

# 2012 Mississippi Cotton Variety Trials

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Mississippi State University Extension Service



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## 2012 County Trial Locations and Cooperators

Trials arranged and conducted by: Dr. Darrin Dodds

Assistance provided by: Andy Brown, Tyler Dixon, Robert Hill, Daniel Lowry, Zack Reynolds, Chase Samples

Special thanks to: Dr. Chris Main – Formerly of the University of Tennessee – West Tennessee Research and Education Center.

**Table 1. Locations, growers, and cooperating agronomists for 2012 Mississippi State University County Variety Trial Program.**

<b>Location</b>	<b>Trial Type</b>	<b>Grower</b>	<b>MSU Agronomist</b>
<b>Bellefontaine</b>	<b>RR Flex</b>	Mr. Matt Knight	Dr. Dennis Reginelli
<b>Belzoni</b>	<b>RR Flex</b>	Mr. Brooks Aycock III	Mr. Preston Aust
<b>Dundee</b>	<b>RR Flex</b>	Mr. Douglas and Chris Hood	Dr. Darrin Dodds
<b>Edwards</b>	<b>RR Flex</b>	Mr. Kendall Garraway	Mr. Bill Maily
<b>Ellistown</b>	<b>RR Flex</b>	Mr. Larry Coker	Mr. Charlie Stokes
<b>Glendora</b>	<b>RR Flex</b>	Mr. Mike Sturdivant Jr.	Mr. Jerry Singleton
<b>Greenwood</b>	<b>RR Flex</b>	Mr. John Moor	Mr. Jerry Singleton
<b>Grenada</b>	<b>RR Flex</b>	Mr. Coley Bailey	Mr. Steve Winters
<b>Itta Bena</b>	<b>RR Flex</b>	Mr. Travis Dunn	Mr. Jerry Singleton
<b>Leesburg</b>	<b>RR Flex</b>	Mr. Roger Merchant	Dr. Ernest Flint
<b>Louise</b>	<b>RR Flex</b>	Mr. Byron Seward	Dr. Darrin Dodds
<b>Macon</b>	<b>RR Flex</b>	Mr. Chad Boese	Dr. Dennis Reginelli
<b>Mississippi State</b>	<b>RR Flex</b>	Dr. Darrin Dodds	Dr. Darrin Dodds
<b>Sledge</b>	<b>RR Flex</b>	Mr. David Taylor	Dr. Darrin Dodds
<b>Strong</b>	<b>RR Flex</b>	Mr. Ben Harlow	Mr. Charlie Stokes
<b>Tchula</b>	<b>RR Flex</b>	Mr. Jim Osborn	Mr. Jerry Singleton
<b>Lake Cormorant</b>	<b>Liberty Link</b>	Mr. Malcolm McClanahan	Dr. Darrin Dodds
<b>Leland</b>	<b>Liberty Link</b>	Mr. Charles Cleary – Bayer Research Farm	Dr. Darrin Dodds
<b>Lula</b>	<b>Liberty Link</b>	Mr. William Owen	Dr. Darin Dodds
<b>Rich</b>	<b>Liberty Link</b>	Mr. Jack Laney	Dr. Darrin Dodds
<b>Vicksburg</b>	<b>Liberty Link</b>	Mr. Lonnie Fortner	Dr. Darrin Dodds

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. Trey Bullock, Mr. Ty Edwards, Mr. Bert Falkner, Mr. Trent LaMastus, Mr. Tucker Miller, Mr. Tim Richards, Mr. Mike Sartor, Mr. Stoney Stonestreet.

Sincere gratitude is also extended to the following seed companies and representatives for providing seed for these trials: Americot – Dr. Tom Brooks, 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. In many cases OVT data is only 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 to provide growers with as complete a data package as possible to assist with variety selection.

## **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. All Liberty Link trials utilized a single replication. Plot lengths ranged from 300 to 3500 feet in 2012 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 by the United States Department of Agriculture – Agriculture Marketing Service (USDA-AMS) classing office in Memphis, TN.

All Liberty Link entries were replicated one time at each location. Liberty Link trials were treated postemergence with Liberty as needed. A three to five pound seed cotton sample was collected from each variety at each location. These samples were ginned on a 10-saw Continental Eagle laboratory gin that was not equipped with lint cleaners. Laboratory gins have been shown to slightly inflate gin turnout and fiber length values.

## Entries

As previously mentioned, a maximum of 10 core entries per year are allowed. 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 2012, 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 2012 Mississippi State University County Trial Program were as follows:

**Table 2. 2012 Mississippi State University Roundup Ready Flex County Variety Trial Program entry list.**

Slot #	Criteria/Company	Variety
1	At – Large Entry – Americot	NG 1550 B2RF
2	At – Large Entry – Crop Production Services/Dyna-Gro	DG 2570 B2RF
3	Bayer CropScience	FM 1944GLB2
4	Bayer CropScience	ST 5288B2F
5	Bayer CropScience	ST 5458B2RF
6	Dow AgroSciences/Phytogen Cottonseed	PHY 367 WRF
7	Dow AgroSciences/Phytogen Cottonseed	PHY 499 WRF
8	Monsanto/Delta and Pine Land	DP 0912 B2RF
9	Monsanto/Delta and Pine Land	DP 1034 B2RF
10	Monsanto/Delta and Pine Land	DP 1044 B2RF

**Table 3. 2012 Mississippi State University Liberty Link County Variety Trial Program entry list.**

Slot #	Criteria/Company	Variety
1	FM 1944GLB2	Bayer Crop Science
2	ST 4145LLB2	Bayer Crop Science
3	ST 4946GLB2 (Tested as BX 1346GLB2)	Bayer Crop Science
4	ST 5445LLB2	Bayer Crop Science
5	ST 6448GLB2 (Tested as BX 1348GLB2)	Bayer Crop Science
6	PHY 499 WRF	Dow AgroSciences

# Site Characteristics

Locations for the 2012 Mississippi State University County Yield Trial Program are listed on page 3. Yield trials were conducted at a total of 23 locations in 2012. Roundup Ready Flex trials were conducted in 17 locations in 2012. Eight locations were located in the Delta and eight were in the hills. The Lucedale location was planted but not harvested. All Delta locations were either pivot- or furrow-irrigated. All Hill locations were grown under dryland conditions. Liberty Link trials were conducted in six locations in 2012. Five locations were in the Delta and one was in the hills. The hill location has not been harvested at this time. The Vicksburg location was grown under dryland conditions whereas all other Delta locations were either pivot or furrow irrigated. 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.

## 2012 Mississippi State University County Yield Trial Program

### Roundup Ready Flex Yield and Fiber Quality Data Averaged Across 16 Locations

**Table 4. Yield and fiber quality data pooled across all 16 locations.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 499 WRF	1264*	40.1	4.7	1.12	31.3	82.2	4
DG 2570 B2RF	1185	38.9	4.9	1.11	29.9	81.6	2
DP 0912 B2RF	1172	37.9	5.1	1.09	29.0	81.3	3
NG 1511 B2RF	1161	39.3	4.7	1.11	30.6	81.7	3
FM 1944GLB2	1145	38.0	4.7	1.16	32.1	81.4	3
DP 1034 B2RF	1140	38.9	4.7	1.14	29.5	81.7	3
ST 5288B2F	1130	37.6	4.9	1.12	29.1	80.9	4
DP 1044 B2RF	1119	37.1	4.7	1.11	29.4	81.4	3
ST 5458B2RF	1113	37.4	4.9	1.13	31.2	80.8	3
PHY 367 WRF	1097	37.8	4.6	1.13	30.7	81.2	3
Grand Mean	1153	38.3	4.8	1.12	30.3	81.4	3
LSD (0.05)	53	0.01	0.1	0.02	0.7	0.6	0.4

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

**2012 Mississippi State University County Yield Trial Program - Flex Varieties**  
**Delta Region Locations Included: Belzoni, Dundee, Glendora, Greenwood, Itta Bena, Louise, Sledge, and Tchula**

**Table 5. Yield and fiber quality data pooled over eight Delta (all irrigated) locations**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 499 WRF	1283*	39.8	4.8	1.13	32.1	82.6	4
NG 1511 B2RF	1232*	38.9	4.7	1.12	30.9	81.9	4
DG 2570 B2RF	1224*	38.4	5.0	1.12	30.3	81.9	2
DP 0912 B2RF	1209	37.1	5.1	1.11	29.4	81.4	3
ST 5288B2F	1203	37.1	4.9	1.13	29.0	81.2	4
FM 1944GLB2	1186	36.9	4.6	1.19	33.1	82.2	3
DP 1044 B2RF	1165	36.5	4.8	1.13	29.8	81.6	3
ST 5458B2RF	1160	36.7	5.0	1.15	31.9	81.3	3
DP 1034 B2RF	1151	38.9	4.7	1.14	29.6	81.9	3
PHY 367 WRF	1137	37.4	4.6	1.15	31.3	81.9	3
Grand Mean	1195	37.8	4.8	1.14	30.7	81.8	3
LSD (0.05)	69	0.01	0.2	0.02	1.0	0.7	0.6

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

**Hill Region Locations Included: Bellefontaine, Edwards, Ellistown, Grenada, Leesburg, Macon, Mississippi State, and Strong**

**Table 6. Yield and fiber quality data pooled over eight hill region (all dryland) locations.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 499 WRF	1246*	40.3	4.6	1.10	30.6	81.7	3
DG 2570 B2RF	1146	39.3	4.8	1.10	29.5	81.4	3
DP 0912 B2RF	1135	38.7	5.1	1.07	28.6	81.2	3
DP 1034 B2RF	1130	38.8	4.8	1.13	29.3	81.5	3
FM 1944GLB2	1103	39.0	4.7	1.14	31.0	80.7	3
NG 1511 B2RF	1091	39.6	4.8	1.10	30.4	81.6	3
DP 1044 B2RF	1073	37.8	4.7	1.09	29.0	81.2	3
ST 5458B2RF	1067	38.0	4.9	1.12	30.5	80.2	3
PHY 367 WRF	1057	38.2	4.5	1.11	30.1	80.5	3
ST 5288B2F	1056	38.0	4.9	1.11	29.2	80.6	4
Grand Mean	1110	38.8	4.8	1.11	29.8	81.1	3
LSD (0.05)	82	0.01	0.2	0.01	0.9	1.0	0.7

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

## 2012 Mississippi State University County Yield Trial Program - Flex Varieties

Location: Bellefontaine

Row width: 38"

Harvest date: October 25, 2012

Grower: Matt Knight

Irrigated: No

Soil series: Oaklimeter silt loam

MSU Agronomist: D. Reginelli

Planting date: May 9, 2012

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 499 WRF	1087*	42.0	4.7	1.12	31.3	28.2	3
DP 1034 B2RF	990*	42.5	5.2	1.10	28.2	81.0	3
DG 2570 B2RF	987*	41.8	5.2	1.09	29.1	81.3	3
ST 5458B2RF	976	40.2	5.3	1.09	28.9	79.3	4
DP 0912 B2RF	929	39.5	5.5	1.05	27.6	80.7	3
PHY 367 WRF	881	39.8	4.9	1.12	29.5	81.7	3
ST 5288B2F	879	42.3	5.3	1.08	26.9	80.6	5
FM 1944GLB2	873	39.8	5.2	1.10	28.9	79.1	2
DP 1044 B2RF	833	40.2	5.0	1.05	27.7	80.5	4
NG 1511 B2RF	819	43.4	5.2	1.12	31.3	82.6	3
Grand Mean	925	41.1	5.2	1.09	28.9	80.8	3
LSD (0.05)	111	•	•	•	•	•	•

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

Location: Belzoni

Row width: 38" – 4 x 1 Skip

Harvest date: October 13, 2012

Grower: Brooks Aycock

Irrigated: Yes

Soil series: Forrestdale silty clay

MSU Agronomist: P. Aust

Planting date: May 7, 2012

loam

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
FM 1944GLB2	1081*	38.0	4.5	1.16	32.2	80.9	3
DP 1034 B2RF	1050*	39.6	4.7	1.10	28.3	80.7	2
DP 0912 B2RF	1016*	37.8	5.1	1.09	29.4	81.1	3
DP 1044 B2RF	1006*	36.8	4.7	1.10	28.2	80.9	3
ST 5288B2F	990	38.0	5.1	1.11	28.8	80.8	3
DG 2570 B2RF	971	37.5	4.8	1.14	33.2	80.4	3
PHY 499 WRF	970	39.1	4.4	1.11	32.6	82.5	4
NG 1511 B2RF	959	38.4	4.4	1.10	31.5	80.9	4
PHY 367 WRF	956	36.5	4.4	1.09	29.4	80.5	4
ST 5458B2RF	898	36.8	4.7	1.10	31.5	80.9	3
Grand Mean	990	37.9	4.7	1.11	30.5	81.0	3
LSD (0.05)	76	•	•	•	•	•	•

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



## 2012 Mississippi State University County Yield Trial Program - Flex Varieties

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

**Row width: 38"**  
**Irrigated: Yes**  
**Planting date: May 1, 2012**

**Harvest date: October 25, 2012**  
**Soil series: Askew Very Fine**  
**Sandy Loam**

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 499 WRF	1343*	40.1	5.0	1.10	30.8	82.2	4
DP 1034 B2RF	1103	38.7	4.9	1.15	29.0	80.9	2
DP 0912 B2RF	1040	36.4	5.5	1.08	28.3	79.7	2
DG 2570 B2RF	1036	37.8	5.0	1.08	29.2	81.1	2
ST 5288B2F	1021	37.0	4.9	1.09	29.6	79.9	4
DP 1044 B2RF	1013	37.1	4.8	1.11	30.2	81.4	3
NG 1511 B2RF	1004	38.5	4.9	1.07	29.4	80.6	2
PHY 367 WRF	939	36.5	4.7	1.15	30.9	81.3	4
FM 1944GLB2	892	35.8	4.6	1.13	30.4	81.4	4
ST 5458B2RF	798	36.0	5.1	1.13	32.0	81.4	3
Grand Mean	1019	37.4	4.9	1.11	30.0	81.0	3
LSD (0.05)	146	•	•	•	•	•	•

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

**Location: Edwards**  
**Grower: Kendall Garraway**  
**MSU Agronomist: B. Maily**

**Row width: 38"**  
**Irrigated: No**  
**Planting date: April 26, 2012**

**Harvest date: October 31, 2012**  
**Soil series: Reidtown/Oaklimter**  
**silt loam**

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
DP 0912 B2RF	993	38.6	4.6	1.13	29.9	82.6	3
DG 2570 B2RF	992	41.9	4.7	1.11	30.3	80.6	2
PHY 367 WRF	969	41.6	3.8	1.12	31.2	80.9	3
NG 1511 B2RF	920	40.5	4.5	1.08	30.9	79.5	3
FM 1944GLB2	899	37.7	4.2	1.13	32.7	78.8	2
DP 1034 B2RF	889	35.4	4.3	1.16	30.6	82.4	3
PHY 499 WRF	843	40.9	3.9	1.09	31.4	80.9	3
ST 5288B2F	825	36.8	4.2	1.09	29.6	79.6	3
ST 5458B2RF	787	36.3	4.3	1.16	32.6	81.4	2
DP 1044 B2RF	747	35.2	4.3	1.14	29.7	81.8	2
Grand Mean	886	38.5	4.3	1.12	30.9	80.9	3

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

# 2012 Mississippi State University County Yield Trial Program - Flex Varieties

Location: Ellistown

Row Width: 38"

Harvest date: October 10, 2012

Grower: Larry Coker

Irrigated: No

Soil series: Mantachie/Talla silt

MSU Agronomist: C. Stokes

Planting date: May 11, 2012

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
DG 2570 B2RF	1407	40.6	4.9	1.11	29.4	82.6	3
PHY 499 WRF	1355	41.2	4.8	1.11	30.5	82.8	5
NG 1511 B2RF	1260	42.9	5.1	1.12	29.5	82.7	4
DP 0912 B2RF	1249	41.3	5.4	1.09	29.5	81.6	3
ST 5458B2RF	1207	41.0	5.1	1.11	30.2	82.3	4
DP 1044 B2RF	1166	41.0	4.8	1.12	29.6	82.5	3
FM 1944GLB2	1146	40.3	4.9	1.15	31.4	81.3	3
ST 5288B2F	1105	38.4	4.9	1.14	29.2	81.6	5
PHY 367 WRF	1092	38.5	4.8	1.09	30.9	80.2	3
DP 1034 B2RF	986	39.0	5.0	1.12	29.3	82.0	2
Grand Mean	1197	40.4	5.0	1.12	30.0	82.0	4
LSD (0.05)	NSD	•	•	•	•	•	•

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

Location: Glendora

Row Width: 38"

Harvest date: October 24, 2012

Grower: Mike Sturdivant Jr.

Irrigated: Yes

Soil series: Dubbs very fine sandy

MSU Agronomist: D. Dodds

Planting date: April 28, 2012

loam/Alligator clay

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
DG 2570 B2RF	1197	39.1	4.9	1.15	29.8	83.3	2
DP 0912 B2RF	1163	36.1	4.8	1.13	29.3	82.4	4
ST 5288B2F	1154	36.3	4.5	1.16	29.9	81.4	4
FM 1944GLB2	1109	35.2	4.6	1.21	32.4	82.5	3
PHY 367 WRF	1096	36.0	4.2	1.18	31.4	82.2	4
DP 1044 B2RF	1078	36.3	4.9	1.15	29.7	82.1	4
PHY 499 WRF	1071	38.3	4.5	1.18	31.1	82.9	5
NG 1511 B2RF	1049	37.5	3.9	1.16	30.2	82.1	4
ST 5458B2RF	979	36.3	4.9	1.18	32.9	81.5	4
DP 1034 B2RF	970	38.2	4.4	1.13	31.3	80.6	4
Grand Mean	1074	36.9	4.5	1.16	30.9	82.0	4

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

## 2012 Mississippi State University County Yield Trial Program - Flex Varieties

Location: Greenwood

Row width: 38"

Harvest date: October 9, 2012

Grower: John Moor

Irrigated: Yes

Soil series: Dubbs loam

MSU Agronomist: J. Singleton

Planting date: April 26, 2012

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
NG 1511 B2RF	1326*	38.8	4.4	1.15	31.7	82.3	4
ST 5458B2RF	1315*	36.2	4.9	1.14	31.0	80.9	3
ST 5288B2F	1265*	37.0	4.7	1.14	28.5	80.9	4
FM 1944GLB2	1263*	37.4	4.3	1.20	34.2	83.1	4
DG 2570 B2RF	1262*	37.7	5.0	1.07	29.1	80.7	2
DP 0912 B2RF	1253	36.4	4.8	1.12	29.7	82.5	3
DP 1044 B2RF	1225	35.7	4.6	1.13	29.1	81.9	3
PHY 367 WRF	1203	37.8	4.4	1.20	32.5	82.3	3
PHY 499 WRF	1170	38.6	4.6	1.16	33.3	83.1	5
DP 1034 B2RF	1037	37.7	4.7	1.17	29.5	82.6	2
Grand Mean	1232	37.3	4.6	1.15	30.9	82.0	3
LSD (0.05)	68	•	•	•	•	•	•

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

Location: Grenada

Row width: 38"

Harvest date: October 30, 2012

Grower: Coley Bailey

Irrigated: No

Soil series: Calloway/Grenada

MSU Agronomist: S. Winters

Planting date: May 1, 2012

silt loam

**Table 14. Yield and fiber quality at Grenada.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
DP 1034 B2RF	1106*	38.3	4.9	1.13	31.0	83.2	3
FM 1944GLB2	1073*	38.9	4.9	1.13	32.3	82.7	3
DP 0912 B2RF	1056*	38.4	5.0	1.08	27.2	81.4	1
DP 1044 B2RF	1019*	36.4	5.1	1.07	29.0	81.4	2
PHY 367 WRF	991*	36.0	4.9	1.13	29.1	81.3	3
PHY 499 WRF	965*	36.7	4.5	1.12	29.8	82.3	2
NG 1511 B2RF	931	36.5	4.9	1.10	29.6	83.0	1
ST 5288B2F	883	35.7	4.9	1.11	31.7	80.1	2
DG 2570 B2RF	863	36.7	4.4	1.14	31.2	82.4	3
ST 5458B2RF	859	36.2	4.6	1.11	31.2	78.7	2
Grand Mean	975	37.0	4.8	1.11	30.2	81.7	2
LSD (0.05)	145	•	•	•	•	•	•

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

## 2012 Mississippi State University County Yield Trial Program - Flex Varieties

**Location: Itta Bena**

**Row width: 38"**

**Harvest date: October 10, 2012**

**Grower: Travis Dunn**

**Irrigated: Yes**

**Soil series: Dubbs loam/Tensas**

**MSU Agronomist: J. Singleton**

**Planting date: April 28, 2012**

**Silty clay loam**

**Table 15. Yield and fiber quality at Itta Bena.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
DP 0912 B2RF	1562*	37.9	5.0	1.13	29.5	82.2	2
ST 5458B2RF	1457	38.1	4.9	1.18	31.6	81.3	3
PHY 499 WRF	1456	41.8	4.9	1.12	32.1	81.7	4
NG 1511 B2RF	1443	39.3	4.8	1.12	29.9	82.9	4
DP 1044 B2RF	1405	37.2	4.8	1.13	29.1	82.0	3
DG 2570 B2RF	1380	38.5	5.1	1.14	29.2	81.7	2
FM 1944GLB2	1363	36.4	4.9	1.22	34.1	82.2	3
PHY 367 WRF	1360	36.8	4.6	1.14	30.4	80.6	3
ST 5288B2F	1353	37.1	4.8	1.14	27.9	81.9	4
DP 1034 B2RF	1288	38.0	4.8	1.15	29.1	81.4	3
Grand Mean	1407	38.1	4.9	1.15	30.3	81.8	3
LSD (0.05)	94	•	•	•	•	•	•

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

**Location: Leesburg**

**Row width: 38"**

**Harvest date: October 22, 2012**

**Grower: Roger Merchant**

**Irrigated: No**

**Soil series: Kipling silt loam**

**MSU Agronomist: E. Flint**

**Planting date:**

**Table 16. Yield and fiber quality at Leesburg.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 499 WRF	2366	41.9	4.8	1.13	31.1	82.8	3
NG 1511 B2RF	2152	38.6	5.3	1.08	31.3	79.9	3
DG 2570 B2RF	2118	38.8	4.9	1.08	29.9	81.0	2
DP 1044 B2RF	2108	37.9	4.7	1.14	30.4	82.2	3
PHY 367 WRF	2038	38.5	4.6	1.10	30.5	80.8	3
FM 1944GLB2	2020	36.5	4.8	1.15	31.4	80.8	2
ST 5458B2RF	1955	37.1	5.0	1.14	31.8	80.7	3
DP 1034 B2RF	1934	36.6	4.7	1.17	30.9	82.5	2
ST 5288B2F	1921	35.3	4.8	1.16	29.0	81.6	5
DP 0912 B2RF	1920	38.2	5.0	1.04	29.3	80.5	3
Grand Mean	2053	37.9	4.9	1.12	30.6	81.3	3
LSD (0.05)	NSD	•	•	•	•	•	•

## 2012 Mississippi State University County Yield Trial Program - Flex Varieties

Location: Louise

Row width: 30" – 2 x 1 skip

Harvest date: October 24, 2012

Grower: Byron Seward

Irrigated: Yes

Soil series: Alligator clay

MSU Agronomist: D. Dodds

Planting date: May 7, 2012

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
ST 5288B2F	1127*	37.3	5.0	1.15	29.7	81.8	3
PHY 499 WRF	1106*	39.1	4.9	1.15	33.1	83.3	3
NG 1511 B2RF	1077*	42.4	5.1	1.15	31.9	82.2	3
DG 2570 B2RF	958	37.1	4.8	1.14	30.7	82.3	2
DP 1044 B2RF	951	36.5	4.6	1.11	30.9	82.0	3
ST 5458B2RF	949	36.5	5.1	1.13	31.3	81.7	3
PHY 367 WRF	887	38.8	5.2	1.11	32.4	82.5	3
FM 1944GLB2	871	35.9	4.7	1.20	34.3	82.9	3
DP 0912 B2RF	866	37.0	5.2	1.09	29.5	80.0	2
DP 1034 B2RF	726	37.8	4.6	1.14	30.5	82.8	2
Grand Mean	952	37.8	4.9	1.14	31.4	82.2	3
LSD (0.05)	109	•	•	•	•	•	•

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

Location: Macon

Row width: 38"

Harvest date: October 6, 2012

Grower: Chad Boese

Irrigated: No

Soil series: Okolona silty clay

MSU Agronomist: D. Reginelli

Planting date: April 26, 2012

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
DP 1034 B2RF	988*	40.2	4.8	1.08	27.5	78.9	3
DP 0912 B2RF	857	38.5	5.3	1.07	28.0	81.1	4
FM 1944GLB2	825	38.8	4.3	1.16	28.9	81.7	3
PHY 499 WRF	781	40.9	4.8	1.04	29.5	80.0	3
DP 1044 B2RF	776	37.2	4.4	1.05	27.8	80.3	2
PHY 367 WRF	748	37.5	4.5	1.07	29.6	79.5	3
DG 2570 B2RF	725	39.4	4.9	1.06	28.1	81.9	3
ST 5288B2F	711	39.0	5.1	1.08	27.5	80.1	4
ST 5458B2RF	652	41.1	5.2	1.10	29.1	79.2	3
NG 1511 B2RF	601	42.4	4.7	1.08	28.6	81.8	4
Grand Mean	767	39.5	4.8	1.08	28.5	80.5	3
LSD (0.05)	80	•	•	•	•	•	•

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

## 2012 Mississippi State University County Yield Trial Program - Flex Varieties

Location: Mississippi State  
 Grower: Darrin Dodds  
 MSU Agronomist: D. Dodds

Row width: 38"  
 Irrigated: No  
 Planting date: April 30, 2012

Harvest date: October 16, 2012  
 Soil series: Marietta/Catalpa silty clay loam

**Table 19. Yield and fiber quality at Mississippi State.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 499 WRF	1154*	41.2	4.6	1.12	31.1	82.2	4
DP 0912 B2RF	1004*	37.7	4.6	1.07	28.6	80.7	3
DP 1034 B2RF	1003*	40.2	4.7	1.18	28.7	81.4	3
ST 5458B2RF	957	38.0	4.8	1.14	31.2	81.1	4
NG 1511 B2RF	930	37.6	4.1	1.14	31.2	82.0	4
DG 2570 B2RF	918	38.0	4.4	1.15	29.4	81.7	3
ST 5288B2F	880	37.2	4.8	1.13	29.7	79.5	4
FM 1944GLB2	834	39.7	4.6	1.14	30.7	80.7	3
DP 1044 B2RF	792	37.8	4.5	1.12	29.4	81.8	3
PHY 367 WRF	762	37.2	4.3	1.11	30.9	79.5	4
Grand Mean	924	38.5	4.5	1.13	30.1	81.1	4
LSD (0.05)	160	•	•	•	•	•	•

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

Location: Sledge  
 Grower: David Taylor  
 MSU Agronomist: D. Dodds

Row width: 38"  
 Irrigated: Yes  
 Planting date: May 5, 2012

Harvest date: October 16, 2012  
 Soil series: Collins/Falaya silt loam

**Table 20. Yield and fiber quality at Leesburg.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 499 WRF	1611*	39.6	4.7	1.12	31.8	82.7	3
NG 1511 B2RF	1582*	41.3	4.8	1.10	30.2	81.4	3
DG 2570 B2RF	1561*	40.0	4.9	1.13	31.7	83.0	2
DP 1034 B2RF	1507*	40.0	4.5	1.17	29.2	83.2	2
FM 1944GLB2	1496	38.1	4.7	1.20	33.4	81.9	3
ST 5458B2RF	1474	38.3	4.8	1.16	32.7	81.1	4
DP 1044 B2RF	1439	36.8	4.8	1.12	30.0	81.3	2
DP 0912 B2RF	1430	37.6	5.1	1.13	29.6	83.1	3
ST 5288B2F	1400	36.4	4.7	1.13	28.2	81.9	4
PHY 367 WRF	1279	36.1	4.6	1.15	32.6	82.9	3
Grand Mean	1478	38.4	4.8	1.14	30.9	82.3	3
LSD (0.05)	110	•	•	•	•	•	•

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

# 2012 Mississippi State University County Yield Trial Program - Flex Varieties

Location: Strong

Row width: 30"

Harvest date: November 5, 2012

Grower: Ben Harlow

Irrigated: No

Soil series: Vaiden silt loam

MSU Agronomist: C. Stokes

Planting date: April 27, 2012

**Table 21. Yield and fiber quality at Strong.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 499 WRF	1323*	41.9	4.8	1.10	29.9	80.6	3
ST 5288B2F	1241	42.1	4.8	1.11	30.2	81.4	3
DG 2570 B2RF	1191	39.6	4.9	1.07	28.3	79.7	2
FM 1944GLB2	1161	39.3	4.7	1.17	32.0	80.8	3
NG 1511 B2RF	1142	40.2	4.8	1.09	30.9	81.4	3
DP 1034 B2RF	1133	39.3	4.7	1.12	28.2	80.8	2
ST 5458B2RF	1116	38.6	4.7	1.11	28.9	79.0	4
DP 0912 B2RF	1108	38.9	5.0	1.06	28.4	80.6	4
DP 1044 B2RF	1087	37.7	4.7	1.06	28.0	79.2	3
PHY 367 WRF	1043	39.2	4.3	1.11	29.1	80.2	3
Grand Mean	1155	39.7	4.7	1.10	29.4	80.4	3
LSD (0.05)	54	•	•	•	•	•	•

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

Location: Tchula

Row width: 38"

Harvest date: October 25, 2012

Grower: Jim Osborn

Irrigated: Yes

Soil series: Dundee silt loam

MSU Agronomist: J. Singleton

Planting date: May 11, 2012

**Table 22. Yield and fiber quality at Tchula.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
DP 1034 B2RF	1484*	39.8	5.0	1.13	30.2	83.1	3
PHY 499 WRF	1479*	41.4	5.1	1.12	31.6	82.5	3
DG 2570 B2RF	1464*	40.2	5.1	1.10	29.5	82.5	3
FM 1944GLB2	1429*	38.7	4.8	1.18	33.6	82.3	2
PHY 367 WRF	1408*	38.7	4.9	1.14	30.6	82.8	3
DP 0912 B2RF	1374	38.4	5.2	1.07	29.5	80.1	3
NG 1511 B2RF	1373	36.5	5.0	1.12	32.1	82.5	4
ST 5458B2RF	1368	37.4	5.2	1.15	32.3	81.6	4
ST 5288B2F	1340	39.3	5.3	1.13	29.3	80.9	4
DP 1044 B2RF	1207	34.9	4.9	1.17	31.1	81.2	3
Grand Mean	1393	38.5	5.1	1.13	31.0	82.0	3
LSD (0.05)	85	•	•	•	•	•	•

\* Yield not statistically different than the highest yielding variety

**2012 Mississippi State University County Yield Trial Program - Liberty Link Varieties  
Yield and Fiber Quality Data Averaged Across 5 Locations Including: Lake Cormorant,  
Leland, Lula, Rich, and Vicksburg**

**Table 23. Yield and fiber quality data for averaged over all locations for Liberty Link trials.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
ST 4946GLB2	1522	40.9	4.4	1.17	32.1	83.6
PHY 499 WRF	1470	42.9	4.4	1.15	31.4	83.8
ST 5445LLB2	1412	40.6	4.6	1.19	32.5	83.4
ST 4145LLB2	1410	39.0	4.5	1.18	30.8	84.0
FM 1944GLB2	1396	39.6	4.3	1.21	32.2	82.8
ST 6448GLB2	1314	39.9	4.4	1.23	30.2	83.2
Grand Mean	1421	40.5	4.4	1.19	31.5	83.5
LSD (0.05)	NSD	0.9	NSD	0.03	1.2	NSD

**Individual Location Data  
Plots Were Planted As Non-Replicated Strips**

**Location: Lake Cormorant**  
**Grower: Malcolm McClanahan**  
**MSU Agronomist: D. Dodds**

**Row width: 38"**  
**Irrigated: Yes**  
**Planting date: April 27, 2012**

**Harvest date: Sept. 28, 2012**  
**Soil series: Dundee very fine  
sandy loam**

**Table 24. Yield and fiber quality at Lake Cormorant.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
PHY 499 WRF	1649	43.3	4.9	1.19	32.7	84.5
ST 4946GLB2	1629	40.2	4.4	1.20	34.1	84.0
ST 5445LLB2	1606	41.0	5.3	1.20	34.6	84.2
ST 4145LLB2	1579	39.5	5.0	1.21	32.8	84.6
FM 1944GLB2	1439	39.2	4.8	1.21	33.7	83.4
ST 6448GLB2	1403	39.1	4.7	1.26	31.5	85.3
Grand Mean	1551	40.4	4.9	1.21	33.2	84.3

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



**2012 Mississippi State University County Yield Trial Program - Liberty Link Varieties****Location: Leland****Row width: 38"****Harvest Date: Sept. 27, 2012****Grower: Charles Cleary****Irrigated: Yes****Soil Series: Sharkey silty clay****MSU Agronomist: D. Dodds****Planting date: April 30, 2012****loam****Table 25. Yield and fiber quality at Leland.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
ST 4946GLB2	1540	40.4	4.7	1.19	32.7	86.1
PHY 499 WRF	1326	40.6	4.4	1.18	32.5	85.1
ST 6448GLB2	1315	40.6	4.6	1.25	31.3	84.4
ST 4145LLB2	1303	38.2	4.5	1.19	30.0	84.4
ST 5445LLB2	1300	39.8	4.8	1.21	32.3	84.5
FM 1944GLB2	1198	38.7	4.5	1.24	32.9	84.4
Grand Mean	1357	39.9	4.6	1.20	31.8	84.9

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

**Location: Lula****Row width: 38"****Harvest date: September 14, 2012****Grower: Will Owen****Irrigated: Yes****Soil series: Askew very fine****MSU Agronomist: D. Dodds****Planting date: April 27, 2012****sandy loam****Table 26. Yield and fiber quality at Lula.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
ST 4145LLB2	1468	40.6	5.0	1.18	32.7	84.8
ST 5445LLB2	1389	42.8	5.0	1.16	33.5	82.0
FM 1944GLB2	1271	41.9	4.5	1.19	32.3	82.6
ST 4946GLB2*	1262	43.2	4.9	1.14	33.1	83.1
ST 6448GLB2*	1225	42.4	4.9	1.16	29.2	81.7
PHY 499 WRF*	1083	45.3	4.6	1.06	31.4	82.0
Grand Mean	1323	42.2	4.9	1.17	32.2	82.8

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

\* These three varieties were adversely affected by early season 2,4-D spray drift.

**2012 Mississippi State University County Yield Trial Program - Liberty Link Varieties****Location: Rich****Row width: 38"****Grower: Jack Laney****Irrigated: Yes****Harvest date: October 5, 2012****MSU Agronomist: D. Dodds****Planting date: April 24, 2012****Soil series: Dundee silt loam****Table 27. Yield and fiber quality at Rich.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
PHY 499 WRF	1811	42.1	3.9	1.16	30.5	84.2
ST 4946GLB2	1672	39.3	3.8	1.15	31.5	83.2
FM 1944GLB2	1622	37.8	3.5	1.22	32.1	80.8
ST 5445LLB2	1504	38.5	3.7	1.22	31.0	83.4
ST 4145LLB2	1502	37.6	3.6	1.19	30.5	83.3
ST 6448GLB2	1372	38.5	3.5	1.25	29.1	83.1
Grand Mean	1622	39.1	3.7	1.19	31.1	83.0

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

**Location: Vicksburg****Row width: 38"****Harvest date: October 8, 2012****Grower: Lonnie Fortner****Irrigated: No****Soil series: Sharkey/Dowling clay****MSU Agronomist: D. Dodds****Planting date: April 30, 2012****Table 28. Yield and fiber quality at Vicksburg.**

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity
	- Lbs/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----
ST 4946GLB2	1505	41.6	4.4	1.15	29.2	81.8
PHY 499 WRF	1481	43.0	4.3	1.14	29.7	83.4
FM 1944GLB2	1451	40.2	4.3	1.18	29.9	82.7
ST 5445LLB2	1259	40.9	4.3	1.16	31.3	82.8
ST 6448GLB2	1255	38.8	4.1	1.22	30.0	81.5
ST 4145LLB2	1200	39.3	4.4	1.13	27.9	83.1
Grand Mean	1390	40.9	4.3	1.17	30.0	82.4

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