

Cotton Varieties for Louisiana 2003



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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 2000-2002 (Tables 1-6). Recommended varieties for each location (Tables 1-6), are indicated by bold type. 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 (those not boldfaced) 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 8 and 9. 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 8 and 9 were determined using the High Volume Instrumentation (HVI) classing system. Producers should consider these fiber properties along with yield when selecting varieties for 2003.

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 fusarium 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. Two-year average wilt and nematode rating for the varieties tested are provided in Table 15.

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 Buctril herbicide applied overtop (BXNTM varieties), or glyphosate herbicide (Roundup ReadyTM varieties), and / or to specific insects (Bt varieties with the BollgardTM 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 2003. 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 2003**.

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 serious 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. Although, these symptoms were not observed in many cotton producing areas, this is the reason that these high yielding varieties are not recommended.

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 listed in Table 7.

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 planted 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, at Alexandria, non-irrigated. Three year average yield of lint per acre. Three-year average yield of lint per acre, 2000-2002.

EARLY MATURING GROUP

<u>Variety</u>	<u>Yield</u>	
SureGrow SG 215 BR	1360	Recommended
Phytogen PSC 355	1293	Recommended
Stoneville ST 4892 BR	1282	Recommended
FiberMax FM 958	1267	Recommended
Stoneville BXN 49B	1261	Recommended
FiberMax FM 819	1238	Recommended
Paymaster PM 1218 BG/RR*	1430	
DES 816 ⁺	1210	
Stoneville ST 4793 RR	1192	
JAJO 8185 ⁺	1188	
Deltapine DP 451 BG/RR	1180	
Deltapine DP 436 RR	1163	
DES 810 ⁺	1150	
Sure Grow 521 RR	1099	

MEDIUM MATURING GROUP

<u>Variety</u>	<u>Yield</u>	
Deltapine DeltaPEARL	1340	Recommended
Stoneville ST 5599 BG/RR*	1511	
FiberMax FM 832	1217	
Deltapine DPL 565	1193	
Stoneville ST 580	1191	
Deltapine DPL 458 BG/RR	1101	
Deltapine NuCOTN 33B	1069	

* Susceptible to bronze wilt.

⁺ Experimental variety, not available commercially.

Note: Varieties not in bold type are not recommended for planting in 2003, and are included for comparative purposes only.

Table 2. Performance of cotton varieties on Norwood Silt Loam, at Bossier City. Three-year average yield of lint per acre, 2000-2002.

EARLY MATURING GROUP

<u>Variety</u>	<u>Yield</u>	
SureGrow SG 215 BG/RR	1004	Recommended
Stoneville ST 4892 BR	890	Recommended
SureGrow SG 521 R	884	Recommended
PayMaster PM 1218 BG/RR*	1036	
PhytoGen PSC 355	877	
Deltapine DP 451 B/R	865	
Stoneville ST 4793 R	823	
Deltapine DP 436 RR	814	
Stoneville ST BXN 49 B	805	
FiberMax FM 958	779	
DES 816 ⁺	771	
JAJO 8185 ⁺	755	
FiberMax FM 819	673	
DES 810 ⁺	662	

MEDIUM MATURING GROUP

<u>Variety</u>	<u>Yield</u>	
Deltapine DP 565	904	Recommended
Deltapine NuCOTN 33 B	883	Recommended
Deltapine DP 458 B/RR	881	Recommended
DeltaPEARL	862	Recommended
Stoneville ST 580	840	Recommended
Stoneville ST 5599 BR*	989	
FiberMax FM 832	719	

* Susceptible to bronze wilt.

⁺ Experimental variety, not available commercially.

Note: Varieties not in bold type are not recommended for planting in 2003, and are included for comparison purposes only.

Table 3. Performance of cotton varieties on Commerce silt loam at St. Joseph. Three-year average yield of lint per acre, 2000-2002.

EARLY MATURING GROUP

<u>Variety</u>	<u>Yield</u>	
Stoneville BXN 47	1205	Recommended
SureGrow SG 215 BR/RR	1196	Recommended
Stoneville ST 4892 BR	1150	Recommended
Fiber Max FM 958	1135	Recommended
PhytoGen PSC 355	1134	Recommended
SureGrow SG 105	1131	Recommended
Stoneville ST 4793 R	1089	Recommended
Paymaster PM 1218 BG/RR*	1220	
JAJO 8185 ⁺	1112	
Deltapine 451 B/RR	1077	
DES 816 ⁺	1071	
DES 810 ⁺	1062	
Stoneville ST BXN 49 B	1061	
FiberMax FM 819	1052	
SureGrow SG 521 R	1048	
Deltapine DP 436 RR	1021	

MEDIUM MATURING GROUP

<u>Variety</u>	<u>Yield</u>	
Deltapine DeltaPEARL	1344	Recommended
Stoneville ST 580	1227	Recommended
Deltapine DP 565	1168	Recommended
Deltapine DP 458 B/RR	1147	Recommended
Stoneville ST 5599 BR*	1196	
Deltapine NuCOTN 33B	1125	
FiberMax FM 832	1106	

* Susceptible to bronze wilt.

⁺ Experimental variety, not available commercially.

Note: Varieties not in bold type are not recommended for planting in 2003, and are included for comparative purposes only.

Table 4. Performance of cotton varieties at St. Joseph on Sharkey clay. Three-year average yield of lint per acre, 2000-2002.

EARLY MATURING GROUP

<u>Variety</u>	<u>Yield</u>	
PhytoGen PSC 355	1036	Recommended
Stoneville BXN 49 B	954	Recommended
SureGrow SG 215 BG/RR	921	Recommended
Stoneville ST 4892 BR	917	Recommended
Fibermax FM 958	898	Recommended
Paymaster PM 1218 BG/RR*	997	
JAJO 8185 ⁺	938	
Fibermax FM 819	888	
DES 816 ⁺	873	
Deltapine DP 436 RR	869	
DES 810 ⁺	844	
Deltapine DP 451 B/RR	798	
Stoneville ST 4793 R	778	
SureGrow SG 521 R	735	

MEDIUM MATURING GROUP

<u>Variety</u>	<u>Yield</u>	
Deltapine DeltaPEARL	1201	Recommended
Deltapine DP 565	1120	Recommended
Deltapine NuCOTN 33B	1080	Recommended
FiberMax FM 832	1051	Recommended
Stoneville ST 5599 BR*	1182	Recommended
Stoneville ST 580	1040	
Deltapine DP 458 B/RR	1011	

* Susceptible to bronze wilt.

⁺ Experimental variety, not available commercially.

Note: Varieties not in bold type are not recommended for planting in 2003, and are included for comparative purposes only.

Table 5. Performance of irrigated cotton varieties on Gigger silt loam at Winnsboro. Three-year average yield of lint per acre, 2000-2002.

EARLY MATURING GROUP

<u>Variety</u>	<u>Yield</u>	
PhytoGen PSC 355	1324	Recommended
Stoneville ST 4892 BR	1321	Recommended
SureGrow SG 215 BG/RR	1307	Recommended
Fibermax FM 958	1300	Recommended
Stoneville ST 4793 R	1194	Recommended
JAJO 8185 ⁺	1254	
Paymaster PM 1218 BG/RR*	1180	
DES 816 ⁺	1177	
Fibermax FM 819	1144	
SureGrow SG 521 R	1132	
Stoneville BXN 49 B	1132	
DES 810 ⁺	1121	
Deltapine DP 451 B/RR	1097	
Deltapine DP 436 RR	1092	

MEDIUM MATURING GROUP

<u>Variety</u>	<u>Yield</u>	
Deltapine DeltaPEARL	1375	Recommended
Deltapine DP 565	1373	Recommended
Stoneville ST 580	1270	Recommended
Deltapine DP 458 B/RR	1263	Recommended
Deltapine NuCOTN 33B	1259	Recommended
Stoneville ST 5599 BR*	1421	
FiberMax FM 832	1143	

* Susceptible to bronze wilt.

⁺ Experimental variety, not available commercially.

Note: Varieties not in bold type are not recommended for planting in 2003, and are included for comparative purposes only.

Table 6. Performance of non-irrigated cotton varieties at Gigger silt loam, Winnsboro. Three-year average yield of lint per acre, 2000-2002.

EARLY MATURING GROUP

<u>Variety</u>	<u>Yield</u>	
PhytoGen PSC 355	828	Recommended
Stoneville BXN 49 B	816	Recommended
SureGrow SG 521 R	766	Recommended
JAJO 8185 ⁺	887	
Fibermax FM 958	758	
Paymaster PM 1218 BG/RR*	757	
DES 816 ⁺	745	
SureGrow SG 215 BG/RR	738	
Stoneville ST 4892 BR	725	
Fibermax FM 819	698	
Deltapine DP 436 RR	690	
Stoneville ST 4793 R	678	
DES 810 ⁺	670	
Deltapine DP 451 B/RR	652	

MEDIUM MATURING GROUP

<u>Variety</u>	<u>Yield</u>	
Deltapine DeltaPEARL	783	Recommended
Deltapine DP 458 B/RR	760	Recommended
Stoneville 580	747	Recommended
Deltapine 565	731	Recommended
Deltapine NuCOTN 33B	730	Recommended
Stoneville ST 5599 BR*	766	
Fibermax FM 832	657	

* Susceptible to bronze wilt.

⁺ Experimental variety, not available commercially.

Note: Varieties not in bold type are not recommended for planting in 2003, and are included for comparative purposes only.

Table 7. Promising cotton varieties for 2003.* Two-year averages (2001-2002).

Medium Maturing Varieties

Variety		Alex	Bossier	St. Joseph		Winnsboro	
				Clay	Loam	Irrigated	Non-Irr.
Deltapine DPL 555 BG/RR		1294	1182	1403	1434	1553	1264
JAJO 8098 ⁺			1083				

Early Maturing Varieties

Variety		Alex	Bossier	St. Joseph		Winnsboro	
				Clay	Loam	Irrigated	Non-Irr.
Deltapine DPLX 99X35 ⁺		1150		1247	1246	1310	1103
JAJO 8190 ⁺		1146				1327	

* A promising variety is a variety that after two years of testing will have a two-year average yield within 95% of the average of the three top-yielding varieties.

⁺ Experimental variety, not available commercially.

Table 8. Performance and HVI fiber properties of medium maturing cotton varieties, cross-location averages, 2001-2002.

Variety	Lint %	% First Harvest*	Boll Wt./gms	Micronaire	Length (UMH)	Uniformity Index (UI)	Strength (gms/tx)	Elongation
Deltapine DeltaPEARL	42.4	93.7	4.7	4.9	1.16	83.7	31.2	6.1
Deltapine DP 448 B	39.5	90.6	4.9	4.7	1.13	83.8	29.9	6.9
Deltapine DP 458 B/RR	40.3	90.6	4.7	5.0	1.12	83.6	31.1	7.2
Deltapine DP 491	43.7	94.2	5.3	4.7	1.19	84.3	32.8	6.2
Deltapine DP 565	41.0	93.0	4.7	5.0	1.14	84.2	31.4	6.9
Deltapine NuCOTN 33B	39.0	93.0	4.7	4.8	1.13	83.8	30.6	7.2
Fibermax FM 832	39.1	94.7	5.7	4.6	1.20	85.4	33.9	6.0
JAJO 8098	43.9	92.1	5.3	5.0	1.09	83.7	30.7	7.2
Stoneville GC 271	37.3	92.8	4.8	4.9	1.15	84.8	33.7	6.7
Stoneville ST 580	40.3	92.2	5.0	5.0	1.12	83.8	31.5	7.8
Stoneville ST 5599 BR	41.5	93.4	6.0	5.0	1.14	83.7	30.8	6.3
Deltapine DP 555 BG/RR	44.9	91.7	4.6	4.8	1.12	82.8	29.4	6.1

* % First Harvest is for Winnsboro irrigated test only.

Table 9. Performance and HVI fiber properties of early maturing cotton varieties, cross-location averages, 2001-2002.

Variety	Lint %	% First Harvest*	Boll Wt./gms	Micronaire	Length (UMH)	Uniformity index (UI)	Strength (gms/tx)	Elongation
Deltapine DP 436 RR	36.3	87.4	5.1	4.8	1.14	84.4	29.4	8.0
Deltapine DP 451 B/RR	36.9	87.0	5.1	4.9	1.14	84.4	29.4	7.2
Deltapine DPLX 99X35	43.3	93.0	4.8	5.0	1.12	84.1	30.0	7.3
DES 810	37.3	94.5	4.6	4.6	1.11	84.1	31.9	7.6
DES 816	38.8	92.3	5.1	4.7	1.12	84.0	32.4	7.5
FiberMax FM 819	40.4	92.5	4.5	4.6	1.17	85.0	33.5	6.1
FiberMax FM 958	41.1	91.7	5.4	4.8	1.16	84.7	33.4	5.7
JAJO 8185	42.2	90.8	5.3	4.9	1.11	84.4	31.7	8.9
JAJO 8190	44.0	88.8	5.7	5.1	1.12	84.3	31.4	8.4
Paymaster PM 1218 BG/RR	40.7	91.8	5.6	5.0	1.09	84.0	29.3	7.3
PhytoGen PSC 355	39.9	93.1	4.7	4.9	1.12	84.7	32.5	8.5
Stoneville ST BXN 49 B	39.9	87.4	5.2	4.7	1.15	84.4	30.3	7.2
Stoneville ST 4793 R	41.3	87.5	4.9	5.1	1.10	84.3	31.3	7.4
Stoneville ST 4892 BR	41.1	90.5	5.0	5.1	1.12	84.6	31.4	7.3
SureGrow SG 105	39.6	88.9	4.9	5.0	1.13	85.1	31.6	7.4
SureGrow 215 BG/RR	40.5	90.6	5.1	5.0	1.08	83.9	28.7	8.2
Stoneville ST 457	40.0	90.2	5.1	4.8	1.12	84.2	32.5	9.5
SureGrow SG 521 R	39.9	82.1	4.9	4.8	1.10	84.3	30.3	8.1

* % First Harvest is for Winnsboro irrigated test only.

HVI properties were determined from hand-picked, laboratory ginned samples which results in higher lint percentages than commercially ginned cotton.

Table 10. Lint Yield (lbs/acre) across locations for medium maturing cotton varieties, 2002.

Variety	Alexandria	Bossier	St. Joseph		Winnsboro		Average
			Loam	Clay	Non-Irr.	Irrigated	
Deltapine DP 555 BG/RR	1,601	1,383	1,663	1,369	1,850	1,605	1578
Deltapine DP 493	1,350	1,314	1,769	1,313	1,902	1,741	1565
Stoneville ST 5599 BR	1,510	1,372	1,432	1,283	1,593	1,588	1463
OA-90	1,282	1,365	1,368	1,374	1,692	1,555	1439
Deltapine DP 545 BG/RR	1,445	1,163	1,545	1,267	1,627	1,492	1423
DeltapineDeltaPEARL	1,393	1,146	1,597	1,261	1,654	1,471	1420
FiberMax FM 832 B	1,131	1,352	1,382	1,257	1,343	1,425	1315
Deltapine DP 491	1,125	1,180	1,300	1,166	1,538	1,539	1308
OA-87	1,277	1,209	1,277	1,212	1,320	1,429	1287
JAJO 8098	1,056	1,348	1,390	1,081	1,404	1,418	1283
Deltapine NuCOTN 33B	1,153	1,279	1,167	1,162	1,421	1,377	1260
Deltapine DP 565	1,079	1,128	1,264	995	1,511	1,469	1241
Deltapine DP 448 B	1,134	1,214	1,211	1,057	1,490	1,293	1233
Stoneville ST 580	1,133	1,077	1,307	1,020	1,448	1,414	1233
Deltapine DP 458 B/RR	1,141	1,144	1,263	1,040	1,483	1,285	1226
TEXAS 24 R	1,081	1,181	1,358	999	1,299	1,376	1216
Deltapine DP 449 BR/RR	988	1,209	1,325	1,018	1,339	1,361	1207
Stoneville ST 5303 R	1,039	1,158	1,215	1,139	1,326	1,316	1199
Deltapine DP 5415 RR	1,119	997	1,120	1,041	1,457	1,361	1182
FiberMax FM 832	1,018	990	1,218	1,074	1,260	1,422	1164
Stoneville LA 887	978	1,169	1,109	985	1,292	1,272	1134
TEXAS 245	1,067	971	1,143	970	1,316	1,292	1126
Stoneville GC 271	1,008	1,177	1,077	952	1,234	1,297	1124
FiberMax FM 989 BR	1,036	1,135	1,126	1,025	1,207	1,183	1118
FiberMax FM 989 R	1,086	900	1,116	854	1,220	1,262	1073
FiberMax FM 991 R	1,059	800	1,059	891	1,322	1,262	1066
TEXAS 30 R	929	907	1,100	857	1,161	1,215	1028
FiberMax FM 989	850	929	652	748	1,054	1,313	924
Average	1082	1113	1208	1035	1352	1350	

Table 11. Lint Yield (lbs/acre) across locations for Early maturing cotton varieties, 2002.

Variety	Alexandria	Bossier	St. Joseph		Winnsboro		Average
			Loam	Clay	Non-Irr.	Irrigated	
OA-90	1,713	1,244	1,314	1,302	1,685	1,558	1469
Deltapine DPLX 99X35	1,600	1,212	1,435	1,184	1,672	1,390	1415
PhytoGen PSC 355	1,585	1,068	1,226	1,207	1,620	1,381	1348
PhytoGen PSC PH98M-2983	1,456	1,139	1,205	1,228	1,507	1,491	1338
PayMaster PM 1218 BG/RR	1,592	1,373	1,277	1,080	1,379	1,085	1298
Texas 28 R	1,661	985	1,296	949	1,536	1,347	1296
JAJO 8190	1,518	1,094	1,305	1,081	1,357	1,403	1293
Fibermax FM 958	1,422	1,146	1,254	1,014	1,500	1,418	1292
Fibermax FM 966	1,444	1,052	1,315	1,109	1,615	1,195	1288
SureGrow SG 215 BG/RR	1,555	1,202	1,227	974	1,421	1,350	1288
OA-87	1,585	1,109	1,265	1,072	1,334	1,260	1271
Stoneville ST BXN 49 B	1,584	1,234	1,104	1,012	1,445	1,236	1269
Stoneville ST 4892 BR	1,496	1,209	1,152	979	1,425	1,322	1264
Stoneville ST 457	1,307	1,145	1,231	956	1,353	1,263	1209
Fibermax FM 819	1,459	817	1,187	1,089	1,299	1,347	1200
JAJO 8185	1,287	964	1,117	954	1,500	1,350	1195
Texas 295	1,327	990	1,237	979	1,356	1,274	1194
Deltapine DP 444 BG/RR	1,522	1,076	1,201	850	1,267	1,217	1189
DES 816	1,315	889	1,121	996	1,420	1,294	1172
JAJO 8200	1,345	967	1,193	844	1,340	1,270	1160
Deltapine DP 451 B/RR	1,391	1,057	1,254	899	1,261	1,085	1158
Stoneville ST 4793 R	1,388	1,040	1,164	778	1,375	1,201	1158
DES 810	1,358	781	1,095	990	1,390	1,227	1140
SureGrow SG 105	1,300	810	1,200	1,023	1,210	1,121	1111
SureGrow SG 521 R	1,194	960	1,072	865	1,324	1,221	1106
Deltapine DP 436 RR	1,234	890	1,121	954	1,223	1,065	1081
Average	1272	860	1122	958	1287	1158	

Table 12. Two year average lint yield (lbs./acre) across location for medium maturing cotton varieties, 2001-2002.

Variety	Alexandria	Bossier	St. Joseph		Winnsboro		Average
			Loam	Clay	Irrigated	Non-Irr.	
Deltapine DP 555 BG/RR	1225	1128	1434	1403	1553	1264	1335
Stoneville ST 5599 BR	1182	1092	1225	1299	1561	1016	1229
Deltapine DeltaPEARL	1079	1023	1391	1320	1457	1066	1223
JAJO 8098	967	1083	1204	1166	1347	944	1119
Deltapine DP 491	898	1021	1141	1246	1348	1033	1115
Deltapine DP 565	884	980	1150	1179	1415	990	1100
Deltapine NuCOTN 33B	871	1014	1115	1176	1340	986	1084
Deltapine DP 458 B/R	954	950	1125	1123	1283	1010	1074
Stoneville ST 580	910	890	1219	1091	1306	936	1059
Deltapine DP 448 B	824	952	1134	1137	1295	990	1055
FiberMax FM 832	937	833	1135	1153	1217	852	1021
Stoneville GC 271	715	1011	986	1043	1158	862	963
Average	954	998	1188	1195	1357	996	1115

Table 13. Two year average lint yield (lbs./acre) across location for early maturing cotton varieties, 2001-2002.

Variety	Alexandria	Bossier	St. Joseph		Winnsboro		Average
			Loam	Clay	Irrigated	Non-Irr.	
Deltapine DPLX 99X35	1185	976	1246	1247	1310	1103	1178
PayMaster PM 1218 BG/RR	1248	1080	1185	1098	1154	973	1123
SureGrow SG 215 BG/RR	1218	1018	1117	1012	1329	956	1108
PhytoGen PSC 355	1139	879	1032	1162	1298	1076	1098
JAJO 8190	1235	887	1076	1056	1327	974	1093
Stoneville ST 4892 BR	1140	1007	1016	991	1282	926	1060
FiberMax FM 958	1158	825	1028	981	1294	1008	1049
Stoneville ST BXN 49 B	1147	937	961	1001	1180	1007	1039
JAJO 8185	1006	795	977	980	1236	1046	1007
Stoneville ST 457	1025	826	1042	972	1203	900	995
DES 816	1057	824	963	969	1197	938	991
Deltapine DP 451 B/R	1085	932	1018	898	1101	820	976
SureGrow SG 105	1037	782	1033	1020	1114	806	965
FiberMax FM 819	1060	680	984	990	1181	891	964
Stoneville ST 4793 R	1078	870	955	801	1174	898	963
SureGrow SG 521 R	972	893	923	785	1200	946	953
Deltapine DP 436 RR	989	820	944	963	1069	866	942
DES 810	962	660	941	913	1066	884	904
Average	1097	872	1025	991	1206	945	1023

Table 14. Fusarium wilt and root-knot nematode ratings for cotton varieties at the Red River Research Station, Bossier City, LA, 2002.

Variety	Wilt Rating ^a	Gall Rating ^b
Acala Nemx	0.2	1.9
Deltapine DeltaPearl	1.1	3.4
Deltapine NuCOTN 33B	1.0	3.4
Deltapine DP 436RR	0.5	2.6
Deltapine DP 448 B	1.3	3.6
Deltapine DP 451 BR	0.6	3.0
Deltapine DP 458 BR	1.6	3.7
Deltapine DP 491	0.7	3.4
Deltapine DP 555 BG/RR	1.4	3.4
Deltapine DP 565	0.8	3.9
Deltapine DPLX 99X35	1.9	4.0
DES 810	2.2	3.2
DES 816	0.3	2.7
FiberMax FM 819	1.8	3.3
FiberMax FM 832	2.1	3.4
FiberMax FM 958	2.1	3.5
FiberMax FM 989 BR	1.1	3.1
Stoneville GC 271	1.3	3.6
JAJO 8185	0.9	3.4
JAJO 8190	1.2	3.7
JAJO 8098	0.9	3.1
Pavmaster PM 1218 BR	1.3	2.9
PhytoGen PSC355	0.7	3.5
OA 90	1.8	4.1
Stoneville BXN 49 B	2.4	3.3
Stoneville 457	0.5	3.3
Stoneville ST 580	1.8	3.2
Stoneville ST 4793 R	1.2	2.9
Stoneville ST 4892 BR	2.1	3.1
Stoneville 5599 BR	0.6	2.3
Stoneville ST 5303 R	0.6	3.2
Stoneville LA 887	0.6	1.9
Sure-Grow SG 105	0.7	3.4
Sure-Grow SG 215 BR	1.2	3.0
Sure-Grow SG 521RR	0.8	2.8
Texas 24R	1.9	3.2

LSD ($P=0.05$)

^aWilt rating on a scale of 0-5; 0=no stem discoloration, 5=complete stem discoloration.

^bRoot-gall rating on a scale of 0-5; 0=no root galling, 5=severe root galling.

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, 2001-2002.

Variety	Wilt Rating ^a	Gall Rating ^b
AcalaNemx	0.3	1.7
Deltapine DeltaPearl	1.2	3.2
Deltapine NuCOTN 33B	0.9	3.4
Deltapine DP 436 RR	0.9	2.9
Deltapine DP 451 BR	0.7	3.2
Deltapine DP 458 BR	1.3	3.5
Deltapine DP 565	0.6	3.4
DES 816	0.6	2.7
FiberMax FM 819	1.6	3.4
FiberMax FM 832	1.7	3.2
FiberMax FM 958	1.9	3.4
JAJO 8185	1.3	3.0
Paymaster 1218 BR	1.9	2.8
PhytoGen PSC 355	0.7	3.2
Stoneville ST 580	2.0	3.2
Stoneville ST 4793 R	1.2	3.1
Stoneville ST 4892 BR	2.2	3.2
Stoneville 5599 BR	0.6	2.3
Stoneville LA 887	0.5	1.6
Sure-Grow SG 215 BR	0.9	2.7

^aWilt rating on a scale of 0-5; 0=no stem discoloration, 5=complete stem discoloration; rounding errors present.

^bRoot-gall rating on a scale of 0-5; 0=no root galling, 5=severe root galling; rounding errors present.

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