

Cotton Cultivar Tests for 2006 in Central and South Texas

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Cotton cultivar tests (CVT) are conducted each year by the Texas Agricultural Experiment Station to determine the relative performance of cultivars (varieties) available to producers in Texas. These tests are conducted statewide to evaluate commercial cultivars in every cotton growing region. Since Texas is a large state with diverse climates and growing seasons, the CVT results are reported separately for Central and South Texas, the Rolling and High Plains, and Far West Texas. This report concentrates on the cotton production regions of Central and South Texas.

Severe spring drought conditions in south Texas resulted in the loss of the dryland site in San Patricio County although reasonable rainfall occurred during the growing season. Moderate to severe drought reduced yields at Thrall and severe drought conditions resulted in extremely low yields at Prosper in the northern Blacklands

Test locations, soil types, planting dates, and harvest dates are given in Table 1, with yield and fiber characteristics presented in Tables 2 - 17.

Yield and other characteristics were analyzed as randomized complete blocks. Least significant differences (LSD) are used to determine if two cultivars are different at $k=100$, which approximates the 5% probability level. Values reported for any two cultivars that differ by more than the LSD value are expected to be different in 95 of every 100 comparisons. The test average (mean) and the coefficient of variation (CV) also are reported for each characteristic measured at each location. The coefficient of variation is a measure of the uniformity of the test site (e.g. soil uniformity, drainage, disease, etc.). Lower coefficients of variation are desirable.

Agronomic Determinations

Lint yield: Lint yield per acre is determined as follows: (lbs. seedcotton/plot) x (appropriate gin turnout) x (area conversion factor).

Gin turnout: Amount of lint in a random sample of machine harvested seedcotton expressed as a percent of seed cotton in the sample.

Fiber Quality Determinations

Fiber quality parameters were determined by high volume instrument (HVI) testing at the Texas Tech University International Textile Research Center at Lubbock, TX.

Fiber Fineness: Fiber fineness, micronaire, is a measure of the maturity and/or the fineness of cotton fibers and is reported in micronaire units. Micronaire is a relative measure of the development, or maturity, of the secondary wall of the cotton fiber throughout its entire length. Processing rates, fabric dyeing, and yarn and fabric appearance are adversely affected by immature fibers. Fine fibers, although mature,

weigh less per unit length and may require reduced processing speeds compared to thicker fibers, yet these finer fibers may produce stronger yarns. Thick or coarse fibers result in fewer fibers in a cross section of yarn, and therefore, may produce weaker yarns.

Fiber fineness is determined by forcing air through a specified weight of lint. The rate of air flow is related to fiber thickness. Finer fibers result in more fibers per specified weight and, therefore, have greater resistance to air flow. Micronaire values of 3.4 or below indicate fine and perhaps immature fibers, and values of 5.0 or higher indicate coarse fibers. Values of 3.5 to 4.9 are desirable and indicate mature, well-developed fibers.

Fiber Length: Fiber length is reported in hundredths of an inch as measured by High Volumn instrument and is the average of the longest 50 percent of the fibers in the sample, usually referred to as the upper half mean (UHM). Long fibers are desirable because they produce greater yarn strength, aid in spinning finer yarns, and can be processed at higher speeds.

HVI fiber lengths (in.)
and descriptive designation

Below 0.97	Short
0.97 - 1.10	Medium
1.11 -1.28	Long
Above 1.28	Extra long

Fiber Uniformity: Fiber uniformity index (UI) provides a relative measure of the length uniformity of cotton fibers. Uniformity is calculated as the ratio of the average length of all fibers to the average length of the longest 50 percent of the fibers in the sample. High uniformity values indicate uniform fiber length distribution and are associated with a high-quality product and with low manufacturing waste.

Uniformity ratios
and descriptive designation

Below 77	Very low
77-79	Low
80-82	Average
83-85	High
Above 85	Very high

Fiber Strength: Yarn strength and ease of processing are positively correlated with strong fibers. Strength values are reported in grams of force required to break a bundle of cotton fibers with the holding jaws separated by 1/8 inch. The size of the bundle of fibers is described in tex units. Fiber strength is described from very low to very high within UHM classifications.

HVI
1/8-inch gauge
strength
(grams/tex)

Fiber length
group and
descriptive
designation

Short

(0.96 inch or less)

18-19	Very low
20-21	Low
22-23	Average
24-25	High
26-27	Very high

Medium

(0.97-1.10 inch)

17-19	Very low
20-22	Low
23-25	Average
26-28	High
29-31	Very high

Long

(1.11-1.28 inch)

18-20	Very low
21-23	Low
24-26	Average
27-29	High
30-32	Very high

Fiber Elongation: Elongation is the degree of extension of the fibers before break occurs when measuring strength. Fiber bundle elongation is correlated with yarn elongation but has an insignificant effect on yarn strength. Its value and importance in yarn manufacture has not been fully established.

Fiber elongation
and descriptive designation

4.9 and below	Very low
5.0-5.8	Low
5.9-6.7	Average
6.8-7.6	High
7.7 and above	Very high

Table 1. 2006 Cotton Cultivar Test: locations, soil types, planting dates, harvest dates, and irrigation data.

Location	Soil type	Planting date	Harvest date	Irrigated
Weslaco	Hildago s.c.l. ¹	3/9/2006	8/2/2006	yes
Corpus Christi	Victoria clay	3/30/2006	8/16/2006*	no
San Patricio Co.	Victoria clay	4/15/2006	8/23/2006	yes
San Patricio Co.	Victoria clay	4/14/2006	no harvest**	no
Matagorda County	Lake Charles clay	3/15/2006	8/15/2006	no
College Station	Westwood s.l. ²	4/20/2006	9/25/2006	yes
Uvalde	Uvlade s.c.l. ¹	4/16/2006	9/7/2006	yes
Thrall	Burleson clay	4/19/2006	8/25/06***	no
Prosper	Houston c.l. ³	5/11/2006	9/20/2006****	no
Chillicothe	Abilene c.l. ³	5/19/2006		yes

1. s.c.l.=sandy clay loam
2. s.l.=silt loam
3. c.l.=clay loam

Table 2. Agronomic performance and fiber quality of cotton cultivars evaluated in Weslaco CVT 1 in 2006 with irrigation.

Cultivar	Lint Yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
DP 491	1512	39.5	4.6	1.14	29.5	82	3.2
FM 960 B2R	1471	38.0	4.5	1.14	30.5	82	2.5
DP 494 RR	1455	38.9	4.7	1.13	30.0	82	4.0
DP 117 B2RF	1451	39.6	4.5	1.09	28.1	82	3.9
DP 110 RF	1434	39.0	4.3	1.12	30.7	83	5.1
PHY 425 RF	1408	39.4	4.5	1.09	28.7	84	5.6
DP 445 BG/RR	1396	39.1	4.4	1.09	27.4	83	5.0

DP 555 BG/RR	1375	39.8	4.6	1.05	27.1	81	3.2
FM 9058 F	1368	39.3	4.3	1.13	28.4	81	3.3
ST 5599 BR	1366	38.5	4.4	1.07	26.4	81	3.7
ST 4892 BR	1363	39.4	4.3	1.06	27.9	84	4.6
BCG-BW-4630B2F	1351	35.9	4.2	1.12	26.2	83	4.5
FM 960 B2	1335	37.4	4.3	1.12	30.8	83	2.5
ST 4357B2RF	1325	35.6	4.1	1.12	27.4	82	4.8
PHY 470 WR	1324	38.2	4.5	1.07	28.2	84	5.5
TAM 99 F-87	1314	36.5	4.1	1.20	29.7	83	4.2
BCG-BW-3255B2F	1310	34.5	4.0	1.07	25.6	83	4.8
Tamcot 22	1294	39.5	4.1	1.10	26.9	81	4.2
DA Holland 338-276-1-3-4	1292	35.3	4.2	1.16	30.5	82	2.7
AT Apex B2RF (55033)	1283	34.9	4.0	1.11	26.6	82	4.6
DA Tejas 48-5-7-2-2	1271	33.8	4.5	1.17	29.4	84	4.8
FM 832 LL	1256	35.9	4.3	1.16	30.0	83	3.4
PHY 370 WR	1251	39.4	4.2	1.04	27.5	83	4.4
DP 147 RF	1246	37.7	4.0	1.15	28.6	81	3.5
DP 164 B2RF	1231	36.4	4.3	1.10	28.9	80	3.7
DG 2242 B2RF	1214	35.0	4.0	1.09	26.5	83	5.0
TAM 99 WJ-9	1211	35.0	4.8	1.14	29.5	84	2.9
TAM 00 WA-104	1209	36.8	4.4	1.12	29.9	83	4.7
DG 2100 B2RF	1189	33.8	3.8	1.06	26.2	83	5.2
FM 9063 B2F	1173	37.3	4.3	1.15	30.5	82	3.4
PSC PHY 72 Acala	1149	36.8	4.3	1.12	30.7	83	4.7
ST 4664RF	1130	37.5	4.3	1.10	28.4	83	6.0
ST 4554B2RF	1120	37.0	4.1	1.09	29.0	83	6.0
FM 9068 F	1119	35.8	4.2	1.16	30.3	82	3.5
FM 989 B2R	1117	35.3	4.0	1.14	31.9	84	3.8
ST 6611B2RF	1111	33.1	4.1	1.08	29.4	81	3.5
PM 2167 RR	1025	37.1	4.8	1.00	26.1	82	4.5
CG 4020 B2RF	1010	36.4	3.9	1.11	27.0	82	4.5
CG 3020 B2RF	1001	35.3	4.0	1.08	26.7	83	5.0
LSD (k=100) ¹	203	2.2	0.3	0.04	2.1	2	0.4
%CV	10	3.0	3.4	2.00	3.6	1	5.4
Mean	1268	37.0	4.3	1.11	28.5	82	4.2

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 3. Agronomic performance and fiber quality of cotton cultivars evaluated in Weslaco CVT 2 in 2006 with irrigation.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
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SYN DX25105N	1654	39.9	4.5	1.11	28.4	82	4.3
DP 555 BG/RR	1570	41.3	4.6	1.05	27.7	79	3.0
PHY 440 W	1529	39.6	4.5	1.14	28.2	84	5.2
FM 966 LL	1519	37.7	4.5	1.11	31.4	84	2.9
ST 5599 BR	1500	39.8	4.5	1.10	28.9	82	3.3
DP 491	1486	40.2	4.5	1.16	30.4	83	3.2
ST 4892 BR	1467	40.6	4.6	1.08	28.2	83	4.6
DP 143 B2RF	1459	37.6	4.1	1.16	27.2	81	3.7
DP 515 BG/RR	1455	41.1	4.6	1.09	29.9	82	3.4
FM 960 B2R	1449	37.6	4.4	1.12	31.3	83	2.6
FM 9060 F	1429	38.6	4.0	1.18	31.0	83	3.1
FM 832 LL	1412	36.0	4.1	1.16	29.9	83	3.3
DG 2520 B2RF	1399	36.0	4.0	1.11	25.9	81	4.4
PHY 485 WRF	1390	39.6	4.4	1.11	29.2	84	5.7
ST 4700B2RF	1390	37.6	4.1	1.11	26.0	82	4.7
PHY 480 WR	1364	37.3	4.6	1.11	28.2	85	5.6
AT Titan B2RF (55055)	1362	35.5	4.1	1.16	28.4	83	4.6
Tamcot 22	1340	39.1	4.2	1.12	26.4	83	4.7
DP 488 BG/RR	1332	38.0	4.3	1.16	29.7	83	3.9
DA Sphinx 13-6-6-1-4	1328	35.0	4.8	1.08	29.1	83	3.9
BCG-BW-2038B2F	1327	36.0	4.1	1.08	26.2	82	4.9
DP 167 RF	1320	36.0	4.1	1.16	30.5	82	3.7
CG 3520 B2RF	1316	36.9	4.1	1.10	26.6	83	5.1
FM 981 LL	1311	35.8	4.1	1.11	31.4	82	3.6
DP 434 RR	1293	37.8	4.0	1.10	26.6	82	4.2
ST 6622RF	1289	36.3	4.4	1.11	28.4	83	3.8
PHY 310 R	1286	40.2	4.3	1.06	27.2	83	4.6
BCG-BW-4021B2F	1272	38.4	3.9	1.12	26.3	83	4.6
DP 455 BG/RR	1269	39.3	4.4	1.06	27.7	81	3.2
PM 2167 RR	1258	37.8	4.6	1.00	26.5	82	4.2
FM 965 LLB2	1249	36.2	4.3	1.17	31.1	83	2.9
BCG-BW-8391B2F	1248	33.6	3.9	1.15	29.0	83	4.5
FM 988 LLB2	1248	36.3	3.9	1.10	29.1	80	3.1
FM 800 B2R	1237	37.8	3.9	1.19	32.1	83	3.4
DA Holland 338-37-4-2-2-5	1203	35.0	4.5	1.13	29.8	83	3.9
DP 444 BG/RR	1200	38.1	4.0	1.05	27.0	83	4.7
DG 2215 B2RF	1143	34.6	3.7	1.08	27.0	82	4.8
PSC PHY 72 Acala	1102	35.6	4.0	1.16	33.0	83	4.7
ST 6565B2RF	1061	33.8	4.1	1.15	29.4	83	3.4
DG OA265 BR	1026	38.1	3.9	1.12	33.8	83	3.6
LSD (k=100) ¹	228	2.7	0.5	0.04	2.0	1	0.5

%CV	11	3.4	4.9	2.00	3.5	1	6.5
Mean	1337	37.5	4.2	1.11	28.8	83	4.0

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 4. Agronomic performance and fiber quality of cotton cultivars evaluated in Corpus Christi in CVT 1 in 2006 without irrigation.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
DP 445 BG/RR	1194	43.8	4.4	1.07	29.2	82	5.0
PHY 370 WR	1188	43.5	5.1	1.03	27.8	83	5.1
ST 5599 BR	1187	43.2	4.9	1.04	27.7	82	3.3
ST 4892 BR	1147	43.0	4.7	1.05	27.9	83	4.2
TAM 99 F-87	1099	40.5	4.6	1.09	27.8	82	4.5
PHY 470 WR	1074	40.9	4.8	1.06	28.4	84	6.1
ST 4554B2RF	1008	42.2	4.9	1.05	27.7	83	5.4
ST 4357B2RF	1005	42.0	4.5	1.09	26.4	82	4.6
TAM 99 WJ-9	995	40.4	4.8	1.13	30.7	83	3.0
PHY 425 RF	979	42.0	4.9	1.08	28.5	82	5.7
DG 2242 B2RF	974	39.5	4.4	1.09	26.8	83	5.6
FM 966 LL	935	41.2	4.6	1.08	31.4	83	2.9
FM 958 LL	927	40.1	4.6	1.11	30.6	83	2.8
FM 981 LL	926	40.6	5.0	1.03	29.8	82	4.0
ST 6611B2RF	921	40.2	4.8	1.08	29.0	83	3.6
FM 832 LL	901	39.8	4.7	1.09	29.2	82	3.3
CG 3020 B2RF	891	40.0	4.0	1.06	26.6	82	4.8
BCG-BW-8391B2F	871	39.5	4.6	1.13	26.7	83	4.9
DP 491	855	43.2	4.3	1.11	31.3	82	3.5
FM 988 LLB2	853	38.2	4.6	1.08	29.8	81	3.1
FM 955 LLB2	836	38.9	4.7	1.12	29.4	84	3.5
PHY 745 WRF	835	39.4	4.3	1.11	31.7	84	5.7
BCG-BW-2038B2F	832	39.5	4.3	1.09	27.2	82	4.9
TAM 00 WA-104	814	40.1	4.5	1.04	30.0	81	4.4
DG 2100 B2RF	805	41.2	4.3	1.05	27.4	83	5.6
DP 164 B2RF	804	39.7	4.6	1.11	28.0	81	3.7
DP 555 BG/RR	782	42.6	4.5	1.03	26.7	80	3.3
FM 960 B2R	774	39.8	4.2	1.10	31.1	82	2.6
PM 2167 RR	771	39.7	5.0	0.99	27.2	82	4.0
ST 4664RF	771	39.8	4.6	1.05	30.1	83	5.7
BCG-BW-4021B2F	756	38.8	3.7	1.06	26.9	81	4.6
DA Tejas 48-5-7-2-2	751	34.0	4.7	1.13	30.6	83	4.2
FM 965 LLB2	739	37.2	4.2	1.11	30.9	83	2.9

DA Holland 338-276-1-3-4	711	38.5	4.3	1.15	30.9	82	3.0
Tamcot 22	680	41.6	3.9	1.06	27.1	81	4.4
PSC PHY 72 Acala	671	40.7	4.5	1.13	31.8	83	4.4
LSD (k=100) ¹	199	2.2	0.3	0.04	1.9	1	0.4
%CV	14	2.7	3.8	2.00	3.4	0	4.9
Mean	896	40.4	4.5	1.08	28.9	82	4.2

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 5. Agronomic performance and fiber quality of cotton cultivars evaluated in Corpus Christi in CVT 2 in 2006 without irrigation.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
DP 455 BG/RR	1309	42.4	4.6	1.06	29.2	81	3.6
PHY 480 WR	1267	40.1	4.7	1.13	30.1	85	5.9
DP 143 B2RF	1260	40.4	4.2	1.18	28.9	81	3.7
DP 491	1215	43.4	4.4	1.14	30.2	83	3.4
PHY 310 R	1214	43.5	5.0	1.04	28.6	82	5.0
ST 5599 BR	1168	41.3	5.0	1.04	27.1	81	3.5
FM 832 LL	1142	42.5	4.5	1.10	29.1	84	3.2
DP 555 BG/RR	1136	43.0	4.6	1.03	27.4	81	3.2
PHY 440 W	1119	41.2	4.7	1.14	30.4	84	5.7
PHY 485 WRF	1072	40.7	4.6	1.11	29.6	84	5.7
AT Apex B2RF	1070	40.6	4.4	1.12	27.0	84	4.5
ST 4700B2RF	1067	39.7	4.5	1.08	26.5	82	5.1
DG 2520 B2RF	1061	41.2	4.6	1.13	27.1	81	4.7
FM 989 B2R	1037	37.8	4.3	1.15	31.8	83	3.4
CG 3520 B2RF	1033	40.9	4.6	1.11	27.2	83	5.3
FM 960 B2	1029	39.6	4.4	1.11	32.3	84	3.1
DG 2215 B2RF	1026	40.5	4.0	1.09	28.5	82	4.8
AT Titan B2RF	1024	39.3	4.7	1.14	28.6	83	4.7
ST 4892 BR	1006	43.0	5.1	1.08	27.2	82	4.2
BCG-BW-4630B2F	1001	40.4	4.3	1.12	27.7	82	4.8
FM 9063 B2F	995	39.7	4.4	1.17	32.5	83	3.6
PM 2167 RR	980	39.2	5.0	1.00	27.9	83	4.5
CG 4020 B2RF	968	41.4	4.3	1.15	27.5	83	5.1
BCG-BW-3255B2F	952	39.4	4.3	1.06	26.6	83	4.9
FM 800 B2R	934	39.9	4.0	1.16	31.8	83	3.3
ST 6622RF	927	40.9	4.9	1.09	28.1	84	3.6
ST 6565B2RF	907	38.5	4.5	1.09	29.5	82	3.3
FM 9058 F	906	41.0	4.2	1.14	28.7	82	3.2
DA Sphinx 13-6-6-1-4	904	37.9	5.1	1.08	29.7	83	4.3

FM 960 B2R	892	38.6	4.2	1.12	32.1	82	2.6
Tamcot 22	866	41.3	4.0	1.11	27.7	81	4.7
DG OA265 BR	820	39.4	4.2	1.14	32.9	84	3.8
FM 9068 F	816	39.1	4.2	1.15	31.1	83	3.9
PSC PHY 72 Acala	781	39.2	4.3	1.16	31.9	83	4.3
FM 9060 F	777	40.2	4.2	1.13	29.3	81	3.2
DA Holland 338-37-4-2-2-5	676	37.6	4.0	1.13	32.7	83	3.2
LSD (k=100) ¹	216	2.1	0.3	0.05	2.4	2.5	0.4
%CV	13	2.5	3.5	2.10	4.0	1	5.8
Mean	1009	40.4	4.4	1.11	29.3	83	4.1

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 6. Agronomic performance and fiber quality of cotton cultivars evaluated in San Patricio County in CVT 1 in 2006 with irrigation.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
PHY 370 WR	1717	39.1	4.0	1.12	28.8	82	4.5
PHY 425 RF	1713	38.4	4.7	1.16	29.1	85	4.8
ST 5599 BR	1668	39.8	4.4	1.13	28.6	83	3.3
DP 491	1668	40.2	4.0	1.21	30.7	83	3.2
DP 555 BG/RR	1664	40.5	4.3	1.09	27.3	81	3.0
FM 958 LL	1660	38.1	4.1	1.20	31.0	83	2.4
ST 4554B2RF	1649	38.1	3.9	1.15	28.8	83	5.8
DP 488 BG/RR	1630	38.9	4.1	1.18	31.3	82	3.5
FM 966 LL	1614	37.8	4.3	1.14	32.1	84	2.8
FM 832 LL	1602	37.1	4.0	1.18	29.9	82	3.0
DP 444 BG/RR	1594	39.6	3.9	1.13	28.6	83	4.4
FM 955 LLB2	1592	35.3	4.1	1.18	29.4	83	3.2
FM 960 B2R	1589	38.0	3.7	1.16	32.5	82	2.6
PHY 470 WR	1581	38.6	4.3	1.12	28.1	84	5.5
DP 147 RF	1520	38.8	3.6	1.18	29.7	83	3.4
DP 434 RR	1514	39.0	3.8	1.14	28.0	82	4.5
ST 4892 BR	1513	39.5	3.8	1.10	29.9	82	4.2
DP 445 BG/RR	1505	40.0	4.1	1.13	29.5	83	4.7
DG 2242 B2RF	1503	36.5	4.0	1.15	27.2	82	5.1
ST 6611B2RF	1503	35.2	4.0	1.15	31.2	83	3.4
DP 164 B2RF	1499	35.6	3.6	1.16	29.8	81	3.6
TAM 99 F-87	1488	37.5	4.1	1.20	29.9	83	3.5
DG 2100 B2RF	1478	35.5	3.7	1.12	27.0	83	5.2
BCG-BW-4630B2F	1453	35.3	3.5	1.21	27.6	83	4.8
PHY 745 WRF	1441	39.3	3.9	1.17	31.0	84	5.6

BCG-BW-3255B2F	1440	36.1	3.8	1.12	26.5	82	5.0
Tamcot 22	1431	38.1	3.8	1.16	27.9	82	4.5
FM 965 LLB2	1420	36.6	3.9	1.13	31.4	83	2.9
ST 4357B2RF	1401	35.3	3.5	1.17	27.6	82	4.6
TAM 99 WJ-9	1388	35.7	4.1	1.23	30.8	85	3.0
PSC PHY 72 Acala	1386	36.6	3.8	1.22	34.4	83	4.2
ST 4664RF	1384	38.3	4.0	1.10	28.9	82	6.0
CG 3020 B2RF	1377	35.0	3.6	1.11	27.2	82	4.9
TAM 00 WA-104	1368	35.2	4.0	1.15	29.7	83	4.4
FM 988 LLB2	1344	35.6	3.4	1.16	33.0	81	3.1
FM 981 LL	1337	35.4	3.7	1.19	33.0	84	3.2
BCG-BW-3552B2F	1269	36.3	3.3	1.16	28.7	81	3.8
BCG-BW-3220B2F	1268	33.5	3.3	1.16	31.2	84	3.8
PM 2167 RR	1254	35.7	4.2	1.05	28.6	82	4.3
BW-8245B2F	1126	32.7	3.4	1.15	29.1	82	3.4
LSD (k=100) ¹	163	1.7	0.3	0.04	2.1	2	0.3
%CV	7	2.3	4.0	1.60	3.5	1	4.3
Mean	1489	37.2	3.9	1.15	29.6	83	4.0

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 7. Agronomic performance and fiber quality of cotton cultivars evaluated in San Patricio County in CVT 2 in 2006 with irrigation.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
ST 5599 BR	1872	39.2	4.4	1.11	28.2	82	3.4
DP 515 BG/RR	1829	39.4	4.1	1.11	27.4	82	3.5
DP 555 BG/RR	1782	41.5	4.0	1.11	27.8	81	3.1
SYN DX44708	1747	39.9	3.8	1.14	29.6	83	4.0
PHY 480 WR	1729	38.3	4.2	1.16	29.9	84	5.8
DP 117 B2RF	1701	40.1	4.2	1.14	30.3	83	3.7
DP 110 RF	1693	38.4	4.1	1.17	30.6	85	5.1
PHY 440 W	1689	38.5	4.1	1.14	28.8	82	5.4
FM 9060 F	1672	39.1	3.9	1.17	31.5	83	4.5
FM 832 LL	1660	37.6	3.9	1.18	32.2	83	3.4
PHY 485 WRF	1649	37.8	4.1	1.15	28.3	82	4.0
AT Apex B2RF	1638	35.6	3.4	1.15	26.7	80	4.3
FM 9058 F	1635	37.8	3.6	1.20	29.4	83	3.1
PHY 310 R	1632	38.5	4.1	1.10	29.3	83	4.6
FM 960 B2R	1613	37.6	4.0	1.14	30.7	82	2.7
FM 800 B2R	1593	38.5	3.9	1.17	31.2	82	3.4

DP 494 RR	1589	38.7	4.0	1.16	29.8	83	4.1
DP 491	1561	40.2	3.9	1.21	31.5	82	3.6
DP 455 BG/RR	1548	39.8	3.7	1.09	29.7	81	3.1
DP 143 B2RF	1528	36.0	3.4	1.19	29.6	80	3.8
CG 3520 B2RF	1527	35.8	3.7	1.17	27.3	83	5.1
ST 6622RF	1493	35.0	3.8	1.13	28.9	83	3.9
ST 4892 BR	1456	37.4	3.9	1.10	27.8	81	4.4
BCG-BW-2038B2F	1450	36.4	3.8	1.15	27.2	83	5.2
FM 9063 B2F	1449	35.8	3.8	1.22	31.6	83	3.2
ST 4700B2RF	1441	35.7	3.6	1.13	27.1	82	5.2
DG 2520 B2RF	1428	35.2	3.6	1.15	28.2	81	4.6
AT Titan B2RF	1398	32.9	3.3	1.19	29.3	83	5.1
BW-6896B2F	1382	35.3	2.8	1.10	27.4	80	4.0
DP 167 RF	1374	34.3	3.4	1.14	30.2	82	3.7
PSC PHY 72 Acala	1373	36.1	3.5	1.19	32.8	83	4.8
CG 4020 B2RF	1365	35.1	3.6	1.16	27.2	83	4.2
PM 2167 RR	1363	37.0	4.2	1.04	26.5	84	4.2
Tamcot 22	1355	38.9	3.5	1.19	28.3	82	4.6
BCG-BW-8391B2F	1351	32.9	3.4	1.20	29.4	83	4.6
FM 989 B2R	1327	32.6	3.4	1.15	31.9	83	4.2
DG 2215 B2RF	1315	34.0	3.3	1.15	27.2	83	4.8
BCG-BW-4021B2F	1248	34.0	3.5	1.13	26.4	82	4.8
ST 6565B2RF	1197	31.2	3.1	1.10	29.0	81	4.1
DG OA265 BR	890	36.1	2.8	1.15	35.2	82	4.0
LSD (k=100) ¹	154	1.6	0.5	0.04	2.0	2	1.0
%CV	7	2.4	6.8	1.60	3.6	1	11.4
Mean	1514	36.9	3.7	1.15	29.3	82	4.2

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 8. Agronomic performance and fiber quality of cotton cultivars evaluated in Matagorda County in CVT 1 in 2006 without irrigation.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
SYN DX44708	1064	40.8	4.2	1.16	27.4	84	4.2
PHY 425 RF	1055	37.6	4.6	1.10	27.7	84	5.3
DP 555 BG/RR	1051	43.9	4.6	1.13	28.6	82	3.1
ST 4892 BR	1027	39.8	4.7	1.10	29.2	84	4.7
ST 5599 BR	1006	41.6	4.0	1.10	28.4	82	3.5
TAM 99 WJ-9	1006	38.6	4.5	1.13	29.6	83	3.3
AT Titan B2RF	993	37.7	4.1	1.20	29.2	84	4.7
PHY 470 WR	992	41.7	4.5	1.10	27.0	85	5.7

DP 164 B2RF	990	39.4	4.4	1.13	28.1	82	3.6
DP 491	986	40.5	3.9	1.17	32.7	82	3.6
SYN DX25105N	980	42.8	4.4	1.12	26.4	83	4.4
DP 515 BG/RR	977	42.2	4.5	1.12	28.6	83	3.6
PHY 745 WRF	955	40.6	4.1	1.14	31.2	83	5.7
FM 958 LL	945	39.7	4.1	1.17	31.3	83	3.1
ST 6611B2RF	944	37.2	4.0	1.13	30.8	84	3.4
FM 955 LLB2	939	38.6	4.3	1.17	29.7	84	3.7
PHY 370 WR	896	40.8	4.6	1.11	29.8	83	4.5
DP 147 RF	894	40.3	4.0	1.16	27.9	83	4.2
TAM 00 WA-104	890	38.2	4.2	1.15	30.6	83	4.5
ST 4554B2RF	883	40.1	4.2	1.11	28.6	83	5.9
DG 2242 B2RF	882	37.5	4.2	1.12	26.8	83	4.9
CG 3020 B2RF	863	38.0	3.8	1.11	29.0	83	4.6
AT Marathon B2RF	858	37.2	3.8	1.13	26.8	83	4.8
DP 494 RR	853	42.0	4.3	1.17	30.7	84	3.7
CG 4020 B2RF	824	38.1	4.4	1.13	26.3	83	4.4
ST 4357B2RF	818	38.9	4.2	1.14	29.4	82	3.7
ST 4664RF	818	39.6	4.4	1.09	29.3	84	6.2
FM 960 B2R	810	38.4	4.3	1.17	28.9	83	3.8
DP 445 BG/RR	798	41.8	3.8	1.14	29.4	84	4.8
FM 981 LL	798	37.5	4.1	1.14	28.5	81	3.4
PSC PHY 72 Acala	787	37.3	4.2	1.19	32.9	84	4.4
BCG-BW-4021B2F	786	35.7	3.7	1.10	27.8	83	5.0
FM 832 LL	781	38.7	3.5	1.18	32.8	82	3.6
DG 2100 B2RF	780	37.7	4.2	1.08	26.6	84	4.9
FM 988 LLB2	777	38.4	4.0	1.14	30.4	82	3.4
TAM 99 F-87	762	39.7	3.8	1.17	27.8	82	4.2
BCG-BW-2038B2F	760	40.0	4.0	1.14	27.5	81	5.2
FM 800 B2R	739	38.6	3.6	1.19	30.0	84	3.8
Tamcot 22	558	40.1	4.3	1.13	27.9	83	4.2
PM 2167 RR	534	38.8	4.4	1.01	27.1	82	4.2
LSD (k=100) ¹	143	2.9	0.6	0.05	3.0	2	1.0
%CV	11	3.4	6.2	2.10	4.7	1	12.0
Mean	875	39.4	4.2	1.13	28.9	83	4.2

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 9. Agronomic performance and fiber quality of cotton cultivars evaluated in Matagorda County in CVT 2 in 2006 without irrigation.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
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PHY 440 W	1124	43.1	4.1	1.13	29.1	83	5.8
PHY 485 WRF	1046	42.6	4.5	1.09	28.2	84	5.7
FM 966 LL	1019	40.6	4.1	1.13	32.5	85	3.2
AT Apex B2RF	1000	40.4	4.4	1.13	25.2	84	5.0
FM 9060 F	959	42.6	4.1	1.20	29.6	82	3.1
DP 143 B2RF	948	41.2	4.1	1.15	28.5	81	3.8
PHY 480 WR	944	40.6	4.4	1.15	28.6	85	5.8
AT Summit B2RF	943	40.5	4.1	1.10	27.6	84	5.2
DG 2520 B2RF	939	40.0	4.2	1.16	27.7	84	4.5
DP 167 RF	939	40.4	4.4	1.13	28.2	83	3.7
FM 960 B2R	936	40.4	4.2	1.13	31.6	83	2.9
BCG-BW-4630B2F	912	41.7	4.5	1.14	26.5	84	4.8
FM 965 LLB2	898	38.5	4.2	1.16	31.7	85	3.4
PHY 310 R	890	43.9	4.5	1.06	27.7	84	5.4
ST 5599 BR	884	42.9	4.6	1.10	29.3	82	3.4
DP 434 RR	882	42.6	3.9	1.14	29.3	83	4.7
BCG-BW-3220B2F	876	37.5	4.5	1.13	28.5	85	3.8
ST 6622RF	873	39.0	4.1	1.13	30.0	83	4.0
FM 9063 B2F	844	40.6	4.1	1.21	28.7	83	3.9
FM 989 B2R	839	38.1	3.6	1.14	31.6	84	4.1
FM 9058 F	832	41.7	4.4	1.17	28.6	83	3.2
BCG-BW-3255B2F	829	39.9	4.0	1.10	25.9	84	4.9
AT 55066 B2RF	823	40.4	4.3	1.10	26.8	85	5.5
CG 3520 B2RF	810	40.4	4.0	1.15	28.7	84	5.5
DP 555 BG/RR	801	44.6	4.8	1.05	26.7	81	3.1
BCG-BW-8391B2F	798	37.0	4.3	1.18	28.7	85	5.0
ST 4892 BR	789	44.0	4.5	1.08	27.7	84	4.7
Tamcot 22	773	41.1	3.8	1.14	28.6	81	4.3
DP 455 BG/RR	752	44.0	3.8	1.10	28.7	83	3.8
PSC PHY 72 Acala	713	38.8	4.6	1.18	32.0	84	5.0
DP 444 BG/RR	713	42.0	4.0	1.09	28.5	85	4.4
ST 4700B2RF	713	40.5	4.0	1.15	27.8	84	5.4
ST 6565B2RF	690	36.3	4.5	1.14	28.6	84	3.7
FM 832 LL	686	40.0	3.9	1.22	32.1	85	4.1
DP 491	676	42.7	4.3	1.21	31.1	84	3.7
DP 488 BG/RR	666	40.5	4.3	1.16	30.0	82	3.8
DG 2215 B2RF	663	34.7	4.1	1.12	26.9	83	5.1
PM 2167 RR	623	40.1	4.3	1.01	26.9	84	4.6
DG OA265 BR	557	41.1	3.6	1.13	33.8	83	4.0
LSD (k=100) ¹	176	3.8	0.6	0.05	2.4	2	0.5
%CV	13	4.2	5.6	2.10	4.1	1	5.8

Mean	835	40.7	4.2	1.13	28.9	84	4.3
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1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 10. Agronomic performance and fiber quality of cotton cultivars evaluated at Uvalde 2006 with irrigation.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
DP 445 BG/RR	1370	43.0	4.4	1.15	27.9	84	5.0
ST 5599 BR	1359	39.6	4.3	1.12	28.1	83	3.8
DP 449 BG/RR	1325	40.1	4.4	1.16	28.6	84	3.7
PHY 370 WR	1306	42.0	4.5	1.07	28.1	82	4.3
ST 4700B2RF	1276	41.5	4.2	1.16	26.7	83	4.8
BCG-BW-3255B2F	1258	37.6	4.2	1.12	24.3	83	4.6
PHY 470 WR	1252	39.4	4.3	1.11	27.2	83	5.6
ST 6611B2RF	1190	36.6	4.5	1.15	28.8	84	3.3
FM 960 B2R	1180	38.7	4.2	1.21	31.7	83	2.7
AT Apex B2RF	1159	37.4	4.0	1.20	26.7	84	4.5
BCG-BW-4630B2F	1158	38.2	4.5	1.18	26.4	84	5.0
FM 800 B2R	1157	38.1	3.8	1.19	29.8	83	3.5
BCG-BW-4021B2F	1152	37.2	3.9	1.16	27.9	83	4.4
AT 55066 B2RF	1140	40.7	4.0	1.16	26.8	84	5.2
ST 4357B2RF	1135	40.4	4.7	1.17	27.5	85	4.5
FM 988 LLB2	1129	38.8	4.3	1.11	27.1	85	3.6
DG 2520 B2RF	1128	39.0	4.4	1.16	25.3	83	4.4
AT Titan B2RF	1126	37.4	4.3	1.21	27.8	84	4.6
DG 2100 B2RF	1109	37.3	4.0	1.12	26.1	84	4.9
DP 515 BG/RR	1108	40.3	3.9	1.12	29.0	82	3.6
ST 6565B2RF	1102	36.5	4.4	1.17	27.4	85	3.5
DP 455 BG/RR	1098	40.7	4.2	1.15	30.2	83	3.2
TAM 99 WJ-9	1088	37.7	4.9	1.17	29.7	85	3.2
DP 164 B2RF	1087	37.5	4.1	1.18	27.6	82	3.5
PHY 745 WRF	1084	38.5	3.8	1.16	30.3	84	5.7
FM 9063 B2F	1080	37.6	4.2	1.16	30.6	83	3.7
CG 3020 B2RF	1078	38.8	4.4	1.11	25.3	84	5.1
BCG-BW-2038B2F	1077	38.3	4.3	1.14	25.7	83	5.0
DP 143 B2RF	1074	38.5	3.6	1.21	29.0	82	3.2
CG 4020 B2RF	1070	40.5	4.2	1.16	25.7	83	4.4
BCG-BW-8391B2F	1056	39.0	4.4	1.17	27.7	84	4.2
ST 4554B2RF	1055	38.5	3.9	1.14	28.7	84	5.5
PHY 425 RF	1038	39.3	4.6	1.13	26.5	84	5.4
FM 989 B2R	1023	38.2	4.1	1.18	29.7	84	3.8

ST 6622RF	1017	38.7	4.6	1.17	28.8	83	3.1
FM 981 LL	1013	37.8	4.5	1.16	30.6	83	3.4
PSC PHY 72 Acala	1011	40.6	5.1	1.20	31.5	84	3.7
Tamcot 22	993	40.0	4.2	1.14	26.3	82	4.1
DG OA265 BR	993	36.4	3.9	1.19	32.8	85	3.4
FM 832 LL	992	37.7	3.7	1.23	30.6	85	3.5
PHY 440 W	982	39.7	4.4	1.17	28.1	84	5.2
PHY 480 WR	976	39.0	4.4	1.17	28.2	85	5.6
FM 965 LLB2	974	36.2	4.1	1.16	29.5	83	2.8
DP 491	962	41.0	4.5	1.18	30.5	82	3.1
PHY 310 R	962	42.1	4.6	1.09	27.6	84	4.2
ST 4664RF	952	40.8	4.5	1.11	27.2	84	5.6
CG 3520 B2RF	946	38.1	4.0	1.16	26.0	83	5.2
TAM 00 WA-104	941	39.4	4.5	1.13	29.9	83	3.8
DP 555 BG/RR	937	39.6	3.8	1.10	25.6	81	2.7
DG 2215 B2RF	927	35.2	3.7	1.14	26.8	84	4.9
PHY 485 WRF	907	40.9	4.4	1.17	27.7	85	5.2
ST 4892 BR	882	41.1	4.3	1.12	28.5	84	3.8
TAM 99 F-87	864	38.9	3.7	1.22	30.6	82	3.8
DG 2242 B2RF	829	40.9	3.6	1.15	24.5	82	4.7
PM 2167 RR	785	39.2	4.6	1.06	24.0	84	4.2
FM 9068 F	781	36.7	3.9	1.18	31.0	83	3.4
LSD (k=100) ¹	192	5.0	0.8	0.06	2.9	1	0.6
%CV	12	4.4	7.0	2.30	4.9	0	7.6
Mean	1071	38.9	4.2	1.15	28.1	84	4.2

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 11. Agronomic performance and fiber quality of cotton cultivars evaluated at College Station in CVT 1 in 2006 with irrigation.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
PHY 425 RF	2120	39.3	4.7	1.13	29.7	84	4.7
ST 5599 BR	2109	41.3	4.6	1.12	29.2	83	3.1
FM 832 LL	1942	38.5	4.1	1.19	33.0	85	3.0
DP 117 B2RF	1914	40.9	4.4	1.14	32.0	84	3.6
DP 555 BG/RR	1868	42.5	4.6	1.07	28.7	80	3.1
Tamcot 22	1806	38.9	4.3	1.13	28.8	82	4.3
ST 4892 BR	1766	39.9	4.8	1.08	27.1	83	4.4
FM 960 B2R	1765	38.0	4.5	1.16	31.7	83	2.7
PHY 470 WR	1754	39.9	4.6	1.12	29.3	84	5.3
DP 445 BG/RR	1748	40.2	4.3	1.12	28.9	83	7.3

FM 800 B2R	1736	38.0	4.3	1.19	32.2	84	3.2
PHY 370 WR	1735	39.0	4.2	1.08	28.8	83	4.4
DP 491	1726	40.6	4.3	1.20	32.3	84	3.0
DP 164 B2RF	1708	36.6	4.2	1.13	30.5	81	3.5
ST 6611B2RF	1678	35.4	4.4	1.08	27.7	83	3.5
ST 4554B2RF	1666	39.0	4.4	1.04	29.5	85	6.7
TAM 99 F-87	1636	38.3	4.2	1.19	31.1	82	3.6
TAM 99 WJ-9	1632	37.6	4.5	1.20	31.4	85	2.9
TAM 00 WA-104	1624	37.0	4.2	1.14	31.6	84	4.2
DP 147 RF	1614	38.8	4.0	1.20	31.2	83	2.8
CG 3020 B2RF	1603	38.1	3.9	1.12	27.2	84	4.7
DA Tejas 48-5-7-2-2	1580	35.0	4.3	1.18	30.1	85	4.4
FM 965 LLB2	1569	36.1	4.0	1.13	33.6	83	2.7
DG 2100 B2RF	1564	36.4	3.7	1.10	27.4	82	4.8
ST 4664RF	1552	39.1	4.7	1.02	27.0	84	6.5
DG 2242 B2RF	1528	37.8	4.1	1.11	26.8	82	4.7
ST 4357B2RF	1493	37.2	4.0	1.13	26.7	83	4.1
BCG-BW-3220B2F	1478	34.1	4.2	1.11	29.1	83	3.4
BCG-BW-4021B2F	1476	35.3	3.6	1.12	27.6	84	4.3
AT Titan B2RF	1466	34.4	3.7	1.17	29.9	83	4.3
BCG-BW-2038B2	1441	36.6	4.2	1.12	28.0	84	4.5
BCG-BW-2038B2F	1441	36.6	4.2	1.12	28.0	84	4.5
FM 988 LLB2	1424	35.7	4.3	1.13	31.6	82	2.7
AT Marathon B2RF	1370	34.8	3.5	1.09	27.9	80	4.6
DAHol338-276-1-3-4	1370	35.2	3.9	1.16	32.7	81	2.5
FM 981 LL	1356	35.7	3.9	1.17	33.2	83	3.2
PM 2167 RR	1322	37.7	4.5	1.02	27.0	84	3.9
PSC PHY 72 Acala	1192	35.3	4.0	1.18	35.4	84	3.9
LSD (k=100) ¹	183	2.9	0.3	0.07	2.3	3	1.5
%CV	8	3.7	4.1	3.00	3.9	1	18.5
Mean	1631	37.7	4.2	1.13	29.9	83	4.0

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 12. Agronomic performance and fiber quality of cotton cultivars evaluated at College Station in CVT 2 in 2006 with irrigation.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
ST 5599 BR	2025	41.4	4.6	1.13	31.0	84	3.1
FM 960 B2R	1780	42.6	4.4	1.16	31.1	82	2.3
PHY 480 WR	1768	40.3	4.6	1.15	29.9	84	5.1

DP 555 BG/RR	1764	43.8	4.6	1.10	29.2	82	3.1
FM 832 LL	1750	39.4	4.0	1.21	32.7	85	3.1
SYN DX25105N	1737	42.6	4.7	1.15	27.9	84	4.2
DP 143 B2RF	1735	40.0	4.2	1.22	30.5	81	3.1
PHY 310 R	1716	41.0	4.0	1.09	29.5	83	4.3
FM 960 B2	1698	38.8	4.2	1.18	33.1	84	2.5
Tamcot 22	1672	42.9	4.0	1.15	29.3	83	4.0
PHY 485 WRF	1615	40.8	4.5	1.17	30.7	86	5.0
DP 455 BG/RR	1588	43.1	4.1	1.13	30.9	82	3.3
PHY 440 W	1587	40.2	4.3	1.15	30.7	84	5.0
ST 6565B2RF	1579	36.5	3.8	1.12	31.0	82	3.2
ST 6622RF	1566	37.7	4.3	1.07	28.6	85	3.9
AT 55066 B2RF	1559	38.3	4.1	1.15	27.1	84	4.8
AT Apex B2RF	1524	38.2	3.9	1.17	27.7	84	4.2
AT Summit B2RF	1504	37.1	3.6	1.10	26.7	83	4.8
FM 9063 B2F	1484	38.3	4.2	1.21	32.6	84	3.1
FM 9068 F	1478	38.6	4.3	1.17	31.3	83	3.0
DP 167 RF	1449	37.2	4.1	1.16	31.6	83	3.2
DG 2520 B2RF	1412	39.7	4.1	1.16	27.2	84	4.2
DP 491	1410	37.5	4.3	1.20	33.0	84	3.0
BCG-BW-3255B2F	1409	37.0	3.9	1.09	27.8	83	4.8
BCG-BW-4630B2F	1380	37.3	4.1	1.15	27.9	83	4.2
ST 4700B2RF	1377	37.9	4.1	1.12	26.7	83	4.5
CG 3520 B2RF	1338	38.2	4.0	1.13	27.8	83	4.5
BCG-BW-8391B2F	1317	35.1	4.0	1.19	28.9	84	4.4
ST 4892 BR	1312	40.7	4.8	1.09	28.3	84	4.9
DG 2215 B2RF	1309	36.3	3.6	1.14	27.8	83	4.6
DAHol338-37-4-2-2-5	1298	36.0	4.3	1.15	31.7	84	3.8
CG 4020 B2RF	1296	38.9	4.2	1.15	28.1	83	4.0
FM 989 B2R	1294	35.2	3.9	1.17	31.7	84	3.4
PSC PHY 72 Acala	1268	38.3	4.2	1.21	33.3	84	3.9
DASph13-6-6-1-4	1224	36.4	4.8	1.15	30.7	85	3.7
DG OA265 BR	1166	37.1	3.6	1.13	36.3	84	3.2
PM 2167 RR	1151	37.4	4.6	1.03	26.2	83	4.0
LSD (k=100) ¹	250	2.6	0.4	0.04	2.4	ns	0.6
%CV	12	3.3	4.8	1.80	4.1	1	8.5
Mean	1501	38.8	4.2	1.14	29.9	83	3.9

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 13. Agronomic performance and fiber quality of cotton cultivars evaluated at Thrall in CVT 1 in 2006 without irrigation.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro- naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elong- ation (%)
DP 555 BG/RR	565	34.7	4.0	0.99	24.8	80	3.2
PHY 470 WR	562	33.0	4.3	1.03	28.8	83	5.6
PHY 370 WR	524	32.8	4.4	1.01	27.7	82	4.2
DP 445 BG/RR	498	33.2	3.9	1.06	29.1	83	5.2
ST 4664RF	493	32.9	4.2	1.03	27.8	81	5.5
PSC PHY 72 Acala	484	30.2	4.0	1.10	32.2	82	4.6
TAM 99 WJ-9	484	29.5	3.5	1.02	27.2	80	4.6
CG 3020 B2RF	480	29.3	3.8	1.03	24.4	82	4.6
DP 491	476	34.1	4.1	1.06	26.4	81	3.3
ST 4357B2RF	469	30.6	4.1	1.06	24.5	81	4.2
FM 960 B2R	460	31.9	3.8	1.06	25.7	79	3.0
TAM 99 F-87	456	31.6	3.7	1.06	30.0	80	4.3
ST 4892 BR	451	33.0	4.5	0.99	25.1	82	4.8
DASphinx 13-6-6-1-4	451	27.9	4.4	1.00	26.7	81	3.8
FM 832 LL	447	32.5	4.0	1.09	27.9	81	3.2
PSC 410 R	443	30.7	4.1	1.02	27.6	82	5.1
DAHol338-37-4-2-2-5	443	27.4	3.5	1.10	31.0	83	3.8
SG 215 BG/RR	434	29.2	4.1	0.98	24.1	82	5.3
ST 5599 BR	433	32.8	4.0	1.06	26.1	81	3.2
PM 2167 RR	432	30.0	3.8	0.99	26.0	83	4.5
AT MAGNUM RR	429	31.4	4.3	0.97	27.3	80	4.9
DG 2242 B2RF	422	30.9	3.9	1.06	24.5	81	4.8
BCG-BW-3255B2F	418	31.3	3.8	1.03	23.8	82	4.6
AT Apex B2RF	416	31.1	3.9	1.02	23.3	80	4.3
DP 164 B2RF	408	30.7	3.9	1.02	24.4	81	3.5
FM 965 LLB2	406	30.1	3.7	1.03	28.8	82	2.9
FM 9068 F	405	30.8	3.7	1.07	27.0	80	2.8
DG 2100 B2RF	404	29.1	3.7	1.03	24.7	81	4.4
FM 988 LLB2	397	29.4	3.7	1.04	27.2	80	2.8
Tamcot 22	395	32.4	3.6	0.98	24.9	79	5.0
PHY 425 RF	393	31.5	4.7	1.02	27.8	82	4.9
BCG-BW-4630B2F	378	30.9	4.0	1.06	25.1	81	4.5
FM 955 LLB2	371	28.4	3.8	1.06	25.4	80	2.8
CG 4020 B2RF	367	31.3	4.2	1.01	22.6	79	4.4
TAM 00 WA-104	356	28.9	3.8	1.05	30.3	82	4.0
FM 989 B2R	355	28.8	3.5	1.08	29.7	81	3.1
ST 6611B2RF	346	28.7	3.8	1.06	28.6	82	2.9
AT 45039 B2RF	300	27.8	3.9	1.02	27.3	80	3.7

LSD (k=100) ¹	189	2.2	0.5	0.05	2.7	1	0.5
%CV	18	3.7	5.6	2.30	5.0	1	6.9
Mean	432	30.8	3.9	1.03	26.7	81	4.1

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 14. Agronomic performance and fiber quality of cotton cultivars evaluated at Thrall in CVT 2 in 2006 without irrigation.

Cultivar	Lint yield (lb/ac)	Percent lint (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
FM 832 LL	434	31.6	3.4	1.11	30.4	81	3.1
PSC PHY 72 Acala	430	28.7	3.9	1.12	32.7	83	4.5
PHY 440 W	426	31.2	4.0	1.06	28.4	84	5.0
FM 9060 F	422	30.9	3.6	1.08	26.7	80	2.9
BCG-BW-8391B2F	387	29.3	3.9	1.11	26.5	82	3.8
DP 555 BG/RR	384	33.1	4.0	0.98	25.5	79	3.3
DG OA265 BR	383	31.3	4.0	1.13	34.3	84	3.5
PHY 310 R	378	30.3	3.9	0.97	27.7	82	4.5
ST 6565B2RF	371	28.3	3.5	1.05	25.4	82	2.6
DAHol338-276-1-3-4	365	26.0	3.4	1.14	30.6	83	2.7
FM 9058 F	362	29.9	3.4	1.11	28.2	82	3.2
CG 3520 B2RF	357	30.0	3.7	1.04	24.1	81	4.5
FM 9063 B2F	357	28.5	3.5	1.10	30.0	81	3.0
Tamcot 22	353	30.7	3.4	1.00	24.7	81	4.3
ST 5599 BR	342	32.7	3.9	1.02	27.0	82	3.3
AT Summit B2RF	342	28.6	3.2	1.02	25.1	81	4.4
PHY 480 WR	339	30.6	4.2	1.05	29.3	83	4.8
ST 4892 BR	337	31.7	4.4	1.00	25.3	82	3.5
PHY 485 WRF	336	31.1	4.1	1.05	28.0	84	4.6
DP 143 B2RF	333	30.3	3.3	1.08	24.4	79	3.7
ST 6622RF	326	30.2	4.0	1.04	27.7	83	3.0
PSC 410 R	322	31.0	4.1	1.04	29.2	83	4.5
DATEj48-5-7-2-2	317	26.7	3.6	1.09	27.4	82	3.3
DP 491	315	30.5	3.6	1.07	27.4	81	3.0
DP 455 BG/RR	305	31.6	3.6	1.06	27.0	80	2.8
AT PATRIOT RR	303	28.1	3.6	1.08	28.1	81	3.8
AT TOP-PICK	290	27.6	3.7	1.08	27.1	82	3.6
FM 800 B2R	281	30.9	3.6	1.09	28.4	81	3.1
ST 4554B2RF	277	30.6	3.9	1.05	29.7	83	5.1
PM 2167 RR	276	28.8	4.2	0.96	25.1	82	4.8
FM 960 B2R	271	29.7	3.4	1.05	27.4	81	2.5
BCG-BW-2038B2F	261	28.8	3.7	1.06	24.5	82	4.6

DG 2520 B2RF	255	29.4	3.7	1.03	25.0	80	4.2
ST 4700B2RF	255	29.9	3.6	1.07	25.4	81	4.2
DG 2215 B2RF	228	28.5	3.3	1.03	25.1	80	4.4
SG 215 BG/RR	226	31.1	3.9	1.01	24.4	83	4.7
BCG-BW-4021B2F	219	27.8	3.3	1.04	23.5	80	4.4
LSD (k=100) ¹	123	2.1	0.5	0.04	2.7	2	0.6
%CV	19	3.4	6.2	1.80	5.0	1	8.3
Mean	329	29.9	3.7	1.05	27.2	82	3.8

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 15. Agronomic performance and fiber quality of cotton cultivars evaluated at Dallas in 2006 without irrigation. No rainfall was received during the growing season.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
ST 4554B2RF	187	40.6	4.7	0.95	25.2	80	4.7
FM 958 LL	168	36.5	4.4	0.99	23.7	79	3.0
PHY 470 WR	163	41.2	4.7	0.98	24.1	83	5.1
SG 215 BG/RR	161	40.6	4.8	0.97	23.7	81	4.5
FM 9063 B2F	151	35.7	4.2	1.02	26.4	79	2.6
PSC 410 R	148	41.0	4.7	0.99	29.2	83	4.1
FM 832 LL	142	39.3	4.6	1.06	27.4	81	2.5
AT Titan B2RF	139	36.1	4.5	0.99	24.8	81	4.2
BCG-BW-8391B2F	135	37.5	4.4	0.98	24.4	80	5.2
ST 4892 BR	131	40.6	4.9	0.97	23.7	80	4.0
PHY 440 W	129	41.5	4.6	0.98	27.2	81	4.0
PHY 485 WRF	129	41.5	4.9	0.99	26.7	83	5.0
FM 955 LLB2	128	34.5	4.3	1.03	24.6	80	2.7
PHY 370 WR	126	39.1	4.8	0.97	26.3	82	3.6
ST 5599 BR	124	41.5	4.9	0.99	25.1	81	2.9
ST 6565B2RF	120	37.3	4.6	1.02	26.8	80	2.3
DG OA265 BR	116	38.9	4.2	1.01	28.3	84	4.2
DP 491	115	42.3	4.7	1.02	26.2	81	2.9
ST 6611B2RF	115	35.7	4.5	1.02	28.6	80	2.4
DP 555 BG/RR	113	43.5	4.8	0.97	23.7	79	3.1
ST 6622RF	112	39.1	4.8	1.01	27.3	82	2.6
ST 4664RF	110	40.5	4.8	0.96	25.5	81	5.3
PHY 480 WR	109	38.2	4.7	0.98	27.1	82	4.0
FM 960 B2R	108	36.5	4.5	0.99	25.0	80	2.3
Tamcot 22	108	39.6	4.0	1.00	24.4	80	4.8
DG 2242 B2RF	107	39.2	4.5	0.99	23.4	81	4.7

CG 3520 B2RF	105	38.6	4.4	0.98	22.0	81	4.7
BCG-BW-3255B2F	104	38.3	4.3	0.92	22.3	80	6.2
AT Marathon B2RF	101	36.9	4.1	0.96	24.1	80	4.8
PHY 425 RF	101	40.6	5.0	0.95	22.7	82	6.1
ST 4700B2RF	101	39.0	4.5	0.97	22.8	80	4.3
DG 2100 B2RF	99	38.2	4.4	0.95	24.4	79	4.9
PHY 310 R	98	39.6	4.6	0.96	26.3	81	4.3
TAM 99 F-87	97	37.3	4.5	0.92	26.8	79	4.2
AT PATRIOT RR	95	34.7	4.3	0.98	24.6	80	4.0
BCG-BW-4630B2F	93	37.4	4.4	0.98	23.2	79	3.9
BCG-BW-2038B2F	92	37.0	4.4	0.97	24.1	79	5.1
DG 2215 B2RF	88	37.4	4.1	0.94	24.0	80	4.9
DG 2520 B2RF	87	39.0	4.5	0.97	22.9	79	4.8
AT WARRIOR RR	86	38.6	4.5	1.00	22.9	80	3.5
AT 45039 B2RF	79	35.7	4.4	0.95	25.6	79	4.5
CG 3020 B2RF	78	37.0	4.2	0.94	23.4	81	4.9
TAM 00 WA-104	78	37.0	4.3	0.96	25.6	80	3.8
PM 2167 RR	75	40.5	4.8	0.92	24.0	81	4.6
CG 4020 B2RF	75	38.0	4.4	0.98	22.6	80	4.1
ST 4357B2RF	73	39.4	4.3	0.94	22.6	79	4.6
FM 9058 F	72	36.5	4.1	1.00	24.3	79	2.9
BCG-BW-4021B2F	71	36.0	4.2	0.96	23.3	80	4.9
PSC PHY 72 Acala	69	37.1	4.5	1.03	30.5	81	3.5
TAM 99 WJ-9	58	36.2	4.5	1.11	30.0	82	3.0
LSD (k=100) ¹	48	3.8	0.3	0.06	2.9	2	1.4
%CV	25	4.4	3.4	2.90	5.6	1	16.7
Mean	109	38.5	4.5	0.98	25.1	80	4.1

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 16. Agronomic performance and fiber quality of cotton cultivars evaluated at Chillicothe in CVT 1 in 2006 with irrigation.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
TAM 99 F-87	947	27.1	5.0	1.17	30.5	84	4.9
BCG-BW-3255B2F	943	25.5	4.7	1.08	26.2	83	5.9
FM 958 LL	938	26.2	5.1	1.14	29.7	82	3.9
FM 958	919	25.3	5.1	1.13	32.1	83	3.5
CG 4020 B2RF	915	26.1	4.9	1.13	25.9	83	5.7
DG 2520 B2RF	905	24.7	4.8	1.11	24.3	82	5.4
PHY 470 WR	905	25.8	5.2	1.08	26.3	83	7.2
BCG 24 R	903	26.2	4.8	1.07	25.4	83	5.7

PM 2167 RR	898	26.3	5.6	0.97	25.9	82	5.0
CG 3020 B2RF	887	26.3	5.0	1.09	26.5	84	6.0
AT Marathon B2RF (55099)	886	22.4	4.4	1.12	26.0	83	5.6
FM 5044 RR	886	24.4	4.5	1.12	30.1	83	6.5
ST 4700B2RF	882	25.7	5.0	1.09	26.2	82	6.2
BCG-BW-4630B2F	878	25.5	4.7	1.14	25.4	82	5.6
PHY 485 WRF	868	25.9	5.1	1.11	28.9	84	7.5
NG 3550RF	861	26.4	5.1	1.11	29.4	83	5.5
DP 455 BG/RR	855	26.0	4.8	1.11	28.8	83	5.4
DP 444 BG/RR	832	26.2	4.3	1.11	27.2	83	5.0
PHY 425 RF	832	25.5	5.5	1.10	30.0	84	6.6
DG 2215 B2RF	827	23.0	4.9	1.12	24.9	83	5.6
FM 960 B2R	822	24.4	4.9	1.11	29.2	82	4.0
DP 117 B2RF	806	27.1	5.3	1.12	31.9	84	4.8
ST 4892 BR	802	27.4	5.5	1.11	29.0	84	5.5
AT Summit B2RF (55000)	801	24.7	4.4	1.12	27.0	83	5.8
DP 555 BG/RR	784	26.6	4.3	1.14	28.9	82	4.0
AT 45007 RF	766	22.4	4.6	1.11	31.9	83	5.1
FM 9063 B2F	760	24.0	5.0	1.12	31.2	82	4.5
PSC PHY 72 Acala	753	23.6	4.7	1.21	35.2	85	5.3
AFD 3511 RR	716	25.2	5.1	1.07	27.7	82	4.8
ST 6611B2RF	679	22.0	4.7	1.14	30.9	83	4.4
AT 45014 RF	611	25.6	5.2	1.04	30.2	82	5.7
All-Tex Excess RR	535	22.6	5.1	1.10	32.8	83	5.1
All-Tex Atlas RR	464	23.2	4.4	1.05	28.2	83	5.0
LSD (k=100) ¹	203	0.0	0.8	0.06	2.4	1.8	0.7
%CV	16.1	4.4	6.4	2.50	4.3	0.8	7.0
Mean	836	25.4	4.9	1.10	28.6	83	5.4

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.

Table 17. Agronomic performance and fiber quality of cotton cultivars evaluated at Chillicothe in CVT 2 in 2006 with irrigation.

Cultivar	Lint yield (lb/ac)	Lint percent (%)	Micro-naire (units)	Length (in)	Strength (g/tex)	UI (ratio)	Elongation (%)
DP 143 B2RF	1108	27.2	4.7	1.15	27.7	82	4.8
PM 2167 RR	1061	27.0	5.5	0.97	26.0	83	4.9
FM 960 B2R	1028	25.7	4.9	1.13	31.0	83	3.2
PHY 370 WR	1009	26.7	5.2	1.08	27.3	83	5.3
TAM 00 WA-104	941	24.8	4.5	1.15	31.9	84	5.6
BCG 24 R	938	26.0	5.0	1.06	24.3	83	6.5

FM 9058 F	913	24.0	4.7	1.17	29.3	83	3.8
ST 4357B2RF	906	25.0	4.5	1.17	28.2	83	4.9
FM 955 LLB2	880	23.8	5.4	1.13	26.7	82	3.9
ST 4664RF	875	26.0	5.0	1.07	28.5	83	6.2
PHY 440 W	868	26.8	5.3	1.11	29.7	84	6.6
PHY 480 WR	851	25.3	4.9	1.14	29.5	84	7.0
AT PATRIOT RR	848	20.8	4.5	1.14	27.8	83	5.4
ST 4892 BR	834	26.4	5.2	1.10	27.0	83	5.4
PSC PHY 72 Acala	822	21.9	4.6	1.24	35.3	84	5.0
DG 2242 B2RF	813	24.0	4.7	1.15	25.9	83	6.3
FM 5044 RR	804	22.6	4.5	1.13	29.1	84	6.9
DG 2100 B2RF	794	24.4	5.1	1.07	26.7	83	5.9
BCG-BW-4021B2F	784	22.4	5.0	1.12	27.6	84	6.6
ST 6622RF	782	23.6	5.0	1.16	29.5	84	3.9
BCG-BW-8391B2F	778	22.0	4.8	1.18	28.7	85	5.8
ST 6565B2RF	763	23.2	4.9	1.13	29.5	83	3.9
DP 555 BG/RR	759	27.3	4.6	1.13	30.1	82	4.1
DG OA265 BR	743	23.6	4.8	1.16	36.4	84	4.4
FM 958	738	21.1	5.0	1.12	30.3	83	4.5
NG 3273B2RF	737	22.7	4.5	1.10	26.2	82	5.9
BCG-BW-2038B2F	735	23.1	4.9	1.12	26.3	83	6.5
DP 445 BG/RR	727	25.2	4.6	1.10	26.7	82	5.0
AT 45009 RF	702	27.0	3.9	1.12	34.4	83	4.3
NG 3969RF	701	22.1	4.3	1.12	29.7	83	5.3
AT 45039 B2RF	669	23.3	5.0	1.08	27.9	82	5.4
CG 3520 B2RF	605	24.8	4.7	1.15	26.4	84	5.6
All-Tex Excess RR	547	21.1	5.0	1.09	34.0	83	4.8
LSD (k=100) ¹	213	0.1	1.0	0.05	3.8	2.5	1.3
%CV	17.3	7.9	7.2	2.40	6.2	1.0	11.7
Mean	812	24.2	4.8	1.10	29.0	83	5.3

1. Values within columns are different at k=100 if they differ by more than the LSD value at base of column.