

# 2013 Mississippi On-Farm Cotton Variety Trials

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Mississippi State University Extension Service

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# 2013 County Trial Locations and Cooperators

Trials arranged and conducted by: Dr. Darrin Dodds

Assistance provided by: Drake Copeland, Tyler Dixon, Zack Reynolds, Chase Samples, Steven Hall, Jake Norris, Craig Chunn, Brittany Lipsey, Joe Hayes, Jacob Faulkner, Clarke Blaine

Special thanks to: Mr. Matthew Wiggins – University of Tennessee – West Tennessee Research and Education Center.

**Table 1. Locations, growers, and cooperating agronomists for 2013 Mississippi State University County Variety Trial Program.**

Location	Trial Type	Grower	MSU Agronomist
Dundee	RR Flex	Mr. Douglas Hood	Dr. Darrin Dodds
Ellistown	RR Flex	Mr. Larry Coker	Mr. Charlie Stokes
Eupora	RR Flex	Mr. Matt Knight	Dr. Dennis Reginelli
Greenwood	RR Flex	Mr. John Moor	Mr. Jerry Singleton
Grenada	RR Flex	Mr. Coley Bailey	Mr. Steve Winters
Lamar	RR Flex	Mr. Heath Byrd	Dr. Darrin Dodds
Learned	RR Flex	Mr. Kendall Garraway	Dr. Darrin Dodds
Louise	RR Flex	Mr. Byron Seward	Dr. Darrin Dodds
Mississippi State	RR Flex	Dr. Darrin Dodds	Dr. Darrin Dodds
Mattson	RR Flex	Mr. Graydon Flowers	Dr. Darrin Dodds
Minter City	RR Flex	Mr. Mike Sturdivant Jr.	Dr. Darrin Dodds
Prairie	RR Flex	Mr. Ben Harlow	Mr. Charlie Stokes
Schlater	RR Flex	Mr. Chris Bush	Mr. Jerry Singleton

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. 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 500 to 2300 feet in 2013 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 nematocide 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 West Tennessee Research and Education Center (WTREC) in Jackson, TN. 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 Bayer CropScience Research Farm in Leland, MS.

## 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 2013, 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 parity between smaller companies with less resources than larger companies. Entries in the 2013 Mississippi State University County Trial Program were as follows:

**Table 2. 2013 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	FM 1944GLB2
4	Bayer CropScience	ST 4946GLB2
5	Bayer CropScience	ST 6448GLB2
6	Dow AgroSciences/Phytogen Cottonseed	PHY 339 WRF
7	Dow AgroSciences/Phytogen Cottonseed	PHY 499 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 2013 Mississippi State University County Yield Trial Program are listed on page 3. Yield trials were conducted at a total of 14 locations. Six locations were located in the Delta and eight were in the hills. The Vaiden location was not harvested in 2013. All Delta locations were either pivot- or furrow-irrigated. All Hill locations were grown under dryland conditions. 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, and fiber uniformity. 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.

# 2013 Mississippi State University On-Farm Variety Trial Program

## Roundup Ready Flex Yield and Fiber Quality Data Averaged Across 13 Locations

**Table 3. Yield and fiber quality data pooled across all 13 locations.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
DP 1321 B2RF	1373*	39.7	4.7	1.17	32.1	83.8
PHY 499 WRF	1348*	40.3	4.4	1.15	32.1	83.2
NG 1511 B2RF	1338*	40.0	4.5	1.14	31.6	82.9
DG 2570 B2RF	1295	38.6	4.5	1.15	31.4	83.5
PHY 339 WRF	1280	38.1	4.4	1.17	31.7	83.2
ST 4946GLB2	1254	37.3	4.3	1.16	32.2	83.1
DP 1311 B2RF	1219	39.2	4.3	1.15	29.7	82.3
DP 1133 B2RF	1210	39.4	4.5	1.16	31.9	83.4
FM 1944GLB2	1196	36.8	4.3	1.19	32.0	82.0
ST 6448GLB2	1193	38.1	4.3	1.19	30.7	82.3
Grand Mean	1271	38.8	4.4	1.16	31.6	83.0
LSD (0.05)	69	0.8	0.1	0.01	0.5	0.4

\* Yield not statistically different than the top yielding variety.

## Delta Region Locations Included: Dundee, Greenwood, Louise, Mattson, Minter City, Schlater

**Table 4. Yield and fiber quality data pooled over six Delta (all irrigated) locations**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
DP 1321 B2RF	1642*	39.5	4.8	1.18	32.5	84.1
NG 1511 B2RF	1618*	40.6	4.7	1.14	31.5	83.1
PHY 499 WRF	1534	40.8	4.6	1.18	32.9	84.2
ST 4946GLB2	1490	37.3	4.6	1.18	33.3	83.9
DG 2570 B2RF	1467	38.3	4.7	1.17	32.0	84.1
DP 1311 B2RF	1451	39.7	4.6	1.15	29.7	82.9
PHY 339 WRF	1385	37.1	4.5	1.19	31.8	83.8
FM 1944GLB2	1373	36.6	4.5	1.22	33.3	82.3
DP 1133 B2RF	1363	39.2	4.6	1.18	32.4	84.2
ST 6448GLB2	1299	37.3	4.3	1.21	31.0	82.8
Grand Mean	1462	38.6	4.6	1.18	32.1	83.5
LSD (0.05)	106	1.0	0.1	0.02	0.8	0.5

\* Yield not statistically different than the top yielding variety.

**2013 Mississippi State University On-Farm Variety Trial Program**  
**Hill Region Locations Included: Ellistown, Eupora, Grenada, Lamar, Learned, Mississippi State, Prairie**

**Table 5. Yield and fiber quality data pooled over seven hill region (all dryland) locations.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
PHY 499 WRF	1166*	39.9	4.3	1.13	31.4	82.4
PHY 339 WRF	1160*	38.8	4.3	1.16	31.4	82.6
DP 1321 B2RF	1130*	39.9	4.5	1.15	31.6	83.4
DG 2570 B2RF	1123*	38.9	4.3	1.13	30.7	82.9
NG 1511 B2RF	1085	39.6	4.3	1.13	31.5	82.6
ST 6448GLB2	1071	38.8	4.2	1.17	30.4	81.9
DP 1133 B2RF	1053	39.6	4.4	1.14	31.4	82.8
ST 4946GLB2	1033	37.3	4.1	1.14	31.2	82.5
FM 1944GLB2	1020	37.0	4.1	1.17	31.0	81.6
DP 1311 B2RF	1002	38.9	4.1	1.14	29.6	81.7
Grand Mean	1084	38.9	4.3	1.15	31.0	82.4
LSD (0.05)	79	1.2	0.1	0.01	0.7	0.6

\* Yield not statistically different than the top yielding variety.

**Individual Trial Location Data**

**Location: Dundee**  
**Grower: Douglas Hood**  
**MSU Agronomist: D. Dodds**

**Row width: 38"**  
**Irrigated: Furrow**  
**Planting date: June 4, 2013**

**Harvest date: November 14, 2013**  
**Soil series: Dundee Silt Loam/  
 Askew Very Fine Sandy Loam**

**Table 6. Yield and fiber quality at Dundee.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
NG 1511 B2RF	1323*	40.5	4.5	1.12	32.1	82.0
DP 1321 B2RF	1242*	38.3	4.6	1.17	33.2	83.7
DG 2570 B2RF	1143	37.6	4.4	1.16	32.8	83.6
ST 4946GLB2	1105	37.5	4.3	1.14	34.8	84.2
PHY 499 WRF	1083	37.3	4.0	1.18	32.6	84.3
PHY 339 WRF	1072	35.4	4.2	1.18	31.9	83.6
DP 1311 B2RF	1071	36.0	4.3	1.12	29.7	82.3
ST 6448GLB2	1030	36.7	3.8	1.20	32.1	82.4
DP 1133 B2RF	1023	38.4	4.2	1.18	33.9	85.1
FM 1944GLB2	975	36.2	4.1	1.24	35.3	82.2
Grand Mean	1107	37.4	4.2	1.17	32.8	83.3
LSD (0.05)	152	•	•	•	•	•

\* Yield not statistically different than the top yielding variety.

## 2013 Mississippi State University On-Farm Variety Trial Program

Location: Ellistown  
 Grower: Larry Coker  
 MSU Agronomist: C. Stokes

Row width: 38"  
 Irrigated: No  
 Planting date: June 4, 2013

Harvest date: October 23, 2013  
 Soil series: Mantachie/Talla Silt  
 Loam

**Table 7. Yield and fiber quality at Ellistown.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
PHY 499 WRF	1171	40.0	4.6	1.16	32.7	84.5
DP 1321 B2RF	1169	42.0	4.6	1.16	31.8	83.7
NG 1511 B2RF	1150	40.8	4.4	1.14	32.0	82.1
DG 2570 B2RF	1149	39.9	4.4	1.14	30.9	83.8
PHY 339 WRF	1144	36.5	4.2	1.19	31.2	82.7
ST 4946GLB2	1097	39.3	4.2	1.17	30.9	82.8
FM 1944GLB2	1091	37.5	4.1	1.21	31.0	82.4
DP 1133 B2RF	1083	39.8	4.4	1.16	31.6	83.2
DP 1311 B2RF	971	39.3	4.0	1.17	29.3	82.1
ST 6448GLB2	938	37.2	4.1	1.23	30.9	82.9
Grand Mean	1096	39.2	4.3	1.17	31.2	83.0
LSD (0.05)	NSD	•	•	•	•	•

Location: Eupora  
 Grower: Matt Knight  
 MSU Agronomist: D. Reginelli

Row width: 38"  
 Irrigated: No  
 Planting date: May 16, 2013

Harvest date: November 4, 2013  
 Soil series: Oaklimeter Silt Loam

**Table 8. Yield and fiber quality at Eupora.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
PHY 499 WRF	1373*	40.5	4.4	1.15	31.9	82.9
NG 1511 B2RF	1291*	41.7	4.6	1.13	31.1	83.2
DG 2570 B2RF	1268*	39.0	4.3	1.13	30.2	82.5
PHY 339 WRF	1249*	38.9	4.0	1.14	30.4	81.5
DP 1321 B2RF	1199*	40.0	4.6	1.12	30.5	82.6
FM 1944GLB2	1100	35.6	4.0	1.15	29.6	80.0
ST 6448GLB2	1071	37.1	3.9	1.18	30.3	81.1
DP 1133 B2RF	1039	39.0	4.4	1.15	30.3	82.7
ST 4946GLB2	1018	32.3	4.2	1.15	30.8	82.9
DP 1311 B2RF	1010	39.1	4.2	1.18	28.8	81.8
Grand Mean	1162	38.3	4.3	1.15	30.4	82.1
LSD (0.05)	177	•	•	•	•	•

\* Yield not statistically different than the top yielding variety.



## 2013 Mississippi State University On-Farm Variety Trial Program

**Location: Greenwood**

**Row width: 38"**

**Harvest date: October 22, 2013**

**Grower: John Moor**

**Irrigated: Yes**

**Soil series: Alligator Clay**

**MSU Agronomist: J. Singleton**

**Planting date: May 20, 2013**

**Table 9. Yield and fiber quality at Greenwood.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
NG 1511 B2RF	1801*	41.0	4.9	1.16	31.9	84.4
DP 1321 B2RF	1775*	39.8	5.1	1.20	32.5	84.8
PHY 499 WRF	1660*	42.6	4.9	1.21	32.4	84.4
DG 2570 B2RF	1623	38.9	5.0	1.16	31.6	84.0
DP 1311 B2RF	1549	40.1	4.6	1.18	29.4	83.4
ST 4946GLB2	1537	38.4	4.9	1.20	34.5	84.2
PHY 339 WRF	1419	37.8	4.6	1.22	31.4	84.2
FM 1944GLB2	1404	36.2	4.8	1.20	32.4	82.6
ST 6448GLB2	1390	37.9	4.5	1.23	30.3	83.2
DP 1133 B2RF	1344	38.4	4.7	1.20	32.2	84.1
Grand Mean	1550	39.1	4.8	1.2	31.9	83.9
LSD (0.05)	160	•	•	•	•	•

\* Yield not statistically different than the top yielding variety.

**Location: Grenada**

**Row width: 38"**

**Harvest date: October 20, 2013**

**Grower: Coley Bailey**

**Irrigated: No**

**Soil series: Collins/Calloway/**

**MSU Agronomist: D. Dodds**

**Planting date: May 30, 2013**

**Henry Silt Loam**

**Table 10. Yield and fiber quality at Grenada.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
PHY 499 WRF	1254	40.2	4.3	1.13	32.2	83.3
DP 1321 B2RF	1248	39.2	4.7	1.15	33.6	84.3
DP 1311 B2RF	1202	41.0	4.2	1.12	29.3	81.4
DP 1133 B2RF	1184	40.4	4.7	1.12	32.2	83.3
DG 2570 B2RF	1165	38.3	4.3	1.13	31.1	83.0
PHY 339 WRF	1157	38.8	4.3	1.17	32.3	83.3
ST 6448GLB2	1001	36.9	4.3	1.17	30.2	81.7
FM 1944GLB2	997	35.9	3.9	1.19	33.3	82.3
ST 4946GLB2	957	35.4	4.0	1.16	32.9	82.8
NG 1511 B2RF	883	39.9	4.7	1.10	30.6	83.2
Grand Mean	1105	38.6	4.3	1.14	31.8	82.9
LSD (0.05)	NSD	•	•	•	•	•

## 2013 Mississippi State University On-Farm Variety Trial Program

**Location: Lamar**

**Row Width: 38"**

**Harvest date: November 20, 2013**

**Grower: Heath Byrd**

**Irrigated: No**

**Soil series: Grenada/Loring Silt**

**MSU Agronomist: D. Dodds**

**Planting date: June 8, 2013**

**Loam**

**Table 11. Yield and fiber quality at Lamar.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
PHY 339 WRF	699*	39.6	4.2	1.15	31.8	82.9
PHY 499 WRF	641*	41.3	4.4	1.08	32.1	81.6
ST 4946GLB2	624*	39.4	4.2	1.10	30.9	81.5
ST 6448GLB2	612*	37.6	4.2	1.11	26.8	79.0
NG 1511 B2RF	606*	40.5	4.5	1.08	31.3	81.5
DP 1133 B2RF	604*	40.3	4.9	1.12	31.4	82.7
DP 1321 B2RF	596*	41.1	4.1	1.12	30.5	81.5
DG 2570 B2RF	594*	40.4	4.2	1.10	31.4	82.4
FM 1944GLB2	567	36.3	4.1	1.14	30.3	80.4
DP 1311 B2RF	520	39.7	4.2	1.08	28.6	82.0
Grand Mean	606	39.6	4.3	1.11	30.5	81.6
LSD (0.05)	115	•	•	•	•	•

\* Yield not statistically different than the top yielding variety.

**Location: Learned**

**Row Width: 38"**

**Harvest date: October 20, 2013**

**Grower: Kendall Garraway**

**Irrigated: No**

**Soil series: Grenada/Loring/**

**MSU Agronomist: D. Dodds**

**Planting date: May 24, 2013**

**Calloway Silt Loam**

**Table 12. Yield and fiber quality at Learned.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
PHY 499 WRF	1415	43.2	4.8	1.13	31.8	82.1
DP 1321 B2RF	1411	39.2	4.8	1.15	31.1	83.5
NG 1511 B2RF	1387	39.8	4.9	1.11	30.6	81.7
DG 2570 B2RF	1370	38.5	4.9	1.12	30.8	83.3
DP 1311 B2RF	1340	39.9	4.2	1.13	28.7	82.3
DP 1133 B2RF	1316	40.0	4.8	1.14	32.1	83.2
FM 1944GLB2	1311	37.8	4.5	1.17	32.0	82.4
PHY 339 WRF	1279	37.9	4.5	1.16	31.3	83.4
ST 4946GLB2	1275	37.3	4.5	1.15	31.2	83.7
ST 6448GLB2	1269	37.9	4.4	1.16	30.9	82.4
Grand Mean	1337	39.2	4.6	1.14	31.1	82.8
LSD (0.05)	NSD	•	•	•	•	•

• Trial had only one replication; therefore, no statistics were performed.

## 2013 Mississippi State University On-Farm Variety Trial Program

Location: Louise

Row width: 30" 2x1 Skip

Harvest date: October 24, 2013

Grower: Byron Seward

Irrigated: Yes

Soil series: Forrestdale Silty

MSU Agronomist: D. Dodds

Planting date: May 27, 2013

Clay/ Silt Loam

**Table 13. Yield and fiber quality at Louise.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
NG 1511 B2RF	1365	40.7	4.6	1.18	32.4	83.4
DP 1321 B2RF	1355	40.4	4.7	1.21	33.0	82.4
DP 1311 B2RF	1326	40.7	5.1	1.18	33.1	84.4
FM 1944GLB2	1302	38.2	5.0	1.13	32.1	81.8
DP 1133 B2RF	1300	41.5	5.1	1.17	33.4	84.1
PHY 499 WRF	1262	42.1	4.9	1.15	31.9	84.2
DG 2570 B2RF	1209	39.7	4.9	1.16	30.6	84.4
ST 6448GLB2	1178	38.1	4.9	1.16	30.6	84.4
ST 4946GLB2	1137	34.3	4.6	1.23	32.5	83.0
PHY 339 WRF	1124	37.7	4.9	1.19	33.9	84.0
Grand Mean	1256	39.3	4.9	1.18	32.4	83.6
LSD (0.05)	160	•	•	•	•	•

\* Yield not statistically different than the top yielding variety.

Location: Mississippi State

Row width: 38"

Harvest date: October 14, 2013

Grower: Darrin Dodds

Irrigated: No

Soil series: Catalpa/Leeper Silty

MSU Agronomist: D. Dodds

Planting date: May 15, 2013

Clay Loam

**Table 14. Yield and fiber quality at Mississippi State.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
PHY 339 WRF	1391*	40.9	4.6	1.13	31.1	83.1
PHY 499 WRF	1267*	38.9	4.3	1.12	29.0	80.1
DG 2570 B2RF	1222*	38.8	4.2	1.14	29.3	82.5
DP 1321 B2RF	1215*	39.3	4.7	1.16	32.0	84.5
ST 4946GLB2	1190	40.2	4.2	1.14	29.6	81.8
NG 1511 B2RF	1183	36.9	3.9	1.17	33.8	83.6
DP 1133 B2RF	1143	40.5	4.4	1.14	32.2	83.5
ST 6448GLB2	1137	38.2	4.3	1.16	31.9	84.0
FM 1944GLB2	1094	36.8	4.1	1.19	30.3	81.7
DP 1311 B2RF	950	35.0	3.8	1.18	30.8	81.2
Grand Mean	1179	38.6	4.3	1.15	31.0	82.6
LSD (0.05)	196	•	•	•	•	•

\* Yield not statistically different than the top yielding variety.

## 2013 Mississippi State University On-Farm Variety Trial Program

**Location: Mattson**  
**Grower: Graydon Flowers**  
**MSU Agronomist: D. Dodds**

**Row width: 38"**  
**Irrigated: Yes**  
**Planting date: May 21, 2013**

**Harvest date: October 23, 2013**  
**Soil series: Dundee Very Fine**  
**Sandy Loam**

**Table 15. Yield and fiber quality at Mattson.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
PHY 499 WRF	2433*	45.1	4.4	1.18	31.6	84.1
DP 1321 B2RF	2285*	39.2	4.6	1.20	31.9	83.8
NG 1511 B2RF	2252*	40.3	4.4	1.16	31.5	83.7
ST 4946GLB2	2178	36.9	4.3	1.19	31.8	83.3
PHY 339 WRF	2120	38.9	4.3	1.18	31.5	83.6
DP 1311 B2RF	2063	41.6	4.4	1.15	29.0	82.5
FM 1944GLB2	1898	35.8	4.0	1.25	33.3	82.0
DG 2570 B2RF	1880	38.2	4.3	1.18	32.2	84.2
DP 1133 B2RF	1677	38.4	4.4	1.21	31.9	84.3
ST 6448GLB2	1600	35.8	3.9	1.20	30.4	80.8
Grand Mean	2039	39.0	4.3	1.19	31.5	83.2
LSD (0.05)	207	•	•	•	•	•

\* Yield not statistically different than the top yielding variety.

**Location: Minter City**  
**Grower: Mike Sturdivant Jr.**  
**MSU Agronomist: D. Dodds**

**Row width: 38"**  
**Irrigated: Yes**  
**Planting date: May 27, 2013**

**Harvest date: October 19, 2013**  
**Soil series: Dubbs/Dundee Loam**

**Table 16. Yield and fiber quality at Minter City.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
DP 1321 B2RF	1759	40.0	4.9	1.18	32.5	84.4
DG 2570 B2RF	1734	38.5	4.6	1.19	31.9	85.1
ST 4946GLB2	1647	39.1	4.7	1.21	31.7	83.8
DP 1133 B2RF	1646	40.3	4.6	1.19	33.4	84.8
PHY 499 WRF	1626	40.3	4.6	1.21	33.3	84.8
FM 1944GLB2	1578	36.2	4.6	1.26	32.2	83.0
ST 6448GLB2	1420	38.4	4.2	1.25	31.1	83.8
PHY 339 WRF	1361	37.4	4.4	1.20	30.5	83.9
NG 1511 B2RF	1328	40.7	4.8	1.15	29.9	83.9
DP 1311 B2RF	1223	42.8	4.5	1.17	30.4	82.7
Grand Mean	1532	39.4	4.6	1.20	31.7	84.0

• Trial was not replicated; therefore, no statistics were performed.

## 2013 Mississippi State University On-Farm Variety Trial Program

**Location: Prairie**  
**Grower: Ben Harlow**  
**MSU Agronomist: C. Stokes**

**Row width: 30"**  
**Irrigated: No**  
**Planting date: May 28, 2013**

**Harvest date: November 8, 2013**  
**Soil series: Houston clay**

**Table 17. Yield and fiber quality at Prairie.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
ST 6448GLB2	1348*	44.1	3.9	1.17	30.8	81.3
PHY 339 WRF	1144	38.3	3.7	1.16	31.9	81.5
DG 2570 B2RF	1103	37.8	3.6	1.15	31.7	83.1
DP 1321 B2RF	1096	39.0	3.8	1.16	31.8	83.0
NG 1511 B2RF	1093	39.2	3.8	1.18	30.4	82.6
PHY 499 WRF	1086	37.0	3.5	1.15	31.5	82.8
DP 1311 B2RF	1068	39.9	3.8	1.13	30.4	81.4
DP 1133 B2RF	1025	37.7	3.6	1.15	30.2	81.1
FM 1944GLB2	1005	38.5	3.8	1.16	30.7	81.6
ST 4946GLB2	1003	36.4	3.3	1.13	32.5	82.1
Grand Mean	1097	38.8	3.7	1.15	31.2	82.1
LSD (0.05)	136	•	•	•	•	•

\* Yield not statistically different than the top yielding variety.

**Location: Schlater**  
**Grower: Chris Bush**  
**MSU Agronomist: J. Singleton**

**Row width: 38"**  
**Irrigated: Yes**  
**Planting date: May 21, 2013**

**Harvest date: October 19, 2013**  
**Soil series: Dubbs Loam/Tensas Silty Clay Loam**

**Table 18. Yield and fiber quality at Schlater.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
DP 1321 B2RF	1481*	39.0	4.8	1.15	32.0	84.6
NG 1511 B2RF	1431*	39.7	5.1	1.12	30.7	82.6
ST 4946GLB2	1398	37.6	4.9	1.19	34.0	83.8
DP 1311 B2RF	1341	39.4	4.8	1.14	29.3	83.1
DG 2570 B2RF	1297	36.7	5.0	1.15	31.7	84.2
DP 1133 B2RF	1290	38.1	4.9	1.16	32.1	83.0
PHY 499 WRF	1202	38.3	4.9	1.16	35.2	83.5
FM 1944GLB2	1171	36.2	4.7	1.19	32.9	82.3
ST 6448GLB2	1159	36.7	4.8	1.22	30.7	83.2
PHY 339 WRF	1147	35.8	4.7	1.18	32.4	83.5
Grand Mean	1292	37.8	4.9	1.17	32.1	83.4
LSD (0.05)	64	•	•	•	•	•

\* Yield not statistically different than the top yielding variety.