



OSU Cotton Official Variety Tests - 2016

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The Oklahoma Agricultural Experiment Station official variety tests (OVTs) were planted at the Southwest Research and Extension Center at Altus (Lugert-Altus Irrigation District - furrow irrigated), Tipton Valley Research Center (dryland), and Caddo Research Station at Fort Cobb (center pivot irrigated) in 2016.

Site information:

- 1) Altus conventional tillage furrow irrigated OVT – planted May 27 at 4 seeds/row-ft, harvested November 21. **This trial experienced severe Bacterial blight infection beginning in late July.**
- 2) Tipton no-till dryland OVT – planted June 8 at 3 seeds/row-ft, harvested November 22.
- 3) Fort Cobb no-till in terminated wheat cover – low elevation spray center pivot irrigated OVT – planted May 26 at 4 seeds/row-ft, harvested November 30.

Four replicates were planted and harvested at all sites. Plots were four rows wide at all sites. Row spacing at Altus and Tipton was 40 inches, and row spacing was 36 inches at the Fort Cobb site. Plot lengths in all trials were 30 ft. Harvested area was the center two rows by the length of the plot. Trials were harvested with a brush-roll plot stripper. Grab samples were taken by plot in three replicates for lint and seed turnouts and High Volume Instrument (HVI) fiber quality analyses.

These grab samples were ginned on small plot ginning equipment at the OSU SWREC and lint samples were submitted to the Cotton Phenomics Laboratory at the Fiber and Biopolymer Research Institute at Texas Tech University for HVI analyses.

Additionally, 50-boll samples were taken from each plot in three replicates and other data (including boll sample lint fractions, boll size, seed index, lint index, and seed per boll) were derived from those. Additional collected data included plant height from the soil surface to terminal and a visual estimate of storm resistance (1-9 with 9 tightest).

Important cultural practices are noted in Table 1, and results for Altus (Tables 2 and 3), Tipton (Tables 4 and 5), and Fort Cobb (Tables 6 and 7) are presented below.

Table 1. Cultural practices used for the cotton official variety tests at Altus, Tipton, and Fort Cobb, 2016.

Location	Fertilizer application	Irrigations	Herbicide applications	Plant growth regulator application	Insecticide applications	Harvest aid applications
Altus	March 3, Broadcast air boom truck application of 40-10-0 @ 300 lbs/A – Treated with N-Fix Nitrogen Stabilizer	6 total July 28 August 3 August 10 August 17 August 24 August 31	(1) April 7, PPI ground rig broadcast application of Trifluralin HF @ 2.0 pts prod/A (2) May 28, Pre-emerge ground rig broadcast application of Caparol 4L Mad Dog Plus + Choice Weather Master + Activator 90 nonionic surfactant @ 3.2 pts prod/A + 48.0 oz prod/A + ½ % v/v+ ½ % v/v (3) June 20, Post emerge ground rig broadcast application of Mad Dog Plus + Choice Weather Master + Activator 90 nonionic surfactant @ 48.0 oz prod/A + ½ % v/v + ½ % v/v (4) July 8, Post emerge ground rig broadcast application of Roundup PowerMax + Staple LX + Choice Trio + Activator 90 nonionic surfactant @ 32.0 oz prod/A + 3.2 oz prod/A + ½ % v/v + ½ % v/v (5) July 15, 2016 Post emerge ground rig broadcast application of Roundup PowerMax + Staple LX + Choice Trio + Activator 90 nonionic surfactant @ 32.0 oz prod/A + 1.9 oz prod/A + ½ % v/v + ½ % v/v	July 29, Aerial application of Mepiquat + Activator 90 Nonionic Surfactant @ 8.0 oz prod/A + ¼ % v/v	(1) May 27, At planting, Temik 15G applied infurrow @ ½ lb ai/A (2) July 2, Aerial application of Acephate 90 WDG + Activator 90 Nonionic surfactant @ 8.0 oz prod/A + ¼ % v/v (3) July 9, Aerial application of Acephate 90 WDG + Activator 90 Nonionic surfactant @ 8.0 oz prod/A + ¼ % v/v	(1) October 19, Ground rig broadcast application of Ethephon + Folex + Ginstar + Induce nonionic surfactant @ 42.0 oz prod/A + 16.0 oz prod/A + 12.0 oz prod/A + ½ % v/v (2) November 16, Aerial application of Aim + Induce nonionic surfactant 1.6 oz prod/A + ¼ % v/v

Table 1 (continued). Cultural practices used for the cotton official variety tests at Altus, Tipton, and Fort Cobb, 2016.

Location	Fertilizer application	Irrigations	Herbicide applications	Plant growth regulator application	Insecticide applications	Harvest aid applications
Tipton	<p>(1) September 11, Apply pre-plant fertilizer with 40' ground drive broadcast spreader with 34-20-0 @ 74 lbs/A (2x E to W then N to S) = 50-30-0 treated w/N-Fix</p> <p>(2) March 16, Broadcast air boom truck application of 40-10-0 @ 200 lbs/A – Treated with N-Fix Nitrogen Stabilizer</p>	n/a	<p>(1) May 5, Pre-plant ground rig broadcast application of Roundup Power Max (glyphosate) + Choice Weather Master + Activator 90 nonionic surfactant @ 32.0 oz prod/A + ½ % v/v + ½ % v/v</p> <p>(2) June 8, Pre-emergence ground rig broadcast application of Prowl H2O + Parazone + Induce non-ionic surfactant @ 32 oz prod/A + 32 oz prod/A + ¼% v/v</p> <p>(3) June 23, Post emerge ground rig broadcast application of Mad Dog Plus + Choice Weather Master + Activator 90 nonionic Surfactant @ 48.0 oz prod/A + ½ % v/v + ½ % v/v</p> <p>(4) July 14, Post emerge ground rig broadcast application of Roundup Power Max + Staple LX + Mepiquat + Choice Trio + Activator 90 nonionic surfactant @ 32.0 oz prod/A + 3.2 oz prod/A + 4.0 oz prod/A + ½ % v/v + ½ % v/v</p>	July 14, In Post emerge ground rig broadcast of Roundup Power Max + Staple LX + Mepiquat + Choice Trio + Activator 90 nonionic surfactant @ 32.0 oz prod/A + 3.2 oz prod/A + 4.0 oz prod/A + ½ % v/v + ½ % v/v	(1) July 9, Aerial application of Acephate 90 WDG + Induce Nonionic surfactant @ 8.0 oz prod/A + ¼ % v/v	<p>(1) October 25, Ground rig broadcast application of Ethephon + Folex + Ginstar + Induce nonionic surfactant @ 42.0 oz prod/A + 16.0 oz prod/A + 12.0 oz prod/A + ½ % v/v</p> <p>(2) November 15, 2016 Aerial application of Aim + Induce nonionic surfactant @ 1.6 oz prod/A + ¼ % v/v</p>

Table 1 (continued). Cultural practices used for the cotton official variety tests at Altus, Tipton, and Fort Cobb, 2016.

Location	Fertilizer application	Irrigations	Herbicide applications	Plant growth regulator application	Insecticide applications	Harvest aid applications
Fort Cobb	<p>May 10, 100 lb/acre of 18-46-0 broadcast applied to test area after wheat cover baled and removed from test area</p> <p>May 24, 420 lb/acre of 38-0-7</p>	<p>15 total via center pivot, 13.75" total</p> <p>May 31, ¾"</p> <p>June 11, ¾"</p> <p>June 21, ¾"</p> <p>July 7, 1"</p> <p>July 10, 1"</p> <p>July 23, 1"</p> <p>August 3, 1"</p> <p>August 8, 1"</p> <p>August 11, ¾"</p> <p>August 14, ¾"</p> <p>August 17, 1"</p> <p>August 19, 1"</p> <p>August 26, 1"</p> <p>August 30, 1"</p> <p>September 4, 1"</p>	<p>(1) May 10, Gramoxone SL 2.0 @ 1 qt/acre</p> <p>(2) May 26, Prowl H2O @ 1 qt. + Glyphosate @ 2 qt. + Induce @ 3 oz.</p> <p>(3) June 17, Glyphosate @ 40 oz. + Dual Magnum @ 1.33 pt.</p> <p>(4) June 29, Glyphosate @ 40 oz. + Bracket @ 8 oz.</p> <p>(5) July 14, Mepachlor 4.2 @ 8 oz. + Glyphosate @ 40 oz. + Warrant @ 3 pt.</p>	<p>July 14, Mepachlor 4.2 @ 8 oz. + Glyphosate @ 40 oz. + Warrant @ 3 pt.</p>	<p>(1) June 29, Glyphosate @ 40 oz. + Bracket @ 8 oz.</p> <p>(2) July 6, Bracket @ 12 oz.</p>	<p>(1) October 19, Finish @ 42 oz. + Ginstar @ 10 oz.</p> <p>(2) November 15, ETX @ 1.7 oz. + Crop Oil @ 1% /v in 12 GPA</p>



Table 2. Yield and agronomic results from the OSU cotton official variety test, Southwest Research and Extension Center, Altus, OK 2016.

Entry	Lint yield lb/acre	Grab sample turnout		Boll sample lint fraction		Boll size	Seed index	Lint index	Seed per boll	Storm resistance	Final plant height inches
		Lint	Seed	Picked	Pulled						
		-----%-----				g seed cotton/boll	g wt 100 fuzzy seed	g wt lint from 100 fuzzy seed	count/boll	visual scale (1=loose, 9=tight)	
Deltapine DP 1639B2XF	2310	29.7	41.7	39.8	30.4	6.4	9.3	7.0	28.2	4	31
PhytoGen PHY 444WRF	2261	29.3	44.1	38.9	31.0	7.3	11.5	8.3	27.3	5	32
PhytoGen PHY 300W3FE	2246	28.1	42.6	39.3	30.2	6.9	9.5	6.9	30.3	6	29
FiberMax FM 2011GT	2216	29.0	44.8	39.7	31.5	8.7	12.2	8.8	31.1	8	31
NexGen NG 1511B2XF	2173	30.8	43.2	40.6	31.8	7.0	10.1	7.7	29.0	4	30
FiberMax FM 2484B2F	2162	27.4	45.2	37.4	29.9	6.5	10.2	6.8	28.2	5	34
PhytoGen PHY 312WRF	2161	28.2	44.4	39.2	31.0	7.3	10.4	7.5	30.1	4	30
Deltapine DP 1518B2XF	2149	28.8	45.9	37.2	30.1	6.1	9.6	6.4	28.5	4	30
PhytoGen PHY 490W3FE	2127	27.1	45.0	39.9	30.8	6.6	9.0	6.6	30.7	6	32
FiberMax FM 1900GLT	2121	29.2	44.9	40.1	32.0	7.9	11.1	8.2	31.2	7	30
Deltapine DP 1612B2XF	2111	29.0	46.5	37.5	29.5	6.9	10.5	7.0	29.3	4	28
Deltapine DP 1614B2XF	2103	29.7	42.8	40.2	31.0	6.5	8.8	6.7	29.8	5	28
Croplan CG 3527B2XF	2078	29.4	42.3	39.8	31.2	6.7	9.3	7.1	29.6	5	28
All-Tex Nitro-44B2RF	2054	26.8	46.5	36.5	29.6	7.1	10.9	6.9	30.6	7	32
FiberMax FM 2322GL	2042	30.7	42.0	41.6	32.2	7.6	10.5	8.4	29.1	7	35
Stoneville ST 4946GLB2	2036	28.0	45.0	37.4	29.9	7.6	11.0	7.2	31.4	6	28
PhytoGen PHY 243WRF	2027	26.9	45.2	35.8	28.0	7.2	11.7	7.3	27.6	7	29
FiberMax FM 1911GLT	2016	28.7	44.9	39.7	31.2	8.6	12.4	9.2	29.2	7	28
FiberMax FM 2007GLT	2015	27.6	48.3	36.6	29.2	6.9	10.9	7.0	28.6	7	27
Stoneville ST 4747GLB2	2009	27.6	45.6	37.6	28.4	7.1	10.5	7.0	28.8	5	30
NexGen NG 4545B2XF	2001	27.3	45.4	37.1	29.5	7.5	10.7	6.9	32.1	5	31
Deltapine DP 1044B2RF	1985	26.5	46.9	35.8	28.7	6.3	10.2	6.4	28.6	5	29
PhytoGen PHY 223WRF	1966	26.1	47.7	35.2	27.7	7.6	11.3	6.8	31.3	6	31
FiberMax FM 2334GLT	1958	29.2	44.0	39.4	31.2	6.8	9.2	6.6	31.9	4	27
Stoneville ST 4848GLT	1957	28.9	43.1	40.1	31.1	7.1	9.7	7.3	30.3	5	29
PhytoGen PHY 333WRF	1937	27.9	43.8	39.1	30.1	7.3	9.8	7.0	30.9	5	30
PhytoGen PHY 499WRF	1933	27.9	44.7	39.0	30.6	7.0	9.8	7.0	30.6	5	32
NexGen NG 3406B2XF	1931	28.4	44.9	37.9	29.6	6.9	9.7	6.7	30.4	5	27
PhytoGen PHY 220W3FE	1925	26.9	44.0	37.9	28.8	6.6	10.9	7.4	25.6	7	28
NexGen NG 3517B2XF	1898	27.0	44.8	35.7	28.0	6.9	10.5	6.5	30.0	5	32
Deltapine DP 1522B2XF	1890	27.2	44.8	37.9	30.7	6.7	9.6	6.6	30.8	5	33
Deltapine DP 0912B2RF	1876	27.8	46.5	37.4	29.8	6.8	10.2	6.7	30.2	4	29
FiberMax FM 1830GLT	1851	28.1	43.9	39.5	31.5	7.0	10.2	7.4	29.9	5	29
PhytoGen PHY 308WRF	1822	24.4	43.5	36.7	27.8	7.5	10.5	6.7	31.1	6	32
PhytoGen PHY 222WRF	1752	26.7	45.3	37.3	28.5	7.0	11.2	7.4	27.0	6	26
PhytoGen PHY 725RF	1519	24.6	46.2	34.8	27.2	7.2	11.6	6.8	28.9	3	34
Test average	2017	28.0	44.7	38.2	30.0	7.1	10.4	7.2	29.7	5	30
CV, %	5.0	3.6	2.1	2.4	2.9	3.8	4.2	4.7	4.7	13.9	6.9
OSL	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
LSD	141	1.6	1.5	1.5	1.4	0.4	0.7	0.6	2.3	1	3

CV - coefficient of variation.

OSL - observed significance level, or probability of a greater F value.

LSD - least significant difference at the 0.05 level.



Table 3. Fiber property results and Texas A&M AgriLife Research Bacterial blight ratings for entries in the OSU cotton official variety test, Southwest Research and Extension Center, Altus, OK 2016.

Entry	Micronaire	Length	Staple	Strength	Uniformity	Elongation	Reflectance	Yellowness	Texas A&M AgriLife Research Bacterial blight rating*
	units	inches	32nds inch	g/tex	%	%	rd %	+b %	
All-Tex Nitro-44B2RF	3.9	1.29	41.3	32.8	84.0	6.8	65.6	6.8	R
Croplan CG 3527B2XF	4.8	1.21	38.8	30.3	83.5	7.6	67.9	7.2	Not reported
Deltapine DP 0912B2RF	4.9	1.09	34.8	28.6	81.9	7.8	68.4	7.1	S
Deltapine DP 1044B2RF	4.2	1.19	38.2	31.0	82.9	8.4	69.2	7.4	MS
Deltapine DP 1518B2XF	4.5	1.22	38.9	30.4	83.3	6.7	68.2	6.4	R
Deltapine DP 1522B2XF	4.7	1.17	37.5	31.3	82.9	8.5	69.9	7.1	S
Deltapine DP 1612B2XF	4.9	1.21	38.8	31.7	85.2	8.3	66.6	6.5	PS
Deltapine DP 1614B2XF	4.9	1.21	38.7	30.7	84.4	8.4	66.4	7.2	MS
Deltapine DP 1639B2XF	4.8	1.21	38.7	34.1	84.8	7.8	68.4	6.9	R
FiberMax FM 1830GLT	5.0	1.33	42.5	34.0	83.9	5.1	70.7	6.2	R
FiberMax FM 1900GLT	4.6	1.24	39.7	35.2	84.7	4.5	67.2	7.2	R
FiberMax FM 1911GLT	4.8	1.23	39.3	33.2	83.1	6.0	70.2	6.4	R
FiberMax FM 2007GLT	4.4	1.28	41.1	32.9	84.3	6.2	69.5	6.2	R
FiberMax FM 2011GT	4.9	1.21	38.7	33.4	83.6	5.7	67.7	6.5	R
FiberMax FM 2322GL	4.5	1.26	40.2	34.4	83.7	4.9	67.7	6.9	S
FiberMax FM 2334GLT	4.6	1.25	40.0	34.5	84.9	5.6	71.7	6.4	R
FiberMax FM 2484B2F	4.1	1.27	40.6	32.8	84.0	5.5	70.9	6.5	R
NexGen NG 1511B2XF	4.9	1.18	37.7	32.7	83.0	8.8	68.8	6.9	MS
NexGen NG 3406B2XF	4.6	1.15	36.7	29.3	83.2	8.5	70.6	7.0	S
NexGen NG 3517B2XF	4.4	1.23	39.4	34.2	83.4	7.7	69.3	7.3	MS
NexGen NG 4545B2XF	4.7	1.20	38.3	35.0	84.3	5.3	69.2	7.3	R
PhytoGen PHY 220W3FE	5.1	1.15	36.7	31.3	83.9	8.6	69.8	7.2	Not reported
PhytoGen PHY 222WRF	5.1	1.19	38.2	32.7	84.3	7.6	68.0	6.8	S
PhytoGen PHY 223WRF	4.5	1.29	41.4	31.5	85.2	6.6	65.7	6.1	MR
PhytoGen PHY 243WRF	4.2	1.24	39.8	30.2	82.6	7.6	65.3	6.0	PR
PhytoGen PHY 300W3FE	4.5	1.18	37.8	31.7	83.3	6.5	69.3	7.2	Not reported
PhytoGen PHY 308WRF	4.0	1.20	38.3	33.8	83.8	7.8	66.8	7.7	S
PhytoGen PHY 312WRF	4.5	1.23	39.4	31.4	84.6	7.0	68.6	6.9	MS
PhytoGen PHY 333WRF	4.4	1.20	38.5	30.8	82.5	6.5	67.6	7.5	S
PhytoGen PHY 444WRF	3.9	1.30	41.7	31.9	84.8	6.7	71.0	7.5	MS
PhytoGen PHY 490W3FE	4.4	1.22	38.9	33.8	83.5	7.6	67.3	6.8	Not reported
PhytoGen PHY 499WRF	4.4	1.15	36.7	32.6	84.0	8.0	68.0	7.7	S
PhytoGen PHY 725RF	4.5	1.26	40.2	36.6	84.5	7.3	66.3	7.5	Not reported
Stoneville ST 4747GLB2	4.7	1.25	40.0	30.2	82.9	5.0	65.4	5.8	S
Stoneville ST 4848GLT	4.6	1.18	37.8	32.0	83.2	6.8	67.8	7.3	S
Stoneville ST 4946GLB2	4.8	1.20	38.3	33.0	83.5	6.6	68.1	7.1	S
Test average	4.6	1.22	39.0	32.4	83.8	7.0	68.3	6.9	--
CV, %	3.4	2.0	2.0	4.5	1.4	7.5	1.7	4.4	--
OSL	<0.0001	<0.0001	<0.0001	<0.0001	0.0814	<0.0001	<0.0001	<0.0001	--
LSD	0.3	0.04	1.3	2.4	1.5 †	0.8	1.9	0.5	--

CV - coefficient of variation.

OSL - observed significance level, or probability of a greater F value.

LSD - least significant difference at the 0.05 level, † indicates significance at the 0.10 level.

* Texas A&M AgriLife Research bacterial blight ratings are courtesy of Dr. Terry Wheeler's "Response of cotton varieties to Bacterial blight Race 18 in 2016."

Ratings are classified as: S = highly susceptible; MS = mostly susceptible; PS = partially susceptible; PR = partially resistant; MR = mostly resistant; R = highly resistant



Table 4. Yield and agronomic results from the OSU cotton official variety test, Tipton Valley Research Center, Tipton, OK 2016.

Entry	Lint yield lb/acre	Grab sample turnout		Boll sample lint fraction		Boll size	Seed index	Lint index	Seed per boll	Storm resistance	Final plant height inches
		Lint	Seed	Picked	Pulled						
		-----%-----				g seed cotton/boll	g wt 100 fuzzy seed	g wt lint from 100 fuzzy seed	count/boll	visual scale (1=loose, 9=tight)	
FiberMax FM1830GLT	1022	27.6	43.2	44.3	34.7	6.4	10.0	8.2	27.3	5	30
NexGen NG 3406B2XF	1006	26.8	44.5	41.7	33.2	6.4	9.7	7.2	29.5	5	33
Deltapine DP1612B2XF	968	27.2	44.2	42.0	33.4	6.4	9.6	7.3	29.1	5	32
Deltapine DP1646B2XF	958	28.2	43.3	44.9	36.1	6.1	8.7	7.3	30.4	5	35
Stoneville ST 4946GLB2	948	26.1	45.1	41.6	33.4	7.2	11.2	8.2	29.6	7	31
Dyna-Gro DG 3109B2XF	941	27.1	44.8	42.2	34.2	5.7	8.5	6.4	30.2	4	34
Deltapine DP 1549B2XF	937	27.5	44.3	43.1	34.6	5.7	8.9	7.0	28.6	5	33
PhytoGen PHY 333WRF	914	26.3	41.4	42.6	33.2	6.4	10.0	7.7	27.3	5	33
PhytoGen PHY 300W3FE	906	25.4	40.1	43.1	33.1	6.3	8.9	7.1	29.4	7	32
PhytoGen PHY 220W3FE	896	25.6	42.0	44.3	33.3	5.9	9.9	8.0	24.3	8	31
PhytoGen PHY 490W3FE	895	26.2	43.1	42.1	32.6	6.0	9.3	7.1	27.6	6	33
Stoneville ST 4747GLB2	881	25.1	44.7	40.8	31.8	6.7	10.4	7.4	28.6	5	32
Dyna-Gro DG 3385B2XF	880	27.3	45.1	43.4	34.9	6.1	9.5	7.4	28.9	5	30
FiberMax FM2322GL	877	28.2	42.3	45.2	34.6	6.6	10.3	8.7	26.1	6	34
FiberMax FM1900GLT	876	26.6	45.4	40.8	32.7	6.7	10.7	7.7	28.5	6	30
Croplan CG 3527B2XF	871	27.8	42.3	44.6	34.6	6.3	8.4	7.0	31.0	5	30
FiberMax FM1911GLT	866	26.3	43.5	43.8	33.9	7.8	12.5	10.0	26.7	8	31
PhytoGen PHY 444WRF	862	27.1	44.8	43.5	34.9	6.4	10.5	8.4	26.5	6	33
Dyna-Gro DG 3635B2XF	855	26.9	45.1	43.4	35.7	5.8	8.5	6.6	31.2	6	34
PhytoGen PHY 243WRF	850	25.8	44.6	41.0	32.0	6.5	10.3	6.9	30.1	7	31
NexGen NG 4545B2XF	839	25.0	44.9	41.5	32.4	6.9	10.1	7.4	30.5	6	34
FiberMax FM2334GLT	839	27.2	43.3	43.7	33.9	6.4	9.8	7.8	28.0	5	31
Stoneville ST 4848GLT	823	25.3	41.8	44.0	34.1	6.4	10.0	8.1	27.1	5	31
Deltapine DP 1522B2XF	822	26.4	43.9	42.0	32.9	5.8	9.3	6.9	27.6	5	33
PhytoGen PHY 222WRF	818	24.8	42.5	41.7	31.7	6.3	10.5	7.7	26.0	6	29
FiberMax FM2007GLT	812	25.8	46.4	40.0	32.2	6.5	11.1	7.6	27.7	7	29
PhytoGen PHY 223WRF	787	24.1	45.5	38.4	30.1	6.5	10.6	6.8	28.7	6	30
NexGen NG 3517B2XF	785	24.5	45.2	42.0	32.8	6.5	10.0	7.3	29.0	7	36
PhytoGen PHY 308WRF	720	25.0	43.2	41.2	31.5	6.2	11.0	7.9	24.8	6	34
Dyna-Gro DG 3445B2XF	679	22.4	42.9	40.4	30.3	7.5	11.5	7.9	28.8	7	31
Test average	871	26.2	43.8	42.5	33.3	6.4	10.0	7.6	28.3	6	32
CV, %	12.8	2.3	2.0	2.6	2.9	5.5	3.4	4.7	6.4	13.8	5.7
OSL	0.0163	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0006	<0.0001	<0.0001
LSD	157	1.0	1.4	1.8	1.6	0.6	0.6	0.6	3.0	1	3

CV - coefficient of variation.

OSL - observed significance level, or probability of a greater F value.

LSD - least significant difference at the 0.05 level.



Table 5. Fiber property results from the OSU cotton official variety test, Tipton Valley Research Center, Tipton, OK 2016.

Entry	Micronaire	Length	Staple	Strength	Uniformity	Elongation	Reflectance	Yellowness
	units	inches	32nds inch	g/tex	%	%	rd %	+b %
Croplan CG 3527B2XF	4.8	1.15	36.8	30.3	82.4	7.8	67.7	7.2
Deltapine DP 1522B2XF	4.8	1.13	36.2	32.4	82.8	8.6	69.4	7.2
Deltapine DP 1549B2XF	4.4	1.13	36.3	32.8	81.7	6.5	70.3	7.6
Deltapine DP1612B2XF	4.9	1.13	36.2	31.6	83.0	8.7	67.4	6.9
Deltapine DP1646B2XF	4.5	1.24	39.7	31.6	82.6	7.8	71.7	6.4
Dyna-Gro DG 3109B2XF	4.7	1.13	36.1	33.7	82.5	7.2	66.3	6.5
Dyna-Gro DG 3385B2XF	4.7	1.12	35.9	30.3	82.9	8.9	70.9	7.4
Dyna-Gro DG 3445B2XF	4.5	1.21	38.7	34.5	84.1	5.5	71.0	6.5
Dyna-Gro DG 3635B2XF	4.6	1.15	36.9	33.7	82.0	6.5	71.0	8.1
FiberMax FM1830GLT	4.7	1.25	40.0	34.3	83.3	5.3	73.7	6.5
FiberMax FM1900GLT	4.6	1.16	37.0	32.6	82.8	4.6	68.2	6.6
FiberMax FM1911GLT	4.7	1.17	37.3	32.7	82.0	5.8	72.6	6.7
FiberMax FM2007GLT	4.6	1.22	38.9	32.9	82.0	6.3	71.0	6.4
FiberMax FM2322GL	4.8	1.22	39.1	36.6	84.3	4.8	69.5	6.8
FiberMax FM2334GLT	4.9	1.23	39.5	33.8	84.9	5.4	72.2	6.6
NexGen NG 3406B2XF	4.6	1.13	36.2	30.8	84.0	8.2	69.2	6.9
NexGen NG 3517B2XF	4.6	1.18	37.8	33.7	82.7	7.1	68.6	7.3
NexGen NG 4545B2XF	4.6	1.16	37.1	33.8	82.9	6.6	67.2	7.1
PhytoGen PHY 220W3FE	5.0	1.13	36.3	33.0	84.0	7.6	68.9	7.3
PhytoGen PHY 222WRF	5.0	1.14	36.5	32.7	84.4	8.1	68.9	7.2
PhytoGen PHY 223WRF	4.6	1.23	39.3	33.3	84.2	7.3	67.1	6.3
PhytoGen PHY 243WRF	4.2	1.17	37.3	29.5	81.2	7.6	67.6	6.3
PhytoGen PHY 300W3FE	4.5	1.14	36.6	33.2	83.0	6.6	68.4	7.3
PhytoGen PHY 308WRF	5.0	1.13	36.3	34.1	83.5	7.7	64.5	6.9
PhytoGen PHY 333WRF	4.4	1.16	37.0	30.8	82.2	6.5	67.1	7.3
PhytoGen PHY 444WRF	4.0	1.25	40.1	32.5	83.2	6.4	71.9	7.3
PhytoGen PHY 490W3FE	4.6	1.14	36.6	35.0	84.1	8.1	69.0	7.0
Stoneville ST 4747GLB2	4.5	1.17	37.4	29.3	81.2	5.1	65.4	5.8
Stoneville ST 4848GLT	4.8	1.17	37.3	32.1	83.2	6.4	68.0	7.0
Stoneville ST 4946GLB2	4.8	1.14	36.6	33.1	81.9	7.6	69.2	7.1
Test average	4.7	1.17	37.4	32.7	83.0	6.9	69.1	6.9
CV, %	3.3	2.6	2.6	4.0	1.2	7.8	2.0	4.6
OSL	<0.0001	<0.0001	<0.0001	<0.0001	0.0004	<0.0001	<0.0001	<0.0001
LSD	0.3	0.05	1.6	2.1	1.7	0.9	2.2	0.5

CV - coefficient of variation.
 OSL - observed significance level, or probability of a greater F value.
 LSD - least significant difference at the 0.05 level.



Table 6. Yield and agronomic results from the OSU cotton official variety test, Caddo Research Station, Fort Cobb, OK 2016.

Entry	Lint yield lb/acre	Grab sample turnout		Boll sample lint fraction		Boll size	Seed index	Lint index	Seed per boll	Storm resistance	Final plant height inches
		Lint	Seed	Picked	Pulled						
		-----%-----				g seed cotton/boll	g wt 100 fuzzy seed	g wt lint from 100 fuzzy seed	count/boll	visual scale (1=loose, 9=tight)	
Deltapine DP 1044B2RF	1527	27.4	45.3	40.6	30.8	6.7	8.8	6.3	32.4	4.8	26
Croplan CG 3527B2XF	1488	29.0	43.3	44.2	33.1	7.2	8.5	7.1	33.9	5.0	29
NexGen NG 3406B2XF	1460	29.5	43.6	43.2	32.5	7.3	9.9	7.9	30.0	5.5	27
Deltapine DP 1518B2XF	1448	28.0	43.7	40.3	29.7	6.3	9.4	6.6	28.7	5.0	28
Deltapine DP1639B2XF	1446	28.3	40.3	45.9	33.5	6.5	8.7	7.9	27.8	3.8	27
Stoneville ST 4747GLB2	1440	27.0	44.5	42.1	31.9	7.1	9.6	7.2	31.4	6.3	27
PhytoGen PHY 312WRF	1425	27.5	43.9	43.1	32.6	7.3	10.4	8.2	29.3	4.3	29
PhytoGen PHY 300W3FE	1424	26.4	41.0	43.7	31.7	7.0	9.4	7.6	29.3	6.8	29
Deltapine DP 0912B2RF	1421	27.0	44.3	40.7	31.2	7.4	9.9	7.0	32.9	3.8	26
Deltapine DP 1612B2XF	1421	27.5	43.7	41.4	31.2	7.2	9.6	7.1	32.0	4.5	26
Deltapine DP 1614B2XF	1420	27.7	41.9	44.4	32.8	6.8	8.3	6.9	32.1	4.5	26
Stoneville ST 4848GLT	1410	26.8	40.5	42.3	31.3	7.2	9.7	7.5	29.7	4.0	28
PhytoGen PHY 223WRF	1409	25.7	46.1	40.5	30.5	8.0	11.3	7.9	30.8	6.3	29
Dyna-Gro DG 3385B2XF	1406	29.2	43.5	43.2	32.3	7.1	9.6	7.5	30.8	6.3	28
PhytoGen PHY 490W3FE	1399	27.2	42.5	43.6	31.8	7.2	9.4	7.5	30.6	4.5	29
Stoneville ST 4946GLB2	1391	27.1	44.6	40.1	30.8	7.8	11.0	7.7	31.6	6.5	29
FiberMax FM 2334GLT	1390	29.6	43.5	43.1	32.4	6.9	9.3	7.2	31.1	4.8	27
Dyna-Gro DG 3635B2XF	1386	27.9	44.7	42.7	32.4	6.4	8.5	6.6	31.4	5.0	30
FiberMax FM 1900GLT	1379	27.6	45.3	41.5	31.7	7.9	11.1	8.2	31.0	6.5	28
FiberMax FM 2007GLT	1370	25.7	46.9	39.0	29.9	7.2	10.3	6.8	31.9	6.8	26
FiberMax FM 1830GLT	1361	29.2	43.8	42.9	32.9	7.3	10.1	7.8	30.4	5.3	27
PhytoGen PHY 333WRF	1352	27.0	42.5	42.5	31.4	7.5	9.4	7.3	32.6	5.5	31
PhytoGen PHY 222WRF	1340	26.5	43.0	41.9	31.5	7.2	10.9	8.1	28.1	5.0	29
Dyna-Gro DG 3109B2XF	1322	27.6	44.5	41.6	31.6	6.6	8.5	6.3	33.0	4.0	30
Deltapine DP 1522B2XF	1322	27.2	42.9	40.7	30.1	6.5	9.3	6.8	29.2	5.0	28
PhytoGen PHY 243WRF	1312	25.6	44.1	41.6	31.1	7.1	10.8	7.9	27.9	7.5	28
FiberMax FM 2322GL	1297	30.5	41.2	45.5	34.0	7.9	10.1	8.8	30.6	7.5	29
Dyna-Gro DG 3445B2XF	1261	25.0	43.8	40.2	29.2	8.6	10.8	7.4	33.8	7.0	28
PhytoGen PHY 308WRF	1186	25.1	42.0	40.5	30.1	7.2	11.0	7.8	28.0	5.0	27
PhytoGen PHY 220W3FE	1184	25.9	41.0	42.7	30.9	6.6	10.2	7.9	25.8	6.8	26
NexGen NG 4545B2XF	1155	26.2	44.4	40.3	30.4	7.2	9.9	7.0	31.1	5.8	29
NexGen NG 3517B2XF	1131	25.1	45.7	40.6	30.9	6.2	9.5	6.7	28.7	6.3	28
FiberMax FM 1911GLT	966	26.3	43.2	41.2	30.9	8.7	12.4	9.0	30.7	7.8	25
Test average	1353	27.3	43.5	42.1	31.5	7.2	9.9	7.4	30.6	5.5	28
CV, %	11.8	4.4	2.2	3.1	3.4	5.3	5.5	6.9	6.7	15.9	7.1
OSL	0.0023	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0009	<0.0001	0.0082
LSD	233	1.9	1.5	2.1	1.8	0.6	0.9	0.8	3.3	1.2	3

CV - coefficient of variation.

OSL - observed significance level, or probability of a greater F value.

LSD - least significant difference at the 0.05 level.



Table 7. Fiber property results from the OSU cotton official variety test, Caddo Research Station, Fort Cobb, OK 2016.

Entry	Micronaire	Length	Staple	Strength	Uniformity	Elongation	Reflectance	Yellowness
	units	inches	32nds inch	g/tex	%	%	rd %	+b %
Croplan CG 3527B2XF	4.6	1.20	38.5	30.8	83.6	7.4	70.9	6.4
Deltapine DP 0912B2RF	5.2	1.10	35.3	31.9	82.5	7.2	70.1	6.0
Deltapine DP 1044B2RF	4.4	1.16	37.0	31.8	83.0	7.9	71.0	5.7
Deltapine DP 1518B2XF	4.1	1.20	38.5	31.0	83.0	6.4	71.4	5.5
Deltapine DP 1522B2XF	4.1	1.19	38.0	31.6	82.9	7.9	71.3	6.3
Deltapine DP 1612B2XF	4.5	1.17	37.3	33.6	82.8	8.4	69.2	5.9
Deltapine DP 1614B2XF	4.8	1.19	38.2	31.4	82.0	8.6	69.8	6.2
Deltapine DP1639B2XF	4.4	1.15	36.9	33.2	83.0	7.4	70.7	5.9
Dyna-Gro DG 3109B2XF	4.2	1.18	37.8	32.1	83.8	7.2	68.0	5.6
Dyna-Gro DG 3385B2XF	4.4	1.17	37.3	32.0	83.0	8.2	73.3	6.3
Dyna-Gro DG 3445B2XF	4.6	1.20	38.4	34.8	84.4	5.4	73.0	5.6
Dyna-Gro DG 3635B2XF	4.4	1.17	37.3	32.2	81.0	7.1	71.1	6.5
FiberMax FM 1830GLT	4.7	1.26	40.4	35.8	84.5	5.3	74.7	5.5
FiberMax FM 1900GLT	4.5	1.24	39.7	35.9	83.4	4.7	69.7	5.9
FiberMax FM 1911GLT	4.0	1.19	38.2	34.0	84.1	5.8	73.5	6.0
FiberMax FM 2007GLT	3.7	1.25	40.0	34.3	83.1	5.9	74.0	5.2
FiberMax FM 2322GL	4.6	1.26	40.4	37.6	83.7	4.8	70.9	6.6
FiberMax FM 2334GLT	4.7	1.25	39.9	33.0	83.4	5.7	74.1	5.6
NexGen NG 3406B2XF	4.7	1.15	36.7	31.4	82.5	8.4	72.6	6.1
NexGen NG 3517B2XF	4.2	1.17	37.5	33.5	82.2	6.7	72.2	5.9
NexGen NG 4545B2XF	4.3	1.15	36.8	33.0	82.2	5.2	71.7	6.5
PhytoGen PHY 220W3FE	5.1	1.14	36.5	34.1	83.9	7.7	73.0	6.8
PhytoGen PHY 222WRF	4.8	1.17	37.5	32.7	84.1	7.9	71.0	6.3
PhytoGen PHY 223WRF	4.3	1.25	40.1	32.1	84.3	6.7	70.4	5.9
PhytoGen PHY 243WRF	4.0	1.22	38.9	31.6	80.9	7.0	71.0	5.8
PhytoGen PHY 300W3FE	4.2	1.15	36.8	32.7	83.4	7.0	71.5	6.8
PhytoGen PHY 308WRF	4.5	1.17	37.3	35.0	83.4	7.7	69.7	6.5
PhytoGen PHY 312WRF	4.2	1.18	37.7	31.8	83.7	6.9	71.0	6.0
PhytoGen PHY 333WRF	4.0	1.22	38.9	32.4	83.5	6.1	70.2	6.6
PhytoGen PHY 490W3FE	4.6	1.15	36.9	37.2	83.9	8.1	71.1	6.0
Stoneville ST 4747GLB2	4.3	1.22	38.9	31.3	82.9	5.1	70.0	5.5
Stoneville ST 4848GLT	4.5	1.19	38.0	32.1	83.7	6.4	69.7	6.1
Stoneville ST 4946GLB2	4.6	1.20	38.3	35.8	83.6	7.0	70.7	6.6
Test average	4.4	1.19	38.1	33.1	83.2	6.8	71.3	6.1
CV, %	7.9	1.8	1.8	4.3	1.2	6.7	1.5	6.5
OSL	0.0010	<0.0001	<0.0001	<0.0001	0.0020	<0.0001	<0.0001	<0.0001
LSD	0.6	0.04	1.1	2.3	1.6	0.7	1.7	0.6

CV - coefficient of variation.

OSL - observed significance level, or probability of a greater F value.

LSD - least significant difference at the 0.05 level, † indicates significance at the 0.10 level.