

2024 Mississippi Cotton Official Small Plot Variety Trials



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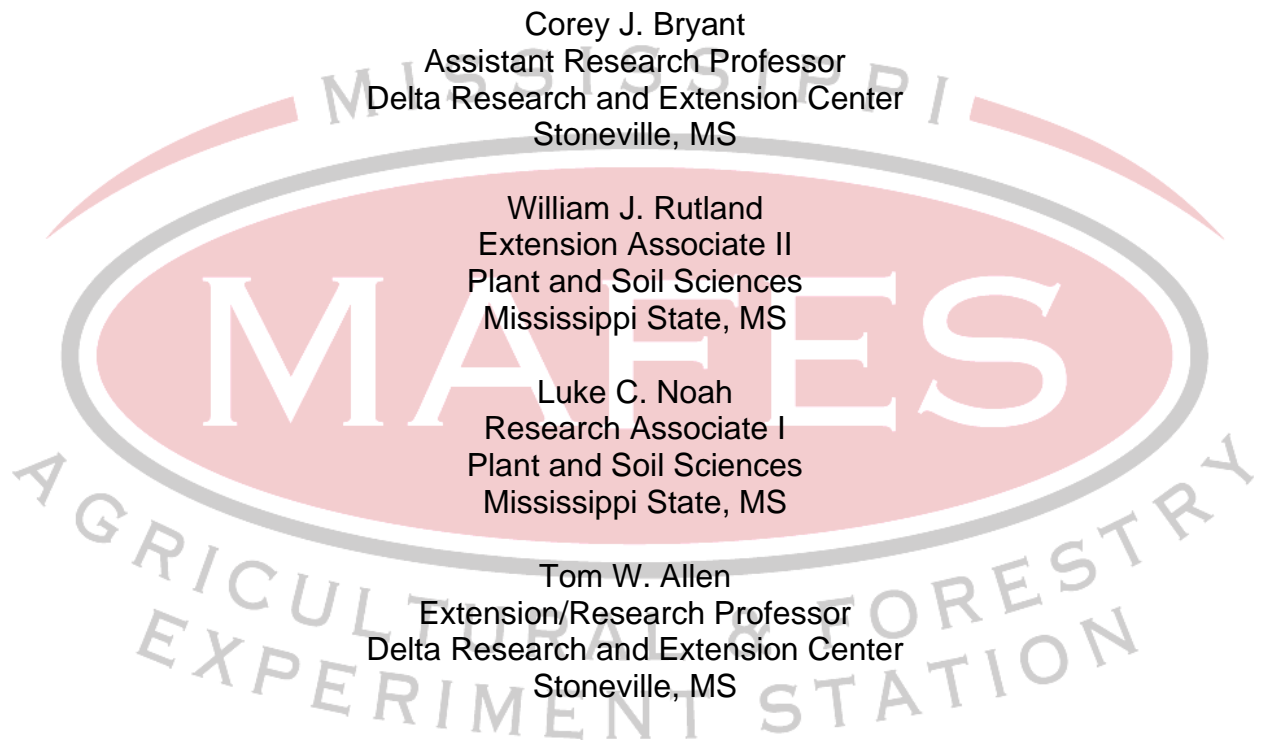
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PREFACE

The main objective of the Mississippi Cotton Official Variety Trials (OVT) is to provide unbiased evaluation of yield and fiber performance of commercial and experimental cotton varieties. The ultimate goal is to provide Mississippi producers with adequate information to make well informed seed selection decisions for cultivation in the major production regions in Mississippi. This Mississippi Agricultural and Forestry Experiment Station bulletin is a summary of research conducted at numerous on and off station locations throughout Mississippi. The interpretation of these data may change after further experimentation over years or environments. The information included is not to be construed as a recommendation for use or as an endorsement of a particular product or variety by Mississippi State University or the Mississippi Agriculture and Forestry Experiment Station. Trade Names of commercial products used in this report are included only to provide greater clarity to the information presented.



2024 OVT Testing Locations

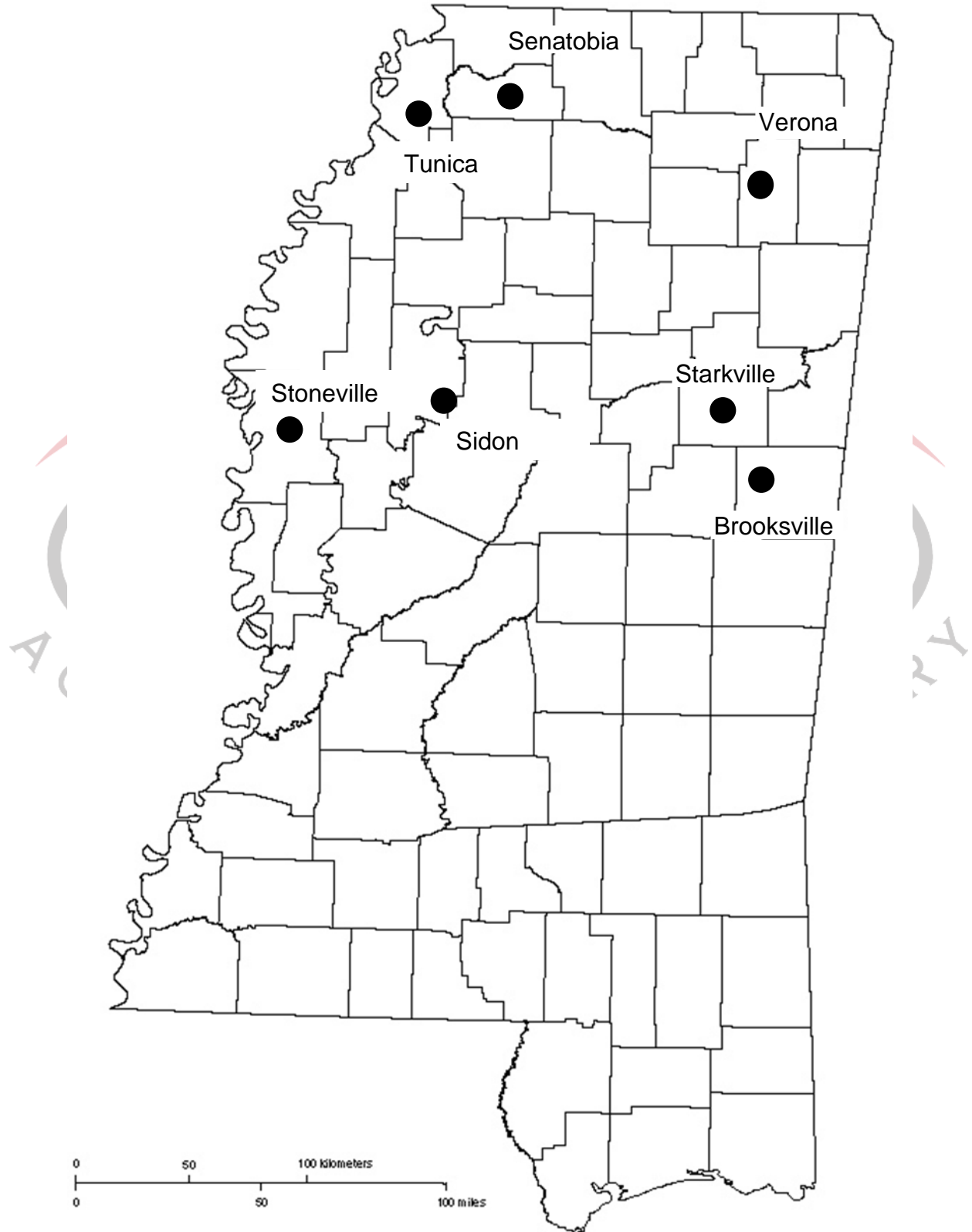


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Acknowledgements

The authors would like to express their appreciation first and foremost to the producers who participated in the 2024 Official Cotton Variety Trial locations that were conducted on-farm. The on-farm trials provide an added benefit to the data by expanding the footprint of the trials into differing areas in the state to better represent the environmental, soil textural, and management differences that are present throughout the state of Mississippi. Thank you to Pace Perry (Senatobia and Tunica); your hard work and willingness to participate in the variety trials are deeply valued. We at the Mississippi Agriculture and Forestry Experiment Station look forward to working with you and other willing producers in the future.

Gratitude is expressed to all the student workers in the Agronomy program in the Department of Plant and Soil Sciences at Mississippi State University for your assistance with all aspects of conducting the trials. Without your diligent work and assistance, the variety trials would not be a success, thanks again for all you do. We would also like to recognize Extension Technician Ty Dickson, Graduate Student Bryce Bullock, and student workers/interns Lucas Silva, Mauricio Silveira, Ameer Nowicki, Reece Oliver, Dalton Tanner, Aiden Mathews, and Blair Young, for their assistance with hand harvesting, ginning, and preparing fiber quality samples. Your work allows us to provide data in a timely fashion.



Annually, Mississippi State researchers evaluate cotton varieties at numerous locations within the cotton growing regions in the state. The purpose of the Mississippi State Official Variety Trials is to provide an unbiased comparison of varieties across a range of environments. Trial evaluation of standard, commercially available, and new and upcoming cotton cultivars throughout the state provides producers data to make well informed variety selection decisions based upon how a particular cotton variety performed close to their base of operation.

The Official Variety Trial (OVT) for cotton is conducted annually at the Delta Research and Extension Center in Stoneville, the R.R. Foil Plant Science Research Center at Mississippi State University, the North Mississippi Research and Extension Center in Verona, MS, and at the Black Belt Branch Experiment Station in Brooksville, MS as well as at cooperating producer locations in both the Delta and Hill cotton producing regions. At each location, all varieties entered into the trial are treated identical with respect to herbicide and insecticide input to strive for unbiased evaluation of genetic potential. Mississippi State personnel attempt to conduct at minimum seven small-plot official variety trials per year in areas that well represent the majority of the state's cotton producing acreage.

Testing Procedures

All varieties submitted for testing are grown utilizing chemical control for insect and weed pests. Each test plot consists of two rows of cotton 40 ft in length with a row spacing of 38" or 40". Each plot is analyzed statistically as a randomized complete block with four blocks or replications.

Management practices are determined and implemented by cooperators at each location based on soil texture, soil test value, and scouting for pest pressures. However, seeding rate and operation is controlled by the cotton variety testing coordinator. In addition, all locations are maintained free of lepidopteran insect pests in order to create parity among varieties with differing *Bt* technologies.

All fiber parameters such as lint percent as well as HVI fiber quality assessment are based upon a hand-picked 25 boll sample or a random grab sample from each replicated plot at each location. Samples from all locations are ginned on the same 10-saw Continental laboratory gin to determine gin turnout. Utilization of the same gin for all samples is important to not bias fiber quality across locations. High Volume Instrumentation (HVI) analysis for fiber property determinations are conducted by the United States Department of Agriculture Classing Office in Memphis, TN.

Lint yields are calculated using the seed cotton weight mechanically harvested from each plot, and the turnout percentage determined from hand-picked boll samples. Mean lint yields are presented as pounds of lint per acre.

Interpreting the Data

Field variability is inherent to production research with any cropping system. Unlike strip trials, small plot research allows for replication with a very minimal footprint. The smaller area and replication of treatments helps reduce variability due to various factors commonly found in the field (i.e. soil textural changes, pest variations). Reduced variability lends us a greater understanding of a varieties genetic potential cultivated under uniform conditions. However, strip trial research may lend greater information about how a variety will perform across a range of conditions (e.g. low spot in the field). Data from both small plot and strip trials should be considered when making final variety selection decisions.

Mississippi State separates the greatest performing varieties by use of a Fisher's Protected Least Significant Difference (LSD) at a five percent level of significance. The LSD associated with the five percent level, lends us 95 percent positive identification of the greatest yielding varieties at each specific location. In each individual trial the collection of varieties that yield the greatest statistically is represented in bold. These varieties will all have a numerical difference less than the LSD value shown at the bottom of the data variable columns.

The varieties listed in bold may have slightly differing numerical yields, but will perform very similar at a given location. Producers should review data tables for the geographical closest location that is representative of their operation, but should also review yield information across locations to get an idea of a variety's yield stability over a wide range of production environments.

Selecting a Variety/Trait

Cultivar selection is one of the most important management decisions a producer must make each growing season. Improper variety selection generally cannot be overcome with management. Starting with the greatest genetic potential will generally produce the highest yield with all other things being considered equal. Careful consideration should go into selecting varieties that are well adapted to Mid-South growing region and to certain geographical regions within the state due to the rising cost of seed and associated technology fees.

Multiple available transgenic traits can make selecting a variety cumbersome. At most locations the top yielding varieties represent a range of available trait packages. This lends the producer multiple options to choose from with respect to herbicide and insecticide traits. Below is a synopsis of the transgenic traits that were represented in this year's trials.

Glyphosate tolerance – generally indicated on the seed bag with either a G, RF, XF, or FE. Varieties with these designations can tolerate over the top applications of glyphosate. XtendFlex (XF) varieties are also tolerant to glufosinate and dicamba. Enlist (FE) varieties are also tolerant to glufosinate and 2,4-D. Always read and follow label directions. For more information on utilizing herbicide resistant traits and alternative weed control practices consult MSU extension publication # 1532 “Weed Control Guidelines for Mississippi” available online at <http://extension.msstate.edu/publications/weed-control-guidelines-for-mississippi>

Glufosinate tolerance: - generally indicated on the seed bag with an LL. These varieties can withstand over the top applications of Liberty. XtendFlex (XF) varieties are also tolerant to glyphosate and dicamba. Enlist (FE) varieties are also tolerant to glyphosate and 2,4-D. It is important to note that producers utilizing a multitude of varieties with differing herbicide tolerant traits in close proximity must use caution to avoid crop injury from spray drift, improperly cleaned applicators, and or a combination of both. Always read and follow label directions. For more information on utilizing herbicide resistant traits and alternative weed control practices consult MSU extension publication # 1532 “Weed Control Guidelines for Mississippi” available online at <http://extension.msstate.edu/publications/weed-control-guidelines-for-mississippi>

Dicamba tolerance – generally indicated on the seed bag with an XF. Varieties with these designations can tolerate over the top applications of Dicamba as well as glyphosate and glufosinate. Always read and follow label directions. For more information on utilizing herbicide resistant traits and alternative weed control practices consult MSU extension publication # 1532 “Weed Control Guidelines for Mississippi” available online at <http://extension.msstate.edu/publications/weed-control-guidelines-for-mississippi>

2,4-D tolerance – generally indicated on the seed bag with a FE. Varieties with these designations can tolerate over the top applications of 2,4-D as well as glyphosate and glufosinate. Always read and follow label directions. For more information on utilizing herbicide resistant traits and alternative weed control practices consult MSU extension publication # 1532 “Weed Control Guidelines for Mississippi” available online at <http://extension.msstate.edu/publications/weed-control-guidelines-for-mississippi>

Isoxaflutole tolerance – generally indicated on the seed bag with an AX. Varieties with these designations can tolerate over the top applications of Isoxaflutole as well as glyphosate, glufosinate, and dicamba. Always read and follow label directions. For more information on utilizing herbicide resistant traits and alternative weed control practices consult MSU extension publication # 1532 “Weed Control Guidelines for Mississippi” available online at <http://extension.msstate.edu/publications/weed-control-guidelines-for-mississippi>

Bollgard 2 – Varieties with designations B2 on the seed bag or in the brand name contain genes that produce protein toxic to heliothis. However, under high and persistent pressure supplemental chemical control strategies are necessary to prevent economic damage from caterpillar pests. For more information on utilization of transgenic traits with insecticidal properties consult MSU extension publication # 2471 “Insect control guide for agronomic crops” available online at <http://extension.msstate.edu/publications/publications/insect-control-guide-for-agronomic-crops>

Bollgard 3 – Varieties with designations B3 on the seed bag or in the brand name contain genes that produce protein toxic to heliothis. For more information on utilization of transgenic traits with insecticidal properties consult MSU extension publication # 2471 “Insect control guide for agronomic crops” available online at <http://extension.msstate.edu/publications/publications/insect-control-guide-for-agronomic-crops>

WideStike – varieties with the designation W on the bag or in the variety name. Like Bollgard 2, Widestrike varieties contain two genes that produce proteins toxic to caterpillar pests. For more information on utilization of transgenic traits with insecticidal properties consult MSU extension publication # 2471 “Insect control guide for agronomic crops” available online at <http://extension.msstate.edu/publications/publications/insect-control-guide-for-agronomic-crops>

WideStike 3 – varieties with the designation W3 on the bag or in the variety name. Like Bollgard 3, Widestrike varieties contain three genes that produce proteins toxic to caterpillar pests. For more information on utilization of transgenic traits with insecticidal properties consult MSU extension publication # 2471 “Insect control guide for agronomic crops” available online at <http://extension.msstate.edu/publications/publications/insect-control-guide-for-agronomic-crops>

TwinLink – varieties with the designation T on the bag or in the variety name. Like Bollgard 2 or Widestrike, TwinLink varieties contain two genes that produce proteins toxic to caterpillar pests. For more information on utilization of transgenic traits with insecticidal properties consult MSU extension publication # 2471 “Insect control guide for agronomic crops” available online at <http://extension.msstate.edu/publications/publications/insect-control-guide-for-agronomic-crops>

TwinLink Plus – varieties with the designation TP on the bag or in the variety name. Like Bollgard 3 or Widestrike 3, TwinLink Plus varieties contain three genes that

produce proteins toxic to caterpillar pests. For more information on utilization of transgenic traits with insecticidal properties consult MSU extension publication # 2471 “Insect control guide for agronomic crops” available online at <http://extension.msstate.edu/publications/publications/insect-control-guide-for-agronomic-crops>

ThryvOn – Varieties with designations T on the seed bag or in the brand name contain genes that produce toxins that suppress *Frankliniella fusca* and *lygus spp.* species. For more information on utilization of transgenic traits with insecticidal properties consult MSU extension publication # 2471 “Insect control guide for agronomic crops” available online at <http://extension.msstate.edu/publications/publications/insect-control-guide-for-agronomic-crops>

Considerations for Selection

Yield performance among common varieties evaluated over multiple locations, environments, or years will normally vary. Therefore, selection decisions should be made from within the range of top yielding varieties. Newer varieties with limited available data should be cultivated to minimal acreage until further testing validates performance across multiple years and locations. Generally, there is no one variety that is the ‘silver bullet’; therefore, choosing multiple varieties allows for flexibility in relative maturity, management decisions, and risk aversion.

Lint yield and potential profitability should be the primary factor when attempting to select a variety, but do not discount fiber quality and traits contained within a given variety. Do not underestimate the discounts associated with high micronaire which can be significant.

A good performance indicator when selecting a variety is the overall mean of the trial. Comparing an individual variety to the trial mean can lend an indication of how that particular variety “stacked up” to the trial as a whole. A variety with a mean lint yield greater or much greater than the overall trial mean generally will perform well.

Remember, there can be a full 14-day difference in maturity between cotton varieties. However, most leading varieties including those submitted to this year’s trial tend to be more mid to early maturing than varieties of the past.

Loan Valuation Decision Aid

For each trial conducted in 2024, data was submitted to the upland cotton loan valuation aid. This tool was developed by Dr. Larry Falconer and is supported by Cotton Incorporated. The tool allows for calculation of Commodity Credit Corporation cotton loan premium and discount values based on yields and HVI classing information.

Top Yielding Varieties

There are numerous methods to pick or highlight the top yielding varieties across locations to develop a “short list” of promising varieties for future plantings. For soybean and corn, the short list is a powerful aid in selecting varieties due to the sheer number of available varieties. However, for cotton the list of available varieties that perform well and are adapted to the Mid-South is short on its own. The recent trend in cotton varieties submitted for testing to University OVT trials across the Mid-South has declined over the last ten years with changes in the cotton industry. Therefore, it is important to select a variety that has performed well in the Mississippi OVT or other Mid-South University OVT trials.

Planting and Harvest Dates

Location	Planting Date	Harvest Date	Seeding Rate
Brooksville	May 9, 2024	October 14, 2024	45,000
Sidon	May 15, 2024	September 25, 2024	45,000
Senatobia	May 1, 2024	October 2, 2024	45,000
Starkville	April 25, 2024	September 9, 2024	45,000
Stoneville	May 9, 2024	October 9, 2024	45,000
Tunica	May 1, 2024	October 2, 2024	45,000
Verona	June 17, 2024	December 3, 2024	45,000

Table 1. Varieties submitted for testing by participating industry partners in 2024.

Industry Contact	Official Variety Trial Entries	
Americot Inc. – NexGen Varieties <i>Mike Robinson</i>	NG 3195 B3XF	AMX12507 B3TXT
	NG 3457 B3XF	AMX12502 B3TXF
	NG 4405 B3TXF	AMX 12572 B3TXF
	NG 5430 B3XF	AMX 12526 B3XF
Winnfield Solutions LLC – Armor Varieties <i>Robert Cossar</i>	Armor 9371 B3XF	
	Armor 24X951 B3TXF	
	Armor 24X954 B3TXF	
	Armor 24X955 B3TXF	
PhytoGen Seed Co. <i>Ben Maddox</i>	PHY 332 W3FE	PX1140F331-04W3FE
	PHY 360 W3FE	PX1140F330-04W3FE
	PHY 400 W3FE	PX1150F360-04W3FE
	PHY 411 W3FE	PX1150F361-04W3FE
	PHY 415 W3FE	PX1140F329-04W3FE
	PHY 443 W3FE	PX1130F309-04W3FE
	PHY 475 W3FE	PX1150F357-04W3FE
BASF – Stoneville Varieties <i>Andy White</i>	ST 6000AXTP	BX2556AXTP
	BX2531AXTP	BX2557AXTP
	BX2533AXTP	BX2515AXTP
	BX2555AXTP	
Bayer -DeltaPine Varieties <i>Tim Dabbert</i>	DP 2127 B3XF	DP 2414 B3TXF
	DP 2115 B3XF	23R9822B3TXF
	DP 2211 B3TXF	23R9918B3TXF
	DP 2328 B3TXF	23R9143B3TXF
	DP 2141NR B3TXF	23R9128B3TXF
DP 2333 B3XF		
Nutrien Ag Solutions/Dyna-Gro Seed <i>Scott Cummings</i>	DG 3503 B3XF	DG 3528 B3XF
	DG 3511 B3XF	DG 4434 B3TXF
	DG 3519 B3XF	DG 4530 B3TXF

Table 2. Two-year mean yield performance of varieties cultivated at 3 locations in the Delta region during 2023 and 2024.

	Location and Year						Average across location and year
	Stoneville		Sidon		Tunica		
	2023	2024	2023	2024	2023	2024	
	Lint yield (lb lint/acre)						
DP 2127 B3XF	2993	1684	1061	1449	2179	2161	1921
Armor 9371 B3XF	2996	1831	1055	1263	1709	1629	1747
PHY 411 W3FE	2731	1696	1240	1515	1872	1425	1747
PHY 415 W3FE	2736	1811	1003	1396	1837	1371	1692
NG 3195 B3XF	2577	1572	1099	1122	1792	1917	1680
DG 3528 B3XF	2682	1628	927	1349	1905	1466	1659
PHY 400 W3FE	2657	1461	1240	1136	1804	1565	1644
DP 2211 B3TXF	2577	1586	1176	1261	1791	1281	1612
DG 4530 B3TXF	2519	1677	1178	1174	1587	1355	1582
PHY 443 W3FE	2551	1594	1209	1375	1663	1064	1576
PHY 332 W3FE	2572	1578	1166	1201	1772	1158	1575
DP 2115 B3XF	2556	1730	939	1110	1760	1349	1574
PHY 360 W3FE	2309	1512	1087	1101	1892	1495	1566
DP 2141NR B3TXF	2451	1601	895	1176	1648	1539	1552
DP 2328 B3TXF	2123	1419	1119	1189	1813	1428	1515
PHY 475 W3FE	2091	1264	859	1272	1522	1420	1405
DG 3503 B3XF	2220	1517	771	1092	1268	1313	1363

**Table is sorted based on average lint yield means across location and year.*

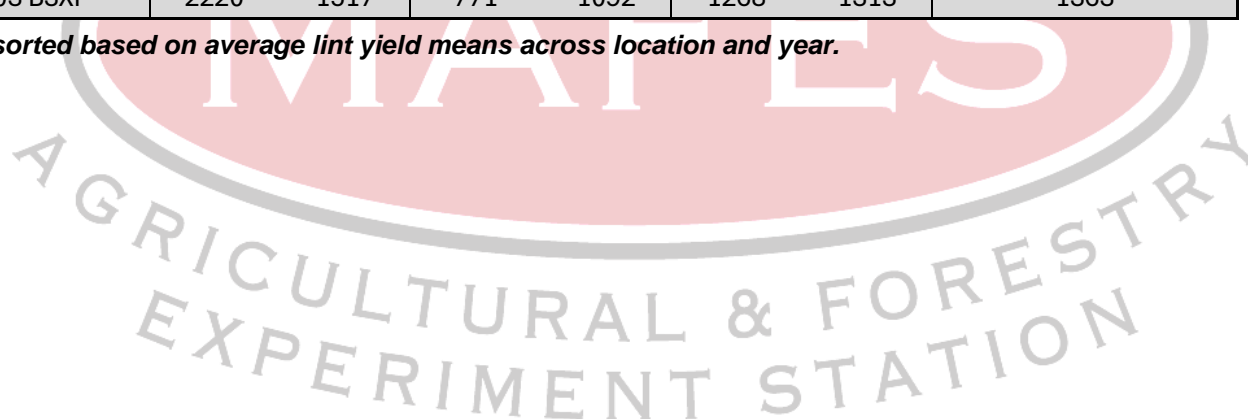


Table 3. Two-year mean yield performance of varieties cultivated at 3 locations in the Hill region during 2023 and 2024.

	Brooksville		Starkville		Senatobia		Average across location and year
	2023	2024	2023	2024	2023	2024	
Lint yield (lb lint/acre)							
PHY 415 W3FE	684	1008	1516	1248	1680	1829	1328
DP 2328 B3TXF	753	890	1000	1079	1909	1708	1223
DG 4530 B3TXF	532	1006	1222	1113	1796	1637	1218
PHY 332 W3FE	598	919	1332	1023	1822	1558	1209
PHY 411 W3FE	495	800	1454	1101	1833	1514	1199
PHY 360 W3FE	709	830	1122	909	1810	1648	1171
PHY 443 W3FE	373	853	1419	1038	1528	1657	1145
Armor 9371 B3XF	508	937	1245	858	1728	1581	1143
DP 2115 B3XF	608	827	1084	1119	1620	1592	1142
NG 3195 B3XF	622	720	1088	862	1716	1775	1130
DP 2127 B3XF	689	881	1159	993	1337	1653	1118
DP 2211 B3TXF	598	887	1095	819	1764	1514	1113
DG 3528 B3XF	495	839	1112	1014	1626	1515	1100
PHY 400 W3FE	655	910	1260	804	1475	1325	1071
PHY 475 W3FE	500	801	1137	1100	1305	1349	1032
DP 2141NR B3TXF	440	673	975	1069	1500	1390	1008
DG 3503 B3XF	574	800	929	706	1393	1387	965

**Table is sorted based on average lint yield means across location and year.*



Table 4. One-year mean yield performance and fiber characteristics for OVT varieties submitted for testing in 2024 averaged across all testing locations (6) excluding Verona.

Variety	Lint Yield† (lb/acre)	Lint %	Measurement				
			Length (in.)	Mic. - - -	Strength (g/tex)	Uniformity -	Loan Value ¢/LB
PX1140F331-04W3FE	1314	44.2	1.17	4.4	33.7	83.6	52.55
DP 2127 B3XF	1260	44.5	1.12	4.7	30.3	83.3	52.28
PX1140F329-04W3FE	1227	43.9	1.16	4.1	32.2	82.5	52.41
PX1150F361-04W3FE	1217	42.9	1.20	4.2	34.1	83.7	52.58
DP 2414 B3TXF	1205	44.0	1.17	4.3	30.3	82.6	52.24
AMX 12526 B3XF	1205	45.6	1.17	4.6	32.1	83.6	52.45
PHY 415 W3FE	1198	42.8	1.18	4.2	33.4	83.1	52.48
PX1150F357-04W3FE	1195	43.5	1.14	4.3	34.1	83.5	52.57
PX1150F360-04W3FE	1180	43.2	1.22	4.3	33.6	83.8	52.57
Armor 9371 B3XF	1176	44.4	1.15	4.3	29.7	83.3	52.02
PHY 411 W3FE	1171	45.3	1.11	4.4	31.4	82.4	52.33
PX1130F309-04W3FE	1157	42.4	1.15	4.4	32.3	83.5	52.47
PX1140F330-04W3FE	1152	43.8	1.17	4.2	31.9	82.8	52.40
DG 3528 B3XF	1143	43.8	1.18	4.2	30.6	82.9	52.30
BX2531AXTP	1139	42.7	1.20	3.9	31.3	83.0	52.38
NG 3195 B3XF	1132	43.1	1.15	4.4	30.4	82.8	52.25
Armor 24X954 B3TXF	1128	43.2	1.15	4.3	29.9	82.7	52.19
DG 4530 B3TXF	1119	42.8	1.16	4.1	29.6	82.9	52.18
AMX12507 B3TXT	1108	40.8	1.22	3.9	32.3	83.0	52.44
Armor 24X951 B3TXF	1102	44.7	1.16	4.3	29.9	82.0	52.14
ST6000AXTP	1100	45.6	1.20	4.1	34.0	83.6	52.58
23R9128B3TXF	1100	45.8	1.16	4.2	31.7	82.4	52.37
DP 2333 B3XF	1097	44.7	1.13	4.7	29.8	82.2	51.95
BX2515AXTP	1095	43.2	1.20	4.5	30.8	82.3	52.29
BX2533AXTP	1079	42.0	1.20	4.2	30.7	82.8	52.28
DP 2141NR B3TXF	1064	43.1	1.16	4.7	32.7	82.5	52.45
BX2555AXTP	1061	45.8	1.17	4.1	32.6	82.7	52.47
23R9143B3TXF	1057	44.7	1.16	4.5	32.1	83.2	52.45
DP 2328 B3TXF	1056	43.9	1.15	4.3	29.7	81.8	51.90
PHY 443 W3FE	1053	43.8	1.14	4.4	33.0	83.4	52.54
AMX12502 B3TXF	1052	43.5	1.17	4.2	30.1	81.6	52.11
PHY 475 W3FE	1049	40.9	1.13	4.4	32.6	82.2	52.40
PHY 332 W3FE	1047	42.1	1.20	4.3	32.7	83.0	52.48
BX2556AXTP	1045	42.3	1.19	4.1	32.7	82.1	52.39
PHY 360 W3FE	1036	42.9	1.15	4.5	29.5	81.7	52.11
BX2557AXTP	1006	44.5	1.20	4.5	33.2	83.9	52.53
AMX 12572 B3TXF	1001	45.1	1.12	4.4	30.2	82.9	52.21
NG 3457 B3XF	998	43.4	1.17	4.5	31.0	83.0	52.34
23R9822B3TXF	991	43.5	1.14	4.4	29.6	82.2	52.14
PHY 400 W3FE	991	43.6	1.15	4.2	32.3	82.4	52.38
DP 2115 B3XF	989	43.9	1.16	4.6	30.9	82.9	52.32
NG 5430 B3XF	983	42.4	1.16	4.5	31.9	83.0	52.37
DP 2211 B3TXF	980	44.0	1.16	4.3	29.3	82.5	52.15
DG 4434 B3TXF	975	43.2	1.19	4.1	31.0	82.4	52.30
DG 3503 B3XF	975	44.4	1.20	3.9	32.8	83.0	52.48
NG 4405 B3TXF	952	40.9	1.18	4.0	30.5	83.2	52.29
DG 3519 B3XF	942	41.8	1.21	4.3	32.3	83.9	52.50
Armor 24X955 B3TXF	940	43.0	1.14	4.0	28.1	78.6	51.78
23R9918B3TXF	918	44.5	1.15	4.1	31.4	82.4	52.33
DG 3511 B3XF	856	43.9	1.17	4.6	33.6	84.1	52.58
Overall Mean	1080	43.6	1.17	4.3	31.5	82.8	52.33
LSD (0.05)	92	0.97	0.01	0.2	0.8	1.4	0.21
C.V (%)	16	4.0	2.74	6.4	4.3	3.0	0.72

*Yield in bold type are not significantly different from the highest yielding variety.

Table 5. 2024 mean yield performance of varieties cultivated at 3 locations in the Delta Region.

Variety	Lint Yield†	Lint	Measurement				Loan Value
			Length	Mic.	Strength	Uniformity	
	(lb/acre)	%	(in.)	---	(g/tex)	-	¢/LB
DP 2127 B3XF	1765	44.8	1.13	4.8	30.5	83.3	52.30
PX1140F331-04W3FE	1696	44.8	1.17	4.6	33.9	83.7	52.56
AMX 12526 B3XF	1673	45.6	1.17	4.7	32.2	83.7	52.48
Armor 9371 B3XF	1658	45.3	1.14	4.1	30.1	83.3	52.26
PHY 415 W3FE	1623	43.0	1.17	4.4	33.1	83.1	52.46
PX1140F330-04W3FE	1600	44.1	1.17	4.3	32.2	83.0	52.45
PX1140F329-04W3FE	1593	44.2	1.16	4.3	32.4	82.6	52.42
DP 2414 B3TXF	1586	43.9	1.18	4.4	30.7	82.8	52.28
DG 3528 B3XF	1580	44.4	1.18	4.4	30.8	83.0	52.30
PX1150F361-04W3FE	1559	43.3	1.20	4.3	34.0	83.6	52.55
NG 3195 B3XF	1558	43.4	1.15	4.5	30.3	82.9	52.24
PX1150F357-04W3FE	1548	43.6	1.13	4.4	34.4	83.4	52.59
Armor 24X954 B3TXF	1546	44.2	1.14	4.4	30.3	82.6	52.24
PHY 411 W3FE	1545	46.1	1.10	4.5	31.8	82.3	52.34
PX1150F360-04W3FE	1543	43.4	1.22	4.4	33.8	83.8	52.57
BX2533AXTP	1543	41.9	1.19	4.4	30.5	82.9	52.24
DP 2333 B3XF	1542	45.5	1.13	4.7	30.3	82.3	52.24
BX2515AXTP	1536	43.7	1.21	4.6	31.1	82.6	52.34
PX1130F309-04W3FE	1513	43.5	1.15	4.5	32.2	83.7	52.46
ST6000AXTP	1512	46.3	1.20	4.3	34.2	83.9	52.61
AMX12507 B3TXT	1481	41.3	1.21	4.2	32.5	83.4	52.48
23R9822B3TXF	1473	44.1	1.13	4.5	30.0	82.4	52.18
Armor 24X951 B3TXF	1464	45.3	1.16	4.4	29.8	82.0	52.15
DP 2141NR B3TXF	1438	43.3	1.16	4.7	32.8	82.3	52.43
DG 4434 B3TXF	1435	44.6	1.18	4.1	30.8	82.5	52.31
BX2531AXTP	1429	42.8	1.20	4.0	31.5	83.0	52.40
DG 4530 B3TXF	1407	43.0	1.15	4.3	29.6	83.1	52.17
BX2555AXTP	1394	45.9	1.16	4.3	32.4	82.7	52.46
PHY 475 W3FE	1393	41.4	1.11	4.6	32.4	82.1	52.34
PHY 400 W3FE	1387	43.9	1.13	4.2	32.3	82.6	52.35
AMX12502 B3TXF	1374	43.3	1.16	4.2	30.1	81.8	52.16
PHY 360 W3FE	1369	42.8	1.14	4.6	29.4	81.6	52.06
23R9143B3TXF	1368	45.2	1.15	4.6	31.8	82.8	52.40
23R9128B3TXF	1367	46.5	1.15	4.3	31.1	82.3	52.33
PHY 443 W3FE	1344	43.9	1.14	4.5	33.0	83.5	52.54
BX2556AXTP	1333	42.4	1.21	4.2	32.9	82.2	52.43
AMX 12572 B3TXF	1328	45.6	1.12	4.7	29.8	83.0	52.19
PHY 332 W3FE	1313	42.4	1.20	4.4	32.8	83.2	52.50
DG 3503 B3XF	1307	45.3	1.20	4.0	33.0	83.4	52.52
NG 3457 B3XF	1306	44.2	1.16	4.4	31.2	83.0	52.37
DP 2211 B3TXF	1296	44.5	1.16	4.6	29.6	82.7	52.17
BX2557AXTP	1270	44.7	1.20	4.5	34.0	84.2	52.59
NG 5430 B3XF	1266	41.9	1.18	4.5	32.4	83.2	52.43
DP 2328 B3TXF	1256	44.6	1.15	4.4	29.8	82.0	52.16
DG 3511 B3XF	1252	44.7	1.16	4.7	33.7	83.9	52.59
23R9918B3TXF	1246	45.2	1.16	4.2	31.3	82.4	52.34
DG 3519 B3XF	1231	41.7	1.20	4.3	32.9	83.8	52.54
DP 2115 B3XF	1221	44.2	1.15	4.7	30.9	82.8	52.32
Armor 24X955 B3TXF	1216	43.3	1.12	4.1	29.4	82.0	52.14
NG 4405 B3TXF	1152	40.8	1.18	4.1	30.6	83.1	52.31
Overall Mean	1437	44.0	1.16	4.4	31.6	82.9	52.36
LSD (0.05)	183	1.11	0.03	0.2	0.9	0.7	0.11
C.V (%)	16	3.2	2.74	6.6	3.4	1.0	0.25

*Yield in bold type are not significantly different from the highest yielding variety.

Table 6. 2024 mean yield performance of varieties cultivated at all (3) locations in the Hill region excluding Verona.

Variety	Lint Yield†	Lint	Measurement				Loan Value
			Length	Mic.	Strength	Uniformity	
	(lb/acre)	%	(in.)	---	(g/tex)	-	¢/LB
PX1140F331-04W3FE	992	43.8	1.18	4.2	32.7	83.4	52.51
PX1140F329-04W3FE	981	43.9	1.17	3.9	31.4	82.4	52.33
PX1150F360-04W3FE	955	43.6	1.23	4.1	32.8	83.6	52.52
23R9128B3TXF	955	46.0	1.17	4.1	31.6	82.3	52.38
DP 2328 B3TXF	929	43.5	1.14	4.1	29.0	81.5	51.33
AMX 12526 B3XF	924	45.5	1.17	4.4	31.7	83.3	52.38
PX1150F361-04W3FE	921	42.8	1.18	4.0	33.1	83.7	52.61
DG 4530 B3TXF	920	42.9	1.19	3.8	29.0	82.9	52.14
DP 2115 B3XF	912	43.4	1.17	4.4	30.3	82.8	52.24
PHY 443 W3FE	899	44.5	1.15	4.3	32.7	83.1	52.51
DP 2414 B3TXF	884	45.0	1.17	4.1	29.2	82.2	52.14
PX1150F357-04W3FE	884	44.1	1.14	4.2	33.4	83.5	52.53
DP 2127 B3XF	882	44.4	1.12	4.3	30.0	83.5	52.25
PX1130F309-04W3FE	882	41.6	1.16	4.1	31.7	83.1	52.42
NG 3195 B3XF	879	42.8	1.16	4.3	29.9	82.7	52.20
PHY 411 W3FE	871	44.7	1.11	4.3	30.9	82.3	52.30
PX1140F330-04W3FE	867	43.6	1.17	4.2	30.8	82.7	52.29
BX2531AXTP	858	42.7	1.20	3.6	30.5	82.7	52.29
NG 5430 B3XF	855	44.0	1.13	4.6	30.9	83.0	52.26
PHY 360 W3FE	852	43.3	1.16	4.3	29.0	81.7	52.13
AMX12502 B3TXF	848	43.6	1.17	4.3	29.2	81.4	51.99
DG 3528 B3XF	843	43.8	1.19	4.0	29.9	82.6	52.24
Armor 24X951 B3TXF	830	44.7	1.17	4.2	29.1	81.5	51.98
DP 2141NR B3TXF	820	43.2	1.15	4.5	32.3	82.9	52.49
DP 2333 B3XF	820	44.0	1.13	4.5	28.8	81.9	51.38
PHY 332 W3FE	817	42.2	1.20	4.0	32.0	82.8	52.43
PHY 475 W3FE	816	40.5	1.15	4.2	32.3	82.2	52.41
AMX12507 B3TXT	804	40.6	1.23	3.7	31.5	82.4	52.35
PHY 415 W3FE	800	42.9	1.19	4.1	32.3	82.8	52.45
23R9143B3TXF	792	44.7	1.18	4.4	31.9	83.8	52.47
Armor 24X954 B3TXF	778	42.5	1.17	4.0	29.2	82.6	52.11
NG 3457 B3XF	777	43.3	1.18	4.4	30.2	83.1	52.26
Armor 9371 B3XF	774	43.7	1.15	4.1	28.5	82.9	51.50
BX2557AXTP	770	45.0	1.20	4.5	31.5	83.4	52.41
BX2533AXTP	768	42.2	1.20	4.0	30.5	82.7	52.29
NG 4405 B3TXF	764	41.2	1.19	3.8	29.7	82.8	52.18
BX2556AXTP	761	42.1	1.16	3.9	31.7	81.8	52.26
BX2515AXTP	754	42.8	1.19	4.2	29.4	81.6	52.14
ST6000AXTP	753	45.0	1.20	4.0	33.1	83.1	52.50
23R9822B3TXF	747	43.2	1.15	4.1	29.0	82.3	52.12
BX2555AXTP	731	45.9	1.19	3.9	32.2	82.6	52.44
AMX 12572 B3TXF	724	45.7	1.11	4.1	29.6	82.5	52.14
23R9918B3TXF	710	44.1	1.14	3.9	31.3	82.8	52.31
PHY 400 W3FE	710	43.3	1.17	4.0	31.7	82.0	52.36
DG 3519 B3XF	682	42.2	1.21	4.1	31.0	84.0	52.39
Armor 24X955 B3TXF	651	43.2	1.16	3.9	24.6	71.6	51.06
DG 3503 B3XF	599	43.4	1.19	3.6	31.8	82.3	52.36
DP 2211 B3TXF	587	43.7	1.17	3.9	28.7	82.0	52.10
DG 4434 B3TXF	579	40.2	1.20	3.7	30.6	82.0	52.22
DG 3511 B3XF	569	43.5	1.19	4.6	33.3	84.3	52.58
Overall Mean	810	43.4	1.17	4.1	30.7	82.5	52.23
LSD (0.05)	107	2.30	0.03	0.3	1.7	4.2	0.62
C.V (%)	16	5.4	3.15	6.1	5.6	5.1	1.20

*Yield in bold type are not significantly different from the highest yielding variety.

Table 7. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Brooksville silty clay at the Black Belt Experiment Station near Brooksville, MS during 2024.

Variety	Lint Yield† (lb/acre)	Lint %	Measurement				
			Length (in.)	Mic. - - -	Strength (g/tex)	Uniformity -	Loan Value ¢/LB
PX1140F331-04W3FE	1137	42.93	1.16	4.3	34.8	83.8	52.60
DP 2414 B3TXF	1026	42.60	1.17	4.1	30.8	82.9	52.30
PHY 415 W3FE	1008	41.83	1.18	4.0	36.4	83.4	52.59
DG 4530 B3TXF	1006	42.05	1.16	4.3	30.8	82.3	52.28
PX1150F361-04W3FE	969	42.15	1.21	4.1	36.6	84.0	52.63
BX2555AXTP	968	45.40	1.16	4.2	34.0	82.8	52.56
PX1150F357-04W3FE	961	42.20	1.14	4.2	34.8	83.8	52.61
PX1140F329-04W3FE	959	42.70	1.16	3.9	33.3	82.6	52.55
PX1140F330-04W3FE	959	43.10	1.16	4.3	33.0	82.2	52.46
BX2556AXTP	956	42.25	1.21	4.1	34.5	82.5	52.51
DG 4434 B3TXF	949	44.90	1.19	4.5	32.3	82.8	52.46
BX2531AXTP	939	42.20	1.21	4.3	32.7	83.4	52.53
Armor 9371 B3XF	937	43.13	1.15	5.0	30.8	83.9	52.36
PX1150F360-04W3FE	930	41.98	1.22	4.3	35.0	84.3	52.65
Armor 24X954 B3TXF	923	41.55	1.15	4.4	30.2	83.0	52.20
23R9143B3TXF	920	43.08	1.18	4.5	33.6	83.5	52.56
PHY 332 W3FE	919	41.30	1.20	4.4	34.0	82.8	52.53
NG 4405 B3TXF	916	40.35	1.19	4.0	32.0	84.1	52.48
PX1130F309-04W3FE	914	40.90	1.16	4.5	33.8	84.2	52.60
PHY 400 W3FE	910	43.48	1.17	4.5	33.5	82.7	52.51
Armor 24X955 B3TXF	904	41.70	1.15	3.8	30.8	82.1	52.16
DP 2328 B3TXF	890	42.35	1.16	4.4	31.1	81.9	52.30
DP 2211 B3TXF	887	43.05	1.16	4.6	29.8	82.8	52.18
DP 2127 B3XF	881	43.70	1.11	5.2	30.7	82.8	52.28
BX2533AXTP	873	41.90	1.20	4.3	31.4	83.1	52.35
23R9128B3TXF	865	43.45	1.16	3.9	33.4	82.8	52.49
AMX 12526 B3XF	857	45.83	1.16	4.5	32.6	83.9	52.51
DG 3519 B3XF	854	41.60	1.22	4.7	33.3	84.0	52.56
PHY 443 W3FE	853	41.93	1.15	4.3	33.6	83.9	52.59
DG 3528 B3XF	839	42.15	1.17	4.4	31.8	83.2	52.40
Armor 24X951 B3TXF	830	43.13	1.15	4.1	31.5	82.7	52.43
PHY 360 W3FE	830	42.10	1.15	4.7	30.6	81.9	52.21
BX2557AXTP	829	42.90	1.19	4.7	34.4	84.0	52.59
DP 2115 B3XF	827	43.63	1.17	4.9	32.0	83.4	52.49
PHY 475 W3FE	801	40.40	1.14	4.4	33.8	82.4	52.55
PHY 411 W3FE	800	43.73	1.13	4.4	31.3	82.9	52.35
DG 3503 B3XF	800	43.38	1.20	4.1	34.2	83.1	52.59
BX2515AXTP	795	42.25	1.23	4.6	32.7	82.9	52.46
DP 2333 B3XF	788	43.48	1.13	5.1	30.3	82.4	52.24
23R9918B3TXF	782	43.25	1.15	4.1	32.2	81.9	52.35
23R9822B3TXF	773	42.10	1.13	4.5	29.8	81.7	52.10
ST6000AXTP	738	44.48	1.20	4.0	35.3	83.6	52.61
NG 3457 B3XF	736	41.5	1.17	4.7	32.0	83.1	52.43
NG 3195 B3XF	720	42.5	1.14	4.6	31.5	83.1	52.36
AMX 12572 B3TXF	712	42.7	1.14	4.0	32.4	83.2	52.44
DP 2141NR B3TXF	673	42.5	1.16	4.8	33.0	82.6	52.45
AMX12507 B3TXT	660	40.0	1.24	3.8	33.1	83.2	52.51
DG 3511 B3XF	630	42.5	1.16	4.7	33.8	84.3	52.55
NG 5430 B3XF	590	40.9	1.16	4.6	32.1	82.2	52.40
AMX12502 B3TXF	550	43.8	1.17	4.3	31.8	81.7	52.20
Overall Mean	855	42.6	1.17	4.4	32.7	83.0	52.44
LSD (0.05)	280	1.40	0.30	0.4	1.6	1.1	0.18
C.V (%)	24	2.1	1.70	6.6	3.5	0.9	0.25

*Yield in bold type are not significantly different from the highest yielding variety.

Table 8. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Keyespoint silty clay soil at Pace Perry Farms near Senatobia, MS during 2024.

Variety	Lint Yield†	Lint	Measurement				Loan Value
			Length	Mic.	Strength	Uniformity	
	(lb/acre)	%	(in.)	---	(g/tex)	-	¢/LB
PHY 415 W3FE	1829	43.7	1.21	4.4	32.9	82.6	52.48
DP 2414 B3TXF	1779	45.3	1.18	4.3	30.2	82.5	52.25
NG 3195 B3XF	1775	43.9	1.17	4.5	30.9	82.9	52.31
DP 2328 B3TXF	1708	44.7	1.18	4.2	30.3	82.1	52.16
PX1140F331-04W3FE	1671	44.3	1.17	4.6	33.5	83.6	52.58
PHY 443 W3FE	1657	45.1	1.16	4.5	33.5	83.2	52.59
Armor 24X951 B3TXF	1655	46.0	1.18	4.7	30.0	82.7	52.19
DP 2127 B3XF	1653	44.1	1.17	4.5	31.2	83.7	52.46
PHY 360 W3FE	1648	43.7	1.17	4.5	30.8	82.3	52.25
PX1130F309-04W3FE	1646	42.3	1.15	4.4	32.1	82.8	52.43
DG 4530 B3TXF	1637	43.2	1.19	4.1	29.8	83.5	52.24
23R9128B3TXF	1631	46.3	1.17	4.3	31.4	82.5	52.36
BX2533AXTP	1624	43.3	1.21	4.4	31.5	83.4	52.44
ST6000AXTP	1622	46.7	1.21	4.2	34.0	83.7	52.59
DP 2333 B3XF	1609	46.4	1.16	4.8	30.0	82.0	52.15
PX1150F360-04W3FE	1598	44.6	1.23	4.5	33.2	83.8	52.55
DP 2115 B3XF	1592	44.1	1.17	4.7	31.3	83.0	52.40
PX1140F329-04W3FE	1584	44.8	1.17	4.1	32.2	82.6	52.43
Armor 9371 B3XF	1581	45.0	1.16	4.4	29.8	83.1	52.21
PHY 332 W3FE	1558	42.7	1.21	4.2	32.5	83.3	52.49
PX1150F361-04W3FE	1541	43.4	1.21	4.6	33.9	84.1	52.64
AMX 12526 B3XF	1540	46.4	1.16	4.6	31.0	83.0	52.28
AMX12502 B3TXF	1522	44.6	1.16	4.5	29.5	81.6	52.08
23R9143B3TXF	1520	45.0	1.18	4.7	32.3	83.8	52.48
DG 3528 B3XF	1515	44.4	1.21	4.4	31.2	83.3	52.41
DP 2211 B3TXF	1514	43.4	1.17	4.2	29.8	82.1	52.16
PHY 411 W3FE	1514	45.5	1.13	4.6	32.3	82.6	52.45
23R9918B3TXF	1491	44.4	1.18	4.1	31.4	82.7	52.38
Armor 24X955 B3TXF	1484	44.8	1.15	4.0	22.0	61.8	50.11
PX1140F330-04W3FE	1477	45.2	1.17	4.5	31.5	82.9	52.39
PX1150F357-04W3FE	1460	44.4	1.15	4.5	34.6	84.0	52.63
NG 5430 B3XF	1451	43.6	1.18	4.7	31.4	83.1	52.35
NG 3457 B3XF	1449	44.0	1.19	4.5	30.4	83.1	52.29
BX2515AXTP	1431	44.0	1.21	4.5	30.7	82.0	52.28
BX2555AXTP	1423	46.8	1.20	4.2	33.1	82.7	52.53
AMX12507 B3TXT	1412	41.3	1.23	4.0	32.4	82.7	52.41
NG 4405 B3TXF	1391	42.4	1.17	3.9	30.3	82.5	52.25
DP 2141NR B3TXF	1390	43.6	1.17	4.9	32.5	82.8	52.45
DG 3503 B3XF	1387	44.8	1.21	3.9	32.6	82.5	52.41
BX2556AXTP	1374	43.1	1.21	4.0	31.5	81.4	52.33
BX2531AXTP	1349	43.4	1.19	3.9	31.2	82.8	52.39
PHY 475 W3FE	1349	41.1	1.16	4.4	33.1	82.6	52.46
DG 3519 B3XF	1332	44.2	1.22	4.4	31.7	83.8	52.46
PHY 400 W3FE	1325	44.1	1.17	4.3	32.1	81.9	52.43
Armor 24X954 B3TXF	1295	43.5	1.15	4.2	29.6	82.6	52.14
DG 4434 B3TXF	1289	45.3	1.21	3.9	31.3	82.4	52.29
23R9822B3TXF	1285	45.2	1.14	4.6	30.1	82.6	52.19
DG 3511 B3XF	1281	44.8	1.19	4.8	32.8	83.8	52.54
AMX 12572 B3TXF	1277	47.3	1.13	4.5	30.5	82.7	52.23
BX2557AXTP	1268	45.2	1.22	4.7	32.8	84.0	52.60
Overall Mean	1508	44.4	1.18	4.4	31.4	82.5	52.33
LSD (0.05)	315	1.7	0.03	0.3	3.1	8.3	0.83
C.V (%)	15	2.7	1.82	5.7	7.1	7.1	1.14

*Yield in bold type are not significantly different from the highest yielding variety.

Table 9. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Dubbs Loam/Tensas Silty Clay Loam at Porter Farms near Sidon, MS during 2024.

Variety	Lint Yield† (lb/acre)	Lint %	Measurement				Loan Value ¢/LB
			Length (in.)	Mic. - - -	Strength (g/tex)	Uniformity -	
PX1140F331-04W3FE	1546	46.7	1.16	4.3	35.1	83.8	52.63
PHY 411 W3FE	1515	48.8	1.11	4.2	32.6	82.2	52.43
DP 2127 B3XF	1449	45.4	1.14	4.5	30.2	83.6	52.28
PX1140F329-04W3FE	1442	45.5	1.14	4.0	32.0	82.5	52.38
PX1130F309-04W3FE	1434	43.7	1.14	4.2	32.7	83.9	52.51
PX1140F330-04W3FE	1418	45.0	1.16	4.0	32.5	83.2	52.51
PHY 415 W3FE	1396	43.0	1.18	3.9	33.4	82.9	52.50
DP 2414 B3TXF	1387	44.7	1.19	4.3	31.1	82.9	52.31
23R9822B3TXF	1386	44.8	1.14	4.2	30.9	82.4	52.23
PX1150F360-04W3FE	1378	45.1	1.19	4.0	34.7	83.4	52.60
PHY 443 W3FE	1375	45.7	1.12	4.2	32.8	83.3	52.51
BX2515AXTP	1349	44.9	1.20	4.3	30.6	82.4	52.30
DG 3528 B3XF	1349	47.4	1.17	4.0	31.6	82.9	52.39
BX2531AXTP	1325	43.7	1.19	3.7	31.6	83.3	52.45
PX1150F357-04W3FE	1319	44.8	1.12	4.2	34.4	83.7	52.61
BX2556AXTP	1316	43.6	1.19	3.9	32.8	82.6	52.45
PX1150F361-04W3FE	1296	44.2	1.17	4.0	33.7	83.2	52.54
ST6000AXTP	1277	47.2	1.19	4.1	34.2	83.6	52.61
PHY 475 W3FE	1272	43.0	1.11	4.4	33.2	82.4	52.49
Armor 9371 B3XF	1263	46.1	1.15	4.3	29.9	83.4	52.26
DP 2211 B3TXF	1261	45.0	1.17	4.3	29.7	82.7	52.18
PHY 332 W3FE	1201	44.2	1.17	4.2	32.6	82.8	52.46
DP 2328 B3TXF	1189	45.5	1.16	4.2	30.0	82.1	52.20
Armor 24X954 B3TXF	1188	44.1	1.15	4.1	30.2	82.5	52.23
BX2555AXTP	1183	46.4	1.14	4.0	32.3	82.6	52.45
DP 2333 B3XF	1181	46.2	1.12	4.4	30.1	82.2	52.21
DP 2141NR B3TXF	1176	44.6	1.15	4.5	32.9	82.3	52.44
DG 4530 B3TXF	1174	43.8	1.15	4.0	29.1	82.5	52.11
AMX12507 B3TXT	1168	41.4	1.21	3.8	32.2	82.8	52.43
PHY 400 W3FE	1136	44.8	1.15	3.9	33.1	82.7	52.49
23R9128B3TXF	1135	46.4	1.17	3.9	31.9	82.1	52.44
DG 4434 B3TXF	1133	46.9	1.16	3.8	30.6	82.0	52.28
NG 3195 B3XF	1122	43.8	1.14	4.3	30.5	82.5	52.28
23R9143B3TXF	1122	45.7	1.16	4.4	32.1	82.9	52.43
BX2557AXTP	1112	46.2	1.20	4.3	33.4	84.5	52.60
DP 2115 B3XF	1110	45.4	1.14	4.5	30.8	82.5	52.35
AMX 12526 B3XF	1106	46.2	1.17	4.3	32.7	83.4	52.53
PHY 360 W3FE	1101	44.0	1.13	4.5	28.7	81.0	51.94
Armor 24X951 B3TXF	1094	46.9	1.15	4.2	29.7	82.5	52.14
DG 3503 B3XF	1092	46.7	1.19	3.8	33.2	83.8	52.54
DG 3519 B3XF	1076	42.4	1.17	4.0	32.3	83.3	52.48
AMX12502 B3TXF	1069	45.9	1.15	3.9	29.5	81.6	52.10
NG 4405 B3TXF	1060	42.3	1.18	3.7	30.5	82.8	52.30
23R9918B3TXF	1047	45.5	1.13	3.9	30.7	81.6	52.23
BX2533AXTP	1016	43.3	1.18	4.1	30.7	82.4	52.25
NG 3457 B3XF	1013	43.6	1.14	4.1	31.1	82.2	52.36
DG 3511 B3XF	945	45.9	1.17	4.4	34.6	84.5	52.65
Armor 24X955 B3TXF	938	43.8	1.13	4.0	29.0	81.5	52.11
AMX 12572 B3TXF	937	46.7	1.11	4.5	29.6	82.8	52.16
NG 5430 B3XF	906	42.8	1.17	4.0	32.2	83.0	52.46
Overall Mean	1210	45.0	1.16	4.1	31.7	82.8	52.38
LSD (0.05)	283	1.95	0.03	0.3	1.3	1.1	0.17
C.V (%)	16	3.1	1.89	5.5	2.9	1.0	0.22

*Yield in bold type are not significantly different from the highest yielding variety.

Table 10. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Marietta Fine Sandy Loam at the Plant Science Research Center Starkville, MS during 2024.

Variety	Lint Yield†	Lint	Measurement				Loan Value
			Length	Mic.	Strength	Uniformity	
	(lb/acre)	%	(in.)	----	(g/tex)	-	¢/LB
PX1140F329-04W3FE	1359	43.0	1.17	3.7	30.6	82.2	52.24
AMX 12526 B3XF	1322	44.7	1.18	4.3	32.5	83.6	52.49
PX1140F331-04W3FE	1305	43.3	1.18	3.9	31.8	83.1	52.44
PX1150F357-04W3FE	1301	43.8	1.13	4.0	32.3	83.0	52.43
PX1150F360-04W3FE	1268	42.6	1.23	3.7	32.3	83.5	52.49
PHY 415 W3FE	1248	42.1	1.18	3.7	31.6	83.1	52.43
23R9128B3TXF	1235	45.7	1.17	3.9	31.9	82.0	52.39
BX2531AXTP	1224	41.9	1.22	3.4	29.9	82.6	52.19
PX1150F361-04W3FE	1222	42.2	1.15	3.5	32.2	83.4	52.58
BX2557AXTP	1200	44.8	1.18	4.3	30.1	82.8	52.23
PX1140F330-04W3FE	1126	42.0	1.17	3.8	30.1	82.6	52.19
DP 2115 B3XF	1119	42.8	1.16	4.2	29.3	82.6	52.09
NG 5430 B3XF	1115	44.4	1.09	4.5	30.5	83.0	52.16
DG 4530 B3TXF	1113	42.5	1.18	3.4	28.1	82.3	52.04
PHY 411 W3FE	1101	44.0	1.10	4.0	29.6	81.9	52.15
PHY 475 W3FE	1100	39.9	1.14	4.0	31.4	81.9	52.35
DP 2328 B3TXF	1079	42.4	1.11	3.9	27.6	81.0	50.49
DP 2141NR B3TXF	1069	42.9	1.14	4.2	32.1	83.1	52.54
Armor 24X954 B3TXF	1039	41.4	1.18	3.8	28.9	82.7	52.08
PHY 443 W3FE	1038	43.9	1.14	4.0	31.8	82.9	52.43
AMX12502 B3TXF	1023	42.7	1.17	4.0	28.8	81.1	51.88
PHY 332 W3FE	1023	41.7	1.18	3.7	31.5	82.3	52.38
DG 3528 B3XF	1014	43.3	1.16	3.6	28.6	81.9	52.06
AMX12507 B3TXT	1000	39.9	1.23	3.3	30.7	82.0	52.29
PX1130F309-04W3FE	1000	40.8	1.17	3.9	31.4	83.4	52.41
DP 2127 B3XF	993	44.7	1.08	4.2	28.8	83.3	52.04
23R9822B3TXF	957	41.3	1.15	3.7	28.0	82.1	52.05
PHY 360 W3FE	909	43.0	1.15	4.1	27.3	81.1	52.00
BX2556AXTP	908	41.2	1.11	3.8	31.8	82.3	52.19
NG 4405 B3TXF	900	40.0	1.21	3.6	29.2	83.1	52.11
AMX 12572 B3TXF	895	44.0	1.10	3.8	28.6	82.4	52.05
NG 3457 B3XF	882	42.6	1.18	4.2	30.1	83.1	52.23
DP 2414 B3TXF	874	44.7	1.17	3.9	28.5	81.9	52.05
BX2555AXTP	873	45.0	1.18	3.6	31.2	82.5	52.36
NG 3195 B3XF	862	41.8	1.16	4.0	29.0	82.5	52.09
Armor 9371 B3XF	858	42.4	1.15	3.8	27.3	82.7	50.79
23R9143B3TXF	857	44.5	1.18	4.1	31.6	83.7	52.46
DP 2333 B3XF	850	41.6	1.11	4.2	27.5	81.8	50.61
Armor 24X951 B3TXF	836	43.3	1.15	3.8	28.1	80.3	51.76
BX2515AXTP	831	41.6	1.16	3.9	28.1	81.2	52.01
DP 2211 B3TXF	819	44.1	1.17	3.6	27.6	82.0	52.04
Armor 24X955 B3TXF	811	41.6	1.17	3.8	27.2	81.4	52.01
PHY 400 W3FE	804	42.5	1.17	3.7	31.2	82.0	52.30
ST6000AXTP	774	43.3	1.18	3.7	32.3	82.5	52.41
DG 3519 B3XF	714	40.1	1.21	3.8	30.2	84.1	52.33
DG 3503 B3XF	706	42.0	1.18	3.4	31.0	82.1	52.31
BX2533AXTP	681	41.1	1.19	3.5	29.6	82.0	52.15
DG 4434 B3TXF	667	35.1	1.20	3.6	30.0	81.6	52.15
23R9918B3TXF	639	43.9	1.10	3.8	31.2	82.9	52.24
DG 3511 B3XF	425	42.1	1.19	4.4	33.7	84.8	52.63
Overall Mean	979	42.5	1.16	3.8	30.1	82.5	52.14
LSD (0.05)	256	4.30	0.06	0.4	1.3	1.2	0.92
C.V (%)	19	7.3	4.09	6.6	3.2	1.0	1.30

*Yield in bold type are not significantly different from the highest yielding variety.

Table 11. Mean yield performance and fiber characteristics for cotton varieties cultivated on a furrow irrigated Bosket very fine sandy loam soil at the Mississippi State University Delta Research and Extension Center near Stoneville, MS during 2024.

Variety	Lint Yield† (lb/acre)	Lint %	Measurement				Loan Value ¢/LB
			Length (in.)	Mic. - - - -	Strength (g/tex)	Uniformity -	
PX1140F331-04W3FE	1946	44.0	1.13	5.1	34.0	83.6	52.53
Armor 9371 B3XF	1831	44.8	1.10	3.7	29.9	83.0	52.23
PX1150F360-04W3FE	1823	43.1	1.20	4.9	34.6	84.4	52.65
AMX 12526 B3XF	1813	45.3	1.14	5.0	32.8	83.6	52.50
PHY 415 W3FE	1811	44.1	1.15	5.0	33.5	83.4	52.55
PX1130F309-04W3FE	1731	44.3	1.13	4.9	32.4	83.6	52.45
DP 2115 B3XF	1730	43.4	1.13	4.8	31.5	82.6	52.36
PX1150F361-04W3FE	1707	43.2	1.16	4.9	34.8	83.8	52.57
PHY 411 W3FE	1696	45.0	1.08	5.1	30.9	81.8	52.29
DP 2127 B3XF	1684	45.6	1.07	5.1	30.1	82.6	52.18
DG 4530 B3TXF	1677	43.1	1.13	4.8	29.0	82.9	52.11
PX1150F357-04W3FE	1664	43.7	1.10	5.0	34.6	83.2	52.59
Armor 24X954 B3TXF	1653	44.0	1.10	4.8	30.4	82.4	52.25
PX1140F329-04W3FE	1649	44.0	1.14	4.8	32.8	82.7	52.44
PX1140F330-04W3FE	1637	44.0	1.15	4.6	31.7	82.6	52.36
BX2515AXTP	1630	43.2	1.17	5.1	31.6	82.7	52.38
DG 3528 B3XF	1628	43.5	1.12	4.9	30.7	82.7	52.30
DP 2414 B3TXF	1609	42.8	1.12	4.8	30.5	82.5	52.25
BX2533AXTP	1606	41.3	1.17	4.6	30.8	83.1	52.26
Armor 24X955 B3TXF	1604	42.8	1.11	4.3	29.7	82.2	52.15
DP 2141NR B3TXF	1601	43.9	1.11	5.1	31.8	81.3	52.29
AMX12507 B3TXT	1596	41.6	1.18	4.6	33.5	83.8	52.55
Armor 24X951 B3TXF	1594	45.1	1.11	4.9	29.7	81.5	52.11
PHY 443 W3FE	1594	42.7	1.11	5.0	34.0	83.8	52.61
DP 2211 B3TXF	1586	44.3	1.11	4.9	28.8	82.3	52.09
DP 2333 B3XF	1581	45.1	1.09	4.9	30.6	81.6	52.25
PHY 332 W3FE	1578	41.7	1.18	4.8	33.4	83.2	52.56
NG 3195 B3XF	1572	42.7	1.10	4.8	29.6	82.3	52.13
DG 4434 B3TXF	1522	44.4	1.12	4.6	30.1	82.3	52.20
DG 3503 B3XF	1517	45.7	1.18	4.6	33.5	83.7	52.58
PHY 360 W3FE	1512	42.8	1.10	4.8	28.7	81.1	51.99
NG 3457 B3XF	1494	43.3	1.14	4.8	31.4	83.0	52.36
NG 5430 B3XF	1489	41.2	1.16	5.0	34.1	83.3	52.51
23R9128B3TXF	1473	46.4	1.10	4.8	30.6	82.0	52.23
ST6000AXTP	1467	46.0	1.17	4.6	34.8	83.8	52.61
AMX12502 B3TXF	1464	42.9	1.13	4.6	30.7	82.1	52.21
PHY 400 W3FE	1461	43.8	1.13	4.5	32.1	82.3	52.36
23R9822B3TXF	1451	43.8	1.08	5.0	29.2	82.0	52.10
AMX 12572 B3TXF	1442	45.5	1.10	5.2	29.9	82.8	52.21
DP 2328 B3TXF	1419	44.1	1.10	4.8	29.6	81.3	52.09
DG 3511 B3XF	1390	44.4	1.11	5.0	33.7	82.8	52.54
BX2557AXTP	1377	43.9	1.17	4.8	36.2	84.2	52.65
BX2555AXTP	1372	46.5	1.15	4.6	33.5	83.1	52.55
BX2531AXTP	1347	42.8	1.16	4.6	32.4	82.5	52.40
23R9143B3TXF	1346	45.1	1.09	4.8	31.1	81.7	52.30
23R9918B3TXF	1312	46.1	1.13	4.7	31.4	82.1	52.35
PHY 475 W3FE	1264	40.6	1.09	5.1	32.1	82.1	52.23
BX2556AXTP	1257	42.2	1.17	4.7	34.0	81.9	52.50
DG 3519 B3XF	1216	41.1	1.18	4.6	34.2	84.0	52.63
NG 4405 B3TXF	1117	39.3	1.15	4.5	31.1	83.2	52.40
Overall Mean	1551	43.7	1.13	4.8	31.8	82.7	52.36
LSD (0.05)	300	1.70	0.04	0.5	1.9	1.2	0.21
C.V (%)	14	2.8	2.61	8.1	4.2	1.1	0.28

*Yield in bold type are not significantly different from the highest yielding variety.

Table 12. Mean yield performance and fiber characteristics for cotton varieties cultivated on a furrow irrigated Keyespoint silty clay soil at Pace Perry Farms near Tunica, MS during 2024.

Variety	Lint Yield†	Lint	Measurement				Loan Value
			Length	Mic.	Strength	Uniformity	
	(lb/acre)	%	(in.)	----	(g/tex)	-	¢/LB
DP 2127 B3XF	2161	43.5	1.17	4.8	31.1	83.7	52.44
AMX 12526 B3XF	2101	45.5	1.20	4.7	31.2	84.0	52.40
BX2533AXTP	2007	41.1	1.23	4.5	30.1	83.1	52.21
NG 3195 B3XF	1917	43.8	1.20	4.5	30.7	83.9	52.33
DP 2333 B3XF	1863	45.3	1.20	4.8	30.2	83.2	52.25
Armor 24X954 B3TXF	1797	44.4	1.18	4.3	30.1	82.9	52.24
DP 2414 B3TXF	1762	44.1	1.22	4.2	30.6	83.1	52.29
23R9822B3TXF	1724	43.8	1.18	4.3	30.0	82.9	52.20
Armor 24X951 B3TXF	1705	43.9	1.21	4.1	30.1	82.2	52.19
AMX12507 B3TXT	1681	40.8	1.25	4.1	31.9	83.7	52.45
PX1150F361-04W3FE	1673	42.4	1.27	4.1	33.7	83.7	52.54
PX1150F357-04W3FE	1661	42.4	1.19	4.1	34.2	83.5	52.56
23R9143B3TXF	1636	44.8	1.21	4.6	32.1	83.8	52.46
Armor 9371 B3XF	1629	44.9	1.18	4.5	30.5	83.7	52.29
BX2515AXTP	1629	43.1	1.25	4.6	31.2	82.9	52.34
BX2555AXTP	1628	44.9	1.20	4.2	31.4	82.6	52.38
PX1140F330-04W3FE	1624	43.4	1.22	4.3	32.5	83.2	52.48
BX2531AXTP	1614	42.0	1.25	3.9	30.6	83.3	52.34
AMX 12572 B3TXF	1604	44.6	1.17	4.5	29.9	83.4	52.19
PX1140F331-04W3FE	1595	43.7	1.22	4.4	32.8	83.7	52.53
PHY 400 W3FE	1565	43.1	1.11	4.1	31.8	82.7	52.20
DP 2141NR B3TXF	1539	41.4	1.23	4.6	33.6	83.3	52.55
23R9128B3TXF	1537	46.6	1.18	4.2	30.8	82.7	52.34
DG 4434 B3TXF	1524	42.5	1.25	4.0	31.6	83.2	52.45
PHY 360 W3FE	1495	41.7	1.20	4.5	30.7	82.6	52.25
ST6000AXTP	1484	45.9	1.24	4.2	33.5	84.3	52.61
DG 3528 B3XF	1466	42.2	1.23	4.2	30.1	83.5	52.23
AMX12502 B3TXF	1435	41.1	1.21	4.0	30.1	81.7	52.15
PX1150F360-04W3FE	1429	42.0	1.26	4.3	32.0	83.6	52.46
DP 2328 B3TXF	1428	44.1	1.21	4.3	29.8	82.5	52.19
BX2556AXTP	1427	41.5	1.27	4.1	31.8	82.3	52.35
PHY 411 W3FE	1425	44.6	1.12	4.3	32.0	82.7	52.31
PX1140F329-04W3FE	1425	43.1	1.20	4.1	32.3	82.6	52.45
PHY 475 W3FE	1420	40.5	1.12	4.3	31.8	81.9	52.30
NG 3457 B3XF	1412	45.7	1.21	4.4	31.1	83.8	52.38
DG 3519 B3XF	1402	41.7	1.25	4.3	32.1	84.3	52.53
23R9918B3TXF	1379	43.9	1.22	4.1	31.9	83.4	52.44
PX1130F309-04W3FE	1375	42.6	1.17	4.5	31.4	83.5	52.41
PHY 415 W3FE	1371	42.0	1.17	4.3	32.4	83.0	52.33
DG 4530 B3TXF	1355	42.1	1.18	3.9	30.7	84.1	52.29
DP 2115 B3XF	1349	44.0	1.18	4.8	30.4	83.2	52.25
DG 3503 B3XF	1313	43.6	1.25	3.8	32.4	82.7	52.45
DP 2211 B3TXF	1281	44.1	1.19	4.6	30.5	83.2	52.25
NG 4405 B3TXF	1279	41.0	1.22	4.1	30.1	83.5	52.23
NG 5430 B3XF	1224	41.7	1.21	4.5	31.0	83.5	52.33
BX2557AXTP	1164	44.0	1.23	4.5	32.2	84.0	52.51
PHY 332 W3FE	1158	41.3	1.25	4.3	32.4	83.7	52.49
DG 3511 B3XF	1154	43.8	1.21	4.6	32.9	84.5	52.58
Armor 24X955 B3TXF	1107	43.2	1.13	4.0	29.6	82.4	52.15
PHY 443 W3FE	1064	43.2	1.18	4.4	32.3	83.6	52.49
Overall Mean	1520	43.2	1.21	4.3	31.4	83.2	52.36
LSD (0.05)	534	2.10	1.90	0.3	1.2	1.1	0.17
C.V (%)	25	3.5	3.41	5.3	2.8	0.9	0.24

*Yield in bold type are not significantly different from the highest yielding variety.

Table 13. Mean yield performance and fiber characteristics for cotton varieties cultivated on a Furrow irrigated Leeper silty clay loam soil at the North Mississippi Research and Extension Center near Verona, MS during 2024.

Variety	Lint Yield†	Lint	Measurement				
			Length	Mic.	Strength	Uniformity	Loan Value
	(lb/acre)	%	(in.)	----	(g/tex)	-	¢/LB
PX1140F330-04W3FE	1226	44.8	.	.	.	.	.
PX1150F361-04W3FE	1159	43.4	.	.	.	.	.
PX1150F357-04W3FE	1146	43.8	.	.	.	.	.
PHY 415 W3FE	1071	44.1	.	.	.	.	.
DP 2333 B3XF	1061	45.7	.	.	.	.	.
PHY 411 W3FE	1048	43.7	.	.	.	.	.
DG 3528 B3XF	1043	43.7	.	.	.	.	.
PHY 332 W3FE	1039	43.6	.	.	.	.	.
BX2531AXTP	1032	44.0	.	.	.	.	.
NG 5430 B3XF	1015	43.1	.	.	.	.	.
DP 2328 B3TXF	1013	44.1	.	.	.	.	.
PX1130F309-04W3FE	1012	42.0	.	.	.	.	.
PX1150F360-04W3FE	1012	44.3	.	.	.	.	.
AMX12507 B3TXT	1007	40.4	.	.	.	.	.
PX1140F331-04W3FE	1004	45.1	.	.	.	.	.
PHY 443 W3FE	1003	43.6	.	.	.	.	.
DP 2115 B3XF	984	44.7	.	.	.	.	.
AMX 12526 B3XF	980	45.9	.	.	.	.	.
PHY 475 W3FE	961	41.0	.	.	.	.	.
PHY 400 W3FE	959	45.0	.	.	.	.	.
BX2533AXTP	958	42.8	.	.	.	.	.
PX1140F329-04W3FE	954	44.8	.	.	.	.	.
PHY 360 W3FE	945	42.1	.	.	.	.	.
23R9128B3TXF	929	46.1	.	.	.	.	.
BX2515AXTP	904	43.6	.	.	.	.	.
Armor 9371 B3XF	903	44.7	.	.	.	.	.
DG 4530 B3TXF	895	43.2	.	.	.	.	.
NG 3457 B3XF	877	45.2	.	.	.	.	.
DP 2414 B3TXF	871	45.0	.	.	.	.	.
NG 3195 B3XF	856	44.5	.	.	.	.	.
DP 2127 B3XF	852	45.6	.	.	.	.	.
DG 3519 B3XF	840	43.1	.	.	.	.	.
23R9822B3TXF	795	44.7	.	.	.	.	.
BX2557AXTP	765	45.5	.	.	.	.	.
DP 2141NR B3TXF	756	44.1	.	.	.	.	.
Armor 24X951 B3TXF	754	45.3	.	.	.	.	.
BX2556AXTP	753	41.8	.	.	.	.	.
Armor 24X954 B3TXF	741	43.2	.	.	.	.	.
AMX12502 B3TXF	736	44.2	.	.	.	.	.
DG 3511 B3XF	732	44.5	.	.	.	.	.
DG 3503 B3XF	717	45.4	.	.	.	.	.
DP 2211 B3TXF	632	43.8	.	.	.	.	.
BX2555AXTP	629	47.4	.	.	.	.	.
ST6000AXTP	594	46.6	.	.	.	.	.
DG 4434 B3TXF	579	44.9	.	.	.	.	.
AMX 12572 B3TXF	565	44.5	.	.	.	.	.
23R9918B3TXF	534	44.3	.	.	.	.	.
23R9143B3TXF	426	45.1	.	.	.	.	.
Armor 24X955 B3TXF	422	42.6	.	.	.	.	.
NG 4405 B3TXF	378	41.6	.	.	.	.	.
Overall Mean	861	44.1	.	.	.	.	.
LSD (0.05)	273	1.3	.	.	.	.	.
C.V (%)	23	2.2	.	.	.	.	.

*Yield in bold type are not significantly different from the highest yielding variety.

Table 15. Response of the cotton varieties in the 2024 Mississippi State University Official Variety Trial to inoculation with the bacterial blight bacterium at Stoneville, MS.

Variety	Response	Variety	Response
Armor 24X951 B3TXF	R	NG 3195 B3XF	S
Armor 24X954 B3TXF	S	NG 3457 B3XF	R
Armor 24X955 B3TXF	R	NG 4405 B3TXF	R
Armor 9371 B3XF	S	NG 5430 B3XF	S
23R9128B3TXF	R	PHY332 W3FE	R
23R9143B3TXF	S	PHY360 W3FE	R
23R9822B3TXF	R	PHY400 W3FE	R
23R9918B3TXF	S	PHY411 W3FE	R
DP 2115 B3XF	S	PHY415 W3FE	R
DP 2127 B3XF	S	PHY443 W3FE	R
DP 2141NR B3TXF	S	PHY475 W3FE	R
DP 2211 B3TXF	S	PX1130F309-04 W3FE	R
DP 2328 B3TXF	MR	PX1140F329-04 W3FE	R
DP 2333 B3XF	R	PX1140F330-04 W3FE	R
DP 2414 B3TXF	S	PX1140F331-04 W3FE	R
DG 3503 B3XF	S	PX1150F357-04 W3FE	R
DG 3511 B3XF	R	PX1150F360-04 W3FE	R
DG 3519 B3XF	MS	PX1150F361-04 W3FE	R
DG 3528 B3XF	R	BX2515AXTP	R
DG 4434 B3TXF	R	BX2531AXTP	R
DG 4530 B3TXF	S	BX2533AXTP	R
AMX12526 B3XF	S	BX2555AXTP	R
AMX12572 B3TXF	S	BX2556AXTP	R
AMX12502 B3TXF	S	BX2557AXTP	R
AMX12507 B3TXT	R	ST6000AXTP	R

Response is presented as a letter assessment based on the percentage of disease post-inoculation as observed throughout the entire plot of each variety. Variety responses listed above are based on disease incidence following inoculation with the bacterial blight causal organism and based on evaluations of observable disease incidence on a 0-100% scale. Responses were assessed as **S** = susceptible; **MS** = moderately susceptible; **MR** = moderately resistance; and **R** = resistant based on the observational response of each variety in a replicated variety trial planted in Stoneville, MS (n=4 replicate plots of each variety). Plants were inoculated with the bacterium that causes bacterial blight and evaluated for the incidence and severity that resulted from bacterial blight.

NOTES

