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2021 Cotton Variety Testing and On-Farm Results

Coordinators of Virginia Cotton Official Variety Testing in 2021

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Producers Participating in the 2021 Cotton Variety On-Farm Testing:

John Allen and Chris Carr, Isle of Wight County
Brian Darden, Southampton County
Matt Drake, Southampton County
Michael Ellis, City of Suffolk
Clay Lowe, Surry County
Bob Rogers, Sussex County
Jared Webb, Sussex County

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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 2021. All locations were planted using a two row Seed Research Equipment Solutions Classic Aire planter. All locations were harvested using a 4-row commercial cotton picker modified to simultaneously collect two 2-row cotton plots in an automatic weigh system fit with two electronic scales. The 2021 OVT received 41 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:

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

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 the 2021 USDA discount table and calculated using the Cotton Incorporated 2021 Loan Calculator for upland cotton. These values do not reflect actual discounts given during the Fall of 2021. Premiums and discounts are reported in points per pound.

2021 Agronomic Inputs for Locations

(Rates on a per acre basis)

Suffolk, VA - Tidewater AREC Location OVT Trial

Planted: May 4, 2021

Harvested: Oct. 27, 2021

Population: 43,560 plants/acre

Fertilizer: 100 lb of K_2O ac^{-1} on March 31, 2021
25 lb N ac^{-1}, 40 lb P_2O_5 ac^{-1}, and 10 lb S ac^{-1} in UAN32, 11-37-0, and 12-0-0-26S blend in 2x2 band on May 4, 2021
95 lb N ac^{-1} as 24-0-0-3S dribbled on Jun. 28, 2021
2 qt. 10% Boron on Jun. 28, 2021
1 qt. 10% Boron on Aug. 11, 2021

PGR: 10 fl. oz. Mep® 42 on Jul. 6, 2021
12 fl. oz. Mep® 42 on Jul. 21, 2021
3 fl. oz. Mep® 6X on Aug. 11, 2021

Herbicide: 1.5 pt. 2,4-D Amine on Mar. 28, 2021
1 qt. Roundup ® and 2 oz. Valor® on Apr. 7, 2021
1 pt. Prowl®, 1 qt. Cotoran 4L® on May 5, 2021
24 fl. oz. Roundup ® on May 31, 2021

Insecticide: 12 oz. Orthene® 97 on May 31, 2021
2 oz. Centric® on Jul. 6, 2021
2 oz. Transform® and 8 fl. oz. Diamond® on Jul. 21, 2021
10 fl. oz. Besiege® and 8 fl. oz. Bidrin on Aug. 11, 2021

Harvest Aid: 16 fl. oz. Ethephon 6®, 32 oz. Finish 6 Pro®, 4 fl. oz. Folex®, 3 fl. oz. FreeFall SC® on Oct. 1, 2021

Plot Size: 2 rows 35’ x 36” 4 replications

Soil Type Eunola and Dragston

Cooperator: Karl Jones

Southampton Co., VA- Drake Farm OVT Trial

Planted: May 19, 2021

Harvested: Nov. 2, 2021

Population: 43,560 plants/acre

Fertilizer: 120 lb ac^{-1} K_2O preplant broadcast May 15, 2021
25 lb N ac^{-1}, 40 lb P_2O_5 ac^{-1}, and 10 lb S ac^{-1} in UAN32, 11-37-0, and 12-0-0-26S blend in 2x2 band on May 19, 2021
95 lb N per acre 24-0-0-3S on Jul. 16, 2021
2 qt. 10% Boron on Jul 16., 2021

PGR: 16 fl. oz. Veto® on Jul. 29, 2021
12 fl. oz. Veto® on Aug. 11, 2021

Herbicide: 1 qt. 2,4-D Amine 4, 3 fl. oz., 1 qt. Roundup PowerMAX, Valor SX on Apr. 13, 2021
32 fl. oz. Liberty® 280 SL on May 15, 2021
32 fl. oz. Liberty® 280 SL on Jun. 15, 2021
32 fl. oz. Envy™ Six Max on Jul. 12, 2021

Insecticide: 8 oz./lb. Livid 90 Prill® on May 15, 2021
2 fl. oz. Provoke™ on Jul. 12, 2021
8 oz./lb. Livid 90 Prill®, 6.4 oz. Reveal® on Jul. 29, 2021
8 oz./lb. Livid 90 Prill®, 6.4 oz. Reveal® on Aug. 11, 2021

Harvest Aids: 32 oz. Finish 6 Pro®, 4 fl. oz. Folex 6EC®, 3.2 fl. oz. FreeFall SC®, 8 oz. Super Boll® on Oct. 13, 2021

Plot Size: 2 rows 35’ x 36” 4 replications

Soil Type Uchee, Slagle and Emporia

Cooperator: Matt Drake

Sussex Co., VA- Rogers Farm OVT Trial

Planted: May 26, 2021

Harvested: Nov. 18, 2021

Population: 43,560 plants/acre

Fertilizer: 0-0-60 broadcast variable rated based on grid sampling (range 0-129 lb K_2O ac^{-1})
25 lb. N ac^{-1}, 40 lb P_2O_5 ac^{-1}, and 10 lb S ac^{-1} in UAN32, 11-37-0, and 12-0-0-26S blend in 2x2 band on May 26, 2021
95 lbs. N per acre 24-0-0-3S on Jul. 21, 2021
1 qt. 10% Boron on Aug. 5, 2021

PGR: 14 fl. oz. PIX® on Jul. 20, 2021
16 fl. oz. PIX® on Aug. 5, 2021
20 fl. oz. PIX® on Aug. 14, 2021
16 fl. oz. PIX® on Aug. 24, 2021

Herbicide: 30 fl. oz. Roundup PowerMAX® 3, 18 fl. oz. Barrage®, 2.3 oz. Hel-fire® on Apr. 7, 2021
30 fl. oz. Roundup® on Jun. 14, 2021
2.85 pt. Warrant® on Jun. 21, 2021
30 fl. oz. Roundup® on Jul. 20, 2021

Insecticide: 10 oz. Acephate® on Jun. 14, 2021
8 oz. Acephate® on Aug. 5, 2021
8 oz. Acephate®, 4.5 fl. oz. Bifenthrin on Aug. 14, 2021
8 oz. Acephate® on Aug. 24, 2021

Harvest Aids: 32 fl. oz. Finish®, 4 fl. oz. Tribufos, 12 fl. oz. Ethephon, 2 fl. oz. Dropp®,
2.3 fl. oz. Induce on Oct. 14, 2021

Plot Size: 2 rows 35’ x 36” 4 replications

Soil Type Slagle and Emporia + Slagle

Cooperator: Bob Rogers

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

Planted: May 21, 2021

Harvested: Nov. 17, 2021

Population: 43,560 plants/acre

Fertilizer: 29 lb N, 39 lb P_2O_5, 100 K_2O ac^{-1} preplant
84 lb N and 96 lb S ac^{-1} during the season

PGR: information not reported

Herbicide: 1 qt. Liberty® applied twice during the season
1 qt. Roundup® applied twice during the season

Insecticide: Baythroid® applied once during the season

Harvest Aids: 32 fl. oz. Terminate™, 12 fl. oz. Velour®, 8 fl. oz. Quiver®, 3.2 fl. oz. FreeFall SC®,

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

Soil Type Slagle

Cooperator: John Allen and Chris Carr

On-Farm Variety Trials

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

County	Cooperator	Planting Date	Harvest Date
Isle of Wight	John Allen	May 21, 2021	Nov. 17, 2021
Suffolk	Mike Ellis	May 19, 2021	Dec. 2, 2021
Southampton	Brian Darden	May 18, 2021	Nov. 8, 2021
Surry	Clay Lowe	May 20, 2021	Nov. 20, 2021
Sussex	Jared Webb	April 30, 2021	Oct. 25, 2021

Table 2: Relative yields for varieties entered at all locations in the 2021 Official Variety Testing (OVT) Program

Seed Company	Variety	Maturity	Relative Yield				Avg. Relative Yield
			TAREC	SHC	SUX	IOW	
Deltapine	DP 2038 B3XF#	Mid	1.00	0.96	1.00	0.93	**0.97**
Americot	NG 3299 B3XF**	Early-Mid	0.94	0.98	0.91	0.94	**0.94**
Corteva	PX1140A385-04W3FE¶	Mid	0.86	0.97	0.91	0.98	**0.93**
BASF	ST 4550GLTP	Early	0.88	0.98	0.97	0.88	**0.93**
BASF	ST 4595 B3XF**	-	0.91	0.98	0.88	0.93	**0.93**
Deltapine	DP 2239 B3XF**	Mid	0.93	0.98	0.85	0.91	**0.92**
Deltapine	DP 2020 B3XF	Early-Mid	0.87	1.00	0.94	0.85	**0.92**
Corteva	PHY 360 W3FE	Early-Mid	0.83	0.91	0.92	0.98	**0.91**
Corteva	PHY 411 W3FE**	Mid	0.88	0.95	0.83	0.96	**0.91**
Deltapine	DP 1646 B2XF	Mid-Full	0.90	0.85	0.90	0.94	**0.90**
Deltapine	DP 2127 B3XF	Early-Mid	0.85	0.94	0.91	0.87	**0.89**
Corteva	PHY 400 W3FE	Mid-Full	0.77	0.87	0.93	1.00	**0.89**
Deltapine	DP 2012 B3XF	Early	0.87	0.92	0.90	0.87	**0.89**
Corteva	PX1140A383-04W3FE¶	Mid	0.78	1.00	0.82	0.96	**0.89**
BASF	ST 5091B3XF#	Early-Mid	0.89	0.92	0.86	0.87	**0.89**
Deltapine	DP 2115 B3XF	Early	0.91	0.81	0.88	0.93	**0.88**
BASF	ST 4993B3XF	Early-Mid	0.85	0.93	0.89	0.86	**0.88**
BASF	BX 2298B3XF¶	-	0.83	0.92	0.95	0.81	**0.88**
Corteva	PHY 443 W3FE#	Mid-Full	0.86	0.86	0.96	0.83	**0.88**
BASF	ST 4990B3XF	Early-Mid	0.86	0.86	0.95	0.82	**0.87**
Corteva	PHY 390 W3FE	Mid	0.83	0.89	0.82	0.94	**0.87**
Corteva	PHY 350 W3FE	Mid	0.74	0.89	0.90	0.94	**0.87**
Deltapine	20R734B3XF¶	Mid	0.82	0.90	0.88	0.84	**0.86**
BASF	ST 5471GLTP	Mid	0.81	0.82	0.96	0.85	**0.86**
Americot	NG 4190 B3XF	Mid	0.83	0.95	0.81	0.84	**0.86**
Corteva	PHY 340 W3FE	Mid	0.86	0.81	0.92	0.84	**0.86**
Deltapine	DP 2141NR B3XF	Mid-Full	0.80	0.93	0.87	0.78	**0.85**
Nutrien	DG 3456 B3XF	Early-Mid	0.79	0.89	0.92	0.78	**0.85**
Corteva	PX1130A329-04W3FE¶	Mid	0.71	0.95	0.80	0.91	**0.84**
Nutrien	DG 3535 B3XF	Mid	0.87	0.87	0.94	0.68	**0.84**
BASF	BX 2297B3XF¶	-	0.87	0.82	0.78	0.89	**0.84**
Nutrien	DG 3570 B3XF	Mid	0.83	0.87	0.79	0.84	**0.83**
Americot	NG 3195 B3XF#	Early-Mid	0.89	0.82	0.80	0.80	**0.83**
Americot	NG 4936 B3XF	Mid	0.80	0.94	0.73	0.81	**0.82**
Corteva	PHY 332 W3FE#	Mid	0.77	0.82	0.73	0.96	**0.82**
BASF	BX 2296B3XF¶	-	0.86	0.85	0.88	0.68	**0.82**
Americot	NG 5150 B3XF#	Mid-Full	0.74	0.82	0.83	0.82	**0.80**

Americot	NG 3930 B3XF	Early-Mid	0.79	0.83	0.76	0.79	**0.79**
Corteva	PHY 500 W3FE	Full	0.68	0.84	0.80	0.75	**0.77**
Corteva	PHY 545 W3FE#	Full	0.67	0.78	0.85	0.77	**0.77**
	FM 1830GLT	-	0.75	-	-	-	**0.75**
Nutrien	DG H959 B3XF	-	0.77	0.78	0.68	0.69	**0.73**
Nutrien	DG 3520 B3XF	-	0.71	-	-	-	**0.71**
Corteva	PHY 764 WRF	-	0.56	-	-	-	**0.56**
		Mean	**0.82**	**0.89**	**0.87**	**0.86**	**0.85**
		LSD (0.1)	**0.10**	**0.15**	**0.15**	**0.12**	**-**

¶ Experimental lines not released

2021 release variety

**2022 release variety

Table 3: Two-year (2020-2021) relative yield averages for varieties tested each year

Seed Company	Variety	Avg. Relative Yield
Bayer	DP 2038 B3XF	0.95
Bayer	DP 2115 B3XF	0.92
BASF	ST 4550GLTP	0.91
BASF	ST 5471GLTP	0.88
Bayer	DP 1646 B2XF	0.87
BASF	ST 5091 B3XF	0.87
Bayer	DP 2012 B3XF	0.86
Bayer	DP 2020 B3XF	0.86
Corteva	PHY 400 W3FE	0.86
Corteva	PHY 411 W3FE**	0.86
Corteva	PHY 443 W3FE	0.86
Loveland	DG 3456 B3XF	0.85
BASF	ST 4990B3XF	0.85
Corteva	PHY 390 W3FE	0.84
Americot	NG 3195 B3XF	0.83
Corteva	PHY 350 W3FE	0.82
Loveland	DG 3570 B3XF	0.82
Corteva	PHY 360 W3FE	0.82
Corteva	PHY 545 W3FE	0.81
Loveland	DG 3535 B3XF	0.81
Americot	NG 4936 B3XF	0.80

Corteva	PHY 332 W3FE	0.78
Corteva	PHY 340 W3FE	0.78
Corteva	PHY 500 W3FE	0.77
Americot	NG 3930 B3XF	0.71
	Mean	**0.84**

** 2022 release variety

Table 4: Three-year (2019-2021) relative yield averages for varieties tested each year

Seed Company	Variety	Avg. Relative Yield
BASF	ST 4550 GLTP	0.93
Bayer	DP 1646 B2XF	0.89
BASF	ST 5471 GLTP	0.87
Corteva	PHY 400 W3FE	0.86
Corteva	PHY 443 W3FE	0.85
Loveland	DG 3570 B3XF	0.85
Americot	NG 4936 B3XF	0.84
Corteva	PHY 350 W3FE	0.84
Corteva	PHY 545 W3FE	0.83
Corteva	PHY 332 W3FE	0.81
Americot	NG 3930 B3XF	0.76
Corteva	PHY 340 W3FE	0.75
	Mean	**0.84**

Table 5: Lint yield and lint percentage of varieties tested during 2021 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 %
Deltapine	DP 2038 B3XF#	1995	50.0	1808	50.0	1987	48.5	1536	46.8
Americot	NG 3299 B3XF**	1881	47.0	1834	46.0	1811	45.9	1546	46.3
Corteva	PX1140A385-04W3FE¶	1724	48.0	1817	49.0	1804	46.7	1607	48.1
BASF	ST 4550GLTP	1755	47.0	1838	46.0	1920	46.3	1456	46.2
BASF	ST 4595 B3XF**	1815	46.0	1846	46.0	1743	44.4	1528	44.3
Deltapine	DP 2239 B3XF**	1858	47.0	1833	47.0	1694	44.9	1501	45.0
Deltapine	DP 2020 B3XF	1732	44.0	1868	44.0	1876	42.5	1396	42.8
Corteva	PHY 360 W3FE	1663	46.0	1703	46.0	1819	44.8	1614	43.9
Corteva	PHY 411 W3FE**	1755	48.0	1773	50.0	1656	46.3	1582	47.3
Deltapine	DP 1646 B2XF	1796	47.0	1588	45.0	1796	44.0	1541	44.5
Deltapine	DP 2127 B3XF	1698	46.0	1759	47.0	1803	46.7	1439	45.5
Corteva	PHY 400 W3FE	1533	47.0	1623	47.0	1856	45.9	1645	46.1
Deltapine	DP 2012 B3XF	1727	44.0	1725	45.0	1789	42.9	1438	43.0
Corteva	PX1140A383-04W3FE¶	1563	46.0	1876	46.0	1621	44.4	1576	45.5
BASF	ST 5091B3XF#	1766	46.0	1719	46.0	1706	46.0	1438	43.4
Deltapine	DP 2115 B3XF	1813	47.0	1513	47.0	1749	46.7	1535	46.7
BASF	ST 4993B3XF	1686	47.0	1747	46.0	1763	46.2	1417	45.1
BASF	BX 2298B3XF¶	1646	46.0	1726	47.0	1893	45.5	1331	44.8
Corteva	PHY 443 W3FE#	1717	46.0	1606	48.0	1902	45.1	1361	45.1
BASF	ST 4990B3XF	1725	42.0	1621	43.0	1879	41.6	1354	41.0
Corteva	PHY 390 W3FE	1649	46.0	1672	47.0	1639	45.5	1553	45.6
Corteva	PHY 350 W3FE	1474	44.0	1663	46.0	1784	43.7	1550	43.6
Deltapine	20R734B3XF¶	1642	46.0	1679	46.0	1744	45.2	1380	44.6
BASF	ST 5471GLTP	1621	43.0	1531	43.0	1908	43.0	1396	43.0
Americot	NG 4190 B3XF	1663	46.0	1776	46.0	1611	45.3	1383	42.7
Corteva	PHY 340 W3FE	1712	47.0	1527	48.0	1823	45.6	1384	45.2
Deltapine	DP 2141NR B3XF	1604	45.0	1737	45.0	1723	44.7	1285	45.5
Nutrien	DG 3456 B3XF	1575	46.0	1664	47.0	1825	45.8	1281	44.8
Corteva	PX1130A329-04W3FE¶	1407	48.0	1778	50.0	1584	46.7	1504	47.2
Nutrien	DG 3535 B3XF	1737	45.0	1625	45.0	1862	44.0	1123	43.4
BASF	BX 2297B3XF¶	1731	45.0	1539	46.0	1542	43.2	1459	44.1
Nutrien	DG 3570 B3XF	1654	46.0	1631	45.0	1568	44.4	1377	43.7
Americot	NG 3195 B3XF#	1766	46.0	1539	46.0	1583	44.6	1313	44.0
Americot	NG 4936 B3XF	1586	42.0	1763	43.0	1456	42.1	1331	41.1
Corteva	PHY 332 W3FE#	1528	46.0	1543	45.0	1453	42.9	1581	43.5

BASF	BX 2296B3XF¶	1724	47.0	1585	47.0	1750	45.7	1116	45.1
Americot	NG 5150 B3XF#	1483	44.0	1538	45.0	1645	43.4	1347	43.2
Americot	NG 3930 B3XF	1583	44.0	1557	44.0	1501	44.5	1297	42.4
Corteva	PHY 500 W3FE	1353	46.0	1568	48.0	1595	45.2	1229	44.2
Corteva	PHY 545 W3FE#	1330	47.0	1467	49.0	1695	47.0	1273	46.0
	FM 1830GLT	1498	44.0	-	-	-	-	-	-
Nutrien	DG H959 B3XF	1537	43.0	1467	43.0	1356	42.6	1129	41.6
Nutrient	DG 3520 B3XF	1408	42.0	-	-	-	-	-	-
Corteva	PHY 764 WRF	1117	42.0	-	-	-	-	-	-
	Mean	**1642**	**45.6**	**1675**	**46.2**	**1725**	**44.9**	**1418**	**44.5**
	LSD (0.1)	**194**	**0.006**	**280**	**0.011**	**288**	**0.009**	**204**	**0.01**

¶ Experimental lines not released

2021 release variety

** 2022 release variety

Table 6: Lint yield and lint percent of varieties from the five 2021 On-Farm trial locations

Variety¶	Avg. across 5 locations		Isle of Wight Co.- Allen		Suffolk-Ellis		Southampton Co.- Darden		Surry Co.-Lowe		Sussex Co.-Webb	
	Lint Yield lb./A	Lint %	Lint Yield lb./A	Lint %	Lint Yield lb./A	Lint %	Lint Yield lb./A	Lint %	Lint Yield lb./A	Lint %	Lint Yield lb./A	Lint %
DP 2127 B3XF	**1405**	**45.3**	902	46.2	986	42.4	1988	46.2	1495	43.9	1654	47.7
DP 2038 B3XF	**1497**	**49.0**	920.9	49.5	1140	47.0	2087	49.9	1665	48.3	1675	50.4
DP 2115 B3XF	**1563**	**46.5**	963.7	46.2	1189	43.1	2223	48.0	1723	47.0	1715	48.1
NG 3195 B3XF	**1506**	**45.5**	999.5	46.2	1093	43.6	2056	45.4	1667	44.8	1717	47.6
NG 4936 B3XF	**1339**	**41.6**	843.4	41.3	1021	39.4	1855	42.8	1478	40.6	1496	44.1
ST 4550GLTP	**1520**	**47.2**	888.6	47.5	1191	45.1	1992	47.2	1698	46.7	1828	49.4
ST 5091B3XF	**1489**	**45.4**	962	45.5	1063	43.3	2063	45.9	1591	44.7	1767	47.7
PHY 360 W3FE	**1471**	**45.4**	1026.8	45.4	1206	43.5	2012	46.3	1440	44.6	1671	47.0
PHY 400 W3FE	**1498**	**46.6**	1062.5	47.6	1140	44.4	2039	47.1	1695	46.5	1555	47.4
PHY 443 W3FE	**1383**	**46.3**	879	47.0	902	43.3	1924	46.3	1547	47.1	1664	47.7
Mean	**1467**	**45.9**	945	46.2	1093	44	2024	46.5	1600	45.4	1674	47.7
LSD (0.1)	-	-	124.99	1.13	121.11	1.35	87.57	1.00	-	-	-	-

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

Table 7: Average lint quality and associated 2021 scheduled discounts for top 10 varieties in relative yield across all four OVT locations (excluding unreleased experimental lines)

Variety	Lint Quality¶					Discounted Amount¶¶ (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	32nd		*g/tex*	*%*	*Color*		*g/tex*	*%*		
DP 2038 B3XF	36	4.9	29.9	83.1	36	-120	16	9	153	**58**
NG 3299 B3XF**	38	4.8	34.7	85.8	36	-60	45	23	238	**245**
ST 4550GLTP	38	4.6	32.3	85.0	36	0	41	18	241	**300**
ST 4595 B3XF**	38	4.6	31.1	84.2	36	-60	30	13	190	**173**
DP 2239 B3XF**	39	4.6	30.8	84.6	36	-60	25	15	203	**183**
DP 2020 B3XF	38	4.4	31.6	84.4	36	0	36	14	233	**283**
PHY 360 W3FE	36	4.7	29.0	82.4	44	-60	10	4	-14	**-60**
PHY 411 W3FE**	35	4.8	30.9	83.6	39	-60	23	10	-316	**-344**
DP 1646 B2XF	40	4.5	30.5	84.8	39	0	21	16	135	**173**
DP 2127 B3XF	37	4.9	30.7	85.1	39	-158	23	19	113	**-4**
Mean	37	4.7	31.1	84.3	-	-58	27	14	117	**101**

** 2022 release variety
¶ 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.
¶¶ Discounted amounts taken from the Cotton Incorporated 2021 Loan Schedule of Premiums and Discounts for Upland Cotton.

Table 8: Lint quality and associated 2021 scheduled discounts for top 10 varieties in relative yield at the Tidewater AREC OVT location (excluding unreleased experimental lines)

Variety	Lint Quality¶					Discounted Amount¶¶* (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	32nd		*g/tex*	*%*	*Color*		*g/tex*	*%*		
DP 2038 B3XF	36	4.7	29.8	84.0	31	0	5	15	425	**445**
NG 3299 B3XF**	37	4.7	35.4	86.7	31	0	45	25	480	**550**
ST 4550GLTP	38	4.6	32.6	85.7	31	0	40	20	495	**555**
ST 4595 B3XF**	37	4.5	31.2	83.9	31	0	40	10	480	**530**
DP 2239 B3XF**	39	4.5	31.0	85.9	31	0	40	20	495	**555**
DP 2020 B3XF	39	4.3	32.1	84.8	31	0	40	15	460	**515**
PHY 360 W3FE	37	4.5	30.0	83.6	41	0	20	10	225	**255**
PHY 411 W3FE**	36	4.8	31.3	84.7	31	0	40	15	425	**480**
DP 1646 B2XF	40	4.6	30.7	85.7	31	0	20	20	460	**500**
DP 2127 B3XF	36	4.7	31.7	86.5	31	0	40	25	425	**490**
Mean	38	4.6	31.6	85.2	-	0	33	18	437	**488**

** 2022 release variety
¶ 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.
¶¶ Discounted amounts taken from the Cotton Incorporated 2021 Loan Schedule of Premiums and Discounts for Upland Cotton.

Table 9: Lint quality and associated 2021 scheduled discounts for top 10 varieties in relative yield at the Southampton Co.- Drake Farm OVT location (excluding unreleased experimental lines)

Variety	Lint Quality¶					Discounted Amount¶¶ (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	32nd		*g/tex*	*%*	*Color*		*g/tex*	*%*		
DP 2038 B3XF	35	5.3	27.2	82.5	31	-240	0	5	270	**35**
NG 3299 B3XF**	37	5.1	34.4	85.0	31	-240	45	20	480	**305**
ST 4550GLTP	37	4.7	31.8	84.6	31	0	40	15	480	**535**
ST 4595 B3XF**	37	5.0	30.8	83.6	31	-240	20	10	445	**235**
DP 2239 B3XF**	37	5.0	28.7	83.3	31	-240	0	10	480	**250**
DP 2020 B3XF	37	4.7	30.4	83.9	31	0	20	10	480	**510**
PHY 360 W3FE	35	5.0	27.1	81.6	41	-240	0	0	120	**-120**
PHY 411 W3FE**	34	5.1	29.7	82.8	31	-240	5	5	95	**-135**
DP 1646 B2XF	39	4.8	29.5	84.8	31	0	5	15	460	**480**
DP 2127 B3XF	36	5.3	29.5	85.1	31	-390	5	20	425	**60**
Mean	36	5.0	29.9	83.7	-	-183	14	11	374	**216**

** 2022 release variety

¶ 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.

¶¶ Discounted amounts taken from the Cotton Incorporated 2021 Loan Schedule of Premiums and Discounts for Upland Cotton.

Table 10: Lint quality and associated 2021 scheduled discounts for top 10 varieties in relative yield at the Sussex Co.- Rogers Farm OVT location (excluding unreleased experimental lines)

Variety	Lint Quality¶					Discounted Amount¶¶ (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	32nd		*g/tex*	*%*	*Color*		*g/tex*	*%*		
DP 2038 B3XF	36	5.2	31.8	83.3	31	-240	40	10	425	**235**
NG 3299 B3XF**	39	4.8	35.2	86.3	31	0	45	25	495	**565**
ST 4550GLTP	38	4.9	33.3	85.2	31	0	45	20	495	**560**
ST 4595 B3XF**	39	4.7	31.6	84.4	31	0	40	15	460	**515**
DP 2239 B3XF**	40	4.7	32.7	84.9	31	0	40	15	460	**515**
DP 2020 B3XF	39	4.6	33.0	84.5	31	0	45	15	495	**555**
PHY 360 W3FE	37	4.8	30.4	82.9	41	0	20	5	225	**250**
PHY 411 W3FE**	36	4.9	32.9	84.4	41	0	40	15	215	**270**
DP 1646 B2XF	41	4.6	31.2	84.4	41	0	40	15	245	**300**
DP 2127 B3XF	37	5.2	32.3	84.3	41	-240	40	15	225	**40**
Mean	38	4.8	32.4	84.5	-	-48	40	15	374	**381**

** 2022 release variety
¶ 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.
¶¶ Discounted amounts taken from the Cotton Incorporated 2021 Loan Schedule of Premiums and Discounts for Upland Cotton.

Table 11: Lint quality and associated 2021 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¶					Discounted Amount¶¶* (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	32nd		*g/tex*	*%*	*Color*		*g/tex*	*%*		
DP 2038 B3XF	36	4.7	30.7	82.7	51	0	20	5	-510	**-485**
NG 3299 B3XF**	37	4.6	33.9	85.0	51	0	45	20	-505	**-440**
ST 4550GLTP	37	4.3	31.5	84.5	51	0	40	15	-505	**-450**
ST 4595 B3XF**	39	4.4	30.7	84.9	51	0	20	15	-625	**-590**
DP 2239 B3XF**	39	4.1	30.6	84.3	51	0	20	15	-625	**-590**
DP 2020 B3XF	38	4.1	31.0	84.4	51	0	40	15	-505	**-450**
PHY 360 W3FE	36	4.4	28.3	81.4	51	0	0	0	-625	**-625**
PHY 411 W3FE**	35	4.4	29.6	82.5	51	0	5	5	-2000	**-1990**
DP 1646 B2XF	40	4.2	30.4	84.2	51	0	20	15	-625	**-590**
DP 2127 B3XF	37	4.5	29.4	84.3	51	0	5	15	-625	**-605**
Mean	37	4.4	30.6	83.8	-	0	22	12	-715	**-682**

** 2022 release variety
¶ 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.
¶¶ Discounted amounts taken from the Cotton Incorporated 2021 Loan Schedule of Premiums and Discounts for Upland Cotton.
* Bale sample (versus hand sampling) of lint may result in artificial increase in leaf grade, therefore points, without cleaning prior to ginning.

Table 12: Lint quality and associated 2021 scheduled discounts for varieties at the Isle of Wight Co.- Allen On-Farm location

Variety	Lint Quality¶					Discounted Amount¶¶ (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	32nd		*g/tex*	*%*	*Color*		*g/tex*	*%*		
DP 2127 B3XF	36	5.0	30.4	84.7	41	-240	20	15	-60	**-265**
DP 2038 B3XF	35	5.0	28.6	82.4	41	-240	0	5	65	**-170**
DP 2115 B3XF	36	5.1	29.5	83.5	41	-240	5	10	-60	**-285**
NG 3195 B3XF	35	4.8	29.7	82.1	51	0	5	5	-420	**-410**
NG 4936 B3XF	37	4.7	28.8	84.0	51	0	0	10	-365	**-355**
ST 4550GLTP	36	4.7	30.8	83.6	41	0	20	10	155	**185**
ST 5091B3XF	36	4.3	27.9	82.0	41	0	0	0	-60	**-60**
PHY 360 W3FE	36	4.9	28.9	82.4	51	0	0	5	-510	**-505**
PHY 400 W3FE	38	4.5	29.2	79.6	51	0	5	-55	-505	**-555**
PHY 443 W3FE	36	5.0	32.2	84.2	51	-240	40	15	-510	**-695**
Mean	36	4.8	29.6	82.8	-	-96	10	2	-227	**-312**

¶ 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.
¶¶ Discounted amounts taken from the Cotton Incorporated 2021 Loan Schedule of Premiums and Discounts for Upland Cotton.
* Bale sample (versus hand sampling) of lint may result in artificial increase in leaf grade, therefore points, without cleaning prior to ginning.

Table 13: Lint quality and associated 2021 scheduled discounts for varieties at the Suffolk- Ellis On-Farm location

Variety	Lint Quality¶					Discounted Amount¶¶ (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	32nd		*g/tex*	*%*	*Color*		*g/tex*	*%*		
DP 2127 B3XF	37	4.2	30.0	84.2	51	0	20	15	-625	**-590**
DP 2038 B3XF	35	4.8	29.6	82.5	51	0	5	5	-570	**-560**
DP 2115 B3XF	37	4.2	31.2	84.0	51	0	40	15	-625	**-570**
NG 3195 B3XF	37	4.5	30.5	83.8	51	0	20	10	-625	**-595**
NG 4936 B3XF	38	4.1	31.2	83.7	51	0	40	10	-505	**-455**
ST 4550GLTP	37	4.5	30.1	83.9	51	0	20	10	-625	**-595**
ST 5091B3XF	37	4.0	29.0	83.4	51	0	5	10	-625	**-610**
PHY 360 W3FE	37	4.4	30.4	82.5	51	0	20	5	-505	**-480**
PHY 400 W3FE	38	4.1	33.6	83.6	51	0	45	10	-625	**-570**
PHY 443 W3FE	37	4.3	31.6	84.1	51	0	40	15	-505	**-450**
Mean	37	4.3	30.7	83.6	-	0	26	11	-584	**-548**

¶ 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.
¶¶ Discounted amounts taken from the Cotton Incorporated 2021 Loan Schedule of Premiums and Discounts for Upland Cotton.
* Bale sample (versus hand sampling) of lint may result in artificial increase in leaf grade, therefore points, without cleaning prior to ginning.

Table 14: Lint quality and associated 2021 scheduled discounts for varieties at the Southampton Co.- Darden On- Farm location

Variety	Lint Quality¶					Discounted Amount¶¶ (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	32nd		*g/tex*	*%*	*Color*		*g/tex*	*%*		
DP 2127 B3XF	37	4.6	32.0	85.7	51	0	40	20	-505	**-445**
DP 2038 B3XF	36	4.6	31.5	83.1	51	0	40	10	-510	**-460**
DP 2115 B3XF	37	4.7	32.3	84.7	51	0	40	15	-625	**-570**
NG 3195 B3XF	38	4.5	33.1	85.3	51	0	45	20	-505	**-440**
NG 4936 B3XF	39	4.4	31.1	85.1	51	0	40	20	-625	**-565**
ST 4550GLTP	37	4.3	33.0	85.0	41	0	45	20	-335	**-270**
ST 5091B3XF	38	4.3	28.9	83.6	41	10	0	10	-335	**-315**
PHY 360 W3FE	37	4.4	29.3	83.0	51	0	5	10	-2000	**-1985**
PHY 400 W3FE	37	4.2	33.7	84.1	51	0	45	15	-505	**-445**
PHY 443 W3FE	37	4.2	33.8	84.2	51	0	45	15	-505	**-445**
Mean	37	4.4	31.9	84.4	-	1	35	16	-645	**-594**

¶ 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.
¶¶ Discounted amounts taken from the Cotton Incorporated 2021 Loan Schedule of Premiums and Discounts for Upland Cotton.
* Bale sample (versus hand sampling) of lint may result in artificial increase in leaf grade, therefore points, without cleaning prior to ginning.

Table 15: Lint quality and associated 2021 scheduled discounts for varieties at the Surry Co.- Lowe On-Farm location

Variety	Lint Quality¶					Discounted Amount¶¶* (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	32nd		*g/tex*	*%*	*Color*		*g/tex*	*%*		
DP 2127 B3XF	37	4.3	32.1	84.2	41	0	40	15	-335	**-280**
DP 2038 B3XF	36	4.4	29.7	81	41	0	5	0	-60	**-55**
DP 2115 B3XF	38	4.4	29.5	85.7	51	0	5	20	-505	**-480**
NG 3195 B3XF	38	4.1	32.7	85.3	41	10	40	20	-335	**-265**
NG 4936 B3XF	40	3.9	29.5	86.1	41	10	5	25	-335	**-295**
ST 4550GLTP	38	4.4	31.5	83.9	51	0	40	10	-505	**-455**
ST 5091B3XF	38	3.9	29.8	83.2	51	10	5	10	-365	**-340**
PHY 360 W3FE	37	4.1	27.5	84	51	0	0	15	-625	**-610**
PHY 400 W3FE	39	4	33.7	84.2	51	0	45	15	-625	**-565**
PHY 443 W3FE	37	4.8	33.2	85	41	0	45	20	-335	**-270**
Mean	38	4.2	30.9	84.3	-	3	23	15	-403	**-362**

¶ 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.
¶¶ Discounted amounts taken from the Cotton Incorporated 2021 Loan Schedule of Premiums and Discounts for Upland Cotton.
*Lint processing does not allow for cleaning prior to ginning- may result in artificial increase in leaf grade, therefore points.
* Bale sample (versus hand sampling) of lint may result in artificial increase in leaf grade, therefore points, without cleaning prior to ginning.

Table 16: Lint quality and associated 2021 scheduled discounts for varieties at the Sussex Co.- Webb On-Farm location

Variety	Lint Quality¶					Discounted Amount¶¶ (points per pound)				
	Staple	Mic	Str	Uni	HVI	Mic	Str	Uni	Staple / Color	TOTAL
	32nd		*g/tex*	*%*	*Color*		*g/tex*	*%*		
DP 2127 B3XF	36	4.5	30.2	85.4	41	0	20	20	-60	**-20**
DP 2038 B3XF	37	4.1	31.7	82.9	41	10	40	5	-50	**5**
DP 2115 B3XF	36	4.3	29.8	83.0	51	0	5	10	-510	**-495**
NG 3195 B3XF	37	4.4	30.5	84.2	41	0	20	15	-50	**-15**
NG 4936 B3XF	38	3.8	30.1	85.6	51	0	20	20	-505	**-465**
ST 4550GLTP	36	4.2	28.9	82.7	51	0	0	5	-510	**-505**
ST 5091B3XF	37	4.2	28.4	81.4	41	0	0	0	-480	**-480**
PHY 360 W3FE	36	4.3	29.2	81.3	51	0	5	0	-510	**-505**
PHY 400 W3FE	37	3.9	30.4	81.8	51	0	20	0	-625	**-605**
PHY 443 W3FE	36	4.5	31.1	83.6	51	0	40	10	-510	**-460**
Mean	37	4.2	30.0	83.2	-	1	17	9	-381	**-355**

¶ 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.
¶¶ Discounted amounts taken from the Cotton Incorporated 2021 Loan Schedule of Premiums and Discounts for Upland Cotton.
*Lint processing does not allow for cleaning prior to ginning- may result in artificial increase in leaf grade, therefore points.
* Bale sample (versus hand sampling) of lint may result in artificial increase in leaf grade, therefore points, without cleaning prior to ginning.

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