2012 Beckham County Peanut Variety Trial Summary

Location: Sayre, OK
Date Planted: 5/15/2012
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 25 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.

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The trial was planted on May 15 into a strip-till seedbed. No significant foliar diseases were observed during the growing season. The only yield limiting disease that was observed in the plots was pod rot. Pod rot was severe in some of the Virginia varieties.

Average yield for the runner test was 6019 lbs/A with an average grade of 73% (Table 1). No significant differences were observed between Runner varieties, all yields were excellent.

In 2012, average yield and grade for the Spanish test were 5203 lbs/A and 69% TSMK, respectively. No significant differences were observed between Spanish varieties, however, AT98-99-14 was at the top when considering revenue generated per acre.

Average yield and grade in the Virginia test was 5312 lbs/A and 66% TSMK, respectively. Some pod rot was visible at harvest and ratings are provided in Table 1 .

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

Variety or line	Pod Rot (% of plot)	Yield (lb/A)	Percent of Trial Average	Grade (% TSMK)[2]	Revenue ($/A)
Runner[1]					
ARSOK-R35	0	6469	107%	73	1188
ACI 149	0	6394	106%	74	1179
ACI-WT09-240	0	6265	104%	75	1169
GA-09B	0	6130	102%	74	1136
Flo-Run '107'	0	5986	99%	75	1115
ACI-WT09-243	0	5844	97%	76	1103
McCloud	0	5924	98%	72	1065
Tamrun OL07	0	5939	99%	72	1062
Red River Runner	0	5572	93%	76	1062
FlavorRunner 458	0	5590	93%	74	1039
Florida-07	0	6095	101%	65	991
Mean		6019		73	
CV		9		3.5	
LSD 0.05		ns		3	
Spanish[1]					
AT 98-99-14	0	5812	112%	72	1057
ARSOK-S140-1OL	0	5068	97%	69	881
Olin	0	4882	94%	70	863
Tamnut 06	0	5049	97%	67	848
Mean		5203		69	
CV		11		2	
LSD 0.05		ns		2	
Virginia[1]					
ARSOK-V30B	0	5844	110%	71	1080
Jupiter	7	5761	108%	66	996
AT-07V	6	5804	109%	64	974
Gregory	3	5474	103%	64	913
GA-11J	1	4984	94%	66	853
N08070ol JC	2	4667	88%	67	817
N08081ol JC	2	4650	88%	67	814
Mean	3	5312		66	
CV	56	7		5	
LSD 0.05	3	618		5	

[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 Beckham 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. - - - -	
Runner[1]										
GA-09B	5359	70	5554	74	6130	74	5842	74	5681	73
Red River Runner	5223	74	5615	74	5572	76	5594	75	5470	75
Tamrun OL 07	5064	71	5049	69	5939	72	5494	70	5351	71
Flavorunner 458	4866	75	5129	69	5590	74	5360	71	5195	73
Florida 07	--[3]	--	5543	70	6095	65	5819	68	--	--
ACI 149	--	--	5209	71	6394	74	5801	72	--	--
LSD 0.05	ns	ns	375	2	ns	3				
Spanish[1]										
AT 98-99-14	4411	69	4563	68	5812	72	5187	70	4928	70
Tamnut 06	5374	67	3532	65	5049	67	4291	66	4652	66
OLin	4206	67	3920	67	4882	70	4401	69	4336	68
140-1OL	--	--	3772	66	5068	69	4420	67	--	--
LSD 0.05	706	4	633	2	ns	2				
Virginia[1]										
Jupiter	3528	65	4930	72	5761	66	5345	69	4740	68
N08081	4256	69	4632	70	4650	67	4641	68	4513	69
AT-07V	--	--	5351	62	5804	64	5578	63	--	--
LSD 0.05	ns	3	568	4	618	5				

[1] Market type.

[2] % TSMK = Percent total sound mature kernels.

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