



VARIETY TRIALS AND ON-FARM DEMONSTRATIONS



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 2024, 38 varieties were entered by commercial seed companies in the OVTs. 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 4). Yield data for 2024 across locations is summarized in Table 5. Individual location summaries are in Tables 6 through 9. Descriptions of abbreviations used in data tables are defined in Table 3. In addition to the OVTs, two on-farm core block demonstrations were conducted throughout the cotton-growing areas of Louisiana by LSU AgCenter extension agents (Tables 10-11). 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; therefore, data were normalized to 40%. 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 highyielding 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 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 overthe-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 <u>LSU AgCenter Louisiana Suggested Chemical</u> <u>Weed Management Guide</u>, publication No. 1565, for more information.

LibertyLink: Varieties with the designation "LL" in their brand names are transgenic varieties tolerant to over-thetop 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 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 + LibertyLink: 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 2017, 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.

ThryvON: Varieties with the designation "T" in their brand names are cotton lines that express an insecticidal protein for the control of tarnished plant bug and thrips species. This technology was fully commercialized in the U.S. in February 2023.

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 resultsand 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 finertextured 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, a third to half should be applied at planting with the remainder applied by early bloom at the latest.

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 2. Nitrogen rates for cotton in Louisiana.

Table 3. Definitions of table abbreviations.

Abbreviation	Meaning
LY	Lint yield (lb/a)
то	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 4. Agronomic milestones of each variety trial location in 2024.

Milestones	DLREC ¹	MRRS	NERS	NERS
Planting date	5/9/24	4/16/24	4/17/24	4/17/24
Row spacing	38"	40"	38"	38"
Seeding rate	40,000	45,850	45,850	45,850
Previous crop	Corn	Soybean	Corn	Corn
Soil type	Coushatta silt Ioam	Gigger-Gilbert silt loam	Commerce silt Loam	Clay
Irrigated	No	Yes	No	No
N-P-K-S (lbs/ac)	30-60-90-0	100-60-90-07	28-0-0-5	28-0-0-5
Defoliation date	9/20/24; 9/30/24	9/24/24; 10/4/24	9/18/24; 9/22/24	9/22/24
Harvest date	10/11/24	10/14/24	10/8/24	10/9/24
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.

Table 5. Summary of lint yield (lbs/ac) of cotton varieties in the 2024 trials.

Company	Variety	DLREC ¹	MRRS	NERS-SL	NERS-C	2024 Avg
BASF	BX2515 AXTP	1,246	807	1,032	1,324	1,102
BASF	BX2531 AXTP	1,120	732	1,279	1,384	1,129
BASF	BX2533 AXTP	1,323	1,018	687	1,324	1,088
BASF	BX2555 AXTP	1,119	852	1,040	1,560	1,143
BASF	BX2556 AXTP	1,116	789	703	1,456	1,016
BASF	BX2557 AXTP	1,331	487	1,045	1,269	1,033
Deltapine	23R9128 B3TXF	1,331	1,220	1,477	1,443	1,368
Deltapine	23R9143 B3TXF	1,317	766	989	1,330	1,100
Deltapine	23R9822 B3TXF	1,108	658	1,326	1,166	1,064
Deltapine	23R9918 B3TXF	1,391	725	1,067	1,350	1,133
Deltapine	DP 2127 B3XF	1,231	1,099	1,442	1,508	1,320
Deltapine	DP 2131 B3TXF	1,511	911	845	1,470	1,184
Deltapine	DP 2141NR B3XF	1,263	769	1,492	1,459	1,246
Deltapine	DP 2211 B3TXF	1,429	727	669	1,110	984
Deltapine	DP 2317 B3TXF	1,266	858	1,165	1,244	1,133
Deltapine	DP 2328 B3XF	1,119	726	1,090	1,510	1,111
Deltapine	DP 2333 B3XF	1,301	879	1,177	1,570	1,232
Dyna-Gro	DG 3503 B3XF	1,241	995	1,449	1,456	1,285
Dyna-Gro	DG 3528 B3XF	1,355	1,137	1,236	980	1,177
Dyna-Gro	DG 4434 B3TXF	1,236	1,027	1,073	1,522	1,215
Dyna-Gro	DG 4529 B3TXF	1,251	789	1,068	1,475	1,146
Dyna-Gro	DG 4530 B3TXF	1,135	824	1,531	1,401	1,223
PhytoGen	1130F309-04	1,312	1,140	1,155	1,665	1,318
PhytoGen	1140F329-04	1,228	1,042	1,320	1,663	1,313
PhytoGen	1140F330-04	1,432	1,035	1,467	1,429	1,341
PhytoGen	1140F331-04	1,284	836	1,623	1,746	1,372
PhytoGen	1150F357-04	1,197	979	1,647	1,644	1,367
PhytoGen	1150F360-04	1,241	932	1,511	1,471	1,289

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, and Avg=average.

Company	Variety	DLREC ¹	MRRS	NERS-SL	NERS-C	2024 Avg
PhytoGen	1150F361-04	1,334	821	1,441	1,532	1,282
PhytoGen	PHY332W3FE	1,330	808	1,185	1,446	1,192
PhytoGen	PHY360W3FE	1,320	851	1,054	1,280	1,126
PhytoGen	PHY400W3FE	1,154	943	1,327	1,401	1,206
PhytoGen	PHY411W3FE	1,080	697	1,651	1,486	1,228
PhytoGen	PHY415W3FE	1,256	769	1,456	1,649	1,282
PhytoGen	PHY443W3FE	1,324	547	1,003	1,476	1,088
PhytoGen	PHY475W3FE	1,175	614	1,091	1,413	1,073
PhytoGen	PHY545W3FE	1,237	736	1,278	1,815	1,267
Stoneville	ST 6000AXTP	1,215	848	1,356	1,465	1,221
	LSD (0.10)	198	288	486	397	
	CV (%)	13	29	34	23	
	Grand Mean	1,259	852	1,222	1,444	

¹DLREC=Dean Lee Research and Extension Center, Alexandria; MRRS=Macon Ridge Research Station, Winnsboro; NERS=Northeast Research Station, St. Joseph; SL=silt Ioam, C=Clay, and Avg=average

Table 6. Lint yield, gin turnout, fiber characteristics, loan value and gross return per acre of cotton varieties grown on
Coushatta silt loam at the Dean Lee Research and Extension Center, Alexandria, 2024. ¹

Variety	LY (lbs/ac) ²	TO (%)	LGTH (in)	UNIF	SGTH	МІС	LV (¢/lb)	GR (\$/a)
DP 2131 B3TXF	1,511.0	46.7	1.2	84.2	32.0	4.4	54.0	\$892.13
1140F330-04	1,432.0	47.0	1.2	83.9	30.7	4.3	53.8	\$842.31
DP 2211 B3TXF	1,428.5	44.9	1.2	84.5	32.3	4.6	53.8	\$840.32
23R9918 B3TXF	1,391.3	46.9	1.1	83.5	29.0	4.5	53.9	\$818.71
DG 3528 B3XF	1,355.0	46.4	1.1	82.9	29.6	4.6	52.9	\$785.42
1150F361-04	1,334.3	45.4	1.1	84.3	32.9	4.2	53.6	\$782.10
BX2557 AXTP	1,331.3	44.5	1.1	83.5	32.9	4.7	54.0	\$784.83
23R9128 B3TXF	1,330.5	45.2	1.2	84.9	30.9	4.4	53.8	\$781.52
PHY332 W3FE	1,329.8	45.0	1.2	84.9	30.5	4.4	53.9	\$782.72
PHY443 W3FE	1,324.3	45.3	1.1	84.2	31.5	4.4	53.6	\$775.94
BX2533 AXTP	1,322.5	46.4	1.1	83.8	32.9	4.3	53.8	\$777.10
PHY360 W3FE	1,320.0	44.9	1.2	84.3	32.5	4.3	54.1	\$779.99
23R9143 B3TXF	1,316.5	46.4	1.1	83.6	30.0	4.5	53.5	\$768.79
1130F309-04	1,311.8	46.5	1.2	83.7	30.8	4.3	53.3	\$764.77
DP 2333 B3XF	1,300.8	45.2	1.2	83.8	31.0	4.2	40.1	\$600.64
1140F331-04	1,283.8	45.0	1.2	84.7	32.7	4.4	53.3	\$746.84
DP 2317 B3TXF	1,266.0	46.0	1.2	84.3	31.3	4.1	53.5	\$740.17
DP 2141NR B3XF	1,263.3	47.3	1.2	83.3	31.4	4.2	53.7	\$740.36
PHY415 W3FE	1,256.0	46.0	1.2	84.6	31.5	4.3	53.8	\$737.07
DG 4529 B3TXF	1,251.3	46.5	1.2	84.2	31.1	4.3	53.8	\$734.91
BX2515 AXTP	1,246.3	46.9	1.2	83.6	31.6	4.3	53.4	\$726.96
1150F360-04	1,241.3	46.3	1.2	84.5	30.7	4.3	53.8	\$729.33
DG 3503 B3XF	1,240.8	45.1	1.1	84.2	30.4	4.0	53.8	\$729.57
PHY545 W3FE	1,237.3	46.5	1.1	83.6	32.0	4.1	53.4	\$722.21
DG 4434 B3TXF	1,236.3	46.7	1.1	83.3	30.5	4.5	53.9	\$727.42
DP 2127 B3XF	1,231.3	45.2	1.2	84.1	34.8	4.2	53.8	\$723.43
1140F329-04	1,228.3	46.4	1.2	84.8	33.8	4.4	53.7	\$721.18
ST 6000 AXTP	1,215.3	46.1	1.2	83.2	31.0	4.0	53.8	\$714.25
1150F357-04	1,197.0	46.0	1.1	82.5	32.0	4.3	53.6	\$700.52
PHY475 W3FE	1,175.3	46.6	1.2	84.4	32.4	4.5	53.2	\$683.01
PHY400 W3FE	1,154.0	47.2	1.2	83.8	32.1	4.3	54.2	\$682.83
DG 4530 B3TXF	1,134.5	45.0	1.2	84.4	28.8	4.5	53.9	\$667.61
BX2531 AXTP	1,120.3	47.0	1.2	84.3	30.3	4.4	54.1	\$662.77
BX2555 AXTP	1,119.3	45.9	1.2	85.1	31.6	4.3	53.9	\$659.48
DP 2328 B3XF	1,118.5	46.0	1.2	83.0	32.0	4.3	53.6	\$654.32
BX2556 AXTP	1,115.8	44.9	1.2	83.6	30.6	4.6	53.4	\$649.14
23R9822 B3TXF	1,107.5	46.0	1.1	83.5	28.8	4.4	53.7	\$649.65
PHY411 W3FE	1,079.8	46.1	1.2	83.7	31.0	4.2	54.2	\$639.82
LSD P= (0.10)	198.0	1.9	0.1	1.4	3.0	0.4	5.2	\$139.50
CV	13.4	3.6	3.7	1.4	8.1	8.7	8.2	16.2
Grand Mean	1,259.4	46.0	1.2	84.0	31.4	4.3	53.4	\$734.70

¹Please refer to Table 3 for abbreviations definitions ²Shaded values are not statistically different than the highest value in each column.

Table 7. Lint yield, gin turnout, fiber characteristics, Ioan value and gross return per acre of cotton varieties grown on a clay soil at the Northeast Research Station, St. Joseph, 2024.¹

Variety	LY (lbs/ac) ²	TO (%)	LGTH (IN)	UNIF	SGTH	MIC	LV (¢/lb)	GR (\$/a)
PHY545 W3FE	1,814.8	49.3	1.1	84.5	33.6	4.8	53.1	\$1,053.07
1140F331-04	1,745.5	48.0	1.2	84.3	34.3	4.8	53.4	\$1,021.67
1130F309-04	1,665.0	47.8	1.2	85.1	32.7	4.8	53.8	\$978.78
1140F329-04	1,663.3	48.5	1.1	84.2	32.4	4.7	53.9	\$980.16
PHY415 W3FE	1,649.0	46.9	1.2	85.0	34.1	4.8	54.1	\$973.84
1150F357-04	1,644.3	47.9	1.1	85.0	36.2	4.8	53.3	\$960.24
DP 2333 B3XF	1,570.0	47.9	1.2	83.0	29.8	5.0	52.3	\$899.22
BX2555 AXTP	1,560.3	50.4	1.2	84.5	34.4	4.3	54.2	\$923.57
1150F361-04	1,531.8	47.5	1.2	84.6	34.3	4.7	54.2	\$907.14
DG 4434 B3TXF	1,522.0	49.8	1.2	82.5	29.2	4.4	53.7	\$892.00
DP 2328 B3XF	1,510.0	48.0	1.2	83.9	29.5	4.5	53.8	\$887.05
DP 2127 B3XF	1,507.5	48.4	1.1	83.5	30.7	5.1	51.8	\$853.61
PHY411 W3FE	1,486.0	50.7	1.1	82.7	32.1	4.7	53.4	\$867.61
PHY443 W3FE	1,476.3	47.9	1.2	83.7	31.8	4.8	53.1	\$859.96
DG 4529 B3TXF	1,474.8	45.7	1.2	82.5	29.7	4.2	53.9	\$867.81
1150F360-04	1,470.5	47.0	1.2	85.0	34.9	4.6	54.1	\$869.51
DP 2131 B3TXF	1,469.5	47.0	1.2	83.9	31.1	4.5	53.9	\$865.61
ST 6000 AXTP	1,464.8	50.2	1.2	85.1	35.2	4.6	54.2	\$867.95
DP 2141NR B3XF	1,458.5	46.1	1.2	84.0	34.2	5.2	51.8	\$826.33
DG 3503 B3XF	1,456.0	49.5	1.2	84.9	32.1	4.1	54.2	\$863.00
BX2556 AXTP	1,455.8	46.3	1.2	84.0	34.1	4.4	40.6	\$600.22
PHY332 W3FE	1,445.5	47.3	1.2	84.1	31.9	4.5	54.0	\$852.95
23R9128 B3TXF	1,443.0	50.7	1.1	82.7	32.2	4.5	53.9	\$849.29
1140F330-04	1,429.3	48.2	1.2	84.1	31.7	4.8	53.2	\$833.57
PHY475 W3FE	1,413.0	46.7	1.1	82.8	34.1	5.0	51.8	\$795.88
DG 4530 B3TXF	1,401.3	47.4	1.2	84.6	29.1	4.5	53.9	\$825.03
PHY400 W3FE	1,400.5	47.7	1.2	83.5	33.4	4.8	53.4	\$816.10
BX2531 AXTP	1,384.3	45.3	1.2	84.3	32.0	4.3	54.0	\$816.37
23R9918 B3TXF	1,350.3	48.2	1.2	83.4	29.9	4.4	53.7	\$792.03
23R9143 B3TXF	1,329.8	49.7	1.2	84.4	33.0	4.8	53.9	\$783.04
BX2533 AXTP	1,324.0	45.9	1.2	84.4	31.8	4.2	40.5	\$571.07
BX2515 AXTP	1,323.5	48.1	1.2	83.8	31.9	4.7	53.4	\$772.65
PHY360 W3FE	1,280.0	47.3	1.1	82.3	27.8	4.8	53.5	\$748.35
BX2557 AXTP	1,269.3	48.2	1.2	84.8	34.2	5.0	39.4	\$575.19
DP 2317 B3TXF	1,243.8	34.3	1.2	84.6	30.0	4.3	40.4	\$732.56
23R9822 B3TXF	1,165.8	47.9	1.2	83.5	29.8	4.5	53.7	\$683.89
DP 2211 B3TXF	1,110.3	48.4	1.2	83.6	28.7	4.5	53.7	\$651.03
DG 3528 B3XF	980.3	43.8	1.2	83.4	30.8	4.4	53.9	\$577.29
LSD P=.10	396.6	4.7	0.0	1.3	1.5	0.2	10.1	\$262.60
cv	23.4	8.4	2.5	1.3	4.1	3.5	16.5	27.0
Grand Mean	1,444.5	47.5	1.2	83.9	32.1	4.6	52.1	\$828.80

¹Please refer to Table 4 for abbreviations definitions.

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

Table 8. Lint yield, gin turnout, fiber characteristics, Ioan value and gross return per acre of cotton varieties grown on Commerce Silt Loam at the Northeast Research Station, St. Joseph, 2024.¹

Variety	Lint Yld (lbs/ac) ²	T/O (%)	LGTH	UNI	STR	МІС	LV (¢/lb)	GR (\$/a)
PHY411 W3FE	1650.8	47.8	1.15	84.0	34.0	4.3	53.5	\$965
1150F357-04	1647.3	46.2	1.14	83.6	33.1	4.3	53.9	\$970
1140F331-04	1622.5	47.2	1.22	84.8	33.7	4.3	54.1	\$959
DG 4530 B3TXF	1531.3	45.9	1.17	82.9	30.7	4.5	53.9	\$901
1150F360-04	1511.0	45.5	1.17	84.1	32.3	4.3	54.1	\$893
DP 2141NR B3XF	1492.3	43.7	1.15	84.0	32.1	4.5	52.5	\$860
23R9128B3TXF	1477.3	47.2	1.18	83.6	31.4	4.5	54.2	\$875
1140F330-04	1466.5	45.3	1.19	84.1	32.1	4.2	54.1	\$866
PHY415 W3FE	1455.8	44.9	1.19	83.7	31.8	4.3	54.1	\$861
DG 3503 B3XF	1449.0	45.2	1.23	85.4	33.3	4.1	54.3	\$860
DP 2127 B3XF	1442.3	45.7	1.20	84.0	30.5	4.2	53.5	\$842
1150F361-04	1441.3	44.8	1.17	84.5	30.9	4.2	54.2	\$853
ST 6000 AXTP	1356.3	47.2	1.23	84.5	33.3	4.6	54.2	\$803
PHY400 W3FE	1327.0	46.6	1.15	83.6	32.3	4.2	54.1	\$784
23R9822 B3TXF	1326.3	44.6	1.16	83.8	32.4	4.4	53.8	\$780
1140F329-04	1319.8	47.0	1.18	84.5	34.4	4.6	53.4	\$771
BX2531 AXTP	1279.3	43.6	1.18	84.1	31.2	4.3	54.1	\$755
PHY545 W3FE	1278.3	46.6	1.22	84.1	32.5	4.2	54.1	\$755
DG 3528 B3XF	1236.0	44.5	1.20	84.9	33.0	4.6	54.0	\$729
PHY332 W3FE	1184.8	44.2	1.19	83.6	30.9	4.3	54.1	\$699
DP 2333 B3XF	1177.3	46.3	1.19	83.8	32.3	4.4	52.3	\$671
DP 2317 B3TXF	1164.5	44.6	1.16	84.4	31.9	4.7	53.9	\$686
1130F309-04	1155.0	45.6	1.17	84.8	32.4	4.4	53.8	\$680
PHY475 W3FE	1091.0	44.4	1.16	84.0	32.8	4.3	52.7	\$628
DP 2328 B3XF	1089.8	45.8	1.20	84.0	32.1	4.1	53.9	\$642
DG 4434 B3TXF	1073.0	48.3	1.17	82.5	30.0	4.0	52.7	\$622
DG 4529 B3TXF	1067.8	43.7	1.14	83.4	32.2	4.3	53.9	\$629
23R9918 B3TXF	1066.8	46.3	1.15	82.5	28.9	4.1	53.6	\$625
PHY360 W3FE	1054.0	45.4	1.18	84.0	30.7	4.3	53.9	\$621
BX2557 AXTP	1044.8	34.7	1.17	84.0	32.2	4.6	39.9	\$607
BX2555 AXTP	1040.3	48.6	1.20	84.6	33.2	4.4	54.1	\$614
BX2515 AXTP	1032.0	45.3	1.17	84.0	31.1	4.5	54.0	\$609
PHY443 W3FE	1003.3	45.5	1.19	84.8	33.5	4.6	54.1	\$593
23R9143 B3TXF	989.3	46.0	1.16	82.7	31.3	4.0	53.9	\$582
DP 2131 B3TXF	844.5	46.4	1.14	83.0	30.8	4.4	53.9	\$497
BX2556 AXTP	703.0	32.9	1.19	84.2	30.5	4.2	40.6	\$416
BX2533 AXTP	687.0	32.3	1.20	84.1	32.5	4.2	40.5	\$405
DP 2211 B3TXF	668.8	45.7	1.17	83.5	32.3	4.4	53.6	\$392
LSD P=0.10	486.0	7.3	0.0	1.5	2.9	0.4	8.7	287.4
cv	33.9	13.9	2.8	1.6	7.7	8.2	14.0	34.1
Grand Mean	1222.3	44.8	1.2	83.9	32.0	4.3	52.7	718.5

¹Please refer to Table 3 for abbreviations definitions.

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

Table 9. Lint yield, gin turnout, fiber characteristics, Ioan value and gross return per acre of cotton varieties grown on a Gigger-Gilbert silt Ioam at the Macon Ridge Research Station, Winnsboro, 2024.¹

Variety	LY (lbs/ac) ²	TO(%)	MIC	LGTH(IN)	SGTH	UNIF	LV (¢/lb)	GR (\$/a)
DP 23R9128 B3TXF	1,219.80	45.1	4.4	1.1	31.5	82.8	53.7	\$715.22
DG 3528 B3XF	1,136.50	45.9	4.5	1.1	32.4	84.8	53.7	\$667.13
PHY1130F309-04	1,140.30	45.8	4.5	1.2	29.4	83.8	53.2	\$665.32
DP 2127 B3XF	1,098.80	45.0	5.1	1.1	28.9	84.5	51.6	\$620.16
PHY1140F330-04	1,034.80	46.8	4.4	1.1	31.0	84.6	53.6	\$606.67
PHY1140F329-04	1,041.50	45.9	4.6	1.2	30.4	84.3	53.1	\$606.08
DG 4434 B3TXF	1,027.30	45.1	4.3	1.2	30.9	83.3	53.9	\$605.13
BASF BX2533 AXTP	1,017.80	45.8	4.3	1.2	30.8	84.6	54.1	\$601.39
DG 3503 B3XF	994.80	46.3	4.3	1.2	31.6	82.8	53.9	\$586.04
PHY1150F357-04	978.80	47.5	4.5	1.1	33.8	84.0	52.9	\$567.70
PHY400 W3FE	942.50	46.9	4.5	1.2	32.5	83.4	53.9	\$554.95
PHY1150F360-04	932.00	45.5	4.4	1.2	33.0	85.2	54.2	\$551.41
DP 2131 B3TXF	910.80	45.6	4.4	1.2	29.9	83.5	53.9	\$535.78
DP 2333 B3XF	878.50	45.9	4.8	1.2	29.3	83.0	52.7	\$505.35
BASF BX2555 AXTP	851.50	45.4	4.3	1.1	29.0	83.2	54.0	\$502.56
ST 6000 AXTP	847.80	46.6	4.2	1.2	32.4	83.6	54.1	\$500.82
DP 2317 B3TXF	857.80	47.0	4.5	1.2	29.6	82.5	53.3	\$498.76
PHY360 W3FE	850.50	47.4	4.3	1.2	32.0	84.7	53.6	\$497.93
PHY1140F331-04	835.80	46.7	4.6	1.2	31.9	84.3	53.9	\$492.85
PHY1150F361-04	820.80	46.7	4.2	1.2	28.1	83.8	54.1	\$485.45
DG 4530 B3TXF	823.80	45.9	4.5	1.2	33.3	84.5	53.8	\$483.27
PHY33 2W3FE	807.80	46.0	4.2	1.2	32.9	83.7	53.8	\$476.24
BASF BX2515 AXTP	806.50	46.0	4.5	1.2	30.6	83.8	53.9	\$474.80
DG 4529 B3TXF	788.80	46.3	4.0	1.2	31.2	84.1	53.9	\$464.98
BX2556 AXTP	788.80	44.9	4.4	1.2	31.1	83.1	53.9	\$464.30
PHY415 W3FE	768.80	46.7	4.8	1.1	31.9	82.7	54.1	\$453.71
DP 2141NR B3XF	768.80	46.3	4.4	1.2	33.5	84.1	53.8	\$451.93
DP23R9143 B3TXF	766.30	47.1	4.6	1.1	31.8	83.2	53.6	\$449.32
PHY545 W3FE	736.00	45.7	4.3	1.1	32.4	83.2	53.6	\$431.06
BASF BX2531 AXTP	731.50	46.1	4.1	1.2	30.8	83.4	53.8	\$430.92
DP 2328 B3XF	726.00	47.1	4.5	1.1	29.3	83.2	53.7	\$425.75
DP 23R9918 B3TXF	724.80	46.0	4.3	1.2	28.7	82.8	53.4	\$422.34
DP 2211 B3TXF	726.50	46.5	4.1	1.1	29.0	81.9	52.2	\$409.65
PHY411 W3FE	696.50	46.6	4.5	1.1	32.3	82.7	53.1	\$403.82
DP 23R9822 B3TXF	658.30	46.9	4.2	1.1	29.4	82.4	53.5	\$384.99
PHY475 W3FE	613.50	44.9	4.4	1.1	32.1	83.3	53.6	\$358.93
PHY443 W3FE	546.80	47.3	4.3	1.1	32.4	83.2	53.5	\$319.50
BASF BX2557 AXTP	486.50	45.8	4.6	1.2	32.3	84.1	54.0	\$287.26
LSD P=.10	288.41	2.2	0.3	0.0	2.1	1.4	1.0	\$167.00
cv	28.85	4.1	6.5	2.7	5.8	1.5	1.6	28.9
Grand Mean	852.19	46.2	4.4	1.2	31.1	83.6	53.6	\$498.90

¹Please refer to Table 3 for abbreviations definitions.

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

Table 10. Lint yield, gin turnout, fiber characteristics, Ioan value and gross return per acre, Point Coupee core block, 2024.

- Parish: Pointe Coupee Community: Batchelor, LA Cooperator: George LaCour Agent: Mark Carriere Planting date: 5/30/24 Harvest date: 10/13/24
- Previous crop: Corn Soil type: Mixed clay Tillage Type: Conventional N rate (Ibs/acre): 65 Seeding rate: 34,500 seeds/A Row spacing: 38 inches
- Irrigation? No Pivot or furrow? GPS coord: 30.7560806, -91.7362519 Plot size: Misc.:

Variety	LY (Ibs/ac)	TO (%)	MIC	LGTH(IN)	SGTH	UNIF	LV (¢/lb)	GR (\$/a)
DG4530 B3TXF	1146.4	48.4	4.9	1.22	30.4	86.3	54.1	\$769.34
DG4530 B3TXF	1111.7	47.3	5.0	1.22	31.5	85.6	51.7	\$719.40
DG4530 B3TXF	1017.6	47.7	4.9	1.23	31.6	86.6	54.2	\$684.42
DG4530 B3TXF	1087.9	48.3	5.0	1.15	30.3	85.7	51.4	\$701.28
AVG	1090.9	47.9	5.0	1.21	31.0	86.1	52.8	\$718.61
DP2328 B3TXP	1169.4	49.4	5.1	1.15	31.0	84.6	51.5	\$754.95
DP2328 B3TXP	995.5	47.7	4.9	1.19	32.5	84.3	54.1	\$668.61
DP2328 B3TXP	1094.0	48.5	4.9	1.18	31.3	84.9	54.1	\$734.72
DP2328 B3TXP	963.0	48.2	4.9	1.23	30.3	84.4	54.0	\$645.33
AVG	1055.5	48.4	5.0	1.19	31.3	84.6	53.4	\$700.90
DP2333 B3XF	1146.3	49.7	5.4	1.12	30.0	84.7	49.6	\$718.31
DP2333 B3XF	1041.8	48.3	5.2	1.17	29.8	84.6	51.2	\$669.47
DP2333 B3XF	996.7	48.6	5.1	1.17	32.9	83.4	51.5	\$643.00
DP2333 B3XF	1263.5	48.9	5.2	1.14	29.7	83.9	51.2	\$811.31
AVG	1112.1	48.9	5.2	1.15	30.6	84.2	50.9	\$710.52
ST6000 AXTP	949.0	51.4	5.0	1.19	38.0	86.5	51.8	\$615.55
ST6000 AXTP	1091.7	50.0	4.9	1.23	37.5	87.3	54.3	\$735.35
ST6000 AXTP	1037.2	50.8	4.9	1.22	36.3	85.3	54.3	\$698.15
ST6000 AXTP	1074.0	52.0	4.8	1.24	36.3	87.2	54.3	\$723.45
AVG	1038.0	51.0	4.9	1.22	37.0	86.6	53.7	\$693.12

Table 11. Lint yield, gin turnout, fiber characteristics, loan value and gross return per acre, Franklink core block, 2024.

- Parish: Franklin Community: Gilbert, LA Cooperator: Kody Beavers Agent: Carol Pinnell-Alison Planting date: 5/8/24 Harvest date: 10/9/24
- Previous crop: Cotton Soil type: Gigger silt loam Tillage: Minimum N rate (Ibs/acre): 90 Seeding rate: 39,000 seeds/A Row spacing: 38 inches
- Irrigation? Yes Pivot or furrow? Furrow GPS coord: Plot size: 24 rows

Misc.: Wheat/vetch cover crop

Variety	LY (Ibs/ac)	TO (%)	MIC	LGTH(IN)	SGTH	UNIF	LV (¢/lb)	GR (\$/a)
DG 4530	1272.2	46.4	4.4	1.16	31.0	85.0	54.1	\$853.77
DP 2328	1529.4	47.7	4.4	1.18	30.6	84.3	54.0	\$1,024.86
DP 2333	1569.1	47.8	4.0	1.23	32.6	84.9	54.2	\$1,055.39
PHY 411	1598.0	47.6	4.8	1.16	31.4	85.4	54.1	\$1,072.42
PHY 415	1454.0	46.9	4.4	1.18	31.2	84.4	54.1	\$976.55
ST 6000	1475.8	49.1	4.7	1.18	28.8	83.5	53.7	\$985.27

Notes

Notes

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LSU AgCenter Macon Ridge Research Station

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