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COTTON CULTIVAR TESTS for 1990 in Central & South Texas

Departmental

TECHNICAL
REPORT

NO.
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Cotton Cultivar Tests for 1990 in Central and South Texas

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Cotton cultivar tests (CCT) 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 CCT 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.

Because of the growing interest in Pima cotton production in Texas, a Pima strain test was grown near Uvalde in 1990. This test consisted of 5 experimental Pima strains, Pima S-6, the commercial Pima cultivar, and Deltapine 20.

Test locations, soil types, planting dates, and first-harvest dates are given in Table 1, with yield and fiber characteristics presented in Tables 2 - 19. Latest two-year and three-year averages are shown in Tables 20 - 33 for cultivars grown at each location during the period 1988-1990. Results from the Pima Strain evaluation are shown on Tables 34 and 35.

Yield and other characteristics were analyzed as randomized complete blocks. Least Significant Differences (LSD) were used to determine if two cultivars were significantly 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.). The lower the coefficient of variation, the more reliable the test results.

Agronomic Determinations

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

Percent lint: Amount of lint in a random boll sample expressed as a percent of the seedcotton in the sample.

Boll size: The number of normal bolls occurring in the middle of the fruiting zone required to produce one pound of seedcotton.

Fiber Quality Determinations

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

Fiber Fineness: Fiber fineness, micronair, 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 of the secondary cell 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 require reduced processing speeds compared to thicker fibers; yet, these finer fibers produce stronger yarns. Thick or coarse fibers result in fewer fibers in a cross section of yarn, and therefore, 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. Micronair values of 3.4 or below indicate fine and usually 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 a fibergraph instrument and is the average of the longest 50 percent of the fibers in the sample. 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 and descriptive designation

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

Fiber Strength: Yarn strength and ease of processing are positively correlated with strong-fibered cottons. 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 classified from very low to very high.

HVI 1/8-inch gauge strength (grams/tex)	Fiber length group and descriptive designation
	<u>Short</u> (0.96 inch or less)
18-19	Very low
20-21	Low
22-23	Average
24-25	High
26-27	Very high
	<u>Medium</u> (0.97-1.10 inch)
17-19	Very low
20-22	Low
23-25	Average
26-28	High
29-31	Very High
	<u>Long</u> (1.11-1.28 inch)
18-20	Very low
21-23	Low
24-26	Average
27-29	High
30-32	Very high

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. The ratio is multiplied by 100 to convert uniformity to a percentage basis. 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 Elongation: Elongation is the degree of extension of the fibers before a break occurs when measuring strength and is expressed as a percentage. 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. Locations, soil types, planting dates, harvest dates, and irrigation of cultivars tested in Central and South Texas, 1990.

Location (nearest town)	Soil type	Planting dates	Harvest dates	Irrigation
Weslaco	Hidalgo s.c.l. ¹	3-7	8-7	yes
Nueces Co. (Robstown)	Victoria clay	3-14	7-31	no
San Patricio Co. (Sinton)	Victoria clay	3-13	8-2	no
Matagorda Co. (Bay City)	Lake Charles clay	5-17	9-6	yes
College Station	Westwood s.l. ²	4-20	9-26	yes
Uvalde Co. (Knippa)	Knippa Clay	5-5	9-25	yes
Uvalde - Pima Test	Uvalde s.c.l.	4-12	10-10	yes
Thrall	Burleson clay	4-16	8-20	no
Dallas	Houston c.l. ³	5-21	10-25	no
Chillicothe	Abilene c.l.	5-28	12-11	no

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

Table 2. Lint yields and boll characteristics of cotton cultivars evaluated at Weslaco in 1990.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
DES 119	1271	39.7	105
Stoneville 453	1245	39.8	92
Deltapine 5415	1239	41.8	103
Chembred 219	1220	37.4	87
Hartz 1416	1186	37.0	83
Deltapine X5614	1185	36.6	97
Tamcot 2111	1180	34.4	82
Deltapine 51	1155	39.7	100
Chembred 1135	1153	37.6	96
Hartz 1014	1148	40.5	102
KC 311	1146	38.4	94
TAM 86GGG-30	1121	36.1	89
Chembred X1232	1114	38.7	92
Stoneville 1324	1100	36.4	96
Coker 130	1093	39.4	94
Deltapine 50	1093	36.1	92
HYP HS 23	1084	38.4	88
HYP HS 46	1077	39.7	95
Stoneville 825	1063	38.2	96
Coker 320	1062	38.5	87
All-Tex 85034	1053	37.4	95
Terra C40	1021	39.5	92
Chembred X1202	1020	38.6	97
G&P 74+	1019	34.7	81
Deltapine X5690	1018	38.1	96
Tamcot HQ95	1006	35.6	85
Stoneville 907	964	36.7	96
HYP Exp. HS SAL 10	937	34.9	112
Coker 139	910	37.7	91
Tamcot CAB-CS	874	34.3	89
Tamcot CD3H	846	38.0	91
Deltapine 90	838	37.7	109
KC 380	805	37.0	88

Table 2 continued.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
TSP 333 HS	779	32.9	81
Acala 1517-88	719	36.1	98
Paymaster HS 26	623	34.9	84
LSD (k=100) ¹	220	2.0	2
% CV	14.8	3.6	8.0
Test mean	1038	37.5	93

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column.
2. Number of normal bolls required to produce one pound of seedcotton.

Table 3. HVI fiber characteristics of cotton cultivars evaluated at Weslaco in 1990.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
TAM 86GGG-30	4.8	1.10	28.0	85	5.9
Acala 1517-88	4.5	1.19	29.0	86	5.1
All-Tex 85034	5.3	1.12	29.5	85	5.1
Chembred 1135	5.1	1.12	26.5	85	5.0
Chembred 219	5.3	1.13	24.0	87	5.2
Chembred X1202	5.1	1.12	25.5	84	5.9
Chembred X1232	5.2	1.10	23.5	86	6.2
Coker 130	5.0	1.14	25.5	87	5.2
Coker 139	5.1	1.15	26.5	85	5.3
Coker 320	5.3	1.15	24.5	87	5.4
DES 119	5.3	1.12	27.5	88	6.8
Deltapine 50	5.3	1.14	24.0	86	6.2
Deltapine 51	5.4	1.14	23.0	85	6.5
Deltapine X5415	5.6	1.11	28.5	85	6.5
Deltapine X5614	5.6	1.11	25.5	87	5.2
Deltapine 90	5.3	1.09	27.5	86	5.3
Deltapine X5690	5.3	1.09	27.0	86	4.9
G&P 74+	4.8	1.11	23.5	85	6.1
HYP Exp. HS SAL 10	5.2	1.08	31.0	85	6.5
HYP HS 23	4.9	1.13	24.5	86	5.2
HYP HS 46	5.2	1.15	30.0	86	5.5
Hartz 1014	5.2	1.20	27.0	86	6.0
Hartz 1416	5.3	1.12	27.5	87	4.9
KC 311	5.4	1.12	30.0	87	5.1
KC 380	5.4	1.12	25.5	85	5.0
Paymaster HS 26	4.7	1.05	27.0	85	6.6
Stoneville 1324	4.7	1.12	28.5	85	5.4
Stoneville 453	5.1	1.14	25.0	85	5.7
Stoneville 825	5.2	1.12	24.5	85	5.2
Stoneville 907	5.3	1.15	27.5	86	6.2
Tamcot 2111	5.3	1.16	29.0	87	6.2
TSP 333 HS	4.8	1.18	28.0	85	5.4
Tamcot CAB-CS	4.2	1.11	25.5	84	6.5

Table 3 continued.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
Tamcot CD3H	4.7	1.03	23.5	83	5.7
Tamcot HQ95	4.3	1.13	27.0	84	5.1
Terra C40	5.0	1.10	22.0	86	6.6
LSD (k=100) ¹	0.3	0.04	3.7	1.9	0.3
% CV	3.8	1.8	6.5	1.0	3.7
Test mean	5.1	1.12	26.4	85	5.7

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column.

Table 4. Lint yields and boll characteristics of cotton cotton cultivars evaluated in Nueces County in 1990.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
Deltapine 50	667	38.2	106
Bronco 473	589	37.8	83
DES 119	586	40.9	115
Tamcot CAB-CS	582	36.8	99
Chembred 219	575	39.3	102
Chembred X1232	574	40.2	119
G&P 74+	564	37.4	98
Paymaster 147	558	39.7	99
HYP HS 23	558	40.7	119
Chembred 1135	547	39.7	109
Deltapine 20	539	40.0	110
Stoneville 453	537	41.4	109
DP 15	534	35.2	102
Deltapine 90	531	40.6	107
Holland 1379	526	37.3	99
Lankart PR 75	523	37.9	101
Chembred X1202	512	39.7	109
Stoneville 1324	508	39.6	118
Deltapine 5690	507	40.5	114
Deltapine X5415	505	42.4	118
Deltapine X5614	498	38.3	101
Hartz 1416	496	38.3	99
HYP HS 46	494	39.2	122
DP 7	489	38.9	92
Deltapine 51	487	39.3	105
KC 311	487	38.3	119
Hartz 1014	482	41.7	114
TAM 86TT-12	479	39.3	100
Paymaster HS 26	478	37.7	103
Tamcot 2111	476	37.3	95
Coker 320	475	41.3	100
GSC 1093	475	36.1	99
Terra C40	473	40.7	110
Bronco 978	464	36.9	93
Tamcot HQ95	462	41.7	105
HYP Tropical 205	453	38.2	104

Table 4 continued.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
TAM 86GGG-30	447	37.9	110
Acala 1517-75	443	39.5	118
HYP Exp. HS SAL 10	439	35.6	110
Coker 130	437	42.0	110
KC 380	424	39.3	105
All-Tex Quickie	402	37.2	106
Holland 1919	389	36.3	113
Coker 139	339	39.8	99
LSD (k=100) ¹	154	2.7	21
% CV	16.2	3.3	7.8
Test mean	501	38.9	106

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column.
2. Number of normal bolls required to produce one pound of seedcotton.

Table 5. HVI fiber characteristics of cotton cultivars evaluated in Nueces County in 1990.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
Acala 1517-75	4.2	1.14	30.5	87	5.7
All-Tex Quickie	3.9	1.05	24.0	83	5.8
Bronco 473	4.1	1.04	25.5	83	5.9
Bronco 978	4.2	1.02	26.0	83	5.7
Chembred 1135	4.5	1.01	23.0	83	5.4
Chembred 219	4.5	1.04	22.5	85	5.4
Chembred X1202	4.7	1.05	24.0	84	5.9
Chembred X1232	4.3	1.02	23.5	84	6.8
Coker 130	4.7	1.08	24.0	85	5.6
Coker 139	4.9	1.07	23.5	84	5.7
Coker 320	5.0	1.07	25.0	85	5.6
DES 119	4.8	1.08	28.5	86	7.3
DP 15	4.3	1.08	26.0	84	6.1
DP 7	4.3	1.07	23.5	82	5.9
Deltapine 20	4.5	1.04	24.5	84	7.5
Deltapine 50	4.7	1.08	24.0	85	7.0
Deltapine 51	4.9	1.08	25.0	84	7.1
Deltapine X5690	4.9	1.07	28.5	85	5.8
Deltapine 90	4.9	1.07	28.0	85	5.6
Deltapine X5415	5.1	1.06	26.0	85	7.0
Deltapine X5614	4.9	1.07	24.5	85	5.4
G&P 74+	4.1	1.08	24.5	84	6.7
GSC 1093	3.9	1.08	26.5	84	5.2
HYP Exp. HS SAL 10	4.8	1.00	27.5	86	6.9
HYP HS 23	4.2	1.09	24.0	85	5.4
HYP HS 46	4.3	1.06	26.5	83	5.9
HYP Tropical 205	4.5	1.04	25.0	84	5.9
Hartz 1014	4.9	1.12	25.5	86	6.3
Hartz 1416	4.6	1.07	28.0	85	5.5
Holland 1379	4.3	1.00	22.0	82	5.8
Holland 1919	3.8	1.04	22.5	84	6.2
KC 311	4.5	1.03	30.0	83	5.9
KC 380	4.9	1.08	25.0	84	5.4
Lankart PR 75	4.0	1.00	22.0	83	6.1
Paymaster 147	4.6	0.99	25.5	84	6.3
Paymaster HS 26	4.5	1.02	29.0	84	6.9
Stoneville 1324	4.2	1.09	28.0	83	5.6
Stoneville 453	4.5	1.07	23.5	84	5.9

Table 5 continued.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
Tamcot 2111	4.1	1.06	27.0	85	5.9
TAM 86GGG-30	4.0	1.04	27.5	84	6.4
TAM 86TT-12	4.9	1.07	25.0	84	6.4
Tamcot CAB-CS	4.0	1.07	25.0	83	6.3
Tamcot HQ95	4.4	1.09	29.0	84	6.1
Terra C40	4.5	1.02	24.0	86	6.8
LSD (k=100) ¹	0.3	0.05	2.7	ns	0.5
% CV	4.5	2.2	5.3	6.5	5.0
Test mean	4.4	1.05	25.5	84	6.0

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column.
ns=not significant.

Table 6. Lint yields and boll characteristics of cotton cultivars evaluated in San Patricio County in 1990.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
Paymaster HS 26	588	39.0	103
Deltapine 50	526	37.8	121
HYP Exp. HS SAL 10	525	36.6	132
Deltapine X5690	512	38.9	141
Tamcot 2111	508	35.0	107
HYP HS 23	507	36.6	112
Deltapine X5415	507	45.5	139
Tamcot CD3H	502	35.7	107
Paymaster 1476	491	36.9	116
Deltapine X5614	490	35.1	119
Holland 1379	489	33.4	101
Tamcot CAB-CS	483	36.3	118
All-Tex 85034	477	39.4	125
Stoneville 453	475	43.1	114
Terra C40	468	41.4	112
Deltapine 90	455	37.7	134
Bronco 473	448	36.2	101
TAM 86GGG-30	441	37.6	117
G&P 74+	440	33.4	116
Lankart PR 75	437	35.7	111
Bronco 478	430	34.9	96
Terra C30	422	37.6	118
Deltapine 51	419	39.0	110
Stoneville 1324	415	37.6	133
HYP HS 46	404	36.8	129
Holland 1919	402	31.8	133
All-Tex Quickie	395	34.2	111
Tamcot HQ95	391	33.9	105
LSD (k=100) ¹	ns	4.5	28
% CV	20.3	5.6	9.4
Test mean	466	37.0	117

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.
2. Number of normal bolls required to produce one pound of seedcotton.

Table 7. HVI fiber characteristics of cotton cultivars evaluated in San Patricio County in 1990.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
All-Tex 85034	4.2	1.01	26.5	82	5.9
All-Tex Quickie	3.1	1.06	24.5	81	5.7
Bronco 473	3.8	1.01	24.0	83	6.3
Bronco 478	3.9	1.01	25.5	82	5.7
Deltapine 50	4.2	1.04	25.0	82	7.1
Deltapine 51	5.2	1.06	23.0	84	7.1
Deltapine 90	3.8	1.01	28.0	83	5.7
Deltapine X5415	4.7	1.00	26.5	83	6.6
Deltapine X5614	4.6	1.05	25.5	86	5.3
Deltapine X5690	3.5	1.03	29.0	82	5.7
G&P 74+	3.1	1.02	22.5	80	6.9
HYP Exp. HS SAL 10	4.3	0.98	29.5	83	6.8
HYP HS 23	3.7	1.04	24.0	84	5.4
HYP HS 46	3.8	1.03	26.0	82	5.9
Holland 1379	3.3	1.02	23.0	80	5.9
Holland 1919	2.7	1.03	22.0	80	6.0
Lankart PR 75	3.2	0.95	19.5	81	5.7
Paymaster 1476	3.7	0.95	23.0	82	6.5
Paymaster HS 26	4.0	0.99	29.5	85	7.6
Stoneville 1324	3.7	1.04	25.0	83	5.6
Stoneville 453	4.4	1.05	22.5	81	5.6
Tamcot 2111	3.7	1.05	30.5	83	6.8
TAM 86GGG-30	4.1	1.00	29.5	84	6.4
Tamcot CAB-CS	3.4	1.05	23.0	80	6.3
Tamcot CD3H	3.7	1.00	22.0	82	5.6
Tamcot HQ95	3.3	1.07	23.0	82	5.2
Terra C30	4.2	1.05	25.5	84	6.9
Terra C40	4.3	1.01	22.5	82	7.2
LSD (k=100) ¹	0.5	0.06	3.3	3	0.4
% CV	6.7	2.5	6.5	1.5	3.7
Test mean	3.8	1.02	25.0	82	6.2

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column.

Table 8. Lint yields and boll characteristics of cotton cultivars evaluated in Matagorda County in 1990.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
Deltapine 51	1490	41.3	84
Deltapine X5415	1480	45.4	99
Terra C30	1451	40.1	88
HYP HS 46	1409	42.4	96
Deltapine 90	1390	41.0	97
Stoneville 9352	1386	42.9	93
Stoneville 453	1373	41.7	82
Stoneville 1324	1357	41.3	94
Deltapine X5690	1328	42.6	89
Deltapine 50	1301	38.8	87
Hartz 1416	1280	40.2	87
HYP HS 23	1271	41.4	82
Deltapine 20	1244	41.5	84
HYP Exp. HS SAL 10	1218	42.0	110
Tamcot 2111	1173	38.4	81
Hartz 1014	1148	44.6	84
Delcot 344	1082	42.2	94
Stoneville 907	1068	39.5	87
Tamcot CAB-CS	1059	39.0	83
Tamcot HQ95	962	39.7	84
LSD (k=100) ¹	270	2.1	11
% CV	13.5	2.4	5.7
Test mean	1273	41.2	89.3

1. Values within columns are different at approximately the 5% probability level if they differ by more than Waller-Duncan LSD at base of column.
2. Number of normal bolls required to produce one pound of seedcotton.

Table 9. HVI fiber characteristics of cotton cultivars evaluated in Matagorda County in 1990.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
Delcot 344	4.6	1.13	29.0	87	5.9
Deltapine 20	4.9	1.12	25.5	86	6.8
Deltapine 50	4.6	1.17	26.0	87	6.2
Deltapine 51	4.8	1.15	26.5	87	6.4
Deltapine 90	4.3	1.09	32.5	84	5.3
Deltapine X5415	5.3	1.10	30.0	86	5.8
Deltapine X5690	5.0	1.10	29.5	86	5.1
Hartz 1014	4.6	1.16	29.0	87	5.6
Hartz 1416	4.4	1.11	33.0	86	4.9
HYP HS 23	4.5	1.13	29.0	88	5.3
HYP HS 46	4.6	1.12	32.0	85	5.2
HYP Exp. HS SAL 10	4.8	1.12	31.0	86	6.1
Stoneville 1324	4.4	1.13	31.0	86	5.9
Stoneville 453	4.6	1.13	27.5	84	5.6
Stoneville 907	4.7	1.15	31.5	87	6.1
Stoneville 9352	4.9	1.11	29.0	86	6.8
Tamcot 2111	4.7	1.12	33.0	87	6.8
Tamcot CAB-CS	4.4	1.13	26.5	87	6.1
Tamcot HQ95	4.4	1.11	28.0	84	5.2
Terra C30	4.7	1.14	27.0	86	6.1
LSD (k=100) ¹	0.5	0.04	2.6	1	0.3
% CV	4.8	1.5	4.3	0.9	3.4
Test mean	4.6	1.12	29.3	85	5.8

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column.

Table 10. Lint yields and boll characteristics of cotton cultivars evaluated at College Station in 1990.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
Deltapine 20	1584	36.7	95
GSC 1093	1554	31.8	69
DES 119	1548	39.4	96
Chembred 1233	1514	37.2	97
Deltapine X5690	1449	37.8	95
Chembred 1135	1392	36.0	85
Deltapine X5615	1367	37.1	104
Deltapine 90	1336	37.0	97
Chembred 407	1285	35.7	99
Coker 130	1264	38.6	95
All Tex 85034	1255	36.2	94
Deltapine 51	1241	36.8	96
Hartz 1416	1218	39.4	89
Terra C40	1209	38.0	93
Stoneville 453	1198	37.9	89
Stoneville 825	1188	36.5	101
Terra 207	1180	36.5	98
Tamcot CD3H	1177	36.4	91
KC 311	1177	34.9	101
Stoneville 1324	1154	36.8	102
Coker 320	1143	36.8	115
HYP HS 46	1109	35.9	100
KC 380	1109	36.2	88
Chembred 1232	1099	36.6	91
Deltapine 50	1089	32.9	85
TSP 333 HS	1079	31.1	72
Paymaster HS 26	1070	33.6	81
Stoneville 907	1040	35.7	89
HYP HS 23	1034	36.5	87
Acala 1517-88	1031	35.0	92
Tamcot CAB-CS	1030	36.5	79
Coker 139	1003	34.9	89
Tamcot HQ95	985	36.2	80
TAM 86GGG-30	954	33.5	88

Table 10 continued.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
Tamcot 2111	872	33.8	96
Hartz 1014	869	37.5	93
LSD (k=100) ¹	603	3.5	23
% CV	18.9	3.9	8.7
Test mean	1183	36.1	92

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column.
2. Number of normal bolls required to produce one pound of seedcotton.

Table 11. HVI fiber characteristics of cotton cultivars evaluated at College Station in 1990.

Cultivar	Micro- naire (units)	Length (in.)	Str. (g/tex)	U.I. (ratio)	Elong- ation (%)
Acala 1517-88	4.2	1.22	29.0	85	5.5
All-Tex 85034	4.1	1.17	29.5	85	5.7
Chembred 1135	4.2	1.17	24.5	83	5.7
Chembred 1232	3.8	1.16	23.5	85	6.7
Chembred 1233	4.3	1.16	28.0	86	6.3
Chembred 407	4.2	1.12	29.0	83	5.8
Coker 130	4.3	1.18	24.0	85	5.8
Coker 139	4.4	1.20	25.5	86	5.9
Coker 320	3.7	1.19	25.5	85	6.2
DES 119	4.6	1.18	26.5	86	7.7
Deltapine 20	4.4	1.14	23.0	85	7.5
Deltapine 50	4.1	1.19	25.5	84	6.4
Deltapine 51	4.4	1.20	22.0	84	7.2
Deltapine 90	4.4	1.16	27.0	85	5.6
Deltapine X5615	4.1	1.17	28.5	85	7.3
Deltapine X5690	4.4	1.16	28.0	87	5.7
GSC 1093	3.9	1.16	29.0	83	5.7
Hartz 1014	4.1	1.23	25.0	83	6.5
Hartz 1416	4.4	1.17	28.0	87	5.6
HYP HS 23	4.0	1.18	25.0	85	6.1
HYP HS 46	3.9	1.18	28.5	85	6.1
KC 311	3.9	1.16	29.0	84	5.9
KC 380	4.4	1.18	24.5	85	5.8
Paymaster HS 26	4.4	1.12	29.0	87	6.9
Stoneville 1324	3.8	1.18	26.0	85	6.4
Stoneville 453	4.2	1.18	23.5	84	6.5
Stoneville 825	4.3	1.15	23.5	84	5.7
Stoneville 907	4.4	1.19	26.0	86	7.0
Tamcot 2111	3.8	1.14	28.0	85	6.6
TAM 86GGG-30	4.3	1.15	29.0	85	7.4
TSP 333 HS	4.3	1.23	27.0	85	5.8
Tamcot CAB-CS	4.2	1.13	23.5	83	7.0
Tamcot CD3H	3.8	1.08	24.5	85	5.9
Tamcot HQ95	3.9	1.13	25.0	83	5.8

Table 11 continued.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
Terra 207	4.4	1.16	25.5	86	6.9
Terra C40	4.3	1.15	22.0	85	7.5
LSD (k=100) ¹	0.6	0.03	3.5	ns	0.4
% CV	5.6	1.5	6.3	1.4	3.4
Test mean	4.1	1.16	26.1	84	6.3

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column.
ns=not significant.

Table 12. Lint yields and boll characteristics of cotton cultivars and strains evaluated in Uvalde County in 1990.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
TAM 86TT-2	1625	43.4	67
Deltapine X5690	1597	39.6	89
TAM 86TT-12-6	1579	38.5	72
TAM 86TT-12-5	1570	40.3	75
Deltapine 51	1544	39.1	90
Terra 207	1537	41.0	89
TAM 86GGG-30	1536	37.2	77
Deltapine 90	1528	40.4	97
Tamcot 2111	1527	37.8	69
Deltapine X5415	1526	40.7	96
Coker 139	1514	40.3	76
Stoneville 453	1489	40.2	84
Deltapine 50	1476	37.4	83
TAM 1057	1458	38.1	73
Stoneville 1324	1436	39.8	92
Coker 130	1431	42.6	86
Stoneville 506	1423	38.6	90
KC 311	1413	38.7	85
All-Tex 85034	1410	40.6	89
HYP HS 46	1407	39.5	85
Terra C40	1406	40.2	80
Deltapine 20	1404	39.5	82
All-Tex 85039	1390	36.5	75
Hartz 1016	1359	38.6	76
Deltapine 41	1341	41.7	90
HYP HS 23	1341	39.1	76
KC 380	1339	40.0	85
Stoneville 907	1319	40.6	76
Coker 320	1297	38.8	76
TAM 2055	1289	38.5	73

Table 12 continued.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
Hartz 1014	1203	39.9	78
HYP Expt. HS SAL 10	1161	40.1	95
LSD (k=100) ¹	ns	2.5	9
% CV	12.7	2.9	5.9
Test mean	1434	39.6	82

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.
2. Number of normal bolls required to produce one pound of seedcotton.

Table 13. HVI fiber characteristics of cotton cultivars and strains evaluated in Uvalde County in 1990.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
All-Tex 85034	4.3	1.13	28.5	84	5.7
All-Tex 85039	4.4	1.08	27.0	85	6.4
Coker 130	4.4	1.17	26.0	86	5.6
Coker 139	4.3	1.18	25.5	87	5.8
Coker 320	4.0	1.21	25.5	86	5.8
Deltapine 20	4.3	1.15	24.0	84	7.3
Deltapine 41	4.1	1.17	25.5	84	6.1
Deltapine 50	4.4	1.18	25.0	84	6.8
Deltapine 51	4.3	1.18	24.0	84	6.5
Deltapine 90	4.0	1.15	31.0	85	5.7
Deltapine X5415	4.4	1.18	28.5	84	7.3
Deltapine X5690	4.1	1.17	30.5	85	5.7
Hartz 1014	4.2	1.26	28.0	86	5.9
Hartz 1016	4.1	1.13	26.5	86	5.4
HYP Expt. HS SAL 10	4.4	1.13	28.0	85	6.4
HYP HS 23	4.1	1.17	28.0	85	5.3
HYP HS 46	3.9	1.20	29.0	85	5.7
KC 311	4.1	1.16	31.5	85	5.6
KC 380	4.3	1.18	26.5	85	6.0
Stoneville 1324	3.8	1.16	27.0	86	6.1
Stoneville 453	4.2	1.13	23.5	86	6.4
Stoneville 506	4.2	1.17	24.5	87	6.1
Stoneville 907	4.4	1.17	27.5	88	6.5
Tamcot 2111	4.3	1.13	27.5	85	7.4
TAM 2055	3.7	1.10	28.0	81	6.6
TAM 1057	3.5	1.23	31.0	87	6.7
TAM 86GGG-30	3.6	1.15	27.0	86	6.4
TAM 86TT-12-5	4.0	1.12	25.5	83	6.9
TAM 86TT-12-6	3.6	1.11	28.0	84	7.0
TAM 86TT-2	4.3	1.11	26.0	84	6.4
Terra 207	4.2	1.11	24.5	84	7.0
Terra C40	4.1	1.14	24.0	85	7.3
LSD (k=100) ¹	0.3	0.02	1.5	3	0.3
% CV	3.8	1.3	3.0	1.6	2.7
Test mean	4.0	1.15	26.9	84	6.3

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column.

Table 14. Lint yields and boll characteristics of cotton cultivars evaluated at Thrall in 1990.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
Deltapine X5690	759	38.8	126
G&P 74+	643	37.8	112
Deltapine X5415	596	39.3	138
Deltapine 50	564	36.8	112
Tamcot 2111	558	36.4	123
Deltapine 90	550	38.7	134
Terra 207	525	38.8	131
DES 119	522	39.8	138
Bronco 414	511	37.9	87
TSP 333 HS	506	33.8	112
Cascot 2910	500	38.1	109
HYP HS 23	497	40.4	126
HYP HS 46	496	37.8	138
Tamcot CD3H	490	40.1	129
Deltapine 20	478	39.7	123
Acala 1517-88	475	37.2	116
Tamcot CAB-CS	474	39.2	117
Deltapine 51	472	40.1	133
Bronco 871	471	38.0	96
Coker 320	470	39.7	132
Stoneville 453	469	39.6	119
Terra C40	467	40.2	112
GSC 27	462	34.0	105
Strohman 254	461	35.9	109
Hartz 1416	450	38.1	125
TAM 86GGG-30	449	37.9	130
Stoneville 1324	443	39.3	135
Paymaster HS 26	433	37.5	115
Holland 1379	426	38.3	105
Hartz 1014	416	39.0	131

Table 14 continued.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
GSC 1093	383	36.5	111
Tamcot HQ95	381	40.1	117
LSD (k=100) ¹	94	1.4	20
% CV	13.7	1.9	7.9
Test mean	493	38.2	120

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column.
2. Number of normal bolls required to produce one pound of seedcotton.

Table 15. HVI fiber characteristics of cotton cultivars evaluated at Thrall in 1990.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
Acala 1517-88	4.5	1.14	32.5	87	5.8
Bronco 414	4.5	1.02	25.0	84	6.2
Bronco 871	4.4	1.03	27.0	84	6.3
Cascot 2910	4.4	1.05	23.0	84	6.3
Coker 320	4.7	1.08	27.0	84	6.1
DES 119	4.6	1.09	31.0	86	7.4
Deltapine 20	4.6	1.06	25.0	84	7.6
Deltapine 50	4.8	1.09	25.5	85	7.4
Deltapine 51	4.8	1.07	26.0	85	7.0
Deltapine 90	4.4	1.04	30.5	84	6.0
Deltapine X5415	4.7	1.08	28.0	84	7.2
Deltapine X5690	4.4	1.05	28.5	84	5.9
G&P 74+	4.2	1.04	24.5	83	6.5
GSC 1093	4.0	1.11	29.5	84	5.4
GSC 27	4.8	1.01	30.0	86	5.2
HYP HS 23	4.8	1.11	27.5	85	5.3
HYP HS 46	4.2	1.08	32.0	84	6.0
Hartz 1014	4.8	1.13	29.0	86	6.8
Hartz 1416	4.4	1.09	32.0	86	5.6
Holland 1379	4.5	1.03	23.5	83	6.1
Paymaster HS 26	5.0	1.03	30.0	85	7.2
Stoneville 1324	4.1	1.09	29.5	84	5.9
Stoneville 453	4.9	1.07	25.5	84	5.9
Strohman 254	4.0	1.11	30.5	86	5.7
Tamcot 2111	4.7	1.05	32.0	84	7.1
TAM 86GGG-30	3.9	1.08	32.5	86	7.2
TSP 333 HS	4.4	1.14	32.0	86	6.1
Tamcot CAB-CS	4.4	1.03	24.0	84	6.5
Tamcot CD3H	4.0	1.01	23.0	84	5.8
Tamcot HQ95	4.4	1.03	24.0	84	5.4
Terra 207	4.5	1.08	27.0	86	7.1
Terra C40	4.4	1.09	25.0	85	7.3
LSD (k=100) ¹	0.6	0.05	3.3	ns	0.3
% CV	5.6	2.3	6.0	1.5	2.8
Test mean	4.4	1.06	27.8	84	6.3

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column.
ns=not significant.

Table 16. Lint yields and boll characteristics of cotton cultivars evaluated at Dallas in 1990.

Cultivar	Lint ² yield (lb/ac)	Lint %	Boll ³ size
Deltapine 51	568	41.6	95
Stoneville 453	531	43.6	113
Paymaster HS 26	530	40.6	104
Deltapine 90	505	42.8	113
Terra C40	458	42.8	98
All-Tex 85034	419	43.1	109
G&P 74+	419	40.8	95
DP 15	413	38.7	89
Tamcot CAB-CS	402	40.8	104
Terra 207	387	41.9	116
HYP HS 46	371	42.6	109
TAM 86GGG-30	311	38.9	120
Acala 1517-88	.	40.7	118
Deltapine 50	.	41.8	95
Coker 320	.	40.9	90
Tamcot HQ95	.	41.1	99
Chembred 1135	.	41.7	105
Chembred X1235	.	41.3	112
Chembred X1202	.	42.2	110
Chembred X1232	.	42.4	114
HYP HS 23	.	42.1	107
Stoneville 616-8911	.	44.7	116
Deltapine 20	.	40.7	107
Deltapine X5690	.	43.6	108
Deltapine X5415	.	44.9	122
Terra C30	.	40.6	117
DP 7	.	39.1	102
All-Tex 85039	.	39.8	106

Table 16 continued.

Cultivar	Lint ² yield (lb/ac)	Lint %	Boll ³ size
Tamcot CD3H	.	41.4	90
Tamcot 2111	.	37.9	96
LSD (k=100) ¹	ns	1.6	21
% CV	19.8	2.0	8.0
Test mean	438	41.4	105

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.
2. Lint yield values are means of at least 2 replications. Most plots deleted from analysis due to root rot.
3. Number of normal bolls required to produce one pound of seedcotton.

Table 17. HVI fiber characteristics of cotton cultivars evaluated at Dallas in 1990.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
Acala 1517-88	4.6	1.14	31.0	83	5.5
All-Tex 85034	5.2	0.99	30.5	84	6.0
All-Tex 85039	5.0	0.99	28.0	84	6.4
Chembred 1135	4.8	1.07	27.0	83	5.2
Chembred X1202	5.1	1.04	25.5	83	5.9
Chembred X1232	4.7	1.04	23.5	83	6.1
Chembred X1235	5.2	1.02	26.5	85	6.1
Coker 320	4.8	1.08	25.5	84	5.3
DP 15	4.5	1.07	28.0	83	5.8
DP 7	4.2	1.06	24.0	81	5.5
Deltapine 20	4.8	1.07	24.5	84	6.7
Deltapine 50	5.4	1.04	24.5	84	6.5
Deltapine 51	5.2	1.06	23.5	83	6.5
Deltapine 90	5.1	1.05	32.0	83	5.9
Deltapine X5415	5.7	1.01	26.0	84	6.6
Deltapine X5690	5.3	1.01	29.5	84	5.7
G&P 74+	4.5	1.02	25.0	82	6.1
HYP HS 23	4.9	1.05	27.0	83	5.1
HYP HS 46	5.1	1.05	30.5	85	6.2
Paymaster HS 26	4.9	0.98	28.0	84	7.2
Stoneville 453	4.7	1.06	23.0	82	5.3
Stoneville 616-8911	5.5	1.03	25.5	83	5.9
Tamcot 2111	4.9	1.03	31.0	84	6.5
TAM 86GGG-30	4.4	1.00	28.5	81	6.1
Tamcot CAB-CS	4.8	0.97	22.5	81	6.1
Tamcot CD3H	4.7	0.98	21.5	82	5.1
Tamcot HQ95	4.4	1.04	23.5	82	5.0
Terra 207	4.9	1.05	27.5	84	6.8
Terra C30	5.0	1.05	24.0	83	6.1
Terra C40	5.0	1.03	23.5	85	6.5
LSD (k=100) ¹	0.4	0.06	3.8	2	0.3
% CV	4.3	2.6	7.0	1.2	3.0
Test mean	4.8	1.03	26.3	82	5.9

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column.

Table 18. Lint yields and boll characteristics of cotton cultivars evaluated at Chillicothe in 1990.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
TAM 86GGG-30	573	36.9	91
Paymaster HS 26	557	36.8	81
Deltapine 50	553	35.3	93
Deltapine 20	543	36.9	96
TAM 2055	539	37.7	85
Paymaster 145	531	36.1	95
Lankart 611	525	36.2	77
HC 4322	507	36.2	87
Stoneville 453	499	39.6	91
Tamcot 2111	490	34.5	79
All-Tex 85039	472	37.5	88
Bronco B-871	469	34.3	79
Lankart PR75	464	37.9	87
G&P 74+	463	34.8	89
G&P 3755	459	34.4	82
GSC 1093	453	32.5	86
HYP Tropical 205	451	36.0	85
Tamcot CD3H	450	38.6	88
G&P 3774	445	37.1	86
Lankart 511	441	36.0	88
All-Tex Quickie	438	34.5	89
Tamcot CAB-CS	438	35.3	96
Hartz 1416	437	35.9	86
Stroman 254	435	36.1	75
Bronco B-978	430	36.4	82
Lankart 175	427	31.1	82
Tamcot HQ95	427	37.8	91
GSC 71+	421	35.3	86
Lankart LX 571	417	35.6	72
Terra 207	416	37.4	99
Lankart WG 142	415	36.9	95
Lankart 311	409	35.8	85
Deltapine 51	408	35.8	99
Terra C40	405	36.0	101

Table 18 continued.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
Deltapine X5690	402	38.4	89
Acala 1517-88	400	38.2	90
HYP HS 23	394	38.0	90
Coker 320	385	37.3	90
Hartz 1014	383	38.6	99
G&P 5479	373	35.6	99
G&P 1005	367	36.9	91
HYP HS 46	365	38.5	100
Cencot	362	35.2	84
Deltapine 90	338	38.0	94
All-Tex 85034	337	38.6	103
Deltapine X5415	304	39.3	107
LSD (k=100) ¹	68	ns	8.6
% CV	11.5	4.2	4.8
Test mean	438	36.4	89.1

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.
2. Number of normal bolls required to produce one pound of seedcotton.

Table 19. HVI fiber characteristics of cotton cultivars evaluated at Chillicothe in 1990.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
Acala 1517-88	4.5	1.10	26.0	82	6.4
All-Tex 85034	3.5	1.05	24.5	80	6.5
All-Tex 85039	4.3	1.02	23.5	81	7.0
All-Tex Quickie	4.4	1.15	28.0	84	6.3
Bronco B-871	4.0	1.00	23.5	82	5.8
Bronco B-978	4.0	1.06	24.0	80	5.8
Cencot	3.6	1.10	23.0	80	6.0
Coker 320	3.9	1.10	30.0	82	5.8
Deltapine X5415	4.0	1.01	28.0	78	6.4
Deltapine X5690	4.5	1.05	29.5	81	5.5
DP 15	4.7	1.05	28.5	85	6.5
DP 7	4.2	1.03	24.0	81	6.0
Deltapine 20	4.4	1.07	.	81	6.3
Deltapine 50	4.8	1.04	.	82	6.0
Deltapine 51	3.9	1.07	26.0	81	6.5
Deltapine 90	3.9	1.02	28.0	81	6.0
G&P 1005	4.4	1.06	25.5	82	5.8
G&P 3755	3.9	1.10	26.0	81	5.3
G&P 3774	4.0	1.02	24.0	81	6.2
G&P 5479	4.8	1.04	26.5	82	7.5
G&P 74+	4.5	0.99	26.5	82	7.5
GSC 1093	3.8	1.02	26.5	81	6.1
GSC 71+	3.7	1.11	24.5	80	6.4
HC 4322	4.3	1.14	31.5	84	5.9
Hartz 1014	4.1	1.11	26.5	83	6.8
Hartz 1416	4.3	1.07	28.0	82	6.5
HYP HS 23	4.7	1.12	26.0	86	6.2
HYP HS 46	4.3	1.07	26.0	83	6.1
HYP Tropical 205	4.4	1.04	27.0	82	6.0
Lankart 311	3.9	1.10	25.0	81	7.1
Lankart 511	4.1	1.03	23.0	83	7.2
Lankart 611	4.5	1.03	30.5	84	7.1
Lankart LX 571	3.8	1.04	25.5	81	6.7
Lankart PR 75	4.7	1.02	29.0	84	7.2
Lankart PR 175	3.8	1.09	27.5	81	5.6
Lankart WG 142	3.9	1.11	26.5	84	5.5

Table 19 continued.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
Paymaster 145	3.8	1.00	25.0	79	7.3
Paymaster HS 26	4.4	0.99	31.5	83	6.2
Stoneville 453	3.6	1.06	23.5	79	6.4
Stroman 254	4.2	1.09	33.0	83	7.1
TAM 2055	4.6	1.11	25.5	84	6.9
Tamcot 2111	4.3	1.07	25.5	82	6.2
TAM 86GGG-30	3.6	1.13	28.0	82	6.1
Tamcot CAB-CS	4.0	0.97	22.5	79	6.3
Tamcot CD3H	4.3	1.05	25.0	82	6.5
Tamcot HQ95	5.0	1.03	29.0	82	6.5
Terra 207	4.2	1.09	26.5	80	5.5
Terra C40	4.0	1.07	24.5	81	6.5
LSD (k=100) ¹	0.5	0.06	3.5	4	0.6
% CV	6.1	2.9	6.4	1.8	5.3
Test mean	4.1	1.05	26.4	81	6.3

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column.

Table 20. Latest two-year average lint yields and HVI fiber properties of cotton cultivars evaluated at Weslaco, 1989-1990.

Cultivar	Lint yield (lb/ac)	Micro- naire (units)	Length (in.)	Str. (g/tex)	U.I. (ratio)	Elong- ation (%)
Chembred 219	1273	5.0	1.11	23.8	86	5.9
Deltapine 51	1097	5.2	1.10	22.5	85	7.2
KC 311	1093	5.2	1.10	28.0	86	5.6
Stoneville 453	1087	5.1	1.10	23.3	85	6.5
Tamcot 2111	1055	5.1	1.12	27.8	87	7.0
Deltapine 50	1047	5.2	1.10	23.8	86	7.3
DES 119	1014	5.2	1.08	25.3	88	7.3
Coker 130	1005	4.9	1.10	24.8	86	6.0
All Tex 85034	985	5.1	1.08	27.0	85	5.8
G&P 74+	949	4.5	1.08	22.3	85	6.2
Stoneville 825	948	5.1	1.08	22.3	85	5.9
Terra C40	943	4.9	1.07	21.8	86	7.4
Tamcot HQ95	939	4.2	1.11	25.8	84	5.6
Coker 139	899	5.1	1.11	25.3	86	6.1
KC 380	873	5.3	1.09	23.8	85	5.7
Deltapine 90	866	4.9	1.06	26.5	85	5.8
Tamcot CD3H	845	4.5	1.02	23.0	83	6.3
Stoneville 907	837	5.3	1.11	25.0	86	6.8
Paymaster HS 26	821	4.8	1.04	26.3	85	7.0
Tamcot CAB-CS	792	4.3	1.09	24.5	84	6.7
LSD (k=100) ¹	ns	0.3	0.02	2.2	1	0.6
% CV	13.8	3.5	1.3	4.3	0.7	4.8
Test mean	968	4.9	1.08	24.6	85	6.3

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD value at base of column. ns=not significant.

Table 21. Latest three-year average lint yields and HVI fiber properties of cotton cultivars evaluated at Weslaco, 1988-1990.

Cultivar	Lint yield	Micro-naire	Length	Str.	U.I.	Elong-ation
	(lb/ac)	(units)	(in.)	(g/tex)	(ratio)	(%)
Stoneville 453	1104	4.8	1.09	22.8	84	6.7
Deltapine 50	1096	5.0	1.11	23.7	85	7.6
DES 119	1059	4.8	1.09	25.0	86	7.4
Stoneville 825	1026	4.8	1.08	22.7	84	6.1
Coker 139	997	4.8	1.12	24.3	84	6.3
Deltapine 90	916	4.7	1.07	26.5	84	5.9
LSD (k=100) ¹	ns	ns	0.03	24.2	1	0.4
% CV	11.2	3.6	1.5	4.5	0.8	3.8
Test mean	1032	4.8	1.09	24.2	84	6.7

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD value at base of column. ns=not significant.

Table 22. Latest two-year average lint yields and HVI fiber properties of cotton cultivars evaluated in Nueces County, 1989-1990.

Cultivar	Lint yield	Micro- naire	Length	Str.	U.I.	Elong- ation
	(lb/ac)	(units)	(in.)	(g/tex)	(ratio)	(%)
Deltapine 50	578	4.8	1.05	23.8	85	7.9
Paymaster HS 26	505	4.6	1.00	27.8	84	7.8
Bronco 473	503	4.3	1.02	24.0	83	6.4
DES 119	499	4.6	1.05	26.5	86	7.9
Deltapine 20	493	4.5	1.01	23.5	84	8.4
Lankart PR 75	492	4.2	0.98	21.3	84	6.7
Stoneville 453	490	4.7	1.05	23.0	85	6.9
Tamcot CAB-CS	480	4.1	1.04	24.3	83	7.0
Deltapine 51	476	5.0	1.03	23.3	85	8.1
Deltapine 90	451	4.8	1.03	27.5	85	6.3
Tamcot 2111	448	4.3	1.02	24.0	85	7.5
KC 311	442	4.6	1.02	27.5	84	6.8
Holland 1379	441	4.1	0.98	21.5	82	6.6
G&P 74+	430	4.2	1.05	22.8	84	6.9
Terra C40	426	4.7	1.02	22.3	85	7.9
Tamcot HQ95	422	4.1	1.05	25.5	83	6.3
Coker 130	399	4.8	1.05	23.5	85	6.2
KC 380	398	4.9	1.04	24.0	85	6.3
Holland 1919	397	3.8	1.01	22.0	83	6.9
All-Tex Quickie	389	4.0	1.04	23.8	84	6.3
Coker 139	355	4.8	1.05	22.5	85	6.5
LSD (k=100) ¹	ns	0.4	0.03	2.0	ns	0.3
% CV	13.0	4.4	1.6	5.1	1.6	6.0
Test mean	448	4.4	1.02	24.3	84	6.9

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD value at base of column. ns=not significant.

Table 23. Latest three-year average lint yields and HVI fiber properties of cotton cultivars evaluated in Nueces County, 1988-1990.

Cultivar	Lint yield (lb/ac)	Micro- naire (units)	Length (in.)	Str. (g/tex)	U.I. (ratio)	Elong- ation (%)
Deltapine 50	696	4.9	1.07	24.2	85	7.9
Stoneville 453	624	4.6	1.04	24.3	84	7.2
Deltapine 20	603	4.7	1.03	23.5	84	8.4
Coker 139	580	4.8	1.05	22.5	85	6.5
DES 119	577	4.6	1.05	25.8	84	8.0
Deltapine 90	550	4.9	1.05	27.2	84	6.4
All-Tex Quickie	474	3.9	1.03	24.2	83	6.5
LSD (k=100) ¹	101	0.3	ns	1.9	ns	0.4
% CV	9.1	4.2	2.0	4.3	1.6	3.2
Test mean	574	4.5	1.04	25.6	84	7.3

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.

Table 24. Latest two-year average lint yields and HVI fiber properties of cotton cultivars evaluated in San Patricio County, 1989-1990.

Cultivar	Lint yield (lb/ac)	Micro- naire (units)	Length (in.)	Str. (g/tex)	U.I. (ratio)	Elong- ation (%)
Paymaster HS 26	576	4.7	0.99	28.3	85	8.1
Stoneville 453	542	4.8	1.04	21.8	83	6.3
All-Tex 85034	524	4.7	0.99	25.5	83	6.4
Deltapine 90	499	4.6	1.00	26.3	85	6.4
Terra C30	490	4.7	1.07	24.3	85	7.4
Deltapine 50	489	4.8	1.05	24.3	85	7.7
Tamcot 2111	483	4.6	1.03	28.3	85	7.2
Tamcot CAB-CS	480	4.0	1.02	22.5	82	7.0
Tamcot CD3H	467	4.0	0.99	22.5	82	6.1
G&P 74+	448	3.8	1.00	21.8	81	6.8
Terra C40	445	4.8	1.02	21.3	84	7.7
Holland 1379	435	3.9	0.99	22.5	82	6.5
Lankart PR 75	435	4.1	0.95	19.8	82	6.4
Tamcot HQ95	425	3.6	1.04	24.0	83	5.8
All-Tex Quickie	421	3.8	1.04	24.0	82	6.0
Holland 1919	381	3.5	1.03	21.8	81	6.6
LSD (k=100) ¹	ns	0.5	0.05	2.0	2	0.5
% CV	11.4	6.0	2.1	5.0	1.5	4.0
Test mean	471	4.2	1.01	23.0	82	6.7

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.

Table 25. Latest three-year average lint yields and HVI fiber properties of cotton cultivars evaluated in San Patricio County, 1988-1990.

Cultivar	Lint yield	Micro- naire	Length	Str.	U.I.	Elong- ation
	(lb/ac)	(units)	(in.)	(g/tex)	(ratio)	(%)
Stoneville 453	859	5.0	1.04	22.0	83	6.7
Deltapine 50	772	4.9	1.06	24.2	85	7.9
Deltapine 90	724	4.6	1.02	27.0	84	6.5
Lankart PR 75	686	4.1	0.99	20.5	82	6.6
Tamcot CD3H	680	4.1	0.99	22.3	81	6.5
Tamcot CAB-CS	652	4.1	1.04	22.5	82	7.3
Holland 1379	622	3.9	1.01	22.8	81	6.7
All-Tex Quickie	603	3.9	1.05	24.8	83	6.2
LSD (k=100) ¹	ns	0.3	ns	1.6	2	0.3
% CV	14.1	4.7	2.4	4.3	1.3	3.1
Test mean	699	4.3	1.4	23.2	82	6.8

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.

Table 26. Latest two-year average lint yields and HVI fiber properties of cotton cultivars evaluated at College Station, 1989-1990.

Cultivar	Lint yield	Micro- naire	Length	Str.	U.I.	Elong- ation
	(lb/ac)	(units)	(in.)	(g/tex)	(ratio)	(%)
DES 119	1408	4.6	1.18	26.5	87	7.9
Deltapine 20	1370	4.3	1.13	23.3	86	8.0
Stoneville 453	1333	4.4	1.17	24.8	86	6.9
Chembred 1135	1298	4.4	1.18	25.3	85	6.0
Terra C40	1250	4.4	1.14	22.3	85	7.8
Deltapine 90	1248	4.5	1.16	28.3	86	6.2
Stoneville 825	1234	4.4	1.17	24.8	86	6.2
Tamcot CD3H	1213	4.0	1.07	23.0	85	6.7
Tamcot CAB-CS	1202	4.3	1.14	22.3	84	7.2
Coker 130	1190	4.4	1.19	23.8	87	6.3
KC 311	1169	4.2	1.18	29.8	86	6.3
Deltapine 50	1163	4.3	1.18	24.8	86	7.2
Tamcot HQ95	1163	3.9	1.15	25.8	84	6.0
Stoneville 907	1159	4.8	1.21	26.8	87	7.2
Coker 139	1137	4.5	1.19	25.5	87	6.5
KC 380	1034	4.6	1.18	25.0	86	6.6
LSD (k=100) ¹	ns	0.4	0.03	2.6	2	0.6
% CV	13.8	3.8	1.4	4.7	1.1	4.7
Test mean	1222	4.3	1.16	25.0	85	6.7

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.

Table 27. Latest three-year average lint yields and HVI fiber properties of cotton cultivars evaluated at College Station, 1988-1990.

Cultivar	Lint yield	Micro- naire	Length	Str.	U.I.	Elong- ation
	(lb/ac)	(units)	(in.)	(g/tex)	(ratio)	(%)
Deltapine 20	1512	4.4	1.15	23.5	86	7.9
DES 119	1480	4.6	1.17	26.1	85	7.6
Stoneville 453	1468	4.4	1.17	24.7	85	6.6
Deltapine 50	1365	4.4	1.19	24.7	85	7.2
Stoneville 825	1356	4.6	1.17	24.7	85	6.0
Deltapine 90	1352	4.5	1.16	28.7	85	6.1
Tamcot CD3H	1331	4.0	1.07	22.5	83	6.5
Tamcot CAB-CS	1291	4.3	1.13	22.8	83	7.0
Coker 139	1290	4.5	1.20	25.5	86	6.2
LSD (k=100) ¹	ns	0.2	0.03	2.1	ns	0.4
% CV	10.8	3.4	1.75	4.9	1.4	4.3
Test mean	1383	4.4	1.15	24.7	84	6.7

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.

Table 28. Latest two-year average lint yields and HVI fiber properties of cotton cultivars evaluated at Thrall, 1989-1990.

Cultivar	Lint yield	Micro- naire	Length	Str.	U.I.	Elong- ation
	(lb/ac)	(units)	(in.)	(g/tex)	(ratio)	(%)
Tamcot 2111	705	4.6	1.04	30.0	85	7.5
Deltapine 50	635	5.0	1.09	25.0	86	7.8
Deltapine 51	632	5.0	1.06	24.0	85	7.4
G&P 74+	605	4.3	1.02	22.3	83	6.6
TSP 333 HS	578	4.5	1.13	29.5	86	6.3
Stoneville 453	570	4.8	1.05	23.5	84	6.4
Bronco 871	559	4.3	1.01	25.8	84	6.8
Holland 1379	554	4.4	1.04	24.0	83	6.4
Terra C40	550	4.6	1.07	23.3	86	7.8
GSC 27	548	4.8	1.01	28.0	86	5.6
Paymaster HS 26	520	5.0	1.02	29.8	85	7.7
Tamcot CAB-CS	520	4.4	1.03	23.3	85	7.1
Cascot 2910	509	4.4	1.05	22.8	84	6.7
Tamcot HQ95	468	4.1	1.03	22.5	83	5.8
Tamcot CD3H	425	4.0	0.99	22.5	83	6.3
LSD (k=100) ¹	ns	0.4	0.02	2.6	1	0.3
% CV	15.7	4.3	1.3	5.1	0.9	2.4
Test mean	558	4.5	1.03	25.0	84	6.7

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.

Table 29. Latest three-year average lint yields and HVI fiber properties of cotton cultivars evaluated at Thrall, 1988-1990.

Cultivar	Lint yield	Micro- naire	Length	Str.	U.I.	Elong- ation
	(lb/ac)	(units)	(in.)	(g/tex)	(ratio)	(%)
Deltapine 50	750	4.7	1.10	24.7	85	7.7
GSC 27	695	4.5	1.02	26.7	85	5.8
Tamcot CAB-CS	622	4.2	1.05	22.8	83	7.2
Cascot 2910	597	4.0	1.07	22.2	82	6.7
Tamcot CD3H	546	3.8	1.00	22.5	83	6.3
LSD (k=100) ¹	146	0.2	0.02	2.0	2	0.4
% CV	11.1	3.2	1.39	4.6	1.4	3.5
Test mean	642	4.2	1.04	23.7	83	6.4

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.

Table 30. Latest two-year average lint yields and HVI fiber properties of cotton cultivars evaluated at Dallas, 1989-1990.

Cultivar	Lint ² yield (lb/ac)	Micro- naire (units)	Length (in.)	Str. (g/tex)	U.I. (ratio)	Elong- ation (%)
Stoneville 453	731	4.3	1.09	22.8	84	5.9
Chembred 1202	-	4.6	1.07	24.0	84	6.1
Deltapine 51	631	4.7	1.09	23.3	84	7.1
Chembred 1135	-	4.6	1.08	25.0	84	5.6
All-Tex 85034	-	4.8	1.06	28.5	85	6.0
Tamcot HQ95	-	4.1	1.08	24.8	83	5.7
G&P 74+	533	4.2	1.04	22.5	82	6.2
Tamcot CD3H	-	4.4	1.02	22.3	83	5.9
Deltapine 50	-	4.9	1.08	23.8	85	7.1
Tamcot CAB-CS	-	4.4	1.03	23.3	83	6.7
LSD (k=100) ¹	ns	0.3	ns	ns	ns	0.9
% CV	14.2	3.1	2.4	7.7	0.8	5.9
Test mean	579	4.4	1.06	24.0	83	6.2

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.
2. Missing yield data as result of root rot in 1990.

Table 31. Latest three-year average HVI fiber properties of cotton cultivars evaluated at Dallas, 1988-1990.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
Stoneville 453 ¹	4.4	1.09	22.8	83	6.0
Deltapine 50	4.6	1.08	23.0	84	7.1
Tamcot CD3H	4.4	1.02	22.2	82	6.1
Acala 1517-75	4.1	1.14	29.2	86	6.1
Tamcot CAB-CS	4.3	1.05	22.8	82	6.7
LSD (k=100) ²	0.3	0.05	2.0	2	0.3
% CV	3.9	2.5	4.6	1.8	3.3
Test mean	4.3	1.07	24.0	83	6.3

1. Yields deleted due to root rot in 1990.
2. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.

Table 32. Latest two-year average lint yields and HVI fiber properties of cotton cultivars evaluated at Chillicothe, 1989-1990.

Cultivar	Lint yield	Micro- naire	Length	Str.	U.I.	Elong- ation
	(lb/ac)	(units)	(in.)	(g/tex)	(ratio)	(%)
Paymaster HS 26	375	4.3	1.02	30.0	84	6.9
Deltapine 50	366	4.5	1.08	26.0	83	6.9
Deltapine 20	335	4.0	1.07	22.5	82	7.0
Lankart 311	324	4.0	1.07	24.5	83	7.1
Stoneville 453	322	4.1	1.05	23.0	80	6.4
Lankart 611	316	4.0	1.02	27.3	83	7.3
Lankart PR 75	309	4.2	1.04	25.3	83	7.1
G&P 74+	308	4.2	1.02	24.0	82	6.9
Paymaster 145	308	4.1	0.98	23.3	81	6.8
Lankart LX571	304	3.9	1.04	25.0	82	6.9
G&P 3774	301	3.9	1.04	23.3	81	6.7
Lankart 511	288	3.9	1.03	21.5	83	6.7
Tamcot CD3H	288	4.1	1.02	22.0	82	6.3
Deltapine 51	283	4.0	1.10	25.8	83	6.9
Terra C40	282	4.0	1.06	24.3	82	7.1
All-Tex Quickie	280	4.1	1.10	25.0	84	6.2
Cencot	277	3.6	1.07	23.0	81	6.7
Tamcot CAB-CS	273	4.0	0.99	23.0	80	6.7
G&P 1005	267	4.1	1.04	24.0	82	6.2
G&P 5479	263	4.2	1.06	24.0	82	6.8
LSD (k=100) ¹	ns	ns	ns	5.0	ns	ns
% CV	17.3	9.8	3.5	7.4	1.6	10.1
Test mean	303	4.0	1.04	24.3	81	6.7

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.

Table 33. Latest three-year average lint yields and HVI fiber properties of cotton cultivars evaluated at Chillicothe, 1988-1990.

Cultivar	Lint yield	Micro- naire	Length	Str.	U.I.	Elong- ation
	(lb/ac)	(units)	(in.)	(g/tex)	(ratio)	(%)
Deltapine 50	391	4.7	1.08	25.0	83	7.1
Paymaster HS 26	376	4.2	1.01	29.5	83	7.3
Lankart 311	364	4.3	1.04	24.2	83	7.2
Lankart PR 75	356	4.3	1.00	23.2	82	7.0
Deltapine 20	350	4.3	1.04	22.0	82	7.3
Stoneville 453	339	4.2	1.07	23.5	80	6.4
Paymaster 145	330	4.5	0.97	22.5	82	6.7
Lankart 511	315	4.1	1.00	21.3	82	6.6
Lankart 611	314	4.1	1.01	25.5	82	7.4
Tamcot CD3H	314	4.3	1.00	20.7	81	6.4
G&P 3774	304	4.1	1.03	22.0	81	7.1
Tamcot CAB-CS	303	4.2	0.98	21.5	80	6.8
All-Tex Quickie	294	4.2	1.08	23.8	83	6.2
G&P 1005	293	4.3	1.03	23.0	81	6.6
G&P 5479	290	4.2	1.04	22.3	81	6.6
Lankart LX 571	289	4.2	1.03	24.3	82	7.0
Cencot	284	3.9	1.04	21.8	80	6.9
LSD (k=100) ¹	ns	ns	0.04	2.9	ns	ns
% CV	14.3	8.5	3.4	7.2	1.5	8.0
Test mean	323	4.2	1.06	23.2	81	6.8

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.

Table 34. Lint yields and boll characteristics of Pima strains evaluated at Uvalde in 1990.

Cultivar	Lint yield (lb/ac)	Lint %	Boll ² size
Deltapine 20	1297	39.0	125
Pima S-6	1296	43.1	194
Pima strain 67	1269	39.6	190
Pima strain 69	1152	38.3	187
Pima strain 74	1108	39.0	174
Pima strain 71	1041	37.3	196
Pima strain 73	1003	34.8	231
LSD (k=100) ¹	231	ns	20
% CV	11.9	8.2	3.5
Test mean	1167	38.7	190

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.
2. Number of normal bolls required to produce one pound of seedcotton.

Table 35. HVI Fiber characteristics of Pima cotton strains evaluated at Uvalde in 1990.

Cultivar	Micro- naire	Length	Str.	U.I.	Elong- ation
	(units)	(in.)	(g/tex)	(ratio)	(%)
Deltapine 20	5.0	1.13	23.0	85	7.4
Pima strain 67	4.5	1.32	40.0	86	5.7
Pima strain 69	4.1	1.34	41.5	85	6.1
Pima strain 71	3.8	1.37	38.5	84	5.4
Pima strain 73	4.1	1.37	42.0	86	5.9
Pima strain 74	4.4	1.36	41.0	84	6.3
Pima S-6	4.4	1.39	38.0	84	5.8
LSD (k=100) ¹	0.4	0.10	5.6	ns	ns
% CV	3.2	2.57	4.7	1.3	5.3
Test mean	4.2	1.33	38.8	84	5.9

1. Values within columns are different at approximately the 5% probability level if they differ by more than the Waller-Duncan LSD at base of column. ns=not significant.

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