

2022

COTTON

VARIETIES FOR LOUISIANA

VARIETY TRIALS AND ON-FARM DEMONSTRATIONS

Notes

Introduction

Scientists with the LSU AgCenter annually evaluate cotton varieties in official variety trials (OVTs) at several locations across the state. Cotton varieties are managed using practices that follow LSU AgCenter recommendations and demonstrate commercial operations as closely as possible. All entries in the trials are replicated four times, and results are compiled for average performance after one or two years of testing. In 2021, 48 varieties were entered by commercial seed companies in the OVTs (Table 3). Locations of these trials included the LSU AgCenter Dean Lee Research and Extension Center, Alexandria; LSU AgCenter Macon Ridge Research Station, Winnsboro; and LSU AgCenter Northeast Research Station, St. Joseph (Table 5). Yield data for 2021 across locations is summarized in Table 6 and individual location summaries are located in Tables 7 through 10. Descriptions of acronyms used in data tables are defined in Table 4. In addition to the OVTs, seven on-farm core block demonstrations were conducted throughout the cotton-growing areas of Louisiana by LSU AgCenter extension agents (Tables 11 -18). This information should be used to supplement but not replace OVT results.

Choosing Varieties

Variety selection is one of the most important decisions a cotton producer will make. The variety and its associated traits set the stage for harvest at the time of planting. All other input decisions affect the performance of the variety selected. Since the introduction of transgenic cottons and the accompanying increases in seed costs and associated technology fees, variety selection has become increasingly important. Seed selection is the one decision that is not influenced by environmental factors. Therefore, choosing a high-yielding variety with acceptable fiber quality that is adapted to local growing conditions should be considered carefully because of the tremendous importance the decision plays for the entire season.

Choosing a cotton variety can be difficult, and the availability of different transgenic traits often complicates the process. The more informed the decision, the better. Therefore, the LSU AgCenter strives to provide growers with as much information as possible concerning cotton variety performance over a range of soil textures and conditions. The observations and data concerning the measured performance of cotton varieties in Louisiana should be useful as a primary source of information for choosing varieties.

Producers should be mindful that LSU AgCenter OVTs cannot identify the single best variety for given soils and conditions. Therefore, producers should plant multiple varieties selected from the top performers in the variety trials closest to their production region. This strategy will help mitigate risks from adverse environmental conditions.

Individual varieties may differ in performance from one year to the next. In most years, however, those among the top 10% of the highest-yielding varieties generally remain there for several seasons. The best variety for a particular farm likely resides among the top yielders in the OVTs, but no one can be certain which of those top-yielding varieties will be the highest yielder for the upcoming year. This actually is a good thing because it gives producers the option to select from as many as five to 10 varieties with different traits, knowing that one of those may be the best for next year. The majority of acreage should be devoted to proven varieties. Newer varieties should be evaluated on limited acreage until further testing is completed.

Fiber Properties

Fiber quality has become a more important consideration in choosing varieties and marketing cotton. Because the domestic textile industry has become very limited, most U.S. cotton is exported to foreign mills that generally demand cotton with the most consistent and highest fiber-quality properties. Louisiana cotton quality has been a concern in recent years, particularly regarding high micronaire values. While premiums are small, discounts for high micronaire and other factors can be significant. Variety has the largest impact on fiber properties, and high quality is increasingly important for U.S. cotton to maintain and increase presence in the world market.

Fiber parameters in the LSU AgCenter cotton OVTs were determined with the same high-volume instrumentation classing system used by the U.S. Department of Agriculture classing offices. Physical properties, including staple length (reported as the upper half mean length), fiber strength, uniformity index and micronaire were evaluated and reported for each variety. Seed cotton samples were ginned with small plot research gins that do not have lint cleaners. This method may produce higher lint percentages than would normally be received from a commercial gin. A 41-4 color and leaf grade was used on all fiber samples to determine loan values.

Using the Data

Yield should be the primary factor when selecting a variety, followed by fiber quality and maturity. Top-yielding varieties often have no statistical differences between them in a given trial. The least significant difference reported below each table is the smallest difference in yield that can be considered a “true” difference.

The most important factor is not the absolute number reported for yield or fiber quality. The most important consideration is how a given variety performed compared to the others in the same trial. Another important factor is the average yield across variety trials. Varietal performance compared to the average for the entire trial will help identify varieties that are above average for a given location.

Cotton varieties should be chosen by considering their performances across several locations and multiple years of testing. Superior performance in one year often can indicate a good variety, but superior performance over multiple years indicates consistency and reliability. Varieties currently are introduced at a rapid pace and have shorter market runs than in the past, so information about some of the newest varieties often is not available for multiple years. For those new varieties that do not have multiyear performance records, it is best to consider performance averaged across several locations during the first year of testing.

Grower experience with a variety is important for several reasons. Cotton varieties have different growth habits and can be locally adapted to a small area. Personal experience with a variety should be considered along with newer varieties that perform well.

The LSU AgCenter identifies the top tier of high-yielding varieties at each location using a statistical test called the “least significant difference.” A probability level of 10% is used, which means the test correctly identifies variety performance for that location with 90% certainty.

The group of varieties that is statistically the highest yielding is shaded in each table. To identify promising varieties that are new to the market and have only one year of testing in the LSU AgCenter OVTs, a multilocation analysis should be performed. Producers should review the data tables for variety performance at the closest location that most represents their individual farms and also review statewide multilocation yield averages for consistency of performance over a range of environments.

Transgenic Traits

Roundup Ready: Transgenic traits are available for glyphosate tolerance, usually indicated by Roundup Ready Flex (sometimes shown simply as “RF” or “F”). The Flex varieties have been available commercially since 2006 and completely replaced the older Roundup Ready (“R” or “RR”) varieties. Roundup Ready Flex varieties exhibit increased tolerance, particularly in the fruiting stage, to glyphosate applications. Roundup Ready Flex labeling allows over-the-top applications of glyphosate to Flex varieties into the bloom stage and does not restrict contact with the stem for applications. Read and follow the label closely for specific restrictions and glyphosate formulations permitted for use on Roundup Ready Flex varieties. Weed control is a major factor in producing high-yielding, high-quality cotton. Because of the increased flexibility of applying glyphosate over the top to Roundup Ready Flex varieties, some growers may opt to wait until weeds emerge and gain some size before making applications. This is not recommended for early season weed control as early weed competition can severely reduce yields. Glyphosate is very effective on a wide range of species, particularly when they are small. Applications should be timed to weed size and not to other factors. Reliance on one mode of action for weed control is not recommended and has led

to multiple glyphosate-resistant weeds; therefore, the use of other herbicides in addition to glyphosate is strongly encouraged. Consult the LSU AgCenter 2022 Louisiana Suggested Chemical Weed Management Guide, publication No. 1565, for more information.

Liberty Link: Varieties with the designation “LL” in their brand names are transgenic varieties tolerant to over-the-top applications of glufosinate. These varieties can be managed in a Liberty Link weed control program, which is covered in more detail in the LSU AgCenter 2022 Louisiana Suggested Chemical Weed Management Guide publication. Liberty Link cotton will be injured by applications or drift from glyphosate. On farms or in areas where Liberty Link cotton is grown near Roundup Ready crops, care should be taken to avoid confusion of the herbicide systems and to reduce the potential for mistaken applications or drift.

Glytol Liberty Link: Varieties with the designation “GL” in their brand names are transgenic varieties tolerant to over-the-top applications of both glyphosate and glufosinate. These varieties offer potential to alternate from one class of chemistry to another, particularly where producers are concerned about herbicide-resistant weed populations. In any case, weeds still should be controlled early, when small and actively growing. Producers are cautioned to avoid late, low-dose applications of these nonselective herbicides when existing weeds are large and well-developed.

XtendFlex: In 2015, Delta Pine varieties with the designation “XF” became available, and they are transgenic cotton lines that are tolerant to over-the-top applications of dicamba, glyphosate and glufosinate. This was the first cotton technology with tolerance to three herbicides. These varieties offer the potential of alternating from one class of chemistry to another, particularly where producers are concerned about herbicide-resistant weed populations. In any case, weeds still should be controlled early, when weeds are small and actively growing. Producers are cautioned to avoid late, low-dose applications of these herbicides when these weeds are large and well-developed.

Enlist: In 2016, Phytogen varieties with the designation “FE” became available, and they are transgenic cotton lines tolerant to over-the-top applications of 2,4-D; glyphosate; and glufosinate. This is the second cotton technology that now offers tolerance to three herbicides. Weeds still should be controlled early when they are small and actively growing. Producers are cautioned to avoid late, low-dose applications of these herbicides when these weeds are large and well-developed.

Bollgard 2: Varieties with the designation “B2” or “BG2” in their brand names are cotton lines that express insecticidal proteins for the control of the Lepidopteran pest known as the tobacco budworm. After the successful introduction of Bollgard II technology to the market, the U.S. Environmental Protection Agency in 2010 required that all Bollgard-only technology be prohibited from

future planting due to its single-gene activity. Varieties that include Bollgard II technology should not need any supplemental insecticide sprays for control of tobacco budworms. They also provide control of the cotton bollworm, soybean looper, fall armyworm and beet armyworm. For cotton bollworm, note that supplemental chemical control strategies may be necessary to provide satisfactory management depending on prevailing populations. In addition, the insecticidal traits in Bollgard II varieties have no activity against noncaterpillar pests, such as thrips, aphids, plant bugs, stink bugs and spider mites, that must be managed with conventional integrated pest management practices.

Bollgard 3: In 2017, varieties with the designation “B3” in their brand names became available. This technology offers three Bt proteins for greater stability, longevity and improved resistance management. The addition of the third protein reinforces the Bt proteins found in Bollgard II. Each gene codes for a unique protein that kills larvae in a different way. There is currently a low likelihood of supplemental applications to control worm pests as a result of enhanced three-gene activity.

Widestrike 3: PhytoGen varieties with designation “W3” in their brand names are cotton lines that express insecticidal proteins for the control of tobacco budworms and fall armyworms. These varieties should not need any supplemental insecticidal sprays for controlling those pests. The characteristics and insect management recommendations previously mentioned for Bollgard 3 traits remain the same for the Widestrike 3 traits in PhytoGen varieties.

Twinlink Plus: In 2016, Stoneville varieties with the designation “TP” in their brand names became available. Twinlink Plus offers three Bt proteins for greater technology durability and improved resistance management. There is a decreased likelihood of supplemental applications to control caterpillar pests as a result of the enhanced three-gene activity.

Seeding Rate and Stand

Two to three cotton plants per foot of row is the ideal final plant population on 30-to-40-inch rows. To achieve this stand, seeding rates should be slightly higher based on the actual stated germination. Seed sizes vary, and the number of cotton seeds per pound ranges from 3,700 to 5,800. Therefore, seeding rates must be based on seed number per acre and not seed weight per acre. To ensure the best seedling emergence, planting should be scheduled during the most favorable conditions possible based on existing and forecast temperatures and soil moisture levels.

Most commercial cotton seed will have at least an 80% germination reported on the seed tag. This is the result of the warm germination test. Field conditions typically are more adverse than laboratory tests, and cool germination test results are a good indicator of seedling vigor. For

example, a seed lot with 85% cool germination is more vigorous than one with 65% cool germination. However, if the 65% cool germination lot is planted under ideal conditions, overall germination is likely to be as high as the 85% lot. Conversely, under adverse conditions the 85% cool germination lot is likely to germinate at a much higher rate than the 65% cool germination lot. A somewhat arbitrary division of the cool germination test results is shown in Table 1. Growers are encouraged to request cool germination test results from seed companies. Remember, a cotton seed is a living organism that is used as a delivery mechanism for genetic traits, transgenic technology and even pesticide seed treatments. Care should be taken to preserve and plant high-quality seed to ensure adequate plant stands.

Table 1. Arbitrary divisions of cool germination results and planting recommendations.

Cool Germination %	Vigor
>80	Excellent
65-80	Good
50-65	Acceptable – plant under good conditions
<50	Poor – do not plant

Most planting date studies indicate the ideal planting window is Louisiana for cotton is between April 15 and May 15. Earlier planting is possible without causing significant yield loss, but there is the risk of cold damage or reduced ability of the plants to recover from thrips pressure. Some field research has shown that planting during June may reduce yield potential.

Nitrogen Management

Once the cotton stand has been established, nitrogen applications will be made for the upcoming season. Recommended nitrogen rates are 60-90 pounds per acre for coarse-textured soils and 90-120 pounds per acre for finer-textured soils (Table 2). The lower recommended rates should be used on fields that are following soybeans, corn, legume cover crops or fields with a history of excessive stalk growth. Caution should be used to not apply excess nitrogen that can produce very tall and rank cotton. This increased vegetative growth will hinder reproductive growth and yield. Increased use of mepiquat chloride to control plant height may hinder defoliation prior to harvest. Excessive nitrogen in combination with late-season rainfall can delay maturity, reduce harvesting and ginning percentages, and promote boll shedding and boll rot. Best management practices are to split applications of nitrogen on sandy soils with high leaching potential or soils with a high saturation potential because of denitrification losses. For split nitrogen applications, one-third to one-half should be applied at planting with the remainder applied by early bloom at the latest.

Table 2. Nitrogen rates for cotton in Louisiana.

Soil Type	Dryland	Irrigated
Clay	90-120	100-120
Clay Loam	90-120	100-120
Fine Sandy Loam	60-90	60-90
Loamy Sand	60-90	60-90
Silt Clay	90-120	100-120
Silt Clay Loam	90-120	100-120
Silt Loam	60-90	60-90
Very Fine Sandy Loam	60-90	60-90

Table 3. Brands and varieties included in cotton official variety trials, 2021.

Brand	Variety	Brand	Variety
Americot	AMX20B037 B3XF	NexGen	NG 3195 B3XF
Armor	9371 B3XF	NexGen	NG 3729 B3XF
Armor	9608 B3XF	NexGen	NG 4190 B3XF
Armor	9831 B3XF	NexGen	NG 4936 B3XF
BASF	BX 2296 B3XF	NexGen	NG 5150 B3XF
BASF	BX 2297 B3XF	NexGen	NG 5711 B3XF
BASF	BX 2298 B3XF	PhytoGen	PHY 332 W3FE
Deltapine	20R734 B3XF	PhytoGen	PHY 360 W3FE
Deltapine	DP 1646 B2XF	PhytoGen	PHY 390 W3FE
Deltapine	DP 2012 B3XF	PhytoGen	PHY 400 W3FE
Deltapine	DP 2020 B3XF	PhytoGen	PHY 411 W3FE
Deltapine	DP 2038 B3XF	PhytoGen	PHY 443 W3FE
Deltapine	DP 2055 B3XF	PhytoGen	PX1130A329-04 W3FE
Deltapine	DP 2115 B3XF	PhytoGen	PX1140A383-04 W3FE
Deltapine	DP 2127 B3XF	PhytoGen	PX1140A385-04 W3FE
Deltapine	DP 2141NR B3XF	PhytoGen	PX1150A450-04 W3FE
Deltapine	DP 2239 B3XF	PhytoGen	PX1150A452-04 W3FE
Dyna-Gro	3456 B3XF	PhytoGen	PX1150A453-04 W3FE
Dyna-Gro	3520 B3XF	Seed Source Genetics	UA 114
Dyna-Gro	3535 B3XF	Seed Source Genetics	UA 222
Dyna-Gro	3555 B3XF	Stoneville	ST 4595 B3XF
Dyna-Gro	3615 B3XF	Stoneville	ST 4990 B3XF
Dyna-Gro	3644 B3XF	Stoneville	ST 4993 B3XF
Dyna-Gro	H959 B3XF	Stoneville	ST 5091 B3XF

Table 4. Definitions of table abbreviations.

Abbreviation	Meaning
LY	Lint yield (lb/a)
TO	Turnout (% lint)
MIC	Micronaire
LGTH	Length (inches)
SGTH	Strength (g/tex)
UNIF	Uniformity (%)
LV	Loan value (cents per pound lint)
GR	Gross return (dollars per acre)
NS	Not significant

Table 5. Agronomic milestones for each variety trial location, 2021.

	DLREC-sl ¹	MRRS-sl	NERS-c	NERS-sl
Planting date	5/27	5/25	5/16	5/16
Emergence date	6/2	5/31	5/23	5/23
Row spacing	38"	40"	38"	38"
Seeding rate	45,850	45,850	45,850	45,850
Previous crop	Cotton	Soybean	Corn	Corn
Irrigated	No	Yes	No	No
N-P-K-S (lbs/a)	60-32-63-4	110-50-90-0	95-50-50-20	95-50-50-20
Defoliation dates	10/8;10/14	10/13	9/30	9/30
Harvest date	10/26	11/1	10/14	10/15
Harvested plot size	2 rows by 35 feet	2 rows by 35 feet	2 rows by 35 feet	2 rows by 35 feet

¹DLREC=Dean Lee Research and Extension Center, Alexandria; MRRS=Macon Ridge Research Station, Winnsboro; NERS=Northeast Research Station, St. Joseph; sl=silt loam; c=clay.

Table 6. One-year lint yield (lb/a) performance of cotton varieties across four locations, 2021.

Variety	DLREC-sl ¹	MRRS-sl	NERS-c	NERS-sl	Average
PHY 411 W3FE	1,208	1,212	1,458	1,793	1,418
9371 B3XF	981	1,141	1,683	1,522	1,332
3644 B3XF	1,109	1,112	1,303	1,445	1,242
DP 2141NR B3XF	1,358	1,024	1,152	1,422	1,239
PHY 332 W3FE	1,071	1,021	1,516	1,344	1,238
DP 2127 B3XF	1,136	1,105	1,345	1,265	1,213
PHY 443 W3FE	1,253	999	1,406	1,163	1,205
PX1140A383-04 W3FE	1,039	1,139	1,199	1,424	1,200
BX 2298 B3XF	1,135	1,052	1,255	1,342	1,196
NG 4190 B3XF	979	1,219	1,479	1,099	1,194
PHY 400 W3FE	842	1,158	1,480	1,294	1,194
DP 2239 B3XF	1,224	1,172	1,404	943	1,186
ST 4595 B3XF	1,220	1,193	1,563	728	1,176
AMX20B037 B3XF	1,280	1,236	1,338	806	1,165
NG 3195 B3XF	1,217	1,241	1,282	873	1,153
PHY 390 W3FE	918	1,211	1,205	1,265	1,150
BX 2296 B3XF	1,131	1,130	1,415	887	1,141
ST 4993 B3XF	1,066	1,241	1,206	1,038	1,138
PHY 360 W3FE	1,002	1,086	1,326	1,133	1,137
20R734 B3XF	1,049	1,082	1,246	1,154	1,133
DP 2012 B3XF	1,077	1,131	1,316	958	1,121
PX1150A453-04 W3FE	930	1,124	1,230	1,148	1,108
PX1150A450-04 W3FE	998	1,113	1,100	1,209	1,105
DP 2115 B3XF	1,282	1,041	1,268	790	1,095
PX1130A329-04 W3FE	989	1,048	1,493	849	1,095
9831 B3XF	831	1,116	1,287	1,113	1,087
3535 B3XF	1,034	1,088	1,376	835	1,083
3555 B3XF	889	1,128	1,334	975	1,082
3520 B3XF	881	1,100	1,298	1,008	1,072
DP 2020 B3XF	848	1,121	1,271	1,044	1,071
DP 2038 B3XF	985	1,036	1,534	727	1,071
BX 2297 B3XF	1,059	1,109	1,332	768	1,067
9608 B3XF	794	1,249	1,202	1,003	1,062
DP 1646 B2XF	1,121	1,040	1,214	872	1,062
3615 B3XF	1,126	1,119	1,174	802	1,055
PX1140A385-04 W3FE	905	1,028	1,357	903	1,048
NG 3729 B3XF	1,039	1,029	1,153	962	1,046
DP 2055 B3XF	1,153	1,037	1,223	757	1,043
NG 5150 B3XF	897	1,034	1,125	973	1,007
ST 5091 B3XF	844	1,221	1,163	782	1,003
3456 B3XF	879	1,052	1,637	389	989
H959 B3XF	874	936	1,323	807	985
ST 4990 B3XF	995	1,138	1,011	778	981
PX1150A452-04 W3FE	872	1,091	1,115	736	954
UA 222	935	896	1,079	803	928

Variety	DLREC-sl ¹	MRRS-sl	NERS-c	NERS-sl	Average
UA 114	836	843	1,257	699	909
NG 4936 B3XF	872	955	1,154	652	908
NG 5711 B3XF	936	679	1,087	806	877
LSD (0.10)	204	132	204	255	
CV (%)	20.6	13.8	18.5	32.9	
Grand Mean	1,023	1,089	1,299	1,002	

¹DLREC=Dean Lee Research and Extension Center, Alexandria; MRRS=Macon Ridge Research Station, Winnsboro; NERS=Northeast Research Station, St. Joseph; sl=silt loam; c=clay.

Table 7. Lint yield, gin turnout, fiber characteristics, loan value and gross return per acre of cotton varieties grown on a Coushatta silt loam at the Dean Lee Research and Extension Center, Alexandria, 2021.

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
DP 2141NR B3XF	1,358 ²	44.7	4.5	1.25	35.5	86.6	54.55	\$901.85
DP 2115 B3XF	1,282	47.1	4.4	1.19	32.0	84.3	54.29	\$847.84
AMX20B037 B3XF	1,280	45.7	4.7	1.18	35.7	85.4	54.44	\$848.79
PHY 443 W3FE	1,253	42.9	3.9	1.18	35.2	85.3	52.85	\$811.08
DP 2239 B3XF	1,224	47.1	4.5	1.22	30.3	85.6	54.24	\$808.71
ST 4595 B3XF	1,220	46.4	4.2	1.21	31.1	85.5	54.43	\$808.19
NG 3195 B3XF	1,217	44.4	4.4	1.19	32.6	85.4	54.39	\$805.91
PHY 411 W3FE	1,208	46.3	4.6	1.13	33.0	84.3	53.86	\$793.51
DP 2055 B3XF	1,153	46.9	4.2	1.25	32.8	85.3	54.49	\$764.91
DP 2127 B3XF	1,136	44.8	4.6	1.16	32.2	84.6	54.10	\$748.83
BX 2298 B3XF	1,135	44.4	4.5	1.14	30.4	84.2	53.99	\$747.12
BX 2296 B3XF	1,131	45.4	4.7	1.20	31.5	86.0	54.43	\$749.44
3615 B3XF	1,126	43.8	4.5	1.18	33.5	84.1	54.36	\$745.67
DP 1646 B2XF	1,121	45.1	4.1	1.28	31.5	85.1	54.46	\$743.30
3644 B3XF	1,109	43.3	4.8	1.23	34.5	85.4	53.89	\$728.98
DP 2012 B3XF	1,077	42.3	4.0	1.23	33.3	85.7	54.59	\$715.45
PHY 332 W3FE	1,071	41.8	4.1	1.25	33.0	86.3	54.59	\$711.58
ST 4993 B3XF	1,066	45.3	4.7	1.18	33.6	85.4	54.43	\$706.23
BX 2297 B3XF	1,059	44.8	4.4	1.19	29.7	84.0	54.14	\$698.11
20R734 B3XF	1,049	45.3	4.7	1.22	29.2	83.8	54.01	\$691.15
PX1140A383-04 W3FE	1,039	43.2	4.7	1.20	31.2	85.4	54.35	\$687.46
NG 3729 B3XF	1,039	42.2	4.3	1.23	34.9	86.1	54.56	\$689.67
3535 B3XF	1,034	44.1	4.2	1.21	30.2	84.8	54.30	\$684.36
PHY 360 W3FE	1,002	42.5	4.0	1.19	31.6	83.9	54.30	\$662.64
PX1150A450-04 W3FE	998	45.8	4.3	1.18	33.4	85.4	54.39	\$660.98
ST 4990 B3XF	995	41.5	4.0	1.22	31.3	85.1	54.44	\$659.77
PX1130A329-04 W3FE	989	45.4	4.5	1.23	34.8	85.4	54.54	\$656.65
DP 2038 B3XF	985	49.4	4.1	1.16	31.3	83.6	54.15	\$649.68
9371 B3XF	981	45.6	4.4	1.16	30.1	84.4	54.09	\$646.66
NG 4190 B3XF	979	45.1	4.1	1.19	31.8	85.2	54.36	\$648.37
NG 5711 B3XF	936	44.0	4.1	1.23	31.2	85.9	54.46	\$620.30
UA 222	935	41.0	4.2	1.22	33.8	85.7	54.55	\$620.78

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
PX1150A453-04 W3FE	930	42.9	4.4	1.18	38.0	86.2	54.49	\$616.89
PHY 390 W3FE	918	43.3	4.1	1.20	31.6	84.5	54.33	\$608.13
PX1140A385-04 W3FE	905	45.8	4.3	1.19	36.8	86.2	54.55	\$601.02
NG 5150 B3XF	897	45.0	4.3	1.21	31.7	85.0	54.28	\$591.70
3555 B3XF	889	41.3	3.8	1.24	32.4	85.3	54.51	\$589.90
3520 B3XF	881	41.1	3.7	1.26	33.1	86.5	54.54	\$585.13
3456 B3XF	879	44.6	4.0	1.20	29.2	84.0	54.10	\$579.60
H959 B3XF	874	41.3	4.3	1.23	32.4	84.7	54.46	\$579.60
PX1150A452-04 W3FE	872	43.9	4.2	1.16	36.5	85.5	54.49	\$578.40
NG 4936 B3XF	872	41.6	4.0	1.22	31.3	85.3	54.50	\$578.27
DP 2020 B3XF	848	40.8	4.1	1.25	32.8	87.0	54.60	\$563.38
ST 5091 B3XF	844	44.4	4.1	1.20	30.3	83.8	54.18	\$557.80
PHY 400 W3FE	842	44.0	4.1	1.22	33.9	85.2	54.58	\$559.15
UA 114	836	40.9	4.1	1.22	32.8	85.7	54.55	\$555.31
9831 B3XF	831	45.7	4.6	1.18	33.8	83.8	54.40	\$550.53
9608 B3XF	794	46.1	4.2	1.20	29.0	84.5	54.21	\$524.30
LSD (0.10)	204	1.0	0.3	0.03	1.7	1.2	NS	\$135.73
CV (%)	20.6	4.7	7.7	3.3	7.3	1.4	1.0	20.6
Grand Mean	1,023	44.2	4.3	1.21	32.5	85.1	54.33	\$676.73

¹Please refer to Table 4 for acronym definitions.

²Shaded values are not statistically different than the highest value in each column.

Table 8. Lint yield, gin turnout, fiber characteristics, loan value and gross return per acre of cotton varieties grown on a Gigger silt loam at the Macon Ridge Research Station, Winnsboro, 2021.

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
9608 B3XF	1,249 ²	48.3	4.5	1.11	29.5	83.0	53.19	\$812.66
NG 3195 B3XF	1,241	45.4	4.9	1.13	34.5	84.1	52.65	\$801.43
ST 4993 B3XF	1,241	45.4	4.6	1.11	31.1	83.6	53.46	\$807.59
AMX20B037 B3XF	1,236	45.2	5.0	1.14	34.5	84.0	52.81	\$792.24
ST 5091 B3XF	1,221	45.3	4.2	1.12	28.9	82.7	53.33	\$794.89
NG 4190 B3XF	1,219	44.3	4.4	1.13	30.9	84.8	53.90	\$801.40
PHY 411 W3FE	1,212	47.3	4.8	1.08	31.9	82.1	52.08	\$776.13
PHY 390 W3FE	1,211	45.8	4.7	1.12	31.0	83.8	53.15	\$787.86
ST 4595 B3XF	1,193	48.1	4.5	1.12	30.8	84.0	53.73	\$781.48
DP 2239 B3XF	1,172	47.2	4.7	1.16	30.9	83.2	54.05	\$772.50
PHY 400 W3FE	1,158	45.5	4.5	1.13	32.1	83.3	54.08	\$762.36
9371 B3XF	1,141	45.6	4.5	1.14	30.0	83.2	53.90	\$750.73
PX1140A383-04 W3FE	1,139	46.1	4.5	1.16	34.8	84.3	54.33	\$753.71
ST 4990 B3XF	1,138	43.3	4.7	1.17	31.7	84.8	54.36	\$753.30
DP 2012 B3XF	1,131	44.0	4.6	1.12	30.8	82.8	53.49	\$738.93
BX 2296 B3XF	1,130	48.1	5.1	1.13	31.4	84.6	51.88	\$720.41
3555 B3XF	1,128	43.5	4.3	1.17	34.4	85.7	54.49	\$748.37
PX1150A453-04 W3FE	1,124	48.1	4.6	1.11	36.6	83.3	53.65	\$736.35
DP 2020 B3XF	1,121	42.9	4.6	1.16	31.7	84.2	54.20	\$740.73
3615 B3XF	1,119	44.6	4.5	1.12	32.8	82.9	53.70	\$733.57
9831 B3XF	1,116	46.4	4.9	1.14	33.8	83.1	52.99	\$723.57
PX1150A450-04 W3FE	1,113	47.8	4.9	1.11	34.4	82.8	53.06	\$723.84
3644 B3XF	1,112	46.1	4.8	1.16	32.7	84.1	53.69	\$728.53
BX 2297 B3XF	1,109	46.3	4.9	1.12	30.1	82.8	53.05	\$718.66
DP 2127 B3XF	1,105	45.1	4.9	1.11	30.6	83.7	52.93	\$715.20
3520 B3XF	1,100	42.2	4.2	1.16	33.6	84.2	54.39	\$728.13
PX1150A452-04 W3FE	1,091	45.6	4.5	1.09	36.1	83.7	53.28	\$712.89
3535 B3XF	1,088	43.4	4.5	1.16	31.8	84.1	54.31	\$719.60
PHY 360 W3FE	1,086	45.5	4.5	1.11	29.6	83.0	53.16	\$706.85
20R734 B3XF	1,082	45.1	4.8	1.13	29.5	82.8	53.00	\$697.48
3456 B3XF	1,052	45.3	4.7	1.12	28.5	82.9	52.80	\$680.41
BX 2298 B3XF	1,052	46.9	5.1	1.07	30.3	81.7	49.74	\$647.42
PX1130A329-04 W3FE	1,048	47.6	5.0	1.09	33.2	83.5	51.55	\$666.14
DP 2115 B3XF	1,041	48.1	4.7	1.11	32.5	84.4	53.93	\$684.91
DP 1646 B2XF	1,040	46.4	4.6	1.20	31.6	84.2	54.31	\$688.28
DP 2055 B3XF	1,037	47.1	4.7	1.18	32.3	83.5	53.66	\$677.25
DP 2038 B3XF	1,036	45.2	4.7	1.08	31.6	81.5	52.33	\$663.97
NG 5150 B3XF	1,034	43.5	4.5	1.15	29.9	83.4	54.00	\$681.09
NG 3729 B3XF	1,029	44.9	4.7	1.14	31.4	84.4	54.10	\$678.85
PX1140A385-04 W3FE	1,028	47.6	4.8	1.10	36.1	82.8	52.86	\$664.27
DP 2141NR B3XF	1,024	45.5	4.9	1.16	34.0	84.3	52.84	\$661.79
PHY 332 W3FE	1,021	44.6	4.2	1.16	33.5	83.9	54.35	\$676.05
PHY 443 W3FE	999	46.1	4.7	1.08	34.0	83.4	52.31	\$641.96

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
NG 4936 B3XF	955	43.8	4.7	1.17	31.6	84.6	54.30	\$631.81
H959 B3XF	936	41.3	4.7	1.12	33.6	82.9	53.82	\$638.14
UA 222	896	42.1	4.8	1.16	33.3	83.5	53.65	\$584.92
UA 114	843	41.4	4.6	1.15	31.4	83.6	54.11	\$556.14
NG 5711 B3XF	679	43.5	4.4	1.17	32.9	83.8	54.33	\$449.04
LSD (0.10)	132	1.0	0.3	0.03	1.5	1.3	1.21	\$89.17
CV (%)	13.8	4.3	6.3	3.4	7.0	1.5	2.4	13.8
Grand Mean	1,089	45.4	4.7	1.13	32.2	83.6	53.40	\$710.70

¹Please refer to Table 4 for acronym definitions.

²Shaded values are not statistically different than the highest value in each column.

Table 9. Lint yield, gin turnout, fiber characteristics, loan value and gross return per acre of cotton varieties grown on a Sharkey clay at the Northeast Research Station, St. Joseph, 2021.

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
9371 B3XF	1,683 ²	44.6	4.9	1.21	32.5	85.0	53.78	\$1,105.18
3456 B3XF	1,637	43.4	4.7	1.18	34.3	86.0	54.48	\$1,034.46
ST 4595 B3XF	1,563	42.3	4.8	1.24	35.8	85.3	53.70	\$1,073.69
DP 2038 B3XF	1,534	43.5	4.8	1.20	34.6	85.1	53.83	\$1,006.22
PHY 332 W3FE	1,516	44.9	4.9	1.20	36.0	85.7	53.23	\$988.27
PX1130A329-04 W3FE	1,493	45.2	4.8	1.21	35.1	85.4	53.85	\$979.45
PHY 400 W3FE	1,480	44.9	4.8	1.19	33.9	85.8	53.79	\$966.68
NG 4190 B3XF	1,479	44.2	4.8	1.18	34.0	85.8	53.84	\$979.75
PHY 411 W3FE	1,458	44.2	5.1	1.21	34.8	85.7	52.25	\$936.35
BX 2296 B3XF	1,415	45.7	5.0	1.19	33.8	85.9	53.21	\$925.16
PHY 443 W3FE	1,406	43.1	4.7	1.21	36.6	85.9	53.62	\$997.38
DP 2239 B3XF	1,404	45.2	5.0	1.22	35.4	86.9	52.34	\$900.69
3535 B3XF	1,376	44.6	5.0	1.18	32.7	85.4	52.54	\$885.43
PX1140A385-04 W3FE	1,357	45.6	4.8	1.20	36.8	86.4	53.91	\$891.88
DP 2127 B3XF	1,345	42.5	4.6	1.23	34.3	86.5	53.96	\$893.42
AMX20B037 B3XF	1,338	44.5	4.9	1.22	35.4	86.1	53.72	\$993.78
3555 B3XF	1,334	42.1	4.6	1.23	33.9	85.7	53.90	\$876.16
BX 2297 B3XF	1,332	44.2	4.9	1.18	33.6	86.1	53.24	\$865.38
PHY 360 W3FE	1,326	43.3	4.8	1.19	34.1	85.4	53.85	\$872.38
H959 B3XF	1,323	43.4	4.7	1.17	35.2	84.9	53.44	\$863.32
DP 2012 B3XF	1,316	42.6	4.7	1.21	35.3	86.3	54.50	\$873.16
3644 B3XF	1,303	43.8	5.0	1.19	35.9	85.6	52.91	\$844.23
3520 B3XF	1,298	42.4	4.5	1.22	35.0	85.8	53.81	\$851.59
9831 B3XF	1,287	46.3	4.9	1.17	35.0	85.2	53.78	\$845.72
NG 3195 B3XF	1,282	42.4	4.8	1.23	33.1	85.3	53.50	\$842.07
DP 2020 B3XF	1,271	42.6	4.6	1.22	32.8	85.6	54.48	\$842.84
DP 2115 B3XF	1,268	43.7	4.9	1.20	33.1	85.3	53.79	\$831.70
UA 114	1,257	40.6	4.6	1.23	34.3	85.8	54.53	\$834.38
BX 2298 B3XF	1,255	45.2	4.9	1.16	34.7	84.4	53.50	\$877.76
20R734 B3XF	1,246	43.2	4.8	1.19	32.5	84.8	53.11	\$808.88

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
PX1150A453-04 W3FE	1,230	43.3	4.7	1.22	36.3	86.2	54.50	\$816.22
DP 2055 B3XF	1,223	43.0	4.7	1.24	32.8	84.9	54.45	\$810.39
DP 1646 B2XF	1,214	43.8	4.7	1.20	34.8	85.5	53.86	\$797.84
ST 4993 B3XF	1,206	42.5	4.7	1.21	36.2	86.7	54.48	\$785.64
PHY 390 W3FE	1,205	41.6	4.6	1.23	34.3	85.8	54.46	\$798.94
9608 B3XF	1,202	45.5	4.9	1.17	31.5	85.3	53.04	\$782.83
PX1140A383-04 W3FE	1,199	42.5	4.7	1.22	36.3	85.3	53.90	\$787.68
3615 B3XF	1,174	42.8	4.7	1.20	36.1	85.2	54.45	\$777.90
ST 5091 B3XF	1,163	43.5	4.8	1.23	32.3	85.2	53.25	\$755.67
NG 4936 B3XF	1,154	41.7	4.8	1.22	34.0	85.0	54.47	\$765.04
NG 3729 B3XF	1,153	43.5	4.9	1.19	37.5	85.2	53.28	\$749.43
DP 2141NR B3XF	1,152	43.1	5.1	1.20	34.4	85.2	52.30	\$706.85
NG 5150 B3XF	1,125	43.4	4.8	1.20	37.2	86.3	53.30	\$734.59
PX1150A452-04 W3FE	1,115	42.9	4.8	1.22	36.2	86.1	54.49	\$739.90
PX1150A450-04 W3FE	1,100	41.1	4.7	1.20	33.2	86.2	54.41	\$728.96
NG 5711 B3XF	1,087	43.4	4.6	1.19	35.7	85.6	53.63	\$733.25
UA 222	1,079	43.1	4.7	1.21	36.5	85.8	54.49	\$715.74
ST 4990 B3XF	1,011	41.2	4.8	1.19	35.1	85.8	53.26	\$656.02
LSD (0.10)	204	1.9	NS	NS	NS	NS	NS	\$137.81
CV (%)	18.5	4.3	5.5	3.1	7.5	1.2	2.3	18.2
Grand Mean	1,299	43.5	4.8	1.20	34.7	85.6	53.72	\$856.88

¹Please refer to Table 4 for acronym definitions.

²Shaded values are not statistically different than the highest value in each column.

Table 10. Lint yield, gin turnout, fiber characteristics, loan value and gross return per acre of cotton varieties grown on a Commerce silt loam at the Northeast Research Station, St. Joseph, 2021.

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
PHY 411 W3FE	1,793 ²	44.5	4.7	1.16	35.2	83.8	54.30	\$1,186.05
9371 B3XF	1,522	42.5	4.4	1.18	31.3	86.0	54.32	\$1,010.29
3644 B3XF	1,445	41.6	4.5	1.25	34.4	85.5	54.51	\$959.13
PX1140A383-04 W3FE	1,424	42.8	4.4	1.24	35.3	86.0	54.53	\$944.95
DP 2141NR B3XF	1,422	43.4	4.7	1.22	34.0	84.6	54.45	\$942.89
PHY 332 W3FE	1,344	41.3	4.1	1.25	33.2	84.9	54.57	\$895.55
BX 2298 B3XF	1,342	43.5	4.6	1.19	32.0	84.9	54.30	\$867.79
PHY 400 W3FE	1,294	43.1	4.3	1.22	34.2	85.1	54.49	\$858.63
PHY 390 W3FE	1,265	43.2	4.0	1.21	33.0	84.9	54.51	\$839.59
DP 2127 B3XF	1,265	44.4	4.7	1.17	32.0	85.6	54.38	\$837.49
PX1150A450-04 W3FE	1,209	45.2	4.5	1.20	35.4	86.1	54.58	\$803.17
PHY 443 W3FE	1,163	42.8	4.4	1.16	35.3	85.0	54.33	\$803.18
20R734 B3XF	1,154	43.1	4.9	1.21	30.4	84.9	53.63	\$751.75
PX1150A453-04 W3FE	1,148	42.4	4.5	1.18	37.6	85.4	54.45	\$761.17
PHY 360 W3FE	1,133	43.5	4.2	1.22	31.9	85.1	54.50	\$751.48
9831 B3XF	1,113	43.8	4.5	1.27	33.2	85.4	54.55	\$892.85
NG 4190 B3XF	1,099	41.8	4.6	1.24	32.9	85.6	54.47	\$690.11
DP 2020 B3XF	1,044	40.3	4.4	1.25	31.5	85.3	54.36	\$691.25
ST 4993 B3XF	1,038	44.4	4.8	1.19	34.3	85.3	54.45	\$642.07
3520 B3XF	1,008	39.8	4.0	1.25	33.6	85.5	54.56	\$669.17
9608 B3XF	1,003	45.2	4.3	1.21	31.9	84.9	53.78	\$655.29
3555 B3XF	975	40.4	4.2	1.23	33.6	85.8	54.56	\$647.16
NG 5150 B3XF	973	42.2	4.6	1.23	31.9	85.3	54.44	\$645.02
NG 3729 B3XF	962	41.2	4.6	1.21	31.4	85.4	53.78	\$630.92
DP 2012 B3XF	958	40.3	4.2	1.24	32.5	85.3	54.50	\$635.48
DP 2239 B3XF	943	44.9	4.3	1.25	31.5	86.1	54.54	\$625.81
PX1140A385-04 W3FE	903	46.5	4.4	1.18	37.7	85.8	53.94	\$592.73
BX 2296 B3XF	887	45.4	4.9	1.23	31.4	84.4	53.70	\$579.60
NG 3195 B3XF	873	42.6	4.0	1.22	32.4	85.4	54.50	\$579.45
DP 1646 B2XF	872	42.6	4.4	1.24	30.7	84.9	54.36	\$576.83
PX1130A329-04 W3FE	849	44.7	4.6	1.25	34.3	85.6	53.93	\$559.14
3535 B3XF	835	42.8	4.4	1.21	31.6	84.5	54.43	\$553.36
H959 B3XF	807	39.1	4.4	1.24	34.4	84.3	54.48	\$535.03
NG 5711 B3XF	806	41.8	4.5	1.24	32.5	85.1	54.45	\$534.17
AMX20B037 B3XF	806	43.8	4.7	1.20	36.1	85.7	53.93	\$529.91
UA 222	803	40.0	4.7	1.26	34.7	85.5	54.51	\$532.55
3615 B3XF	802	42.2	4.6	1.22	34.5	85.4	54.49	\$532.02
DP 2115 B3XF	790	44.4	4.3	1.22	32.9	84.5	54.46	\$523.40
ST 5091 B3XF	782	42.0	4.1	1.23	29.6	83.4	54.15	\$602.93
ST 4990 B3XF	778	40.3	4.5	1.24	32.5	86.0	54.49	\$515.87
BX 2297 B3XF	768	43.8	4.4	1.22	31.2	84.9	54.39	\$508.57
DP 2055 B3XF	757	44.0	4.4	1.26	33.4	84.8	54.46	\$501.56
PX1150A452-04 W3FE	736	43.0	4.3	1.17	35.2	85.3	54.44	\$487.58

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
ST 4595 B3XF	728	42.4	4.3	1.21	31.1	83.9	54.32	\$533.37
DP 2038 B3XF	727	45.9	4.4	1.16	33.0	84.1	54.26	\$480.60
UA 114	699	40.9	4.8	1.22	33.9	85.3	54.48	\$463.07
NG 4936 B3XF	652	40.1	4.4	1.24	32.1	86.0	54.50	\$432.55
3456 B3XF	389	44.1	4.1	1.21	32.6	84.9	54.40	\$196.90
LSD (0.10)	255	1.3	0.3	0.05	1.5	NS	NS	\$183.12
CV (%)	32.9	4.6	7.3	3.1	6.3	1.3	0.9	32.7
Grand Mean	1,002	42.8	4.4	1.22	33.1	85.2	54.35	\$666.45

¹Please refer to Table 4 for acronym definitions.

²Shaded values are not statistically different than the highest value in each column.

Table 11. Lint yield (lb/a) summary of the 2021 cotton on-farm core block demonstrations at seven locations identified by parish.

Brand	Variety	Avoyelles	Caddo	Franklin	Madison	Morehouse	Pointe Coupee	Tensas	Average
PhytoGen	PHY 411 W3FE	1,231	.	1,529	1,469	1,777	1,038	1,432	1,413
Deltapine	DP 2115 B3XF	1,070	1,120	1,600	1,356	1,637	1,148	1,408	1,334
PhytoGen	PHY 400 W3FE	1,113	.	1,477	1,308	1,496	1,067	1,366	1,305
Deltapine	DP 2127 B3XF	1,102	1,191	1,384	1,558	1,592	865	1,349	1,292
Stoneville	ST 5091 B3XF	1,096	1,110	1,444	1,493	1,492	946	1,358	1,277
Stoneville	ST 4990 B3XF	1,165	885	1,460	1,439	1,466	1,136	1,226	1,254
Dyna-Gro	3535 B3XF	1,091	1,128	1,435	1,292	1,604	981	1,090	1,231
Dyna-Gro	3644 B3XF	1,166	1,149	1,308	1,292	1,534	961	1,207	1,231
NexGen	NG 4936 B3XF	1,112	958	1,383	1,433	1,468	1,118	1,102	1,225
NexGen	NG 5150 B3XF	1,036	1,034	1,434	1,331	1,388	1,050	1,179	1,208
	Location average	1,118	1,072	1,445	1,397	1,545	1,031	1,272	

Table 12. Lint yield, gin turnout, fiber characteristics, loan value and gross return per acre, Avoyelles core block demonstration, 2021.

Parish: Avoyelles

Previous crop: Soybean

Irrigation: No

Community: Bay Hills

Soil type: Loring/Coteau silt loam

GPS: 30.989330, -92.135378

Cooperator: Trent Clark

Tillage: Conventional

Plot size: 6 rows

Agent: Justin Dufour

N rate (lbs/acre): 110

Planting date: 5/26/21

Seeding rate: 30,500

Harvest date: 11/5/21

Row spacing: 38"

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
PHY 411 W3FE	1,231 ²	47.4	5.4	1.14	33.9	84.2	50.35	\$765.34
3644 B3XF	1,166	48.1	5.2	1.12	33.9	84.8	50.63	\$727.36
ST 4990 B3XF	1,165	48.2	5.0	1.18	30.6	84.5	52.98	\$755.89
9371 B3XF	1,126	46.8	4.9	1.16	31.6	86.1	53.15	\$732.83
PHY 400 W3FE	1,113	47.5	4.9	1.19	34.0	84.5	53.25	\$724.44
NG 4936 B3XF	1,112	46.3	5.1	1.20	32.8	85.8	53.23	\$723.07
9831 B3XF	1,105	47.1	5.2	1.22	33.5	84.8	51.30	\$697.67
DP 2127 B3XF	1,102	47.4	5.2	1.20	32.7	85.1	52.05	\$703.92
ST 5091 B3XF	1,096	48.5	4.9	1.16	31.5	83.7	52.93	\$710.33
PHY 430 W3FE	1,093	46.7	5.2	1.16	35.2	84.4	52.40	\$700.04
3535 B3XF	1,091	48.4	4.9	1.12	32.5	84.8	53.70	\$715.47
DP 2115 B3XF	1,070	45.5	4.9	1.18	31.2	85.8	54.40	\$708.94
NG 5150 B3XF	1,036	46.7	4.6	1.19	30.5	84.4	54.15	\$684.11
LSD (0.10)	83	1.3	0.2	0.04	1.4	1.3	1.51	NS
CV (%)	6.0	2.4	4.7	3.3	5.3	1.2	2.9	5.4
Grand Mean	1,116	47.3	5.0	1.17	32.6	84.8	52.65	\$719.18

¹Please refer to Table 4 for acronym definitions.

²Shaded values are not statistically different than the highest value in each column.

Varieties in bold letters are the grower's standards.

Table 13. Lint yield, gin turnout, fiber characteristics, loan value and gross return per acre, Caddo core block demonstration, 2021.

Parish: Caddo **Previous crop:** Soybean **Irrigation:** Yes
Community: Belcher **Soil type:** Coushatta silt loam **GPS:** 32.745207, -93.860690
Cooperator: Ryan Kirby **Tillage:** Strip **Plot size:** 9 rows
Agent: John Terrell **N rate (lbs/acre):** 60 **Planting date:** 5/8/21
Seeding rate: 40,000 **Harvest date:** 11/1/21 **Row spacing:** 30" (2:1 skip)

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
DP 2127 B3XF	1,191 ²	45.0	5.1	1.21	32.1	86.2	52.08	\$761.22
3644 B3XF	1,149	42.5	4.8	1.25	34.2	84.5	54.45	\$761.66
3535 B3XF	1,128	44.0	4.8	1.22	31.3	85.7	53.15	\$732.33
DP 2115 B3XF	1,120	44.6	4.8	1.23	32.3	86.3	54.43	\$742.14
ST 5091 B3XF	1,110	44.1	4.3	1.23	29.6	84.4	54.10	\$731.85
NG 5150 B3XF	1,034	42.6	4.5	1.26	31.6	85.6	54.35	\$684.21
NG 4936 B3XF	958	40.9	4.6	1.27	31.4	87.2	54.40	\$634.96
ST 4990 B3XF	885	41.4	4.5	1.23	32.4	86.5	54.58	\$587.87
LSD (0.10)	73	0.7	0.2	NS	0.9	1.0	0.60	\$44.78
CV (%)	10.1	3.4	5.7	2.3	4.4	1.3	1.7	9.3
Grand Mean	1,072	43.1	4.7	1.24	31.9	85.8	53.94	\$704.53

¹Please refer to Table 4 for acronym definitions.

²Shaded values are not statistically different than the highest value in each column.

Table 14. Lint yield, gin turnout, fiber characteristics, loan value and gross return per acre, Franklin core block demonstration, 2021.

Parish: Franklin **Previous crop:** Soybean **Irrigation:** Yes
Community: Winnsboro **Soil type:** Egypt silt loam **GPS:** 32.057365, -91.742651
Cooperator: Kody Beavers **Tillage:** No till **Plot size:** 8 rows
Agent: Carol Pinnell-Alison **N rate (lbs/acre):** 95 **Planting date:** 5/7/21
Seeding rate: 39,000 **Harvest date:** 10/19/21 **Row spacing:** 38"

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
DP 2115 B3XF	1,600 ²	45.6	4.5	1.18	34.0	86.2	54.45	\$1,060.44
PHY 411 W3FE	1,529	45.3	4.8	1.13	34.6	83.8	54.13	\$1,008.77
PHY 400 W3FE	1,477	44.8	4.6	1.21	33.4	85.6	54.50	\$980.03
ST 4990 B3XF	1,460	40.6	4.6	1.23	32.8	87.0	54.53	\$968.88
ST 5091 B3XF	1,444	43.3	4.4	1.18	29.0	84.8	53.98	\$950.27
3535 B3XF	1,435	43.4	4.4	1.20	31.3	84.9	54.33	\$949.49
NG 5150 B3XF	1,434	43.1	4.5	1.26	32.3	86.2	54.48	\$950.67
DP 2127 B3XF	1,384	44.5	4.8	1.17	31.7	86.2	54.43	\$917.09
NG 4936 B3XF	1,383	40.9	4.6	1.23	29.2	86.2	54.13	\$912.33
3644 B3XF	1,308	42.7	4.8	1.24	35.9	85.7	54.53	\$867.87
LSD (0.10)	47	0.8	0.1	0.02	0.9	0.8	0.11	\$31.12
CV (%)	5.8	4.0	3.7	3.2	6.8	1.2	0.4	5.8
Grand Mean	1,445	43.4	4.6	1.20	32.4	85.6	54.35	\$956.58

¹Please refer to Table 4 for acronym definitions.

²Shaded values are not statistically different than the highest value in each column.

Table 15. Lint yield, gin turnout, fiber characteristics, loan value and gross return per acre, Madison core block demonstration, 2021.

Parish: Madison

Previous crop: Rice

Irrigation: Yes

Community: Tallulah

Soil type: Sharkey clay

GPS: 32.438973, -91.170360

Cooperators: Curt and Dave Collins

Tillage: Conventional

Plot size: 24 rows

Agent: R.L. Frazier

N rate (lbs/acre): 135

Planting date: 5/18/21

Seeding rate: 34,000

Harvest date: 10/6/21

Row spacing: 38"

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
DP 2127 B3XF	1,558	45.2	4.7	1.17	33.1	85.6	54.40	\$1,032.31
ST 5091 B3XF	1,493	44.6	4.2	1.20	32.9	85.3	54.55	\$991.65
PHY 411 W3FE	1,469	44.3	4.6	1.22	39.1	86.6	54.55	\$975.07
ST 4990 B3XF	1,439	42.8	4.8	1.24	34.2	86.9	54.55	\$955.28
NG 4936 B3XF	1,433	42.7	4.5	1.23	32.6	86.2	54.50	\$950.85
DP 2115 B3XF	1,356	46.0	4.7	1.21	34.8	85.9	54.50	\$899.80
NG 5150 B3XF	1,331	43.9	4.6	1.24	34.7	85.5	54.50	\$883.28
PHY 400 W3FE	1,308	42.8	4.8	1.23	37.4	85.5	54.50	\$868.12
3644 B3XF	1,292	43.0	4.8	1.28	41.2	87.0	54.55	\$857.73
3535 B3XF	1,292	45.8	4.8	1.20	34.5	86.4	54.55	\$857.66

¹Please refer to Table 4 for acronym definitions.

Table 16. Lint yield, gin turnout, fiber characteristics, loan value and gross return per acre, Morehouse core block demonstration, 2021.

Parish: Morehouse

Previous crop: Corn

Irrigation: Yes

Community: Galion

Soil type: Sterlington-Hebert complex

GPS: 32.858044, -91.790939

Cooperators: Dan and Matt Turner

Tillage: Reduced

Plot size: 18 rows

Agent: Bruce Garner

N rate (lbs/acre): 110

Planting date: 5/18-19/21

Seeding rate: 39,000

Harvest date: 10/19/21

Row spacing: 38"

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
PHY 411 W3FE	1,777	47.6	4.5	1.16	35.5	86.0	54.45	\$1,178.10
DP 2115 B3XF	1,637	46.5	4.5	1.21	33.1	86.0	54.55	\$1,086.87
3535 B3XF	1,604	44.4	4.2	1.21	31.4	86.7	54.60	\$1,065.57
DP 2127 B3XF	1,592	45.7	4.7	1.20	32.4	86.3	54.50	\$1,056.03
3644 B3XF	1,534	43.5	4.3	1.25	36.8	85.6	54.50	\$1,017.89
PHY 400 W3FE	1,496	45.6	4.0	1.25	34.3	85.4	54.60	\$994.39
ST 5091 B3XF	1,492	43.0	3.6	1.25	30.5	85.0	54.25	\$986.07
NG 4936 B3XF	1,468	42.9	4.0	1.24	30.6	87.6	54.40	\$972.42
ST 4990 B3XF	1,466	41.1	4.3	1.27	34.8	87.4	54.55	\$973.33
NG 5150 B3XF	1,388	44.2	4.1	1.22	32.9	84.8	54.50	\$920.97

¹Please refer to Table 4 for acronym definitions.

Table 17. Lint yield, gin turnout, fiber characteristics, loan value and gross return per acre, Pointe Coupee core block demonstration, 2021.

Parish: Pointe Coupee
Community: Batchelor
Cooperator: George LaCour
Agent: Mark Carriere
Seeding rate: 34,500

Previous crop: Cotton
Soil type: Convent silt loam
Tillage: Conventional
N rate (lbs/acre): 85
Harvest date: 10/13/21

Irrigation: No
GPS: 30.661815, -91.731416
Plot size: 6 rows
Planting date: 5/25/21
Row spacing: 38"

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
DP 2115 B3XF	1,148 ²	44.2	4.6	1.19	31.3	84.8	54.28	\$758.81
ST 4990 B3XF	1,136	43.4	4.4	1.20	32.3	85.1	54.40	\$752.46
NG 4936 B3XF	1,118	42.2	4.3	1.24	30.3	86.4	54.28	\$739.09
PHY 400 W3FE	1,067	44.1	4.3	1.21	34.8	84.9	54.50	\$707.62
NG 5150 B3XF	1,050	44.1	4.5	1.23	30.9	85.2	54.33	\$694.53
PHY 411 W3FE	1,038	45.8	4.5	1.14	33.4	84.0	54.20	\$685.55
3535 B3XF	981	42.8	4.4	1.20	31.5	85.1	54.43	\$650.10
3644 B3XF	961	43.0	4.5	1.29	37.9	86.5	54.53	\$637.39
ST 5091 B3XF	946	43.6	4.2	1.23	31.7	84.4	54.40	\$626.39
DP 2127 B3XF	865	43.9	4.5	1.19	32.2	85.8	54.50	\$573.52
LSD (0.10)	82	NS	0.2	0.03	1.7	1.1	0.14	\$53.62
CV (%)	9.8	3.5	3.7	3.4	7.3	1.2	0.2	9.8
Grand Mean	1,031	43.7	4.4	1.21	32.6	85.2	54.38	\$682.54

¹Please refer to Table 4 for acronym definitions.

²Shaded values are not statistically different than the highest value in each column.

Table 18. Lint yield, gin turnout, fiber characteristics, loan value and gross return per acre, Tensas core block demonstration, 2021.

Parish: Tensas
Community: St. Joseph
Cooperators: Scott and Thomas Crigler
Agent: Dennis Burns
Seeding rate: 40,000

Previous crop: Corn
Soil type: Bruin silt loam
Tillage: Conventional
N rate (lbs/acre): 100
Harvest date: 9/23/21

Irrigation: Yes
GPS: 31.999767, -91.220614
Plot size: 12 rows
Planting date: 5/7/21
Row spacing: 38"

Variety	LY (lb/a) ¹	TO (%)	MIC	LGTH (in)	SGTH (g/tex)	UNIF (%)	LV (¢/lb)	GR (\$/a)
PHY 411 W3FE	1,432	47.0	4.0	1.18	36.0	85.3	54.60	\$951.54
DP 2115 B3XF	1,408	47.7	4.2	1.20	34.1	84.5	54.55	\$935.14
PHY 400 W3FE	1,366	46.5	4.2	1.22	35.4	85.3	54.60	\$908.01
ST 5091 B3XF	1,358	44.6	3.9	1.21	29.4	85.1	54.20	\$896.74
DP 2127 B3XF	1,349	44.5	4.7	1.14	29.1	85.5	54.00	\$888.45
ST 4990 B3XF	1,226	41.2	4.1	1.24	32.8	85.6	54.55	\$813.73
3644 B3XF	1,207	44.0	4.6	1.22	32.9	85.5	54.45	\$800.26
NG 5150 B3XF	1,179	42.2	3.8	1.19	32.5	83.6	54.45	\$781.93
NG 4936 B3XF	1,102	40.8	4.0	1.24	33.3	86.7	54.65	\$732.82
3535 B3XF	1,090	43.1	4.1	1.22	31.4	85.5	54.55	\$723.45

¹Please refer to Table 4 for acronym definitions.

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