2007 Alabama Performance Comparison of Peanut Varieties

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The 2007 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 2007 tests were conducted at the Wiregrass Research and Extension Center in Headland, AL. During 2007, 24 entries were evaluated under irrigation and dryland.

The experimental design for each test was a randomized complete block consisting of two-row plots, 20 feet long, replicated four times. The dryland tests were planted on May 8, and irrigated tests were planted on May 9. 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 19. This entry was Andru II. Entries with maturity near the same as Florunner were dug on October 1. These entries were AP-4, AT 3081R, AT 3085RO, C 724-19-25, Carver, Exp 27-1516, Exp 31-1516, Florida Fancy, Georgia-03L, Georgia-06G, Georgia Green, Georgia Greener, and McCloud. Entries moderately later than Florunner, AP-3, C-99 R, Tifguard, CRSP 14, CRSP 910, Florida 07, Georgia-02C, and York, were dug on October 11. Entries CRSP 648 and CRSP 702 are considered later than Florunner, and were dug on October 18.

The dryland test entry considered to be earlier than Florunner was dug on September 24. This entry was Andru II. Entries with maturity near the same as Florunner were dug on October 9. These entries were AP-4, AT 3081R, AT 3085RO, C 724-19-25, Carver, EXP 27-1516, Exp 31-1516, Florida Fancy, Georgia-03L, Georgia-06G, Georgia Green, Georgia Greener, and McCloud. Entries moderately later than Florunner, AP-3, C-99 R, Tifguard, CRSP 14, CRSP 910, Georgia-02C, Florida 07, and York were dug on October 15. Entries CRSP 648 and CRSP 702 are considered later than Florunner, and were dug on October 22.

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 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.

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[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 Director and Gamble is Associate Director of the Wiregrass Research and Extension Center.

Size and Grade Data Terms

Data were collected and averaged on samples from replicates II, III, and IV for size and grade. The samples were graded following Federal-State Inspection Service procedures for grading farmer-stock peanuts.

Terms Used

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

Pct. SMKRS (sound mature kernels riding screen)—Portion of shelled sample as described above.

Pct. SS (sound splits)—Portion of shelled sample split or broken but not damaged.

Pct. TSMK (total sound mature kernels)—Portion of the shelled sample comprised of sound mature kernels plus sound splits.

Pct. OK (other kernels)—Kernels that pass through a 15/64 x 1-inch slotted screen or 16/64 x 3/4-inch slotted screen for Virginia or Runner varieties, respectively.

Pct. DK (damaged kernels)—Kernels that are moldy, decayed, affected by insects or weather conditions resulting in seed coat or cotyledon discoloration or deterioration.

Pct. TK (total kernels)—All shelled sample kernels including TSMK, OK, and DK.

Pct. Hulls —All hulls from the shelled sample.

+21.0 (Generally considered as the Jumbo commercial grade)—Portion of SMKRS riding a 21/64 x 3/4-inch slotted screen.

-21.0 + 18.0 (Generally considered as the Medium commercial grade)—Portion of the SMKRS falling through a 21/64 x 3/4-inch slotted screen and riding a 18/64 x 3/4-inch slotted screen.

-18.0 + 16.0 (Generally considered as the No.1 commercial grade)—Portion of the SMKRS falling through a 18/64 x 3/4-inch slotted screen and riding a 16/64 x 3/4-inch slotted screen.

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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 2005-2007

Variety or Line	2007 *lb/a*	2 Year Avg.	3 Year Avg.
Georgia 06G	7069	----[1]	----
Florida 07	6488	6330	----
AT 3085RO[2]	6244	6026	5321
Exp 27-1516	6207	5917	----
C 724-19-25	6044	5745	----
Georgia 03L	5926	5831	5058
AT 3081R	5835	5640	4858
Georgia Greener	5799	----	----
C-99R	5790	5486	5097
McCloud	5672	5268	----
Georgia 02C	5599	5368	4780
CRSP 648	5436	----	----
AP-4	5391	----	----
AP-3	5282	5663	5221
Georgia Green	5155	4982	4347
CRSP 14	5155	----	----
Tifguard[3]	5127	5545	----
CRSP 702	5109	----	----
Florida Fancy[4]	5100	----	----
Carver	4955	5481	4734
CRSP 910	4955	----	----
Andru II	4955	5046	4580
York	4828	5372	----
Exp 31-1516	4556	----	----
Overall Average……	5,531	5,580	4,888
CV (%)……..	10.28	10.54	22.12
LSD (.05)……..	791	583	876

[1] Not tested
[2] Formerly tested as Exp 3085 A
[3] Formerly tested as C 724-19-15
[4] Virginia Type

Table 2. Average Size and Grade on Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2007

Variety or Line	SMKRS *count/lb*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*	Hulls *pct*
Andru II ……..	796	63	5	68	6	0	74	26
AP-3……. ……..	658	68	5	72	2	1	75	25
AP-4 ……..	622	70	5	75	3	0	78	22
AT 3081R……..	709	65	4	69	4	1	74	26
AT 3085RO[1]…..……	678	66	5	71	3	1	75	25
CRSP 648 …….	568	68	7	75	2	1	78	22
CRSP 702 ……..	631	70	4	74	2	1	77	23
CRSP 910 ……..	614	69	5	73	2	1	76	24
C 724-19-25……	590	71	4	75	2	1	78	22
C-99R…….	605	70	5	75	2	1	78	22
Carver…….	658	70	4	74	3	1	78	22
Exp 27-1516…….....	698	65	7	72	4	0	76	24
EXP 31-1516 ……..	732	68	3	71	5	0	76	24
Florida 07……	568	65	8	73	3	1	76	24
Florida Fancy[2] …….	454	66	5	71	1	1	73	27
Georgia 02C ……..	721	71	6	77	2	1	80	20
Georgia 03L ……..	678	66	4	70	3	1	74	26
Georgia 06G ……..	605	70	5	75	3	0	78	22
Georgia Green…….	783	69	3	72	4	1	77	23
Georgia Greener …….	649	69	5	74	3	1	78	22
McCloud…..……..	639	66	6	72	4	1	77	23
Tifguard[3]……	582	71	6	77	2	1	80	20
York …..……	757	66	5	71	3	1	75	25

[1] Formerly tested as Exp 3085 A
[2] Virginia Type
[3] Formerly tested as C 724-19-15

Table 3. Two-Year Average Size and Grade on Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2006 - 2007

Variety or Line	SMKRS *count/lb*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*	Hulls *pct*
Andru II ……..	827	62	5	67	6	1	74	26
AP-3 …….	673	65	5	70	4	1	75	25
AT 3081R ……..	721	66	4	69	4	1	74	26
AT 3085RO[1] ……..	655	66	4	70	4	1	75	25
C 724-19-25 ……..	586	71	3	74	3	1	78	22
C-99R……..	605	67	5	72	4	1	77	23
Carver …….	658	69	3	72	5	1	78	22
Exp 27-1516 ……..	683	66	5	71	5	0	76	24
Florida 07 ……..	613	62	9	71	3	1	75	25
Georgia 02C ……..	752	68	6	74	4	1	79	21
Georgia 03L ……..	752	67	3	70	4	1	75	25
Georgia Green…….	812	67	5	71	5	1	77	23
McCloud ……	649	66	5	71	4	1	76	24
Tifguard[2] …… ..	640	68	7	75	3	1	79	21
York ……..	784	66	5	71	4	1	76	24

[1] Formerly tested as Exp 3085 A
[2] Formerly tested as C 724-19-15

Table 4. Three-Year Average Size and Grade on Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2005 - 2007

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
AP-3 ……..……..	734	65	4	69	4	0	73	27
AT 3081R ……..…….	733	62	5	67	5	1	73	27
AT 3085RO[1] …..…….	693	66	3	69	4	1	74	26
C-99R…….……..	626	67	4	71	4	1	75	25
Carver ……..……..	709	66	2	68	6	0	74	26
Georgia 02C ……	776	68	5	73	4	0	77	23
Georgia 03L ……	723	65	3	67	5	1	73	27
Georgia Green……..	844	66	4	70	5	1	76	24

[1] Formerly tested as Exp 3085 A

Table 5. Average Shelled Seed Size Distribution of Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2005 - 2007

Variety or Line	SMKRS Size Distribution +21.0 Jumbo *pct*			-21.0 +18.0 Medium *pct*			-18.0 +16.0 No.1 *pct*		
	2007	2006	2005	2007	2006	2005	2007	2006	2005
Andru II……	29.6	24.6	11.8	56.0	57.9	61.5	14.4	17.5	26.0
AP-3…….	68.2	64.1	39.4	26.5	29.5	54.6	5.3	6.4	8.0
AP-4 ……	68.2	'---	---	25.6	---	---	6.2	---	---
AT 3081R……	54.8	47.6	31.8	36.8	42.9	53.2	8.4	9.5	13.6
AT 3085RO……	65.1	60.2	33.6	28.1	34.0	---	6.8	5.8	13.2
C 724-19-25……..…….	71.5	65.3	---	24.0	30.2	---	4.5	4.5	---
C-99R……	66.1	59.2	39.1	29.1	33.8	64.8	4.8	7.0	8.9
Carver……	39.4	30.4	10.3	50.5	57.4	32.0	10.1	12.2	24.9
CRSP 14 ……..	75.3	---	---	18.4	---	---	6.3	---	---
CRSP 648 ……	77.0	---	---	15.3	---	---	7.7	---	---
CRSP 702 …..……	76.9	---	---	17.6	---	---	5.5	---	---
CRSP 910 …….	75.9	---	---	20.0	---	---	4.1	---	---
Exp 27-1516 ……..……	58.5	61.4	---	34.0	40.1	---	7.5	8.5	---
Exp 31-1516 ……..…….	55.6	---	---	36.8	---	---	7.6	---	---
Florida 07 …….	68.1	54.4	---	25.5	37.7	---	6.4	7.9	---
Florida Fancy …….	70.3	---	---	23.2	---	---	6.5	---	---
Georgia 02C……..	65.6	50.3	30.9	27.8	41.0	59.7	6.6	8.7	9.4
Georgia 03L ……	63.8	50.5	25.2	20.4	41.6	57.3	5.8	7.9	17.5
Georgia 06G ...……..…….	71.9	---	---	22.3	---	---	5.8	---	---
Georgia Green……	48.6	35.4	12.5	41.9	53.7	69.5	9.5	10.9	18.0
Georgia Greener ……...	62.8	---	---	30.3	---	---	6.9	---	---
McCloud ……	63.1	54.0	---	29.0	39.6	---	7.9	6.4	---
Tifguard……..…….	72.2	59.4	49.0	22.7	33.0	45.2	5.1	7.6	5.8
York ……..	43.4	37.1	---	48.3	52.6	---	8.3	10.3	---

[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 2007

Variety or Line	Avg. TSWV [1] Hits/Plot	Variety or Line	Avg. WM Hits/Plot	Variety or Line	Avg. LS [2] Ratings/Plot
AT 3081R	21.00	CRSP 910	2.50	AP-4	4.25
CRSP 702	15.50	Carver	2.00	C 724-19-25	4.00
Georgia Green	14.75	Georgia Green	2.00	Georgia 03L	4.00
Carver	14.50	AT 3081R	2.00	Georgia 02C	3.88
Exp 31-1516	14.50	AT 3085RO	1.75	McCloud	3.75
CRSP 910	14.00	Florida 07	1.50	Georgia 06G	3.63
McCloud	13.75	AP-3	1.50	Florida Fancy	3.38
CRSP 14	13.25	C-99R	1.00	Georgia Greener	3.25
AP-3	12.75	Exp 31-1516	0.75	Tifguard	3.13
Georgia Greener	12.00	AP-4	0.75	York	3.00
C-99R	11.75	York	0.75	Exp 31-1516	2.88
Andru II	11.50	Georgia 03L	0.75	Exp 27-1516	2.63
York	11.00	CRSP 14	0.75	Georgia Green	2.63
Georgia 02C	10.75	Andru II	0.75	Carver	2.38
Exp 27-1516	10.00	Tifguard	0.50	AP-3	2.38
AT 3085RO[3]	10.00	Florida Fancy	0.50	AT 3085RO	2.25
AP-4	9.25	McCloud	0.50	AT 3081R	2.25
CRSP 648	8.75	Georgia 02C	0.25	C-99R	2.25
Florida 07	8.25	Exp 27-1516	0.25	CRSP 14	2.13
Florida Fancy[4]	7.75	C-724-19-25	0.25	Florida 07	2.13
Georgia 03L	7.50	Georgia 06G	0.25	CRSP 648	2.00
C-724-19-25	6.00	Georgia Greener	0.25	Andru II	2.00
Georgia 06G	5.50	CRSP 702	0.25	CRSP 702	2.00
Tifguard[5]	5.00	CRSP 648	0.00	CRSP 910	1.63
Overall Average	11.01		0.91		2.83
CV (%)….	33.96		121.44		19.30
LSD (.05)……	5.37		1.55		0.77

[1] Hits equal length of row up to one linear foot with severely diseased plants.
[2] Rating 1 (lowest) to 10 (highest)
[3] Formerly tested as Exp 3085A
[4] Virginia Type
[5] Formerly tested as C-724-19-15

Table 7. Three-Year Yield of Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2005 - 2007

Variety or Line	2007 Avg. *Yield lb/a*	2 Year Avg. *Yield lb/a*	3 Year Avg. *Yield lb/a*
Florida 07	4538	5041	----[1]
Georgia 06G	4519	----	----
C 724-19-25	4420	4715	----
Carver	4338	4769	4568
AT 3085RO[2]	4265	4347	4510
Georgia Greener	4229	----	----
CRSP 648	4193	----	----
McCloud	4084	4533	----
Tifguard[3]	3957	4497	----
C-99R	3893	4528	4538
Georgia 03L	3757	4483	4583
AP-4	3739	----	----
Exp 27-1516	3666	4306	----
CRSP 910	3630	----	----
AP-3	3585	4152	4444
Exp 31-1516	3467	----	----
CRSP 702	3449	----	----
AT 3081R	3376	3385	3736
Georgia 02C	3340	4143	4038
Florida Fancy[4]	3222	----	----
Georgia Green	3149	3721	3588
CRSP 14	3049	----	----
York	3022	4229	----
Andru II	2677	3843	3945
Overall Average ……	3,732	4,313	4,217
CV (%) ……	11.89	18.71	17.89
LSD (.05)…….	626	800	611

[1] Not tested
[2] Formerly tested as Exp 3085A
[3] Formerly tested as C 274-19-15
[4] Virginia Type

Table 8. Average Size and Grade on Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2007

Variety or Line	SMKRS *count/lb*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*	Hulls *pct*
Andru II ……..	908	59	4	63	8	1	72	28
AP-3 ……	678	65	4	69	3	1	73	27
AP-4……. ……..	709	69	3	72	4	1	77	23
AT 3081R……..	825	65	2	67	5	1	73	27
AT 3085RO[1] ...……..	744	64	2	66	6	1	73	27
C 724-19-25……	649	68	2	70	3	1	74	26
C-99R…….	668	68	5	73	3	1	77	23
Carver…….	757	64	3	67	6	1	74	26
CRSP 14 ……	678	68	4	72	2	1	75	25
CRSP 648 …….	582	71	4	75	1	1	77	23
CRSP 702 …….	639	71	2	73	1	1	75	25
CRSP 910 …….	649	65	5	70	3	2	75	25
Exp 27-1516 ……	841	64	2	66	6	1	73	27
Exp 31-1516	769	64	3	67	5	1	73	27
Florida 07..……..…	639	64	7	71	2	2	75	25
Florida Fancy[2] …….	528	61	5	66	2	2	70	30
Georgia 02C ……..	825	68	7	75	3	1	79	21
Georgia 03L ……..	732	65	3	68	3	1	72	28
Georgia 06G ……	698	70	2	72	3	2	77	23
Georgia Green…….	841	68	3	71	4	1	76	24
Georgia Greener …….	709	70	3	73	3	1	77	23
McCloud.……	678	66	3	69	3	2	74	26
Tifguard[3] …..……	631	71	5	76	1	1	78	22
York …..……	783	63	6	69	4	1	74	26

[1] Formerly tested as Exp 3085 A
[2] Virginia Type
[3] Formerly tested as C 724-19-15

Table 9. Two-Year Average Size and Grade on Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2006-2007

Variety or Line	SMKRS *count/lb*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*	Hulls *pct*
Andru II ……..	875	62	4	65	7	1	73	27
AP-3……. ……..	688	68	3	71	3	1	75	25
AT 3081R.……..	822	65	3	68	5	1	74	26
AT 3085RO[1]...……..	757	66	2	68	6	1	75	25
C 724-19-25 ……	659	69	3	72	3	1	76	24
C-99R…….	673	71	4	75	2	1	78	22
Carver…….	777	64	3	67	6	1	74	26
Exp 27-1516 ……	805	67	2	69	5	1	75	25
Florida 07 ……..	638	67	6	73	2	1	76	24
Georgia 02C ……..	825	71	5	76	3	1	80	20
Georgia 03L ……..	726	66	3	69	4	1	74	26
Georgia Green…….	893	67	4	71	5	1	77	23
McCloud …….	688	66	4	70	5	1	76	24
Tifguard[2] …..……..	655	73	4	77	1	1	79	21
York ……	770	66	5	71	3	1	75	25

[1] Formerly tested as Exp 3085RO
[2] Formerly tested as C 724-19-15

Table 10. Three-Year Average Size and Grade on Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2005 - 2007

Variety or Line	SMKRS *count/lb*	SMKRS *pct*	SS *pct*	TSMK *pct*	OK *pct*	DK *pct*	TK *pct*	Hulls *pct*
Andru II ……..	934	60	4	64	7	0	71	29
AP-3……. ……..	734	67	3	70	4	0	74	26
AT 3081R……	839	63	4	67	5	1	73	27
AT 3085RO[1]……..	775	67	2	69	5	1	75	25
C-99R…….	675	71	3	74	2	1	77	23
Carver…….	809	64	3	67	6	1	74	26
Georgia 02C ……..	836	70	4	74	4	1	79	21
Georgia 03L ……..	732	67	2	69	3	1	73	27
Georgia Green…….	881	67	4	71	6	0	77	23

[1] Formerly tested as Exp 3085 A

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 2007

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	18.25	CRSP 702	2.00	Georgia Green	1.75
Exp 31-1516	18.00	Georgia 06G	1.75	Florida 07	1.75
McCloud	16.25	Florida Fancy	1.75	Exp 27-1516	1.75
Andru II	14.00	AP-4	1.75	C 724-19-25	1.63
AT 3081R	13.00	Georgia Green	1.50	Florida Fancy	1.63
Georgia 03L	12.50	AT 3081R	1.50	Georgia 03L	1.50
Exp 27-1516	11.75	C-99R	1.50	AT 3081R	1.50
CRSP 702	11.25	Exp 31-1516	1.25	Georgia 06G	1.50
Florida Fancy[3]	11.25	CRSP 648	1.25	Andru II	1.38
Carver	10.75	AT 3085RO	1.00	McCloud	1.38
AP-3	10.75	Georgia Greener	1.00	Georgia 02C	1.38
CRSP 14	10.00	C 724-19-25	1.00	AP-4	1.38
Georgia 02C	10.00	Exp 27-1516	1.00	C-99R	1.25
CRSP 910	9.25	CRSP 14	0.75	Carver	1.25
AP-4	8.25	CRSP 910	0.50	AP-3	1.25
C99-R	8.00	Florida 07	0.50	Exp 31-1516	1.25
AT 3085RO[4]	7.25	McCloud	0.50	Tifguard	1.25
CRSP 648	6.75	Georgia 03L	0.50	CRSP 702	1.25
York	6.75	Carver	0.25	Florida 07	1.13
Florida 07	6.00	Georgia 02C	0.00	AT 3085RO	1.13
Georgia Greener	5.75	Tifguard	0.00	CRSP 910	1.00
Tifguard[5]	5.50	York	0.00	York	1.00
C724-19-25	5.25	AP-3	0.00	CRSP 648	1.00
Georgia 06G	4.50	Andru II	0.00	CRSP 14	1.00
Overall Average	10.04		0.89		1.35
CV (%)….	45.42		121.44		31.61
LSD (.05)……	6.43		1.40		0.60

[1] Hits equal length of row up to one linear foot with severely diseased plants.
[2] Rating 1 (lowest) to 10 (highest)
[3] Virginia Type
[4] Formerly tested as Exp 3085A
[5] Formerly tested as C 724-19-15

[1]PLANTING RATE CHART
36-inch rows

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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 2007

DATE	APR *in*	MAY *in*	JUNE *in*	JULY *in*	AUG *in*	SEPT *In*	OCT *in*
1				0.27	0.37	0.39	
2	3.55			0.34			
3				0.03			
4	0.08			0.02			
5	0.02						
6			0.09				
7			0.32				0.08
8			0.02	0.58			
9			0.08				
10				0.14	0.14		
11	0.08						
12	0.02				0.05		
13					0.01	2.09	
14		0.14	0.12	1.01		0.76	
15	3.15			1.14		0.45	
16							
17				0.11			
18					0.41		
19							3.03
20			0.94		0.22		0.22
21				0.24			
22						0.35	0.13
23					0.77	0.04	0.02
24						0.12	0.06
25					0.07		
26					0.02		
27	0.40				0.91		
28					0.09	0.02	
29							
30							
31				1.31	0.69		
[1]TOTALS	7.30	0.14	1.47	5.19	3.75	4.22	3.54

[1]Total daily rainfall from April through October, 2007 = 25.61 in; 2006 = 28.14 in; 2005 = 40.65 in .

Tests Duration Daily Maximum Temperatures Recorded at the Wiregrass Research and Extension Center, Headland, Alabama 2007

DATE	APR *°F*	MAY *°F*	JUNE *°F*	JULY *°F*	AUG *°F*	SEPT *°F*	OCT *°F*
1	81	87	90	97	93	85	84
2	68	88	81	97	93	85	86
3	83	88	77	86	91	85	87
4	85	89	91	87	90	87	85
5	77	87	92	89	96	92	89
6	64	90	92	91	96	92	86
7	62	86	92	93	98	91	84
8	53	75	89	92	98	92	88
9	56	81	97	89	100	90	88
10	62	85	97	94	101	90	90
11	69	88	99	94	100	96	88
12	78	90	98	94	102	92	80
13	76	93	84	95	94	91	80
14	82	89	91	96	95	90	81
15	83	83	89	90	101	89	85
16	54	84	91	87	101	87	85
17	70	87	93	89	98	88	77
18	78	81	98	91	98	85	89
19	70	81	96	93	92	84	73
20	79	81	93	94	95	84	71
21	71	85	91	95	96	77	77
22	75	89	92	91	98	78	81
23	79	89	93	90	99	87	77
24	82	88	97	89	89	89	87
25	84	86	95	89	88	90	61
26	83	87	93	91	94	----[1]	69
27	80	85	95	93	93	89	74
28	82	86	95	92	89	91	73
29	82	87	96	96	92	91	75
30	83	90	99	83	95	86	70
31		87		99	95		74

[1] Not recorded

Tests Duration Daily Minimum Temperatures Recorded at the Wiregrass Research and Extension Center, Headland, Alabama 2007

DATE	APR *°F*	MAY *°F*	JUNE *°F*	JULY *°F*	AUG *°F*	SEPT *°F*	OCT *°F*
1	60	58	69	73	74	73	60
2	62	60	69	70	72	74	60
3	64	60	61	71	73	72	62
4	61	64	65	70	74	68	72
5	48	63	70	69	75	67	73
6	40	65	70	73	75	69	71
7	37	57	71	72	78	70	71
8	35	50	71	74	78	65	69
9	41	51	70	74	79	64	66
10	42	61	70	71	77	68	67
11	48	63	71	76	78	67	57
12	55	63	72	73	77	73	47
13	48	64	68	72	73	72	47
14	57	68	65	72	74	71	53
15	47	61	67	70	77	68	60
16	40	63	67	71	74	60	61
17	45	63	70	71	75	64	67
18	52	55	70	72	72	60	67
19	50	56	72	75	72	59	67
20	49	56	69	74	73	59	54
21	49	55	69	70	75	65	53
22	49	59	66	71	76	71	67
23	54	63	70	69	76	71	69
24	55	64	71	70	72	70	52
25	56	64	76	69	72	69	44
26	59	60	72	69	71	----[1]	45
27	63	61	72	72	72	68	49
28	55	66	72	73	73	68	48
29	56	67	71	74	72	65	54
30	58	66	73	76	72	59	49
31		66		74	72		50

[1] Not recorded

DESCRIPTIONS OF 2007 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 southeastern U.S. production, being the most productive early maturity high oleic cultivar currently available. Birdsong Peanut Company has the marketing contract on this variety.

2. 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.

3. AP-4

Developed by Drs. Dan Gorbet and Barry Tillman, University of Florida Agricultural Experiment Station. Released in 2007 under the 1994 Amendment of the Plant Variety Protection Act. The oleic/linoleic fatty acid ratio is normal. The maturity range is medium with pod and seed size larger than Florunner. AP-4 carries good tomato spotted wilt virus resistance and tolerance to white mold. Not as resistant to white mold as AP-3. AP-4 has shown good grade characteristics.

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 3085RO

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 14 7. CRSP 648 8. CRSP 702 9. CRSP 910

Breeding lines developed by Drs. Roy Pittman, Jim Todd, Dan Gorbet and Albert Culbreath of the Peanut CRSP project UFL16P to develop and use multiple pest resistance to improve production efficiency of peanut. The maturity range is 10 to 17 days later than Georgia Green with larger seed and pod size. The oleic/linoleic fatty acid ratio is normal for the lines. They have runner growth habit with resistance to tomato spotted wilt virus and leafspot. These have performed well under experimental conditions for reduced inputs relative to foliar diseases in SW Georgia.

10. 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.

11. C 724-19-25

A breeding line developed by Dr. Corley Holbrook, USDA- ARS, Tifton, Georgia. C 724-19-25 is medium in maturity with tomato spotted wilt virus resistance. Carries normal oleic oil chemistry.

12. 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.

13. Exp 27-1516 14. Exp 31-1516

Advanced breeding lines developed by Dr. Ernest Harvey, Golden Peanut Co., Ashburn, GA. They are medium in maturity with erect mainstems and seed and pod size similar to GK 7. They carry resistance to tomato spotted wilt virus.

15. 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.

16. Florida Fancy

Developed by Drs. Dan Gorbet and Barry Tillman, University of Florida Agricultural Experiment Station. Released in 2007 under the 1994 amendment of the Plant Variety Protection Act. Florida Fancy is a Virginia type with medium maturity, pod and seed size similar to Gregory. Tomato spotted wilt virus resistance is good and the oleic/linoleic fatty acid ratio is high.

17. 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 is more consistent with Florunner than Georgia Green. Resistant to tomato spotted wilt virus and cylindrocladium black rot.

18. 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.

19. Georgia 06G

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 2006 under the 1994 Amendment of the Plant Variety Protection Act. Medium maturity, normal oleic/linoleic fatty acid ratio, with larger pod and seed size than Georgia Green and resistant to tomato spotted wilt virus.

20. 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.

21. Georgia Greener

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 2006 under the 1994 Amendment of the Plant Variety Protection Act. Medium maturity, normal oleic/linoleic fatty acid ratio, with larger pod and seed size than Georgia Green and resistant to tomato spotted wilt virus. Generally darker green foliage than Georgia Green.

22. McCloud

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. 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.

23. Tifguard

Developed by Dr. Corley Holbrook, USDA- ARS, Tifton, Georgia and released in 2007. Has normal oil chemistry. Is mid-season in maturity and carries root-knot nematode and TSWV resistance.

24. York

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. York is in the late maturity range (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.

SOURCES OF SEED

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Georgia 02C
Georgia 03L
Georgia 06G
Georgia Green
Georgia Greener

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Andru II
AP-3
AP-4
C-99R
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McCloud
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AT 3081R
AT 3085RO
Exp 27-1516
Exp 31-1516

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CRSP 14
CRSP 648
CRSP 702
CRSP 910