				
Georgia Green	26.75	Georgia Green	1.50	AP-3	3.63				
Overall average	18.63		0.60		2.96				
CV (%)	16.42		155.82		13.10				
LSD (.05)	4.4366		1.3564		0.5632				

 $^{^1}$ Hits equal length of row up to one linear foot with severely diseased plants. 2 Ratings 1 (lowest) to 10 (highest).

¹PLANTING RATE CHART

Seed/lb	Seed/foot	Lbs/acre	Seed/foot	Lbs/acre	Seed/foot	Lbs/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
1,000	5	73	6	87	7	107
1,025	5	71	6	85	7	104
1,050	5	69	6	83	7	102
1,075	5	68	6	81	7	99
1,100	5	66	6	79	7	97

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 1 acre at 36-inch row spacing:

<u>43,560 square feet per acre</u> = 14,520 linear feet in 1 acre 3 square feet

(C) Example:

 $\underline{6}$ seed per foot x 14,520 linear feet = 109 pounds per acre 800 seed per pound

¹ Pounds of peanut seed at various seed count per pound required to plant one (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 of each twin row.)

Tests Duration Daily Rainfall Data Recorded at the Wiregrass Research and Extension Center, Headland, Alabama 2004

DATE	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV
	in							
1		0.56	0.59	0.57		0.08		
2		0.27	0.97		0.18	2.16		
3		0.83	0.81	0.11		0.17		0.13
4			0.75	0.05		0.05		0.33
5								
6								
7			0.81			1.15		
8	0.03			0.36		0.11		
9	0.55		0.06	0.09				
10								
11			0.02		0.73		0.05	
12	0.02		0.01		0.47	0.08	0.15	
13	0.51	0.45	0.29		0.20			
14		0.20	0.50					
15		0.02	0.98			2.00	0.23	
16			0.23	1.80		0.62		
17		0.12	0.02					
18			0.16	0.11				
19				0.46				0.02
20							2.38	0.28
21		0.02			0.18			0.75
22		0.92	0.25		0.09			0.03
23			0.05					0.02
24			0.52				0.36	0.21
25			0.36					2.44
26	0.06		1.06		0.05			
27	0.32		1.14			0.30		
28			0.15	0.81		0.40		0.84
29	2.92		0.05		0.07			
30			0.16		0.10			
31					0.02			
¹TOTALS	4.41	3.39	9.80	4.36	2.09	7.12	3.17	5.05

 1 Total daily rainfall from April through November 2004 = 52.24 in.; 2003 = 41.93 in.; 2002 = 30.00 in.

Tests Duration Daily Maximum Temperatures Recorded at the Wiregrass Research and Extension Center, Headland, Alabama 2004

DATE	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV
	$^{\circ}F$							
1	77	76	80	89	92	89	89	84
2	66	84	77	91	98	89	88	84
8	70	79	83	91	93	96	88	83
4	74	73	82	88	94	88	88	85
5	75	73	88	93	95	88	86	75
6	81	85	88	94	96	89	80	68
7	75	89	90	94	89	78	83	71
8	79	91	88	93	87	74	80	75
9	81	91	88	89	86	87	78	76
10	83	92	90	91	88	89	76	69
11	87	89	92	94	85	87	73	70
12	68	89	92	93	88	88	75	66
13	84	84	89	95	85		84	78
14	55	82	94	93	83	81	74	62
15	66	86	83	95	85	82	75	60
16	75	86	85	97	89	82	67	66
17	80	85	91	97	88	83	81	65
18	83	86	93	83	91	89	83	70
19	1	88	94	90	91	86	81	70
20		88	93	89	93	81	79	72
21		88	92	90	93	77	84	72
22		89	93	90	91	81		75
23	75	90	91	92	89	82	78	73
24	88	89	93	94	87	86	75	77
25	88	91	91	97	92	86	1	71
26	89	92	90	92	90	86	84	52
27	73	91	84	92	92	81	82	58
28	78	92	90	89	93	80	81	60
29	81	92	90	90	94	86	81	64
30	85	93	90	89	93	85	84	67
31		93		91	90		84	

¹ Data not collected.

Tests Duration Daily Minimum Temperatures Recorded at the Wiregrass Research and Extension Center, Headland, Alabama 2004

DATE	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV
	°F	°F	°F	°F	°F	°F	°F	°F
1	35	62	70	70	74	69	64	64
2	39	64	65	71	74	70	66	66
3	41	47	64	71	73	71	66	70
4	42	43	68	74	74	68	65	70
5	40	48	66	83	74	69	61	48
6	44	57	68	85	73	72	62	41
7	40	60	69	70	69	71	64	43
8	50	66	70	70	66	70	58	42
9	53	64	69	72	71	69	59	50
10	49	60	71	73	73	70	66	46
11	51	65	73	75	68	69	66	47
12	56	65	74	72	70	69	67	55
13	50	64	73	72	66	1	62	54
14	36	65	72	74	61	76	55	50
15	37	65	71	68	61	69	45	44
16	43	67	71	68	70	69	46	39
17	48	67	71	72	71	71	48	41
18	48	67	72	70	68	66	56	45
19	52	65	73	67	66	63	62	48
20	56	66	75	68	67	59	64	56
21	53	69	74	70	72	59	62	57
22	50	67	70	72	69	59		61
23	51	70	70	75	68	61	57	63
24	58	68	70	73	69	62	61	67
25	55	66	70	73	72	63		46
26	63	67	70	73	71	64	62	36
27	50	69	66	72	71	68	61	42
28	45	69	67	71	71	67	62	44
29	53	71	68	71	72	64	64	41
30	58	71	70	74	70	63	64	42
31		75		74	69		64	

¹ Data not collected.

DESCRIPTIONS OF 2004 PEANUT VARIETY TEST ENTRIES

1. 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.

2. 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. ANorden 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. ANorden 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. ANorden has been equal to Georgia Green in resistance to white mold, leaf spot, and rhizoctonia disease.

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 (135-140 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-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. 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 (135-140 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.

6. 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 latematurity (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 the U.S. peanut cultivar. Yields of 4,800 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 GK7 and Florunner. It has somewhat less vine growth than C-99R. Seed will be marketed through Damascus Peanut Company.

7. Exp. 215

An advanced breeding line developed by Dr. Ernest Harvey, Golden Peanut Co., Ashburn, GA. Similar to GK 7 in growth habit with early maturity. Similar to AT 108 in pod and seed size. This line carries the high oleic trait and resistance to tomato spotted wilt virus.

8. Exp. 3081B; 9. Exp. 3085A

Advanced breeding lines developed by Dr. Ernest Harvey, Golden Peanut Company. These lines are similar to GK7 in growth habit with medium (135-140 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 3085A.

10. 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/linoleic fatty acid ratio with seed and pod size similar to C-99R. 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 leafhopper damage than with more susceptible varieties.

11. Georgia-02C

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Maturity range medium but probably 7 to 10 days later than 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.

12. Georgia-03L

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released under the 1994 amendment of the Plant Variety Protection Act. Mid-maturity range with normal oleic/linoleic fatty acid ratio with significantly larger pod and seed size than Georgia Green. Georgia-03L carries a high level of resistance to tomato spotted wilt virus and moderate resistance to white mold and CBR. Intermediate runner growth habit with pink seed coat color.

13. 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 typically less vine growth than Florunner. Resistant to tomato spotted wilt virus, but carries no known insect resistance.

14. Georgia Hi-O/L

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 1999 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.

15. Gregory

Developed by Dr. Tom Isleib, North Carolina Agricultural Research Service. Released in 1997 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. 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 multiple disease resistances. 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). Good resistance to cylindrocladium black rot and some root knot nematode resistance. Seed size is similar to C-99R, with somewhat less vine growth.

17. NC 7

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

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.

19. Tifrunner

Developed by Dr. Corley Holbrook, USDA-ARS, Tifton, GA. Plant Variety Protection being applied for under the 1994 amendment. 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.

20. 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. Early data indicates it might be less susceptible to sclerotinia blight than some Virginia type varieties (NC 7, NC 10C, Gregory, and NC 12C). High yield potential with excellent pod characteristics for in-shell processing (bright pod color and typical peanut shape). Runner growth habit and prominent erect mainstem makes for easier digging with rows being easily determined.

21. VT 9506102-6-552

An advanced breeding line developed by Walt Mozingo, Virginia Tech, Blacksburg, VA. A Virginia type with medium maturity. Disease tolerances and other characteristics under evaluation.

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.

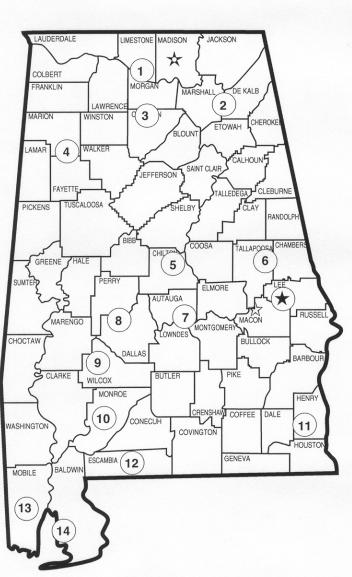
SOURCES OF SEED

Dr. C.C. Holbrook Dr. W. D. Branch **USDA-ARS** University of Georgia Crop Genetics and Breeding Research Unit Department of Crop and Soil Sciences Coastal Plain Experiment Station Coastal Plain Experiment Station Tifton, Georgia 31793 Tifton, Georgia 31793 Tifrunner Georgia-01R Georgia-02C Georgia-03L Dr. Thomas G. Isleib Georgia Green North Carolina State University Georgia Hi-O/L Department of Crop Science Unit 3: 840 Method Road Raleigh, North Carolina 27695 Dr. D.W. Gorbet Gregory University of Florida NC 7 North Florida Research & Education Center NC-V11 3925 Highway 71 Marianna, Florida 32446 Andru II Mr. Walton Mozingo AP-3 Virginia Polytechnic Institute & State C-99R University Carver Tidewater Ag. Research & Extension Center DP-1 6321 Holland Road Hull Suffolk, VA 23437 **ANorden VA 98R** VT 9506102-6-552 Wilson Dr. Ernest Harvey

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Exp. 215

Exp. 3081B Exp. 3085A

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
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 - 3. North Alabama Horticulture Research Center, Cullman
 - 4. Upper Coastal Plains Agricultural Research Center, Winfield
 - 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
 - *Monroeville Agricultural Research Unit Monroeville
 - Wiregrass Research and Extension Center, Headland
 - 12. Brewton Agricultural Research Unit,
 Brewton
 - Ornamental Horticulture Research Center, Spring Hill
- 14. Gulf Coast Research and Extension Center, Fairhope*Temporarily inactive