

### 2019

### **On-Farm Cotton Variety Trials**

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### Introduction

Variety selection continues to be one of if not the most important decision growers will make with respect to cotton production. Alabama has several regions in which variety selection, production practices, and environments differ. Varietal performance and stability within regions and across the state are of the utmost importance. Auburn University and the Alabama Cooperative Extension System (ACES) Cotton Agronomy Program provide an unbiased review of on-farm cotton variety performance for multiple regions and environments in Alabama. The results from these on-farm trials are intended to aid cotton growers in determining suitable varieties for their operation.

### Methods

A total of 19 on-farm cotton variety tests were planted and harvested across the state in 2019. Different variety sets were planted for North and South Alabama with some varieties common to both sets. North Alabama locations consisted of Shelby County and north while South Alabama locations included Elmore county and south. A total of 12 varieties were included for each set. The majority of locations consisted of two replications, while three large plot locations included three replications. Each on-farm test was harvested using standard equipment. Harvest weights were obtained by using either a calibrated boll buggy for trials harvest with basket pickers or a calibrated platform scale for trials harvested with round module pickers. In order to expedite results and obtain commercial quality turnouts, seed cotton samples were ginned at The University of Tennessee Cotton Micro Gin located at the West Tennessee Research and Education Center in Jackson, TN. HVI analysis was performed at the USDA cotton classing office in Memphis, TN. Monthly precipitation data for individual trial locations was derived from AgriSight Inc. in conjunction with Farmlogs software.

### Acknowledgements

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### 2019 On-Farm Cotton Variety Trial Results

Table 1. Cotton Lint Yield and Fiber Quality Means Across 6 Farm Locations in NorthAlabama.

Locations: Blount, Cherokee, Lawrence, Limestone, and Shelby counties in Alabama. Lincoln County, Tennessee.

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
ST 4550 GLTP	1	1285.1	41.53%	3	4.2	1.12	31.0	81.9
DP 1646 B2XF	2	1271.2	40.74%	3	4.0	1.18	29.4	81.0
DP 1725 B2XF	3	1254.3	42.23%	3	4.3	1.12	29.7	81.0
ST 5471 GLTP	4	1231.8	38.91%	4	3.9	1.11	29.9	80.5
PHY 400 W3FE	5	1220.5	40.84%	4	3.8	1.13	31.8	81.7
PHY 350 W3FE	6	1215.6	37.77%	4	4.0	1.14	30.9	82.5
NG 5007 B2XF	7	1212.2	39.61%	3	4.2	1.10	28.1	81.0
NG 4936 B3XF	8	1200.7	37.49%	3	3.9	1.19	30.9	82.4
DP 1916 B3XF	9	1181.3	40.53%	3	3.9	1.13	32.9	81.6
ST 5122 GLT	10	1143.6	38.62%	4	3.9	1.09	29.8	80.7
NG 3994 B3XF	11	1104.9	40.09%	4	4.4	1.12	29.8	80.6
PHY 480 W3FE	12	1046.0	38.62%	4	4.0	1.13	30.1	82.7
AVERAGE:		1197.2	39.75%	4	4.0	1.13	30.4	81.5





Table 2. Cotton Lint Yield and Fiber Quality Means of Roundup Ready<sup>®</sup> Xtend tolerantvarieties Across 8 Farm Locations in North Alabama.

**Locations:** Blount, Cherokee, Lawrence, Limestone, and Shelby counties in Alabama. Lincoln County, Tennessee.

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
DP 1646 B2XF	1	1290.9	40.51%	3	3.9	1.18	29.6	81.2
DP 1725 B2XF	2	1281.3	41.54%	4	4.2	1.12	29.7	80.9
NG 4936 B3XF	3	1216.7	37.07%	3	3.9	1.19	30.7	82.3
NG 5007 B2XF	4	1208.4	39.26%	3	4.1	1.11	28.1	81.0
DP 1916 B3XF	5	1186.2	40.67%	3	3.9	1.13	33.1	81.9
NG 3994 B3XF	6	1104.8	39.69%	4	4.2	1.12	29.2	80.7
AVERAGE:		1214.7	39.79%	4	4.0	1.14	30.1	81.3





### Table 3. Cotton On-Farm Variety Trial – Blount County, Alabama.

### 2019 BLOUNT COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Jimmy & Lance Miller
- Planted: 5/25/19
- Harvested: 11/10/19
- Row Spacing: 38"
- <u>Seeding Rate:</u> 41,200 seed/acre
- Planting Method: Conventional
- Environment: Dry Land
- Previous Crop: Peanuts
- Soil Type: Wynnville Fine Sandy Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
ST 4550 GLTP	1	1655	40.90%	3	4.4	1.14	31.8	83
PHY 400 W3FE	2	1633	41.18%	4	3.9	1.15	32.8	81.8
ST 5471 GLTP	3	1607	36.87%	5	3.6	1.18	29.4	81.3
NG 5007 B2XF	4	1597	39.14%	3	4.4	1.13	28.3	82.1
NG 4936 B3XF	5	1595	35.81%	3	3.9	1.25	31.1	83.5
DP 1646 B2XF	6	1549	38.64%	4	3.8	1.24	29.7	82.8
DP 1916 B3XF	7	1471	38.45%	4	3.8	1.14	32	81.5
ST 5122 GLT	8	1452	36.93%	4	4.2	1.16	32.3	85
NG 3994 B3XF	9	1450	38.08%	5	4.5	1.16	31.1	81.4
DP 1725 B2XF	10	1412	37.28%	3	4.3	1.13	29.7	82.1
PHY 350 W3FE	11	1319	34.90%	6	3.7	1.17	31.3	83.1
PHY 480 W3FE	12	1219	35.22%	6	3.4	1.18	29.4	83
AVERAGE:		1497	37.79%	4	4.0	1.17	30.7	82.6

Month	Monthly Rainfall (in.)	Total crop Rainfall (in.)
May 25 <sup>th</sup>	0	0
June	3.62	3.62
July	7.27	10.89
August	3.3	14.19
September	1.4	15.59
October – Nov. 10 <sup>th</sup>	8.95	24.54





### Table 4. Cotton On-Farm Variety Trial – Cherokee County, Alabama.

### 2019 CHEROKEE COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Nick & Randall McMichen
- Planted: 5/3/19
- Harvested: 10/4/19
- Row Spacing: 2-30"x 1-60" Skip
- Seeding Rate: 50,000 seed/acre
- Planting Method: No-Till
- <u>Environment</u>: Dry Land
- Previous Crop: Cotton
- <u>Soil Type</u>: Holston Fine Sandy Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
DP 1646 B2XF	1	1153	40.13%	4	3.9	1.14	29.2	80.6
DP 1916 B3XF	2	1140	40.09%	4	3.8	1.14	33.5	81.8
DP 1725 B2XF	3	1108	39.25%	4	3.8	1.09	29.2	79.5
NG 3994 B3XF	4	1099	39.30%	6	4	1.11	27.6	80.7
NG 4936 B3XF	5	1096	35.10%	4	3.6	1.19	30.6	81.9
NG 5007 B2XF	6	1092	37.89%	3	4.2	1.1	26.2	81.2
AVERAGE:		983	38.14%	4	4.0	1.11	30.0	80.8

Month	Monthly Rainfall (in.)	Total crop Rainfall (in.)
May 3 <sup>rd</sup>	1.78	1.78
June	5.53	7.31
July	6.57	13.88
August	2.59	16.47
September	1.55	18.02
October 4 <sup>th</sup>	0.36	18.38





### Table 5. Cotton On-Farm Variety Trial – Cherokee County, Alabama.

### 2019 CHEROKEE COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Rich Lindsey
- Planted: 5/2/19
- Harvested: 10/17/19
- Row Spacing: 36"
- Seeding Rate: 39,000 seed/acre
- Planting Method: Conventional
- Environment: Dry Land
- Previous Crop: Corn
- <u>Soil Type</u>: Etowah Silt Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
PHY 400 W3FE	1	1245	41.01%	5	3.8	1.11	30.4	80.9
DP 1646 B2XF	2	1219	39.64%	3	4.1	1.09	26.8	78.5
NG 4936 B3XF	3	1143	37.31%	3	3.8	1.13	29.6	80.3
ST 4550 GLTP	4	1137	40.56%	4	4.1	1.09	30.7	80.8
ST 5471 GLTP	5	1134	38.75%	4	3.8	1.12	29.5	80.5
NG 5007 B2XF	6	1121	39.54%	4	4.2	1.06	28.1	79.7
DP 1725 B2XF	7	1091	41.89%	4	4.1	1.1	28.9	80.5
PHY 350 W3FE	8	1087	37.40%	4	4.1	1.09	29.5	81.2
DP 1916 B3XF	9	1063	40.44%	3	4.1	1.09	31.5	79.9
NG 3994 B3XF	10	1045	38.95%	5	4.2	1.1	28.9	78.7
PHY 480 W3FE	11	1022	39.92%	4	4	1.11	29.5	82.1
ST 5122 GLT	12	1000	37.73%	4	3.7	1.08	27	80.2
AVERAGE:		1109	39.43%	4	4	1.10	29.2	80.3

Month	Monthly Rainfall (in.)	Total crop Rainfall (in.)
May 2 <sup>nd</sup>	1.48	1.48
June	4.55	6.03
July	4.13	10.16
August	2.37	12.53
September	1.32	13.85
October 17 <sup>th</sup>	0.25	14.1





### Table 6. Cotton On-Farm Variety Trial – Franklin County, Alabama.

### 2019 FRANKLIN COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Murray Farms
- Planted: 5/7/19
- Harvested: 10/18/19
- Row Spacing: 38"
- Seeding Rate: 42,000 seed/acre
- Planting Method: No-Till
- Environment: Dry Land
- Previous Crop: Soybean
- <u>Soil Type</u>: Decatur Silt Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
DP 1725 B2XF	1	1616	39.76%	5	3.9	1.14	30.1	81.5
DP 1646 B2XF	2	1547	39.49%	3	3.6	1.21	31.4	83.1
NG 4936 B3XF	3	1434	36.52%	4	3.7	1.14	29.5	81.7
NG 5007 B2XF	4	1303	38.51%	4	3.7	1.21	30	81
DP 1916 B3XF	5	1262	42.10%	4	3.4	1.14	33.5	83.7
NG 3994 B3XF	6	1110	37.68%	3	3.7	1.16	27.4	81.3
AVERAGE:		1379	39.01%	4	3.7	1.17	30.3	82.1

Month	Monthly Rainfall (in.)	Total crop Rainfall (in.)
May 7 <sup>th</sup>	2.95	2.95
June	4.95	7.90
July	8.01	15.91
August	3.62	19.53
September	0.72	20.25
October 18 <sup>th</sup>	2.61	22.86





### Table 7. Cotton On-Farm Variety Trial – Lawrence County, Alabama.

### 2019 LAWRENCE COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Martin Farms
- Planted: 5/3/19
- Harvested: 10/29/19
- Row Spacing: 30"
- Seeding Rate: 42,000 seed/acre
- Planting Method: No Till Oat, Radish, Clover Cover
- <u>Environment</u>: Dry Land
- Previous Crop: Corn
- Soil Type: Emory-Abernathy Silt Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
DP 1725 B2XF	1	1899	45.00%	3	4.4	1.17	29.9	81.3
DP 1646 B2XF	2	1889	41.76%	3	4.1	1.22	29.6	80.9
ST 5122 GLT	3	1706	39.36%	4	3.9	1.13	30	81
NG 4936 B3XF	4	1703	37.93%	3	4.1	1.23	30.8	84.1
PHY 400 W3FE	5	1698	42.11%	4	4	1.17	32.4	82.6
ST 4550 GLTP	6	1695	41.84%	3	4.3	1.16	30.2	82.1
ST 5471 GLTP	7	1682	38.92%	4	4.1	1.14	29.4	80.2
PHY 350 W3FE	8	1622	37.83%	4	4.2	1.18	31.3	83.8
NG 5007 B2XF	9	1614	38.51%	3	4	1.16	29.3	81.2
DP 1916 B3XF	10	1609	43.08%	3	3.9	1.18	34.2	82.4
NG 3994 B3XF	11	1454	40.25%	4	4.4	1.17	30.7	82.4
PHY 480 W3FE	12	1448	38.88%	4	4	1.17	29.4	83.8
AVERAGE:		1668	40.46%	4	4.1	1.17	30.6	82.2

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
May 3 <sup>rd</sup>	2.49	2.49
June	4.43	6.92
July	9.62	16.54
August	2.16	18.7
September	0.09	18.79
October 29th	5.16	23.95





### Table 8. Cotton On-Farm Variety Trial – Limestone County, Alabama.

### 2019 LIMESTONE COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: TVREC
- Planted: 5/7/19
- Harvested: 10/9/19
- Row Spacing: 40"
- <u>Seeding Rate</u>: 45,000 seed/acre
- Planting Method: No Till
- <u>Environment</u>: Dry Land
- Previous Crop: Soybean
- <u>Soil Type</u>: Dewey Silty Clay Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
PHY 350 W3FE	1	1422	39.86%	4	3.8	1.17	30.8	82.7
DP 1916 B3XF	2	1355	42.21%	3	3.9	1.16	34.4	82.3
ST 4550 GLTP	3	1294	42.73%	3	3.9	1.11	31	80.9
DP 1725 B2XF	4	1223	45.23%	3	4.2	1.1	29.8	79.3
NG 5007 B2XF	5	1175	42.28%	3	4.2	1.07	27.1	80.1
ST 5471 GLTP	6	1170	40.82%	3	3.7	1.05	30.2	79.3
DP 1646 B2XF	7	1142	42.84%	3	3.8	1.15	30	80.5
NG 3994 B3XF	8	1052	42.95%	3	4.2	1.09	29.2	79.1
PHY 480 W3FE	9	1049	41.20%	4	3.4	1.08	31.3	82.1
NG 4936 B3XF	10	1009	38.81%	4	3.6	1.19	30.6	81.4
ST 5122 GLT	11	999	40.33%	3	3.6	1.06	29.5	78.2
PHY 400 W3FE	12	965	41.48%	3	3.1	1.12	32.3	80
AVERAGE:		1155	41.73%	3	3.8	1.11	30.5	80.5

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
May 7th	3.08	3.08
June	5.40	8.48
July	6.4	14.88
August	2.63	17.51
September	0.48	17.99
October 9th	1.74	19.73





### Table 9. Cotton On-Farm Variety Trial – Lincoln County, Tennessee.

### 2019 LINCOLN COUNTY, TN ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Jared Bradley
- Planted: replant on 5/25/19
- Harvested: 11/5/19
- Row Spacing: 30"
- <u>Seeding Rate</u>: 54,000 seed/acre
- Planting Method: No Till
- Environment: Dry Land
- Previous Crop: Corn
- <u>Soil Type</u>: Mountain View Silt Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
ST 4550 GLTP	1	1187	40.62%	3	3.6	1.15	31.5	83.2
ST 5471 GLTP	2	1140	39.07%	4	3.3	1.14	31.4	81
DP 1725 B2XF	3	1136	41.20%	4	3.9	1.15	30.4	81.7
PHY 400 W3FE	4	1118	38.39%	4	3.3	1.18	32.5	82.3
PHY 350 W3FE	5	1111	37.49%	3	3.4	1.17	31.8	81.3
DP 1646 B2XF	6	1107	39.93%	4	3.5	1.25	30.8	82.8
ST 5122 GLT	7	1089	37.41%	3	3.5	1.15	31	80.7
NG 5007 B2XF	8	1052	37.38%	3	3.6	1.13	28.7	81.5
NG 4936 B3XF	9	1049	36.00%	4	3.6	1.23	32.9	84.1
NG 3994 B3XF	10	969	39.46%	4	3.9	1.15	29.9	81.9
DP 1916 B3XF	11	918	37.49%	4	3.3	1.17	34.2	82.6
PHY 480 W3FE	12	862	37.10%	5	4.4	1.17	29.6	83.4
AVERAGE:		1061	38.46%	4	3.6	1.17	31.2	82.2

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
May 25th	0	0
June	6.31	6.31
July	7.51	13.82
August	3.04	16.86
September	1.18	18.04
October – Nov. 5th	6.14	24.18





### Table 10. Cotton On-Farm Variety Trial – Shelby County, Alabama.

### 2019 SHELBY COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: John Deloach
- Planted: replant on 5/24/19
- Harvested: 10/11/19
- Row Spacing: 38"
- Seeding Rate: 42,000 seed/acre
- <u>Planting Method</u>: Conventional
- Environment: Dry Land
- Previous Crop: Corn
- <u>Soil Type</u>: Etowah Silt Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
DP 1725 B2XF	1	765	42.75%	2	4.7	1.08	29.3	81.3
ST 4550 GLTP	2	742	42.54%	2	5	1.04	30.7	81.4
PHY 350 W3FE	3	732	39.17%	3	4.9	1.06	30.7	82.7
DP 1646 B2XF	4	720	41.61%	3	4.5	1.1	29.5	80.2
NG 5007 B2XF	5	713	40.80%	2	4.6	1.04	27.3	81.3
NG 4936 B3XF	6	706	39.08%	2	4.6	1.12	30.6	81.2
PHY 480 W3FE	7	677	39.42%	3	4.5	1.07	31.4	82
DP 1916 B3XF	8	672	41.48%	2	4.6	1.05	31.3	80.8
PHY 400 W3FE	9	665	40.89%	3	4.7	1.04	30.1	82.3
NG 3994 B3XF	10	660	40.87%	4	4.9	1.04	29.1	80.2
ST 5471 GLTP	11	657	39.05%	2	4.7	1.04	29.3	80.5
ST 5122 GLT	12	615	39.95%	3	4.6	0.98	28.7	78.9
AVERAGE:		694	40.64%	3	4.7	1.06	29.8	81.1

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
May 24th	0	0
June	4.61	4.61
July	1.86	6.47
August	3.38	9.85
September	0.04	9.89
October 11th	1.71	11.6





## Table 11. Cotton Lint Yield and Fiber Quality Means Across 9 Farm Locations in SouthAlabama.

Locations: Baldwin (2), Covington, Elmore, Escambia, Geneva, Lee, and Macon (2) Counties.

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
DP 1646 B2XF	1	1104	39.46%	3	4.5	1.17	30.3	82.2
PHY 400 W3FE	2	1082	39.91%	3	4.4	1.13	32.0	82.3
ST 5600 B2XF	3	1062	37.96%	4	4.9	1.13	31.6	82.0
DP 1851 B3XF	4	1043	38.32%	3	4.5	1.13	32.4	83.0
NG 5007 B2XF	5	1035	38.14%	3	4.5	1.11	28.6	82.1
NG 4936 B3XF	6	1032	37.13%	3	4.5	1.16	30.3	83.2
ST 5471 GLTP	7	1025	37.04%	3	4.5	1.11	31.2	81.9
DP 1840 B3XF	8	1022	37.66%	3	4.5	1.15	31.2	82.2
ST 5818 GLT	9	1008	36.97%	3	4.4	1.13	30.6	81.8
PHY 480 W3FE	10	997	37.61%	4	4.3	1.11	30.9	83.0
NG 5711 B3XF	11	983	37.81%	3	4.4	1.16	31.2	82.2
PHY 500 W3FE	12	974	37.80%	4	4.1	1.11	32.9	82.3
AVERAGE:		1031	37.98%	3	4.5	1.13	31.1	82.3





## Table 12. Cotton Lint Yield and Fiber Quality Means of Roundup Ready® XtendVarieties Across 10 Farm Locations in South Alabama.

Locations: Baldwin (2), Covington, Elmore, Escambia, Geneva, Henry, Lee, and Macon (2) Counties.

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
DP 1646 B2XF	1	1148	39.46%	3	4.5	1.17	30.2	82.2
ST 5600 B2XF	2	1112	37.90%	3	4.9	1.12	31.5	82.0
DP 1851 B3XF	3	1110	38.34%	3	4.6	1.13	32.3	82.9
NG 4936 B3XF	4	1081	36.98%	3	4.5	1.16	30.3	83.3
DP 1840 B3XF	5	1079	37.60%	3	4.5	1.15	31.1	82.2
NG 5007 B2XF	6	1072	38.09%	3	4.5	1.11	28.6	82.1
NG 5711 B3XF	7	1063	37.81%	3	4.4	1.15	31.1	82.2
AVERAGE:		1095	38.03%	3	4.6	1.14	30.7	82.4

# Table 13. Cotton Lint Yield and Fiber Quality Means of Enlist<sup>™</sup> Tolerant Varieties Across 10 Farm Locations in South Alabama.

Locations: Baldwin (2), Covington, Elmore, Escambia, Geneva (2), Lee, and Macon (2) Counties.

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
PHY 400 W3FE	1	1091	39.91%	3	4.4	1.13	31.9	82.3
PHY 480 W3FE	2	1004	37.50%	3	4.3	1.11	30.8	82.9
PHY 500 W3FE	3	998	37.77%	4	4.1	1.12	32.7	82.3
AVERAGE:		1031	38.39%	3	4.3	1.12	31.8	82.5





### Table 14. Cotton On-Farm Variety Trial – Baldwin County, Alabama.

### 2019 BALDWIN COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: GCREC
- Planted: replant on 5/15/19
- Harvested: 11/13/19
- Row Spacing: 38"
- Seeding Rate: 30,000 seed/acre
- Planting Method: Strip Till
- Environment: Dry Land
- Previous Crop: Cotton
- Soil Type: Marlboro Very Fine Sandy Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
PHY 400 W3FE	1	1179	36.85%	3	4.4	1.17	32.7	82.1
DP 1646 B2XF	2	1163	37.08%	3	4.7	1.21	29	81.7
DP 1851 B3XF	3	1056	35.83%	3	4.8	1.16	33.1	83.1
DP 1840 B3XF	4	1030	38.05%	4	4.7	1.17	29.8	80.7
NG 4936 B3XF	5	1007	35.42%	3	4.9	1.19	30.8	83.7
ST 5471 GLTP	6	991	34.39%	4	4.7	1.12	30.4	81.7
ST 5818 GLT	7	971	34.47%	3	4.6	1.07	29.4	79.8
NG 5007 B2XF	8	961	38.51%	3	4.5	1.12	28.6	82.3
PHY 480 W3FE	9	927	36.25%	3	4.7	1.1	32	82.3
NG 5711 B3XF	10	921	37.38%	3	4.8	1.2	29.3	83.4
PHY 500 W3FE	11	857	36.83%	4	4.3	1.14	34.3	83.2
ST 5600 B2XF	12	852	36.39%	3	5.3	1.13	31.9	81.1
AVERAGE:		993	36.46%	3	4.7	1.15	30.9	82.1

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
May 15th	0.02	0.02
June	13.33	13.35
July	8.41	21.76
August	3.76	25.52
September	0.07	25.59
October – Nov. 13 <sup>th</sup>	11.05	36.64





### Table 15. Cotton On-Farm Variety Trial – Baldwin County, Alabama.

### 2019 BALDWIN COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Joel Sirmon
- Planted: 6/14/19
- Harvested: 12/06/19
- Row Spacing: 38"
- <u>Seeding Rate</u>: 29,000 seed/acre
- Planting Method: No Till
- Environment: Dry Land
- Previous Crop: Peanut
- <u>Soil Type</u>: Marlboro Fine Sandy Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
DP 1646 B2XF	1	884	35.00%	4	4.2	1.28	31.1	84.9
ST 5600 B2XF	2	855	33.28%	5	4.4	1.20	33.6	84.0
PHY 500 W3FE	3	847	34.03%	5	4.0	1.17	33.8	84.5
DP 1851 B3XF	4	820	33.89%	4	3.9	1.22	34.5	84.7
NG 5711 B3XF	5	811	33.01%	4	4.1	1.22	34.3	83.6
NG 4936 B3XF	6	803	34.49%	4	4.4	1.24	31.4	84.9
ST 5818 GLT	7	794	32.44%	4	4.3	1.22	32.4	84.3
PHY 400 W3FE	8	790	37.21%	4	4.1	1.20	35.9	83.3
ST 5471 GLTP	9	770	33.44%	3	4.4	1.17	34.0	82.9
NG 5007 B2XF	10	713	31.23%	3	4.4	1.15	29.4	81.3
PHY 480 W3FE	11	708	31.44%	4	4.2	1.17	32.3	84.9
DP 1840 B3XF	12	700	33.27%	4	4.3	1.22	33.1	82.9
AVERAGE:		791	33.56%	4	4.2	1.21	33.0	83.9

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
June 14 <sup>th</sup>	3.7	3.7
July	9.08	12.78
August	6.55	19.33
September	0.63	19.96
October	9.02	28.98
Nov. – Dec. 6th	0.9	29.88





### Table 16. Cotton On-Farm Variety Trial – Covington County, Alabama.

### 2019 COVINGTON COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Tommy Thompson
- Planted: 4/25/19
- Harvested: 10/18/19
- Row Spacing: 38"
- <u>Seeding Rate</u>: 34,400 seed/acre
- Planting Method: Strip Till
- Environment: Dry Land
- Previous Crop: Cotton
- <u>Soil Type</u>: Dothan Sandy Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
PHY 500 W3FE	1	941	39.13%	4	3.7	1.10	30.2	80.8
DP 1646 B2XF	2	873	38.42%	2	4.6	1.09	29.3	81.2
ST 5818 GLT	3	869	38.64%	3	5.0	1.13	28.4	82.3
ST 5600 B2XF	4	866	38.50%	2	4.7	1.07	29.6	80.8
DP 1840 B3XF	5	847	37.37%	3	4.5	1.14	32.0	80.9
NG 5007 B2XF	6	842	36.95%	2	4.2	1.09	26.6	81.0
DP 1851 B3XF	7	837	37.73%	3	4.4	1.07	30.3	81.0
NG 4936 B3XF	8	820	36.65%	3	4.2	1.13	29.1	81.5
PHY 480 W3FE	9	818	37.36%	4	3.5	1.10	28.9	80.9
ST 5471 GLTP	10	795	36.35%	3	4.1	1.09	27.6	79.7
NG 5711 B3XF	11	793	37.68%	2	4.6	1.07	29.6	81.7
PHY 400 W3FE	12	788	38.53%	2	4.7	1.08	30.3	82.0
AVERAGE:		841	37.78%	3	4.4	1.10	29.3	81.2

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
April 25 <sup>th</sup>	1.74	1.74
Мау	2.6	4.34
June	3.67	8.01
July	5.2	13.21
August	4.85	18.06
Sept. – Oct. 18 <sup>th</sup>	3.15	21.21





### Table 17. Cotton On-Farm Variety Trial – Elmore County, Alabama.

### 2019 ELMORE COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Richard & Jonathan Edgar
- Planted: 5/15/19
- Harvested: 10/09/19
- Row Spacing: : 2-30"x 1-60" Skip
- <u>Seeding Rate</u>: 34,400 seed/acre
- Planting Method: Conventional
- <u>Environment</u>: Dry Land
- Previous Crop:
- <u>Soil Type</u>: Bowie Sandy Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
ST 5471 GLTP	1	627	41.91%	2	5.2	1.06	32.4	82.1
NG 4936 B3XF	2	584	41.46%	2	4.5	1.02	26.7	81.0
ST 5600 B2XF	3	568	41.14%	2	4.1	1.01	28.4	80.0
DP 1851 B3XF	4	552	41.80%	2	4.6	1.08	31.3	82.2
DP 1646 B2XF	5	539	41.93%	2	4.4	1.09	27.4	80.4
PHY 400 W3FE	6	537	41.47%	3	4.4	1.04	29.3	81.0
PHY 480 W3FE	7	532	39.51%	3	4.5	1.05	30.5	82.9
ST 5818 GLT	8	516	41.40%	2	4.2	1.05	30.9	80.3
PHY 500 W3FE	9	504	41.21%	3	4.3	1.04	31.8	80.2
NG 5007 B2XF	10	449	38.52%	2	4.5	1.10	29.4	83.2
NG 5711 B3XF	11	432	41.05%	1	4.6	1.10	30.3	82.5
DP 1840 B3XF	12	420	40.37%	3	4.6	1.09	30.1	81.8
AVERAGE:		522	40.98%	2	4.5	1.06	29.9	81.5

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
May 15th	0	0
June	5.54	5.54
July	2.52	8.06
August	2.25	10.31
September	0.03	10.34
October 9 <sup>th</sup>	0.47	10.81





### Table 18. Cotton On-Farm Variety Trial – Escambia County, Alabama.

### 2019 ESCAMBIA COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Kevin Holland
- Planted: 5/24/19
- Harvested: 11/20/19
- Row Spacing: 38"
- <u>Seeding Rate</u>: 29,000 seed/acre
- Planting Method: No Till
- <u>Environment</u>: Pivot Irrigation
- Previous Crop: Cotton
- <u>Soil Type</u>: Greenville Fine Sandy Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
ST 5471 GLTP	1	1024	36.62%	3	4.4	1.12	32.2	81.1
ST 5818 GLT	2	962	36.09%	3	4.3	1.16	31.5	82.7
PHY 400 W3FE	3	955	40.56%	3	4.4	1.18	32.5	83.4
NG 5007 B2XF	4	950	37.78%	2	4.6	1.15	29.2	82.4
DP 1646 B2XF	5	907	39.46%	4	4.4	1.21	31.7	82.6
ST 5600 B2XF	6	901	36.41%	6	5.0	1.22	34.3	83.5
NG 4936 B3XF	7	856	35.81%	3	4.6	1.19	31.6	83.2
DP 1840 B3XF	8	822	38.41%	2	4.6	1.19	31.8	82.7
PHY 480 W3FE	9	781	36.27%	4	4.5	1.13	31.7	84.7
DP 1851 B3XF	10	763	33.89%	5	4.9	1.17	31.9	84.1
PHY 500 W3FE	11	757	35.36%	4	4.5	1.11	32.1	82.5
NG 5711 B3XF	12	734	36.80%	3	4.4	1.20	32.6	82.3
AVERAGE:		868	36.96%	4	4.6	1.17	31.9	82.9

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
May 24th	0	0
June	4.52	4.52
July	7.7	12.22
August	6.33	18.55
September	0.07	18.62
October – Nov. 20 <sup>th</sup>	7.7	26.32





### Table 19. Cotton On-Farm Variety Trial – Geneva County, Alabama.

### 2019 GENEVA COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Revels
- Planted: 5/1/19
- Harvested: 11/10/19
- Row Spacing: 36"
- <u>Seeding Rate</u>: 36,300 seed/acre
- Planting Method: Strip-Till
- <u>Environment</u>: Pivot Irrigation
- <u>Previous Crop</u>: Peanuts
- <u>Soil Type</u>: Dothan Sandy Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
DP 1851 B3XF	1	1702	42.42%	2	4.8	1.11	31	81.5
DP 1840 B3XF	2	1636	37.64%	3	4.3	1.14	29.5	80.8
NG 5711 B3XF	3	1633	39.68%	2	4.5	1.13	29	82.3
PHY 400 W3FE	4	1622	42.09%	3	4.3	1.11	30.2	80.9
ST 5600 B2XF	5	1559	40.26%	3	4.9	1.12	30.7	80.4
PHY 500 W3FE	6	1547	39.54%	2	4.2	1.11	32.9	81.4
PHY 480 W3FE	7	1525	40.32%	3	4.3	1.09	30.1	81.3
NG 4936 B3XF	8	1524	37.38%	2	4.5	1.15	29.2	82
NG 5007 B2XF	9	1473	39.67%	2	4.4	1.07	26.7	79.5
DP 1646 B2XF	10	1456	39.26%	2	4.3	1.09	30.7	79.1
ST 5471 GLTP	11	1420	37.66%	3	4.4	1.09	29	81.1
ST 5818 GLTP	12	1354	35.91%	2	4.5	1.1	29.4	80.5
AVERAGE:		1538	39.32%	2	4.5	1.11	29.9	80.9

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
May 1 <sup>st</sup>	2.28	2.28
June	2.72	5.0
July	5.02	10.02
August	3.7	13.72
September	0.10	13.82
October – Nov. 10 <sup>th</sup>	5.65	19.47





### Table 20. Cotton On-Farm Variety Trial – Geneva County, Alabama.

### 2019 GENEVA COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Brannon Farms
- Planted: 5/08/19
- Harvested: 10/18/19
- Row Spacing: 36"
- Seeding Rate: 36,300 seed/acre
- Planting Method: Strip Till
- Environment: Dry Land
- Previous Crop: Cotton
- <u>Soil Type</u>: Dothan Sandy Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
PHY 500 W3FE	1	1208	37.57%	2	4.2	1.13	30.8	82.8
PHY 400 W3FE	2	1169	39.91%	3	4.5	1.10	30.8	81.7
PHY 480 W3FE	3	1074	36.49%	2	4.5	1.06	30.2	82.1
AVERAGE:		1150	37.99%	2	4.4	1.10	30.6	82.2

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
May 8th	1.67	1.67
June	3.1	4.77
July	7.38	12.15
August	4.42	16.57
September	0.58	17.15
October 18 <sup>th</sup>	0.71	17.86





### Table 21. Cotton On-Farm Variety Trial – Henry County, Alabama.

### 2019 HENRY COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Circle W Farms
- Planted: 4/24/19
- Harvested: 10/10/19
- Row Spacing: 36"
- Seeding Rate: 33,400 seed/acre
- Planting Method: Strip Till
- <u>Environment</u>: Pivot Irrigation
- <u>Previous Crop</u>: Peanuts
- <u>Soil Type</u>: Dothan Sandy Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
NG 5711 B3XF	1	1776	37.87%	2	4	1.14	29.7	82.1
DP 1851 B3XF	2	1713	38.49%	3	5	1.10	31.0	82.6
DP 1840 B3XF	3	1596	37.04%	3	4	1.15	29.5	82.2
ST 5600 B2XF	4	1560	37.37%	3	5	1.11	31.1	82.1
DP 1646 B2XF	5	1538	39.43%	3	5	1.18	29.6	82.1
NG 4936 B3XF	6	1520	35.66%	2	4	1.16	29.9	84.2
NG 5007 B2XF	7	1414	37.64%	2	4	1.10	28.4	82.3
AVERAGE:		1482	37.55%	2	4.5	1.12	30.0	82.4

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
April 24 <sup>th</sup>	0.62	0.62
Мау	2.92	3.54
June	3.27	6.81
July	7.07	13.88
August	3.92	17.80
Sept. – Oct. 10 <sup>th</sup>	0.2	18.0





### Table 22. Cotton On-Farm Variety Trial – Lee County, Alabama.

### 2019 LEE COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Mitch Lazenby
- Planted: 5/26/19
- Harvested: 10/18/19
- Row Spacing: 36"
- <u>Seeding Rate</u>: 34,850 seed/acre
- Planting Method: Conventional
- Environment: Pivot Irrigation
- <u>Previous Crop</u>: Peanuts
- <u>Soil Type</u>: Cowarts Loamy Sand

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
ST 5600 B2XF	1	1190	38.81%	4	5.3	1.12	33.4	82.6
NG 5007 B2XF	2	1168	39.34%	3	4.8	1.12	29.5	83.7
PHY 480 W3FE	3	1164	38.40%	4	4.3	1.12	30.8	83.5
PHY 400 W3FE	4	1157	42.18%	4	4.6	1.10	33.4	82.2
DP 1646 B2XF	5	1156	41.93%	4	4.7	1.18	32.7	84.2
DP 1840 B3XF	6	1147	38.34%	3	4.8	1.16	33.1	83.5
DP 1851 B3XF	7	1131	40.40%	3	4.9	1.12	34.1	83.9
ST 5818 GLT	8	1119	39.54%	3	4.6	1.13	31.7	80.7
NG 5711 B3XF	9	1070	38.07%	3	4.6	1.15	32.2	81.2
ST 5471 GLTP	1	1051	38.81%	4	4.6	1.13	33.4	82.9
NG 4936 B3XF	11	1049	38.05%	3	4.6	1.15	32.2	83.3
PHY 500 W3FE	12	1028	38.09%	5	4.3	1.11	34.8	82.1
AVERAGE:		1119	39.33%	4	4.7	1.13	32.6	82.8

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
May 26 <sup>th</sup>	0	0
June	4.99	4.99
July	5.37	10.36
August	5.61	15.97
September	0	15.97
October 18 <sup>th</sup>	1.4	17.37





### Table 23. Cotton On-Farm Variety Trial – Macon County, Alabama.

### 2019 MACON COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: E.V. Smith Research Farm
- Planted: 5/20/19
- Harvested: 10/11/19
- Row Spacing: 36"
- <u>Seeding Rate</u>: 36,300 seed/acre
- Planting Method: No-Till
- <u>Environment</u>: Pivot Irrigation
- Previous Crop: Corn
- <u>Soil Type</u>: Altavista Silt Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
NG 5007 B2XF	1	1292	44.46%	2	4.6	1.08	28.2	82.9
DP 1646 B2XF	2	1251	42.13%	3	4.5	1.21	31.4	83.2
PHY 400 W3FE	3	1232	42.15%	3	4.5	1.12	31.5	84.0
ST 5600 B2XF	4	1212	39.82%	3	5.2	1.12	30.5	82.9
NG 4936 B3XF	5	1187	38.30%	2	4.7	1.15	30.8	85.5
DP 1840 B3XF	6	1165	38.20%	2	4.5	1.12	31.2	83.2
ST 5471 GLTP	7	1161	38.35%	3	4.6	1.07	31.0	83.2
DP 1851 B3XF	8	1130	39.52%	3	4.2	1.12	33.0	83.0
PHY 480 W3FE	9	1106	41.07%	3	4.4	1.10	31.0	83.2
ST 5818 GLT	10	1103	38.03%	3	4.3	1.11	30.1	83.0
PHY 500 W3FE	11	1030	39.36%	4	4.0	1.11	32.5	83.6
NG 5711 B3XF	12	1000	39.49%	2	4.2	1.14	31.9	81.6
AVERAGE:		1156	40.07%	3	4.5	1.12	31.1	83.3

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
May 20 <sup>th</sup>	0	0
June	5.12	5.12
July	2.8	7.92
August	3.34	11.26
September	0.19	11.45
October 11 <sup>th</sup>	0.02	11.47





### Table 24. Cotton On-Farm Variety Trial – Macon County, Alabama.

### 2019 MACON COUNTY, AL ON-FARM COTTON VARIETY TRIAL RESULTS

- <u>Cooperators</u>: Stanley Weisner
- Planted: 5/17/19
- Harvested: 11/04/19
- Row Spacing: 38"
- <u>Seeding Rate</u>: 34,400 seed/acre
- Planting Method: No-Till
- <u>Environment</u>: Traveling Gun
- Previous Crop: Cotton
- <u>Soil Type</u>: Tocca Fine Sandy Loam

VARIETY	Rank	Lint Yield (lbs/Acre)	Lint Turn-Out (%)	Leaf	Mic.	Length (in.)	Strength (g/tex)	Uniformity (%)
DP 1646 B2XF	1	1709	39.92%	3	4.6	1.18	29.3	82.3
ST 5600 B2XF	2	1554	37.04%	4	5.2	1.15	31.9	82.4
PHY 400 W3FE	3	1480	38.15%	4	4.2	1.15	32.5	82.0
NG 5007 B2XF	4	1462	36.78%	4	4.4	1.15	29.8	82.3
NG 4936 B3XF	5	1458	36.61%	3	4.5	1.19	31.3	83.9
NG 5711 B3XF	6	1455	37.10%	4	4.1	1.19	31.9	81.2
DP 1840 B3XF	7	1426	37.33%	4	4.4	1.16	30.5	83.2
PHY 480 W3FE	8	1409	37.91%	4	4.3	1.16	30.9	83.4
DP 1851 B3XF	9	1397	39.44%	4	4.4	1.14	32.8	83.2
ST 5471 GLTP	10	1383	35.79%	4	4.3	1.14	31.1	82.3
ST 5818 GLT	11	1381	36.22%	4	4.2	1.16	31.9	82.9
PHY 500 W3FE	12	1254	36.61%	5	3.9	1.13	33.3	82.1
AVERAGE:		1447	37.41%	4	4.4	1.16	31.4	82.6

Month	Monthly Rainfall (in.)	Accumulative Rainfall (in.)
May 17th	0.38	0.38
June	5.49	5.87
July	4.24	10.11
August	3.3	13.41
September	0.25	13.66
October – Nov. 4 <sup>th</sup>	4.97	18.63







