

# Alabama Performance Comparison of Peanut Varieties 2016

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Department of Crop, Soil and  
Environmental Sciences

In cooperation with the Alabama Cooperative Extension System  
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# The 2016 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 2016 tests were conducted at the Wiregrass Research and Extension Center in Headland, Ala. During 2016, 13 entries were evaluated under irrigation and dryland conditions.

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 4. The irrigated tests were planted May 10. Both 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 similar to Georgia Green in maturity were dug on September 19. These entries were Flo-Run<sup>TM</sup> '107', Flo-Run<sup>TM</sup> '157', Georgia Greener, Georgia-06G, Georgia-07W, Georgia-09B, TUFRunner<sup>TM</sup> '297', TUFRunner<sup>TM</sup> '511', and AU-NPL 17. Entries moderately later than Georgia Green, Georgia-13M, Georgia-14N, and TUFRunner<sup>TM</sup> '727' were dug on September 27. Entry with maturity considerably later than Georgia Green was Georgia-12Y dug October 3.

The dryland test entries with maturity near the same as Georgia Green were dug on September 13. These entries were Flo-Run<sup>TM</sup> '107', Flo-Run<sup>TM</sup> '157', Georgia Greener, Georgia-06G, Georgia-07W, Georgia-09B, TUFRunner<sup>TM</sup> '297', TUFRunner<sup>TM</sup> '511', and AU-NPL 17. Entries moderately later than Georgia Green, Georgia-13M, Georgia-14N, and TUFRunner<sup>TM</sup> '727' were dug on September 19. Entry with maturity considerably later than Georgia Green was Georgia-12Y was dug September 27.

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

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<sup>1</sup>Bostick is an adjunct professor of the Auburn University Department of Crop, Soil and Environmental Sciences, and Executive Vice President of Alabama Crop Improvement Association; Wells is Director and Gamble is Associate Director of the Wiregrass Research and Extension Center.

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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 (0.05) following the LSD value indicates that the LSD was calculated at the 95% level of confidence.

## Size and Grade Data Terms

Data was 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 one 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, Professor of Plant Pathology, for providing the disease evaluation data and to Glenn Wehtje, Professor of Crop, Soil, and Environmental Sciences, for the statistical analysis. Appreciation is also expressed to Susan Morrisette for her contributions.

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**Table 1**

*Three-Year Average Yield of Irrigated Peanut Varieties (lbs/acre) at the Wiregrass Research and Extension Center, Headland, Ala., 2014-2016.*

Variety or Line	2016 (lbs/acre)	2 Year Average (lbs/acre)	3 Year Average (lbs/acre)
Georgia-06G	6125	6769	6461
Georgia-13M	5572	5948	5808
TUFRunner™'297'	5554	6533	---- <sup>1</sup>
Georgia Greener	5463	----	----
TUFRunner™'511'	5427	6244	6274
AU-NPL 17	5391	----	----
Georgia-12Y	5127	6030	5920
Georgia-09B	5118	5902	5901
FloRun™'107'	4719	5720	5731
FloRun™'157'	4483	----	----
Georgia-07W	4392	----	----
TUFRunner™'727'	4320	5412	5762
Georgia-14N	3757	4717	----
<i>Overall Average</i>	<i>5038</i>	<i>5919</i>	<i>5980</i>
<i>CV (%)</i>	<i>11.8</i>	<i>18.2</i>	<i>16.2</i>
<i>LSD (0.05)</i>	<i>851</i>	<i>1078</i>	<i>785</i>

<sup>1</sup> Not Tested

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**Table 2**  
Average Size and Grade of Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Ala., 2016.

Variety or Line	SMKRS <sup>1</sup> (count/lb )	SMKRS <sup>2</sup> (%)	SS <sup>3</sup> (%)	TSMK <sup>4</sup> (%)	OK <sup>5</sup> (%)	DK <sup>6</sup> (%)	TK <sup>7</sup> (%)	Hulls <sup>8</sup> (%)
Flo-Run™ <sup>1</sup> 107'	743	61	4	65	7	2	74	26
Flo-Run™ <sup>1</sup> 157'	721	61	5	66	6	2	74	26
Georgia 06G	645	67	1	68	5	2	75	25
Georgia 07W	665	60	3	63	6	2	71	29
Georgia-09B	645	67	3	70	4	2	76	24
Georgia-12Y	737	62	3	65	4	3	72	28
Georgia-13M	856	69	3	72	4	1	77	23
Georgia-14N	792	61	2	63	8	3	74	26
Georgia Greener	710	63	3	66	5	4	75	25
TUFRunner™ <sup>1</sup> 297'	614	65	1	66	4	4	74	26
TUFRunner™ <sup>1</sup> 511'	655	64	2	66	4	2	72	28
TUFRunner™ <sup>1</sup> 727'	674	64	3	67	4	3	74	26
AU-NPL 17	670	61	2	63	6	2	71	29

<sup>1</sup>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.

<sup>2</sup>SMKRS % (sound mature kernels riding screen)—Percentage of the shelled sample as described above.

<sup>3</sup>SS % (sound splits)—Percentage of the shelled sample that are split or broken but not damaged.

<sup>4</sup>TSMK % (total sound mature kernels)—Percentage of the shelled sample comprised of sound mature kernels plus sound splits.

<sup>5</sup>OK % (other kernels)—Percentage of kernels that pass through a 15/64 x 1-inch slotted screen or 16/64x3/4-inch slotted screen for Virginia or Runner varieties, respectively.

<sup>6</sup>DK % (damaged kernels)—Percentage of kernels that are moldy, decayed, affected by insects or weather conditions resulting in seed coat or cotyledon discoloration or deterioration.

<sup>7</sup>TK % (total kernels)—Percentage kernels in the shelled sample, including TSMK, OK, and DK.

<sup>8</sup>Hulls %—Percentage of hulls from the shelled sample.

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**Table 3**

*Two-Year Average Size and Grade of Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Ala., 2015-2016.*

Variety or Line	SMKRS <sup>1</sup> (count/lb)	SMKRS <sup>2</sup> (%)	SS <sup>3</sup> (%)	TSMK <sup>4</sup> (%)	OK <sup>5</sup> (%)	DK <sup>6</sup> (%)	TK <sup>7</sup> (%)	Hulls <sup>8</sup> (%)
Flo-Run™'107'	666	65	3	68	6	2	76	24
Georgia-06G	707	69	3	72	4	1	77	23
Georgia-09B	648	70	2	72	4	1	77	23
Georgia-12Y	722	65	2	67	4	2	73	27
Georgia-13M	846	71	2	73	4	0	77	23
Georgia-14N	802	66	2	68	6	2	76	24
TUFRunner™'297'	587	69	1	70	3	3	76	24
TUFRunner™'511'	628	68	2	70	3	2	75	25
'TUFRunner™'727'	666	67	2	69	4	2	75	25

<sup>1</sup>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.

<sup>2</sup>SMKRS % (sound mature kernels riding screen)—Percentage of the shelled sample as described above.

<sup>3</sup>SS % (sound splits)—Percentage of the shelled sample that are split or broken but not damaged.

<sup>4</sup>TSMK % (total sound mature kernels)—Percentage of the shelled sample comprised of sound mature kernels plus sound splits.

<sup>5</sup>OK % (other kernels)—Percentage of kernels that pass through a 15/64 x 1-inch slotted screen or 16/64x3/4-inch slotted screen for Virginia or Runner varieties, respectively.

<sup>6</sup>DK % (damaged kernels)—Percentage of kernels that are moldy, decayed, affected by insects or weather conditions resulting in seed coat or cotyledon discoloration or deterioration.

<sup>7</sup>TK % (total kernels)—Percentage kernels in the shelled sample, including TSMK, OK, and DK.

<sup>8</sup>Hulls %—Percentage of hulls from the shelled sample.



**Table 4**  
*Three-Year Average Size and Grade of Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Ala., 2014-2016.*

Variety or Line	SMKRS <sup>1</sup> (count/lb)	SMKRS <sup>2</sup> (%)	SS <sup>3</sup> (%)	TSMK <sup>4</sup> (%)	OK <sup>5</sup> (%)	DK <sup>6</sup> (%)	TK <sup>7</sup> (%)	Hulls <sup>8</sup> (%)
Flo-Run™ 107'	658	69	2	71	4	1	76	24
Georgia-06G	611	72	2	74	2	1	77	23
Georgia-09B	659	71	2	73	3	1	77	23
Georgia-12Y	704	68	1	69	6	1	73	27
Georgia-13M	846	73	2	74	3	1	78	22
TUFRunner™ 511'	612	71	1	72	2	1	75	25
TUFRunner™ 727'	655	70	2	72	3	1	76	24

<sup>1</sup>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.

<sup>2</sup>SMKRS % (sound mature kernels riding screen)—Percentage of the shelled sample as described above.

<sup>3</sup>SS % (sound splits)—Percentage of the shelled sample that are split or broken but not damaged.

<sup>4</sup>TSMK % (total sound mature kernels)—Percentage of the shelled sample comprised of sound mature kernels plus sound splits.

<sup>5</sup>OK % (other kernels)—Percentage of kernels that pass through a 15/64 x 1-inch slotted screen or 16/64x3/4-inch slotted screen for Virginia or Runner varieties, respectively.

<sup>6</sup>DK % (damaged kernels)—Percentage of kernels that are moldy, decayed, affected by insects or weather conditions resulting in seed coat or cotyledon discoloration or deterioration.

<sup>7</sup>TK % (total kernels)—Percentage kernels in the shelled sample, including TSMK, OK, and DK.

<sup>8</sup>Hulls %—Percentage of hulls from the shelled sample.

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**Table 5**  
Average Shelled Seed Size Distribution of Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Ala., 2014-2016.

Variety or Line	SMKRS Size Distribution								
	+ 21.0 Jumbo (%)			-21.0 +18.0 Medium (%)			-18.0 +16.0 No. 1 (%)		
	2016	2015	2014	2016	2015	2014	2016	2015	2014
Flo-Run™107'	26.1	31.9	48.1	60.4	58.6	46.8	13.6	9.5	4.8
Flo-Run™157'	40.3	---- <sup>1</sup>	-----	51.1	-----	-----	8.7	-----	-----
Georgia-06G	46.9	58.5	60.5	46.9	36.4	36.3	6.2	5.1	3.1
Georgia-07W	34.4	-----	-----	48.8	-----	-----	16.8	-----	-----
Georgia-09B	55.8	61.6	61.0	38.2	33.6	35.8	6.0	4.8	3.2
Georgia-12Y	43.6	54.4	58.4	50.4	40.2	39.9	6.0	5.4	1.8
Georgia-13M	18.8	28.9	26.2	71.5	62.5	67.8	9.7	8.7	6.0
Georgia-14N	33.5	40.0	-----	53.8	51.0	-----	12.7	9.0	-----
Georgia Greener	37.9	-----	55.7	54.3	-----	40.8	7.8	-----	3.6
TUFRunner™297'	49.7	31.2	-----	44.3	31.2	-----	6.0	4.9	-----
TUFRunner™511'	48.5	56.6	46.2	45.1	37.4	41.1	6.4	5.9	2.7
TUFRunner™727'	46.4	49.4	56.8	47.0	44.0	40.4	6.6	6.5	2.8
AU-NPL 17	54.9	-----	-----	37.7	-----	-----	7.3	-----	-----

<sup>1</sup> Not tested

**Table 6**

*Occurrence of Tomato Spotted Wilt Virus (TSW) Hits, White Mold (WM) Hits, and Leafspot (LS) in the Irrigated Peanut Variety Test<sup>1</sup> at the Wiregrass Research and Extension Center, Headland, Ala., 2016.*

Variety or Line	TSW <sup>2</sup> (#loci/40 ft.)	Leafspot <sup>3</sup> Intensity	White Mold (#loci/40 ft.)
Georgia-06G	5.5 b-e <sup>4</sup>	3.3 ef	0.0
Georgia-07W	8.0 bcd	3.5 ef	0.0
Georgia-09B	7.3 b-e	2.7 f	0.3 ab
Georgia-12Y	2.5 de	4.2 def	0.0
Georgia-13M	5.8 b-e	13.7 a	0.0
Georgia014N	2.5 cde	5.8 b-f	0.0
Georgia Greener	7.5 b-e	5.0 c-f	0.3 ab
Flo-Run™157'	20.0 a	6.2 b-f	0.3 ab
Flo-Run™107'	6.8 b-e	7.4 bcd	0.0
TUFRunner™297'	6.3 b-e	6.9 b-e	0.5 ab
TUFRunner™511'	16.8 a	9.0 abc	0.0
TUFRunner™727'	11.3 ab	8.6 abc	0.0
AU-NPL 17	1.8 d	2.5 f	0.0
MRS 37 <sup>5</sup>	9.8 ab	8.5 abc	0.3ab
MRS 38 <sup>5</sup>	12.3 ab	8.9 ab	1.5 a
ASUS 50 <sup>5</sup>	8.5 bc	6.4 b-f	0.0
ASUS 51 <sup>5</sup>	9.5 b	6.2 b-f	0.0

<sup>1</sup> Data supplied by A.K. Hagan, H.L. Campbell, K.L. Bowen, Dept. of Entomology and Plant Pathology, Auburn University, Ala.

<sup>2</sup> Tomato Spotted Wilt (TSW) and stem rot incidence is expressed as the number of disease loci per 40 foot of row.

<sup>3</sup> Leafspot diseases were rated using the Florida 1 to 10 leaf spot rating scale.

<sup>4</sup> Means in each column that are followed by the same letter are not significantly different according to Fisher's least significant difference (LSD) test ( $P \leq 0.05$ ).

<sup>5</sup> Breeding lines with yield and grade not reported.

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**Table 7**

*Three-Year Yield of Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Ala., 2014-2016.*

Variety or Line	2016 Average Yield (lbs/acre)	2 Year Average Yield (lbs/acre)	3 Year Average Yield (lbs/acre)
Georgia Greener	6062	---- <sup>1</sup>	----
AU-NPL 17	6008	----	----
Georgia-06G	5990	6312	5457
TUFRunner™'297'	5935	6240	----
Georgia-07W	5890	----	----
TUFRunner™'511'	5772	5852	5102
Georgia-09B	5699	5699	4873
Georgia-12Y	5699	6254	5207
Georgia-013M	5082	5706	4799
Flo-Run™'157'	4737	----	----
TUFRunner™'727'	4728	5285	4758
Flo-Run™'107'	4628	5218	4685
Georgia-14N	4129	4896	----
Overall Average	5412	5718	4983
CV (%)	9.7	13.0	27.3
LSD (0.05)	749	741	1108

<sup>1</sup> Not tested

**Table 8**  
Average Size and Grade of Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Ala., 2016.

Variety or Line	SMKRS <sup>1</sup> (count/lb)	SMKRS <sup>2</sup> (%)	SS <sup>3</sup> (%)	TSMK <sup>4</sup> (%)	OK <sup>5</sup> (%)	DK <sup>6</sup> (%)	TK <sup>7</sup> (%)	Hulls <sup>8</sup> (%)
Flo-Run™ <sup>1</sup> 107 <sup>1</sup>	744	67	2	69	5	2	76	24
Flo-Run™ <sup>1</sup> 157 <sup>1</sup>	857	66	4	71	4	3	77	23
Georgia-06G	632	74	1	75	2	1	78	22
Georgia-07W	678	72	2	74	2	1	77	23
Georgia-09B	684	71	3	74	3	1	78	22
Georgia-12Y	713	70	3	73	2	1	76	24
Georgia-13M	842	70	4	74	3	1	78	22
Georgia-14N	808	72	4	76	3	1	80	20
Georgia Greener	739	72	2	74	3	1	78	22
TUFRunner™ <sup>1</sup> 297 <sup>1</sup>	605	73	2	75	1	1	77	23
TUFRunner™ <sup>1</sup> 511 <sup>1</sup>	628	69	2	71	3	1	75	25
TUFRunner™ <sup>1</sup> 727 <sup>1</sup>	649	67	7	74	2	1	77	23
AU-NPL 17	631	70	1	71	3	1	75	25

<sup>1</sup>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.

<sup>2</sup>SMKRS % (sound mature kernels riding screen)—Percentage of the shelled sample as described above.

<sup>3</sup>SS % (sound splits)—Percentage of the shelled sample that are split or broken but not damaged.

<sup>4</sup>TSMK % (total sound mature kernels)—Percentage of the shelled sample comprised of sound mature kernels plus sound splits.

<sup>5</sup>OK % (other kernels)—Percentage of kernels that pass through a 15/64 x 1-inch slotted screen or 16/64x3/4-inch slotted screen for Virginia or Runner varieties, respectively.

<sup>6</sup>DK % (damaged kernels)—Percentage of kernels that are moldy, decayed, affected by insects or weather conditions resulting in seed coat or cotyledon discoloration or deterioration.

<sup>7</sup>TK % (total kernels)—Percentage kernels in the shelled sample, including TSMK, OK, and DK.

<sup>8</sup>Hulls %—Percentage of hulls from the shelled sample.

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**Table 9**

*A Two-Year Average Size and Grade of Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Ala., 2015-2016.*

Variety or Line	SMKRS <sup>1</sup> (count/lb )	SMKRS <sup>2</sup> (%)	SS <sup>3</sup> (%)	TSMK <sup>4</sup> (%)	OK <sup>5</sup> (%)	DK <sup>6</sup> (%)	TK <sup>7</sup> (%)	Hulls <sup>8</sup> (%)
Flo-Run™'107'	733	68	2	70	5	1	76	24
Georgia-06G	638	74	1	75	2	1	78	22
Georgia-09B	724	72	2	74	3	0	77	23
Georgia-12Y	707	70	2	72	2	1	75	25
Georgia-13M	857	70	2	72	4	1	77	23
Georgia-14N	814	72	3	75	3	1	79	21
TUFRunner™'297'	596	73	1	74	2	1	77	23
TUFRunner™'511'	637	69	2	71	3	1	75	25
TUFRunner™'727'	672	69	3	72	3	1	76	24

**Table 10**

*Three-Year Average Size and Grade of Dryland Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Ala., 2014-2016.*

Variety or Line	SMKRS <sup>1</sup> (count/lb )	SMKRS <sup>2</sup> (%)	SS <sup>3</sup> (%)	TSMK <sup>4</sup> (%)	OK <sup>5</sup> (%)	DK <sup>6</sup> (%)	TK <sup>7</sup> (%)	Hulls <sup>8</sup> (%)
Flo-Run™'107'	703	67	2	69	4	2	75	25
Georgia-06G	642	72	1	73	2	1	76	24
Georgia-09B	731	71	2	73	3	1	77	23
Georgia-12Y	710	69	2	71	2	1	74	26
Georgia-13M	870	69	2	71	4	1	76	24
TUFRunner™'511'	643	69	1	70	4	1	75	25
TUFRunner™'727'	672	69	3	72	3	1	76	24

<sup>1</sup>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.

<sup>2</sup>SMKRS % (sound mature kernels riding screen)—Percentage of the shelled sample as described above.

<sup>3</sup>SS % (sound splits)—Percentage of the shelled sample that are split or broken but not damaged.

<sup>4</sup>TSMK % (total sound mature kernels)—Percentage of the shelled sample comprised of sound mature kernels plus sound splits.

<sup>5</sup>OK % (other kernels)—Percentage of kernels that pass through a 15/64 x 1-inch slotted screen or 16/64x3/4-inch slotted screen for Virginia or Runner varieties, respectively.

<sup>6</sup>DK % (damaged kernels)—Percentage of kernels that are moldy, decayed, affected by insects or weather conditions resulting in seed coat or cotyledon discoloration or deterioration.

<sup>7</sup>TK % (total kernels)—Percentage kernels in the shelled sample, including TSMK, OK, and DK.

<sup>8</sup>Hulls %—Percentage of hulls from the shelled sample.

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**Table 11**

*Occurrence of Tomato Spotted Wilt Virus (TSW) Hits, White Mold (WM) Hits, and Leafspot (LS) in the Dryland Peanut Variety Test<sup>1</sup> at the Wiregrass Research and Extension Center, Headland, Ala., 2016*

Variety or Line	TSW <sup>2</sup> (#loci/40 ft.)	Leafspot <sup>3</sup> Intensity	White Mold (#loci/40 ft.)
Georgia-06G	4.8 fgh <sup>4</sup>	0.2 e	0.8 ab
Georgia-07W	3.8 ghi	0.2 e	0.5 ab
Georgia-09B	10.3 cde	0.2 e	0.3 ab
Georgia-12Y	1.5 hi	0.3 de	0.0 b
Georgia-13M	1.0 i	3.7 a	0.0 b
Georgia-14N	9.3 ef	0.5 abc	0.0 b
Georgia Greener	2.3 hi	0.2 e	0.5 ab
Flo-Run™ <sup>4</sup> 157'	22.5 a	0.2 e	2.3 a
Flo-Run™ <sup>4</sup> 107'	12.0 b-e	0.2 e	0.3 ab
TUFRunner™ <sup>4</sup> 297'	2.0 hi	0.4 cd	0.0 b
TUFRunner™ <sup>4</sup> 511'	17.8 a-d	0.3 de	0.3 ab
TUFRunner™ <sup>4</sup> 727'	18.7 ab	1.0 ab	0.0 b
AU-NPL 17	2.8 hi	0.2 e	0.3 ab
MRS 37 <sup>5</sup>	10.0 de	0.4 bc	0.0 b
MRS 38 <sup>5</sup>	18.3 abc	0.4 bcd	0.8 ab
ASUS 50 <sup>5</sup>	8.7 efg	0.2 e	0.0 b
ASUS 51 <sup>5</sup>	8.5 efg	0.4 bcd	0.5 ab

<sup>1</sup> Data supplied by A.K. Hagan, H.L. Campbell, K.L. Bowen, Dept. of Entomology and Plant Pathology, Auburn University, Ala.

<sup>2</sup> Tomato Spotted Wilt (TSW) and stem rot incidence is expressed as the number of disease loci per 40 foot of row.

<sup>3</sup> Leafspot diseases were rated using the Florida 1 to 10 leaf spot rating scale.

<sup>4</sup> Means in each column that are followed by the same letter are not significantly different according to Fisher's least significant difference (LSD) test ( $P \leq 0.05$ ).

<sup>5</sup> Breeding lines with yield and grade not reported.

# PEANUT TRIAL

**Planting Rate Chart for 36 Inch Rows<sup>1</sup>**

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

<sup>1</sup> Pounds of peanut seed at various seed count per pound required to plant one 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.)

(A) To determine pounds per acre at 36-inch row spacing, use the following formula:

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

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

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

(C) Example:

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



# PEANUT TRIAL

**Tests Duration Daily Rainfall Data Recorded at the Wiregrass Research and Extension Center, Headland, Ala., 2016.**

DATE	APR (inches)	MAY (inches)	JUNE (inches)	JULY (inches)	AUG (inches)	SEPT (inches)	OCT (inches)
1	0.89		0.45		0.50		
2		0.02			0.01	0.02	
3					0.12		
4	3.55	0.07			0.05		
5				0.36	1.05		
6			0.50	0.01		0.05	
7			0.40				
8					0.45		
9					1.00		
10					0.22		
11				1.24	0.10		
12	0.39			0.02	0.24		
13	0.01		0.29	0.37		0.40	
14	0.39						
15	0.20				1.41		
16			1.53				
17			0.66				
18		2.13		0.20	0.01		
19		0.08				0.22	
20		0.37	0.12	0.15			
21				0.41			
22	0.06			0.80			
23		0.07					
24					0.59		
25	0.21			0.20			
26							
27			0.17			0.21	
28						0.13	
29	0.05		1.14				
30							
31							
<sup>1</sup> TOTALS	3.75	2.74	5.26	3.76	5.75	1.03	0.00

<sup>1</sup>Total daily rainfall from April through October, 2016 = 22.29 in; 2015 = 37.20 in; 2014 =35.05 in.

# PEANUT TRIAL

**Tests Duration Daily Maximum Temperatures Recorded at the Wiregrass Research and Extension Center, Headland, Ala., 2016.**

DATE	APR °F	MAY °F	JUNE °F	JULY °F	AUG °F	SEPT °F	OCT °F
1	79		96	88	95	90	
2		90	93		88	85	
3		88	92		91		87
4	75	84			93		90
5	79	76		96	93		89
6	77	83	94	95		91	88
7	76		78	93		90	87
8	79		91	96	95	91	
9			91		92	93	
10		89	91		89		90
11	73	83		97	83		81
12	82	87		91	89	94	81
13	74	90	96	93		93	84
14	75		96	93		90	86
15	60		93	93	93	88	
16		87	88		93	92	
17		85	92		93		86
18	76	87		94	93		88
19	78	86		94	93	91	90
20	83	87	95	93		91	89
21	84		87	96		95	88
22	81		90	96	93	94	
23		86	92		94	93	
24		84	93		96		78
25	85	87		93	91		82
26	86	90		93	91	96	86
27	85	90	97	91		86	82
28	84		93	94		88	83
29	82		94	95	93	91	
30			93		93	89	
31		92			94		84

# PEANUT TRIAL

**Tests Duration Daily Minimum Temperatures Recorded at the Wiregrass Research and Extension Center, Headland, Ala., 2016.**

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

# PEANUT TRIAL

## Descriptions Of 2016 Peanut Variety Test Entries

### **AU-NPL 17**

Developed by Dr. Charles Chen of Auburn University in cooperation with the National Peanut Research Lab, Dawson, Georgia. The variety was released in 2017. Plant Variety Protection will be applied for under Title V. The variety has high-oleic chemistry and is medium in maturity with seed size similar to Georgia 06G. It carries resistance to Tomato Spotted Wilt Virus with some tolerance to late leaf spot. Foundation seed are scheduled for distribution for 2018 planting.

### **FloRun™ ‘107’**

Developed by Dr. Barry Tillman, University of Florida Agricultural Experiment Station. Released in 2010 and protected 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 a runner type variety with medium maturity and similar to Georgia Greener in seed size, and produces a high percentage of medium size kernels. The variety has demonstrated good resistance to tomato spotted wilt virus and moderate resistance to white mold.

### **FloRun™ ‘157’**

Developed by Dr. Barry Tillman, University of Florida. It is a medium-late maturity, runner type with high oleic chemistry. This variety has small seed, similar to Georgia Green in size and produces a high percentage of medium kernels. It has moderate resistance to Tomato Spotted Wilt Virus and late leaf spot, and is susceptible to white mold.

### **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.

### **Georgia-07W**

Developed by Drs. Bill Branch and Tim Brenneman, University of Georgia Agricultural Experiment Station. Released in 2007 under the 1994 Amendment of the Plant Variety Protection Act. Medium maturity with resistance to white mold and Tomato Spotted Wilt Virus. It is a large-seeded runner with normal oleic/linoleic oil chemistry.

### **Georgia-09B**

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 2009 and protected 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 a Runner type that has medium seed size, medium maturity and is resistant to Tomato Spotted Wilt Virus.

**Georgia-12Y**

A medium seed size runner developed by Dr. Bill Branch, University of Georgia. It was released in 2012 under the 1994 Amendment of the Plant Variety Protection Act. It is not high oleic. It is resistant to Tomato Spotted Wilt Virus and tolerant to white mold. It is similar to Georgia-10T in late maturity.

**Georgia-13M**

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 2013 and protected under the 1994 Amendment of the Plant Variety Act. Also carries a patent of the high-oleic trait prohibiting non-licensed parties from saving seed for planting. It is a Runner type with medium seed size and a large percentage of medium grade seed. It is medium in maturity and resistant to Tomato Spotted Wilt Virus.

**Georgia-14N**

Developed by Drs. Bill Branch and Tim Brennaman of the University of Georgia. It was released in 2014 under the 1994 Amendment of the Plant Variety Protection Act. It is resistant to root knot nematode and tomato spotted wilt virus. It is a small seeded runner type with medium maturity.

**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.

**TUFRunner™ ‘297’**

Developed by Dr. Barry Tillman of the University of Florida. Released in 2014 under the 1994 Amendment of the Plant Variety Protection Act. It carries high oleic oil chemistry and is an extra-large seeded Runner type with medium maturity. It carries resistance to white mold, Tomato Spotted Wilt Virus, but is susceptible to leaf spots. It has a prominent center stem.

**TUFRunner™ ‘511’**

Developed by Dr. Barry Tillman, University of Florida Agricultural Experiment Station. Released in 2014 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 planting. Large seeded Runner type with approximately 140 days to maturity. Moderately susceptible to Tomato Spotted Wilt Virus.

## PEANUT TRIAL

### **TUFRunner™‘727’**

Developed by Dr. Barry Tillman, University of Florida. Released in 2012 under the 1994 Amendment of the Plant Variety Protection Act. It carries a patent for high oleic oil chemistry and seed can not be reproduced without the owner's permission. It has medium seed size with medium maturity, and good resistance to Tomato Spotted Wilt Virus, late leafspot and white mold.

## **Seed Sources**

**Dr. W. D. Branch**

University of Georgia  
Department of Crop and Soil Sciences  
Coastal Plain Experiment Station  
Tifton, Georgia 31793

**Georgia Greener**

**Georgia-06G**

**Georgia-07W**

**Georgia-09B**

**Georgia-12Y**

**Georgia-13M**

**Georgia-14N**

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**FloRun™'107'**

**FloRun™'157'**

**TUFRunner™'297'**

**TUFRunner™'511'**

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**AU-NPL 17**