

2015 Mississippi On-farm Cotton Variety Trials



Contents

2015 County Trial Locations and Cooperators	4
Introduction	5
Methodology.....	5
Entries	5
Site Characteristics	6
Reported Data & Analysis	6
Data Tables	
Data Summarized across All Locations.....	7
Data Summarized across Delta Locations.....	7
Data Summarized across Hill Locations	8
Data Summarized across Irrigated Locations	8
Data Summarized across Dryland Locations	9
Individual Trial Location Data:	
Clarksdale.....	10
Coffeeville.....	10
Dundee.....	11
Edwards.....	11
Ellistown.....	12
Eupora.....	12
Glendora.....	13
Greenwood.....	13
Itta Bena.....	14
Louise.....	14
Mayersville.....	15
Mississippi State.....	15
Money	16
Natchez	16
Prairie.....	17
Sledge.....	17
Vaiden.....	18

2015 County Trial Locations and Cooperators

Trials arranged and conducted by Dr. Darrin Dodds.

Assistance provided by Drew Denton, Michael Plumblee, Tandon Baker, Clark Blaine, Michael Davis, Savana Davis, Jake Norris, and Benjamin Palmer.

Special thanks to Andrea Jones, University of Missouri Delta Research and Extension Center.

Table 1. Locations, growers, and cooperating agronomists for 2015 Mississippi State University County Variety Trial Program.		
Location	Grower	MSU Agronomist
Clarksdale	Bowen Flowers	Darrin Dodds
Coffeeville	Coley Bailey	Darrin Dodds
Dundee	Douglas Hood	Darrin Dodds
Edwards	Kendall Garraway	Darrin Dodds
Ellistown	Larry Coker	Charlie Stokes
Eupora	Matt Knight	Dennis Reginelli
Glendora	Mike Sturdivant	Darrin Dodds
Greenwood	John Moor	Andy Braswell
Itta Bena	Travis Dunn	Andy Braswell
Louise	Byron Seward	Darrin Dodds
Meyersville	Chase Mahalitic	John Carson
Mississippi State	Darrin Dodds	Darrin Dodds
Money	Chris Bush	Andy Braswell
Natchez	Matthew Guedon	Darrin Dodds
Prairie	Ben Harlow	Charlie Stokes
Sledge	David Taylor	Darrin Dodds
Vaiden	Shirley Farms	Ernie Flint

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 Tyler Dixon, Ty Edwards, Bert Falkner, Tucker Miller, and Tim Richards.

Sincere gratitude is also extended to the following seed companies and representatives for providing seed for these trials: Bayer CropScience, Dr. Andy White; Crop Production Services/Dyna-Gro, Scott Cummings; Dow AgroSciences/Phytogen Cottonseed, Dr. Brooks Blanche; and Monsanto Company/Delta and Pine Land, 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 leaves growers wondering for the remainder of the season whether they made the right 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 4–6 years. One that does not perform well will likely remain on the market for fewer than 3 years. In addition, the historical standard for variety testing information was to have 2–3 years of data before releasing any given variety. Today, 1–2 years of “broad-scale” variety testing is common prior to new variety release. Therefore, greater demand has been placed on testing a variety in as many environments as possible as a substitute for multiple years of data. Variety testing before public release is conducted by the private industry and through university official variety trial (OVT) programs. OVT data is typically available for 1 year before variety release.

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 by providing data from grower farms under real-world management scenarios. 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. Furthermore, these data are the only known source of unbiased information that includes large-plot testing of varieties from multiple companies across such a broad range of geography.

Methodology

The on-farm testing program at Mississippi State University is designed to test varieties in as many environments and management scenarios 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 company is given depends on market share as determined by the USDA-AMS Cotton Varieties Planted Report from the previous year. In addition, one to two at-large entries are given to smaller companies in order to provide equal opportunity to as many seed providers as possible. Our on-farm variety tests are usually planted in 8- or 12-row sets using 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 at all locations. Plot lengths ranged from 600 to 3,600 feet in 2015 depending on trial field characteristics. Seed treatments are at the discretion of the company providing seed. A premium package including insecticide, fungicide, and nematocide seed treatments was included for each variety. In-season management is at the discretion of the grower, and growers are encouraged to manage the plot area as they would manage any given field on their farm.

Each variety replication 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. Prior to all harvest operations, each boll buggy or trailer was calibrated by Master Scale in Greenwood, Mississippi, to ensure that correct harvest weights were collected. An 8- to 10-pound seed cotton sample was collected for each variety. In order to reduce ginning time, half of the sample was collected from replication number 1 and half was collected from replication number 2. Seed cotton was ginned at the University of Missouri Delta Research and Extension Center near Portageville, Missouri. Ginning equipment at the University of Missouri consists of a 20-saw Continental Eagle gin equipped with a stick machine, incline cleaners, a single lint cleaner, 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 based on market share from each given company. 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 2015, Monsanto/Delta and Pine Land was allotted three spots; Bayer CropScience, including the FiberMax and Stoneville brands, was allotted a total of three spots; Dow AgroSciences/Phytogen Cottonseed was allotted three spots; and the one additional spot was given “at-large” in order to provide parity between smaller companies with less resources than larger companies. Entries in the 2015 Mississippi State University County Trial Program were as follows:

Table 2. 2015 Mississippi State University county variety trial program entry list.

Slot #	Criteria/Company	Variety
1	At-Large Entry – Crop Production Services/Dyna-Gro	DG 2570 B2RF
2	Bayer CropScience	ST 4747GLB2
3	Bayer CropScience	ST 4946GLB2
4	Bayer CropScience	ST 6182GLT
5	Dow AgroSciences/Phytogen Cottonseed	PHY 312 WRF
6	Dow AgroSciences/Phytogen Cottonseed	PHY 444 WRF
7	Dow AgroSciences/Phytogen Cottonseed	PHY 495 W3RF
8	Monsanto/Delta and Pine Land	DP 1518 B2XF
9	Monsanto/Delta and Pine Land	DP 1522 B2XF
10	Monsanto/Delta and Pine Land	DP 1553 B2XF

Site Characteristics

Locations for the 2015 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 in the Delta and eight were in the Hills. Eight of nine Delta locations were irrigated, whereas all eight Hill locations were dryland. Field sites were chosen based on grower preference and required elements to conduct a yield trial.

Reported Data and Analysis

Each data table includes the following: variety, lint yield, lint percent, micronaire, staple length (in inches), fiber strength, fiber uniformity, and leaf grade. Data analysis using SAS v. 9.4 was conducted on all replicated trials. Grand means (averages) as well as least significant differences (LSD) are presented for all replicated data. 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, LSDs are not applicable. For locations that were replicated and data from one replication of a given variety was lost, SAS will interpret these data as missing and provide data analysis based on estimates. Therefore, average data for a given location may be slightly different than data reported.

2015 Mississippi State University On-Farm Variety Trial Program

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
PHY 444 WRF	1345*	39.2	4.1	1.27	33.6	85.5	4.9
PHY 312 WRF	1288	38.2	4.5	1.21	33.4	85.3	6.1
DP 1522 B2XF	1287	38.5	4.8	1.18	32.9	84.3	5.9
DP 1518 B2XF	1272	38.1	4.4	1.18	31.3	84.3	6.1
DG 2570 B2RF	1243	37.7	4.8	1.16	33.9	84.5	3.6
PHY 495 W3RF	1213	39.2	4.6	1.14	34.5	84.3	4.8
DP 1553 B2XF	1192	39.3	4.6	1.21	31.9	84.5	3.7
ST 6182GLT	1181	40.3	4.6	1.19	31.8	84.3	3.9
ST 4946GLB2	1163	36.6	4.7	1.20	34.6	84.6	5.6
ST 4747GLB2	1127	35.9	4.6	1.21	31.2	83.7	5.7
Grand Mean	1231	38.3	4.6	1.20	32.9	84.5	5.0
LSD (0.05)	57	0.6	0.1	0.01	0.5	0.3	0.6

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

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
DP 1518 B2XF	1405*	36.9	4.5	1.22	31.9	85.2	6.0
PHY 444 WRF	1395*	37.4	4.1	1.29	34.0	85.9	4.1
DP 1522 B2XF	1392*	37.1	4.8	1.21	33.8	84.8	6.0
PHY 312 WRF	1371*	36.8	4.5	1.24	34.0	85.8	5.8
DG 2570 B2RF	1324	37.2	4.8	1.18	33.1	85.0	3.6
PHY 495 W3RF	1283	38.0	4.6	1.17	35.2	84.6	4.9
ST 4946GLB2	1259	35.5	4.8	1.22	34.4	85.0	5.4
ST 6182GLT	1222	38.5	4.6	1.20	32.5	84.3	3.6
ST 4747GLB2	1158	34.2	4.5	1.23	32.2	84.6	5.7
DP 1553 B2XF	1150	37.7	4.4	1.24	32.6	84.8	3.5
Grand Mean	1296	36.9	4.6	1.22	33.4	85.0	4.9
LSD (0.05)	72	0.6	0.1	0.01	0.7	0.4	0.8

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

Delta region locations included Clarksdale, Dundee, Glendora, Greenwood, Itta Bena, Louise, Mayersville, Money, and Sledge.

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
PHY 444 WRF	1290*	41.5	4.0	1.25	33.1	85.1	5.7
DP 1553 B2XF	1244*	41.4	4.7	1.20	30.9	84.0	3.9
PHY 312 WRF	1193	40.0	4.6	1.18	32.6	84.7	6.4
DP 1522 B2XF	1167	40.2	4.8	1.15	31.9	83.6	5.8
DG 2570 B2RF	1152	38.5	4.9	1.13	32.6	83.9	3.5
ST 6182GLT	1135	42.5	4.6	1.16	31.2	84.2	4.4
PHY 495 W3RF	1135	40.8	4.7	1.11	33.7	83.9	4.8
DP 1518 B2XF	1119	39.6	4.3	1.15	30.5	83.4	6.2
ST 4747GLB2	1095	38.0	4.6	1.18	29.9	82.6	5.8
ST 4946GLB2	1052	38.0	4.6	1.17	34.7	84.1	5.9
Grand Mean	1158	40.1	4.6	1.17	32.1	83.9	5.2
LSD (0.05)	77	1.0	0.1	0.01	0.6	0.4	0.8

*Yield not statistically different than the top-yielding variety.
Hill region locations included Coffeenville, Edwards, Ellistown, Eupora, Mississippi State, Natchez, Prairie, and Vaiden.

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
DP 1518 B2XF	1373*	36.7	4.4	1.22	31.6	85.1	5.8
PHY 444 WRF	1372*	37.4	4.1	1.29	33.8	86.0	4.4
DP 1522 B2XF	1362*	37.0	4.7	1.21	33.7	84.4	6.3
PHY 312 WRF	1350*	36.7	4.5	1.24	33.9	85.8	5.8
DG 2570 B2RF	1315*	37.1	4.8	1.18	33.0	85.0	3.4
PHY 495 W3RF	1257	37.9	4.5	1.17	34.9	84.5	4.8
ST 4946GLB2	1234	35.4	4.8	1.22	34.3	85.0	5.7
ST 6182GLT	1202	38.7	4.6	1.21	32.3	84.4	3.7
ST 4747GLB2	1137	34.2	4.5	1.23	32.2	84.6	5.9
DP 1553 B2XF	1109	37.5	4.4	1.24	32.6	84.9	3.7
Grand Mean	1271	36.9	4.5	1.22	33.2	85.0	4.9
LSD (0.05)	76	0.7	0.1	0.01	0.7	0.4	0.8

*Yield not statistically different than the top-yielding variety.
Irrigated locations included Clarksdale, Dundee, Glendora, Greenwood, Itta Bena, Louise, Money, and Sledge.

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
PHY 444 WRF	1388*	40.3	4.1	1.26	34.1	85.3	5.1
DP 1553 B2XF	1338*	40.4	4.7	1.21	31.9	84.2	3.5
PHY 312 WRF	1297	39.1	4.6	1.20	33.7	85.1	6.1
DP 1522 B2XF	1284	39.3	4.8	1.16	33.0	84.0	5.4
DG 2570 B2RF	1245	37.8	4.9	1.14	33.5	84.3	3.6
DP 1518 B2XF	1244	38.8	4.4	1.16	31.7	83.8	6.2
PHY 495 W3RF	1239	39.9	4.7	1.13	34.8	84.3	4.6
ST 6182GLT	1228	41.2	4.7	1.18	32.2	84.4	4.0
ST 4747GLB2	1185	37.0	4.7	1.20	30.9	83.0	5.3
ST 4946GLB2	1163	37.2	4.7	1.18	35.6	84.4	5.3
Grand Mean	1261	39.1	4.6	1.18	33.1	84.3	4.9
LSD (0.05)	74	0.9	0.1	0.01	0.6	0.4	0.8

*Yield not statistically different than the top yielding variety.

Dryland locations included Coffeetown, Edwards, Ellistown, Eupora, Mayersville, Mississippi State, Natchez, Prairie, and Vaiden.

Individual Trial Location Data

Location: Clarksdale
 Grower: Bowen Flowers
 MSU Agronomist: D. Dodds

Row width: 40"
 Irrigated: Furrow
 Planting date: May 8, 2015

Harvest date: October 15, 2015
 Soil series: Bosket/Dundee very fine sandy loam

Table 8. Yield and fiber quality data at Clarksdale.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
ST 4946GLB2	1617*	36.5	4.4	1.20	34.3	84.7	6
PHY 312 WRF	1544*	37.3	4.0	1.23	35.2	85.2	8
DP 1522 B2XF	1541*	38.1	4.4	1.21	33.0	83.6	7
DG 2570 B2RF	1457*	37.1	4.7	1.20	32.6	84.3	3
DP 1518 B2XF	1452*	37.4	4.4	1.23	31.3	83.7	5
PHY 444 WRF	1430*	37.7	3.7	1.31	36.1	86.5	4
PHY 495 W3RF	1416	38.4	4.1	1.23	33.3	83.8	6
ST 6182GLT	1318	41.0	4.3	1.23	31.5	83.8	3
ST 4747GLB2	1285	34.3	4.3	1.23	31.4	85.1	6
DP 1553 B2XF	1074	38.1	4.2	1.24	33.4	83.9	3
Grand Mean	1413	37.6	4.2	1.23	33.2	84.5	5.1
LSD (0.05)	194	•	•	•	•	•	•

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

Location: Coffeetown
 Grower: Coley Bailey Jr.
 MSU Agronomist: D. Dodds

Row width: 38"
 Irrigated: Dryland
 Planting date: May 4, 2015

Harvest date: October 2, 2015
 Soil series: Collins silt loam

Table 9. Yield and fiber quality data at Coffeetown.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
PHY 444 WRF	1153*	43.6	4.1	1.26	32.4	85.2	5
ST 6182GLT	1037	43.6	4.9	1.15	31.7	84.1	4
ST 4946GLB2	1027	38.4	4.9	1.16	35.5	83.6	6
PHY 495 W3RF	1027	42.5	4.8	1.09	35.1	83.3	5
DP 1553 B2XF	1013	42.4	5.0	1.16	31.0	82.6	3
DP 1522 B2XF	995	39.0	5.0	1.13	31.5	83.8	8
DG 2570 B2RF	971	40.5	4.8	1.10	32.0	83.4	3
DP 1518 B2XF	960	39.9	4.6	1.10	29.7	82.1	6
ST 4747GLB2	957	37.8	4.8	1.15	28.1	80.7	5
PHY 312 WRF	948	39.6	4.5	1.17	34.4	85.1	8
Grand Mean	1009	40.7	4.7	1.15	32.1	83.4	5.3
LSD (0.05)	94	•	•	•	•	•	•

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

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

Row width: 38"
 Irrigated: Furrow
 Planting date: May 7, 2015

Harvest date: November 10, 2015
 Soil series: Dundee silt loam/
 Askew very fine sandy loam

Table 10. Yield and fiber quality data at Dundee.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lb/Acre -	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 495 W3RF	1014*	36.6	4.6	1.23	34.2	83.5	4.0
DG 2570 B2RF	982*	36.5	4.6	1.20	31.7	84.4	5.0
DP 1522 B2XF	947*	34.9	4.5	1.21	31.6	83.1	5.0
PHY 444 WRF	932*	38.1	4.3	1.31	31.7	84.0	3.0
PHY 312 WRF	912	34.5	4.5	1.23	32.6	83.8	6.0
ST 4946GLB2	808	33.1	4.9	1.20	34.2	84.4	5.0
ST 6182GLT	796	35.0	4.7	1.23	31.7	82.5	3.0
ST 4747GLB2	746	37.7	4.7	1.23	29.8	82.3	4.0
DP 1553 B2XF	734	36.8	4.3	1.24	32.2	82.4	6.0
DP 1518 B2XF	677	37.2	4.4	1.23	29.5	84.4	5.0
Grand Mean	855	36.0	4.5	1.23	31.9	83.5	4.6
LSD (0.05)	98	•	•	•	•	•	•

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

Location: Edwards
 Grower: Kendall Garraway
 MSU Agronomist: D. Dodds

Row width: 38"
 Irrigated: Dryland
 Planting date: May 12, 2015

Harvest date: October 7, 2015
 Soil series: Calloway/Grenada/
 Loring silt loam

Table 11. Yield and fiber quality data at Edwards.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	----- % -----		--- Inches ---	- grams/tex -	---- % ----	
PHY 444 WRF	1044	40.5	4.5	1.25	35.7	86.0	8
DG 2570 B2RF	1031	39.1	5.0	1.12	33.2	83.8	4
DP 1522 B2XF	1022	39.3	5.0	1.15	33.1	84.2	6
DP 1553 B2XF	1019	41.1	4.8	1.19	30.3	84.0	4
DP 1518 B2XF	1001	39.3	4.7	1.19	33.1	84.7	5
PHY 312 WRF	938	39.0	5.1	1.17	33.1	85.1	4
ST 4946GLB2	937	38.3	5.0	1.14	35.4	84.7	5
ST 6182GLT	925	41.8	4.9	1.16	31.2	84.4	4
PHY 495 W3RF	904	40.1	4.9	1.11	36.2	83.2	4
ST 4747GLB2	819	35.6	4.7	1.20	32.1	83.3	8
Grand Mean	964	39.4	4.9	1.17	33.3	84.3	5.2
LSD (0.05)	NSD	•	•	•	•	•	•

*NSD = No statistical differences in yield among varieties.

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

Row width: 38"
 Irrigated: Dryland
 Planting date: May 7, 2015

Harvest date: October 22, 2015
 Soil series: Mantachie/Talla silt loam

Table 12. Yield and fiber quality data at Ellistown.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
DG 2570 B2RF	1246*	41.8	4.6	1.17	33.5	85.0	4
PHY 495 W3RF	1241*	42.5	4.5	1.17	34.6	86.4	6
PHY 444 WRF	1189*	41.1	3.7	1.30	33.0	85.2	7
DP 1522 B2XF	1182*	42.3	4.7	1.21	31.3	84.5	7
PHY 312 WRF	1151*	40.7	4.4	1.21	32.4	85.5	8
DP 1518 B2XF	1114	41.7	3.9	1.16	30.9	84.1	6
DP 1553 B2XF	1085	40.9	4.1	1.26	31.5	84.8	5
ST 6182GLT	1063	41.2	4.1	1.20	31.6	84.8	6
ST 4946GLB2	1025	38.7	4.3	1.22	34.8	85.2	8
ST 4747GLB2	1025	38.2	4.3	1.23	30.7	84.3	6
Grand Mean	1132	40.9	4.3	1.21	32.4	85.0	6.3
LSD (0.05)	99	•	•	•	•	•	•

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

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

Row width: 38"
 Irrigated: Dryland
 Planting date: May 6, 2015

Harvest date: October 22, 2015
 Soil series: Oaklimeter silt loam

Table 13. Yield and fiber quality data at Eupora.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
PHY 444 WRF	1179	43.4	4.4	1.22	32.5	85.1	8
DP 1553 B2XF	1089	43.1	5.2	1.20	32.0	83.4	4
PHY 312 WRF	990	41.3	4.9	1.16	31.5	83.1	5
ST 4946GLB2	988	41.9	5.2	1.12	33.8	83.2	3
PHY 495 W3RF	987	43.0	5.1	1.06	31.3	83.3	4
ST 6182GLT	973	42.8	4.7	1.18	31.3	84.8	7
DG 2570 B2RF	965	42.1	5.3	1.11	33.9	82.5	3
DP 1522 B2XF	911	41.2	5.2	1.11	30.9	82.8	4
DP 1518 B2XF	895	41.1	4.6	1.13	29.5	83.5	7
ST 4747GLB2	835	39.5	4.9	1.19	29.8	82.7	7
Grand Mean	981	41.9	5.0	1.15	31.7	83.4	5.2
LSD (0.05)	NSD	•	•	•	•	•	•

*NSD = No statistical differences in yield among varieties.

Location: Glendora
 Grower: Mike Sturdivant Jr.
 MSU Agronomist: D. Dodds

Row width: 38"
 Irrigated: Furrow
 Planting date: May 8, 2015

Harvest date: October 16, 2015
 Soil series: Dundee/Tensas Silt Loam

Table 14. Yield and fiber quality data at Glendora.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	- Lbs/Acre -	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
DP 1518 B2XF	1678	34.8	4.2	1.25	32.0	85.5	7
DP 1522 B2XF	1646	35.5	4.4	1.25	34.3	86.6	7
PHY 444 WRF	1634	36.7	3.7	1.32	34.1	86.0	7
PHY 312 WRF	1616	35.8	4.3	1.23	34.2	85.1	6
ST 6182GLT	1586	34.9	4.7	1.23	36.0	85.2	5
DG 2570 B2RF	1531	35.0	5.0	1.19	32.7	85.3	3
ST 4747GLB2	1427	37.5	4.3	1.18	35.8	85.7	6
DP 1553 B2XF	1394	36.9	4.3	1.25	33.7	86.0	5
ST 4946GLB2	1358	33.4	4.4	1.26	31.8	84.7	8
Grand Mean	1541	35.6	4.4	1.24	33.8	85.6	6.0
LSD (0.05)	NSD	•	•	•	•	•	•

*NSD = No statistical differences in yield amongst varieties.

Location: Greenwood
 Grower: John Moor
 MSU Agronomist: A. Braswell

Row width: 38"
 Irrigated: Furrow
 Planting date: May 4, 2015

Harvest date: October 20, 2015
 Soil series: Dubbs loam/Tensas silty clay loam

Table 15. Yield and fiber quality data at Greenwood.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
DP 1518 B2XF	1784*	36.2	4.6	1.18	33.0	84.6	4
PHY 444 WRF	1769*	35.7	4.2	1.23	30.5	85.2	8
PHY 312 WRF	1654*	36.6	4.5	1.24	33.9	84.7	8
DP 1522 B2XF	1607	37.5	4.3	1.22	30.6	84.2	2
PHY 495 W3RF	1543	34.3	4.4	1.26	33.5	86.9	7
DG 2570 B2RF	1509	37.1	4.2	1.27	32.0	85.8	4
ST 6182GLT	1493	37.7	4.6	1.14	33.9	84.0	3
ST 4946GLB2	1455	31.8	4.2	1.25	31.8	85.0	8
DP 1553 B2XF	1409	33.9	4.8	1.22	34.6	85.1	5
ST 4747GLB2	1295	39.1	4.2	1.21	30.9	84.8	3
Grand Mean	1552	36.0	4.4	1.22	32.5	85.0	5.2
LSD (0.05)	153	•	•	•	•	•	•

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

Location: Itta Bena
 Grower: Travis Dunn
 MSU Agronomist: A. Braswell

Row width: 38"
 Irrigated: Irrigated
 Planting date: May 8, 2015

Harvest date: October 8, 2015
 Soil series: Dubbs silt loam

Table 16. Yield and fiber quality data at Itta Bena.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
DP 1522 B2XF	1134*	37.6	4.8	1.22	33.2	84.9	8
DG 2570 B2RF	1127*	38.4	4.8	1.16	33.2	84.2	3
PHY 312 WRF	1052*	37.2	4.8	1.20	32.3	84.6	4
ST 4946GLB2	1016	35.9	4.8	1.25	34.6	84.6	6
DP 1518 B2XF	1000	36.2	4.6	1.21	32.7	85.7	5
PHY 444 WRF	998	37.9	4.0	1.27	33.0	85.3	6
PHY 495 W3RF	961	38.8	4.5	1.18	34.7	83.6	8
ST 4747GLB2	938	35.1	4.6	1.26	32.2	85.3	5
ST 6182GLT	886	38.4	4.8	1.20	34.0	85.3	4
DP 1553 B2XF	875	38.1	4.6	1.24	34.0	85.5	4
Grand Mean	999	37.4	4.6	1.22	33.4	84.9	5.3
LSD (0.05)	103	•	•	•	•	•	•

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

Location: Louise
 Grower: Byron Seward
 MSU Agronomist: D. Dodds

Row width: 30" 2x1 Skip
 Irrigated: Irrigated
 Planting date: May 8, 2015

Harvest date: October 8, 2015
 Soil series: Dubbs silt loam

Table 17. Yield and fiber quality data at Louise.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
DP 1518 B2XF	1680*	38.7	4.6	1.21	32.7	84.3	6
DP 1522 B2XF	1499	36.6	5.0	1.22	35.2	85.5	5
ST 4946GLB2	1480	36.1	4.9	1.20	35.1	85.3	6
DG 2570 B2RF	1456	37.9	5.1	1.19	34.0	85.5	3
PHY 444 WRF	1454	36.5	3.8	1.35	35.1	86.7	6
PHY 312 WRF	1399	35.6	4.7	1.28	37.0	87.1	5
ST 4747GLB2	1300	33.2	4.5	1.26	34.2	84.4	8
ST 6182GLT	1257	38.1	4.6	1.22	33.1	84.4	4
PHY 495 W3RF	1228	38.1	4.8	1.16	35.7	85.2	5
DP 1553 B2XF	1193	37.5	4.5	1.26	32.2	86.1	3
Grand Mean	1395	36.8	4.6	1.24	34.4	85.5	5.1
LSD (0.05)	88	•	•	•	•	•	•

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

Location: Mayersville
 Grower: Chase Mahalitic
 MSU Agronomist: J. Carson

Row width: 38"
 Irrigated: Irrigated
 Planting date: May 6, 2015

Harvest date: October 12, 2015
 Soil series: Commerce silty clay loam

Table 18. Yield and fiber quality data at Mayersville.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
DP 1518 B2XF	1672	38.6	4.7	1.21	34.4	85.8	8
DP 1522 B2XF	1635	37.8	5.2	1.20	34.4	84.7	4
PHY 444 WRF	1581	37.1	4.4	1.30	35.2	85.1	2
PHY 312 WRF	1537	37.4	4.7	1.25	35.2	86.3	6
DP 1553 B2XF	1493	38.7	4.8	1.20	32.8	84.1	2
PHY 495 W3RF	1484	38.3	4.9	1.16	36.9	85.8	5
ST 4946GLB2	1465	36.7	5.1	1.20	35.9	84.5	3
DG 2570 B2RF	1392	38.2	5.1	1.20	33.5	85.3	6
ST 6182GLT	1377	37.2	4.9	1.17	32.9	83.6	3
ST 4747GLB2	1316	34.2	4.9	1.23	31.7	84.4	4
Grand Mean	1495	37.4	4.9	1.21	34.3	85.0	4.3
LSD (0.05)	NSD	•	•	•	•	•	•

*NSD = No statistical differences in yield among varieties.

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

Row width: 38"
 Irrigated: Dryland
 Planting date: May 4, 2015

Harvest date: Sept. 30, 2015
 Soil series: Catalpa/Leeper silty clay loam

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

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
DP 1553 B2XF	1346*	42.0	4.5	1.19	31.1	84.3	4
ST 6182GLT	1108*	42.3	4.3	1.16	32.1	84.3	2
DG 2570 B2RF	1103	38.3	4.5	1.12	32.1	84.8	4
PHY 444 WRF	1058	39.2	3.6	1.24	33.9	85.1	5
PHY 312 WRF	1050	38.6	4.1	1.17	33.1	84.4	8
ST 4747GLB2	1025	38.7	4.2	1.19	29.8	82.9	6
PHY 495 W3RF	963	40.9	4.2	1.12	32.6	83.3	4
DP 1522 B2XF	934	38.0	4.1	1.15	32.6	83.8	7
DP 1518 B2XF	875	38.1	4.0	1.13	30.1	83.3	6
ST 4946GLB2	843	36.4	3.8	1.18	35.6	83.6	6
Grand Mean	1031	39.2	4.1	1.17	32.3	84.0	5.2
LSD (0.05)	240	•	•	•	•	•	•

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

Location: Money
 Grower: Chris Bush
 MSU Agronomist: A. Braswell

Row width: 38"
 Irrigated: Irrigated
 Planting date: May 5, 2015

Harvest date: Sept. 29, 2015
 Soil series: Tensas silty clay loam/
 Tutwiler very fine sandy loam

Table 20. Yield and fiber quality data at Money.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
DP 1518 B2XF	1530*	38.1	4.5	1.22	32.8	86.2	4
PHY 444 WRF	1436	37.8	4.0	1.29	35.4	86.6	3
PHY 312 WRF	1423	36.4	4.6	1.25	32.6	86.1	4
DP 1522 B2XF	1380	36.3	4.8	1.23	34.5	85.1	6
DG 2570 B2RF	1270	36.9	4.9	1.18	33.5	85.7	2
DP 1553 B2XF	1206	39.3	4.4	1.28	33.0	86.0	3
ST 6182GLT	1166	39.7	4.6	1.21	31.2	84.4	4
ST 4747GLB2	1141	34.4	4.8	1.22	30.9	84.1	4
ST 4946GLB2	1136	34.6	5.1	1.22	35.0	85.5	5
PHY 495 W3RF	1083	37.5	4.6	1.19	36.7	85.6	5
Grand Mean	1277	37.1	4.6	1.23	33.6	85.5	4.0
LSD (0.05)	87	•	•	•	•	•	•

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

Location: Natchez
 Grower: Matthew Guedon
 MSU Agronomist: D. Dodds

Row width: 38"
 Irrigated: Dryland
 Planting date: May 3, 2015

Harvest date: Sept. 18, 2015
 Soil series: Falaya silt loam

Table 21. Yield and fiber quality data at Natchez.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
DP 1553 B2XF	1465*	39.2	4.7	1.16	30.5	83.6	4
PHY 444 WRF	1464*	39.0	3.4	1.23	32.6	83.5	7
PHY 312 WRF	1401*	39.6	4.3	1.17	33.6	83.8	7
DP 1518 B2XF	1374*	35.1	4.0	1.14	29.3	82.0	6
DP 1522 B2XF	1362*	39.4	4.7	1.13	31.4	83.6	5
ST 4747GLB2	1319	36.8	4.6	1.16	31.9	82.5	4
ST 6182GLT	1295	41.0	4.6	1.14	30.2	82.6	5
DG 2570 B2RF	1205	34.3	4.7	1.12	32.3	83.9	4
PHY 495 W3RF	1136	36.4	4.4	1.11	34.6	83.1	5
ST 4946GLB2	981	33.0	4.8	1.16	35.1	83.9	7
Grand Mean	1300	37.4	4.4	1.15	32.2	83.3	5.4
LSD (0.05)	108	•	•	•	•	•	•

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

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

Row width: 30"
 Irrigated: Dryland
 Planting date: May 4, 2015

Harvest date: October 20, 2015
 Soil series: Houston clay

Table 22. Yield and fiber quality data at Prairie.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
PHY 444 WRF	1487*	43.4	4.4	1.21	31.5	85.8	3
DP 1553 B2XF	1334	43.2	5.2	1.16	30.1	83.7	2
PHY 495 W3RF	1325	41.8	5.0	1.10	34.1	84.0	6
PHY 312 WRF	1310	42.5	5.0	1.15	31.5	85.2	5
ST 4747GLB2	1201	39.3	5.0	1.10	27.6	80.6	4
DP 1522 B2XF	1175	43.5	4.9	1.12	32.4	82.3	4
DP 1518 B2XF	1173	44.0	4.6	1.12	30.9	83.1	7
ST 6182GLT	1100	44.7	5.2	1.13	30.3	83.8	4
ST 4946GLB2	1092	40.8	4.7	1.16	34.2	84.4	6
DG 2570 B2RF	1006	33.3	5.1	1.11	31.3	82.8	2
Grand Mean	1220	41.6	4.9	1.14	31.4	83.6	4.3
LSD (0.05)	141	•	•	•	•	•	•

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

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

Row width: 38"
 Irrigated: Irrigated
 Planting date: May 14, 2015

Harvest date: October 16, 2015
 Soil series: Collins/Falaya silt loam

Table 23. Yield and fiber quality data at Sledge.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
PHY 444 WRF	1275*	38.5	4.6	1.30	34.2	87.0	3
DP 1518 B2XF	1259*	38.3	4.6	1.21	32.0	85.2	6
DG 2570 B2RF	1213*	38.9	5.0	1.18	33.4	85.5	3
PHY 495 W3RF	1205*	37.9	4.9	1.18	35.3	85.2	3
PHY 312 WRF	1203*	38.4	4.6	1.25	33.4	87.1	6
DP 1522 B2XF	1162*	38.2	5.3	1.19	34.1	85.6	4
ST 6182GLT	1109	40.7	4.8	1.19	29.8	85.0	4
ST 4946GLB2	1037	37.6	5.0	1.22	33.6	85.6	5
ST 4747GLB2	1017	35.5	4.4	1.25	32.3	85.0	6
DP 1553 B2XF	956	39.2	4.5	1.25	31.9	86.0	3
Grand Mean	1144	38.3	4.8	1.22	33.0	85.7	4.3
LSD (0.05)	143	•	•	•	•	•	•

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

Location: Vaiden
 Grower: Shirley Farms
 MSU Agronomist: E. Flint

Row width: 38"
 Irrigated: Dryland
 Planting date: May 12, 2015

Harvest date: October 23, 2015
 Soil series: Adler silt loam

Table 24. Yield and fiber quality data at Vaiden.

Variety	Lint Yield	Lint Percent	Mic	Staple	Strength	Uniformity	Leaf
	Lb/Acre	---- % ----		--- Inches ---	- grams/tex -	---- % ----	
DP 1522 B2XF	1811*	39.8	4.9	1.17	31.9	83.9	5.0
PHY 444 WRF	1798*	42.3	4.1	1.27	32.6	84.5	3.0
PHY 312 WRF	1769*	39.4	4.4	1.23	31.0	85.5	5.0
DG 2570 B2RF	1651	38.7	4.7	1.16	32.6	84.6	4.0
DP 1518 B2XF	1618	37.6	4.2	1.21	30.7	84.2	7.0
ST 4946GLB2	1565	37.4	4.5	1.20	32.5	84.7	6.0
ST 4747GLB2	1548	37.7	4.5	1.22	29.4	83.3	6.0
ST 6182GLT	1531	42.0	4.5	1.20	30.8	84.8	4.0
PHY 495 W3RF	1518	39.1	4.5	1.15	32.0	85.0	5.0
DP 1553 B2XF	1490	38.7	4.3	1.23	30.9	85.6	5.0
Grand Mean	1630	39.3	4.5	1.20	31.4	84.6	5
LSD (0.05)	59	•	•	•	•	•	•

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

The information given here is for educational purposes only. References to commercial products, trade names, or suppliers are made with the understanding that no endorsement is implied and that no discrimination against other products or suppliers is intended.

Publication 2957 (POD-05-16)

By **Darrin M. Dodds**, Associate Extension/Research Professor, **Chase A. Samples**, Extension Associate, and **R. Chase King**, Plant & Soil Sciences.



Copyright 2016 by Mississippi State University. All rights reserved. This publication may be copied and distributed without alteration for nonprofit educational purposes provided that credit is given to the Mississippi State University Extension Service.

Produced by Agricultural Communications.

We are an equal opportunity employer, and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by law.

Extension Service of Mississippi State University, cooperating with U.S. Department of Agriculture. Published in furtherance of Acts of Congress, May 8 and June 30, 1914. GARY B. JACKSON, Director