



2012 Blaine County Peanut Variety Trial Summary



Location: Weatherford, OK

Date Planted: 5/4/2012

Date Dug and Harvested: 10/11/2012 and 10/15/2012

All variety tests were conducted under an extensive pest management program. The objective was to prevent as much outside influence from pest pressures (weed, disease, and insect) on yield and grade as possible. All test plots were planted using two 36-inch rows that were 20 feet long. Plots were seeded at a rate of five seeds per row foot (139,392 seeds/A). 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 three to four days later. Peanuts were placed in a drier until moisture reached 10%. Total sound mature kernels (TSMK) was determined on a 200 g sample from each plot.

Interpreting data

Details of establishment and management of each test are listed in footnotes below the tables. Least significant differences, or 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 the yield difference is real, with only a 5% probability 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.

The coefficient of variation, or CV value, 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.

Blaine County

The trial was planted on May 4 into a conventional till seedbed. No significant foliar diseases were observed during the growing season. Sclerotinia was observed in plots and yield potential was most likely reduced in some varieties. The Virginia test was not harvest for yield due to planting problems.

Average yield for the runner test was 4020 lbs/A with an average grade of 73% (Table 1). ARSOK-R35, Red River Runner, and Tamrun OL07 had a higher yield when compared to the other commercially available varieties. Grade of Red River Runner and ARSOK-R35 was excellent as well. ARSOK-R35 is a USDA-ARS breeding line from Stillwater.

In 2012, average yield and grade for the Spanish test were 4297 lbs/A and 62% TSMK, respectively. In the Spanish test, AT98-99-14 was the top yielding variety.

Table 1. Peanut yields and grades from Blaine County variety tests in 2012.

Variety or line	Yield (lb/A)	Percent of Trial Average	Grade (% TSMK) ²	Revenue (\$/A)
Runner¹				
ARSOK-R35	5799	144%	78	1134
Red River Runner	5343	133%	76	1013
Tamrun OL07	5195	129%	72	942
GA-09B	4588	114%	75	858
Flo-Run '107'	4080	101%	72	735
Florida-07	4005	100%	71	707
ACI 149	3618	90%	73	661
FlavorRunner 458	3517	87%	69	605
McCloud	3052	76%	72	546
ACI-WT09-240	2579	64%	73	471
ACI-WT09-243	2442	61%	73	444
Mean	4020		73	
CV	13		5	
LSD 0.05	654		5.1	
Spanish¹				
ARSOK-S140-10L	5361	112%	70	930
Tamnut 06	4992	104%	67	836
Olin	4675	98%	68	792
AT 98-99-14	4130	86%	70	717
Mean	4790		69	
CV	10		2	
LSD 0.05	638		2.0	

¹ Market type.

² % TSMK = Percent total sound mature kernels.

³ Not significantly different at a probability level of 5%.

Table 2. Peanut yields and grades from Blaine-Custer County variety tests in 2010-2012 and 2-3 year averages.

Variety or line	Yield (lb/A)	Grade (% TSMK)	Yield (lb/A)	Grade (% TSMK)	Yield (lb/A)	Grade (% TSMK)	Yield (lb/A)	Grade (% TSMK)	Yield (lb/A)	Grade (% TSMK)
	---- 2010 ----		---- 2011 ----		---- 2012 ----		---- 2 yr Avg. ----		---- 3 yr Avg. ----	
Runner¹										
Florida 07	6552	69.4	4784	67	5343	76	5064	71	5560	71
GA-09B	7162	68.4	4095	55	5195	72	4645	64	5484	65
Red River Runner	6679	68.5	4821	61	4588	75	4705	68	5363	68
ACI 149	7184	70.0	3899	53	3517	69	3708	61	4867	64
Tamrun OL 07	--	--	4970	61	4005	71	4487	66	--	--
Flavorrunner 458	--	--	4149	54	3618	73	3884	64	--	--
LSD 0.05	ns	ns	823	6	654	5				
Spanish¹										
AT 98-99-14	6803	64.9	5295	59	4130	70	4713	65	5409	65
Tamnnt 06	5852	65.3	3793	60	4992	67	4393	64	4879	64
OLin	5427	65.3	3557	66	4675	68	4116	67	4553	67
ARSOK-S140-10L	--	--	4545	63	5361	70	4953	66	--	--
LSD 0.05	598	2.5	802	4	638	2				

¹ Market type.

² % TSMK = Percent total sound mature kernels.

³ Data was not available because variety was not included in the trial.