

Peanut Variety Test

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- Runner, Spanish, and Virginia variety trials were conducted in Beckham, Tillman, and Caddo counties. Experimental line ARSOK-R1 performed well at all three locations for the second year in a row.
- In the Spanish test AT 98-99-14, ARSOK-S1, Tamnut 06, GA 04S, and Spanco were consistent yield performers across all three locations.
- Perry, Gregory, and Brantley were top performers in the Virginia test.

Variety Tests

All variety tests were conducted under an extensive pest management program. The objective was to prevent as much outside influence from pest (weed, disease, and insect) pressures on yield and grade as possible. The variety times location interaction was significant so the results are presented by county in Tables 1-3. Since the varieties and advanced lines response differed by location, growers may find the data for the county closest to their location to be the most useful in selecting a variety or varieties to grow. All test plots were planted using two 36-inch rows that were 20 feet long. Plots were seeded at a rate of eight seeds per row foot (139,392 seeds per acre). At planting, a liquid inoculant formulation was applied with the seed. Tests were conducted using randomized complete block design with four replications. The entire plot was dug and then thrashed three to four days later.

Interpreting Data

Details of establishment and management of each test are listed in footnotes below the tables. Least significant differences (LSD) are listed at the bottom of all but the performance summary tables. Differences between varieties are significant

only if they are equal to or greater than the LSD value. If a given variety out yields another variety by as much or more than the LSD value, then we are 95% sure that the yield difference is real, with only a 5% probability that the difference is due to chance alone. For example, if variety X is 500 lbs/A higher in yield than variety Y, then this difference is statistically significant if the LSD is 500 or less. If the LSD is 500 or greater, then we are less confident that variety X really is higher yielding than variety Y under the conditions of the test.

Results reported here should be representative of what might occur throughout the state but would be most applicable under environmental and management conditions similar to those of the tests. The relative yields of all peanut varieties are affected by crop management and by environmental factors including soil type, summer conditions, soil moisture conditions, diseases, and insects.

Additional Information on the Web

A copy of this publication as well as additional variety information and more information on peanut management can be found at www.peanut.okstate.edu/

Beckham County

Good growing conditions were observed at Erick throughout the growing season. Early season precipitation was

above normal, which delayed planting in some cases but the trial was planted on time. Average yield for the runner test was 4,694 lbs/A with an average grade of 74%. Tamrun OL07, ARSOK-R1, and Tamrun 96 were the top yield performers. ARSOK-R1 continued to perform well in 2007. Tamrun OL07, which was a new release in the spring from Texas A&M, also performed well.

In the Spanish test ARSOK-S1, Tamnut 06, AT 98-99-14, GA 04S, and Spanco were the top yield performers. Average yield and grade for the Spanish test were 3,599 lbs/A and 74% TSMK, respectively. ARSOK-S1 is an experimental variety that has not been released at this time. Tamnut 06 was a new release from Texas A&M in the spring of 2007.

Average yield and grade in the Virginia test was 4,612 lbs/A and 72% TSMK, respectively. All four varieties have been consistent performers over the last two years.

Caddo County

An abundant amount of rainfall the first two months of the growing seasons delayed plant development at Fort Cobb. Average yield for the runner test was 2,472 lbs/A with an average grade of 69% TSMK. ARSOK-R1 was at the top of the yield list. ARSOK-R1 continued to perform well in 2007. Tamrun OL07, which was a new release in the spring from Texas A&M, also performed well.

In the Spanish test ARSOK-S1, Tamnut 06, AT 98-99-14, GA 04S, and Spanco were the top yield performers. Average yield and grade for the Spanish test were 3599 lb/A and 74% TSMK, respectively. ARSOK-S1 is an experimental variety that has not been released at this time. Tamnut 06 was a new release from Texas A&M in the spring of 2007.

Average yield and grade in the Virginia test was 4,612 lbs/A and 72% TSMK,

respectively. All four varieties have been consistent performers over the last two years.

Tillman County

This was the first year since 2005 that we have had a variety trial in Tillman County. Good growing conditions were observed at Tipton throughout the growing season. Early season precipitation was above normal, which delayed planting in some cases but the trial was planted on time. Average yield for the runner test was 4,256 lbs/A with an average grade of 73%. No yield differences were detected in the top 5 varieties. ARSOK-R1 continued to perform well at this location. Grade for ARSOK-R1 was significantly higher compared to the other varieties at 77% TSMK.

In the Spanish test AT 98-99-14, ARSOK-S1, Tamnut 06, GA 04S, and Spanco were the top yield performers. Average yield and grade for the Spanish test were 3,329 lbs/A and 71% TSMK, respectively.

Average yield and grade in the Virginia test was 3,988 lbs/A and 69% TSMK, respectively. Perry, Gregory, and Brantley out yielded Jupiter at this location.

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Table 1. Peanut yields and grades from Beckham County variety tests in 2006, 2007, and 2 year average.

| Variety or line | Yield (lbs/A) | Grade (% TSMK) | Yield (lbs/A) ¹ | Grade (% TSMK) ^{1,2} | Yield (lbs/A) | Grade (% TSMK) |
|-----------------------------|------------------|----------------|----------------------------|-------------------------------|-----------------------|----------------|
| | ----- 2006 ----- | | ----- 2007 ----- | | ----- 2 yr Avg. ----- | |
| Runner³ | | | | | | |
| Tamrun OL07 | na ⁴ | na | 5838 | 74 | 5838 | 74 |
| ARSOK-R1 | 5273 | 75 | 5229 | 77 | 5251 | 76 |
| Tamrun 96 | 5250 | 71 | 5041 | 74 | 5146 | 72 |
| Tamrun OL01 | 5286 | 71 | 4687 | 73 | 4987 | 72 |
| Flavorrunner 458 | na | na | 4443 | 74 | 4443 | 74 |
| SW Runner | 4238 | 69 | 4473 | 74 | 4356 | 72 |
| Tamrun OL02 | 5322 | 68 | 3147 | 71 | 4235 | 69 |
| LSD 0.05 | 417 | 4 | 1825 | 2 | | |
| Spanish³ | | | | | | |
| Tamnut 06 | na | na | 4029 | 73 | 4029 | 73 |
| AT 98-99-14 | 3843 | 71 | 4000 | 75 | 3922 | 73 |
| Spanco | 3930 | 72 | 3740 | 76 | 3835 | 74 |
| ARSOK-S1 | 3421 | 69 | 4046 | 74 | 3734 | 71 |
| GA 04S | 3639 | 65 | 3766 | 71 | 3703 | 68 |
| Tamspan 90 | 3526 | 70 | 3323 | 74 | 3425 | 72 |
| OLin | 3612 | 69 | 2998 | 74 | 3305 | 71 |
| Pronto | 3326 | 72 | 2886 | 77 | 3106 | 74 |
| LSD 0.05 | 416 | ns | 577 | 2 | | |
| Virginia³ | | | | | | |
| Gregory | na | na | 4866 | 69 | 4866 | 69 |
| Brantley | 4456 | 72 | 4433 | 72 | 4445 | 72 |
| Perry | 4102 | 72 | 4740 | 72 | 4421 | 72 |
| Jupiter | 4147 | 73 | 4409 | 73 | 4278 | 73 |
| LSD 0.05 | ns | ns | ns | 1 | | |

1 Runner average – 4,694 lbs/A, 74% TSMK; Spanish average – 3,599 lbs/A, 74% TSMK; Virginia average – 4,612 lbs/A, 72% TSMK.

2 % TSMK = Percent total sound mature kernels.

3 Market type.

4 Data was not available because variety was not included in given year.

Table 2. Peanut yields and grades from Caddo County variety tests in 2006, 2007, and 2 year average.

| Variety or line | Yield (lbs/A) | Grade (% TSMK) | Yield (lbs/A) ¹ | Grade (% TSMK) ^{1,2} | Yield (lbs/A) | Grade (% TSMK) |
|-----------------------------|------------------|----------------|----------------------------|-------------------------------|-----------------------|----------------|
| | ----- 2006 ----- | | ----- 2007 ----- | | ----- 2 yr Avg. ----- | |
| Runner³ | | | | | | |
| ARSOK-R1 | 4737 | 69 | 2831 | 72 | 3784 | 71 |
| Tamrun OL 01 | 4333 | 70 | 2564 | 70 | 3448 | 70 |
| Tamrun 96 | 4125 | 70 | 2600 | 68 | 3363 | 69 |
| Tamrun OL 02 | 4283 | 67 | 2323 | 68 | 3303 | 68 |
| SW Runner | 4097 | 67 | 2355 | 70 | 3226 | 68 |
| Flavorunner 458 | na ⁴ | na | 2355 | 69 | 2355 | 69 |
| Tamrun OL 07 | na | na | 2278 | 68 | 2278 | 68 |
| LSD 0.05 | 406 | 3 | 374 | 2 | | |
| Spanish³ | | | | | | |
| AT 98-99-14 | 4061 | 63 | 2804 | 70 | 3433 | 67 |
| Spanco | 3979 | 67 | 2314 | 70 | 3147 | 68 |
| ARSOK-S1 | 3771 | 66 | 2350 | 68 | 3061 | 67 |
| Tamspan 90 | 3889 | 66 | 1938 | 65 | 2913 | 66 |
| GA 04S | 4007 | 64 | 1661 | 63 | 2834 | 63 |
| Pronto | 3653 | 67 | 1788 | 72 | 2720 | 70 |
| OLin | 3802 | 66 | 1593 | 68 | 2697 | 67 |
| Tamnut 06 | na | na | 2246 | 64 | 2246 | 64 |
| LSD 0.05 | ns | 2 | 521 | 4 | | |
| Virginia³ | | | | | | |
| Perry | 4029 | 70 | 2423 | 71 | 3226 | 70 |
| Brantley | 4057 | 68 | 1974 | 68 | 3015 | 68 |
| Jupiter | 4111 | 67 | 1892 | 64 | 3002 | 65 |
| Gregory | na | na | 2242 | 65 | 2242 | 65 |
| LSD 0.05 | ns | 1 | 455 | 3 | | |

1 Runner average – 2,472 lbs/A, 69% TSMK; Spanish average – 2,087 lbs/A, 68% TSMK; Virginia average – 2,133 lbs/A, 67% TSMK.

2 % TSMK = Percent total sound mature kernels.

3 Market type.

4 Data was not available because variety was not included in given year.

Table 3. Peanut yields and grades from Tillman County variety tests in 2007.

| Variety or line | Yield (lbs/ A) ¹ | Grade (% TSMK) ^{1,2} |
|-----------------------------|-----------------------------|-------------------------------|
| ----- 2007 ----- | | |
| Runner³ | | |
| ARSOK-R1 | 5060 | 77 |
| Tamrun OL01 | 4701 | 73 |
| Tamrun OL02 | 4447 | 72 |
| Tamrun 96 | 4305 | 73 |
| Tamrun OL07 | 4069 | 72 |
| Flavorunner 458 | 3757 | 74 |
| SW Runner | 3453 | 72 |
| LSD 0.05 | 964 | 3 |
| Spanish³ | | |
| AT 98-99-14 | 3517 | 70 |
| GA 04S | 3494 | 69 |
| Spanco | 3453 | 73 |
| ARSOK-S1 | 3390 | 72 |
| Tamnut 06 | 3217 | 69 |
| Tamspan 90 | 3145 | 72 |
| Pronto | 3086 | 74 |
| OLin | na ⁴ | na |
| LSD 0.05 | 420 | 3 |
| Virginia³ | | |
| Perry | 4397 | 70 |
| Gregory | 4383 | 68 |
| Brantley | 3889 | 69 |
| Jupiter | 3281 | 69 |
| LSD 0.05 | 924 | ns |

1 Runner average – 4,256 lbs/ A, 73% TSMK; Spanish average – 3,329 lbs/ A, 71% TSMK; Virginia average – 3,988 lbs/ A, 69% TSMK.

2 % TSMK = Percent total sound mature kernels.

3 Market type.

4 Data for OLin was not available as plots were affected by Round-up® that was applied with a rope-wick. OLin was only variety affected since it was taller than other plants.