2014 Mississippi On-Farm Cotton Variety Trials

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Mississippi State University Extension Service

MISSISSIPPI STATE UNIVERSITY™

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2014 County Trial Locations and Cooperators

Trials arranged and conducted by: Dr. Darrin Dodds

Assistance provided by: Drake Copeland, Drew Denton, Tyler Dixon, Chase Samples, Jake Norris, Brittany Lipsey, Joe Hayes, Jacob Faulkner, Clarke Blaine

Special thanks to: Ms. Andrea Jones – University of Missouri Delta Research and Extension Center

Table 1. Locations, growers, and cooperating agronomists for 2014 Mississippi State University County Variety Trial Program.

Location	Trial Type	Grower	MSU Agronomist
Brooksville	**Glyphosate-Tolerant**	Mr. Rodney McGill	Dr. Dennis Reginelli
Clarksdale	**Glyphosate-Tolerant**	Mr. Bowen Flowers	Dr. Darrin Dodds
Coffeeville	**Glyphosate-Tolerant**	Mr. Coley Bailey	Dr. Darrin Dodds
Dundee	**Glyphosate-Tolerant**	Mr. Douglas Hood	Dr. Darrin Dodds
Edwards	**Glyphosate-Tolerant**	Mr. Kendall Garraway	Dr. Darrin Dodds
Ellistown	**Glyphosate-Tolerant**	Mr. Larry Coker	Mr. Charlie Stokes
Eupora	**Glyphosate-Tolerant**	Mr. Matt Knight	Dr. Dennis Reginelli
Glendora	**Glyphosate-Tolerant**	Mr. Mike Sturdivant	Dr. Darrin Dodds
Greenwood	**Glyphosate-Tolerant**	Mr. John Moor	Mr. Andy Braswell
Itta Bena	**Glyphosate-Tolerant**	Mr. Travis Dunn	Mr. Andy Braswell
Louise	**Glyphosate-Tolerant**	Mr. Byron Seward	Dr. Darrin Dodds
Meyersville	**Glyphosate-Tolerant**	Mr. Chase Mahalitc	Mr. John Carson
Mississippi State	**Glyphosate-Tolerant**	Dr. Darrin Dodds	Dr. Darrin Dodds
Money	**Glyphosate-Tolerant**	Mr. Chris Bush	Mr. Andy Braswell
Natchez	**Glyphosate-Tolerant**	Mr. Matthew Guedon	Dr. Darrin Dodds
Vaiden	**Glyphosate-Tolerant**	Shirley Farms	Dr. Ernie Flint
West Point	**Glyphosate-Tolerant**	Mr. Ben Harlow	Mr. Charlie Stokes

The Mississippi State University Extension Service 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. Tyler Dixon, Mr. Ty Edwards, Mr. Bert Falkner, Mr. Tucker Miller, Mr. Tim Richards.

Sincere gratitude is also extended to the following seed companies and representatives for providing seed for these trials: Americot – Dr. Ken Lege, Bayer CropScience – Dr. Andy White, Crop Production Services/Dyna-Gro – Mr. Wade Thompson, Dow AgroSciences/Phytogen Cottonseed – Dr. Brooks Blanche, and Monsanto Company/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.

Introduction

The decision making process regarding variety selection 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. Further complicating this process has been the rapid introduction of new varieties and the passing of "older" varieties 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 variety testing information on a "broad scale" is common prior to a new variety being released. 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 nearly all 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. OVT 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, 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 8- or 12-row sets utilizing planting equipment provided by each respective grower. In some cases, 4- or 6-row sets are used depending on site characteristics and grower preference. In addition, two replications of each variety are planted and harvested in most locations. Plot lengths ranged from 600 to 3600 feet in 2014 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 package including insecticide, fungicide, and nematacide seed treatments 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 Master Scale in Greenwood, MS to ensure that correct harvest weights are collected. An 8- to 10-pound seed cotton sample was collected for each variety tested. In order to reduce ginning time, one-half of the sample was collected from replication number one and one-half was collected from replication number two. The entire 8- to 10-pound sample was collected from a single replication in locations that only have one replication per variety. Seed cotton was ginned at the University of Missouri Delta Research and Extension Center near Portageville, MO. Ginning equipment at the University of Missouri 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 Texas Tech Fiber and Biopolymer Research Institute.

Entries

A maximum of 10 core 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 2014, Monsanto/Delta and Pine Land was allotted three spots; Bayer CropScience including the FiberMax and Stoneville brands were allotted a total of three spots; Dow AgroSciences/Phytogen Cottonseed was allotted two spots, and the two additional spots were given "at-large" in order to provide parody between smaller companies with less resources than larger companies. Entries in the 2014 Mississippi State University County Trial Program were as follows:

Table 2. 2014 Mississippi State University Roundup Ready Flex County Variety Trial Program entry list.

Slot #	Criteria/Company	Variety
1	At – Large Entry – Americot	NG 1511 B2RF
2	At – Large Entry – Crop Production Services/Dyna-Gro	DG 2570 B2RF
3	Bayer CropScience	ST 4747GLT
4	Bayer CropScience	ST 4946GLB2
5	Bayer CropScience	ST 5289GLT
6	Dow AgroSciences/Phytogen Cottonseed	PHY 333 WRF
7	Dow AgroSciences/Phytogen Cottonseed	PHY 339 WRF
8	Monsanto/Delta and Pine Land	DP 1133 B2RF
9	Monsanto/Delta and Pine Land	DP 1311 B2RF
10	Monsanto/Delta and Pine Land	DP 1321 B2RF

Site Characteristics

Locations for the 2014 Mississippi State University County Yield Trial Program are listed on page 3. Yield trials were conducted at a total of 17 locations. Nine locations were located in the Delta and eight were in the hills. Eight of nine Delta locations were irrigated whereas seven of eight Hill locations were dryland. Field sites were chosen based upon grower preference and required elements to conduct a 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. 9.3 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 provided data analysis based on estimates. Therefore, average data for a given location may be slightly different than data reported.

2014 Mississippi State University On-Farm Variety Trial Program

Glyphosate Tolerant Variety Yield and Fiber Quality Data Averaged Across 17 Locations

Table 3. Yield and fiber quality data pooled across 17 locations.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 333 WRF	1320*	42.5	4.4	1.17	30.1	83.4	6.0
DP 1133 B2RF	1299*	42.3	4.8	1.14	31.1	83.6	3.7
DP 1311 B2RF	1293*	44.2	4.5	1.13	29.0	82.5	5.2
ST 4946GLB2	1283*	40.8	4.6	1.15	31.9	83.3	5.6
NG 1511 B2RF	1279*	42.9	4.8	1.13	31.0	83.3	5.1
DG 2570 B2RF	1270	41.8	4.6	1.13	30.6	83.2	3.2
ST 4747GLT	1265	40.5	4.5	1.17	29.5	82.0	5.9
DP 1321 B2RF	1253	41.0	4.7	1.15	31.1	83.5	5.1
PHY 339 WRF	1212	40.7	4.3	1.18	30.6	83.2	5.2
ST 5289GLT	1194	40.4	4.4	1.14	29.5	82.3	6.6
Grand Mean	1267	41.7	4.6	1.15	30.4	83.0	5.2
LSD (0.05)	49	0.6	0.1	0.01	0.6	0.4	0.7

* Yield not statistically different than the top yielding variety.

Delta Region Locations Included: Clarksdale, Dundee, Glendora, Greenwood, Itta Bena, Louise, Money, Mayersville, Natchez

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 333 WRF	1444*	42.1	4.4	1.19	30.4	83.4	5.8
ST 4946GLB2	1386*	40.7	4.6	1.17	32.1	83.6	5.6
DG 2570 B2RF	1362	41.7	4.7	1.15	31.1	83.6	2.8
DP 1311 B2RF	1362	44.0	4.5	1.14	29.2	82.8	5.4
NG 1511 B2RF	1359	42.1	4.8	1.14	31.2	83.7	4.9
DP 1321 B2RF	1357	40.7	4.7	1.16	31.4	83.5	5.0
ST 4747GLT	1348	39.7	4.5	1.19	29.4	82.1	6.1
ST 5289GLT	1336	40.3	4.4	1.15	29.6	82.6	6.6
DP 1133 B2RF	1326	41.7	4.8	1.15	31.4	83.9	3.8
PHY 339 WRF	1296	40.3	4.4	1.19	30.7	83.3	5.3
Grand Mean	1358	41.3	4.6	1.16	30.6	83.2	5.1
LSD (0.05)	60	0.7	0.1	0.01	0.7	0.5	1.0

* Yield not statistically different than the top yielding variety.

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Hill Region Locations Included: Brooksville, Coffeeville, Edwards, Ellistown, Eupora, Mississippi State, Vaiden, and West Point

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 1133 B2RF	1287*	43.0	4.8	1.13	30.8	83.3	3.6
DP 1311 B2RF	1238*	44.4	4.6	1.12	28.8	82.3	5.0
NG 1511 B2RF	1210	43.8	4.8	1.12	30.8	82.9	5.3
PHY 333 WRF	1207	43.0	4.5	1.15	29.9	83.5	6.3
ST 4747GLT	1194	41.3	4.5	1.16	29.6	82.1	5.8
ST 4946GLB2	1192	40.8	4.5	1.14	31.7	82.9	5.6
DG 2570 B2RF	1191	41.9	4.6	1.12	30.1	82.8	3.8
DP 1321 B2RF	1160	41.4	4.7	1.14	30.8	83.5	5.1
PHY 339 WRF	1139	41.1	4.3	1.17	30.6	83.2	5.0
ST 5289GLT	1060	40.6	4.5	1.14	29.5	81.9	6.6
Grand Mean	1188	42.1	4.6	1.14	30.3	82.8	5.2
LSD (0.05)	74	1.0	0.2	0.01	1.0	0.7	1.0

* Yield not statistically different than the top yielding variety.

Irrigated Locations Included: Brooksville, Clarksdale, Dundee, Glendora, Greenwood, Itta Bena, Louise, Mayersville, Money

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 333 WRF	1447*	42.2	4.4	1.18	30.7	83.5	6.0
ST 4946GLB2	1389*	40.7	4.4	1.17	32.7	83.8	5.7
DP 1321 B2RF	1370	41.0	4.7	1.17	31.9	83.6	5.2
DP 1311 B2RF	1365	43.9	4.5	1.15	29.6	82.9	5.7
NG 1511 B2RF	1364	42.2	4.7	1.14	31.7	83.8	5.0
DP 1133 B2RF	1359	41.9	4.8	1.16	31.8	83.8	3.6
DG 2570 B2RF	1353	41.4	4.7	1.15	31.6	83.6	2.7
ST 4747GLT	1353	39.9	4.6	1.19	29.6	82.1	6.0
ST 5289GLT	1339	40.3	4.3	1.16	30.2	82.7	6.4
PHY 339 WRF	1316	40.3	4.5	1.19	31.3	83.4	5.2
Grand Mean	1365	41.4	4.5	1.17	31.1	83.3	5.1
LSD (0.05)	64	0.7	0.1	0.01	0.7	0.5	1.0

* Yield not statistically different than the top yielding variety.

2014 Mississippi State University On-Farm Variety Trial Program

Dryland Locations Included: Coffeeville, Edwards, Ellistown, Eupora, Mississippi State, Natchez, Vaiden, and West Point

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
DP 1133 B2RF	1289*	42.5	4.8	1.13	30.1	83.4	3.9
DP 1311 B2RF	1272*	44.3	4.5	1.11	28.1	82.2	4.8
NG 1511 B2RF	1242*	43.5	4.8	1.12	30.1	82.8	5.1
PHY 333 WRF	1240*	42.6	4.5	1.16	29.3	83.4	6.0
DG 2570 B2RF	1237*	41.9	4.6	1.11	29.3	82.8	3.9
ST 4747GLT	1226*	40.8	4.5	1.16	29.1	82.0	5.9
ST 4946GLB2	1225*	40.6	4.5	1.13	30.8	82.7	5.5
DP 1321 B2RF	1182	40.8	4.7	1.13	30.0	83.4	4.9
PHY 339 WRF	1155	40.8	4.4	1.16	29.7	83.0	5.1
ST 5289GLT	1094	40.3	4.5	1.13	28.6	81.8	6.8
Grand Mean	1216	41.8	4.6	1.14	29.5	82.7	5.2
LSD (0.05)	72	1.0	0.2	0.01	1.0	0.7	0.9

* Yield not statistically different than the top yielding variety.

Individual Trial Location Data

Location: Brooksville **Row width: 30” 2x1 Skip** **Harvest date: October 16, 2014**
Grower: Rodney McGill **Irrigated: Pivot** **Soil series: Brooksville Silty Clay**
MSU Agronomist: D. Reginelli **Planting date: May 19, 2014**

Table 8. Yield and fiber quality data at Brooksville.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
DP 1133 B2RF	1542*	43.0	5.0	1.16	83.2	31.4	2.0
DP 1311 B2RF	1437*	43.0	4.5	1.17	83.4	30.7	6.0
DP 1321 B2RF	1420*	43.0	4.4	1.17	83.6	33.1	7.0
ST 4747GLT	1386*	42.0	4.4	1.19	82.9	29.4	6.0
PHY 339 WRF	1381*	41.0	4.2	1.20	83.8	32.4	5.0
ST 4946GLB2	1369*	41.0	4.6	1.18	83.3	33.3	6.0
NG 1511 B2RF	1339*	42.0	4.6	1.12	83.1	32.4	6.0
PHY 333 WRF	1315	43.0	4.4	1.18	84.7	31.4	8.0
ST 5289GLT	1262	40.0	4.2	1.18	83.2	31.8	5.0
DG 2570 B2RF	1246	39.0	4.7	1.15	83.3	31.8	3.0
Grand Mean	1370	41.7	4.5	1.17	83.5	31.8	5.4
LSD (0.05)	NSD	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

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Location: Clarksdale **Row width: 40”** **Harvest date: October 23, 2014**
Grower: Bowen Flowers **Irrigated: Furrow** **Soil series: Bosket/Dundee Very**
MSU Agronomist: D. Dodds **Planting date: May 5, 2014** **Fine Sandy Loam**

Table 9. Yield and fiber quality data at Clarksdale.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
ST 4946GLB2	1771*	41.0	4.5	1.20	84.0	32.2	8
PHY 333 WRF	1752*	41.0	4.3	1.20	83.3	30.2	8
DP 1321 B2RF	1689*	41.0	4.8	1.19	84.2	32.7	6
DP 1311 B2RF	1641*	42.0	4.2	1.20	82.7	30.2	5
ST 4747GLT	1626*	38.0	4.4	1.24	82.4	29.4	7
NG 1511 B2RF	1591	41.0	4.6	1.17	84.5	31.4	5
DG 2570 B2RF	1582	40.0	4.4	1.18	84.0	31.8	5
ST 5289GLT	1560	38.0	4.2	1.18	83.0	30.1	6
DP 1133 B2RF	1502	40.0	4.5	1.18	84.2	32.2	6
PHY 339 WRF	1470	38.0	4.2	1.21	83.2	31.0	6
Grand Mean	1618	40.0	4.4	1.20	83.6	31.1	6.2
LSD (0.05)	149	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

Location: Coffeeville **Row width: 38”** **Harvest date: October 27, 2014**
Grower: Coley Bailey Jr. **Irrigated: Dryland** **Soil series: Collins Silt Loam**
MSU Agronomist: D. Dodds **Planting date: May 10, 2014**

Table 10. Yield and fiber quality data at Coffeeville.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
DP 1311 B2RF	1687*	45.0	4.5	1.12	80.9	26.9	6
DP 1133 B2RF	1490	43.0	4.9	1.15	83.9	30.3	4
ST 4946GLB2	1484	41.0	4.9	1.15	83.8	32.2	4
ST 4747GLT	1426	42.0	4.5	1.18	82.0	29.9	6
PHY 333 WRF	1425	43.0	4.6	1.19	84.8	31.0	7
DG 2570 B2RF	1381	43.0	5.0	1.12	83.2	30.5	4
DP 1321 B2RF	1376	42.0	4.9	1.13	84.6	31.5	5
NG 1511 B2RF	1372	44.0	5.1	1.13	84.0	30.7	4
PHY 339 WRF	1330	42.0	4.3	1.19	83.7	30.6	5
ST 5289GLT	1177	41.0	4.6	1.14	81.4	29.3	8
Grand Mean	1415	42.6	4.7	1.15	83.2	30.3	5.3
LSD (0.05)	122	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

2014 Mississippi State University On-Farm Variety Trial Program

Location: Dundee | **Row width: 38”** | **Harvest date: November 3, 2014**
Grower: Douglas Hood | **Irrigated: Furrow** | **Soil series: Dundee Silt Loam/ Askew Very Fine Sandy Loam**
MSU Agronomist: D. Dodds | **Planting date: May 20, 2014**

Table 11. Yield and fiber quality data at Dundee.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
ST 5289GLT	1264*	41.0	4.4	1.09	81.3	28.0	4.0
PHY 339 WRF	1250*	41.0	4.6	1.15	82.6	31.1	3.0
PHY 333 WRF	1243*	43.0	4.5	1.11	81.4	29.7	4.0
ST 4946GLB2	1150	41.0	4.3	1.14	82.4	33.4	3.0
DP 1133 B2RF	1086	42.0	4.8	1.13	83.8	31.4	2.0
ST 4747GLT	1079	40.0	4.3	1.13	80.0	28.7	3.0
DP 1321 B2RF	1078	39.0	4.2	1.13	82.2	31.8	3.0
NG 1511 B2RF	1045	42.0	4.7	1.10	83.4	32.0	3.0
DP 1311 B2RF	1001	44.0	4.7	1.11	81.8	29.4	2.0
DG 2570 B2RF	973	42.0	4.6	1.12	82.6	31.9	1.0
Grand Mean	1117	41.5	4.5	1.12	82.2	30.7	2.8
LSD (0.05)	106	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

Location: Edwards | **Row width: 38”** | **Harvest date: October 22, 2014**
Grower: Kendall Garraway | **Irrigated: Dryland** | **Soil series: Memphis/Reidtown Silt Loam**
MSU Agronomist: D. Dodds | **Planting date: May 17, 2014**

Table 12. Yield and fiber quality data at Edwards.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
DP 1133 B2RF	1537	45.0	4.8	1.13	82.9	31.1	2.0
DP 1311 B2RF	1450	44.0	4.4	1.12	82.3	29.1	4.0
ST 4946GLB2	1447	41.0	4.7	1.10	81.3	31.2	5.0
DP 1321 B2RF	1444	40.0	4.8	1.14	82.9	30.7	6.0
DG 2570 B2RF	1394	39.0	4.5	1.12	82.8	30.8	4.0
NG 1511 B2RF	1346	44.0	4.9	1.14	83.5	31.0	5.0
ST 4747GLT	1300	40.0	4.7	1.17	82.5	30.7	6.0
PHY 333 WRF	1284	43.0	4.5	1.17	83.6	30.7	7.0
ST 5289GLT	1201	41.0	4.6	1.15	82.4	29.8	6.0
PHY 339 WRF	1168	40.0	4.4	1.17	83.4	30.4	7.0
Grand Mean	1357	41.7	4.6	1.14	82.8	30.6	5.2
LSD (0.05)	NSD	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

2014 Mississippi State University On-Farm Variety Trial Program

Location: Ellistown **Row width: 38”** **Harvest date: October 21, 2014**
Grower: Larry Coker **Irrigated: Dryland** **Soil series: Mantachie/Talla Silt Loam**
MSU Agronomist: C. Stokes **Planting date: May 13, 2014**

Table 13. Yield and fiber quality data at Ellistown.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
PHY 333 WRF	1169*	44.0	4.5	1.12	83.1	29.4	5.0
PHY 339 WRF	1156*	43.0	4.5	1.17	84.8	30.6	6.0
NG 1511 B2RF	1131*	47.0	5.0	1.11	83.1	31.2	5.0
DG 2570 B2RF	1107*	44.0	4.6	1.11	82.7	32.1	4.0
DP 1133 B2RF	1099*	43.0	5.1	1.10	83.6	30.9	4.0
ST 4946GLB2	1066	42.0	4.7	1.13	83.7	31.1	6.0
DP 1311 B2RF	1031	48.0	4.5	1.12	82.4	29.6	5.0
ST 4747GLT	1025	43.0	4.3	1.15	81.5	27.9	7.0
ST 5289GLT	990	42.0	4.6	1.15	82.1	30.1	8.0
DP 1321 B2RF	830	35.0	5.1	1.14	83.7	30.0	4.0
Grand Mean	1060	43.1	4.7	1.13	83.1	30.3	5.4
LSD (0.05)	73	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

Location: Eupora **Row width: 38”** **Harvest date: October 25, 2014**
Grower: Matt Knight **Irrigated: Dryland** **Soil series: Oaklimeter Silt Loam**
MSU Agronomist: D. Reginelli **Planting date: May 6, 2014**

Table 14. Yield and fiber quality data at Eupora.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
DG 2570 B2RF	1426*	44.0	4.5	1.09	81.6	28.3	3.0
ST 4946GLB2	1424*	42.0	4.5	1.15	82.9	31.4	5.0
DP 1133 B2RF	1402*	44.0	4.8	1.14	83.2	30.3	5.0
PHY 339 WRF	1386*	43.0	4.3	1.16	82.1	28.9	6.0
PHY 333 WRF	1369*	42.0	4.5	1.14	82.1	27.6	7.0
NG 1511 B2RF	1356*	45.0	4.9	1.13	82.1	29.7	6.0
ST 4747GLT	1300*	40.0	4.3	1.16	82.5	27.9	6.0
DP 1321 B2RF	1282*	44.0	4.6	1.11	83.7	29.1	6.0
ST 5289GLT	1213	41.0	4.5	1.12	82.3	28.3	7.0
DP 1311 B2RF	1147	44.0	4.6	1.12	82.4	29.0	5.0
Grand Mean	1331	42.9	4.5	1.13	82.5	29.1	5.6
LSD (0.05)	162	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

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Location: Glendora **Row width: 38”** **Harvest date: October 27, 2014**
Grower: Mike Sturdivant Jr. **Irrigated: Furrow** **Soil series: Dubbs Very Fine Sandy Loam/Dundee Silt Loam**
MSU Agronomist: D. Dodds **Planting date: May 5, 2014**

Table 15. Yield and fiber quality data at Glendora.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
ST 4946GLB2	1453	39.6	4.7	1.20	85.0	32.6	6.0
PHY 333 WRF	1331	40.1	4.4	1.21	84.6	30.2	7.0
DP 1321 B2RF	1318	43.0	4.7	1.19	83.5	30.4	4.0
DG 2570 B2RF	1250	41.7	4.7	1.17	83.3	31.9	3.0
ST 4747GLT	1239	40.3	4.5	1.16	81.7	28.5	6.0
ST 5289GLT	1235	40.4	4.3	1.15	83.1	29.0	8.0
DP 1133 B2RF	1213	44.1	4.7	1.17	83.3	30.9	4.0
NG 1511 B2RF	1198	43.2	4.8	1.15	83.5	30.5	5.0
DP 1311 B2RF	1150	46.4	4.6	1.14	83.7	27.9	7.0
PHY 339 WRF	1139	40.5	4.4	1.17	83.1	30.5	7.0
Grand Mean	1253	41.9	4.6	1.17	83.5	30.2	5.7

* LSD could not be performed as test was planted in a single replication.

Location: Greenwood **Row width: 38”** **Harvest date: October 8, 2014**
Grower: John Moor **Irrigated: Furrow** **Soil series: Alligator Clay**
MSU Agronomist: A. Braswell **Planting date: May 8, 2014**

Table 16. Yield and fiber quality data at Greenwood.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
DG 2570 B2RF	1205*	45.0	5.1	1.12	83.9	29.9	2.0
DP 1311 B2RF	1175*	48.0	5.0	1.13	83.3	29.2	5.0
ST 5289GLT	1163*	42.0	4.8	1.14	83.3	30.6	5.0
PHY 333 WRF	1162*	44.0	4.9	1.16	83.8	31.1	4.0
NG 1511 B2RF	1155*	46.0	5.1	1.12	83.9	30.7	5.0
ST 4946GLB2	1115*	43.0	5.1	1.13	83.8	31.8	5.0
ST 4747GLT	1064	41.0	4.7	1.17	82.1	29.5	8.0
DP 1133 B2RF	1045	43.0	5.1	1.13	84.1	31.8	3.0
PHY 339 WRF	1026	43.0	4.9	1.17	83.7	31.8	3.0
DP 1321 B2RF	1018	41.0	5.1	1.16	83.2	31.6	4.0
Grand Mean	1113	43.6	5.0	1.14	83.5	30.8	4.4
LSD (0.05)	NSD	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

2014 Mississippi State University On-Farm Variety Trial Program

Location: Itta Bena **Row width: 38”** **Harvest date: October 28, 2014**
Grower: Travis Dunn **Irrigated: Irrigated** **Soil series: Tensas Silty Clay**
MSU Agronomist: A. Braswell **Planting date: May 12, 2014** **Loam/Dundee Loam**

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
DG 2570 B2RF	1581*	42.0	4.9	1.15	82.9	30.7	2.0
NG 1511 B2RF	1581*	43.0	5.0	1.14	84.3	29.0	5.0
DP 1321 B2RF	1567*	42.0	5.0	1.14	83.3	30.8	6.0
ST 4946GLB2	1515*	41.0	4.9	1.16	83.4	31.9	8.0
DP 1311 B2RF	1489*	44.0	4.6	1.14	81.7	27.9	5.0
PHY 333 WRF	1473*	41.0	4.5	1.21	84.0	30.5	5.0
PHY 339 WRF	1413	41.0	4.5	1.18	83.1	30.5	5.0
ST 4747GLT	1401	40.0	4.7	1.19	82.2	29.3	5.0
DP 1133 B2RF	1363	40.0	4.9	1.15	83.5	30.3	4.0
ST 5289GLT	1308	39.0	4.5	1.15	82.9	28.8	8.0
Grand Mean	1469	41.3	4.7	1.16	83.1	30.0	5.3
LSD (0.05)	143	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

Location: Louise **Row width: 30” 2x1 Skip** **Harvest date: October 23, 2014**
Grower: Byron Seward **Irrigated: Irrigated** **Soil series: Forrestdale/Dundee**
MSU Agronomist: D. Dodds **Planting date: May 19, 2014** **Silt Loam**

Table 18. Yield and fiber quality data at Louise.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
PHY 333 WRF	1679	41.0	4.3	1.18	83.7	30.2	6.0
DP 1321 B2RF	1678	42.0	4.8	1.16	84.4	31.3	6.0
DP 1311 B2RF	1676	43.0	4.3	1.15	83.6	29.8	7.0
DG 2570 B2RF	1662	42.0	4.6	1.14	83.9	30.6	3.0
ST 4946GLB2	1650	41.0	4.6	1.18	84.1	32.9	4.0
DP 1133 B2RF	1631	42.0	4.9	1.15	84.0	31.9	4.0
ST 4747GLT	1605	39.0	4.5	1.22	82.2	30.4	8.0
NG 1511 B2RF	1590	40.0	4.7	1.14	84.0	32.3	5.0
PHY 339 WRF	1580	41.0	4.3	1.20	83.8	30.1	8.0
ST 5289GLT	1567	41.0	4.4	1.17	83.0	31.0	7.0
Grand Mean	1632	41.2	4.5	1.17	83.7	31.1	5.8
LSD (0.05)	NSD	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

2014 Mississippi State University On-Farm Variety Trial Program

Location: Mayersville **Row width: 38”** **Harvest date: October 27, 2014**
Grower: Chase Mahalitc **Irrigated: Irrigated** **Soil series: Bowdre Clay/**
MSU Agronomist: J. Carson **Planting date: May 19, 2014** **Commerce Silt Loam**

Table 19. Yield and fiber quality data at Mayersville.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
PHY 333 WRF	1386*	43.0	3.8	1.20	82.4	31.3	5.0
ST 4747GLT	1252	39.0	4.3	1.16	81.7	29.2	5.0
DP 1133 B2RF	1232	42.0	4.6	1.16	83.8	32.2	3.0
DG 2570 B2RF	1220	41.0	4.3	1.16	83.7	30.7	2.0
NG 1511 B2RF	1204	42.0	4.4	1.14	83.8	32.1	5.0
PHY 339 WRF	1186	39.0	3.9	1.20	83.3	31.8	5.0
ST 5289GLT	1140	40.0	4.1	1.16	82.9	29.8	7.0
ST 4946GLB2	1133	38.0	4.1	1.17	84.1	31.8	6.0
DP 1321 B2RF	1085	39.0	4.3	1.17	83.8	31.3	5.0
DP 1311 B2RF	1069	41.0	3.9	1.14	83.0	29.4	6.0
Grand Mean	1191	40.4	4.2	1.17	83.3	31.0	4.9
LSD (0.05)	93	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

Location: Mississippi State **Row width: 38”** **Harvest date: October 17, 2014**
Grower: Darrin Dodds **Irrigated: Dryland** **Soil series: Catalpa/Leeper Silty**
MSU Agronomist: D. Dodds **Planting date: May 6, 2014** **Clay Loam**

Table 20. Yield and fiber quality data at Mississippi State.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
DP 1133 B2RF	1208*	42.0	4.6	1.12	83.0	30.7	5.0
NG 1511 B2RF	1197*	43.0	4.4	1.09	82.0	29.4	5.0
DP 1311 B2RF	1115*	44.0	4.5	1.09	82.0	27.4	5.0
DG 2570 B2RF	1107*	44.0	4.2	1.11	81.5	29.0	4.0
PHY 333 WRF	1066*	44.0	4.2	1.15	82.7	29.7	5.0
ST 4747GLT	1017*	40.0	4.3	1.14	80.4	28.7	6.0
DP 1321 B2RF	1004	41.0	4.0	1.12	83.4	30.7	6.0
PHY 339 WRF	971	40.0	4.1	1.16	83.3	31.4	4.0
ST 5289GLT	950	39.0	4.2	1.11	80.6	28.4	6.0
ST 4946GLB2	843	39.0	3.7	1.15	82.0	31.0	7.0
Grand Mean	1048	41.6	4.2	1.12	82.1	29.6	5.3
LSD (0.05)	203	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

2014 Mississippi State University On-Farm Variety Trial Program

Location: Money | **Row width: 38”** | **Harvest date: October 8, 2014**
Grower: Chris Bush | **Irrigated: Irrigated** | **Soil series: Dubbs Loam/**
MSU Agronomist: A. Braswell | **Planting date: May 12, 2014** | **Tensas Silty Clay Loam**

Table 21. Yield and fiber quality data at Money.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
DP 1311 B2RF	1687*	45.0	4.5	1.15	82.8	30.8	8.0
PHY 333 WRF	1687*	42.0	4.4	1.20	83.4	30.9	7.0
DP 1133 B2RF	1647*	42.0	4.8	1.18	84.7	32.6	4.0
NG 1511 B2RF	1617*	41.0	4.8	1.18	84.1	33.4	6.0
ST 4747GLT	1569	40.0	4.4	1.24	84.1	31.0	6.0
DP 1321 B2RF	1567	41.0	4.9	1.19	84.1	33.0	6.0
DG 2570 B2RF	1561	40.0	4.8	1.19	84.9	33.6	3.0
ST 5289GLT	1504	41.0	4.5	1.18	82.0	31.2	8.0
ST 4946GLB2	1469	40.0	4.6	1.20	84.1	33.4	5.0
PHY 339 WRF	1307	38.0	4.2	1.23	84.4	31.7	5.0
Grand Mean	1562	41.0	4.6	1.19	83.9	32.2	5.8
LSD (0.05)	80	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

Location: Natchez | **Row width: 38”** | **Harvest date: Sept. 25, 2014**
Grower: Matthew Guedon | **Irrigated: Dryland** | **Soil series: Convent/Memphis**
MSU Agronomist: D. Dodds | **Planting date: April 18, 2014** | **Silt Loam**

Table 22. Yield and fiber quality data at Natchez.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
DP 1311 B2RF	1372	44.0	4.4	1.13	82.6	27.9	4.0
ST 4747GLT	1308	40.0	4.5	1.20	82.1	28.7	7.0
ST 4946GLB2	1304	41.0	4.7	1.14	81.8	28.9	5.0
DG 2570 B2RF	1289	41.0	4.9	1.12	83.1	28.8	4.0
DP 1321 B2RF	1263	40.0	4.8	1.15	82.9	29.3	5.0
NG 1511 B2RF	1262	41.0	4.7	1.12	82.2	29.6	5.0
PHY 333 WRF	1252	42.0	4.4	1.21	83.6	29.3	6.0
DP 1133 B2RF	1212	41.0	4.6	1.14	83.3	28.9	4.0
ST 5289GLT	1204	40.0	4.2	1.15	81.9	27.9	6.0
PHY 339 WRF	1167	41.0	4.3	1.17	82.1	27.9	6.0
Grand Mean	1263	41.1	4.6	1.15	82.6	28.7	5.2
LSD (0.05)	NSD	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

2014 Mississippi State University On-Farm Variety Trial Program

Location: Vaiden **Row width: 38”** **Harvest date: October 10, 2014**
Grower: Shirley Farms **Irrigated: Dryland** **Soil series: Silt Loam**
MSU Agronomist: E. Flint **Planting date: May 5, 2014**

Table 23. Yield and fiber quality data at Vaiden.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
ST 4747GLT	1412*	42.0	5.1	1.17	83.9	34.6	4.0
DP 1311 B2RF	1351	44.0	4.8	1.13	83.1	30.2	4.0
DP 1321 B2RF	1302	43.0	5.1	1.17	83.6	30.5	3.0
ST 4946GLB2	1293	40.0	5.1	1.15	84.1	31.2	6.0
DP 1133 B2RF	1221	41.0	5.0	1.16	84.2	31.4	4.0
NG 1511 B2RF	1201	44.0	5.0	1.15	82.8	31.1	6.0
PHY 333 WRF	1159	41.0	4.8	1.17	83.7	30.5	6.0
DG 2570 B2RF	1158	42.0	5.0	1.13	83.8	29.6	4.0
ST 5289GLT	1118	41.0	4.8	1.15	82.3	29.8	6.0
PHY 339 WRF	1060	39.0	4.7	1.17	83.1	30.4	4.0
Grand Mean	1228	41.7	4.9	1.16	83.5	30.9	4.7
LSD (0.05)	56	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.

Location: West Point **Row width: 30”** **Harvest date: October 23, 2014**
Grower: Ben Harlow **Irrigated: Dryland** **Soil series: Houston Clay**
MSU Agronomist: C. Stokes **Planting date: May 12, 2014**

Table 24. Yield and fiber quality data at West Point.

Variety	Lint Yield	Lint Percent	Mic	Staple	Uniformity	Strength	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	---- % ----	- grams/tex -	
PHY 333 WRF	1208*	43.0	4.5	1.11	83.2	28.8	5.0
DP 1133 B2RF	1108	43.0	4.7	1.10	82.7	30.3	3.0
ST 4946GLB2	1053	41.0	4.0	1.10	82.0	32.0	6.0
ST 4747GLT	1044	42.0	4.3	1.11	80.9	27.4	5.0
DP 1311 B2RF	1021	43.0	4.7	1.07	81.8	27.4	5.0
DG 2570 B2RF	1019	39.0	4.5	1.09	83.5	28.3	4.0
PHY 339 WRF	1019	41.0	4.3	1.11	81.6	30.2	3.0
NG 1511 B2RF	1014	42.0	4.5	1.09	82.5	31.1	5.0
DP 1321 B2RF	971	43.0	4.6	1.11	82.4	31.0	4.0
ST 5289GLT	891	40.0	4.6	1.08	81.0	28.4	7.0
Grand Mean	1035	41.7	4.5	1.10	82.2	29.5	4.7
LSD (0.05)	90	•	•	•	•	•	•

* Yield not statistically different than the top yielding variety.