



## 2019 COTTON VARIETY TESTING AND ON-FARM RESULTS



### **Coordinators of Virginia Cotton Official Variety Testing in 2019**

Hunter Frame, Field Crop Agronomist/Associate Professor

Gail White, Research Specialist, Tidewater Agricultural Research and Extension Center

David Horton, Research Specialist, Tidewater Agricultural Research and Extension Center

### **Other contributors:**

Karl Jones, Agricultural Manager, Tidewater Agricultural Research and Extension Center

### **Producers Participating in the 2019 Cotton Variety On-Farm Testing:**

John Allen, Isle of Wight County

Brian and Adam Darden, Southampton County

Matt Drake, Southampton County

Michael Ellis, City of Suffolk

Richard and Ben Kitchen, Southampton County

Clay and Jameson Lowe, Surry County

Bob Rogers, Sussex County

Jared Webb, Sussex County

## Table of Contents

General Information .....	3
Statistical Analyses.....	3
Relative Yield .....	3
Variety Selection.....	3
Lint Quality Discounts .....	3
2019 Agronomic Inputs for Locations.....	4
Suffolk, VA- Tidewater AREC Location OVT Trial .....	4
Southampton Co., VA- Drake Farm OVT Trial.....	5
Sussex Co., VA- Rogers Farm OVT Trial .....	6
Isle of Wight Co., VA- Allen Farm OVT Trial.....	7
On-Farm Variety Trials.....	7
Table 1: Planting and Harvest Date for County On-Farm Trials.....	7
Table 2: Relative yields for varieties entered at all locations in the 2019 Official Variety Testing (OVT) Program.....	8
Table 3: Two-year (2018-2019) relative yield averages for varieties tested each year .....	9
Table 4: Three-year (2017-2019) relative yield averages for varieties tested each year .....	9
Table 5: Lint yield and lint percent of varieties from the four 2019 OVT trial locations .....	10
Table 6: Lint yield and lint percent of varieties from the six 2019 On-Farm trial locations .....	11
Table 7: Average lint quality and associated 2019 scheduled discounts for top 10 varieties in relative yield across all OVT locations (excluding unreleased experimental lines).....	12
Table 8: Lint quality and associated 2019 scheduled discounts for top 10 varieties in relative yield at the Tidewater AREC OVT location (excluding unreleased experimental lines) .....	13
Table 9: Lint quality and associated 2019 scheduled discounts for top 10 varieties in relative yield at the Southampton Co.- Drake Farm OVT location (excluding unreleased experimental lines) .....	14
Table 10: Lint quality and associated 2019 scheduled discounts for top 10 varieties in relative yield at the Sussex Co.- Rogers Farm OVT location (excluding unreleased experimental lines) .....	15
Table 11: Lint quality and associated 2019 scheduled discounts for top 10 varieties in relative yield at the Isle of Wight Co.- Allen Farm OVT location (excluding unreleased experimental lines) .....	16
Table 12: Lint quality and associated 2019 scheduled discounts for varieties at the Isle of Wight Co. On-Farm location.....	17
Table 13: Lint quality and associated 2019 scheduled discounts for varieties at the Suffolk- Ellis On-Farm location.....	18
Table 14: Lint quality and associated 2019 scheduled discounts for varieties at the Southampton Co.1- Kitchen On-Farm location .....	19
Table 15: Lint quality and associated 2019 scheduled discounts for varieties at the Southampton Co.2- Darden On-Farm location.....	20
Table 16: Lint quality and associated 2019 scheduled discounts for varieties at the Surry Co.- Lowe On-Farm location.....	21
Table 17: Lint quality and associated 2019 scheduled discounts for varieties at the Sussex Co.- Webb On-Farm location.....	22

## General Information

The official cotton variety testing program (OVT) evaluates the performance of commercial and experimental cotton varieties. Varieties were tested at four non-irrigated locations during 2019. All locations were planted using a two row Seed Research Equipment Solutions Classic Aire planter. All locations were harvested using a 2-row commercial cotton picker modified with a system to collect cotton in mesh bags for weighing or weigh on picker with electronic scales. The 2019 OVT received 36 entries from five seed companies. Each company was charged an entry fee for each hybrid per location entered.

## Statistical Analyses

To determine yield differences among varieties at each location the authors have incorporated some basic statistics in the tables. The primary tool for determining the differences among varieties is the LSD (least significant difference) (0.1) value listed at the bottom of the column in the tables. When the difference between varieties is larger than the LSD value, then the varieties can be considered different; however, when the difference between varieties is less than the LSD value these varieties cannot be considered different.

## Relative Yield

When varieties are grown at multiple locations, each having differing yield potential, a comparison of absolute yield (lint yields) could bias variety comparisons to favor one variety over another. The purpose of the cotton OVT program is to evaluate varieties on genetic yield potential and fiber quality traits and not on differences in environmental conditions where they were tested.

To standardize absolute yields so comparisons can be made across locations, relative yields were calculated. Relative yields were calculated by taking individual plot yields and dividing by the highest average yield for a variety within each location:

$$\text{Relative Yield} = \frac{\text{Plot Yield}}{\text{Highest Avg. Yield}}$$

Relative yields for each plot were then averaged to calculate the average relative yield for a variety at a given location. The highest relative yield possible at each location is 1.00 and is equal to 100%.

## Variety Selection

**Selecting the appropriate variety for your given environment is the most important decision a cotton producer will face during the growing season.** Producers should take notice that variety performance depends heavily on environmental conditions at the site where the variety is grown. For this reason, decisions should not be made using a variety's performance at a single location in a given year. Averages across locations should be evaluated carefully and relative yields give insights to where the variety ranks compared to the top yielding variety in that given environment. Varieties which consistently rank near the top in relative yield across years and locations have a higher yield stability. More stable varieties minimize yield fluctuations due to environmental conditions, but do not guarantee the maximum achievable yield level under every environmental condition.

## Lint Quality Discounts

Lint quality discounts are based on 2019 discount table and do not reflect actual discounts given during the fall of 2019. Premiums and discounts are reported in points per pound.

## 2019 Agronomic Inputs for Locations

(Rates on a per acre basis)

### Suffolk, VA - Tidewater AREC Location OVT Trial

<b>Planted:</b>	May 1, 2019
<b>Harvested:</b>	Oct. 10, 2019
<b>Population:</b>	43,560 plants/acre
<b>Fertilizer:</b>	313 lb of 9-9-32 bulk blend on April 29, 2019 30 gal of 24-0-0-3S (75 lb N) injected on June 18, 2019
<b>PGR:</b>	8 oz. Pentia® on June 24, 2019 16 oz. Pentia® on July 10, 2019 12 oz. Pentia® on July 26, 2019
<b>Herbicide:</b>	1.5 pt 2,4-D + 1.5 oz. Valor® on March 28, 2019 1 pt. Prowl® + 1 qt. Cotoran® on May 2, 2019 1.2 oz. Staple® + 32 fl. oz. Roundup® Weathermax on June 5, 2019 24 fl. oz. Roundup® Weathermax + 1 pt. Dual® Magnum on July 14, 2019
<b>Insecticide:</b>	8 oz. Orthene 97® on May 21, 2019 2 oz. Centric® on Jun. 14, 2019 2 oz. Transform® + 8 fl. oz. Diamond® on Jun. 27, 2019 8 oz. Orthene 97® + 6.4 fl. oz. Bifenthrin on July 15, 2019 8 fl. oz. Bidrin 8® + 20 fl. oz. of Prevathon® on July 26, 2019 20 fl. oz. Prevathon® on August 20, 2019 (Spray was made for convention/non-BT cotton research trials in field with OVT)
<b>Harvest Aid:</b>	1 qt. Finish 6 Pro®, 4 oz. Folex®, 4 oz. Dropp® on September 25, 2019
<b>Plot Size:</b>	2 rows 35' x 36" 4 replications
<b>Soil Type</b>	Nansemond fine sandy loam
<b>Cooperator:</b>	Karl Jones

## Southampton Co., VA- Drake Farm OVT Trial

**Planted:** May 7, 2019

**Harvested:** Oct. 7, 2019

**Population:** 43,560 plants/acre

**Fertilizer:** 75 lbs. N per acre 24-0-0-3S on Jun. 27, 2019

**PGR:** 12 oz. Pix® on Aug. 17, 2019

**Herbicide:** 32 oz. Roundup PowerMax®, 2 oz. Valor®, 32 oz. 2-4D Amine® on Apr. 11, 2019  
32 oz. Roundup PowerMax®, 5 oz. Ful-Bor® on Jun. 30, 2019  
24 oz. Roundup PowerMax® on Aug. 17, 2019

**Insecticide:** 6.4 oz. Bifenthrin® + 18 oz. Prevathon® on Jul. 27, 2019

**Harvest Aids:** 32 oz. Finish 6 Pro®, 4 oz. Folex 6EC®, 4 oz. FreeFall SC® on Oct. 15, 2019

**Plot Size:** 2 rows 35' x 36" 4 replications

**Soil Type** Emporia

**Cooperator:** Matt Drake

## Sussex Co., VA- Rogers Farm OVT Trial

**Planted:** May 23, 2019

**Harvested:** Nov. 6, 2019

**Population:** 43,560 plants/acre

**Fertilizer:** 173 lb of 0-0-0-60 on April 25, 2019  
30 lb N and 40 lb P<sub>2</sub>O<sub>5</sub> as 32-0-0 and 11-37-0 in 2X2 band on May 23, 2019  
150 lb of 28-0-0-16S broadcast on June 28, 2019  
35 lb N as 24-0-0-3S dribbled on July 22, 2019  
Boron applied in foliar applications

**PGR:** 11 oz. Pix® on July 29, 2019  
11 oz. Pix® on August 9, 2019

**Herbicide:** 34 fl. oz. glyphosate + 10 fl. oz. Cotoran® on May 24, 2019  
2.85 pt. Warrant® on June 6, 2019  
34 fl. oz. glyphosate + 1.5 oz. Staple® on June 25, 2019

**Insecticide:** 5.7 oz. acephate on June 6, 2019  
6.4 fl. oz. bifenthrin on July 29, 2019  
6.4 fl. oz. bifenthrin + 5.7 oz. acephate on August 9, 2019

**Harvest Aids:** 38 fl. oz. Prep® + 10 fl. oz. Folex® + 3 fl. oz. Dropp® on October 10, 2019

**Plot Size:** 2 rows 35' x 36" 4 replications

**Soil Type** Emporia + Slagle

**Cooperator:** Bob Rogers

## Isle of Wight Co., VA- Allen Farm OVT Trial

<b>Planted:</b>	May 10, 2019
<b>Harvested:</b>	Oct. 24, 2019
<b>Population:</b>	43,560 plants/acre
<b>Fertilizer:</b>	100 lb of 0-0-60 preplant broadcast 20 lb N as 24-0-0-3S as a starter 2X2 band at planting 100 lb N + 24 lb S as a urea/ammonium sulfate blend
<b>PGR:</b>	4 oz. Pix® @ 1 <sup>st</sup> square 4 oz. Pix® @ 1 <sup>st</sup> bloom 8 oz. Pix® @ 10-14 days after 1 <sup>st</sup> bloom
<b>Herbicide:</b>	1.5 pt. Prowl® PRE 22 oz. Glyphosate® applied twice during the season
<b>Insecticide:</b>	3.2 fl. oz. Baythroid® applied twice during the season
<b>Harvest Aids:</b>	8 oz. Folex®, 3 pt. Prep®, 4oz. Dropp®
<b>Plot Size:</b>	2 rows 35' x 36" 4 replications
<b>Soil Type</b>	Yemassee and Slage
<b>Cooperator:</b>	John Allen

## On-Farm Variety Trials

**Table 1: Planting and Harvest Date for County On-Farm Trials**

<b>County</b>	<b>Cooperator</b>	<b>Planting Date</b>	<b>Harvest Date</b>
<b>Isle of Wight</b>	John Allen	May 9, 2019	Oct. 24, 2019
<b>Suffolk</b>	Mike Ellis	May 14, 2019	Nov. 9, 2019
<b>Southampton 1</b>	Richard Kitchen	May 15, 2019	Nov. 8, 2019
<b>Southampton 2</b>	Brian Darden	May 20, 2019	Nov. 7, 2019
<b>Surry</b>	Clay Lowe	May 10, 2019	Oct. 24, 2019
<b>Sussex</b>	Jared Webb	May 17, 2019	Oct. 25, 2019

**Table 2: Relative yields for varieties entered at all locations in the 2019 Official Variety Testing (OVT) Program**

Seed Company	Variety	Maturity	Relative Yield				Avg. Relative Yield
			TAREC	SHC	SUX	IOW	
BASF	ST 4550 GLTP	early	1.00	1.00	0.92	0.86	0.95
Bayer	DP 1725 B2XF	early-mid	0.87	0.93	0.94	1.00	0.94
Americot	NG 4936 B3XF	mid	0.88	1.00	0.98	0.86	0.93
Bayer	DP 1646 B2XF	mid	0.94	0.97	0.84	0.94	0.92
Loveland	DG 3605 B2XF	mid-full	0.98	0.87	1.00	0.81	0.91
Loveland	DG 3570 B3XF	mid-full	0.89	0.88	0.94	0.90	0.90
Corteva	PX 3D32 W3FE†	early-mid	0.90	0.91	0.93	0.82	0.89
Bayer	DP 1851 B3XF	full	0.86	0.95	0.97	0.78	0.89
Bayer	DP 1840 B3XF	mid-full	0.90	0.96	0.80	0.88	0.89
Loveland	CPS 18269GLTP†	mid	0.87	0.89	0.91	0.86	0.88
Corteva	PHY 350 W3FE	mid	0.91	0.86	0.86	0.89	0.88
Americot	NG 3729 B2XF	early-mid	0.88	0.91	0.94	0.79	0.88
Loveland	DG 1702 GLT	mid-full	0.84	0.83	0.95	0.88	0.87
Americot	NG 4601 B2XF	mid	0.88	0.95	0.86	0.75	0.86
Corteva	PHY 400 W3FE*	mid-full	0.83	0.86	0.92	0.84	0.86
Americot	NG 3930 B3XF	early-mid	0.81	0.78	0.96	0.87	0.86
BASF	ST 5600 B2XF	mid	0.76	0.96	0.74	0.96	0.85
Bayer	DP 1835 B3XF	mid	0.86	0.76	0.88	0.90	0.85
BASF	ST 5471 GLTP	mid	0.89	0.84	0.80	0.85	0.84
Loveland	DG 3470 B3XF	mid	0.84	0.87	0.81	0.85	0.84
Bayer	DP 1614 B2XF	early	0.87	0.84	0.91	0.74	0.84
Corteva	PX 3D43 W3FE†	early-mid	0.85	0.74	0.87	0.85	0.83
Corteva	PHY 480 W3FE	mid-full	0.81	0.90	0.73	0.87	0.83
Americot	NG 3994 B3XF	early-mid	0.87	0.79	0.89	0.74	0.82
Americot	NG 3522 B2XF	early-mid	0.79	0.82	0.88	0.79	0.82
Bayer	DP 1916 B3XF	early	0.84	0.82	0.90	0.69	0.81
Corteva	PHY 340 W3FE	mid	0.83	0.84	0.84	0.71	0.80
BASF	BX 2076 GLTP†	mid-full	0.83	0.77	0.90	0.69	0.80
BASF	ST 5122 GLT	early-mid	0.78	0.80	0.74	0.81	0.78
<b>Mean</b>			<b>0.86</b>	<b>0.87</b>	<b>0.88</b>	<b>0.83</b>	<b>0.86</b>
<b>LSD (0.1)</b>			<b>0.080</b>	<b>0.154</b>	<b>0.174</b>	<b>0.152</b>	<b>-</b>

† Experimental lines not released

\* 2020 release variety



**Table 3: Two-year (2018-2019) relative yield averages for varieties tested each year**

<b>Seed Company</b>	<b>Variety</b>	<b>Avg. Relative Yield</b>
BASF	ST 4550 GLTP	0.93
Bayer	DP 1646 B2XF	0.91
Loveland	DG 3605 B2XF	0.88
Corteva	PHY 400 W3FE	0.87
Corteva	PHY 350 W3FE	0.86
Corteva	PHY 340 W3FE	0.86
Bayer	DP 1725 B2XF	0.86
Americot	NG 4936 B3XF	0.85
Loveland	DG 1702 GLT	0.84
Bayer	DP 1614 B2XF	0.83
Americot	NG 3522 B2XF	0.83
Americot	NG 3729 B2XF	0.82
Bayer	DP 1916 B3XF	0.82
Bayer	DP 1840 B3XF	0.82
BASF	ST 5471 GLTP	0.81
Corteva	PHY 480 W3FE	0.80
Bayer	DP 1835 B3XF	0.78
BASF	ST 5122 GLT	0.77
<b>Mean</b>		<b>0.84</b>

**Table 4: Three-year (2017-2019) relative yield averages for varieties tested each year**

<b>Seed Company</b>	<b>Variety</b>	<b>Avg. Relative Yield</b>
Bayer	DP 1646 B2XF	0.93
Loveland	DG 3605 B2XF	0.88
Corteva	PHY 340 W3FE	0.87
Bayer	DP 1614 B2XF	0.86
Bayer	DP 1725 B2XF	0.85
Americot	NG 3522 B3XF	0.83
Bayer	DP 1835 B3XF	0.82
Bayer	DP 1840 B3XF	0.81
Corteva	PHY 480 W3FE	0.81
<b>Mean</b>		<b>0.85</b>

**Table 5: Lint yield and lint percentage of varieties tested during 2019 at the four OVT locations**

Seed Company	Variety	Suffolk		Southampton		Sussex		Isle of Wight	
		Lint Yld lb./A	Lint %	Lint Yld lb./A	Lint %	Lint Yld lb./A	Lint %	Lint Yld lb./A	Lint %
BASF	ST 4550 GLTP	2382	46.5	1835	47.9	1209	45.9	2047	46.8
Bayer	DP 1725 B2XF	2075	46.3	1706	48.6	1234	46.1	2372	48.3
Americot	NG 4936 B3XF	2096	42.1	1833	45.3	1281	45.1	2050	43.5
Bayer	DP 1646 B2XF	2244	45.2	1774	47.2	1109	46.0	2231	45.2
Loveland	DG 3605 B2XF	2327	45.7	1596	45.2	1313	45.5	1919	44.9
Loveland	DG 3570 B3XF	2113	44.4	1618	46.1	1238	45.3	2129	44.9
Corteva	PX 3D32 W3FE <sup>†</sup>	2147	43.8	1668	44.4	1216	43.5	1948	44.3
Bayer	DP 1851 B3XF	2057	44.7	1739	47.8	1270	44.2	1845	44.2
Bayer	DP 1840 B3XF	2149	44.7	1753	44.3	1056	43.0	2091	44.3
Loveland	CPS 18269GLTP <sup>†</sup>	2079	46.2	1628	46.8	1194	45.1	2043	47.0
Corteva	PHY 350 W3FE	2173	42.9	1584	44.9	1129	44.0	2105	44.7
Americot	NG 3729 B2XF	2096	42.3	1667	45.0	1232	42.8	1863	43.8
Loveland	DG 1702 GLT	2006	43.4	1517	43.9	1241	45.0	2079	42.9
Americot	NG 4601 B2XF	2101	45.4	1740	47.9	1134	46.1	1778	45.5
Corteva	PHY 400W3FE	1971	45.4	1577	47.2	1206	45.2	1982	44.7
Americot	NG 3930 B3XF	1933	43.4	1427	45.0	1262	46.7	2068	43.8
BASF	ST 5600 B2XF	1811	44.3	1761	46.3	967	45.0	2268	44.8
Bayer	DP 1835 B3XF	2038	45.6	1398	47.7	1157	46.8	2125	47.1
BASF	ST 5471 GLTP	2118	42.5	1534	43.3	1055	43.8	2006	43.8
Loveland	DG 3470 B3XF	2005	45.5	1601	45.4	1058	46.0	2017	44.6
Bayer	DP 1614 B2XF	2064	45.0	1536	44.0	1199	45.8	1762	44.8
Corteva	PX 3D43 W3FE <sup>†</sup>	2019	44.3	1360	45.7	1149	44.6	2020	44.9
Corteva	PHY 480 W3FE	1937	44.1	1644	45.9	963	46.0	2055	45.5
Americot	NG 3994 B3XF	2075	45.3	1446	45.6	1164	45.8	1763	45.0
Americot	NG 3522 B2XF	1873	42.8	1502	44.7	1153	42.7	1885	44.4
Bayer	DP 1916 B3XF	1999	45.4	1510	45.9	1179	46.5	1629	47.1
Corteva	PHY 340 W3FE	1965	44.9	1541	46.9	1109	46.5	1675	44.9
BASF	BX 2076 GLTP <sup>†</sup>	1981	45.1	1412	46.1	1183	45.5	1645	45.9
BASF	ST 5122 GLT	1866	41.4	1476	43.7	968	41.5	1923	44.2
	<b>Mean</b>	2059	44.4	1599	45.8	1160	45.0	1977	45.0
	<b>LSD (0.1)</b>	190	1.05	209	1.54	227	1.42	362	0.91

<sup>†</sup> Experimental lines not released

\* 2020 release variety

**Table 6: Lint yield and lint percent of varieties from the six 2019 On-Farm trial locations**

Variety <sup>¶</sup>	Avg. across 6 locations		Isle of Wight Co.- Allen		Suffolk- Ellis		Southampton Co.1- Kitchen		Southampton Co.2- Darden		Surry Co.- Lowe		Sussex Co.- Webb	
	Lint Yield	Lint	Lint Yield	Lint	Lint Yield	Lint	Lint Yield	Lint	Lint Yield	Lint	Lint Yield	Lint	Lint Yield	Lint
	lb./A	%	lb./A	%	lb./A	%	lb./A	%	lb./A	%	lb./A	%	lb./A	%
ST 4550 GLTP	1581	46.8	1783	43.0	1481	46.0	1543	47.1	1824	47.7	1588	48.8	1269	48.1
PHY 350 W3FE	1563	44.6	1808	41.9	1496	43.8	1430	43.6	1711	45.9	1777	47.7	1157	44.6
PHY 340 W3FE	1521	46.2	1696	44.6	1384	44.8	1494	45.7	1646	45.3	1669	48.8	1239	48.1
DP 1646 B2XF	1492	45.0	1847	41.1	1674	46.3	1185	44.3	1561	44.8	-*	47.7	1195	45.8
NG 4936 B3XF	1467	42.5	1750	39.1	1625	41.0	1107	41.3	1546	42.0	1634	45.3	1139	46.1
DP 1851 B3XF	1462	44.7	1697	41.5	1535	44.0	1221	43.6	1622	44.8	1559	47.7	1139	46.5
ST 5471 GLTP	1459	42.8	1669	39.5	1444	41.1	1252	41.9	1644	44.0	1526	45.3	1222	44.9
NG 3522 B2XF	1454	43.6	1671	40.3	1585	43.1	1253	41.9	1491	44.8	15.89	46.5	1139	44.6
PHY 480 W3FE	1450	45.0	1868	42.6	1421	44.2	1249	44.0	1589	46.3	-*	46.5	1125	46.5
DP 1916 B3XF	1428	45.1	1685	41.5	1476	44.8	1270	45.4	1607	45.4	-*	48.8	1100	44.6
<b>Mean</b>	<b>1488</b>	<b>44.6</b>	1747	41.5	1512	43.9	1300	43.9	1625	45.2	1620	47.3	1172	45.9
<b>LSD (0.1)</b>	-	-	187	3.44	128	1.60	237	1.76	102	1.84	-	-	107	1.99

<sup>¶</sup>PHY = PhytoGen, Corteva Agriscience; DP = DeltaPine, Bayer Cropscience; NG = NexGen, Americot/NexGen; ST = Stoneville, BASF

\* Round modules busted and accurate weight could not be attained so variety was dropped for that location.

**Table 7: Average lint quality and associated 2019 scheduled discounts for top 10 varieties in relative yield across all four OVT locations**

Variety	Lint Quality <sup>¶</sup>					Discounted Amount <sup>¶¶</sup> (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	<i>32nd</i>		<i>g/tex</i>	<i>%</i>	<i>Color</i>					
ST 4550 GLTP**	37	5.0	33.9	84.1	31	-230	50	15	420	<b>255</b>
DP 1725 B2XF	37	5.1	31.4	83.2	41	-230	40	10	215	<b>35</b>
NG 4936 B3XF**	38	5.0	32.0	85.0	31	0	40	25	430	<b>495</b>
DP 1646 B2XF**	39	5.0	31.1	83.8	31	0	40	10	430	<b>480</b>
DG 3605 B2XF	39	5.0	32.2	83.7	31	0	40	10	430	<b>480</b>
DG 3570 B3XF	36	5.3	32.4	83.8	31	-230	40	10	370	<b>190</b>
DP 1851 B3XF**	38	5.2	33.8	84.1	31	-230	50	15	430	<b>265</b>
DP 1840 B3XF	38	4.9	33.1	84.0	31	0	50	15	430	<b>495</b>
PHY 350 W3FE**	37	4.9	32.8	83.6	31	0	40	10	420	<b>470</b>
NG 3729 B2XF	38	5.2	32.0	84.2	31	-230	40	15	430	<b>255</b>
<b>Mean</b>	38	5.0	32.5	83.9		-115	43	13.5	400.5	342

<sup>¶</sup> Staple= Fiber Length reported in 32nds of an inch; Mic= Micronaire, Str= Fiber strength reported in grams per tex; Uni= Uniformity; HVI=color determined by the Rd & +b values.

<sup>¶¶</sup> Discounted amounts taken from the Cotton Incorporated 2019 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

\*\* Varieties planted at all ten locations.

**Table 8: Lint quality and associated 2019 scheduled discounts for top 10 varieties in relative yield at the Tidewater AREC OVT location (excluding unreleased experimental lines)**

Variety	Lint Quality <sup>¶</sup>					Discounted Amount <sup>¶¶</sup> (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	<i>32<sup>nd</sup></i>		<i>g/tex</i>	<i>%</i>	<i>Color</i>					
ST 4550 GLTP	38	4.6	34.0	84.5	21	0	50	15	475	<b>540</b>
DP 1725 B2XF	38	4.7	31.5	84.3	21	0	40	15	475	<b>530</b>
NG 4936 B3XF	40	4.8	31.7	86.9	11	0	40	30	475	<b>545</b>
DP 1646 B2XF	40	4.7	31.0	84.7	11	0	40	15	475	<b>530</b>
DG 3605 B2XF	41	4.7	31.5	85.8	11	0	40	25	475	<b>540</b>
DG 3570 B3XF	38	5.1	33.2	85.4	21	-230	50	25	475	<b>320</b>
DP 1851 B3XF	40	4.9	32.7	84.7	21	0	40	15	475	<b>530</b>
DP 1840 B3XF	40	4.7	32.1	85.4	21	0	40	25	475	<b>540</b>
PHY 350 W3FE	38	4.8	31.0	84.4	21	0	40	15	475	<b>530</b>
NG 3729 B2XF	39	5.1	32.1	86.0	21	-230	40	30	475	<b>315</b>
<b>Mean</b>	39	4.8	32.1	85.2		-46	42	21	475	492

<sup>¶</sup> Staple= Fiber Length reported in 32nds of an inch; Mic= Micronaire, Str= Fiber strength reported in grams per tex; Uni= Uniformity; HVI=color determined by the Rd & +b values.

<sup>¶¶</sup> Discounted amounts taken from the Cotton Incorporated 2019 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

**Table 9: Lint quality and associated 2019 scheduled discounts for top 10 varieties in relative yield at the Southampton Co. - Drake Farm OVT location (excluding unreleased experimental lines)**

Variety	Lint Quality <sup>¶</sup>					Discounted Amount <sup>¶¶</sup> (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	<i>32<sup>nd</sup></i>		<i>g/tex</i>	<i>%</i>	<i>Color</i>					
ST 4550 GLTP	36	5.3	34.0	83.9	11	-230	50	10	410	<b>240</b>
DP 1725 B2XF	36	5.3	32.6	82.9	11	-380	40	5	410	<b>75</b>
NG 4936 B3XF	37	5.1	32.7	84.1	11	-230	40	15	465	<b>290</b>
DP 1646 B2XF	38	5.2	31.8	83.6	11	-230	40	10	475	<b>295</b>
DG 3605 B2XF	38	5.3	32.4	83.9	11	-230	40	10	475	<b>295</b>
DG 3570 B3XF	36	5.3	31.4	83.6	21	-230	40	10	410	<b>230</b>
DP 1851 B3XF	36	5.3	35.1	83.4	11	-230	50	10	410	<b>240</b>
DP 1840 B3XF	38	5.0	34.2	83.8	11	-230	50	10	475	<b>305</b>
PHY 350 W3FE	36	5.3	34.0	83.3	11	-380	50	10	410	<b>90</b>
NG 3729 B2XF	37	5.4	31.5	84.3	11	-380	40	15	465	<b>140</b>
<b>Mean</b>	37	5.2	33.0	83.7		-275	44	10.5	440.5	220

<sup>¶</sup> Staple= Fiber Length reported in 32nds of an inch; Mic= Micronaire, Str= Fiber strength reported in grams per tex; Uni= Uniformity; HVI=color determined by the Rd & +b values.

<sup>¶¶</sup> Discounted amounts taken from the Cotton Incorporated 2019 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

**Table 10: Lint quality and associated 2019 scheduled discounts for top 10 varieties in relative yield at the Sussex Co.-Rogers Farm OVT location (excluding unreleased experimental lines)**

Variety	Lint Quality <sup>¶</sup>					Discounted Amount <sup>¶¶</sup> (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	<i>32<sup>nd</sup></i>		<i>g/tex</i>	<i>%</i>	<i>Color</i>					
ST 4550 GLTP	35	5.1	33.6	82.5	31	-230	50	5	230	55
DP 1725 B2XF	35	5.2	29.9	81.1	41	-230	5	0	85	-140
NG 4936 B3XF	37	4.9	31.4	83.7	41	0	40	10	215	265
DP 1646 B2XF	37	5.0	31.0	82.5	31	0	40	5	420	465
DG 3605 B2XF	38	5.0	31.6	82.4	31	-230	40	5	430	245
DG 3570 B3XF	35	5.3	32.1	82.8	41	-380	40	5	85	-250
DP 1851 B3XF	36	5.2	33.2	82.9	31	-230	50	5	370	195
DP 1840 B3XF	36	5.0	33.3	82.4	31	0	50	5	370	425
PHY 350 W3FE	35	4.5	33.4	82.0	41	0	50	5	85	140
NG 3729 B2XF	36	5.0	32.3	82.4	41	-230	40	5	195	10
<b>Mean</b>	36	5.0	32.2	82.5		-153	40.5	5	248.5	141

<sup>¶</sup> Staple= Fiber Length reported in 32nds of an inch; Mic= Micronaire, Str= Fiber strength reported in grams per tex; Uni= Uniformity; HVI=color determined by the Rd & +b values.

<sup>¶¶</sup> Discounted amounts taken from the Cotton Incorporated 2019 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

**Table 11: Lint quality and associated 2019 scheduled discounts for top 10 varieties in relative yield at the Isle of Wight Co.- Allen Farm OVT location (excluding unreleased experimental lines)**

Variety	Lint Quality <sup>¶</sup>					Discounted Amount <sup>¶¶</sup> (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	<i>32<sup>nd</sup></i>		<i>g/tex</i>	<i>%</i>	<i>Color</i>					
ST 4550 GLTP**	38	5.1	34.1	85.3	41	-230	50	25	225	70
DP 1725 B2XF	38	5.0	31.4	84.4	41	-230	40	15	225	50
NG 4936 B3XF**	39	5.0	32.0	85.4	41	-230	40	25	225	60
DP 1646 B2XF**	40	4.9	30.5	84.4	41	0	25	15	225	265
DG 3605 B2XF	40	5.0	33.2	82.6	41	0	50	5	225	280
DG 3570 B3XF	36	5.4	32.9	83.3	41	-380	40	10	195	-135
DP 1851 B3XF**	39	5.2	34.2	85.2	41	-230	50	25	225	70
DP 1840 B3XF	39	4.9	32.9	84.5	41	0	40	15	225	280
PHY 350 W3FE**	38	5.1	33.0	84.5	41	-230	50	15	225	60
NG 3729 B2XF	38	5.2	31.9	84.1	41	-230	40	15	225	50
<b>Mean</b>	39	5.1	32.6	84.4		-176	42.5	16.5	222	105

<sup>¶</sup> Staple= Fiber Length reported in 32nds of an inch; Mic= Micronaire, Str= Fiber strength reported in grams per tex; Uni= Uniformity; HVI=color determined by the Rd & +b values.

<sup>¶¶</sup> Discounted amounts taken from the Cotton Incorporated 2019 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.



**Table 12: Lint quality and associated 2019 scheduled discounts for varieties at the Isle of Wight Co.- Allen On-Farm location**

Variety	Lint Quality <sup>¶</sup>					Discounted Amount <sup>¶¶</sup> (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	<i>32<sup>nd</sup></i>		<i>g/tex</i>	<i>%</i>	<i>Color</i>					
ST 4550 GLTP	37	4.7	32.1	84.3	41	0	40	15	-5	50
ST 5471 GLTP	37	4.3	32.3	82.8	41	10	40	5	-5	50
DP 1646 B2XF	40	4.6	30.7	84.1	51	0	25	15	-435	-395
DP 1851 B3XF	38	4.7	33.7	84.5	41	0	50	15	-5	60
DP 1916 B3XF	38	4.5	34.4	84.7	41	0	50	15	170	235
NG 3522 B2XF	36	4.6	28.8	82.8	51	0	0	5	-285	-280
NG 4936 B3XF	39	4.8	30.7	85.5	51	0	25	25	-435	-385
PHY 340 W3FE	37	4.6	32.3	84.2	51	0	40	15	-435	-380
PHY 350 W3FE	38	4.7	32.7	85.1	51	0	40	25	-555	-490
PHY 480 W3FE	38	4.5	31.2	85.3	51	0	40	25	-435	-370
<b>Mean</b>	38	4.6	31.9	84.3		1	40	16	-242.5	-190.5

<sup>¶</sup> Staple= Fiber Length reported in 32nds of an inch; Mic= Micronaire, Str= Fiber strength reported in grams per tex; Uni= Uniformity; HVI=color determined by the Rd & +b values.

<sup>¶¶</sup> Discounted amounts taken from the Cotton Incorporated 2019 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

**Table 13: Lint quality and associated 2019 scheduled discounts for varieties at the Suffolk- Ellis On-Farm location**

Variety	Lint Quality <sup>¶</sup>					Discounted Amount <sup>¶¶</sup> (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	<i>32<sup>nd</sup></i>		<i>g/tex</i>	<i>%</i>	<i>Color</i>					
ST 4550 GLTP	38	4.2	32.3	84.3	51	10	40	15	-280	-215
ST 5471 GLTP	37	4.1	31.7	81.6	51	10	40	0	-435	-385
DP 1646 B2XF	39	4.3	29.2	82.6	51	0	5	5	-280	-270
DP 1851 B3XF	38	4.4	32.8	83.9	51	0	40	10	-435	-385
DP 1916 B3XF	37	4.5	33.6	83.0	51	0	50	5	-280	-225
NG 3522 B2XF	36	4.4	28.8	82.0	51	0	0	5	-435	-430
NG 4936 B3XF	39	4.4	29.8	84.0	51	0	5	15	-435	-415
PHY 340 W3FE	37	4.2	31.8	82.6	51	10	40	5	-280	-225
PHY 350 W3FE	38	4.4	31.2	83.9	51	0	40	10	-435	-385
PHY 480 W3FE	37	4.2	31.0	83.5	51	10	25	10	-435	-390
<b>Mean</b>	37.6	4.3	31.2	83.1		4	40	8	-373	-333

<sup>¶</sup> Staple= Fiber Length reported in 32nds of an inch; Mic= Micronaire, Str= Fiber strength reported in grams per tex; Uni= Uniformity; HVI=color determined by the Rd & +b values.

<sup>¶¶</sup> Discounted amounts taken from the Cotton Incorporated 2019 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

**Table 14: Lint quality and associated 2019 scheduled discounts for varieties at the Southampton Co. 1- Kitchen On-Farm location**

Variety	Lint Quality <sup>¶</sup>					Discounted Amount <sup>¶¶</sup> (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	<i>32<sup>nd</sup></i>		<i>g/tex</i>	<i>%</i>	<i>Color</i>					
ST 4550 GLTP	37	4.6	31.0	83.9	51	0	25	10	-435	-400
ST 5471 GLTP	37	4.0	30.4	80.9	41	10	25	0	-5	30
DP 1646 B2XF	39	4.3	30.1	82.2	51	0	25	5	-280	-250
DP 1851 B3XF	37	4.0	32.3	82.2	41	10	40	5	-5	50
DP 1916 B3XF	37	4.4	32.3	83.1	41	0	40	10	-270	-220
NG 3522 B2XF	36	4.4	27.4	81.5	51	0	0	0	-435	-435
NG 4936 B3XF	38	4.3	30.0	84.1	51	0	25	15	-435	-395
PHY 340 W3FE	36	4.3	31.5	82.5	51	10	40	5	-285	-230
PHY 350 W3FE	37	4.4	30.4	83.2	51	0	25	10	-435	-400
PHY 480 W3FE	37	4.2	30.6	83.0	51	10	25	10	-435	-390
<b>Mean</b>	37	4.3	30.6	82.7		4	40	7	-302	-264

<sup>¶</sup> Staple= Fiber Length reported in 32nds of an inch; Mic= Micronaire, Str= Fiber strength reported in grams per tex; Uni= Uniformity; HVI=color determined by the Rd & +b values.

<sup>¶¶</sup> Discounted amounts taken from the Cotton Incorporated 2019 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

**Table 15: Lint quality and associated 2019 scheduled discounts for varieties at the Southampton Co. 2- Darden On-Farm location**

Variety	Lint Quality <sup>¶</sup>					Discounted Amount <sup>¶¶</sup> (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	<i>32<sup>nd</sup></i>		<i>g/tex</i>	<i>%</i>	<i>Color</i>					
ST 4550 GLTP	37	4.6	33.4	83.3	51	0	50	10	-555	-495
ST 5471 GLTP	37	4.5	32.0	82.4	51	0	40	5	-280	-235
DP 1646 B2XF	39	4.7	29.7	83.0	51	0	5	10	-435	-420
DP 1851 B3XF	37	4.3	33.3	83.7	51	0	50	10	-435	-375
DP 1916 B3XF	37	4.5	33.8	82.7	51	0	50	5	-280	-225
NG 3522 B2XF	35	4.3	28.6	81.7	41	0	0	0	-95	-95
NG 4936 B3XF	39	4.5	31.3	84.5	51	0	40	15	-435	-380
PHY 340 W3FE	37	4.6	32.4	82.3	51	0	40	5	-435	-390
PHY 350 W3FE	38	4.7	32.3	83.2	51	0	40	10	-555	-505
PHY 480 W3FE	37	4.4	31.0	83.8	51	0	25	10	-435	-400
PHY 333 WRF	38	4.7	32.8	83.4	51	0	40	10	-435	-385
<b>Mean</b>	37.	4.5	31.8	83.1		0	34	8	-398	-355

<sup>¶</sup> Staple= Fiber Length reported in 32nds of an inch; Mic= Micronaire, Str= Fiber strength reported in grams per tex; Uni= Uniformity; HVI=color determined by the Rd & +b values.

<sup>¶¶</sup> Discounted amounts taken from the Cotton Incorporated 2019 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

**Table 16: Lint quality and associated 2019 scheduled discounts for varieties at the Surry Co.- Lowe On-Farm location**

Variety	Lint Quality <sup>¶</sup>					Discounted Amount <sup>¶¶</sup> (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	<i>32<sup>nd</sup></i>		<i>g/tex</i>	<i>%</i>	<i>Color</i>					
ST 4550 GLTP	37	4.8	32.1	83.6	61	0	40	10	-660	<b>-610</b>
ST 5471 GLTP	37	4.6	31.7	83.5	41	0	40	10	-5	<b>45</b>
DP 1646 B2XF	41	4.5	31.1	84.2	41	0	40	15	-270	<b>-215</b>
DP 1851 B3XF	38	4.7	35.2	85.4	51	0	50	25	-435	<b>-360</b>
DP 1916 B3XF	38	4.9	34.8	83.9	41	0	50	10	170	<b>230</b>
NG 3522 B2XF	36	4.5	27.6	82.8	51	0	0	5	-555	<b>-550</b>
NG 4936 B3XF	39	4.9	31.2	84.0	51	0	40	15	-280	<b>-225</b>
PHY 340 W3FE	38	4.7	34.4	83.6	41	0	50	10	-5	<b>55</b>
PHY 350 W3FE	39	4.5	33.9	84.4	51	0	50	15	-435	<b>-370</b>
PHY 480 W3FE	37	4.5	31.9	84.8	41	0	40	15	215	<b>270</b>
<b>Mean</b>	38	4.7	32.4	84.0		0	40	13	-226	-173

<sup>¶</sup> Staple= Fiber Length reported in 32nds of an inch; Mic= Micronaire, Str= Fiber strength reported in grams per tex; Uni= Uniformity; HVI=color determined by the Rd & +b values.

<sup>¶¶</sup> Discounted amounts taken from the Cotton Incorporated 2019 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

**Table 17: Lint quality and associated 2019 scheduled discounts for varieties at the Sussex Co.- Webb On-Farm location**

Variety	Lint Quality <sup>¶</sup>					Discounted Amount <sup>¶¶</sup> (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	<i>32<sup>nd</sup></i>		<i>g/tex</i>	<i>%</i>	<i>Color</i>					
ST 4550 GLTP	38	4.2	35.0	84.7	41	10	50	15	-5	70
ST 5471 GLTP	37	4.1	32.4	82.2	41	10	40	5	-5	50
DP 1646 B2XF	40	4.2	31.4	83.7	41	10	40	10	-5	55
DP 1851 B3XF	37	4.6	34.4	84.0	41	0	50	15	-270	-205
DP 1916 B3XF	38	4.0	35.8	84.7	41	10	50	15	170	245
NG 3522 B2XF	35	4.0	29.2	81.9	41	10	5	0	55	70
NG 4936 B3XF	38	4.2	32.0	85.0	41	10	40	25	-5	70
PHY 340 W3FE	37	4.4	32.4	83.7	41	0	40	10	-5	45
PHY 350 W3FE	38	4.0	32.8	84.3	41	10	40	15	170	235
PHY 480 W3FE	37	3.8	32.5	84.2	41	10	40	15	-270	-205
<b>Mean</b>	38	4.1	32.8	83.9		8	40	12.5	-17	43

<sup>¶</sup> Staple= Fiber Length reported in 32nds of an inch; Mic= Micronaire, Str= Fiber strength reported in grams per tex; Uni= Uniformity; HVI=color determined by the Rd & +b values.

<sup>¶¶</sup> Discounted amounts taken from the Cotton Incorporated 2019 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.