Cotton Varieties for Louisiana
2004

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Introduction

Each year, scientists with the Louisiana Agricultural Experiment Station evaluate cotton varieties at the Dean Lee Research Station at Alexandria, Red River Research Station at Bossier City, Northeast Research Station at St. Joseph, and Macon Ridge Research Station at Winnsboro. Varieties are grown only using practices recommended for producing nontransgenic varieties.

Data from this research are used to determine recommended varieties based primarily on yield. Yields presented in the tables are the 3 year average yields for 2001-2003 (Tables 1-6). Recommended varieties for each location are indicated in Tables 1-6.
A variety is recommended when its three-year average yield is 90% or more of the three-year average of the three top yielding varieties. Yield values of other varieties are included for comparative purposes only and ***are not recommended*** by the LSU Agricultural Center's Cooperative Extension Service**.**

This information accurately reflects the performance of varieties evaluated at the experiment stations, but performance may vary on individual farms due to soil type, environment, and other factors. Producers should select varieties based on their performance at the location most representative of their farm. While these varieties are separated based on yield, producers should also consider other factors presented in this publication (i.e. pest resistance, fiber quality, earliness, etc.) when making their selection.

Fiber Properties and Earliness

HVI fiber properties are presented in Tables 9,10, 13, and 14. Relative earliness of varieties is estimated by harvesting each plot on two dates about one to two weeks apart and calculating the percentage of the total crop harvested at the first harvest date.

HVI Classing – The fiber properties shown in Tables 9, 10, 13, and 14 were determined using the High Volume Instrumentation (HVI) classing system. Producers should consider these fiber properties along with yield when selecting varieties for 2004.

The HVI system includes measurements for fiber strength, micronaire, length, uniformity, and elongation. Fiber strength is expressed as grams per tex. Strength values between 25.5 through 29.4 will not receive a premium or discount. Values below 25.5 will be discounted, and values above 29.4 will carry a premium on the loan chart. The length (UHM) represents the average length of the longest one-half of the fibers measured. Discounts for length are determined on a sliding scale and dependent on color and leaf grade. The uniformity index is determined by dividing the average staple length of all the fibers by the UHM. Micronaire is a measurement of the lint surface area.

Measurements above 4.9 or below 3.5 will result in a discount and measurements between 3.7 and 4.2 will result in a premium based on the loan chart.

Varieties for Wilt Soils

Many of the light-textured (sandy) soils in which cotton is grown in Louisiana are infested with plant pathogenic nematodes and *Fusarium*, the fungus responsible for fusaruium wilt. While either pest alone can injure the crop, the combination of these pests can be devastating. Nematodes injure cotton by puncturing or entering into the roots and feeding on the exudates. *Fusarium* gains entry into the plant through the wound made by the nematode, develops inside the plant and may eventually stunt and/or kill the plant by secreting toxins and clogging the conductive tissue (the circulatory system).

Cotton varieties have been evaluated for tolerance or resistance to these pests at the Red River Research Station on soils infested with moderate levels of *Fusarium* and root-knot nematode.

If the wilt-nematode complex is severe, rotating the field to a non-host crop may be the best option. In fields with low to moderate populations of these pests, tolerant or resistant varieties and/ or nematicides may provide acceptable control. Wilt nematode rating for the varieties tested are provided in Table 15 and 16.

Genetically Modified (transgenic) Cottons

Cotton varieties are commercially available that have been genetically altered to resist certain herbicides and / or insects. These cottons contain genes that confer resistance to glyphosate herbicide (Roundup Ready TM varieties), and / or to specific insects (Bt varieties with the Bollgard TM gene technology). Producers should not plant 100% of their acreage to a specific transgenic variety but should utilize multiple varieties to spread risk. Consult your local county agent for specific uses.

Roundup ReadyTM **Varieties** – The use of Roundup ReadyTM technology in cotton has resulted in excellent control of grasses and many broadleaf weeds such as pigweeds, cocklebur, and sicklepod. Limited control may occur when applying glyphosate to morningglory, hemp sesbania, and prickly sida larger than the sizes listed on the label. Glyphosate may be applied over-the-top through the 4-leaf stage. When applying Glyphosate after the 4-leaf stage, measures must be taken to eliminate herbicide to plant contact or plant development and / or yield could be adversely affected. Refer to the Louisiana Cooperative Extension Service publications Controlling Weeds in Cotton and Managing Glyphosate Tolerant Cotton for specific rates and weeds controlled.

Many generic glyphosate (active ingredient in Roundup Ultra) products will be available in 2004. When choosing a product for use on Roundup Ready Cotton, make sure that it is labeled for use on Roundup Ready cotton. Some of these (non-labeled) products may contain surfactants which may cause some foliar injury, and may or may not affect

fruiting. Be certain to read the label. Examples of some glyphosate products labeled for use on Roundup Ready cotton at the time of this writing include: Roundup Ultra, Roundup Weather Max, Roundup Ultra Max, Glyphosate Original, Glyphos, Glyphos Extra, Glyphomax, and Glyphomax Plus.

A new formulation of Touchdown is available that is labeled for use on Roundup Ready cotton.

This formulation is marketed simply as "Touchdown", whereas the older formulation was marketed as "Touchdown 5". Touchdown 5 is extremely injurious to Roundup Ready cotton and great care should be taken to ensure that it is not mistakenly applied. Be certain to read and follow label directions of this new formulation, as product use rates are not the same as the older formulation.

BG (Bt) Varieties – Research evaluations of Bollgard™ transgenic gene technology have determined that this technology provides excellent control of tobacco budworm populations. Producers who choose to plant Bt cottons should be aware that several insect pests are capable of causing economic damage to these cottons. Therefore, continued scouting to evaluate damage from such pests as bollworm, beet armyworm, fall armyworm, tarnished plant bug, cotton aphids, stinkbugs, and thrips is strongly recommended. For more information on Bollgard™ technology, consult the Louisiana Cooperative Extension Service publication **Control Cotton Insects 2004**.

The federal label requires that all producers planting a Bt cotton variety comply with the prescribed insecticide resistance management plans. Copies of specific requirements can be obtained from Monsanto or Bt-cotton dealers. Plant several different varieties to spread environmental risks. Fields near environmentally sensitive areas should be planted to a Bt cotton variety. Examples of this would be fields located near schools, water sources, or residential areas.

! Caution Statement! – A problem referred to as 'Bronze Wilt or Phloem Necrosis' has been observed with the Paymaster variety PM 1218 BG/RR and the Stoneville variety ST 5599. Foliage of affected plants is red to bronze, wilted, and noticeably warmer than non-affected plants. In some instances, plants prematurely defoliate and shed golf ball sized bolls.

Promising Varieties

Promising varieties are determined at each test location. A promising variety is a variety that, after two years of testing has an average yield that is within 95% of the two-year average of the top three yielding varieties at the test location. These varieties are not recommended and should not be planted on a majority of your acreage. These varieties are shown in Table 7 and 8.

Seeding Rate and Stand

Two to four plants per row foot (one plant every 4 to 6 inches in rows spaced 30 to 40 inches apart) are ideal. Research has shown that higher plant populations reduce yield. Lower plant populations tend to reduce harvesting efficiency of spindle pickers and may reduce yield. While slightly thicker stands can probably be tolerated in cotton planted in a skip-row pattern without a reduction in yield, thicker stands will not necessarily improve the yield of skip-row cotton.

Seeding depth will vary with soil type and moisture. Therefore it is critical to consider soil type and available moisture when planting. As a general rule of thumb, seed should be planted 0.75 to 2 inches deep. In most cases, seed planted in heavy (clay) soils should be planted shallower than seed planted in sandy soils. In addition to soil type, soil moisture will affect the depth of planting. Typically, seed is planted deeper in dry soils than in soils with adequate moisture for germination.

Most cottonseed used for planting will have a percentage germination of 80 or more in laboratory tests conducted under nearly ideal condition. Seed plated in the field are seldom, if ever planted when environmental conditions are ideal for maximum emergence. Therefore, under 'normal' growing conditions, it is reasonable to expect at least half of the seed planted to produce healthy plants. Therefore a seeding rate of four to six seed per row foot is usually adequate to insure an acceptable stand planted in 30- to 40-inch rows. Since cottonseed vary in size and in the number of seed per pound, planting rate should be based on number of seed planted per foot rather than number of pounds planted per acre. For maximum accuracy, calibrate planters with seed of the variety to be planted.

The number of acid delinted seed per pound varies from about 4,200 to 5,500 for the varieties planted in Louisiana. At the seeding rate recommended above, about 10 to 15 pounds of seed per acre will be needed. In situations where cotton is planted in less than ideal conditions or seed quality is a concern, the vigor of a seed lot should be considered. The measure of seed vigor is the cool germination test, which is conducted under cool temperature in the laboratory. **The results from the cool germ test are not printed on a seed tag but can be obtained from the seed dealer or company. Growers are urged to find this information.** Being aware of the results of cool germ test is more important than determining what is actually good and bad cool germ. For example, a seed lot with 85% cool germ is vigorous than one with a 65% cool germ. However, if the 65% lot is planted in good conditions, overall germination may likely be as high as with the 85% lot. A somewhat arbitrary division of the cool germ test results is shown in the following table:

Cool Germination %	**Vigor**
>80	Excellent
65-80	Good
50-65	Acceptable – use special care with this seed
<50	Poor- most companies will not sell this seed

Growers can handle seed with acceptable to good vigor by eliminating as many stresses

as possible. When planting seed lots with less vigor, care should be taken not to plant during cool periods, not be planted too deep, use the higher-end seeding rates, and to strongly consider protecting the seed with in-furrow fungicides.

When To Plant

When the historical effects of planting date and soil temperature on stand establishment and yield are considered, cotton producers should plant between mid-April and mid-May. Cotton planted before mid-April will often have good yield potential if a stand can be obtained. However, conditions favoring rapid seed germination and emergence are not likely to occur during early April.

Planting in early to mid-April is usually more desirable when planting in clay soil than when planting in silty or sandy soil. Research has shown that yield potential decreases moderately when cotton is planted after mid-May and severely when cotton is planted after June 1.

Table 1. Performance of cotton varieties on Norwood silt loam, Bossier City. Three-year average yield of lint per acre, 2001-2003.

Early Maturing Group

Variety	Yield	
PayMaster PM 1218 BG/RR*	1,215	Recommended
Stoneville ST 4892 BR	1,212	Recommended
SureGrow SG 215 BG/RR	1,210	Recommended
Deltapine DP 451 B/RR	1,159	Recommended
Stoneville ST 4793 R	1,102	Recommended
FiberMax FM 958	1,039	
SureGrow 105	998	
Deltapine DP 436 RR	992	
FiberMax FM 819	936	

Medium Maturing Group

Variety	Yield	
Stoneville ST 5599 BR*	1,355	Recommended
Deltapine DP 555 BG/RR	1,325	Recommended
Deltapine DP 491	1,208	Recommended
Deltapine DeltaPEARL	1,154	
FiberMax FM 832	1,020	

* Susceptible to bronze wilt.

Table 2. Performance of cotton varieties on Commerce silt loam at St. Joseph. Three-year average yield of lint per acre, 2001-2003.

Early Maturing Group

Variety	Yield	
PayMaster PM 1218 BG/RR*	1,228	Recommended
SureGrow 105	1,176	Recommended
SureGrow SG 215 BG/RR	1,153	Recommended
PhytoGen PSC 355	1,136	Recommended
Stoneville ST 4892 BR	1,125	Recommended
FiberMax FM 958	1,119	Recommended
Deltapine DP 451 B/RR	1,093	Recommended
Stoneville ST 4793 R	1,086	Recommended
FiberMax FM 819	1,034	
Deltapine DP 436 RR	1,031	

Medium Maturing Group

Variety	Yield	
Deltapine DP 555 BG/RR	1,470	Recommended
Deltapine DeltaPEARL	1,378	Recommended
Stoneville ST 5599 BR*	1,272	Recommended
Deltapine DP 491	1,164	
FiberMax FM 832	1,133	

* Susceptible to bronze wilt.

Table 3. Performance of cotton varieties on Sharky clay soil at St. Joseph. Three-year average yield of lint per acre, 2001-2003.

Early Maturing Group

Variety	Yield	
PayMaster PM 1218 BG/RR*	1,100	Recommended
SureGrow SG 215 BG/RR	1,055	Recommended
FiberMax FM 958	1,054	Recommended
SureGrow 105	1,033	Recommended
Stoneville ST 4892 BR	1,008	Recommended
FiberMax FM 819	1,001	Recommended
Deltapine DP 436 RR	983	Recommended
Deltapine DP 451 B/RR	892	
Stoneville ST 4793 R	884	

Medium Maturing Group

Variety	Yield	
Deltapine DP 555 BG/RR	1,343	Recommended
Stoneville ST 5599 BR*	1,334	Recommended
Deltapine DeltaPEARL	1,259	Recommended
Deltapine DP 491	1,233	Recommended
FiberMax FM 832	1,111	

* Susceptible to bronze wilt.

Table 4. Performance of irrigated cotton varieties on Gigger silt loam at Winnsboro. Three-year average yield of lint per acre, 2001-2003.

Early Maturing Group

Variety	Yield	
FiberMax FM 958	1,427	Recommended
Stoneville ST 4892 BR	1,401	Recommended
SureGrow SG 215 BG/RR	1,384	Recommended
PayMaster PM 1218 BG/RR*	1,320	Recommended
SureGrow 105	1,260	Recommended
Stoneville ST 4793 R	1,258	Recommended
FiberMax FM 819	1,229	
Deltapine DP 451 B/RR	1,167	
Deltapine DP 436 RR	1,137	

Medium Maturing Group

Variety	Yield	
Stoneville ST 5599 BR*	1,649	Recommended
Deltapine DP 555 BG/RR	1,645	Recommended
Deltapine DeltaPEARL	1,532	Recommended
Deltapine DP 491	1,466	Recommended
FiberMax FM 832	1,310	

* Susceptible to bronze wilt.

Table 5. Performance of non-irrigated cotton varieties on Gigger silt loam at Winnsboro.
Three-year average of lint per acre, 2001-2002.

Early Maturing Group

Variety	Yield	
FiberMax FM 958	882	Recommended
PayMaster PM 1218 BG/RR*	871	Recommended
SureGrow SG 215 BG/RR	870	Recommended
Stoneville ST 4892 BR	828	Recommended
Stoneville ST 4793 R	815	Recommended
Deltapine DP 436 RR	812	Recommended
Deltapine DP 451 B/RR	807	Recommended
SureGrow 105	778	
FiberMax FM 819	746	

Medium Maturing Group

Variety	Yield	
Deltapine DP 555 BG/RR	1,056	Recommended
Deltapine DeltaPEARL	939	Recommended
Stoneville ST 5599 BR*	940	Recommended
Deltapine DP 491	894	Recommended
FiberMax FM 832	750	

*Susceptible to bronze wilt.

Table 6. Performance of cotton varieties on Norwood silt loam, Alexandria. Three-year average yield of lint per acre, 2001-2003.

Early Maturing Group

Variety	Yield	
PayMaster PM 1218 BG/RR*	1308	Recommended
FiberMax FM 819	1222	Recommended
Deltapine SG 215 BR	1206	Recommended
Stoneville ST 4892 BR	1205	Recommended
FiberMax FM 958	1148	Recommended
Deltapine 451 BR	1135	Recommended
Stoneville ST 4793 R	1055	
Deltapine DP 436 RR	1034	
SureGrow 105	1019	

Medium Maturing Group

Variety	Yield	
Deltapine DP 555 BR	1414	Recommended
Deltapine DeltaPEARL	1292	Recommended
Stoneville ST 5599 BR*	1292	Recommended
FiberMax FM 832	1058	
Deltapine DP 491	1014	

* Susceptible to bronze wilt.

Table 7. Two year average lint yield (lbs/acre) across locations for early maturing cotton varieties, 2002-2003.

Variety	Alex	Bossier	St. Joseph Loam	St. Joseph Clay	Winnsboro Non-Irr.	Winnsboro Irrigated	Average
PayMaster PM 1218 BG/RR	1,578*	1,429*	1295*	1123*	1024*	1367*	1,303
FiberMax FM 966	**1,498**	1,289	**1271**	**1146**	1144	**1417**	1,294
FiberMax FM 958	1,372*	1,306	1278*	1108*	1065*	1556*	1,281
Stoneville ST 4892 BR	1,477*	1,415*	1248*	1011*	1029*	1481*	1,277
SureGrow SG 215 BG/RR	1,425*	1,398*	1226*	1057*	1059*	1422*	1,265
Beltwide BCG 28 R	**1,451**	1,242	**1289**	1001	1115	**1415**	1,252
Deltapine DP 444 BG/RR	**1,451**	1,333	**1310**	1018	1036	1283	1,238
Stoneville ST 4793 R	1,297	1,304	1256*	914	1011*	1313*	1,182
Deltapine DP 451 B/RR	1,379*	1,335*	1249*	890	1021*	1192	1,178
FiberMax FM 819	1,468*	1,133*	1162	1057*	877	1336	1,172
SureGrow 105	1,227	1,120	1332*	1041*	966	1337*	1,170
Beltwide BCG 295	1,271	1,167	1228	981	996	1347	1,165
Deltapine DP 436 RR	1,213	1,113	1163	988*	964*	1168	1,102
Average	1,393	1,276	1,254	1,026	1,024	1,356	1,221

Weights in bold print indicate that variety is considered promising at that location.

* These varieties are recommended at this location based on their 3-year performance.

Table 8. Two year average lint yield (lbs/acre) across locations for medium maturing cotton varieties, 2002-2003.

Variety	Alex	Bossier	St. Joseph Loam	St. Joseph Clay	Winnsboro Non-Irr.	Winnsboro Irrigated	Avg
Deltapine DP 493	**1481**	**1562**	**1622**	**1329**	**1297**	**1864**	1526
Deltapine DP 555 BG/RR	1628*	1551*	1603*	1296*	1245*	1717*	1507
Stoneville ST 5599 BR	1476*	1627*	1368*	1343*	1190*	1706*	1452
Deltapine DeltaPEARL	1503*	1280	1475*	1198*	1170*	1576*	1367
Deltapine DP 491	1169	1381*	1255	1187*	1077*	1620*	1282
Beltwide BCG 24 R	1100	1380	1316	1014	959	1483	1209
Stoneville ST 5303 R	1134	1232	1210	1103	1034	1407	1187
FiberMax FM 832	1149	1192	1174	1050	904	1460	1155
FiberMax FM 989 BR	1128	1269	1119	1015	920	1353	1134
FiberMax FM 989 RR	1162	1083	1135	1011	938	1427	1126
FiberMax FM 991 RR	1115	1096	1154	1009	990	1385	1125
	1277	1332	1312	1141	1066	1545	1279

Weights in bold print indicate that variety is considered promising at that location.
* These varieties are recommended at this location based on their 3-year performance.

Table 9.
Performance and HVI fiber Properties of medium maturing cotton varieties, cross-location averages, 2002-2003.

Variety	Lint %	% First Harvest*	Boll Wt. (grams)	Mike	Length (UMH)	U.I. %	Strength (g/tex)	Elong.
Stoneville ST 5599 BR	41.7	93.5	5.9	4.9	1.1	83.6	31.0	6.9
Deltapine DP 555 BG/RR	45.0	91.3	4.7	4.7	1.1	82.7	29.7	6.5
Deltapine DP 491	43.9	91.8	5.3	4.6	1.2	84.2	32.9	6.7
Deltapine DeltaPEARL	42.4	91.6	4.7	4.7	1.2	83.6	31.3	6.5
FiberMax FM 832	39.3	93.2	5.8	4.4	1.2	85.4	34.7	6.5
Deltapine DP 493	45.0	93.9	4.8	4.9	1.1	83.4	31.8	6.9
Stoneville ST 4892 BR (check)	42.0	90.9	5.1	5.1	1.1	84.2	31.4	7.8
BCG 24 R	41.2	88.7	4.7	4.8	1.1	83.5	30.6	8.5
FiberMax FM 989 BR	39.1	89.8	5.2	4.6	1.1	83.7	32.1	6.9
FiberMax FM 991 RR	39.3	88.1	4.9	4.6	1.1	83.9	33.6	7.0
FiberMax FM 989 RR	40.4	90.1	5.2	4.5	1.1	83.9	33.9	6.8

% First harvest is from 2002 St. Joseph loam, Winnsboro irrigated, Winnsboro non-irrigated, and 2003 St. Joseph clay, St. Joseph loam,and Winnsboro irrigated early variety tests

Table 10.
Performance and HVI fiber properties of early maturing cotton varieties, cross-location averages, 2002-2003.

Variety	Lint %	% First Harvest*	Boll Wt. (grams)	Mike	Length (UMH)	U.I. %	Strength (g/tex)	Elong.
Paymaster 1218 BG/RR	40.9	94.0	5.6	5.0	1.08	83.7	28.6	7.8
Stoneville ST 4892 BR	41.5	91.0	5.1	5.0	1.10	84.2	30.8	7.8
SureGrow 215 BG/RR	40.7	91.0	5.2	4.9	1.07	83.6	28.5	8.7
Deltapine DP 451 B/RR	37.2	89.4	5.1	4.8	1.13	84.3	29.1	7.7
Stoneville ST 4793 R	41.8	90.2	4.9	5.0	1.08	84.0	30.6	8.0
FiberMax FM 958	41.4	91.6	5.5	4.8	1.15	84.3	32.8	6.2
SureGrow 105	40.3	91.9	5.0	5.0	1.11	84.6	31.1	7.9
Deltapine DP 436 RR	36.7	90.9	5.1	4.7	1.13	84.1	29.1	8.5
FiberMax FM 819	41.1	93.7	4.5	4.5	1.17	84.9	33.4	6.6
Deltapine DP 444 BG/RR	41.8	94.5	5.0	4.2	1.12	84.3	30.2	7.9
FiberMax FM 966	40.8	92.9	5.8	4.6	1.15	85.0	34.5	5.8
BCG 28 R	41.4	93.5	5.0	5.0	1.13	84.0	29.4	7.4
BCG 295	38.6	94.1	5.6	4.5	1.17	84.5	31.8	7.1

% First harvest is from 2002 St. Joseph loam, Winnsboro irrigated, Winnsboro non-irrigated, and 2003 St. Joseph clay, St. Joseph loam, and Winnsboro irrigated early variety tests

Table11. Lint yield (lbs/acre) across locations for early maturing cotton varieties, 2003.

Variety	Alexandria	Bossier	St. Joseph		Winnsboro		Average
			Loam	Clay	Non-Irr.	Irrigated	
Stoneville ST 5599 BR (check)	1459	1,624	1,343	1,248	776	1,852	1383
Deltapine DP 555 BG/RR (check)	1507	1,853	1,502	1,087	651	1,559	1360
OAX 303	1349	1,616	1,416	1,299	745	1,729	1359
OAX 300 BR	1362	1,654	1,367	1,231	752	1,641	1335
FiberMax FM 960 BR	1622	1,597	1,319	1,131	644	1,534	1308
PayMaster PM 1218 BG/RR	1564	1,485	1,314	1,165	668	1,650	1308
FiberMax FM 966	1551	1,526	1,228	1,183	673	1,639	1300
Stoneville ST 4892 BR	1458	1,621	1,344	1,044	633	1,640	1290
Deltapine DP 444 BG/RR	1379	1,589	1,419	1,186	805	1,349	1288
FiberMax FM 958 B	1402	1,503	1,341	1,229	647	1,556	1280
DPLX 00W12	1198	1,419	1,462	1,213	778	1,598	1278
DPLX 01W99R-074	1247	1,506	1,623	1,107	660	1,516	1277
FiberMax FM 958	1323	1,466	1,302	1,201	630	1,694	1269
FiberMax FM 958 LL	1411	1,443	1,278	1,186	752	1,545	1269
Deltapine DP 432 RR	1304	1,669	1,375	1,069	629	1,519	1261
Stoneville ST 4563 B2	1332	1,556	1,404	1,110	518	1,550	1245
SureGrow SG 215 BG/RR	1296	1,594	1,225	1,139	698	1,493	1241
SureGrow 105	1153	1,430	1,464	1,059	722	1,552	1230
BCG 28 R	1241	1,499	1,282	1,054	694	1,484	1209
Deltapine DP 449 BG/RR	1304	1,575	1,323	974	640	1,434	1208
Stoneville ST 4793 R	1206	1,567	1,349	1,050	648	1,425	1208
OAX 304 BR	1286	1,486	1,333	1,161	666	1,272	1201
Stoneville STX 3990 BR	1124	1,610	1,116	1,146	838	1,364	1200
Deltapine DP 451 B/RR	1367	1,613	1,243	881	781	1,300	1197
Deltapine DP 424 BGII/RR	1188	1,507	1,249	1,048	693	1,454	1190
FiberMax FM 819 RR	1555	1,383	1,287	1,010	526	1,327	1181
PhytoGen PHY 410 RR	1493	1,330	1,269	974	608	1,376	1175
Stoneville STX 4646 B2R	1174	1,507	1,197	1,050	498	1,556	1164
OAX 302 BR	1212	1,432	1,115	1,054	783	1,271	1145
FiberMax FM 819	1476	1,448	1,136	1,024	455	1,325	1144
BCG 295	1215	1,343	1,219	984	636	1,419	1136
Deltapine DP 436 RR	1192	1,336	1,205	1,021	704	1,272	1122
Average	**1342**	**1525**	**1314**	**1104**	**673**	**1497**	**1242**

Medium maturing varieties included for comparison purposes.

Table 12. Lint Yield (lbs/acre) across locations for medium maturing cotton varieties, 2003.

Variety	Alexandria	Bossier	St. Joseph Loam	St. Joseph Clay	Winnsboro Non-Irr.	Winnsboro Irrigated	Average
Deltapine DP 493	1611	1,810	1,476	1,345	693	1,987	1487
Stoneville ST 5599 BR	1442	1,881	1,305	1,404	788	1,824	1440
Deltapine EP 555 BG/RR	1655	1,720	1,542	1,224	640	1,829	1435
Stoneville ST 5242 BR	1494	1,790	1,423	1,301	742	1,748	1416
Deltapine DeltaPEARL	1613	1,415	1,353	1,135	686	1,682	1314
Stoneville ST 4892 BR (check)	1320	1,624	1,291	1,046	795	1,741	1303
FiberMax FM 832 LL	1500	1,385	1,245	1,247	697	1,623	1283
FiberMax FM 800 BR	1492	1,745	1,099	1,183	628	1,486	1272
Deltapine DP 491	1213	1,583	1,211	1,208	617	1,701	1255
FiberMax FM 991 BR	1392	1,539	1,137	1,063	738	1,617	1248
Deltapine DP 494 RR	1383	1,538	1,229	1,122	595	1,576	1241
Deltapine DP 468 BGII/RR	1350	1,362	1,163	1,080	747	1,585	1215
BCG 24 R	1118	1,580	1,275	1,029	618	1,590	1202
FiberMax FM 991 RR	1171	1,392	1,249	1,128	657	1,508	1184
FiberMax FM 989 RR	1239	1,265	1,155	1,168	656	1,593	1179
Stoneville ST 5303 R	1229	1,307	1,205	1,067	742	1,498	1175
Deltapine 451 B/RR (check)	1277	1,471	1,173	933	645	1,538	1173
OAX 301 R	1138	1,324	1,159	1,086	667	1,639	1169
Stoneville ST 5222 B2	1186	1,332	1,297	987	609	1,579	1165
FiberMax FM 989 BR	1220	1,402	1,113	1,005	633	1,523	1149
FiberMax FM 832	1281	1,395	1,129	1,026	548	1,497	1146
PhytoGen PHY 510 RR	1105	1,293	1,108	973	658	1,521	1110
Average	**1,338**	**1,507**	**1,243**	**1,125**	**673**	**1,631**	**1,253**

Early Maturing varieties included for comparison purposes.

Table 13. 2003 Early Variety Test Cross Locations Fiber Property Averages

Variety	% Lint	Boll Wt. (g)	Mike	Length	U.I. %	Strength	Elong.
Beltwide BCG 28 R	41.8	4.7	4.8	1.10	83.2	28.3	7.1
Beltwide BCG 295	38.8	5.3	4.4	1.15	83.7	31.2	6.7
Deltapine DP 424 BGII/RR	38.6	4.6	4.5	1.09	83.7	28.8	8.2
Deltapine DP 432 RR	41.5	4.4	4.6	1.09	83.6	30.9	8.5
Deltapine DP 436 RR	37.9	4.9	4.6	1.12	83.7	28.4	8.2
Deltapine DP 444 BG/RR	42.6	4.8	4.1	1.11	83.8	29.5	7.6
Deltapine DP 449 BG/RR	40.2	4.5	4.5	1.09	82.9	30.8	6.9
Deltapine DP 451 B/RR	38.6	4.9	4.7	1.11	83.8	28.4	7.4
Deltapine DP 555 BG/RR (check)	44.8	4.6	4.6	1.10	82.4	28.5	6.2
DPLX 00W12	42.1	5.0	4.6	1.12	84.1	32.3	8.6
DPLX 01W99R-074	43.0	5.1	4.3	1.14	83.9	29.2	8.1
FiberMax FM 819	42.0	4.2	4.4	1.15	84.6	32.9	6.3
FiberMax FM 819 RR	42.6	4.2	4.4	1.14	84.5	32.1	7.1
FiberMax FM 958	42.1	5.2	4.8	1.12	83.6	31.8	5.8
FiberMax FM 958 B	41.4	4.8	4.3	1.10	83.4	32.8	6.3
FiberMax FM 958 LL	41.1	5.0	4.5	1.16	83.9	32.0	5.9
FiberMax FM 960 BR	40.8	5.3	4.4	1.09	83.6	33.0	5.9
FiberMax FM 966	41.6	5.4	4.5	1.12	84.4	33.4	5.4
OAX 300 BR	42.7	4.9	4.8	1.03	82.9	27.7	8.8
OAX 302 BR	37.3	5.0	4.7	1.10	83.5	27.9	7.9
OAX 303	44.2	4.8	4.8	1.08	83.4	29.0	7.7
OAX 304 BR	40.4	4.7	4.7	1.07	83.0	29.5	9.2
PayMaster PM 1218 BG/RR	41.9	5.3	4.9	1.06	83.4	27.8	7.6
PhytoGen PHY 410 RR	40.7	4.6	4.6	1.08	84.2	31.5	8.6
Stoneville ST 4563 B2	41.3	4.7	4.6	1.10	82.8	27.3	6.8
Stoneville ST 4793 R	42.1	4.6	4.8	1.06	83.5	29.6	7.7
Stoneville ST 4892 BR	42.2	4.9	4.8	1.07	83.7	30.0	7.5
Stoneville ST 5599 BR (check)	42.0	5.7	4.7	1.10	82.9	29.3	6.6
Stoneville STX 3990 BR	38.3	5.5	4.0	1.04	82.5	27.4	7.9
Stoneville STX 4646 B2R	40.3	4.7	4.5	1.09	83.2	28.9	7.4
SureGrow 105	40.9	4.8	4.8	1.09	83.9	30.0	7.7
SureGrow SG 215 BG/RR	41.1	5.0	4.7	1.06	83.2	27.8	8.6
Average	**41.1**	**4.9**	**4.6**	**1.10**	**83.5**	**29.9**	**7.4**

Medium maturing varieties included for comparison purposes.

Table 14. 2003 Medium Variety Test Cross Locations Fiber Property Averages.

Variety	% Lint	Boll Wt. (g)	Mike	Length	U.I. %	Strength	Elong.
Beltwide BCG 24 R	41.1	4.5	4.7	1.09	83.3	30.2	8.2
Deltapine DeltaPEARL	42.6	4.5	4.6	1.14	82.8	30.7	6.1
Deltapine DP 451 B/RR (check)	38.1	4.9	4.8	1.11	83.9	28.6	7.4
Deltapine DP 468 BGII/RR	37.9	4.6	4.6	1.12	83.3	30.1	7.9
Deltapine DP 491	44.1	5.3	4.6	1.17	83.8	32.2	6.4
Deltapine DP 493	45.2	4.7	4.8	1.10	82.9	31.1	6.5
Deltapine DP 494 RR	43.1	5.1	4.7	1.15	84.0	33.4	7.1
Deltapine EP 555 BG/RR	45.0	4.7	4.7	1.10	82.5	29.3	6.3
FiberMax FM 800 BR	40.5	5.6	4.1	1.20	84.9	33.9	6.4
FiberMax FM 832	39.4	5.6	4.2	1.21	85.3	34.4	6.1
FiberMax FM 832 LL	40.0	5.6	4.2	1.18	84.7	32.6	6.2
FiberMax FM 989 BR	39.2	5.1	4.5	1.11	83.4	31.6	6.6
FiberMax FM 989 RR	40.7	5.2	4.4	1.11	83.7	33.6	6.6
FiberMax FM 991 BR	40.0	4.5	4.6	1.13	83.8	34.2	6.5
FiberMax FM 991 RR	39.6	4.8	4.5	1.13	83.5	33.3	6.7
OAX 301 R	39.5	4.9	4.8	1.08	84.1	30.1	9.1
PhytoGen PHY 510 RR	39.8	4.6	4.7	1.12	83.5	32.3	6.9
Stoneville ST 4892 BR (check)	42.0	4.9	4.9	1.09	83.9	30.8	7.4
Stoneville ST 5222 B2	38.6	4.8	5.0	1.10	84.0	32.2	6.6
Stoneville STX 5242 BR	42.7	5.8	4.5	1.08	83.5	28.5	7.8
Stoneville ST 5303 R	40.3	5.0	4.7	1.08	84.2	32.5	7.0
Stoneville ST 5599 BR	42.1	5.7	4.8	1.10	83.2	30.3	6.7
Average	**41.0**	**5.0**	**4.6**	**1.12**	**83.7**	**31.6**	**6.9**

Early maturing varieties included for comparison purposes.

Table 15. Two-year averages for Fusarium wilt and root-knot nematode ratings for some cotton varieties at the Red River Research Station, Bossier City, LA, 2002-2003

Variety	Wilt Rating[a]	Gall Rating[b]
Acala Nemx	0.2	1.8
Beltiwde BCG 24R	2.2	3.6
Deltapine DeltaPearl	2.4	3.2
Deltapine DP 436RR	0.8	2.7
Deltapine DP 451BR	1.0	3.2
Deltapine DP 491	1.3	3.8
Deltapine DP 555 BG/RR	2.1	3.5
FiberMax FM 819	1.9	3.4
FiberMax FM 832	2.8	3.5
FiberMax FM 958	2.1	3.6
FiberMax FM 989 BR	1.9	3.6
Paymaster PM 1218BR	1.8	3.0
Stoneville ST 4793R	2.1	3.2
Stoneville ST 4892BR	2.7	3.4
Stoneville ST 5599BR	0.7	2.2
Stoneville LA887	0.6	2.0
Sure-Grow 105	1.0	3.5
Sure-Grow SG 215 BR	1.5	2.8

[a]Wilt rating on a scale of 0-5; 0=no stem discoloration, 5=complete stem discoloration; rounding errors present.

[b]Root-gall rating on a scale of 0-5; 0=no root galling, 5=severe root galling; rounding errors present.

Table 16. Fusarium wilt and root-knot nematode ratings for cotton variety test at the Red River Research Station, Bossier City, LA, 2003

Cultivar	Wilt Rating	Gall Rating
Acala Nemx	0.1	1.7
Beltwide BCG 24R	2.5	3.2
Beltwide BCG 28R	2.9	4.0
Beltwide BCG 295	1.1	3.2
Deltapine DeltaPEARL	3.6	3.8
Deltapine DP424BGII/RR	1.3	4.0
Deltapine DP436RR	1.1	2.7
Deltapine DP 444BG/RR	1.8	3.0
Deltapine DP 451BG/RR	1.4	3.4
Deltapine DP 491	1.9	4.1
Deltapine DP 493	3.3	4.0
Deltapine DP 555BG/RR	2.7	3.6
FiberMax FM 819	2.0	3.4
FiberMax FM 832	3.3	3.6
FiberMax FM 958	2.1	3.6
FiberMax FM 966	1.9	4.3
FiberMax FM 989BR	2.6	4.1
FiberMax FM 989RR	1.8	3.6
FiberMax FM 991RR	1.6	4.2
OAX 300BR	1.7	3.3
OAX 301 R	1.9	2.9
OAX 302BR	0.9	3.1
OAX 304BR	1.4	4.2
Paymaster PM 1218 BG/RR	2.2	3.1
Phytogen PHY 410 RR	0.8	3.3
Phytogen PHY 510 RR	1.8	4.1
Stoneville ST 474	3.7	4.4
Stoneville ST4793R	3.0	3.4
Stoneville ST 4892BR	3.3	3.7
Stoneville ST 5303R	1.1	2.9
Stoneville ST 5222B2	2.0	3.2
Stoneville ST 5599BR	0.8	1.8
Stoneville STX 0202 B2R	3.7	3.8
Stoneville ST LA887	0.6	2.0
Sure-Grow 105	1.2	3.5
Sure-Grow SG 215 BR	1.7	2.6
LSD (*P*=0.05)	1.0	0.8

[a]Wilt rating on a scale of 0-5; 0=no stem discoloration, 5=complete stem discoloration.

[b]Root-gall rating on a scale of 0-5; 0=no root galling, 5=severe root galling.

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Pub. 2135 12/02 Rev.