

2024 Mississippi On-Farm Cotton Variety Trials

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Mississippi State University Extension



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2024 County Trial Locations and Cooperators

Trials arranged and conducted by: Dr. Brian Pieralisi

Assistance provided by: 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.

Special thanks to: Dr. Tyson Raper – University of Tennessee – West Tennessee Research and Education Center

Table 1. Locations, growers, and cooperating agronomists for 2024 Mississippi State University County Variety Trial Program.

<i>Location</i>	<i>Grower</i>	<i>Region</i>	<i>Irrigation</i>
<i>Aberdeen</i>	<i>Mr. Brandon Litwiler</i>	<i>Hills</i>	<i>Dry-Land</i>
<i>Brazil</i>	<i>Mr. Watson Turnipseed</i>	<i>Delta</i>	<i>Dry-Land</i>
<i>Brooksville</i>	<i>Dr. Brian Pieralisi</i>	<i>Hills</i>	<i>Dry-Land</i>
<i>Carrollton</i>	<i>Mr. David Hey</i>	<i>Hills</i>	<i>Dry-Land</i>
<i>Clarksdale</i>	<i>Mr. Bryan Fife</i>	<i>Delta</i>	<i>Irrigated</i>
<i>Coffeetown</i>	<i>Mr. Coley Bailey</i>	<i>Hills</i>	<i>Dry-Land</i>
<i>Edwards</i>	<i>Mr. Kendall Garraway</i>	<i>Hills</i>	<i>Dry-Land</i>
<i>Ellistown</i>	<i>Mr. Kerry Coker</i>	<i>Hills</i>	<i>Dry-Land</i>
<i>Greenwood</i>	<i>Mr. John Moor</i>	<i>Delta</i>	<i>Irrigated</i>
<i>Itta Bena</i>	<i>Mr. Travis and Clint Dunn</i>	<i>Delta</i>	<i>Irrigated</i>
<i>Natchez</i>	<i>Mr. Matthew Guedon</i>	<i>Hills</i>	<i>Dry-Land</i>
<i>Prairie</i>	<i>Mr. Ben Harlow</i>	<i>Hills</i>	<i>Dry-Land</i>
<i>Sledge</i>	<i>Mr. Sledge Taylor</i>	<i>Delta</i>	<i>Irrigated</i>
<i>Somerville</i>	<i>Mr. Mike Sturdivant</i>	<i>Delta</i>	<i>Dry-Land</i>

Mississippi State University Extension sincerely appreciates the time and effort of the cooperating growers and Mississippi State University Agronomists. In addition, several Independent Consultants provided a tremendous level of assistance with these trials including: Mr. Ty Edwards, Mr. Jason Grafton, Mr. Bert Falkner, and Mr. Tucker Miller. Sincere gratitude is also extended to the following seed companies and representatives for providing seed for these trials: Stoneville Cottonseed – Dr. Andy White and Bill Long, Nutrien Ag Solutions/Dyna-Gro – Mr. Scott Cummings, Phytogen Cottonseed – Mr. Ben Maddox, Americot/NexGen – Dr. Chase Samples, Armor seed – Robert Cossar and Delta and Pine Land – Mr. Greg Ferguson. Cooperation from all aforementioned parties is essential for success of the Mississippi State University County Research and Demonstration Yield Trial Program. In addition, partial financial support for this project was provided by each participating company and Cotton Incorporated.

Introduction

The cotton variety selection process is often difficult and, in many cases, leaves growers wondering for the remainder of the growing season whether they made the right variety selection decisions. Furthermore, the rapid introduction of new varieties and discontinued production of “older” varieties has become commonplace over the past several years. Historically, a premier variety would remain in the marketplace for a long period of time. However, a variety that performs well today typically has a life span of four to six years. One that does not perform well will likely remain on the market for less than three years. In addition, the historical standard for variety testing information was to have two to three years of data prior to release of any given variety. Today, one to two years of “broad scale” variety testing is common prior to release of a new variety. Therefore, greater demand has been placed upon testing a variety in as many environments as possible as a substitute for multiple years of data. In most cases, variety testing prior to release is conducted by private industry through a series of testing methods and through University Official Variety Trial (OVT) programs. Official Variety Trial data is typically available for one year prior to release of a given variety.

Our on-farm testing program is not designed to replace or compete with small-plot OVT testing programs, rather it is designed to complement the data that is provided by OVT programs. The use of large plot variety trial data in conjunction with small plot OVT data provides a tremendous resource with respect to variety performance to the growers of Mississippi.

Methodology

The on-farm testing program at Mississippi State University is designed to test varieties in as many environments as possible. Limiting the number of entries allows for efficient planting and harvest operations and requires a minimum amount of time from cooperating growers. The number of variety entries each given company is given is dependent upon market share. In addition, one to two at-large entries are given to smaller companies in order to provide equal opportunity to as many seed providers as possible. Our on-farm variety tests are usually planted in six- or twelve-row sets utilizing planting equipment provided by each respective grower. In some cases, eight- or four-row sets are used depending on site characteristics and grower preference. In addition, two replications of each variety are planted and harvested at all locations. Plot lengths ranged from 500 to 2600 feet in 2024 depending on the characteristics of the field the trial was conducted in. Seed treatments are at the discretion of the company providing seed. A premium seed treatment package including an insecticide, fungicide, and nematicide was provided for each variety. In-season management is at the discretion of the grower and each is encouraged to manage the plot area as he/she would manage any given field on their farm.

Each replication for each variety was individually harvested using standard harvest equipment. Harvest weights were collected using a boll buggy or trailer modified to display the weight of seed cotton contained therein. Prior to all harvest operations, each boll buggy or trailer was calibrated by the Mississippi Department of Agriculture to ensure that accurate harvest weights were collected. An 8- to 10-pound seed cotton sample was collected for each variety tested. In order to reduce ginning time, subsamples from replications number one and two were composited into a single sample. Seed cotton was ginned at the University of Tennessee – West Tennessee Research and Education Center. Ginning equipment at the WTREC consists of a 20-saw Continental Eagle gin equipped with a stick machine, incline cleaners, two lint cleaners, and a condenser. Fiber quality for each ginned sample was determined using a High-Volume Instrument (HVI) located at the United States Department of Agriculture Classing Office in Memphis, TN.

Entries

A maximum of 10 core variety entries per year are allowed in the Mississippi State University on-farm variety trial program. Entries are allotted by market share from respective companies. One entry per year is automatically given to the variety planted on the highest acreage in the previous year based on the annual Varieties Planted Report from USDA-AMS. In 2024, Delta and Pine Land was allotted three spots; Phytogen Cottonseed and Americot, were allotted two spots. Stoneville Cottonseed entered one variety allowing for the addition of a second “at large” entry. The “at-large” entries were given to Dyna-Gro and Armor to provide parody between smaller companies with less resources than larger companies. Entries in the 2024 Mississippi State University County Trial Program were as follows:

Table 2. 2024 Mississippi State University County Variety Trial Program entry list.

Slot #	Criteria/Company	Variety
1	Delta and Pine Land	DP 2127 B3XF
2	Delta and Pine Land	DP 2328 B3TXF
3	Delta and Pine Land	DP 2333 B3XF
4	Americot	NG 3457 B3XF
5	Americot	NG 5430 B3XF
6	Phytogen Cottonseed	PHY 411 W3FE
7	Phytogen Cottonseed	PHY 415 W3FE
8	BASF-Stoneville	ST 6000AXTP
9	At-Large Entry – WinField United/Armor seed	ARMOR 9371 B3XF
10	At-Large Entry – Crop Production Services/Dyna-Gro	DG 4530 B3TXF

Site Characteristics

Locations for the 2024 Mississippi State University County Yield Trial Program are listed on page 3. Yield trials were conducted at a total of fifteen locations. Six locations were located in the Delta and nine were in the Hills. Five locations were irrigated, and ten locations were dryland. Field sites were chosen based upon grower preference and required elements to conduct a reliable yield trial.

Reported Data & Analysis

Each data table includes the following: variety, lint yield, lint percent, micronaire, staple length (in inches) fiber strength, fiber uniformity, and leaf grade. Data analysis using SAS v. 9.4 was conducted on all replicated trials. Grand means (averages) are presented as well as Least Significant Differences (LSD). Least Significant Differences are the smallest value with which we can confidently say there is a difference between two means. Differences in means less than the given LSD value are likely due to variability within a given field or environment. For non-replicated trials and fiber data at individual locations, LSD’s are not applicable. For locations that were replicated and data from one replication of a given variety was lost, SAS will interpret these data as missing and provide data analysis based on estimates. Therefore, average data for a given location may be slightly different than data reported.

2024 Mississippi State University On-Farm Variety Trial Program

Yield and Fiber Quality Data Pooled Across All 14 Locations

Table 3. Yield and fiber quality data pooled across all 14 locations.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
DP 2333 B3XF	1262	43.6	4.6	1.14	29.8	82.1	3.6
ARMOR 9371 B3XF	1192	42.7	4.4	1.15	29.6	82.6	3.6
ST 6000AXTP	1192	44.0	4.3	1.17	32.7	83.2	3.7
DP 2127 B3XF	1188	42.8	4.6	1.14	30.4	82.7	3.8
DP 2328 B3TXF	1184	42.6	4.3	1.17	30.7	82.5	3.8
PHY 415 W3FE	1167	41.6	4.3	1.16	32.1	82.8	4.5
PHY 411 W3FE	1131	42.0	4.4	1.13	30.7	81.7	3.7
DG 4530 B3TXF	1111	41.4	4.2	1.17	30.3	82.8	3.7
NG 3457 B3XF	1103	41.3	4.3	1.17	30.7	82.9	3.6
NG 5430 B3XF	1095	41.2	4.4	1.17	31.5	82.7	3.2
Grand Mean	1162	42.3	4.4	1.16	30.9	82.6	3.7
LSD (0.05)	81	0.8	0.1	0.02	0.8	0.5	0.4

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

Delta Region Locations Included: Brazil, Clarksdale, Greenwood, Itta Bena, Sledge, and Somerville

Table 4. Yield and fiber quality data pooled over six Delta locations.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
DP 2333 B3XF	1431	43.3	4.7	1.14	29.9	82.3	3.8
PHY 411 W3FE	1406	41.8	4.6	1.10	30.7	81.5	3.8
DP 2127 B3XF	1381	42.4	4.8	1.16	31.0	83.2	3.9
ARMOR 9371 B3XF	1360	42.6	4.6	1.16	29.6	82.8	3.6
DP 2328 B3TXF	1351	42.9	4.5	1.17	30.5	82.4	3.6
PHY 415 W3FE	1312	42.0	4.5	1.17	32.6	82.8	4.7
ST 6000AXTP	1309	43.8	4.4	1.19	33.3	83.5	4.0
NG 3457 B3XF	1268	41.2	4.5	1.18	30.2	82.6	3.8
DG 4530 B3TXF	1266	41.9	4.3	1.17	29.7	83.2	3.6
NG 5430 B3XF	1224	40.4	4.6	1.18	31.5	82.8	3.3
Grand Mean	1331	42.2	4.5	1.16	30.9	82.7	3.8
LSD (0.05)	137	1.5	0.2	0.02	1.2	1.0	0.6

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

2024 Mississippi State University On-Farm Variety Trial Program

Hill Region Locations Included: Aberdeen, Brooksville, Carrollton, Coffeeville, Edwards, Ellistown, Natchez, and Prairie

Table 5. Yield and fiber quality data pooled over eight Hill region locations.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
DP 2333 B3XF	1046	43.7	4.5	1.14	29.8	82.0	3.5
ST 6000AXTP	1001	43.9	4.3	1.16	32.5	83.0	3.5
ARMOR 9371 B3XF	976	42.6	4.4	1.14	29.8	82.4	3.5
DP 2328 B3TXF	966	42.3	4.2	1.16	31.1	82.6	3.9
PHY 415 W3FE	960	41.4	4.2	1.16	32.1	82.8	4.4
DP 2127 B3XF	957	43.0	4.5	1.13	30.2	82.4	3.7
DG 4530 B3TXF	901	41.1	4.1	1.17	31.0	82.5	3.7
NG 5430 B3XF	899	41.4	4.3	1.16	31.7	82.6	3.2
NG 3457 B3XF	888	41.3	4.2	1.17	31.2	83.1	3.5
PHY 411 W3FE	884	42.0	4.4	1.14	30.8	81.8	3.7
Grand Mean	948	42.3	4.3	1.15	31.0	82.5	3.7
LSD (0.05)	101	0.9	0.2	0.02	1.1	0.6	0.5

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

Irrigated Locations Included: Greenwood, Clarksdale, Itta Bena, and Sledge

Table 6. Yield and fiber quality data pooled over four irrigated locations.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
DP 2333 B3XF	1441	44.7	4.2	1.13	28.8	81.4	3.6
ARMOR 9371 B3XF	1378	43.4	4.1	1.16	28.7	82.4	3.6
PHY 411 W3FE	1371	42.7	4.1	1.11	30.3	81.1	4.0
PHY 415 W3FE	1346	43.0	3.9	1.18	32.2	82.5	5.0
DP 2127 B3XF	1343	43.6	4.2	1.15	30.0	82.5	3.7
ST 6000AXTP	1325	45.0	3.8	1.20	32.7	83.2	4.4
DP 2328 B3TXF	1279	44.0	3.9	1.17	29.7	81.9	3.7
NG 3457 B3XF	1265	41.7	4.0	1.18	30.1	82.3	3.6
DG 4530 B3TXF	1246	42.4	3.7	1.18	28.9	82.5	3.6
NG 5430 B3XF	1186	41.0	4.0	1.18	31.0	82.5	3.0
Grand Mean	1318	43.2	4.0	1.16	30.3	82.2	3.8
LSD (0.05)	191	1.0	0.2	0.02	0.9	1.1	0.5

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

2024 Mississippi State University On-Farm Variety Trial Program

Dryland Locations Included: Aberdeen, Brazil, Brooksville, Carrollton, Coffeeville, Edwards, Ellistown, Natchez, Prairie, and Somerville

Table 7. Yield and fiber quality data pooled over ten dryland locations.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
DP 2333 B3XF	1039	43.1	4.7	1.14	30.4	82.4	3.6
DP 2328 B3TXF	994	41.8	4.4	1.16	31.4	82.7	3.8
ST 6000AXTP	987	43.4	4.5	1.16	32.8	83.1	3.3
DP 2127 B3XF	973	42.4	4.7	1.14	30.7	82.7	3.8
ARMOR 9371 B3XF	965	42.2	4.6	1.14	30.2	82.5	3.5
PHY 415 W3FE	947	40.9	4.5	1.16	32.2	82.8	4.2
NG 5430 B3XF	907	41.1	4.5	1.16	31.9	82.7	3.3
DG 4530 B3TXF	904	40.8	4.4	1.17	31.2	82.9	3.8
PHY 411 W3FE	892	41.5	4.6	1.14	31.0	81.9	3.6
NG 3457 B3XF	886	41.0	4.4	1.17	31.2	83.1	3.6
Grand Mean	949	41.8	4.5	1.15	31.3	82.7	3.7
LSD (0.05)	88	1.0	0.2	0.02	1.2	0.6	0.5

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

Individual Trial Location Data

Location: Aberdeen

Grower: Mr. Brandon Litwiller

Region: Hills

Irrigation: Dry-Land

Row Width: 30"

Plant: May 22, 2024

Harvest: October 17, 2024

Soil Series: Brooksville silty clay

Table 8. Yield and fiber quality data at Aberdeen.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
DP 2333 B3XF	968	42.3	4.3	1.14	29.4	82.1	4.0
NG 5430 B3XF	964	40.1	4.5	1.22	34.9	82.9	3.0
DP 2127 B3XF	863	40.0	4.5	1.09	30.7	82.3	4.0
ST 6000AXTP	844	41.3	4.1	1.19	35.2	82.5	3.0
ARMOR 9371 B3XF	837	41.3	4.1	1.16	30.7	82.6	3.0
NG 3457 B3XF	815	39.9	4.2	1.19	33.3	82.5	3.0
PHY 415 W3FE	735	37.0	4.5	1.15	34.2	82.7	4.0
DP 2328 B3TXF	734	37.7	4.2	1.15	32.3	82.0	4.0
DG 4530 B3TXF	711	37.8	4.4	1.13	29.6	82.4	4.0
PHY 411 W3FE	643	39.7	.	.	.	.	.
Grand Mean	811	39.7	4.3	1.16	32.3	82.4	3.6
LSD (0.05)	●	●	●	●	●	●	●

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

2024 Mississippi State University On-Farm Variety Trial Program

Location: Brazil
Grower: Mr. Watson Turnipseed
Region: Delta

Irrigation: Dry-Land
Row Width: 38”
Plant: May 30, 2024

Harvest: October 29, 2024
Soil Series: Dundee and Tensas silt loams

Table 9. Yield and fiber quality data at Brazil.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
DG 4530 B3TXF	703	43.0	4.7	1.16	31.3	82.9	3.0
PHY 411 W3FE	649	41.0	5.1	1.05	33.0	82.4	3.0
DP 2328 B3TXF	649	40.0	4.7	1.16	30.6	81.9	4.0
ARMOR 9371 B3XF	589	40.9	5.0	1.14	31.7	83.6	3.0
PHY 415 W3FE	578	40.6	5.0	1.12	33.7	83.0	4.0
DP 2127 B3XF	542	39.3	5.3	1.08	30.4	81.6	4.0
ST 6000AXTP	539	41.3	4.7	1.17	37.0	83.6	3.0
NG 3457 B3XF	527	39.3	5.0	1.13	31.2	83.4	4.0
DP 2333 B3XF	472	39.3	4.8	1.16	31.8	83.0	4.0
NG 5430 B3XF	358	36.9	4.7	1.18	35.6	83.4	4.0
Grand Mean	561	40.2	4.9	1.14	32.6	82.9	3.6
LSD (0.05)	●	●	●	●	●	●	●

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

Location: Brooksville
Grower: Dr. Brian Pieralisi
Region: Hills

Irrigation: Dry-Land
Row Width: 38”
Plant: May 9, 2024

Harvest: October 16, 2024
Soil Series: Brooksville silty clay

Table 10. Yield and fiber quality data at Brooksville.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
PHY 415 W3FE	955	44.4	4.1	1.15	31.2	82.4	4.0
ST 6000AXTP	925	44.6	4.7	1.15	30.4	83.2	4.0
DP 2328 B3TXF	924	43.4	4.7	1.09	29.2	81.6	3.0
DP 2127 B3XF	797	45.0	4.6	1.15	31.0	82.1	3.0
PHY 411 W3FE	767	45.6	4.7	1.15	29.6	81.2	3.0
DP 2333 B3XF	765	43.0	4.1	1.20	32.2	83.3	4.0
ARMOR 9371 B3XF	764	45.5	4.5	1.16	31.6	82.6	4.0
DG 4530 B3TXF	758	41.5	4.1	1.15	31.1	82.7	4.0
NG 5430 B3XF	729	44.2	4.7	1.12	29.7	82.7	3.0
NG 3457 B3XF	591	42.8	4.5	1.17	30.5	81.8	4.0
Grand Mean	797	44.0	4.5	1.15	30.7	82.4	3.6
LSD (0.05)	208	●	●	●	●	●	●

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

2024 Mississippi State University On-Farm Variety Trial Program

Location: Carrollton
Grower: Mr. David Hey
Region: Hills

Irrigation: Dry-Land
Row Width: 38”
Plant: May 16, 2024

Harvest: November 18, 2024
Soil Series: Adler and Ariel silt loams

Table 11. Yield and fiber quality data at Carrollton.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
DP 2333 B3XF	1267	44.5	.	.	.	.	.
NG 5430 B3XF	1123	40.5	.	.	.	.	.
DP 2328 B3TXF	1095	41.3	.	.	.	.	.
DP 2127 B3XF	1094	41.9	.	.	.	.	.
ST 6000AXTP	1061	44.4	.	.	.	.	.
ARMOR 9371 B3XF	1058	42.7	.	.	.	.	.
NG 3457 B3XF	941	40.2	.	.	.	.	.
DG 4530 B3TXF	881	41.2	.	.	.	.	.
Grand Mean	1065	42.1	.	.	.	.	.
LSD (0.05)	509	●	●	●	●	●	●

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

Phytogen varieties omitted per the growers request

Location: Clarksdale
Grower: Mr. Bryan Fife
Region: Delta

Irrigation: Furrow
Row Width: 40”
Plant: May 16, 2024

Harvest: October 29, 2024
Soil Series: Dubbs very fine sandy loam

Table 12. Yield and fiber quality data at Clarksdale.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
PHY 415 W3FE	1467	39.5	3.9	1.17	33.6	83.6	4.0
PHY 411 W3FE	1395	39.0	3.8	1.22	34.7	84.1	5.0
Grand Mean	1431	39.2	3.9	1.20	34.2	83.9	4.5
LSD (0.05)	●	●	●	●	●	●	●

*All non-2,4-D tolerant varieties compromised due to off target injury.

2024 Mississippi State University On-Farm Variety Trial Program

Location: Coffeeville
Grower: Mr. Coley Bailey
Region: Hills

Irrigation: None
Row Width: 38”
Plant: May 14, 2024

Harvest: October 21, 2024
Soil Series: Collins silt loam

Table 13. Yield and fiber quality data at Coffeeville.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
DP 2333 B3XF	876	46.9	4.4	1.09	27.9	80.6	3.0
DP 2328 B3TXF	806	46.3	4.1	1.11	28.5	81.0	4.0
DP 2127 B3XF	691	45.9	4.4	1.10	28.6	82.3	3.0
ARMOR 9371 B3XF	679	44.7	4.3	1.12	27.5	80.9	4.0
NG 5430 B3XF	664	43.6	4.4	1.13	29.8	81.6	3.0
ST 6000AXTP	656	44.5	4.0	1.12	29.9	81.5	3.0
DG 4530 B3TXF	622	42.2	4.1	1.16	29.0	82.4	4.0
NG 3457 B3XF	598	42.3	4.0	1.15	29.9	82.4	3.0
Grand Mean	699	44.5	4.2	1.12	28.9	81.6	3.4
LSD (0.05)	104	●	●	●	●	●	●

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

Phytogen varieties omitted per the growers request

Location: Edwards
Grower: Mr. Kendall Garraway
Region: Hills

Irrigation: Dry-Land
Row Width: 38”
Planting Date: May 6, 2024

Harvest Date: September 30, 2024
Soil Series: Memphis silt loam

Table 14. Yield and fiber quality data at Edwards.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
NG 3457 B3XF	1264	47.2	4.5	1.12	28.7	83.5	3.0
ARMOR 9371 B3XF	1252	44.7	4.7	1.11	27.6	83.7	4.0
DP 2333 B3XF	1222	45.9	4.7	1.16	29.1	82.2	4.0
DP 2127 B3XF	1162	46.3	4.5	1.14	29.1	81.5	4.0
DP 2328 B3TXF	1100	43.8	4.3	1.22	32.6	83.6	4.0
PHY 415 W3FE	1078	43.2	4.5	1.15	28.1	82.7	3.0
DG 4530 B3TXF	1024	44.6	4.4	1.14	29.0	81.6	4.0
PHY 411 W3FE	1004	42.7	4.6	1.18	29.8	82.5	3.0
NG 5430 B3XF	971	46.2	4.3	1.18	30.7	82.9	4.0
ST 6000AXTP	949	44.1	4.6	1.14	28.2	82.2	3.0
Grand Mean	1103	44.9	4.5	1.15	29.3	82.6	3.6
LSD (0.05)	219	●	●	●	●	●	●

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

2024 Mississippi State University On-Farm Variety Trial Program

Location: Ellistown
Grower: Mr. Kerry Coker
Region: Hills

Irrigation: Dry-Land
Row Width: 38”
Plant: May 29, 2024

Harvest: December 3, 2024
Soil Series: Providence silt loam

Table 15. Yield and fiber quality data at Ellistown.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
ST 6000AXTP	669	42.9	.	.	.	.	.
DP 2127 B3XF	587	41.8	.	.	.	.	.
ARMOR 9371 B3XF	581	40.3	.	.	.	.	.
DP 2333 B3XF	571	42.4	.	.	.	.	.
DP 2328 B3TXF	567	41.3	.	.	.	.	.
PHY 411 W3FE	542	38.9	.	.	.	.	.
DG 4530 B3TXF	484	38.5	.	.	.	.	.
PHY 415 W3FE	467	38.8	.	.	.	.	.
NG 5430 B3XF	448	38.8	.	.	.	.	.
NG 3457 B3XF	430	39.1	.	.	.	.	.
Grand Mean	535	40.3	.	.	.	.	.
LSD (0.05)	159	●	●	●	●	●	●

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

Location: Greenwood
Grower: Mr. John Moor
Region: Delta

Irrigation: Furrow
Row Width: 38”
Plant: May 2, 2024

Harvest: October 21, 2024
Soil Series: Dubbs loam

Table 16. Yield and fiber quality data at Greenwood.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
DP 2333 B3XF	1983	46.3	4.8	1.15	28.3	82.6	3.0
DP 2127 B3XF	1958	46.5	4.8	1.17	30.9	83.1	3.0
PHY 411 W3FE	1844	43.1	4.6	1.13	29.3	80.8	4.0
DP 2328 B3TXF	1814	45.0	4.5	1.17	28.6	80.9	4.0
ARMOR 9371 B3XF	1801	44.4	4.6	1.15	28.7	82.6	4.0
PHY 415 W3FE	1738	43.5	4.5	1.19	31.9	82.7	5.0
ST 6000AXTP	1713	45.0	4.3	1.23	32.6	84.0	4.0
DG 4530 B3TXF	1711	43.6	4.5	1.17	28.6	82.1	3.0
NG 3457 B3XF	1633	42.5	4.6	1.19	29.6	83.6	4.0
NG 5430 B3XF	1559	41.9	4.8	1.20	31.0	83.2	3.0
Grand Mean	1775	44.2	4.6	1.18	30.0	82.6	3.7
LSD (0.05)	174	●	●	●	●	●	●

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

2024 Mississippi State University On-Farm Variety Trial Program

Location: Itta Bena
Grower: Mr. Travis & Clint
 Dunn

Region: Delta
Irrigation: Furrow
Row Width: 38"

Plant: May 16, 2024
Harvest: October 15, 2024
Soil Series: Dubbs-Dundee complex

Table 17. Yield and fiber quality data at Itta Bena.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
DP 2333 B3XF	1272	43.2	4.2	1.14	29.5	81.9	4.0
NG 3457 B3XF	1202	41.2	4.0	1.21	31.2	82.7	3.0
ARMOR 9371 B3XF	1188	41.9	4.0	1.19	30.1	82.5	4.0
DP 2127 B3XF	1181	40.9	4.2	1.17	30.7	83.5	4.0
ST 6000AXTP	1165	43.8	3.8	1.17	32.2	82.3	4.0
DP 2328 B3TXF	1154	42.5	3.8	1.18	31.2	82.3	4.0
NG 5430 B3XF	1078	38.7	4.0	1.18	31.5	81.8	3.0
DG 4530 B3TXF	928	39.9	3.9	1.19	29.3	84.4	4.0
Grand Mean	1146	41.5	4.0	1.18	30.7	82.7	3.8
LSD (0.05)	157	•	•	•	•	•	•

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

Phytogen varieties omitted per the growers request

Location: Natchez
Grower: Mr. Matthew Guedon
Region: Hills

Irrigation: None
Row Width: 38"
Plant: May 28, 2024

Harvest: October 15, 2024
Soil Series: Convent silt loam

Table 18. Yield and fiber quality data at Natchez.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
DP 2333 B3XF	1480	43.5	5.0	1.11	30.0	82.8	3.0
DP 2127 B3XF	1314	42.9	4.8	1.14	31.1	83.1	4.0
DP 2328 B3TXF	1283	43.1	4.4	1.16	32.7	83.9	4.0
ARMOR 9371 B3XF	1277	42.8	4.6	1.16	31.0	82.9	3.0
ST 6000AXTP	1223	46.4	4.4	1.18	36.4	83.8	4.0
DG 4530 B3TXF	1192	41.8	4.2	1.19	33.9	82.2	3.0
PHY 415 W3FE	1188	41.7	4.4	1.18	35.8	83.4	6.0
NG 5430 B3XF	1137	39.9	4.6	1.17	34.0	83.5	3.0
PHY 411 W3FE	1111	42.6	4.3	1.13	33.1	81.9	6.0
NG 3457 B3XF	1106	40.2	4.1	1.18	32.8	83.6	4.0
Grand Mean	1231	42.5	4.5	1.16	33.1	83.1	4.0
LSD (0.05)	110	•	•	•	•	•	•

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

2024 Mississippi State University On-Farm Variety Trial Program

Location: Prairie
Grower: Mr. Ben Harlow
Region: Hills

Irrigation: Dry-Land
Row Width: 38”
Plant: May 7, 2024

Harvest: October 30, 2024
Soil Series: Okalona silty clay

Table 19. Yield and fiber quality data at Prairie.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
ST 6000AXTP	1538	42.9	4.7	1.18	35.4	84.8	3.0
DP 2333 B3XF	1432	42.1	4.8	1.18	31.7	83.6	4.0
DP 2127 B3XF	1407	40.9	5.2	1.15	32.0	84.6	4.0
DG 4530 B3TXF	1394	38.8	4.4	1.21	33.1	84.9	4.0
DP 2328 B3TXF	1351	40.6	4.7	1.18	31.3	83.3	4.0
ARMOR 9371 B3XF	1315	39.6	4.7	1.13	31.0	82.0	3.0
NG 5430 B3XF	1297	38.8	4.3	1.17	32.7	83.3	3.0
NG 3457 B3XF	1276	38.4	4.7	1.21	32.9	84.8	4.0
Grand Mean	1376	40.3	4.7	1.18	32.5	83.9	3.6
LSD (0.05)	241	●	●	●	●	●	●

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

Phytogen varieties omitted per the growers request

Location: Sledge
Grower: Mr. Sledge Taylor
Region: Delta

Irrigation: Furrow
Row Width: 38”
Plant: May 14, 2024

Harvest: October 18, 2024
Soil Series: Falaya silt loam

Table 20. Yield and fiber quality data at Sledge.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
DP 2333 B3XF	2100	45.9	5.2	1.11	28.4	81.4	4.0
DP 2127 B3XF	1958	44.5	5.2	1.13	29.7	83.2	4.0
ARMOR 9371 B3XF	1951	44.9	5.0	1.14	27.0	82.9	3.0
DP 2328 B3TXF	1875	45.4	4.9	1.18	30.1	84.1	3.0
DG 4530 B3TXF	1806	43.6	4.1	1.17	28.8	82.6	4.0
ST 6000AXTP	1777	46.9	4.5	1.21	33.1	84.4	5.0
NG 5430 B3XF	1760	42.6	4.6	1.19	30.2	84.0	3.0
NG 3457 B3XF	1679	41.6	4.6	1.16	29.0	81.5	4.0
Grand Mean	1863	44.4	4.8	1.16	29.5	83.0	3.8
LSD (0.05)	206	●	●	●	●	●	●

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

Phytogen varieties omitted per the growers request

2024 Mississippi State University On-Farm Variety Trial Program

Location: Somerville
Grower: Mr. Mike Sturdivant
Region: Delta

Irrigation: Dry-Land
Row Width: 38”
Plant: May 8, 2024

Harvest: October 21, 2024
Soil Series: Dubbs loam

Table 21. Yield and fiber quality data at Somerville.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lbs/Acre	%		Inches	Grams/Tex	%	
NG 5430 B3XF	1448	43.3	4.7	1.14	29.1	80.9	4.0
ST 6000AXTP	1428	41.0	4.8	1.16	31.6	82.8	3.0
NG 3457 B3XF	1397	43.2	4.3	1.18	29.2	82.1	4.0
DG 4530 B3TXF	1338	41.4	4.5	1.19	30.6	84.4	4.0
DP 2328 B3TXF	1282	40.6	4.5	1.15	31.4	83.0	3.0
ARMOR 9371 B3XF	1218	40.3	4.2	1.20	31.2	82.6	4.0
DP 2127 B3XF	1116	39.1	4.3	1.26	32.9	84.3	5.0
DP 2333 B3XF	1073	39.6	4.5	1.20	32.8	83.4	4.0
Grand Mean	1287	41.1	4.5	1.19	31.1	82.9	3.9
LSD (0.05)	●	●	●	●	●	●	●

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

Phytogen varieties omitted per the growers request

Notes

