

# Peanut Variety Test

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## 2008 progress made possible through OPC and NPB support

- Evaluated current peanut cultivars and breeding lines at 3 locations in southwest Oklahoma.
- ARSOK-R1 and Tamrun OL07 performed well at most locations. Grades of ARSOK-R1 were excellent at all three locations.

### 1. 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. Variety X location interaction was significant so the results were presented by county (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, liquid inoculant formulation was applied with the seed. Tests were conducted using randomized complete block design with five replications. The entire plot was dug and then thrashed 3-4 days later. Peanuts were placed in a drier until moisture reached 10%.

### 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 lb/acre 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.

The CV value or coefficient of variation, listed at the bottom of each table is used as a measure of the precision of the experiment. Lower CV values will generally relate to lower experimental error in the trial. Uncontrollable or immeasurable variations in soil fertility, soil drainage, and other environmental factors contribute to greater experimental error and higher CV values.

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 soybean 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 soybean management can be found at

**[www.peanut.okstate.edu/](http://www.peanut.okstate.edu/)**

Appreciation is expressed for the cooperation and assistance from:

#### **OSU**

John Damicone  
Hasson Melouk  
Kelly Chenault

#### **Caddo Research Station**

Bobby Weidenmaier, Agriculturalist  
Mike Brantes, Field Forman  
Kyle Scaggs, Field Assistant

#### **Cooperators**

Gayle Thompson, Beckham County  
Dale Keahy, Beckham County  
Merlyn Shantz, Caddo County

***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 5740 lb/A with an average grade of 76%.

In the Spanish test ARSOK-S1, Tamnut 06, AT 98-99-14, and Spanco were the top yield performers. Average yield and grade for the Spanish test were 5391 lb/A and 71% TSMK, respectively. ARSOK-S1 is an experimental variety that has not been released at this time. Tamnut 06 is a new release from Texas A&M in the spring of 2007.

Average yield and grade in the Virginia test was 5189 lb/A and 72% TSMK, respectively. All four varieties have been consistent performers over the last three years.

### ***Caddo County***

Overall, growing conditions were good during the season at Fort Cobb. Early season weed competition and herbicide application reduced above ground biomass initially. Average yield for the Runner test was 3490 lb/A with an average grade of 70% TSMK. Tamrun 96, ARSOK R-1, and SW Runner were at the top of the yield list. ARSOK R-1 has performed well over the last 2 years at Fort Cobb.

Average yield and grade for the Spanish test were 3267 lb/A and 69% TSMK, respectively.

Yields and grades were extremely low for the Virginia test. Average yield and grade in the Virginia test was 2995 lb/A and 67% TSMK, respectively. Despite low yields in 2008, all four varieties have been consistent performers over the last two years.

### ***Hydro, OK***

This was the first year for a test location near Hydro, OK. Good growing conditions were observed throughout the growing season. Early season precipitation was above normal which delayed planting in some cases but the trial was planted on time. Yields were excellent at this location, however, grades were low due to a cool August and September which slowed maturity. Average yield for the Runner test was 6280 lb/A with an average grade of 64%. Tamrun OL 07 performed very well at this location but grade was lower than some other varieties.

Average yield and grade for the Spanish test were 5435 lb/A and 68% TSMK, respectively. The cool weather in the fall did not seem to hurt the maturity of the Spanish lines compared to the Runner lines.

Average yield and grade in the Virginia test was 5716 lb/A and 64% TSMK, respectively. No differences were observed between varieties at this location.

Table 1. Peanut yields and grades from Beckham County variety tests in 2008.

Variety or line	Yield (lb/A)	Grade (% TSMK) <sup>2</sup>
<b>Runner<sup>1</sup></b>		
Tamrun 96	6331	76
ARSOK-R1	5928	79
SW Runner	5899	74
Tamrun OL 07	5710	76
Tamrun OL 02	5463	74
Flavorunner 458	5107	78
	CV	10.3
	LSD 0.05	781
<b>Spanish<sup>1</sup></b>		
AT 98-99-14	6141	73
Tamnut 06	5961	71
ARSOK-S1	5619	73
Spanco	5616	69
GA 04S	5147	65
Tamspan 90	5140	72
OLin	4828	71
Pronto	4672	73
	CV	7.2
	LSD 0.05	502
<b>Virginia<sup>1,4</sup></b>		
Gregory	5173	70
Brantley	4599	71
Perry	5514	78
Jupiter	5470	69
	CV	14.6
	LSD 0.05	NS

<sup>1</sup> Market type.

<sup>2</sup> % TSMK = Percent total sound mature kernels.

Table 2. Peanut yields and grades from Caddo County variety tests in 2008.

Variety or line	Yield (lb/A)	Grade (% TSMK) <sup>2</sup>
<b>Runner<sup>1</sup></b>		
Tamrun 96	3757	68
ARSOK-R1	3764	74
SW Runner	3812	71
Tamrun OL 07	3416	68
Tamrun OL 02	3311	68
Flavorunner 458	2882	69
	CV	7.6
	LSD 0.05	352
		3.4
		3
<b>Spanish<sup>1</sup></b>		
Tamnut 06	3608	69
Spanco	3539	67
ARSOK-S1	3420	69
OLin	3325	70
Tamspan 90	3278	67
AT 98-99-14	3224	65
Pronto	3184	66
GA 04S	2556	62
	CV	11.3
	LSD 0.05	477
		3.1
		2.7
<b>Virginia<sup>1,4</sup></b>		
Perry	3386	68
Jupiter	3122	67
Brantley	2820	66
Gregory	2653	68
	CV	31
	LSD 0.05	ns
		4.5
		ns

<sup>1</sup> Market type.

<sup>2</sup> % TSMK = Percent total sound mature kernels.

Table 3. Peanut yields and grades from Hydro, OK variety tests in 2008.

Variety or line	Yield (lb/A)	Grade (% TSMK) <sup>2</sup>
<b>Runner<sup>1</sup></b>		
Tamrun OL 07	7402	61
Flavorrunner 458	6360	66
ARSOK-R1	6309	65
Tamrun 96	6229	66
SW Runner	6040	65
Tamrun OL 02	5340	59
	CV	17.6
	LSD 0.05	4
<b>Spanish<sup>1</sup></b>		
Tamnut 06	5981	65
OLin	5961	70
AT 98-99-14	5833	68
ARSOK-S1	5612	68
GA 04S	5271	66
Tamspan 90	5122	67
Spanco	4879	70
Pronto	4824	71
	CV	12.9
	LSD 0.05	2
<b>Virginia<sup>1,4</sup></b>		
Jupiter	6236	63
Perry	5902	65
Gregory	5485	61
Brantley	5242	66
	CV	7.7
	LSD 0.05	ns

<sup>1</sup> Market type.

<sup>2</sup> % TSMK = Percent total sound mature kernels.