

TEXAS PEANUT VARIETY TRIALS | 2024



TEXAS PEANUT VARIETY TRIAL | 2024

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2024 HIGHLIGHT

According to the USDA National Agricultural Statistics Service, the 2024 average yield was 2,600 lb/ac in TX. The 2024 planted and failed acres were 236,518 acres (FSA report, 2025; Table 1). The 2024 season started with slightly better soil moisture conditions as compared to the 2023 planting window. We received rainfall through the first week of July; however, no significant rain events were observed after the July 4th week. Throughout the peanut growing regions in TX, peanuts started to show water and heat stress. Environmental stresses during the reproductive stages of peanuts could reduce the yield potential. Irrigation management was again the key management factor to maximize the yield potential. Weather conditions during the harvest window were relatively cooperative. We did not observe the killing frost until the Thanksgiving week. Dry and sunny weather was suitable for drying of the peanut windrows. The year 2024 was not as dry as the previous two years; however, it was not an ideal year as far as the total amount of precipitation and frequency of rainfall events.

Table 1. Sum of planted acres and failed acres by peanut market type in 2024 (FSA, January 12, 2025)

Market type	Sum of planted and failed acres	Sum of failed acres
Runner	58592	2567
Virginia	27392	792
Spanish	109419	11484
Valencia	27392	656
Total	236518	15499

Weather information for peanut production region in Texas

Table 2 Heat unit (DD56 and ceiling at 95F) for peanut production region in Texas during 2018-2023.

Data were obtained from NOAA (<https://www.noaa.gov/>)

	May	Jun	Jul	Aug	Sep	May- Sep
Memphis						
2024	432	743	784	821	596	3376
2023	432	618	805	835	631	3320
2022	498	655	872	776	618	3418
2021	338	651	743	750	655	3137
2020	476	720	848	812	455	3311
5 yr average	435	677	810	799	591	3312
Seminole						
2024	557	773	764	833	528	3455
2023	511	612	791	808	749	3471
2022	610	713	840	755	590	3507
2021	424	664	680	691	579	3038
2020	515	637	823	792	451	3218
5 yr average	523	680	780	776	579	3338
Stephenville						
2024	587	775	796	868	628	3654
2023	531	776.5	903	948	746	3904
2022	678	834	935	878	565	3890
2021	434	729	809	834	711	3517
2020	597	749	878	864	541	3629
5 yr average	565	773	864	878	638	3719
San Antonio						
2024	799	886	894	935	813	4327
2023	653	848	940	934	876	4250
2022	858	863	921	903	808	4353
2021	669	524	864	920	815	3792
2020	654	747	884	862	659	3806
5 yr average	727	774	900	911	794	4105

Table 3. Monthly precipitation (inch) for the peanut production region in Texas during 2018-2023. Data were obtained from NOAA.

	Apr	May	Jun	Jul	Aug	Sep	Apr-Sep
Seminole							
2024	0.38	1.50	1.50	1.40	0.40	3.50	8.68
2023	0.00	1.07	2.24	1.17	0.67	2.19	7.34
2022	0.32	0.35	1.39	0.10	0.94	0.05	3.15
2021	1.86	2.73	3.76	2.24	2.97	0.48	14.04
2020	0.00	0.03	0.02	0.62	0.34	0.92	1.93
5 yr average	0.51	1.14	1.78	1.11	1.06	1.43	7.03
San Antonio							
2024	1.84	2.30	2.10	2.50	0.01	3.00	11.75
2023	3.93	5.00	2.15	0.15	0.19	0.93	12.35
2022	0.26	1.73	0.00	0.00	1.92	0.53	4.44
2021	1.89	5.00	5.01	5.08	4.63	1.00	22.61
2020	1.58	6.50	1.78	1.33	0.51	2.45	14.15
5 yr average	1.90	4.11	2.21	1.81	1.45	1.58	13.06
Stephenville							
2024	3.92	8.30	1.20	2.90	0.20	6.10	22.62
2023	1.53	2.53	2.20	0.63	0.00	4.83	11.72
2022	0.17	2.43	2.10	0.58	0.42	0.77	6.47
2021	3.86	8.65	4.58	2.31	1.86	0.07	21.33
2020	0.51	2.17	2.86	2.00	0.60	7.92	16.06
5 yr average	2.00	4.82	2.59	1.68	0.62	3.94	15.64
Memphis							
2024	1.37	2.12	3.22	1.04	0.57	1.11	9.43
2023	1.01	5.17	1.35	1.23	0.30	1.92	10.98
2022	0.24	2.51	0.65	0.00	2.97	0.17	6.54
2021	0.42	4.20	6.28	4.15	1.96	0.56	17.57
2020	0.34	1.24	3.57	0.80	2.79	1.47	10.20
5 yr average	0.68	3.05	3.01	1.44	1.72	1.05	10.94

Table 4. Yield performance (lb/ac) of Runner, Spanish, Virginia, and Valencia type varieties in Texas. Experimental lines are italicized. Varieties were listed in alphabetical order.

	WTX			RP1			RP2			STX			CTX		
	2024	2-Yr	3-Yr	2024	2-Yr	3-Yr	2024	2-Yr	3-Yr	2024	2-Yr	3-Yr	2024	2-Yr	3-Yr
RUNNER															
<i>31-08-05-03</i>	1814			-	-	-	2030	-	-	5726	5355	-	-	-	-
AG18	-	-	-	-	-	-	1647	3023	3157	5785	5267	4970	3834	4660	5572
ARSOK R109-1L	1787	-	-	-	-	-	1925	-	-	-	-	-	-	-	-
GA09B	1662	4146	3966	-	-	-	2344	2587	2709	6587	5800	5238	3969	4912	5979
GA16HO	1823	2375	2696	-	-	-	2213	2679	2689	6599	6025	5104	4179	5119	5932
Lariat	2073	-	-	-	-	-	1812	-	-	6724	.	.	4288	-	-
NemaTAM II	1367	3737	3659	-	-	-	2056	2701	3009	6453	5949	5296	4286	5101	5958
<i>Tx137967</i>	1948	-	-	-	-	-	2187	-	-	6262	5803	.	-	-	-
<i>Tx144370</i>	2144	4235	4136	-	-	-	2326	2627	3542	7443	6983	6191	4371	5299	5865
<i>TxL100212-03-03</i>	-	-	-	-	-	-	2344	-	-	6291	6106	5555	-	-	-
Means	1827	3623	3614	-	-	-	2088	2723	3021	6430	5911	5392	4155	5018	5861
SPANISH															
ARSOK S104-2E	1939	-	-	-	-	-	1699	-	-	4762	-	-	-	-	-
AT 9899	2028	3493	3322	-	-	-	2261	2840	2922	6790	6003	5412	3873	4283	5088
IPG 3628	2270	3069	3123	-	-	-	2391	2579	3072	-	-	-	-	-	-
Ole	1943	-	-	-	-	-	2078	-	-	4465	-	-	3507	-	-
SPan17	2037	3576	3467	-	-	-	2208	2254	2651	-	-	-	3686	4608	5364
<i>TP210656-2-1</i>	1921	-	-	-	-	-	1895	3646	-	-	-	-	3685	-	-
Means	2023	3379	3304	-	-	-	2089	2830	2882	5339	6003	5412	3688	4446	5226
VIRGINIA															
ARSOK V103-1	1733	-	-	-	-	-	2587	-	-	-	-	-	-	-	-
Comrade	2189	-	-	-	-	-	2492	-	-	-	-	-	-	-	-
Means	1961	-	-	-	-	-	2540	-	-	-	-	-	-	-	-
VALENCIA															
<i>NMSU-M01</i>	1787	-	-	-	-	-	2718	-	-	-	-	-	-	-	-
<i>NMSU-M02</i>	1957	-	-	-	-	-	1830	-	-	-	-	-	-	-	-
<i>NMSU-M03</i>	1805	-	-	-	-	-	2335	-	-	-	-	-	-	-	-
<i>NMSU-M04</i>	1948	-	-	-	-	-	2553	-	-	-	-	-	-	-	-
Means	1874	-	-	-	-	-	2359	-	-	-	-	-	-	-	-

*WTX, TRP1, TRP2, CTX, and STX are west TX in Lubbock, TX Rolling Plains in Haskell, TX Rolling Plains in Collingsworth, Central TX in Comanche, and South TX in Frio County, respectively.

**Highlighted values within a market-type and a year are significantly same as the highest values at $p < 0.1$.

2024 state-wide peanut variety trial

West Texas Lubbock
Cooperator TAMU
Planted on 5/1/2024
Dug on 10/26/2024
Harvested on 10/30/2024
Disease Low disease pressure
11/20/2024

DK: Damaged kernels
OK: Other kernels
TSMK: Total Sound Mature Kernels

178 DAP

Lubbock	2024	2-Yr Avg	3-Yr-Avg	TSMK	DK	OK
RUNNER	Yield	Yield	Yield	%	%	%
Tx144370	2144	4235	4136	57.8	7.2	6.3
GA09B	1662	4146	3966	56.7	5.4	7.7
NemaTAM II	1367	3737	3659	57.7	5.2	6.7
GA16HO	1823	2375	2696	55.3	4.7	6.6
Lariat	2073	.	.	57.5	7.1	5.6
Tx137967	1948	.	.	53.6	4.8	10.3
31-08-05-03	1814	.	.	58.4	5.5	7.3
ARSOK R109-1L	1787	.	.	57.5	6.3	6
Means	1827	3623	3614	57	6	7
CV	40	16	16	6	29	21
P0.1	NS	0.0171	0.0587	NS	NS	0.0423

Highlighted values are significantly same as the highest value at P<0.1

Lubbock	2024	2-Yr Avg	3-Yr-Avg	TSMK	DK	OK
SPANISH	Yield	Yield	Yield	%	%	%
SPan17	2037	3576	3467	61.7	4.7	5.4
AT 9899	2028	3493	3322	61.9	3.0	6.1
IPG 3628	2270	3069	3123	67.2	3.8	4.9
ARSOK S104-2E	1939	.	.	59.9	6.0	4.7
Ole	1943	.	.	58	5.6	4.9
TP210656-2-1	1921	.	.	63.1	7.4	4.6
Means	2023	3379	3304	62.0	5.1	5.1
CV	12	7	5	4	23	16
P0.1	NS	0.0406	NS	0.0249	0.0081	NS

Highlighted values are significantly same as the highest value at P<0.1

Lubbock	2024	2-Yr Avg	3-Yr-Avg	TSMK	DK	OK
VIRGINIA	Yield	Yield	Yield	%	%	%
Comrade	2189	.	.	51.1	12.4	4.2
ARSOK V103-1	1733	.	.	53.5	8	5.5
Means	1961	-	-	52.3	10.2	4.85
CV	16	-	-	4	2	17
P0.1	NS	-	-	NS	<.0001	NS

Highlighted values are significantly same as the highest value at P<0.1

Lubbock	2024	2-Yr Avg	3-Yr-Avg	TSMK	DK	OK
VALENCIA	Yield	Yield	Yield	%	%	%
NMSU-M02	1957	.	.	55.1	4.4	9.8
NMSU-M04	1948	.	.	57.8	5.1	8.4
NMSU-M03	1805	.	.	55.7	4.9	10.6
NMSU-M01	1787	.	.	55.8	7.5	7.7
Means	1874	-	-	56	5	9
CV	9	-	-	6	21	18
P0.1	NS	-	-	NS	0.0402	NS

2024 state-wide peanut variety trial

Rolling Plains
Cooperator
Planted on
Dug on
Harvested on
Disease:

Collingsworth
Rex Henard
5/10/2024
10/1/2024
10/8/2024
Low disease pressure

DK: Damaged kernels
OK: Other kernels
TSMK: Total Sound Mature Kernels

Collingsworth	2024	2-Yr Avg	3-Yr-Avg	TSMK	DK	OK
RUNNER	Yield	Yield	Yield	%	%	%
<i>TxL100212-03-03</i>	2344	3119	3585	75.4	0.2	1.5
<i>Tx144370</i>	2326	2627	3542	74.0	0.2	1.6
AG-18	1647	3023	3157	76.2	0.5	1.1
NemaTAM II	2056	2701	3009	73.6	0.4	2.1
GA09B	2344	2588	2709	73.3	0.4	1.7
GA16HO	2213	2679	2689	73.9	0.6	1.7
<i>Tx137967</i>	2187	-	-	74.7	0.2	1.8
31-08-05-03	2030	-	-	74.8	0.3	1.2
ARSOK R109-1L	1925	-	-	76.1	0.3	1.4
Lariat	1812	-	-	76.0	0.6	1.5
Means	2088	2790	3115	74.7	0.4	1.6
CV	31	26	27	2.0	77.6	38.0
P0.1	NS	NS	NS	NS	NS	NS

Highlighted values are significantly same as the highest value at P<0.1

Collingsworth	2024	2-Yr Avg	3-Yr-Avg	TSMK	DK	OK
SPANISH	Yield	Yield	Yield	%	%	%
IPG 3628	2391	2579	3072	73.5	0.2	1.3
AT 9899	2261	2840	2922	72.3	0.1	1.7
SPan17	2208	2254	2651	74.0	0.1	0.8
TP210656-2-1	1895	3646	-	73.0	0.4	1.2
Ole	2078	-	-	71.9	0.2	1.3
ARSOK S104-2E	1699	-	-	73.4	0.1	1.2
Means	2089	2830	2882	73.0	0.2	1.3
CV	17	-	-	1	77	32
P0.1	NS	-	-	NS	NS	NS

Highlighted values are significantly same as the highest value at P<0.1

*2-yr and 3-yr average yields were calculated from 2023, 2021, and 2019.

Collingsworth	2024	2-Yr Avg	3-Yr-Avg	TSMK	DK	OK
VIRGINIA	Yield	Yield	Yield	%	%	%
ARSOK V103-1	2588	-	-	69.4	0.2	0.5
Comrade	2492	-	-	76.9	0.3	1.1
Means	2540	-	-	73.2	0.3	0.8
CV	21	-	-	13	85	58
P0.1	NS	-	-	NS	NS	NS

Collingsworth	2024	2-Yr Avg	3-Yr-Avg	TSMK	DK	OK
VALENCIA	Yield	Yield	Yield	%	%	%
NMSU-M01	2718	-	-	70.9	0.1	1.1
NMSU-M02	1830	-	-	68.8	0.2	0.9
NMSU-M03	2335	-	-	71.3	0.1	1.2
NMSU-M04	2553	-	-	68.6	0.2	1.5
Means	2359	-	-	69.9	0.15	1.175
CV	27	-	-	7	63	46
P0.1	0.3902	-	-	NS	NS	NS

2024 state-wide peanut variety trial

Central Texas Comanche TSMK: Total Sound Mature Kernels
 Cooperator Mark Allison DK: Damaged kernels
 Planted on 5/21/2024 OK: Other kernels
 Dug on 9/30/2024 132 DAP
 Harvested on 10/7/2024
 Disease: Low disease pressure
 The trial was dug a little early

Comanche	2024	2-Yr Avg	3-Yr-Avg	TSMK	DK	OK
RUNNER	Yield	Yield	Yield	%	%	%
GA09B	3969	4912	5979	70.4	0.4	9.1
NemaTAM II	4286	5101	5958	68.6	0.2	10.3
GA16HO	4179	5119	5932	71.4	0.0	8.6
Tx144370	4371	5299	5865	69.1	0.0	13.1
AG18	3834	4660	5572	69.2	0.0	11.7
Lariat	4288	.	.	71.5	0.3	11
Means	4155	5018	5861	70.0	0.2	10.6
CV	13	13	8	3	170	23
P0.1	NS	NS	NS	NS	NS	NS

Highlighted values are significantly same as the highest value at P<0.1

Comanche	2024	2-Yr Avg	3-Yr-Avg	TSMK	DK	OK
SPANISH	Yield	Yield	Yield	%	%	%
SPan17	3686	4608	5364	69.2	0.3	9.4
AT 9899	3873	4283	5088	67.1	0.0	12.4
TP210656-2-1	3685	.	.	71.6	0.2	9.6
Ole	3507	.	.	66.7	0.2	9.1
Means	3688	4446	5226	68.7	0.2	10.1
CV	15	18	10	3	193	25
P0.1	NS	NS	NS	NS	NS	NS

Highlighted values are significantly same as the highest value at P<0.1

2024 state-wide peanut variety trial

South Texas Frio ELK: Extra large kernels
 Cooperator Grayson Wilmeth DK: Damaged kernels
 Planted on 6/17/2024 OK: Other kernels
 Dug on 10/30/2024 135 DAP TSMK: Total Sound Mature Kernels
 Harvested on 11/6/2024
 Disease: Minor leaf spot

STX	2024	2-Yr Avg	3-Yr-Avg	TSMK	DK	OK
RUNNER	Yield	Yield	Yield	%	%	%
<i>Tx144370</i>	7443	6983	6191	76	0.17	1.39
<i>TxL10212-03-03</i>	6291	6106	5555	76	0	0.28
Georgia 16HO	6599	6025	5104	76	0.07	0.67
NemaTam II	6453	5949	5296	75	0.29	1.68
<i>Tx137967</i>	6262	5803	-	73	0	1.37
Georgia 09B	6587	5800	5238	76	0	0.68
<i>31-08-05-03</i>	5726	5355	-	77	0	0.37
Lariat	6724	-	-	78	0	0.53
AG18	5785	5267	4970	75	0	0.76
Means	6430	5911	5392	76	0.1	0.9
CV	11	8	6	2	248	44
P0.1	NS	0.0088	0.0093	0.0196	NS	0.002

Highlighted values are significantly same as the highest value at P<0.1

STX	2024	2-Yr Avg	3-Yr-Avg	TSMK	DK	OK
SPANISH	Yield	Yield	Yield	%	%	%
AT 9899	6790	6003	5412	74	0	0.59
ARSOK S104-2E	4762	-	-	72	0.15	0.6
Ole	4465	-	-	71	0.04	0.56
Means*	5339	-	-	72	0.06	0.58
CV	19	-	-	1	244	41
P0.1	0.0614	-	-	0.0035	NS	NS

Highlighted values are significantly same as the highest value at P<0.1

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<http://varietytesting.tamu.edu/peanuts/>



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