The 2009 Alabama Performance Comparison of Peanut Varieties

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The 2009 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 2009 tests were conducted at the Wiregrass Research and Extension Center in Headland, AL. During 2009, 17 entries were evaluated. The tests were planted as irrigated and dryland, however, the irrigated test data was deemed unreliable due to stand loss from heavy rains and inadequate drainage after planting.

The experimental design was a randomized complete block consisting of two-row plots, 18 feet long, replicated four times. The test was planted on May 12 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 test entries considered to be earlier than Georgia Green were dug on September 23. This entry was AT 215. Entries with maturity near the same as Georgia Green were dug on October 8. These entries were AP-4, AT 3085RO, C 724-19-25, Florida Fancy, Georgia-03L, Georgia-06G, Georgia-07W, Georgia-08V, Georgia Green, Georgia Greener, McCloud and Tifguard. Entries moderately later than Georgia Green, EXP 27-1516, Florida 07, Georgia-02C, and York were dug on October 21.

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 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 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 $18/64 \times 3/4$ -inch slotted screen and riding a $16/64 \times 3/4$ -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 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 Yield of Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2007 - 2009

| Variety or Line | 2009 Avg. Yield lb/a | 11and, Alabama 2007 2 Year Avg. <i>Yield lb/a</i> | 3 Year Avg. <i>Yield lb/a</i> | |
|----------------------------|-------------------------|---|----------------------------------|--|
| Georgia-07W | 6309 | 5986 | 1 | |
| Georgia Greener | 5580 | 5467 | 5055 | |
| Georgia-03L | 5520 | 5324 | 4802 | |
| Georgia-06G | 5510 | 5519 | 5186 | |
| Florida 07 | 5421 | 5274 | 5029 | |
| McCloud | 5381 | 5168 | 4806 | |
| C 724-19-25 | 5301 | 5192 | 4931 | |
| York | 5211 | 5179 | 4460 | |
| Georgia-08V ² | 5161 | | | |
| Georgia-02C | 5041 | 5030 | 4466 | |
| AP-4 | 5031 | 5030 | 4599 | |
| AT 215 | 4991 | 4669 | | |
| Tifguard ³ | 4911 | 4992 | 4650 | |
| Florida Fancy ⁴ | 4881 | 4941 | 4368 | |
| AT 3085RO ⁵ | 4742 | 4781 | 4609 | |
| Georgia Green | 4213 | 4371 | 3963 | |
| Exp 27-1516 | 4123 | 4417 | 4166 | |
| | | | | |
| | | | | |
| | | | | |
| Overall Average | 5137 | 5084 | 4649 | |
| CV (%) | 10.54 | 10.07 | 17.12 | |
| LSD (.05) | 770 | 507 | 642 | |

¹ Not tested ² Virginia Type ³ Formerly tested as C 724-19-15 ⁴ Virginia Type ⁵ Formerly tested as Exp 3085 A

Table 2. Average Size and Grade of Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2009

| Variety or Line | SMKRS count/lb | SMKRS pct | SS pct | TSMK pct | OK pct | DK pct | TK pct | Hulls pct |
|----------------------------|-------------------|--------------|-----------|-------------|-----------|-----------|-----------|-----------|
| | | | | | | | | |
| AP-4 | 605 | 72 | 5 | 77 | 3 | 0 | 80 | 20 |
| AT215 | 582 | 72 | 3 | 75 | 2 | 0 | 77 | 23 |
| AT 3085RO ¹ | 590 | 73 | 3 | 76 | 1 | 1 | 78 | 22 |
| C 724-19-25 | 605 | 74 | 3 | 77 | 2 | 0 | 79 | 21 |
| Exp 27-1516 | 622 | 73 | 4 | 77 | 1 | 1 | 79 | 21 |
| Florida 07 | 568 | 71 | 3 | 74 | 1 | 1 | 76 | 24 |
| Florida Fancy ² | . 459 | 69 | 3 | 72 | 2 | 2 | 76 | 24 |
| Georgia-02C | . 709 | 73 | 4 | 77 | 2 | 1 | 80 | 20 |
| Georgia-03L | . 631 | 72 | 2 | 74 | 2 | 0 | 76 | 24 |
| Georgia-06G | . 590 | 75 | 3 | 78 | 2 | 0 | 80 | 20 |
| Georgia-07W | 597 | 74 | 5 | 79 | 2 | 0 | 81 | 19 |
| Georgia-08V ³ | 622 | 71 | 6 | 77 | 1 | 1 | 79 | 21 |
| Georgia Green | 757 | 71 | 4 | 75 | 3 | 1 | 79 | 21 |
| Georgia Greener | 698 | 72 | 6 | 78 | 2 | 0 | 80 | 20 |
| McCloud | 579 | 69 | 6 | 75 | 3 | 1 | 79 | 21 |
| Tifguard ⁴ | . 605 | 73 | 4 | 77 | 1 | 1 | 79 | 21 |
| York | 796 | 67 | 4 | 71 | 4 | 1 | 76 | 24 |

¹ Formerly tested as Exp 3085 A
² Virginia Type
³ Virginia Type
⁴ Formerly tested as C 724-19-15

Table 3. Two-Year Average Size and Grade of Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2008-2009

| Variety or | SMKRS | SMKRS | SS | TSMK | OK | DK | TK | Hulls |
|----------------------------|----------|-------|-----|------|-----|-----|-----|-------|
| • | count/lb | pct | pct | pct | pct | pct | pct | pct |
| | | | | | | | | |
| AP-4 | 609 | 73 | 4 | 77 | 2 | 0 | 79 | 21 |
| AT 215 | 640 | 72 | 3 | 75 | 2 | 0 | 77 | 23 |
| AT 3085RO ¹ | 634 | 72 | 3 | 75 | 2 | 0 | 77 | 23 |
| C 724-19-25 | 587 | 73 | 3 | 76 | 2 | 0 | 78 | 22 |
| Exp 27-1516 | 671 | 73 | 3 | 76 | 1 | 1 | 78 | 22 |
| Florida 07 | 575 | 72 | 3 | 75 | 1 | 0 | 76 | 24 |
| Florida Fancy ² | 476 | 69 | 3 | 72 | 1 | 1 | 74 | 26 |
| Georgia-02C | 715 | 72 | 6 | 78 | 2 | 1 | 81 | 19 |
| Georgia-03L | 665 | 71 | 2 | 73 | 2 | 0 | 75 | 25 |
| Georgia-06G | 615 | 75 | 3 | 78 | 2 | 0 | 80 | 20 |
| Georgia-07W | 623 | 75 | 4 | 79 | 2 | 0 | 81 | 19 |
| Georgia Green | 787 | 73 | 4 | 77 | 2 | 1 | 80 | 20 |
| Georgia Greener | 698 | 73 | 5 | 78 | 2 | 0 | 80 | 20 |
| McCloud | 592 | 71 | 5 | 76 | 2 | 1 | 79 | 21 |
| Tifguard ³ | 614 | 74 | 3 | 77 | 1 | 1 | 79 | 21 |
| York | 737 | 68 | 5 | 73 | 2 | 1 | 76 | 24 |

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

Table 4. Three-Year Average Size and Grade of Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2007 - 2009

| Variety or | SMKRS | SMKRS | SS | TSMK | OK | DK | TK | Hulls |
|----------------------------|----------|-------|-----|------|-----|-----|-----|-------|
| Line | count/lb | pct | pct | pct | pct | pct | pct | pct |
| | | | | | | | | |
| AP-4 | 642 | 71 | 4 | 75 | 2 | 1 | 78 | 22 |
| AT 3085RO ¹ | 671 | 69 | 3 | 72 | 3 | 1 | 76 | 24 |
| C 724-19-25 | . 607 | 72 | 2 | 74 | 2 | 1 | 77 | 23 |
| Exp 27-1516 | 728 | 70 | 3 | 73 | 2 | 1 | 76 | 24 |
| Florida 07 | 596 | 69 | 4 | 73 | 2 | 1 | 76 | 24 |
| Florida Fancy ² | . 493 | 64 | 4 | 68 | 3 | 1 | 72 | 28 |
| Georgia-02C | 751 | 71 | 6 | 77 | 2 | 1 | 80 | 20 |
| Georgia-03L | 687 | 69 | 2 | 71 | 3 | 0 | 74 | 26 |
| Georgia-06G | 643 | 73 | 3 | 76 | 2 | 1 | 79 | 21 |
| Georgia Green | 803 | 71 | 3 | 74 | 3 | 1 | 78 | 22 |
| Georgia Greener | 702 | 72 | 4 | 76 | 3 | 0 | 79 | 21 |
| McCloud | 621 | 69 | 4 | 73 | 3 | 1 | 77 | 23 |
| Tifguard ³ | 619 | 73 | 3 | 76 | 1 | 1 | 78 | 22 |
| York | 752 | 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 5. Average Shelled Seed Size Distribution of Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama 2007 – 2009

| Variety or Line | +21.0 Jumbo pct | | | | _ SMKRS Size Distribution | | | -18.0 +16.0 No. 1 pct | | |
|----------------------------|-----------------------|------|------|------|---------------------------|------|------|-----------------------------|------|--|
| | 2009 | 2008 | 2007 | 2009 | 2008 | 2007 | 2009 | 2008 | 2007 | |
| AP-4 | 46.5 | 54.3 | 61.3 | 48.2 | 40.3 | 33.0 | 5.3 | 5.1 | 5.7 | |
| AT 215 | 42.5 | 50.7 | 1 | 49.8 | 44.3 | | 7.7 | 5.0 | | |
| AT 3085RO ² | 52.1 | 53.4 | 60.8 | 44.0 | 37.5 | 33.2 | 3.9 | 6.1 | 6.4 | |
| C 724-19-25 | 49.9 | 60.0 | 65.8 | 45.8 | 35.4 | 29.7 | 4.3 | 4.6 | 4.5 | |
| EXP 27-1516 | 47.2 | 52.7 | 55.6 | 49.1 | 42.5 | 38.3 | 3.7 | 4.8 | 6.1 | |
| Florida 07 | 48.4 | 49.9 | 59.0 | 48.3 | 44.5 | 35.0 | 3.3 | 5.6 | 6.0 | |
| Florida Fancy ³ | 64.8 | 74.3 | 72.3 | 32.1 | 21.0 | 22.1 | 3.1 | 4.7 | 5.6 | |
| Georgia-02C | 45.7 | 60.5 | 63.1 | 49.5 | 35.4 | 31.5 | 4.8 | 4.1 | 5.4 | |
| Georgia-03L | 53.4 | 56.0 | 59.9 | 43.7 | 40.1 | 30.2 | 2.9 | 3.9 | 4.9 | |
| Georgia-06G | 57.8 | 62.3 | 67.1 | 39.1 | 33.2 | 27.8 | 3.1 | 4.5 | 5.1 | |
| Georgia-07W | 46.7 | 52.9 | | 49.0 | 42.1 | | 4.3 | 5.0 | | |
| Georgia Green | 23.4 | 37.7 | 43.2 | 69.0 | 57.9 | 49.8 | 7.6 | 4.4 | 7.0 | |
| Georgia Greener | 43.8 | 51.3 | 57.0 | 52.0 | 44.9 | 37.6 | 4.2 | 3.8 | 5.4 | |
| McCloud | 39.7 | 50.1 | 56.6 | 54.6 | 44.9 | 37.0 | 5.7 | 5.0 | 6.4 | |
| Tifguard ⁴ | 52.8 | 58.6 | 65.4 | 42.4 | 37.1 | 29.9 | 4.8 | 4.3 | 4.7 | |
| York | 21.7 | 29.1 | 36.3 | 68.7 | 62.7 | 55.5 | 9.6 | 8.2 | 8.2 | |

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

Table 6. Occurrence of Tomato Spotted Wilt Virus (TSWV) Hits, White Mold (WM) Hits, and Leafspot (LS) in the Peanut Variety Test at the Wiregrass Research and Extension Center, Headland, Alabama 2009

| Variety or Line | Avg. TSWV 1 Hits/Plot | Variety or Line | Avg. WM Hits/Plot | Variety or Line | Avg. LS ² Ratings/Plot |
|----------------------------|------------------------|--------------------|----------------------|--------------------|-----------------------------------|
| | | | | | |
| Georgia-08V ³ | 16.75 | Exp 27-1516 | 8.50 | Exp 27-1516 | 6.875 |
| Georgia Green | 16.25 | Georgia Green | 7.50 | Florida 07 | 5.375 |
| Florida Fancy ⁴ | 12.25 | AT215 | 6.50 | Georgia-02C | 5.000 |
| AT215 | 11.75 | Georgia Greener | 4.50 | AT 3085RO | 4.875 |
| Exp 27-1516 | 11.75 | AT 3085RO | 4.25 | York | 4.750 |
| AT 3085RO ⁵ | 10.75 | Florida Fancy | 4.25 | Georgia-08V | 4.750 |
| Florida 07 | 10.50 | AP-4 | 2.75 | Georgia Green | 4.625 |
| McCloud | 9.25 | Georgia-08V | 2.75 | Georgia-06G | 4.375 |
| Georgia-02C | 9.00 | Georgia-06G | 2.75 | McCloud | 4.250 |
| Georgia Greener | 7.75 | McCloud | 2.50 | Georgia-07W | 4.000 |
| Georgia-03L | 6.75 | Tifguard | 2.25 | Georgia Greener | 4.000 |
| Georgia-06G | 6.25 | Georgia-07W | 1.25 | Florida Fancy | 3.875 |
| AP-4 | 6.00 | Georgia-03L | 1.00 | AP-4 | 3.750 |
| York | 5.50 | Florida 07 | 0.75 | C 724-19-25 | 3.500 |
| Georgia-07W | 5.25 | York | 0.50 | Tifguard | 3.500 |
| Tifguard ⁶ | 4.25 | C 724-19-25 | 0.50 | AT215 | 3.375 |
| C 724-19-25 | 3.75 | Georgia-02C | 0.25 | Georgia-03L | 2.875 |

| Overall Average | 9.04 | 3.10 | 4.34 |
|-----------------|------|------|-------|
| CV (%) | 47.7 | 67.5 | 11.59 |
| LSD (.05) | 6.14 | 2.98 | 0.71 |

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 Virginia Type

⁵ Formerly tested as Exp 3085 A

¹PLANTING RATE CHART 36-inch rows

| | | • | | | | |
|-------|------|------|------|------|------|------|
| Seed | Seed | Lbs. | Seed | Lbs. | Seed | Lbs. |
| per | per | per | per | per | per | per |
| pound | foot | acre | foot | acre | foot | acre |
| | | | | | | |
| 600 | 5 | 121 | 6 | 145 | 7 | 178 |
| 625 | 5 | 116 | 6 | 140 | 7 | 171 |
| 650 | 5 | 112 | 6 | 134 | 7 | 164 |
| 675 | 5 | 108 | 6 | 129 | 7 | 158 |
| 700 | 5 | 104 | 6 | 124 | 7 | 152 |
| 725 | 5 | 100 | 6 | 120 | 7 | 147 |
| 750 | 5 | 97 | 6 | 116 | 7 | 142 |
| 775 | 5 | 94 | 6 | 112 | 7 | 138 |
| 800 | 5 | 91 | 6 | 109 | 7 | 133 |
| 825 | 5 | 88 | 6 | 106 | 7 | 129 |
| 850 | 5 | 85 | 6 | 102 | 7 | 125 |
| 875 | 5 | 83 | 6 | 100 | 7 | 122 |
| 900 | 5 | 81 | 6 | 97 | 7 | 118 |
| 925 | 5 | 78 | 6 | 94 | 7 | 115 |
| 950 | 5 | 76 | 6 | 92 | 7 | 112 |
| 975 | 5 | 74 | 6 | 89 | 7 | 109 |
| 1000 | 5 | 73 | 6 | 87 | 7 | 107 |
| 1025 | 5 | 71 | 6 | 85 | 7 | 104 |
| 1050 | 5 | 69 | 6 | 83 | 7 | 102 |
| 1075 | 5 | 68 | 6 | 81 | 7 | 99 |
| 1100 | 5 | 66 | 6 | 79 | 7 | 97 |
| | | | | | | |

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

Seed count per pound

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

¹Pounds 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.)

⁽A) Seed per foot x linear feet in 1 acre = pounds per acre

⁽B) To determine linear feet in one acre at 36-inch row spacing: 43,560 square feet per acre = 14,520 linear feet in 1 acre 3 square feet

⁽C) Example:

Tests Duration Daily Rainfall Data Recorded at the Wiregrass Research and Extension Center, Headland, Alabama 2009

| DATE | APR | MAY | JUNE | JULY | AUG | SEPT | OCT |
|---------------------|------|------|------|-------|------|------|------|
| | in. | in. | in. | in. | in. | in. | in. |
| 1 | 2.70 | | | | 0.39 | | |
| 2 | 0.58 | | | | 0.08 | 0.03 | |
| 3 | 0.93 | | | | 1.55 | 1.50 | |
| 4 | | 0.11 | 0.09 | | 0.02 | | |
| 5 | | 1.02 | 1.27 | | | | 0.87 |
| 6 | 0.18 | 0.41 | 0.42 | 2.81 | 0.61 | | 0.43 |
| 7 | | 0.08 | | 0.90 | | | 0.02 |
| 8 | | 1.40 | | 0.24 | | | |
| 9 | | | | 0.08 | 0.73 | | 0.12 |
| 10 | | | | 0.05 | | | 0.25 |
| 11 | | | | | | | |
| 12 | | | | | 0.30 | 0.01 | |
| 13 | | | 0.05 | | 0.01 | | 0.27 |
| 14 | 1.83 | | | | | 0.06 | 0.08 |
| 15 | | 0.12 | 0.03 | 0.13 | 0.05 | 0.58 | 0.03 |
| 16 | | 0.88 | | 0.32 | | | 1.08 |
| 17 | | 0.31 | | 1.99 | 0.01 | 0.93 | 0.03 |
| 18 | | 2.44 | | 0.89 | 0.27 | 0.04 | |
| 19 | | | | | 0.07 | | |
| 20 | 0.01 | | | | 0.08 | 0.15 | |
| 21 | | | | | 1.39 | 0.10 | |
| 22 | 0.01 | 0.08 | | | 0.74 | 0.42 | |
| 23 | | 0.70 | | | | | |
| 24 | | 0.34 | 0.04 | 1.34 | | | 0.10 |
| 25 | | 0.70 | 0.30 | | | | |
| 26 | | 0.31 | | | | | |
| 27 | | 0.82 | | | 0.60 | 0.08 | 0.40 |
| 28 | | 0.01 | | | 0.52 | | 1.27 |
| 29 | | 0.11 | 0.01 | 1.33 | 0.22 | 0.01 | |
| 30 | | | | 0.12 | | | |
| 31 | | | | 0.02 | 0.07 | | |
| | | | | | | | |
| ¹ TOTALS | 6.24 | 9.84 | 2.21 | 10.21 | 7.80 | 3.91 | 4.95 |

 1 Total daily rainfall from April through October, 2009 = 45.16 in.; 2008 = 28.98 in.; 2007 = 25.61 in.

Tests Duration Daily Maximum Temperatures Recorded at the Wiregrass Research and Extension Center, Headland, Alabama 2009

| DATE | APR °F | MAY °F | JUNE °F | JULY °F | AUG °F | SEPT °F | OCT °F |
|------|-----------|-----------|------------|------------|-----------|------------|-----------|
| 1 | 62 | 86 | 89 | 94 | 92 | 85 | 76 |
| 2 | 68 | 84 | 93 | 98 | 87 | 86 | 83 |
| 3 | 69 | 87 | 92 | 99 | 89 | 73 | 79 |
| 4 | 73 | 87 | 86 | 94 | 90 | 83 | 83 |
| 5 | 76 | 72 | 83 | 96 | 93 | 86 | 77 |
| 6 | 72 | 86 | 79 | 97 | 93 | 87 | 84 |
| 7 | 59 | 87 | 84 | 79 | 90 | 86 | 85 |
| 8 | 55 | 87 | 88 | 85 | 94 | 84 | 92 |
| 9 | 70 | 89 | 90 | 88 | 94 | 88 | 88 |
| 10 | 80 | 90 | 90 | 88 | 93 | 91 | 90 |
| 11 | 80 | 88 | 92 | 88 | 95 | 88 | 85 |
| 12 | 81 | 87 | 93 | 88 | 93 | 86 | 85 |
| 13 | 78 | 76 | 94 | 91 | 89 | 80 | 90 |
| 14 | 65 | 81 | 90 | 84 | 87 | 86 | 71 |
| 15 | 73 | 87 | 93 | 92 | 89 | 85 | 81 |
| 16 | 71 | 88 | 93 | 94 | 87 | 87 | 85 |
| 17 | 73 | 86 | 95 | 92 | 89 | 87 | 69 |
| 18 | 73 | 80 | 96 | 89 | 84 | 83 | 54 |
| 19 | 77 | 68 | 96 | 86 | 89 | 84 | 59 |
| 20 | 76 | 73 | 97 | 85 | 91 | 88 | 65 |
| 21 | 76 | 77 | 97 | 84 | 91 | 87 | 70 |
| 22 | 81 | 76 | 97 | 87 | 90 | 87 | 77 |
| 23 | 82 | 74 | 98 | 80 | 86 | 87 | 82 |
| 24 | 88 | 78 | 98 | 89 | 83 | 88 | 78 |
| 25 | 89 | 80 | 94 | 89 | 84 | 88 | 77 |
| 26 | 88 | 81 | 95 | 90 | 87 | 89 | 62 |
| 27 | 84 | 78 | 95 | 92 | 91 | 92 | 73 |
| 28 | 83 | 86 | 97 | 92 | 78 | 85 | 74 |
| 29 | 84 | 89 | 98 | 89 | 86 | 90 | 1 |
| 30 | 84 | 87 | 96 | 89 | 89 | 77 | 83 |
| 31 | | 84 | | 92 | 89 | | |

¹ Data not taken

Tests Duration Daily Minimum Temperatures Recorded at the Wiregrass Research and Extension Center, Headland, Alabama 2009

| DATE | APR °F | MAY °F | JUNE °F | JULY °F | AUG °F | SEPT °F | OCT °F |
|------|-----------|-----------|------------|------------|-----------|------------|-----------|
| | | | | | | | |
| 1 | 51 | 62 | 68 | 72 | 70 | 69 | 53 |
| 2 | 62 | 65 | 68 | 76 | 73 | 70 | 59 |
| 3 | 55 | 67 | 67 | 71 | 72 | 65 | 60 |
| 4 | 47 | 65 | 69 | 69 | 73 | 66 | 64 |
| 5 | 56 | 64 | 66 | 75 | 71 | 70 | 67 |
| 6 | 52 | 68 | 62 | 71 | 70 | 67 | 64 |
| 7 | 35 | 70 | 62 | 72 | 71 | 71 | 64 |
| 8 | 36 | 69 | 69 | 71 | 71 | 66 | 70 |
| 9 | 38 | 66 | 70 | 67 | 72 | 66 | 71 |
| 10 | 54 | 66 | 71 | 70 | 74 | 68 | 71 |
| 11 | 58 | 68 | 73 | 70 | 76 | 70 | 67 |
| 12 | 55 | 66 | 73 | 72 | 72 | 70 | 67 |
| 13 | 50 | 65 | 70 | 73 | 70 | 70 | 65 |
| 14 | 59 | 66 | 71 | 73 | 70 | 73 | 64 |
| 15 | 43 | 66 | 70 | 73 | 70 | 71 | 66 |
| 16 | 43 | 67 | 73 | 76 | 71 | 72 | 69 |
| 17 | 47 | 67 | 75 | 72 | 72 | 70 | 46 |
| 18 | 49 | 56 | 76 | 71 | 70 | 72 | 38 |
| 19 | 54 | 52 | 75 | 66 | 71 | 72 | 38 |
| 20 | 59 | 53 | 76 | 63 | 72 | 71 | 38 |
| 21 | 50 | 62 | 76 | 62 | 71 | 72 | 42 |
| 22 | 50 | 67 | 75 | 65 | 71 | 72 | 42 |
| 23 | 52 | 68 | 76 | 66 | 63 | 70 | 59 |
| 24 | 56 | 69 | 75 | 72 | 61 | 70 | 51 |
| 25 | 57 | 65 | 73 | 68 | 62 | 71 | 46 |
| 26 | 60 | 68 | 74 | 71 | 67 | 72 | 49 |
| 27 | 60 | 67 | 76 | 71 | 67 | 69 | 53 |
| 28 | 61 | 67 | 77 | 72 | 70 | 65 | 61 |
| 29 | 60 | 69 | 78 | 70 | 68 | 57 | 1 |
| 30 | 60 | 62 | 70 | 70 | 69 | 52 | 63 |
| 31 | | 63 | | 70 | 70 | | |

¹ Data not taken

DESCRIPTIONS OF 2009 PEANUT VARIETY TEST ENTRIES

1. 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.

2. AT 215

Developed by Dr. Ernest Harvey, Golden Peanut Co., Ashburn, GA. Similar to GK 7 in growth habit with early maturity. Large pod and seed size with high oleic seed chemistry with moderate resistance to tomato spotted wilt virus.

3. 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.

4. 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.

5. Exp 27-1516

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. They are not high oleic.

6. 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 mediumlate (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.

7. 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.

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

9. 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.

10. 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.

11. 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.

12. Georgia-08V

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 2008 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 Virginia type variety that has large seed and is resistant to tomato spotted wilt virus.

13. Georgia Green

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 1995 and protected under the 1994 Amendment of the Plant Variety Protection Act. Same maturity range as Florunner with seed and pod size similar to or slightly more round than Florunner. Normal oleic/linoleic fatty acid ratio with intermediate growth habit and 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.

14. 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 slightly larger pod and seed size than Georgia Green and resistant to tomato spotted wilt virus. Generally darker green foliage than Georgia Green.

15. 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.

16. Tifguard

Developed by Dr. Corley Holbrook, USDA- ARS, Tifton, Georgia. Released in 2007 under the 1994 Amendment of the Plant Variety Protection Act. It has normal oil chemistry, is mid-season in maturity and carries root-knot nematode and TSWV resistance. Seed size is large and the plant type has the runner growth habit.

17. 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

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

> Georgia-02C Georgia-03L Georgia-06G Georgia-07W Georgia-08V Georgia Green Georgia Greener

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> AP-4 Florida 07 Florida Fancy McCloud York

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Tifguard C 724-19-25

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