



2021 OKLAHOMA PEANUT VARIETY TRIALS

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2021 Progress Made Possible Through Oklahoma Peanut Commission and National Peanut Board Support

- Performance of runner varieties depended on location, but averages across locations in 2021 indicate that cultivar Lariat was the top entry in value per acre.
- No significant differences in yield were seen among Spanish entries across locations and years, but the small-seeded runner-type cultivars AT98-99 and Span17 were the leaders in value per acre.
- Significant differences were noted in Virginia entry yields across locations and years. Cultivars Contender, Comrade and ACI351 were the top performers for value per acre among those currently grown.

Peanut production in Oklahoma is generally located in three geographical regions across the state: southwest, west central and far west. Each region differs from the others in environmental and biological stressors that affect crop production, so the same peanut cultivar will likely perform differently in each growing region. Therefore, the Oklahoma Peanut Variety Trials are conducted in each region annually and are designed to test the performance of commonly grown cultivars and potential cultivar releases against each other. Results of these annual trials can serve as a guide for producers when choosing a cultivar to plant.

Variety Trial Methods

All entries (cultivars and advanced breeding lines) in the Oklahoma Peanut Variety Trials were high-oleic with the exception of the Virginia-type cultivar Jupiter. The following entries were included in all locations in 2021: 16 runner types: Cultivars ACI080, ACI476, ACI3321 and Lariat and breeding lines ARSOK R90-12, ARSOK R91-2, ARSOK R92-13, ARSOK R93-1, ARSOK R93-10, ARSOK R94-4, ARSOK 95-1, ARSOK R96-7, ARSOK R96-8, ARSOK R106-1L, ARSOK R106-9L, ARSOK R107-2L and ARSOK R109-1L; 12 Spanish types: Cultivars AT98-99, OLé, Tamnut OL06, Schubert and Span17, and breeding lines ARSOK S88-2, ARSOK S96-5, ARSOK S104-2E, ARSOK S104-3E, ARSOK S105-2E, ARSOK S105-3E and ARSOK S105-4E; 12 Virginia types: Cultivars ACI351, Comrade, Contender and Jupiter, and breeding lines ARSOK V-98, ARSOK V99, ARSOK V100-1, ARSOK V100-2, ARSOK V101-1, ARSOK V103-1, ARSOK V103-4 and ARSOK V103-5.

All variety trials 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. The interaction between variety and location was significant so the results were separated by location. Averages across locations and years were included to give producers a better estimate of line performance. Since the varieties and advanced lines responses 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 15 feet long. Plots were seeded at a rate of 5 seeds/row foot (139,392 seeds/A). Trials were conducted using randomized, complete block design with four replications. The entire plot was dug then thrashed two to three days later. Peanuts were placed in a dryer until moisture reached 10%. Percent total sound mature kernels (% TSMK) were determined on a 200 g sample from each plot. Analysis of variance (ANOVA) and significance were analyzed through the statistical analysis system (SAS, ver. 9.1).

Value/acre was determined by converting estimated plot yields to tons/acre and using the 2021 contract price values for each market-type (\$575 for runner types; \$600 for Spanish and Virginia types). No adjustments were made for damaged kernels or concealed damage. Virginia \$/A values may be underestimated, as grade is not as large a factor for in-shell peanuts and the ELK bonus was not added in the final value/A figure. Calculations of \$/A are based on yield and grade only and do not include possible input costs. The following formula was used: $\$/A = \text{yield (tons/A)} * \text{contract price (\$/ton)} * \text{grade}$.

Intepreting Data

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 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 (CV) value listed at the bottom of each table is used to measure 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 management conditions similar to those of the trials. The relative yields of all peanut varieties are affected by crop management and by environmental factors, including soil type, summer conditions, soil moisture, disease and insects.

2021 Caddo County Variety Trial

Location: Ft. Cobb, Oklahoma (Oklahoma Agricultural Experiment Station)

Date Planted: May 7, 2021

Date Dug: Oct. 15, 2021

Date Threshed: Oct. 18, 2021

The trial was planted into a conventional till seedbed was used and managed for foliar and soil-borne disease throughout the season. Average yield for the runner test was 5,043 lbs./A and average grade was 72% TSMK (Table 1) with entries Lariat, ACI476 and several breeding lines having higher yields compared to other genotypes tested. Both average yield and grade were higher for most entries than in recent past years.

Among the Spanish entries tested, the average yield and grade were 3,956 lbs./A and 68% TSMK, respectively. In Caddo County, statistical differences among entries were reported for yield with all cultivars except Tamnut OL06 being among the top performers. ARSOK S88-2 was the top yielding breeding line at 4,195 lbs./A. The small-seeded runner growth habit cultivars AT98-99 and Span17 are expected to have higher yields and grades, both grading highest at 69% and 71% TSMK, respectively.

Entries in the Virginia test averaged 4,615 lbs./A with an average grade of 70% TSMK. Statistical differences were reported for yield and grade. Contender was the top yielder but was statistically indistinguishable from several other cultivars and breeding lines. All breeding lines tested, with the exception of ARSOK V98, ARSOK V100-2 and ARSOK V103-5, yielded well and were not statistically different that the cultivars tested.

Table 5 contains Caddo County yield and grade data averaged across 2020-2021. Average yield among runner entries for the two-year period was 4,818 lbs./A, while the average grade was 71% TSMK. No significant differences in yield were reported for runner entries over the two-year period. For Spanish entries, significant differences in yield were reported over the two years. Numerically, the small-seeded runner cultivars AT98-99 and Span17 were the top yielders, averaging 4,596 and 4,669 lbs./A., respectively, but the two were statistically not different from cultivars OLé and Schubert. The average yield for Virginia entries in 2020-2021 was 4,716 lbs./A, and statistical differences in yield were seen among entries. The top yielding cultivars were Jupiter, Comrade, Contender and ACI351. Several breeding lines were not statistically different from the best performing cultivars with respect to yield, grade and seed size.

2021 Custer County Variety Trial

Location: Weatherford, Oklahoma (Les Crall Farms)

Date Planted: May 3, 2021

Date Dug: Oct. 1, 2021

Date Threshed: Oct. 6, 2021

The trial was planted into a conventional till seedbed and managed for weeds as well as foliar and soil-borne disease throughout the season. Yields for the Custer County trial were exceptional for all market-types compared to past years. The average yield for the runner test (Table 2) was 5,695 lbs./A with an average grade of 67% TSMK. Statistical differences for yield and grade were reported, but the top yielding cultivars were statistically similar, all exceeding 6,000 lbs./A. Several breeding lines also approached or exceeded yields attained by the cultivars tested.

Among Spanish entries, small-seeded runner cultivar AT98-99 yielded similar to runner cultivars at 6,259 lbs./A. The trial averaged 4,655 lbs./A and 68% TSMK. Cultivar Span17 was also a top yielder at 4,586 lbs./A, and among breeding lines, ARSOK S96-5 had the highest yield at 5,066 lbs./A.

Virginia entries averaged 5,251 lbs./A and a grade of 66% TSMK. Slight significant differences in yield were noted among entries. Cultivar Jupiter and breeding line ARSOK V101-1 had the highest yields at 6,405 and 5,921 lbs./A, respectively. Grade differences were significant among entries and ranged from 63% to 68% TSMK.

Table 6 contains 2020-2021 two-year averages in Custer County. Statistical differences were seen among runner entries for yield with the average yield being 5,123 lbs./A. and the average grade being 68% TSMK. Among runner entries, cultivar Lariat was numerically the highest in average yield at 5,755 lbs./A. Breeding line ARSOK R96-7 had the lowest average yield over the two-year period at 4,480 lbs./A.

Significant differences were seen among Spanish entries over the two-year period where the average yield was 4,503 lbs./A and average grade was 67% TSMK. As is expected by small-seeded runner type plants, yields were highest for cultivars AT98-99 and Span17, which averaged 5,177 and 5,130 lbs./A, respectively. Cultivar Tamnut OL06 had the lowest average yield at 3,709 lbs./A.

Statistical differences were also reported for Virginia-type entries in 2020-2021 for an average yield of 4,874 lbs./A for the trial period. Differences in grade were also among entries, averaging 66% TSMK. Numerically, Contender was the top yielder at 5,624 lbs./A. The top yielding breeding line was ARSOK V101-1 at 5,346 lbs./A.

2021 Love County Variety Trial

Location: Thackerville, Oklahoma (Anthony Reed Farms)

Date Planted: May 10, 2021

Date Dug: Sept. 30, 2021

Date Threshed: Oct. 4, 2021

The trial was planted into a conventional till seedbed and managed for foliar and soil-borne disease throughout the season. Weed management of this trial location proved difficult in 2021 and resulted in lower yields across market-types. Table 3 shows the 2021 yield and grade data from Love County. Statistical differences were seen among entries. Average yield and grade for the runner test was 3,020 lbs./A and 68% TSMK, both of which were

considerably lower than in 2020. ACI080 had the highest yield among cultivars tested in the trial at 3,388 lbs./A, while ARSOK R106-9L was the best yielder among breeding lines at 3,533 lbs./A.

Spanish entry performance was also severely below normal in Love County for 2021 with the average yield being 2,095 lbs./A and an average grade of 66% TSMK. Cultivar Span17 was the highest in yield at only 2,791 lbs./A and a grade of 69% TSMK. Breeding line ARSOK S104-3E was poorest in yield at 1,452 lbs./A and a grade of 65% TSMK. Grades were unusually low for the Spanish trial, averaging 60-69% TSMK.

Average yield and grade in the Virginia-type test was below average at 3,080 lbs./A and 62% TSMK. The top yielder was breeding line Contender at 3,614 lbs./A and a grade of 66% TSMK. Grades of Virginia-type entries ranged from 59-70% TSMK, and statistical differences among entries were found.

Table 7 lists the average results from Love County over a two-year period (2020-2021). No statistical differences in yield were reported for runner entries, which averaged 4,014 lbs./A. Numerically, the highest yielder was breeding line ARSOK R91-2 at 4,485 lbs./A. Grades over the two-year period ranged from 65-73% TSMK, averaging 70% TSMK.

The average yield for Spanish entries for 2020-2021 was 3,323 lbs./A, but no statistically significant differences were noted among entries. Spanish grades averaged 64-70% TSMK. The small-seeded runner cultivars AT98-99 and Span17 both had the numerically highest yields at 3,831 and 3,945 lbs./A, and averaged grades of 69% and 70% TSMK, respectively.

Average statistical differences in yield were not reported among Virginia-type entries, but the two-year average for Love County was 3,955 lbs./A. Among cultivars tested, Contender was numerically the highest at 4,259 lbs./A., and ARSOK V101-1 was the top yielding breeding line.

Performance Across Locations

Table 4 includes Oklahoma Peanut Variety Trials yield and grade data averaged across locations for 2021. Statistical differences for yield were not reported for runner types but were seen for Spanish and Virginia types. Among the runner types tested, cultivar ACI3321 had the highest yield at 5,092 lbs./A, but all cultivars tested had yields within 312 lbs. of each other. Yields were similar when compared to years past (4,586 lbs./A in 2021 compared to 4,749 lbs./A in 2020), despite the below average yields reported in 2021 for the Thackerville location. The same is true for average grades in 2021 (69% TSMK) compared to those in 2020 (69% TSMK). The top average yielding Spanish entry across locations was AT98-99 at 4,673 lbs./A. With the exception of Tamnut OL06, all cultivars tested were similar in yield. Across locations in 2021, the top yielding Virginia-type cultivars were Contender and Jupiter at 4,829 and 5,012 lbs./A, respectively. The top breeding line was ARSOK V101-1, which averaged 4,651 lbs./A.

Table 8 shows results from the Oklahoma Peanut Variety Trials averaged across location and over two years (2020-2021). Averaged over years and across locations, the top

performing runner entry was Lariat with a yield of 4,919 lbs./A. Average yields for all runner types tested were not statistically different with the exception of ARSOK R96-8, which performed the poorest, averaging 4,206 lbs./A. Among the Spanish entries, the small-seeded runner-types AT98-99 and Span17 yielded highest at 4,535 and 4,581 lbs./A, respectively. Significant differences in yield were found among Virginia entries across years and locations with Contender averaging the highest yield (numerically) at 4,977 lbs./A. Cultivars Jupiter, Contender, Comrade and ACI351 were not statistically different from each other or from breeding lines ARSOK V99, ARSOK V101-1 or ARSOK V103-1.

Special thanks to Lisa Myers and Angie Harting for technical support and to Bobby Weidenmaier, Harley Houston and Brennan Leighton at the Caddo Research Station for location support. Thanks also to farmer cooperators Les Crall and Anthony Reed.



Table 1. Yield, grade, average seed weight, seed size distribution and value per acre for entries in the Caddo County (Ft. Cobb), Oklahoma peanut variety trial in 2021.⁶

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Runner¹								
ACI080	4679bc	93	74a	63h	27f	36a	6a	995
ACI476	5372ab	107	64bc	62h	28f	27b	5a	988
ACI3321	5566a	110	72a	76d-f	46c-e	18cd	4a-c	1152
Lariat	5114a-c	101	74a	75ef	48b-e	16de	4a-c	1088
ARSOK R90-12	4807a-c	95	70a-c	79c-e	42e	18cd	3c-e	967
ARSOK R91-2	5372ab	107	75a	84bc	53a-d	13e-h	2d-f	1158
ARSOK R92-13	5340a-c	106	64c	85b	50a-e	12f-h	2d-f	983
ARSOK R93-1	5211a-c	103	76a	83bc	55ab	11gh	3c-e	1139
ARSOK R93-10	4856a-c	96	70a-c	74fg	49b-e	16d-f	2d-f	977
ARSOK R95-1	5307a-c	105	74a	75ef	44de	22c	3c-e	1129
ARSOK R96-7	4694bc	93	76a	81b-d	58a	10h	2d-f	1026
ARSOK 96-8	4566c	91	72a	85b	54a-c	6i	1f	945
ARSOK R106-1L	4824a-c	96	68a-c	112a	55ab	4i	2d-f	943
ARSOK R106-9L	4856a-c	96	74a	74f-g	48b-e	15d-g	3c-e	1033
ARSOK R107-2L	5066a-c	100	76a	69g	47b-e	19cd	4a-c	1107
ARSOK R109-1L	5066a-c	100	74a	75ef	43e	18cd	3c-e	1078
Mean	5043.6		71.9	78.4	46.9	16.3	3.1	
CV	9.5		4.6	3.8	11.3	15.2	32.3	
LSD (0.05)	802.9		7.7	4.9	8.8	4.1	1.7	
Spanish¹								
AT98-99	5001a	126	69	56cd	45cd	20c	3b-d	1035
OLé	4372ab	111	68	61b	51b	13f	2cd	892
Schubert	4791a	121	66	51e-g	25e	33a	7a	949
Span17	5066a	128	71	58bc	52ab	16d-	2cd	1079
Tamnut OL06	3840b-d	97	66	47h	28e	30b	7a	760
ARSOK S88-2	4195a-c	106	69	51f-h	44cd	19cd	4bc	868
ARSOK S96-5	3904b-d	99	66	65a	57a	6g	1d	773
ARSOK S104-2E	3484cd	88	68	54d-f	47b-d	17de	3b-d	711
ARSOK S104-3E	3033d	77	66	52d-g	44cd	19cd	2cd	601
ARSOK S105-2E	3210d	81	66	49gh	43d	18cd	5b	636
ARSOK S105-3E	3484cd	88	67	55de	50bc	14ef	2cd	700
ARSOK S105-4E	3098d	78	67	51f-h	45cd	17de	5b	623
Mean	3956.8		67.6	44.3	44.3	44.3	18.4	
CV	13.1		4.8	7.8	7.8	10.3	35.3	
LSD (.05)	872.7		ns	3.8	5.8	3.2	2.2	
Virginia¹								
ACI351	4453a-c	96	67c	101ce	49d	12b-d	2a	981
Comrade	4421a-c	96	71ab	115a	56a-d	10c-e	1bc	941
Contender	5340a	116	72ab	91f	55a-d	13a-d	1bc	1181
Jupiter	5243a	114	71ab	91f	48d	17a	2a	1132
ARSOK V98	3824c	83	70bc	96ef	50cd	16ab	2a	817
ARSOK V99	4485a-c	97	71ab	94ef	55a-d	12b-d	1bc	982
ARSOK V100-1	4792a-c	104	70bc	106b-d	59ab	9de	0.7c	1063
ARSOK V100-2	4162bc	90	72ab	112ab	55a-d	9de	1bc	932
ARSOK V101-1	4888ab	106	74a	91fc	56a-d	14a-c	0.7c	1072
ARSOK V103-1	4872ab	106	71ab	107a-c	60a	9de	1bc	1066
ARSOK V103-4	4807a-c	104	69bc	112ab	57a-c	8e	2a	1037

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Virginia¹								
ARSOK V-103-5	4098bc	89	69bc	98d-f	51b-d	13a-d	2a	896
Mean	4615.5		70.4	101.1	54.4	11.7	1.4	
CV	13.3		2.9	5.2	8.5	23.3	54.7	
LSD (.05)	1033.4		3.4	15.4	7.8	4.6	0.9	

¹Market Type.

² % TSMK = Percent total sound mature kernels.

³SdWt/100 = Weight of 100 SMK.

⁴ELK = % kernels riding a 21.5/64" X 1" slotted screen for Virginia and 21/64" X 3/4" screen for runner and Spanish; MED=% Kernels riding an 18/64" but falling through a 21.5/64" or 21/64" screen; No.1=% kernels riding a minimum grade screen (16/64" for runner and Spanish and 15/64 for Virginia) but falling through a 18/64".

⁵Calculated based on peanut market-type contract price 2021 (\$575 for runners; \$600 for Spanish and Virginia). ELK bonus not added for Virginias.

⁶Values within the same column followed by the same letter are not significantly different at P = .05; ns = non-significant.



Table 2. Yield, grade, average seed weight, seed size distribution and value per acre for entries in the Custer County (Weatherford/Les Crall Farms), Oklahoma peanut variety trial in 2021.

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Runner¹								
ACI080	6543a	115	64c-e	61hi	26fg	28a	9b	1202
ACI476	6485a	114	59ef	59i	22fg	27ab	8ab	1100
ACI3321	6453ab	113	57f	62g-i	21g	24a-c	10a	1057
Lariat	6115a-c	107	71a	69ef	38de	23a-c	8ab	1248
ARSOK R90-12	4807cd	84	69a-c	81bc	45a-d	16fg	4c-e	954
ARSOK R91-2	5163b-d	91	69a-c	76cd	41cd	21c-e	7a-d	1024
ARSOK R92-13	5114cd	90	73a	83b	50a-c	16ef	4c-e	1073
ARSOK R93-1	6034a-c	106	72a	72de	44a-d	19c-e	6a-e	1249
ARSOK R93-10	5986a-d	105	71a	67e-g	48a-c	17de	5b-e	1222
ARSOK R95-1	5727a-d	101	72a	73de	44a-d	20c-e	6a-e	1185
ARSOK R96-7	4905cd	86	71a	71de	53a	10fg	4c-e	1001
ARSOK 96-8	4694d	82	65b-e	80bc	51ab	6g	2e	877
ARSOK R106-1L	5308a-d	93	61ef	99a	44a-d	9g	3de	931
ARSOK R106-9L	5759a-d	101	70ab	67e-g	41b-d	21c-e	6a-e	1159
ARSOK R107-2L	6099a-c	107	63d-e	63h-i	31ef	23bc	5b-e	105
ARSOK R109-1L	5937a-d	89	64c-e	71de	35de	22b-d	3de	932
Mean	5695.1		67.1	72.3	39.6	18.9	5.7	
CV	13.8		5.7	5.1	14.4	17.7	36.3	
LSD (0.05)	1309.1		6.4	6.2	9.5	5.5	3.5	
Spanish¹								
AT98-99	6259a	134	67a	54cd	41c-e	19bc	5b	1258
OLé	4130bc	89	69a	58ab	52ab	14d	2c	855
Schubert	4792bc	103	69ab	47fg	27f	28a	9a	920
Span17	5211ab	112	67a	56bc	44b-d	18cd	4bc	1047
Tamnut OL06	4014c	86	65ab	45g	28f	27a	9a	783
ARSOK S88-2	4050c	87	70a	49e-g	38de	23ab	7a	851
ARSOK S96-5	5066bc	109	69a	62a	57a	7e	3bc	1049
ARSOK S104-2E	4162bc	89	67a	51d-f	44b-d	18cd	4bc	837
ARSOK S104-3E	4195bc	90	60b	50d-f	34ef	19c	4bc	755
ARSOK S105-2E	4114bc	88	67a	50d-f	43b-e	18cd	3bc	827
ARSOK S105-3E	4872bc	105	69a	52de	48a-c	18cd	4bc	1009
ARSOK S105-4E	5001bc	107	66ab	50d-f	43b-e	17cd	4bc	990
Mean	4655.8		66.7	52.0	41.6	18.4	5.0	
CV	14.4		5.6	4.8	13.4	14.7	27.1	
LSD (.05)	1132.8		6.3	4.2	9.4	4.7	2.3	
Virginia¹								
ACI351	5776a-c	110	68a	99a	47a-c	18a-c	2b-d	1238
Comrade	5114b-e	97	65ab	100a	44bc	16a-c	3bc	1043
Contender	5534a-d	105	67b	84de	46a-c	16a-c	3a-c	1174
Jupiter	6405a	122	68a	94a-d	48ab	15a-d	1d	1364
ARSOK V98	4534e	86	66ab	87c-e	42bc	18a-c	4ab	941
ARSOK V99	4937c-e	94	68a	95a-d	54a	12cd	3a-c	1051
ARSOK V100-1	5227b-e	100	66ab	99a	49ab	11cd	2b-d	1096
ARSOK V100-2	4936c-e	94	60c	78e	46bc	9d	2b-d	943
ARSOK V101-1	5921ab	113	68a	87b-e	40c	21a	5a	1280
ARSOK V103-1	5421b-d	103	66ab	97a-c	43bc	20ab	3bc	1137
ARSOK V103-4	4759de	91	66ab	95a-d	47a-c	15a-d	2cd	998

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Virginia¹								
ARSOK v103-5	4453e	85	63bc	95a-d	44bc	12b-d	3b-d	893
Mean	5251.4		66.3	91.7	45.9	15.2	2.8	
CV	9.9		3.8	7.3	10.3	29.8	31.7	
LSD (.05)	871.9		4.2	11.3	7.9	7.6	1.5	

¹Market Type.

²% TSMK = Percent total sound mature kernels.

³SdWt/100 = Weight of 100 SMK.

⁴ELK= % kernels riding a 21.5/64" X 1" slotted screen for Virginia and 21/64" X 3/4" screen for runner and Spanish; MED=% kernels riding a 18/64" but falling through a 21.5/64" or 21/64" screen

⁵Calculated based on peanut market-type contract price 2021 (\$575 for runners; \$60 for Spanish and Virginia). ELK bonus not added for Virginias.

⁶Values within the same column followed by the same letter are not significantly different at P = .05; ns = non-significant.



Table 3. Yield, grade, average seed weight, seed size distribution and value per acre for entries in the Love County (Thackerville, Anthony Reed Farms), Oklahoma peanut variety trial in 2021.⁶

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Runner¹								
ACI080	3388a-c	112	76a	61gf	15f	51a	9a	740
ACI476	3017a-d	100	67c	58g	20ef	38bc	7ab	581
ACI3321	3259a-d	108	68bc	71b-d	24ef	37bc	6a-c	637
Lariat	3114a-d	103	70bc	66ef	22ef	37bc	7ab	627
ARSOK R90-12	2759a-d	91	73ab	76b-d	23ef	43b	6a-c	579
ARSOK R91-2	3453ab	114	71a-c	77bc	29b-e	38bc	3c	705
ARSOK R92-13	2857a-d	95	71a-c	77bc	27c-e	37bc	6a-c	583
ARSOK R93-1	2662b-d	88	70bc	69c-e	37a-c	34c-e	4bc	536
ARSOK R93-10	3082a-d	102	66c	67d-g-f	24e	34c-e	5bc	585
ARSOK R95-1	3194a-d	106	68bc	69c-e	23ef	38bc	6a-c	624
ARSOK R96-7	3017a-d	100	65c	72b-e	40a	20f	4bc	564
ARSOK 96-8	2565d	85	67c	79b	42a	19f	3c	494
ARSOK R106-1L	3533a	117	59d	97a	37ab	14f	4bc	599
ARSOK R106-9L	2630cd	87	70bc	97a	26de	35c-e	6a-c	529
ARSOK R107-2L	2969a-d	98	70bc	65e-g	34a-d	37bc	5bc	598
ARSOK R109-1L	2823a-d	93	68	67d-f	25e	37bc	6a-c	552
Mean	3020.2		68.6	71.1	29.4	33.6	5.45	
CV	16.3		5.1	7.2	19.4	14.0	36.7	
LSD (0.05)	818.4		5.8	8.4	9.0	7.8	3.3	
Spanish¹								
AT98-99	2694ab	129	67ab	51a-c	36bc	21bc	7bc	541
OLé	2194a-c	105	66ab	56ab	46ab	14de	5cd	434
Schubert	2065a-c	99	63bc	48c	22d	29a	11a	390
Span17	2791a	133	69a	57a	45ab	18b-d	5cd	578
Tamnut OL06	2291a-c	109	66ab	47c	33cd	23b	8ab	454
ARSOK S88-2	1533c	73	68ab	49bc	37bc	23b	6b-d	313
ARSOK S96-5	2275c	109	66ab	57a	52a	9e	4cd	450
ARSOK S104-2E	2162a-c	103	68ab	54a-c	47ab	15d	4cd	441
ARSOK S104-3E	1452a-c	69	65a-c	48c	41a-c	17cd	5cd	283
ARSOK S105-2E	1597a-c	76	60c	59bc	39bc	15de	3d	287
ARSOK S105-3E	2194a-c	105	66ab	53a-c	44a-c	17b-d	3d	434
ARSOK S105-4E	1904a-c	91	68ab	53a-c	48ab	13de	3d	388
Mean	2095.9		65.9	51.9	40.8	17.9	5.6	
CV	31.3		4.9	8.5	10.6	19.7	33.6	
LSD (.05)	1106.9		5.5	7.5	12.8	5.9	3.1	
Virginia¹								
ACI351	3549a	115	61b-d	95b	36b-d	17b-e	4a-d	686
Comrade	3324ab	108	66a-c	107a	43b	16c-f	2d	688
Contender	3614a	117	66ab	85c-e	42bc	21ab	2d	756
Jupiter	33bbab	110	59d	85c-e	34d	18b-d	6a	630
ARSOK V98	2840ab	92	62b-d	79ef	35d	22a	4a-d	556
ARSOK V99	2629ab	85	61d-c	77f	36cd	18a-d	4a-c	505
ARSOK V100-1	2791ab	91	60cd	87cd	39b-d	14ef	3b-d	535
ARSOK V100-2	2920ab	95	59d	87cd	33d	14ef	5a-c	549
ARSOK V101-1	3146ab	102	70a	80ef	51a	15d-f	2d	699
ARSOK V103-1	3194ab	104	59d	80ef	39b-d	19a-c	6a	603
ARSOK V103-4	3081ab	100	60d	92bc	39b-d	13f	3b-d	591

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Virginia¹								
ARSOK V-103-5	2485b	81	60d	85de	35cd	17b-e	5a-c	476
Mean	3080.1		62.1	86.5	37.8	16.8	4.1	
CV	19.6		6.0	4.8	11.5	13.3	30.1	
LSD (.05)	1017.9		6.3	6.9	7.3	3.8	2.1	

¹Market Type.

²% TSMK = Percent total sound mature kernels.

³SdWt/100 = Weight of 100 SMK.

⁴ELK= % kernels riding a 21.5/64" X 1" slotted screen for Virginia and 21/64" X 3/4" screen for runner and Spanish; MED=% kernels riding a 18/64" but falling through a 21.5/64" or 21/64" screen; No.1=% kernels riding a minimum grade screen (16/64" for runner and Spanish and 15/64 for Virginia) but falling through a 18/64".

⁵Calculated based on peanut market-type contract price 2021 (\$575 for runners; \$600 for Spanish and Virginia). ELK bonus not added for Virginias.

⁶Values within the same column followed by the same letter are not significantly different at P = .05; ns = non-significant.



Table 4. Yield, grade, average seed weight, seed size distribution and value per acre for entries averaged across all locations tested in the 2021 Oklahoma peanut variety trial.⁶

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Runner¹								
ACI080	4867	106	72a	62gh	23f	38a	8a	1007
ACI476	4958	108	63c	59h	24f	31ab	7ab	898
ACI3321	5092	111	65bc	70d-f	30ef	27bc	6a-c	952
Lariat	4780	104	72a	70d-f	36c-e	26bc	6a-c	989
ARSOK R90-12	4125	90	71a	78b-c	37c-e	26bc	5b-e	842
ARSOK R91-2	4662	102	71a	79b	42a-d	24bc	4ef	952
ARSOK R92-13	4436	97	69ab	82b	42a-d	20cd	4ef	880
ARSOK R93-1	4635	101	72a	75cd	45a-c	22bc	4ef	959
ARSOK R93-10	4641	101	69ab	70d-f	40b-d	26bc	4ef	921
ARSOK R95-1	4743	103	71a	73de	37c-e	27bc	4ef	968
ARSOK R96-7	4205	92	71a	75cd	50a	13de	4ef	858
ARSOK 96-8	3941	86	68a-c	81b	39ab	10e	2f	770
ARSOK R106-1L	4555	99	63c	103a	45a-c	10e	3ef	825
ARSOK R106-9L	4415	96	72a	68ef	39c-e	24bd	5b-e	914
ARSOK R107-2L	4710	103	69ab	66ef	37c-e	24bd	5b-e	934
ARSOK R109-1L	4608	100	69ab	71de	34de	26bc	4ef	914
Mean	4586.2		69.2	73.9	38.1	22.9	4.8	
CV	29.5		7.5	7.3	27.3	40.2	44.2	
LSD (0.05)	ns		4.8	5.0	9.7	8.6	1.9	
Spanish¹								
AT98-99	4673a	131	68ab	53c	41de	20cd	5bc	953
OLé	3566a-c	100	68ab	58b	50b	14g	3d	727
Schubert	3882ab	109	65c-e	49ef	25g	30a	9a	757
Span17	4334ab	121	69a	57b	47b	17ef	4cd	897
Tamnut OL06	3382bc	95	66a-e	47f	29f	26b	8a	670
ARSOK S88-2	3258bc	91	69a	50de	40e	22c	6b	674
ARSOK S96-5	3748a-c	105	67a-c	61a	56a	7h	3d	753
ARSOK S104-2E	3269bc	92	68ab	53c	46bc	17e-g	4cd	667
ARSOK S104-3E	2893c	81	64e	50de	40e	18de	4cd	555
ARSOK S105-2E	2973c	83	65c-e	49ef	41c-e	17ef	4cd	580
ARSOK S105-3E	3517a-c	99	67a-c	53cd	47b	15fg	3d	707
ARSOK S105-4E	3334bc	93	67a-c	51c-e	45b-d	15e-g	4cd	670
Mean	3569.5		66.7	52.6	42.2	18.2	4.8	
CV	36.7		5.1	6.2	11.1	16.3	36.2	
LSD (.05)	1226.7		3.2	3.1	4.5	2.7	1.6	
Virginia¹								
ACI351	4592ab	106	65bc	98bc	44	16a-c	3	943
Comrade	4286ab	99	68ab	107a	48	14b-d	2	913
Contender	4829a	112	69ab	87ef	48	17ab	2	1054
Jupiter	5012a	116	66bc	89d-f	44	17ab	3	1037
ARSOK V98	3732b	86	66bc	87ef	42	18a	3	775
ARSOK V99	4017ab	93	67a-c	86ef	48	14b-d	3	843
ARSOK V100-1	4270ab	99	65bc	96b-d	49	11d	2	883
ARSOK V100-2	4006b	93	63c	99a0c	45	10d	2	801
ARSOK V101-1	4651ab	71a	71a	82f	49	17ab	2	1048
ARSOK V103-1	4456ab	103	66bc	91c-e	48	16ac	3	935
ARSOK V103-4	4216ab	65bc	100ab	100ab	48	12cd	2	872

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Virginia¹								
ARSOK V103-5	3678b	85	64c	92b-d	44	14b-d	3	749
Mean	4315.6		66.3	93.1	46	14.6	2.8	
CV	25.8		7.3	9.5	19.4	18.7	61.9	
LSD (.05)	1042.4		4.5	8.2	ns	3.9	ns	

¹Market Type.

²% TSMK = Percent total sound mature kernels.

³SdWt/100 = Weight of 100 SMK.

⁴ELK= % kernels riding a 21.5/64" X 1" slotted screen for Virginia and 21/64" X 3/4" screen for runner and Spanish; MED=% kernels riding a 18/64" but falling through a 21.5/64" or 21/64" screen; No. 1=% kernels riding a minimum grade screen (16/64" for runner and Spanish and 15/64 for Virginia) but falling through a 18/64"

⁵Calculated based on peanut market-type contract price 2021 (\$575 for runners; \$600 for Spanish and Virginia). ELK bonus not added for Virginias.

⁶Values within the same column followed by the same letter are not significantly different at P = .05; ns = non-significant.



Table 5. Yield, grade, average seed weight and value per acre for entries averaged across years in the Caddo County (Ft. Cobb), Oklahoma peanut variety trial in 2020-2021.⁶

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Runner¹								
ACI080	4557	95	72a-c	62e	25ef	40a	4a	943
ACI476	4965	104	68c	60e	23f	34ab	5a	971
ACI3321	5032	104	69bc	72d	35de	28bc	4a	998
Lariat	4700	98	72a-c	72d	40cd	26b-d	3ab	973
ARSOK R90-12	4652	97	71	75cd	34de	29bc	3ab	950
ARSOK 91-2	4889	101	73ab	81ab	47a-c	20cd	2bc	1026
ARSOK 92-13	5114	106	68c	79bc	42b-d	23cd	2bc	1000
ARSOK R93-1	4883	101	74a	79bc	50ab	17d	2bc	1039
ARSOK R930-10	4694	97	70a-c	72d	39cd	24b-d	2bc	945
ARSOK R95-1	4980	103	73ab	75cd	38cd	29bc	2bc	1045
ARSOK R96-7	4903	102	74a	79bc	53a	15de	1c	1043
ARSOK R96-8	4451	92	69bc	85a	55a	7e	1c	883
Mean	4818.6		71.1	74.2	40.1	34	2.9	
CV	12.2		3.0	5.7	22.4	18.5	41.2	
LSD (0.05)	ns		4.9	4.9	10.3	10	1.4	
Spanish¹								
AT98-99	4596a	109	70ab	54b	42c	22b	4bc	965
OLé	4076ab	96	69bc	56ab	48b	15c	2d	844
Schubert	4154ab	98	65c	50c	27e	30a	8a	810
Span17	4669ab	110	72a	59a	54a	16c	2d	1009
Tamnnt OL06	3888b	92	67bc	47c	34d	27a	6b	781
ARSOK S88-2	3982ab	94	69bc	50c	40c	22b	3cd	824
Mean	4227.7		69.0	52.6	40.9	21.9	4.25	
CV	14.9		3.9	5.8	10.6	14.2	33.7	
LSD (.05)	745.1		3.2	3.5	5.1	3.7	1.7	

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Virginia¹								
ACI351	4648a	99	67b	99a-e	46c	15b-d	3ab	982
Comrade	5042a	107	69ab	111a	54a-c	10ef	2bc	1089
Contender	4987a	106	69ab	88c-e	53a-c	13c-e	2bc	1088
Jupiter	5064a	107	67b	85ef	37d	24a	4a	1063
ARSOK V98	3942b	84	67b	94b-f	46c	18b	2bc	830
ARSOK V99	4770a	101	70ab	89c-f	50a-c	16bc	2bc	1044
ARSOK V100-1	4549ab	96	67b	102a-c	57a	9f	1c	968
ARSOK V100-2	4461ab	95	70ab	106ab	55ab	9f	1c	986
ARSOK V101-1	5124a	109	72a	86c-e	55ab	14b-e	1c	1170
ARSOK V103-1	4766a	101	68b	101a-d	53a-c	12c-e	2bc	1028
ARSOK V103-4	4799a	102	66b	103a-c	53a-c	10ef	1c	1006
ARSOK V103-5	4444ab	94	67b	80f	48bc	16bc	2bc	945
Mean	4716.5		68.4	95.3	50.6	13.9	1.9	
CV	12.8		4.9	13.9	13.9	31.3	58.9	
LSD (0.05)	695.9		3.9	15.3	8.1	5.0	1.3	

¹Market Type.

²% TSMK = Percent total sound mature kernels.

³SdWt/100 = Weight of 100 SMK.

⁴ELK = % kernels riding a 21.5/64" X 1" slotted screen for Virginia and 21/64" X 3/4" screen for runner and Spanish; MED = % kernels riding a 18/64" but falling through a 21.5/64" or 21/64" screen; No.1 = % kernels riding a minimum grade screen (16/64" for runner and Spanish and 15/64" for Virginia) but falling through a 18/64".

⁵Calculated based on peanut market-type contract price 2021 (\$575 for runners; \$600 for Spanish and Virginia). ELK bonus not added for Virginias.

⁶Values within the same column followed by the same letter are not significantly different at P = .05; ns = non-significant.



Table 6. Yield, grade, average seed weight and value per acre for entries averaged across years in the Custer County (Weatherford/Thomas, Les Crall Farms), Oklahoma peanut variety trial in 2020-2021.⁶

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Runner¹								
ACI080	5730a	112	65de	55d	21g	35a	9a	1071
ACI476	5465a-c	107	65de	54d	23g	33a	7a-d	1021
ACI3321	5611ab	110	59f	64bc	27e-g	22b-d	7a-d	952
Lariat	5755a	112	71ab	66bc	31d-f	27ab	8ab	1175
ARSOK R90-12	4550c	89	69b-d	71ab	35c-e	22b-d	7a-d	903
ARSOK 91-2	5008a-c	98	68b-d	70a-c	39b-d	22b-d	6c-e	979
ARSOK 92-13	4588bc	90	71ab	74a	41a-c	23bc	5ef	937
ARSOK R93-1	5360a-c	105	73a	68a-c	43a-c	21cd	4fg	1125
ARSOK R930-10	5036a-c	98	70ab	62cd	39a-d	23bc	6c-e	1013
ARSOK R95-1	5246a-c	102	70ab	67a-c	37b-d	25bc	6c-e	1056
ARSOK R96-7	4480c	87	68b-d	66bc	46ab	15d	5ef	876
ARSOK R96-8	4648bc	91	63ef	74a	48a	8e	2g	842
Mean	5123.5		67.8	65.9	40.1	23.2	6.1	
CV	17.9		5.4	11.0	22.4	27.0	29.0	
LSD (0.05)	1058.1		4.2	8.3	10.3	7.3	1.5	
Spanish¹								
AT98-99	5177a	115	68ab	48ab	36b	23b	8ab	1056
OLé	4338ab	96	68ab	52a	43a	19c	5c	885
Schubert	4517ab	100	64c	44b	23c	30a	11a	867
Span17	5130a	114	67ab	52a	43a	18c	5c	1031
Tamnnt OL06	3709bb	82	66ab	43b	28c	29a	9ab	734
ARSOK S88-2	4149b	92	70a	45b	37ab	26ab	6bc	871
Mean	4503.6		67.4	47.5	34.9	24.1	7.3	
CV	17.3		3.9	10.8	17.3	16.3	38.7	
LSD (.05)	919.2		3.1	6.0	7.1	4.6	3.3	

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Virginia¹								
ACI351	5110a-c	105	68ab	97ab	46a-d	18a-c	3bc	1095
Comrade	5400ab	111	68ab	102a	49a	14b-d	2c	1150
Contender	5624a	115	69a	86c-e	48ab	15a-d	3bc	1227
Jupiter	5550a	114	69a	89b-d	46a-c	17a-d	2c	1198
ARSOK V98	4388cd	90	66b-d	81d-f	41c-e	19ab	4a-c	911
ARSOK V99	4710b-d	97	67a-c	80ef	49a	13de	5a	989
ARSOK V100-1	4632b-d	95	68ab	92bc	48ab	14b-d	3bc	999
ARSOK V100-2	4515cd	93	62e	91bc	45a-c	10e	4a-c	890
ARSOK V101-1	5346ab	110	67a-c	92bc	40de	20a	4a-c	1140
ARSOK V103-1	4850a-d	100	66b-d	84c-e	43b-d	18a-c	3bc	1017
ARSOK V103-4	4164d	85	64de	92bc	44a-c	16a-c	2c	848
ARSOK V103-5	4201d	86	64de	82d-f	39e	18a-c	4a-c	855
Mean	4874.5		66.4	87.3	44.9	16.1	3.3	
CV	14.4		3.9	9.6	10.9	25.1	36.4	
LSD (0.05)	815.5		3.0	9.5	5.6	4.7	1.4	

¹Market Type.

²% TSMK = Percent total sound mature kernels.

³SdWt/100 = Weight of 100 SMK.

⁴ELK= % kernels riding a 21.5/64" X 1" slotted screen for Virginia and 21/64" X 3/4" screen for runner and Spanish; MED=% kernels riding a 18/64" but falling through a 21.5/64" or 21/64" screen; No.1=% kernels riding a minimum grade screen (16/64" for runner and Spanish and 15/64 for Virginia) but falling through a 18/64".

⁵Calculated based on peanut market-type contract price 2021 (\$575 for runners; \$600 for Spanish and Virginia). ELK bonus not added for Virginias.

⁶Values within the same column followed by the same letter are not significantly different at P = .05; ns = non-significant.



Table 7. Yield, grade, average seed weight and value per acre for entries averaged across years in the Love County (Thackerville, Anthony Reed Farms), Oklahoma peanut variety trial in 2020-2021.⁶

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Runner¹								
ACI080	4367	109	73a	59f	14d	46a	10a	917
ACI476	4020	100	69b-d	58f	24c	38bc	6bc	797
ACI3321	3826	95	67de	72cd	25c	35bc	6bc	737
Lariat	4303	107	71ac	75bc	25c	37bc	7b	878
ARSOK R90-12	3963	99	73a	75bc	29bc	37bc	5c-e	832
ARSOK 91-2	4485	112	70a-d	77ab	32b	33cd	3f	903
ARSOK 92-13	4060	101	70a-d	78ab	28bc	35bc	6bc	817
ARSOK R93-1	3711	92	72ab	71cd	38a	28d	4ef	768
ARSOK R930-10	3963	99	69b-d	70de	27bc	35bc	5c-e	786
ARSOK R95-1	4019	100	70a-d	70de	24c	40b	5c-e	809
ARSOK R96-7	3939	98	67de	71de	37a	22e	5c-e	759
ARSOK R96-8	3519	88	65e	80a	42a	17e	4ef	658
Mean	4014.9		69.9	70.6	28.8	33.5	5.6	
CV	28.9		4.9	5.5	16.7	14.9	25.9	
LSD (0.05)	ns		3.9	4.5	5.6	5.8	1.8	
Spanish¹								
AT98-99	3831	115	69ab	51bc	39b	22ab	8ab	783
OLé	3049	92	67bc	55ab	50a	13d	3c	613
Schubert	3057	92	64c	50c	29c	25a	10a	587
Span17	3945	119	70a	59a	49a	17cd	4c	828
Tamnnt OL06	3297	99	68ab	51bc	40b	21a-c	6bc	673
ARSOK S88-2	2758	83	68ab	54a-c	45ab	18b-d	4c	563
Mean	3323.3		68.1	53.2	41.8	19.2	5.7	
CV	37.8		3.7	8.6	16.9	21.9	38.5	
LSD (.05)	ns		2.9	5.3	8.3	4.9	2.6	

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Virginia¹								
ACI351	4202	106	62cd	91b	33c	21ab	6a	825
Comrade	4319	109	67ab	104a	46a	14g	2c	907
Contender	4259	108	68a	86b-d	45a	19b-d	3bc	917
Jupiter	4152	105	62cd	87b-d	38bc	17c-f	6a	809
ARSOK V98	3772	95	61cd	80fg	33c	22a	5a	272
ARSOK V99	3846	97	64bc	82e-g	38bc	21ab	5a	773
ARSOK V100-1	3555	90	61cd	91b	39b	16e-g	4ab	692
ARSOK V100-2	3897	99	60d	91b	38bc	14g	4ab	744
ARSOK V101-1	4456	113	60d	77g	49a	15e-g	2c	857
ARSOK V103-1	4065	103	60d	88b-d	35bc	18b-e	6a	779
ARSOK V103-4	3467	88	59d	88b-d	36bc	16d-g	5a	654
ARSOK V103-5	3468	88	62cd	86b-e	37bc	19a-d	5a	685
Mean	3955.3		62.9	86.8	38.8	17.5	4.6	
CV	27.6		4.9	5.7	12.2	16.1	28.7	
LSD (0.05)	ns		3.6	5.7	5.5	3.3	1.5	

¹Market Type.

²% TSMK = Percent total sound mature kernels.

³SdWt/100 = Weight of 100 SMK.

⁴ELK= % Kernels riding a 21.5/64" X 1" slotted screen for Virginia and 21/64" X 3/4" screen for runner and Spanish; MED=% Kernels riding a 18/64" but falling through a 21.5/64" or 21/64" screen; No.1=% Kernels riding a minimum grade screen (16/64" for runner and Spanish and 15/64 for Virginia) but falling through a 18/64".

⁵Calculated based on peanut market-type contract price 2021 (\$575 for runners; \$600 for Spanish and Virginia). ELK bonus not added for Virginias.

⁶Values within the same column followed by the same letter are not significantly different at P = .05; ns = non-significant.



Table 8. Yield, grade, average seed weight and value per acre for entries averaged across all locations and years in the Oklahoma peanut variety trial in 2020-2021.⁶

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Runner¹								
ACI080	4885a	105	70ab	58g	19g	40a	7a	983
ACI476	4817ab	104	67cd	57g	23fg	35ab	6b	928
ACI3321	4823ab	104	65d	69ef	31de	28cd	6b	901
Lariat	4919a	106	71b	68f	32de	30b-d	6b	1004
ARSOK R90-12	4388ab	94	71ab	74cd	33de	25de	5bc	896
ARSOK 91-2	4764ab	102	70ab	76a-c	39bc	25de	4c-e	959
ARSOK 92-13	4587ab	99	70ab	78ab	37cd	27c-e	4c-e	923
ARSOK R93-1	4651ab	100	73a	73c-e	44ab	22ef	4c-e	976
ARSOK R930-10	4564ab	98	70ab	68f	35cd	27c-e	4c-e	919
ARSOK R95-1	4747ab	102	71ab	71de	33de	31bc	4c-e	969
ARSOK R96-7	4441ab	95	70ab	71c-e	45a	17f	4c-e	894
ARSOK R96-8	4206b	90	66d	80a	49a	10g	2e	798
Mean	4652.3		69.5	70.2	34.8	26.9	4.8	
CV	51.9		6.1	9.1	25.3	30.3	44.8	
LSD (0.05)	669.9		2.8	4.2	5.8	5.3	1.4	
Spanish¹								
AT98-99	4535	113	69ab	51b	39b	23bc	7b	939
OLé	3821	95	68bc	54a	47a	16d	4c	779
Schubert	3909	97	64d	48c	26d	28a	9a	751
Span17	4591	114	70a	58a	48a	17d	4c	962
Tamnut OL06	3632	90	67c	47c	34c	25b	7b	730
ARSOK S88-2	3629	90	69ab	50bc	41b	22c	5c	751
Mean	4018.2		68.2	51.1	39.2	21.8	5.7	
CV	25.6		3.9	9.7	16.9	19.7	43.2	
LSD (.05)	ns		1.8	3.2	4.4	2.8	1.6	

Entry	Yield (lb/A)	% of Trial Average	Grade ² (%TSMK)	SdWt/100 ³ (g)	ELK ⁴ (%)	MED ⁴ (%)	No. 1 ⁴ (%)	Value ⁵ (\$/A)
Virginia¹								
ACI351	4653ab	103	66b-e	96b	42c-e	18ab	4a	969
Comrade	4900a	109	68ab	105a	50a	113de	2d	1043
Contender	4977a	110	69ab	87c-e	49ab	16b-d	3cd	1086
Jupiter	4922a	109	66b-e	87c-e	41de	20a	4a	1018
ARSOK V98	4034c	89	65d-f	85d-f	40e	20a	3a-c	825
ARSOK V99	4442a-c	98	67b-d	84d-f	45a-d	16b-d	3a-c	932
ARSOK V100-1	4245bc	94	67b-d	93bc	48ab	13e	2a-c	903
ARSOK V100-2	4291bc	95	64d-f	96b	46a-c	11e	3a-c	871
ARSOK V101-1	4975a	110	70a	78f	48ab	16b-d	3a-c	1091
ARSOK V103-1	4560a-c	101	64d-f	90b-d	44a-e	16b-d	4a	929
ARSOK V103-4	4143bc	92	63f	94b	44a-c	14c-e	3a-c	832
ARSOK V103-5	4038c	89	64d-f	83ef	41c-e	18ab	3a-c	822
Mean	4515.4		65.9	89.8	44.8	15.8	3.2	
CV	19.9		6.0	11.6	17.7	27.7	53.5	
LSD (0.05)	590.0		2.6	6.8	5.2	2.8	1.1	

¹Market Type.

²% TSMK = % total sound mature kernels.

³SdWt/100 = Weight of 100 SMK.

⁴ELK= % kernels riding a 21.5/64" X 1" slotted screen for Virginia and 21/64" X 3/4" screen for runner and Spanish; MED=% kernels riding a 18/64" but falling through a 21.5/64" or 21/64" screen; No.1=% kernels riding a minimum grade screen (16/64" for runner and Spanish and 15/64 for Virginia) but falling through a 18/64".

⁵Calculated based on peanut market-type contract price 2021 (\$575 for runners; \$600 for Spanish and Virginia). ELK bonus not added for Virginias.

⁶Values within the same column followed by the same letter are not significantly different at P = .05; ns = non-significant