2006 Alabama Performance Comparison of Peanut Varieties

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Richard Guthrie, Director
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The 2006 Alabama Performance Comparison of Peanut Varieties

JAMES P. BOSTICK, LARRY W. WELLS, and BRIAN E. GAMBLE[1]

Introduction

The number of peanut varieties available to Alabama growers has increased in recent years, thus placing greater need for unbiased performance data regarding varietal selection for production.

Production and Discussion

The 2006 tests to compare performance of peanut varieties were conducted at the Wiregrass Research and Extension Center in Headland, AL. Prior to 2000, comparisons were made only under irrigation. During 2006, 23 entries were evaluated under irrigation, and 21 entries were evaluated 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 tests were planted on May 18, and dryland tests were planted on May 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 entry considered to be earlier than Florunner in maturity was dug on September 22. This entry was Andru II. Entries with maturity near the same as Florunner were dug on October 3. These entries were ANorden, AT 3081R, C 724-19-25, Carver, AT 3085A, Exp 27-1516, Georgia-03L, Georgia Green, McCloud, Gregory, and NC-V11. Entries moderately later than Florunner, AP-3, C-99 R, C 724-19-15, Georgia-02C, Georgia-05E, Tifrunner, and Florida 07, were dug on October 12. Entries CRSP 38, C 12-3-114-58, Georgia-01R, and York are considered later than Florunner and were dug on October 26.

The dryland test entry considered to be earlier than Florunner was dug on October 3. This entry was Andru II. Entries with maturity near the same as Florunner were dug on October 12. These entries were ANorden, AT 3081R, C 724-19-25, Carver, AT 3085A, EXP 27-1516, Georgia-03L, Georgia Green, and McCloud. Entries moderately later than Florunner, AP-3, C-99 R, C 724-19-15, Georgia-02C, Georgia 05E, Tifrunner, and Florida 07 were dug on October25. Entries CRSP 38, C 12-3-114-58, Georgia-01R, and York are considered later than Florunner, and were dug on November 6.

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

[1] Bostick is an adjunct professor of the Auburn University Department of Agronomy and Soils and executive Vice President of Alabama Crop Improvement Association; Wells is superintendent and Gamble is associate superintendent of the Wiregrass Research and Extension Center.

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.

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The authors express appreciation to Austin K. Hagan, Professor of Plant Pathology, for providing the disease evaluation data and to Glenn Wehtje, Professor of Agronomy and Soils, for the statistical analysis. Appreciation is also expressed to Amy Balkcom, Wiregrass Research and Extension Center, for her cooperation.

Table 1. Three-Year Average Yield of Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2004-2006

Variety or Line	2006 *lb/a*	2 Year Avg.	3 Year Avg.
Florida 07 ……..…	6,171	[1]----	----
AP 3 ……..….	6,044	5,191	5,188
Carver ……	6,008	4,624	4,849
C 724-19-15 ..…….	5,962	----	----
York …….…..	5,916	----	----
AT 3085A…..……	5,808	4,860	5,300
Georgia-03L ……..	5,735	4,624	----
C 12-3-114-58 ..……	5,690	----	----
Georgia-05E ……..…	5,651	----	----
Exp 27-1516 …….	5,627	----	----
AT 3081R ……	5,445	4,370	4,946
C 724-19-25.…….	5,445	----	----
CRSP 38 ……	5,391	----	----
C-99R ……	5,182	4,751	4,934
Tifrunner …..…….	5,146	4,397	----
Georgia-02C ……..	5,137	4,370	4,849
Andru II ……..……..	5,137	4,392	4,616
McCloud ...…….….....	4,864	----	----
Georgia Green……	4,810	3,943	4,429
ANorden…….	4,810	4,197	4,480
Georgia-01R …….	4,665	4,143	4,513
Gregory …….……	2,378	2,242	3,125
NC-V11 …….	1,761	2,006	2,913
Overall Average……	5,164	4,143	4,511
CV (%)……	8.56	24.32	25.15
LSD (.05)……	624	1004	917

[1] Not tested

Table 2. Average Size and Grade on Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2006

Variety or Line	SMKRS *count/lb*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*	Hulls *pct*
Andru II ……..	857	61	4	65	6	1	72	28
ANorden ..…….....	769	66	2	68	7	0	75	25
AP-3……. ……..	688	64	4	68	5	0	73	27
AT 3081R..……..	732	66	3	69	4	0	73	27
AT 3085A…..……	631	67	2	69	4	1	74	26
CRSP 38…..…….	688	65	8	73	3	1	77	23
C 12-3-114-58..……..	720	63	11	74	3	0	77	23
C 724-19-15……	698	65	7	72	4	0	76	24
C 724-19-25……	582	70	2	72	3	1	76	24
C-99R…….	605	65	4	69	5	0	74	26
Carver…….	658	67	2	69	6	0	75	25
Exp 27-1516……..	668	66	3	69	5	0	74	26
Florida 07……	658	58	11	69	4	1	74	26
Georgia-01R ……..	688	62	10	72	4	1	77	23
Georgia-02C ……..	783	66	5	71	6	0	77	23
Georgia-03L ……..	721	65	3	68	4	1	73	27
Georgia-05E ……..	668	64	10	74	4	0	78	22
Georgia Green…….	841	64	6	70	6	0	76	24
Gregory……..	483	56	4	60	4	2	66	34
McCloud…..……..	658	66	4	70	4	1	75	25
NC-V11 …….	547	58	4	62	6	1	69	31
Tifrunner ……..	732	67	3	70	4	1	75	25
York …..……	811	66	5	71	4	0	75	25

Table 3. Two-Year Average Size and Grade on Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2005 - 2006

Variety or Line	SMKRS *count/lb*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*	Hulls *pct*
Andru II ……..	883	58	4	62	8	1	70	30
ANorden ..…….....	813	64	3	67	8	1	74	26
AP-3 …….	773	64	3	67	5	0	73	27
AT 3081R ……..	745	61	6	66	6	1	72	28
AT 3085A ……..	701	66	2	68	5	1	73	27
C-99R……..	637	66	4	69	5	1	74	26
Carver …….	735	64	2	66	8	0	73	27
C 12-3-114-58 ……...	704	66	6	72	4	1	76	24
C 724-19-15 ……..	683	67	5	71	4	1	75	25
Georgia-01R ……..	748	62	9	71	4	1	75	25
Georgia-02C ……..	804	67	3	68	7	0	74	26
Georgia-03L ……..	745	64	4	69	6	1	72	28
Georgia Green…….	875	65	4	69	6	1	75	25
Gregory……..	522	56	3	58	4	3	65	35
NC-V11……..	576	58	3	61	5	2	68	32
Tifrunner ……	779	67	3	70	5	1	75	25

Table 4. Three-Year Average Size and Grade on Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2004 - 2006

Variety or Line	SMKRS *count/lb*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*	Hulls *pct*
Andru II ……..	854	60	3	64	7	0	71	29
ANorden …….	768	66	2	68	6	0	74	26
AP-3 ……..……..	744	65	3	68	5	0	73	27
AT 3081R ……..…….	701	64	4	68	4	0	73	27
AT 3085A ……..…….	666	68	2	70	4	0	74	26
C-99R…….……..	618	68	4	71	4	0	75	25
Carver ……..……..	697	66	1	68	6	0	74	26
Georgia-01R ……	678	64	8	72	3	0	75	25
Georgia-02C ……	762	69	3	73	4	0	77	23
Georgia-03L ……	701	66	2	68	4	0	73	27
Georgia Green……..	809	67	3	71	5	0	76	24
Gregory……	486	60	2	62	3	2	67	33
NC-V11……	543	61	2	64	4	1	69	31
Tifrunner …….	752	69	3	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 2004 - 2006

Variety or Line	SMKRS Size Distribution +21.0 Jumbo pct			-21.0 +18.0 Medium pct			-18.0 +16.0 No.1 pct		
	2006	2005	2004	2006	2005	2004	2006	2005	2004
Andru II……	24.6	11.8	22.9	57.9	62.2	62.2	17.5	26.0	14.9
ANorden……	31.8	16.0	27.3	54.7	61.5	60.3	13.5	22.5	12.4
AP-3 ……	64.1	39.4	44.4	29.5	52.6	46.7	6.4	8.0	8.9
AT 3081R……	47.6	31.8	48.4	42.9	54.6	45.4	9.5	13.6	5.6
AT 3085A……	60.2	33.6	64.5	34.0	53.2	31.5	5.8	13.2	3.9
CRSP 38 ……	71.4	'---	---	24.1	---	---	4.5	---	---
C-99R……	59.2	39.1	55.1	33.8	52.0	40.2	7.0	8.9	5.0
Carver……	30.4	10.3	27.1	57.4	64.8	73.1	12.2	24.9	11.0
C 12-3-114-58 ……	64.8	60.8	---	28.5	32.0	---	6.7	7.2	---
C 724-19-15……..……	59.4	49.0	---	33.0	45.2	---	7.6	5.8	---
C 724-19-25……..…….	65.3	---	---	30.2	---	---	4.5	---	---
Exp 27-1516 ……..……	61.4	---	---	40.1	---	---	8.5	---	---
Florida 07 …….	54.4	---	---	37.7	---	---	7.9	---	---
Georgia-01R……	67.2	55.6	70.5	27.0	35.8	26.2	5.9	8.6	3.4
Georgia-02C……..	50.3	30.9	46.6	41.0	59.7	46.8	8.7	9.4	6.4
Georgia-03L …….	50.5	25.2	51.6	41.6	57.3	43.2	7.9	17.5	5.2
Georgia-05E ...…….…….	69.4	---	---	23.7	---	---	6.9	---	---
Georgia Green……	35.4	12.5	30.6	53.7	69.5	61.4	10.9	18.0	8.0
Gregory……	63.6	61.5	83.0	28.4	27.8	14.9	8.0	10.7	5.6
McCloud ……	54.0	---	---	39.6	---	---	6.4	---	---
NC-V11……	49.6	37.4	63.1	40.4	49.2	32.1	10.0	13.4	4.6
Tifrunner ……	60.9	39.8	58.1	32.7	50.8	37.5	6.4	9.4	5.0
York ……..	37.1	---	---	52.6	---	---	10.3	---	---

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 2006

Variety or Line	Avg. TSWV [1] Hits/Plot	Variety or Line	Avg. WM Hits/Plot	Variety or Line	Avg. LS [2] Ratings/Plot
NC-V11	21.00	Gregory	14.25	York	4.50
McCloud	20.00	NC-V11	14.25	Florida 07	4.50
AT 3081R	18.50	ANorden	3.75	AT 3085A	4.38
Georgia Green	18.25	McCloud	3.50	CRSP 38	4.38
Gregory	17.50	Carver	3.25	Georgia Green	4.25
Exp 27-1516	16.00	AT 3085A	2.50	Georgia-02C	4.25
Georgia-01R	15.50	Florida 07	2.25	Exp 27-1516	4.13
Carver	14.50	C 724-19-25	2.25	AT 3081R	4.00
C-99R	14.25	AP-3	2.25	Gregory	3.88
ANorden	14.00	AT3081R	2.25	NC-V11	3.75
Andru II	13.00	C-99R	2.00	Georgia-03L	3.75
Georgia-05E	12.00	Georgia Green	2.00	McCloud	3.75
Georgia-02C	11.00	CRSP 38	2.00	Tifrunner	3.63
Florida 07	10.25	Georgia-02C	2.00	Carver	3.63
AP-3	9.75	Georgia-03L	1.75	C-99R	3.50
AT 3085A	9.50	Georgia-01R	1.50	C 12-3-114-58	3.50
CRSP 38	9.25	Tifrunner	1.25	ANorden	3.38
C 12-3-114-58	9.00	York	1.25	AP-3	3.25
Georgia-03L	8.50	C 12-3-114-58	1.00	Andru II	3.25
C 724-19-25	6.50	C 724-19-15	0.75	C 724-19-15	3.25
Tifrunner	5.75	Exp 27-1516	0.75	Georgia-05E	3.00
York	5.50	Georgia-05E	0.50	C 724-19-25	2.88
C 724-19-15	4.50	Andru II	0.25	Georgia-01R	2.38
Overall Average	12.35		2.94		3.70
CV (%)….	36.30		56.74		16.02
LSD (.05)……	6.32		2.36		0.86

[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 Yield of Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2004 - 2006

Variety or Line	2006 Avg. *Yield lb/a*	2 Year Avg. *Yield lb/a*	3 Year Avg. *Yield lb/a*
Florida 07 ……	5,545	----	----
York……..……..	5,433	[1]----	----
Georgia-03L..…….	5,209	4,996	5,103
Carver …….……...	5,200	4,683	4,695
C-99R ……..…….	5,167	4,818	4,891
C 724-19-15 …….	5,034	----	----
Andru II …….	5,009	4,578	4,541
C 724-19-25 ……...	5,009	----	----
McCloud ……..…..…	4,982	----	----
Exp 27-1516……..…	4,949	----	----
Georgia-02C……..….	4,949	4,309	4,538
Tifrunner …..…….	4,840	----	----
C 12-3-114-58...……	4,737	4,628	----
AP-3 …….……	4,719	4,895	4,851
ANorden ……..	4,665	4,161	4,144
Georgia-05E……..	4,441	----	----
Exp 3085A…….	4,429	4,633	4,822
Georgia-01R …….	4,411	4,066	4,259
CRSP 38 ……..	4,302	----	----
Georgia Green …….	4,296	3,739	4,217
AT 3081R …….	3,394	----	----
Overall Average ……	4,866	4,466	4,583
CV (%) ……	7.85	13.29	13.39
LSD (.05)…….	533	591	496

[1] Not tested

Table 8. Average Size and Grade on Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2006

Variety or Line	SMKRS *count/lb*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*	Hulls *pct*
Andru II ……..	841	64	3	67	6	0	73	27
ANorden ..…….....	783	65	4	69	8	0	77	23
AP-3……. ……..	698	70	3	73	2	0	75	25
AT 3081R..……..	818	64	4	68	6	1	75	25
AT 3085A ...……..	770	68	2	70	6	1	77	23
CRSP 38 ...…….	639	71	5	76	2	0	78	22
C-99R…….	678	73	3	76	2	0	78	22
C 12-3-114-58..……..	710	70	7	77	1	1	79	21
C 724-19-15……	678	74	3	77	2	0	79	21
C 724-19-25……	668	69	4	73	4	0	77	23
Carver…….	796	63	3	66	8	0	74	26
Exp 27-1516 ……	769	70	2	72	5	0	77	23
Florida 07..……	636	69	6	75	2	0	77	23
Georgia-01R ……..	698	66	11	77	2	0	79	21
Georgia-02C ……..	825	73	4	77	3	0	80	20
Georgia-03L ……..	720	67	3	70	4	1	75	25
Georgia-05E ……..	625	59	19	78	2	1	81	19
Georgia Green…….	946	65	6	71	7	0	78	22
McCloud.……	698	65	6	71	6	0	77	23
Tifrunner ……	698	73	4	77	2	0	79	21
York …..……	757	68	5	73	3	0	76	24

Table 9. Two-Year Average Size and Grade on Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2005-2006

Variety or Line	SMKRS *count/lb*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*	Hulls *pct*
Andru II ……..	947	61	4	65	6	0	71	29
ANorden ..…….....	855	67	3	70	7	0	76	24
AP-3……. ……..	762	69	3	71	4	0	75	25
AT 3081R……..	846	62	6	68	5	1	74	26
AT 3085A ...……..	791	69	2	71	5	1	76	24
C-99R…….	678	72	2	74	3	1	77	23
C 12-3-114-58..……..	716	69	6	75	3	1	78	22
C 724-19-15……	655	74	2	76	3	1	79	21
Carver…….	835	65	2	67	7	1	74	26
Georgia-01R ……..	688	65	6	74	3	1	77	23
Georgia-02C ……..	841	71	3	74	4	1	79	21
Georgia-03L ……..	732	68	3	70	4	1	74	26
Georgia Green…….	902	66	5	71	7	0	77	23

Table 10. Three-Year Average Size and Grade on Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2004 - 2006

Variety or Line	SMKRS *count/lb*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*	Hulls *pct*
Andru II ……..	883	64	3	67	5	0	72	28
ANorden ..…….....	799	68	3	70	6	0	76	24
AP-3……. ……..	740	68	2	70	4	0	74	26
AT 3081R.……	777	65	4	75	4	1	74	26
AT 3085A ……..	726	69	1	70	5	0	75	25
C-99R…….	654	71	2	74	3	0	77	23
Carver…….	761	67	2	69	6	0	75	25
Georgia-01R ……..	663	66	9	74	2	0	77	23
Georgia-02C ……..	783	72	3	75	4	0	79	21
Georgia-03L ……..	692	69	2	71	3	0	74	26
Georgia Green…….	837	69	4	72	5	0	78	22

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 2006

Variety or Line	Avg. TSWV [1] Hits/Plot	Variety or Line	Avg. WM Hits/Plot	Variety or Line	Avg. LS [2] Ratings/Plot
Georgia Green	13.75	AP-3	5.50	Georgia-02C	2.88
AT 3081R	9.50	AT 3081R	5.00	Florida 07	2.75
Andru II	8.00	C 724-19-15	3.75	Georgia-01R	2.38
Carver	8.00	AT 3085A	3.00	C 724-19-15	2.25
McCloud	7.25	C-99R	2.50	Andru II	2.25
CRSP 38	6.50	Exp 27-1516	2.25	C-99R	2.13
C-99R	5.50	Florida 07	2.25	CRSP 38	2.13
ANorden	5.50	Georgia-01R	2.25	Georgia-05E	2.13
Georgia-01R	4.75	McCloud	2.25	Tifrunner	2.13
Georgia-02C	4.50	ANorden	2.00	York	2.00
Georgia-03L	4.25	CRSP 38	2.00	AP-3	1.88
AT 3085A	3.75	Tifrunner	2.00	Carver	1.75
York	3.75	C 12-3-114-58	1.75	C 112-3-114-58	1.75
Exp 27-1516	3.50	Carver	1.75	C 724-19-25	1.75
Tifrunner	3.00	Georgia-05E	1.75	Georgia Green	1.63
C 12-3-114-58	3.00	Georgia-03L	1.50	McCloud	1.63
Georgia-05E	2.50	Georgia Green	1.25	Exp 27-1516	1.50
Florida 07	2.25	York	1.00	Georgia-03L	1.50
C 724-19-25	2.00	Georgia-02C	0.50	AT 3081R	1.38
AP-3	1.75	Andru II	0.25	ANorden	1.38
C 724-19-15	1.25	C 724-19-25	0.00	AT 3085A	1.25
Overall Average	4.46		1.94		1.93
CV (%)….	52.96		66.21		221.16
LSD (.05)……	3.72		1.99		0.78

[1] Hits equal length of row up to one linear foot with severely diseased plants.
[2] Rating 1 (lowest) to 10 (highest)

[1]PLANTING RATE CHART

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

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

$\frac{\text{43,560 square feet per acre}}{\text{3 square feet}}$ = 14,520 linear feet in 1 acre

(C) Example:

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

Tests Duration Daily Rainfall Data Recorded at the Wiregrass Research and Extension Center, Headland, Alabama 2006

DATE	APR *in*	MAY *in*	JUNE *in*	JULY *in*	AUG *in*	SEPT *In*	OCT *in*
1		0.11			0.16		
2						0.66	
3			0.10				
4					0.05		
5					0.30		
6						0.25	
7				1.12			
8		1.20				0.18	
9	0.17	0.25			1.24		
10		1.37			0.02	2.25	
11		1.13					
12					0.04		0.05
13		0.02			1.16	0.07	
14			0.12		0.02		
15							
16							
17							
18							1.73
19						0.23	
20						0.23	
21							
22	1.05			0.31	0.28		0.55
23	0.43		0.61	0.12	0.02	0.38	0.23
24			1.57	0.33	0.19		0.02
25			0.06	0.10		0.33	
26							0.05
27	0.22		0.06				0.19
28	0.01		0.11	0.67			0.43
29			0.01	0.02			0.01
30							
31							
[1]TOTALS	1.88	4.08	2.64	2.61	3.48	4.58	3.26

[1]Total daily rainfall from April through October, 2006 = 28.14 in; 2005 = 40.65 in; 2004 = 34.34 in .

Tests Duration Daily Maximum Temperatures Recorded at the Wiregrass Research and Extension Center, Headland, Alabama 2006

DATE	APR *°F*	MAY *°F*	JUNE *°F*	JULY *°F*	AUG *°F*	SEPT *°F*	OCT *°F*
1	84	74	94	97	95	92	79
2	84	76	94	96	95	86	88
3	88	83	94	95	96	91	88
4	87	87	87	95	94	93	88
5	76	88	[1]----	98	87	92	86
6	78	85	89	98	92	92	88
7	85	85	89	98	94	86	87
8	85	78	93	87	95	77	78
9	86	84	94	89	94	83	76
10	73	80	94	90	94	85	75
11	75	82	98	93	94	81	83
12	79	82	97	95	93	84	85
13	79	82	87	96	95	86	81
14	82	79	87	96	86	87	69
15	88	82	93	98	90	88	74
16	88	82	94	100	----	88	76
17	86	82	98	98	93	89	72
18	88	77	92	98	93	90	75
19	93	85	90	98	93	90	85
20	89	88	93	94	93	84	88
21	92	92	99	98	96	80	70
22	89	91	101	98	95	83	77
23	83	91	101	94	93	87	72
24	85	91	96	93	92	92	61
25	87	93	94	88	90	91	68
26	87	94	----	94	86	81	59
27	77	92	93	94	93	80	62
28	75	93	93	98	93	82	72
29	80	96	94	98	96	88	64
30	78	92	94	93	96	75	73
31		94		88	96		----

[1] Data not collected

Tests Duration Daily Minimum Temperatures Recorded at the Wiregrass Research and Extension Center, Headland, Alabama 2006

DATE	APR °F	MAY °F	JUNE °F	JULY °F	AUG °F	SEPT °F	OCT °F
1	60	54	69	68	70	72	57
2	61	56	69	74	71	71	58
3	64	58	68	72	71	71	58
4	50	63	63	74	74	69	51
5	41	67	[1]----	75	74	69	60
6	46	60	66	73	78	71	55
7	51	73	60	72	74	71	57
8	56	68	60	68	76	67	52
9	42	65	60	68	71	67	54
10	48	63	60	71	71	67	55
11	48	64	67	70	71	70	58
12	51	53	70	70	71	69	58
13	53	53	70	70	74	69	54
14	54	57	67	70	7	68	45
15	59	63	67	70	73	65	48
16	60	51	67	74	----	65	58
17	66	51	66	74	73	65	58
18	64	58	66	73	74	72	70
19	64	51	65	73	72	72	64
20	65	52	66	71	71	59	65
21	65	66	66	71	74	56	48
22	63	64	75	71	72	56	48
23	58	64	72	72	73	65	42
24	61	64	71	71	72	72	41
25	63	64	71	72	72	67	41
26	64	64	----	71	71	57	47
27	56	72	70	73	72	55	53
28	50	71	70	71	72	55	53
29	51	69	70	70	73	54	45
30	58	69	67	72	76	51	46
31		69		70	73		----

[1] Data not collected

DESCRIPTIONS OF 2006 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. AT 3081R

Developed by Dr. Ernest Harvey, Golden Peanut Company. Similar to GK7 in growth habit with medium (135 - 140 days) maturity. Seed and pod size are also similar to GK7. Carries resistance to tomato spotted wilt virus and normal oleic/linoleic fatty acid ratio.

5. AT 3085A

Developed by Dr. Ernest Harvey, Golden Peanut Company and released in 2007 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. Similar to GK7 in growth habit with medium (135 - 140 days) maturity. Seed and pod size are also similar to GK7 and it is resistant to tomato spotted wilt virus.

6. CRSP 38

A breeding line developed by Drs. Roy Pittman, Jim Todd, Dan Gorbet and Albert Culbreath representing the USDA, ARS, University of Georgia, and University of Florida. The maturity range is 10 to 17 days later than Georgia Green with larger seed and pod size and normal oleic/linoleic fatty acid ratio. It has runner growth habit with resistance to tomato spotted wilt virus and leafspot. Also carries resistance to leaf hopper and white mold. CRSP 38 has performed well under experimental conditions for reduced inputs relative to foliar diseases.

7. C-99R

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

8. C 12-3-114-58; 9. C 724-19-15 10. C 724-19-25

All lines developed by Dr. Corley Holbrook, ARS-USDA, Tifton, Georgia. C 724-19-15 is mid-season in maturity and carries root-knot nematode and TSWV resistance. C 12-3-114-58 is a late maturing line and carries resistance to leaf spot and TSWV. C 724-19-25 is medium in maturity with tomato spotted wilt virus resistance. All lines carry normal oleic oil chemistry.

11. 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.

12. Exp 27-1516

An advanced breeding line developed by Dr. Ernest Harvey, Golden Peanut Co., Ashburn, GA. It is medium in maturity with an erect mainstem and seed and pod size similar to GK 7. It carries resistance to tomato spotted wilt virus.

13. Florida 07

Developed by Drs. Dan Gorbet and Barry Tillman, University of Florida Agricultural Experiment Station. Released in 2006 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. Florida 07 is medium-late (140 – 145 days) in maturity, about 5 days later than Florunner with runner growth habit and pod and seed size larger than Florunner. Florida 07 carries resistance to tomato spotted wilt virus and white mold and tolerance to leafspot.

14. 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.

15. Georgia –02C

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Maturity range is 7 - 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 that Georgia Green. Resistant to tomato spotted wilt virus and cylindrocladium black rot.

16. 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. Resistant to tomato spotted wilt virus and cylindrocladium black rot.

17. Georgia-05E

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. It is a Virginia type and was released in 2005 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. It is medium-late (140 – 145 days) in maturity with spreading runner growth habit. It carries resistance to tomato spotted wilt virus, white mold and leafspot.

18. Georgia Green

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 1995 and protected under the 1994 Amendment of the Plant Variety Protection Act. Same maturity range as Florunner with seed and pod size similar to or slightly more round than Florunner. Normal oleic/linoleic fatty acid ratio with intermediate growth habit and considerable less vine growth than Florunner. Resistant to tomato spotted wilt virus, but carries no known insect resistance. Georgia Green has proven to have yield stability across a wide range of different environments under both irrigated and non-irrigated conditions and in both single and twin row patterns.

19. 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 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.

20. McCloud

Developed by Drs. Dan Gorbet and Barry Tillman, University of Florida Agricultural Experiment Station. Released in 2006 under the 1994Amendment of the Plant Variety Protection Act. Also carries a patent on the high oleic trait prohibiting non-licensed parties from saving seed for replanting. McCloud is medium in maturity (135 – 140 days) with runner growth habit and seed and pod size larger than Florunner. It is resistant to tomato spotted wilt virus.

21. NC-V11

Developed by North Carolina Agricultural Research Service, Virginia Agricultural Experiment Station, and USDA-ARS. Released in 1998 and protected under the Plant Variety Protection Act. Maturity range same as NC 7 with smaller seed and pod size, normal oleic/linoleic fatty acid ratio, and runner growth habit. Has field tolerance to tomato spotted wilt virus, low level of resistance to CBR, susceptible to early leafspot and sclerotinia blight. No known insect resistance. Bright shapely pods make NC-V11 one of the three varieties preferred by VC area shellers (VA 93B first, NC 10C second, NC-V11 third).

22. Tifrunner

Developed by Dr. Corley Holbrook, USDA-ARS, Tifton, Georgia. Late maturity range with slightly larger seed and pod size than Florunner and normal oleic/linoleic fatty acid ratio. Has runner growth habit with prominent main stem. Resistance to tomato spotted wilt virus, and early and late leaf spot.

23. York

Developed by Drs. Dan Gorbet and Barry Tillman, University of Florida Agricultural Experiment Station. Released in 2006 under the 1994Amendment of the Plant Variety Protection Act. Also carries a patent on the high oleic trait prohibiting non-licensed parties from saving seed for replanting. York is in the late maturity rate (approximately 150 days) with runner growth habit and seed and pod size similar to Florunner. It carries resistance to tomato spotted wilt virus, white mold and leafspot.

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SOURCES OF SEED

Dr. W. D. Branch
University of Georgia
Department of Crop and Soil Sciences
Coastal Plain Experiment Station
Tifton, Georgia 31793

Georgia-01R
Georgia-02C
Georgia-03L
Georgia-05E
Georgia Green

Dr. D.W. Gorbet
Dr. B.L. Tillman
University of Florida
North Florida Research & Education Center
3925 Highway 71
Marianna, Florida 32446

Andru II
ANorden
AP-3
C-99R
Carver
Florida 07
McCloud
York

Dr. Ernest Harvey
Golden Peanut Co.
100 North Point Center East
Suite 400
Alpharetta, Georgia 30022

AT 3081R
AT 3085A
Exp 27-1516

Dr. C.C. Holbrook
USDA-ARS
Crop Genetics and Breeding Research Unit
Coastal Plain Experiment Station
Tifton, Georgia 31793

C 12-3-114-58
C 724-19-15
C 724-19-25
Tifrunner

Dr. Thomas G. Isleib
North Carolina State University
Department of Crop Science
Unit 3: 840 Method Road
Raleigh, North Carolina 27695

Gregory
NC-V11

Dr. R.N. Pittman
USDA-ARS, University of Georgia
Plant Genetic Resources
Conservation Unit
1109 Experiment Street
Griffin, Georgia 30223-1797

CRSP 38