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2018 COTTON VARIETY TESTING AND ON-FARM RESULTS

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Brian and Adam Darden, Southampton County
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Lewis and M.L. Everett, Southampton County
Richard and Ben Kitchen, Southampton County
Clay Lowe, Sussex County
Moyler Pond, Surry 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 2018. 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 2018 OVT received 48 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 2015 discount table and do not reflect actual discounts given during the fall of 2015. Premiums and discounts are reported in points per pound.

2018 Agronomic Inputs for Locations

(Rates on a per acre basis)

Suffolk, VA - Tidewater AREC Location OVT Trial

Planted:	May 15, 2018
Harvested:	Nov. 21, 2018
Population:	43,560 plants/acre
Fertilizer:	75 lbs. N per acre 24-0-0-3S on Jun. 29, 2018
PGR:	12 oz. Pentia® on Jul. 16, 2018
Herbicide:	1 pt. Prowl®, 1 qt. Cotoran® on May 16, 2018 1.2 oz. Staple®, 1 pt. Select® on Jun. 25, 2018 1 pt. Select® on Jul. 11, 2018
Insecticide:	8 oz. Orthene 97® on Jun. 1, 2018 6 oz. Belay® on Jun. 6, 2018 12 oz. Besiege® on Jun. 25, 2018
Harvest Aid:	1 qt. Finish 6 Pro®, 8 oz. Folex®, 4 oz. Dropp® on Oct. 17, 2018
Plot Size:	2 rows 35’ x 36” 4 replications
Soil Type	Nansemond
Cooperator:	Karl Jones

Southampton Co., VA- Everett Farm OVT Trial 1

Planted:	May 9, 2018
Harvested:	Dec. 6, 2018
Population:	43,560 plants/acre
Fertilizer:	75 lbs. N per acre 24-0-0-3S on Jun. 27, 2018
PGR:	12 oz. Pix® on Aug. 17, 2018
Herbicide:	32 oz. Roundup PowerMax®, 2 oz. Valor®, 32 oz. 2-4D Amine® on Apr. 11, 2018 32 oz. Roundup PowerMax®, 5 oz. Ful-Bor® on Jun. 30, 2018 24 oz. Roundup PowerMax® on Aug. 17, 2018
Insecticide:	6.4 oz. Bifenthrin®, 20 oz. Prevathon® on Jul. 27, 2018 9 oz. Besiege®, 6.4 oz. Bifenthrin® on Aug. 17, 2018
Harvest Aids:	32 oz. Finish 6 Pro®, 8 oz. Folex 6EC®, 2 oz. FreeFall SC® on Oct. 15, 2018
Plot Size:	2 rows 35’ x 36” 4 replications
Soil Type	Emporia
Cooperator:	Lewis Everett

Southampton Co., VA- Drake Farm OVT Trial 2

Planted:	May 11, 2018
Harvested:	Oct. 15, 2018
Population:	43,560 plants/acre
Fertilizer:	75 lbs. N per acre 24-0-0-3S on Jun. 21, 2018
PGR:	12 oz. VETO® on Jun. 20, 2018 16 oz. VETO® on Jul. 27, 2018
Herbicide:	32 oz. Envy Six Max®, 32 oz. 2,4-D Amine®, 2 oz. Panther SC® on May 15, 2018 32 oz. Envy Six Max® on Jun. 20, 2018 24 oz. Envy Six Max® on Jul. 27, 2018
Insecticide:	0.5 lb. Livid 90 Prill® on May 15, 2018 2 oz. Provoke® on Jun. 20, 2018 16 oz. Prevathon®, 6.4 oz. Reveal® on Jul. 27, 2018
Harvest Aids:	32 oz. Finish 6 Pro®, 4 oz. Folex 6EC®, 2.5 oz. FreeFall SC® on Sep. 4, 2018
Plot Size:	2 rows 35’ x 36” 4 replications
Soil Type	Emporia + Slagle
Cooperator:	Matt Drake

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

Planted: May 14, 2018

Harvested: Oct. 17, 2018

Population: 43,560 plants/acre

Fertilizer: 100 lbs. N, 30 lbs. P_2O_5, and 90 lbs. K_2O per acre

PGR: 8 oz. Pix®, 16 oz. Pix® applied during the season

Herbicide: 1.5 pt. Prowl® on May 15, 2018
24 oz. Glyphosate® applied twice during the season

Insecticide: 18 oz. Velum Total® on May 14, 2018
Admire Pro® applied once during the season
Baythroid® applied twice during the season

Harvest Aids: 6 oz. Folex®, 3 pt. Prep®, 3 oz. Dropp®

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

Soil Type Yemassee and Slage

Cooperator: John Allen

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 14, 2108	Oct. 17, 2018
Suffolk	Mike Ellis	May 3, 2018	Oct. 31, 2018
Southampton 1	Richard Kitchen	May 4, 2018	Oct. 22, 2018
Southampton 2	Brian Darden	May 26, 2018	Nov. 1, 2018
Surry	Moyler Pond	May 18, 2018	Nov. 12, 2018
Sussex	Clay Lowe	May 9, 2018	Nov. 12, 2018

Table 2: Relative yields for varieties entered at all locations in the 2018 Official Variety Testing (OVT) Program

Seed Company	Variety	Maturity	Relative Yield				Avg. Relative Yield
			TAREC	SHC1	SHC2	IOW	
BASF	ST 4550 GLTP*		0.81	0.99	0.94	0.94	0.92
Dow AgroSciences	PHY 340 W3FE	early-mid	0.80	0.99	0.89	1.00	0.92
Monsanto	DP 1646 B2XF	mid	0.92	0.92	0.86	0.89	0.90
BASF	BX 1974 GLTP¶		0.79	0.94	1.00	0.84	0.89
Dow AgroSciences	PHY 330 W3FE	early	0.77	0.98	0.82	0.98	0.89
Dow AgroSciences	PX 3B07 W3FE¶	early	0.90	0.91	0.89	0.79	0.87
Dow AgroSciences	PX 3B09 W3FE¶	early	0.87	0.91	0.89	0.77	0.86
BASF	ST 5020 GLT	early-mid	1.00	0.90	0.72	0.78	0.85
Dow AgroSciences	PHY 320 W3FE*	early-mid	0.81	1.00	0.74	0.85	0.85
Dow AgroSciences	PHY 350 W3FE*	early-mid	0.71	0.91	0.91	0.87	0.85
Dow AgroSciences	PHY 300 W3FE	early	0.75	0.93	0.84	0.86	0.85
BASF	BX 1975 GLTP¶		0.90	0.77	0.88	0.83	0.84
Dyna-Gro	DG 3605 B2XF	mid-full	0.73	0.82	0.87	0.92	0.84
Americot/NexGen	NG 3522 B2XF	early-mid	0.87	0.81	0.89	0.77	0.83
Dow AgroSciences	PX 4A64 W3FE¶	mid	0.80	0.89	0.77	0.87	0.83
Monsanto	DP 1916 B3XF*	early-mid	0.84	0.83	0.80	0.85	0.83
BASF	ST 5818 GLT	mid-full	0.66	1.00	0.80	0.84	0.83
Monsanto	DP 1614 B2XF	early	0.85	0.78	0.74	0.92	0.82
Dyna-Gro	DG 1702 GLT*	mid	0.70	0.73	0.95	0.85	0.81
Americot/NexGen	NG 5007 B2XF	mid	0.80	0.78	0.78	0.84	0.80
Dow AgroSciences	PHY 430 W3FE	mid	0.75	0.91	0.84	0.70	0.80
Monsanto	DP 1725 B2XF	early-mid	0.67	0.76	0.84	0.85	0.78
BASF	ST 4848 GLT	early	0.68	0.77	0.86	0.81	0.78
Dow AgroSciences	PX 3C06 W3FE¶	early	0.78	0.79	0.82	0.71	0.78
Americot/NexGen	NG 4936 B3XF*	early-mid	0.59	0.85	0.94	0.71	0.77
Americot/NexGen	NG 3729 B2XF	early-mid	0.80	0.77	0.74	0.76	0.77
Dow AgroSciences	PHY 480 W3FE	mid	0.59	0.82	0.84	0.83	0.77
BASF	ST 5471 GLTP	early-mid	0.76	0.75	0.89	0.67	0.77
BASF	ST 5122 GLT	early-mid	0.67	0.75	0.87	0.76	0.76
Dow AgroSciences	PX 5D28B W3FE¶	full	0.63	0.79	0.85	0.77	0.76
Monsanto	DP 1840 B3XF	mid-full	0.69	0.72	0.86	0.72	0.75
BASF	BX 1976 GLTP¶		0.64	0.80	0.80	0.73	0.74
Dyna-Gro	DG 3526 B2XF	mid	0.61	0.75	0.88	0.72	0.74
BASF	ST 4949 GLT	early	0.70	0.73	0.78	0.72	0.73
Dow AgroSciences	PX 4A69 W3FE¶	mid	0.54	0.93	0.78	0.68	0.73

Monsanto	DP 1835 B3XF	mid	0.77	0.61	0.79	0.70	0.72
Dow AgroSciences	PX 5B73 W3FE¶	full	0.51	0.80	0.74	0.79	0.71
BASF	ST 6182 GLT	mid-full	0.61	0.82	0.76	0.66	0.71
BASF	ST 5517 GLTP	mid-full	0.61	0.76	0.77	0.66	0.70
Monsanto	DP 1820 B3XF	early-mid	0.49	0.75	0.86	0.67	0.69
Americot/NexGen	NG 5711 B2XF	mid	0.45	0.89	0.76	0.66	0.69
Americot/NexGen	NG 4689 B2XF	mid	0.40	0.78	0.92	0.65	0.69
Monsanto	17R821 B3XF¶	early-mid	0.63	0.73	0.73	0.65	0.68
Monsanto	17R829 B3XF¶	early-mid	0.47	0.68	0.86	0.64	0.66
Americot/NexGen	NG 4777 B2XF	mid	0.34	0.75	0.82	0.73	0.66
Dow AgroSciences	PHY 580 W3FE*	full	0.46	0.79	0.75	0.62	0.66
Dow AgroSciences	PHY 440 W3FE	mid	0.54	0.73	0.70	0.65	0.65
Americot/NexGen	NG 3780 B2XF	early-mid	0.40	0.63	0.67	0.54	0.56
		Mean	**0.69**	**0.82**	**0.83**	**0.77**	**0.78**
		LSD (0.1)	**0.125**	**0.137**	**0.125**	**0.130**	**-**

¶ *Experimental lines not released*
** 2019 released variety*

Table 3: Two-year (2017-2018) relative yield averages for varieties tested each year

Seed Company	Variety	Avg. Relative Yield
Monsanto	DP 1646 B2XF	0.93
Dow AgroSciences	PHY 340 W3FE	0.91
Dow AgroSciences	PHY 330 W3FE	0.88
Dow AgroSciences	PHY 300 W3FE	0.88
BASF	ST 5020 GLT	0.87
Monsanto	DP 1614 B2XF	0.87
Dyna-Gro	DG 3605 B2XF	0.86
Dyna-Gro	DG 1702 GLT	0.84
Americot/NexGen	NG 3522 B2XF	0.84
Americot/NexGen	NG 5007 B2XF	0.82
BASF	ST 4848 GLT	0.82
Monsanto	DP 1725 B2XF	0.81
Monsanto	DP 1835 B3XF	0.80
Dow AgroSciences	PHY 480 W3FE	0.80
BASF	ST 5517 GLTP	0.79
BASF	ST 6182 GLT	0.79
Dyna-Gro	DG 3526 B2XF	0.79
Monsanto	DP 1840 B3XF	0.78
Americot/NexGen	NG 4689 B2XF	0.78
BASF	ST 4949 GLT	0.77
Monsanto	DP 1820 B3XF	0.77
Dow AgroSciences	PHY 440 W3FE	0.69
	Mean	**0.82**

Table 4: Three-year (2016-2018) relative yield averages for varieties tested each year

Seed Company	Variety	Avg. Relative Yield
Monsanto	DP 1646 B2XF	0.92
BASF	ST 5020 GLT	0.88
Monsanto	DP 1614 B2XF	0.85
BASF	ST 4848 GLT	0.83
Americot/NexGen	NG 3522 B2XF	0.83
Dyna-Gro	DG 3526 B2XF	0.82
Monsanto	DP 1725 B2XF	0.82
BASF	ST 6182 GLT	0.81
	Mean	**0.84**

Table 5: Lint yield and lint percentage of varieties tested during 2018 at the four OVT locations

Seed Company	Variety	Suffolk		Southampton1		Southampton2		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*	939.8	43.2	1519.9	44.4	1581.8	47.6	1373.4	46.0
Dow AgroSciences	PHY 340 W3FE	923.4	43.6	1521.8	44.1	1492.8	46.9	1462.0	45.5
Monsanto	DP 1646 B2XF	1066.9	47.5	1418.7	41.7	1452.3	45.4	1308.3	45.3
BASF	BX 1974 GLTP¶	920.7	44.3	1454.5	42.8	1683.8	44.7	1227.3	45.9
Dow AgroSciences	PHY 330 W3FE	891.2	44.8	1508.2	40.7	1386.7	47.1	1434.8	44.6
Dow AgroSciences	PX 3B07 W3FE¶	1040.7	43.0	1404.6	43.3	1499.7	45.3	1161.6	48.2
Dow AgroSciences	PX 3B09 W3FE¶	1013.0	44.4	1400.3	44.1	1502.4	46.3	1120.1	42.6
BASF	ST 5020 GLT	1161.1	42.8	1387.9	43.3	1208.1	41.6	1146.7	39.8
Dow AgroSciences	PHY 320 W3FE*	937.0	42.4	1540.3	41.1	1250.6	43.1	1240.8	43.4
Dow AgroSciences	PHY 350 W3FE*	820.1	42.3	1401.1	39.4	1533.7	44.6	1271.4	45.9
Dow AgroSciences	PHY 300 W3FE	875.8	42.8	1437.9	41.3	1411.9	45.3	1251.9	45.5
BASF	BX 1975 GLTP¶	1041.1	44.1	1186.0	41.5	1477.7	44.0	1209.3	44.7
Dyna-Gro	DG 3605 B2XF	850.9	41.8	1262.2	42.1	1468.8	44.9	1350.6	46.4
Americot/NexGen	NG 3522 B2XF	1014.6	47.8	1249.5	43.8	1490.6	44.9	1118.8	43.8
Dow AgroSciences	PX 4A64 W3FE¶	925.3	43.1	1379.0	41.9	1294.6	45.8	1275.0	44.7
Monsanto	DP 1916 B3XF*	969.6	44.6	1273.7	41.9	1350.1	43.5	1240.6	47.3
BASF	ST 5818 GLT	767.1	41.4	1541.5	40.7	1354.5	42.7	1224.6	42.1
Monsanto	DP 1614 B2XF	984.1	42.9	1204.5	41.0	1244.8	43.8	1351.3	47.3
Dyna-Gro	DG 1702 GLT*	810.2	41.1	1120.8	38.8	1593.9	43.0	1249.6	44.4
Americot/NexGen	NG 5007 B2XF	932.7	47.1	1204.0	38.5	1320.2	43.8	1223.5	45.3
Dow AgroSciences	PHY 430 W3FE	874.5	49.4	1404.6	43.0	1412.8	44.5	1023.5	44.2
Monsanto	DP 1725 B2XF	783.0	41.9	1164.6	43.3	1414.2	47.2	1247.0	45.3
BASF	ST 4848 GLT	795.0	43.6	1190.2	41.5	1442.5	43.1	1179.0	46.6
Dow AgroSciences	PX 3C06 W3FE¶	911.5	43.4	1220.4	42.0	1382.3	46.0	1042.3	44.1
Americot/NexGen	NG 4936 B3XF*	690.1	38.9	1309.7	38.5	1580.4	40.2	1040.9	41.1
Americot/NexGen	NG 3729 B2XF	933.9	40.1	1188.8	39.9	1246.9	43.0	1117.9	44.6
Dow AgroSciences	PHY 480 W3FE	679.8	41.0	1268.3	39.9	1412.8	44.7	1208.4	46.7
BASF	ST 5471 GLTP	879.7	44.7	1159.2	40.5	1500.1	42.1	981.8	41.4
BASF	ST 5122 GLT	776.5	39.9	1156.3	40.9	1461.4	43.9	1107.4	39.9
Dow AgroSciences	PX 5D28B W3FE¶	731.5	43.8	1216.0	41.7	1429.1	46.8	1118.7	45.9
Monsanto	DP 1840 B3XF	796.5	46.4	1116.1	38.3	1448.3	42.7	1059.6	43.3
BASF	BX 1976 GLTP¶	748.1	44.4	1228.2	41.1	1338.7	43.6	1066.9	48.3
Dyna-Gro	DG 3526 B2XF	713.8	44.6	1151.4	42.4	1483.0	46.4	1053.7	45.6
BASF	ST 4949 GLT	811.9	45.5	1126.5	43.3	1319.2	46.8	1059.4	46.3
Dow AgroSciences	PX 4A69 W3FE¶	621.4	42.7	1431.9	42.8	1318.1	48.4	990.3	47.2

Monsanto	DP 1835 B3XF	894.3	43.5	943.9	40.9	1323.1	45.6	1021.2	48.0
Dow AgroSciences	PX 5B73 W3FE¶	589.5	42.4	1232.0	42.3	1249.6	43.1	1160.9	44.8
BASF	ST 6182 GLT	708.3	45.5	1264.2	44.0	1273.5	43.1	959.2	45.2
BASF	ST 5517 GLTP	710.4	39.5	1166.3	39.4	1304.6	42.5	971.7	41.7
Monsanto	DP 1820 B3XF	565.3	44.9	1162.7	41.3	1448.2	44.9	985.6	45.6
Americot/NexGen	NG 5711 B2XF	517.9	39.9	1370.7	42.5	1286.1	44.6	971.5	43.4
Americot/NexGen	NG 4689 B2XF	467.9	38.8	1195.2	40.0	1549.9	43.2	947.0	43.0
Monsanto	17R821 B3XF¶	731.0	44.9	1122.1	44.0	1221.8	44.5	953.1	44.6
Monsanto	17R829 B3XF¶	543.6	42.1	1055.0	41.5	1452.7	44.3	937.7	45.4
Americot/NexGen	NG 4777 B2XF	399.4	37.1	1162.1	40.0	1379.3	43.4	1068.5	43.3
Dow AgroSciences	PHY 580 W3FE*	533.8	42.7	1221.4	42.5	1258.6	45.7	912.4	47.5
Dow AgroSciences	PHY 440 W3FE	622.0	43.3	1118.8	40.0	1182.8	46.1	954.1	46.2
Americot/NexGen	NG 3780 B2XF	458.7	36.9	965.5	37.6	1127.6	40.4	792.5	40.8
	Mean	799.5	43.1	1265.2	41.5	1392.6	44.5	1128.6	44.8
	LSD (0.1)	145.03	1.13	210.27	2.00	211.47	1.91	190.28	2.44

¶ *Experimental lines not released*
** 2019 released variety*

Table 6: Lint yield and lint percent of varieties from the six 2018 On-Farm trial locations

Variety[¶]	Avg. across 6 locations		Isle of Wight Co.- Allen		Suffolk- Ellis		Southampton Co.1- Kitchen		Southampton Co.2- Darden		Surry Co.- Pond		Sussex Co.- Lowe	
	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 %	Lint Yield lb./A	Lint %
DP 1646 B2XF	**1387.7**	**45.3**	1358.6	44.4	1328.1	44.8	1379.3	45.1	1633.9	46.4	1346.3	45.6	1274.1	45.2
PHY 330 W3FE	**1273.4**	**45.9**	1270.7	45.2	1363.4	47.5	1206.7	45.8	1380.0	45.2	1319.3	46.2	1100.3	45.2
ST 5471 GLTP	**1199.1**	**43.0**	1055.8	43.1	1258.5	43.3	1258.7	44.7	1388.3	43.3	1225.6	43.3	1008.8	40.5
NG 3522 B2XF	**1176.0**	**44.5**	1171.8	43.1	1228.6	44.8	1203.1	44.4	1454.2	46.4	1033.6	44.4	964.4	44.0
PHY 430 W3FE	**1171.9**	**45.4**	1116.7	44.6	1265.1	47.9	1046.3	45.6	1460.6	46.0	1165.2	45.8	977.7	41.7
ST 5517 GLTP	**1113.5**	**41.4**	1110.3	42.0	1083.0	42.1	1104.7	41.4	1352.1	41.8	1009.1	41.7	1021.5	39.3
ST 5020 GLT	**1109.5**	**42.2**	1233.5	42.6	1204.2	42.5	1096.2	42.2	1311.5	42.5	931.5	43.9	880.2	39.3
DP 1835 B3XF	**1106.1**	**45.7**	1062.3	45.0	1051.7	45.6	1061.8	48.0	1345.9	45.6	1147.8	44.8	967.1	45.2
NG 5007 B2XF	**1103.8**	**43.3**	1104.6	43.1	1108.1	44.5	985.8	44.4	1306.5	43.3	1200.5	43.9	917.4	40.5
DP 1820 B3XF	**1024.0**	**45.6**	860.7	44.5	947.2	45.6	1065.9	49.1	1232.2	45.6	1123.8	45.6	914.3	42.9
NG 4689 B2XF	**961.0**	**45.6**	1025.2	41.7	924.3	42.9	1019.9	44.0	1077.7	41.8	960.9	44.9	758.8	40.5
Mean	**1147.8**	**44.1**	1124.6	43.6	1160.2	44.7	1129.9	45.1	1358.5	44.3	1133.1	44.6	980.4	42.2
LSD (0.1)	-	-	96.74	1.77	63.12	1.58	105.43	3.49	113.61	1.48	-	-	-	-

[¶] *PHY = PhytoGen, Dow AgroSciences; DP = DeltaPine, Monsanto; NG = NexGen, Americot/NexGen; ST = Stoneville, BASF*

Table 7: Average lint quality and associated 2018 scheduled discounts for top 10 varieties in relative yield across all ten 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*	*%*		
ST 4550 GLTP*	37	5.1	32.0	83.5	31-1	-230	45	15	420	**250**
PHY 340 W3FE	36	5.0	30.3	82.5	31-1	-230	30	5	380	**185**
DP 1646 B2XF**	38	4.6	30.0	82.4	31-4	0	30	4	250	**285**
PHY 330 W3FE**	36	4.7	30.9	82.3	41-1	0	30	5	210	**245**
ST 5020 GLT**	38	4.7	32.6	82.6	41-2	0	45	5	240	**290**
PHY 320 W3FE*	36	5.0	31.3	83.9	31-2	-230	45	15	380	**210**
PHY 350 W3FE*	37	5.2	30.9	83.3	31-1	-230	30	15	420	**235**
PHY 300 W3FE	36	5.2	30.7	82.3	31-1	-230	30	5	380	**185**
DG 3605 B2XF	39	4.8	31.7	83.1	21-1	0	45	15	495	**555**
NG 3522 B2XF**	35	4.8	37.3	81.3	41-1	0	0	0	95	**95**
Mean	37	4.9	30.8	82.7	-	-115	33	8.5	327	**254**

¶ *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 2018 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.*

** 2019 released variety.*

*** Varieties planted at all ten locations.*

Table 8: Lint quality and associated 2018 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*	*%*		
ST 4550 GLTP*	36	5.0	31.1	83.3	31-2	-230	45	15	380	**210**
PHY 340 W3FE	36	4.9	31.3	82.3	31-1	0	45	5	380	**430**
DP 1646 B2XF	39	4.4	30.8	82.5	31-3	0	30	5	390	**425**
PHY 330 W3FE	36	4.9	32.9	82.9	31-3	0	45	5	340	**390**
ST 5020 GLT	38	5.0	34.2	83.8	41-1	-230	55	15	240	**80**
PHY 320 W3FE*	36	4.8	32.9	83.6	31-3	0	45	15	340	**400**
PHY 350 W3FE*	37	5.0	31.5.	82.9	31-1	-230	45	5	420	**240**
PHY 300 W3FE	36	5.2	31.2	82.3	31-1	-230	45	5	340	**390**
DG 3605 B2XF	39	4.4	33.2	83.6	21-4	0	55	5	320	**380**
NG 3522 B2XF	36	4.8	28.8	82.5	31-1	0	0	5	380	**385**
Mean	37	4.8	31.8	83.0	-	-92	41	8	357	**314**

¶ *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 2018 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.*

** 2019 released variety.*

Table 9: Lint quality and associated 2018 scheduled discounts for top 10 varieties in relative yield at the Southampton Co. 1- Everett 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*	*%*		
ST 4550 GLTP*	37	5.4	33.1	83.8	31-2	-382	55	15	420	**105**
PHY 340 W3FE	37	5.2	30.4	83.4	41-1	-230	30	15	235	**50**
DP 1646 B2XF	38	5.1	30.8	83.6	41-1	-230	30	15	240	**55**
PHY 330 W3FE	37	5.1	31.6	83.2	41-1	-230	45	15	235	**65**
ST 5020 GLT	38	5.3	33.9	83.8	41-1	-385	55	15	240	**-75**
PHY 320 W3FE*	37	5.2	32.0	84.6	41-1	-230	45	25	235	**75**
PHY 350 W3FE*	39	5.0	31.4	83.4	41-1	-230	45	15	240	**70**
PHY 300 W3FE	36	5.2	30.5	82.5	31-2	-230	30	5	380	**185**
DG 3605 B2XF	39	5.0	31.4	83.4	41-1	-230	45	15	240	**70**
NG 3522 B2XF	36	5.3	29.3	82.3	41-1	-385	10	5	210	**-160**
Mean	37	5.2	31.5	83.4	-	-292	39	14	267	**28**

¶ *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 2018 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.*

** 2019 released variety.*

Table 10: Lint quality and associated 2018 scheduled discounts for top 10 varieties in relative yield at the Southampton Co. 2- 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*	*%*		
ST 4550 GLTP*	37	4.8	31.7	83.5	31-1	0	45	15	450	**480**
PHY 340 W3FE	35	4.8	29.5	81.2	31-1	0	10	0	435	**445**
DP 1646 B2XF	38	4.8	30.7	82.8	31-1	0	30	5	435	**470**
PHY 330 W3FE	35	4.8	29.5	82.1	31-1	0	10	5	435	**450**
ST 5020 GLT	37	4.9	33.0	83.6	41-1	0	55	15	235	**305**
PHY 320 W3FE*	36	4.9	30.7	83.8	31-1	0	30	15	380	**425**
PHY 350 W3FE*	37	5.0	30.5	83.6	31-1	-230	30	15	420	**235**
PHY 300 W3FE	35	5.0	30.4	82.6	31-1	-230	30	5	435	**240**
DG 3605 B2XF	38	4.8	31.1	82.1	21-1	0	45	0	495	**540**
NG 3522 B2XF	35	5.0	29.8	81.0	31-1	-230	10	5	435	**215**
Mean	36	4.9	30.7	82.6	-	-69	30	8	413	**381**

¶ *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 2018 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.*

** 2019 released variety.*

Table 11: Lint quality and associated 2018 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*	*%*		
ST 4550 GLTP*	37	5.0	32.1	83.3	21-2	-230	45	-75	485	**225**
PHY 340 W3FE	36	5.1	29.9	83.1	21-2	-230	10	15	425	**220**
DP 1646 B2XF	38	5.0	29.7	83.0	11-2	-230	15	15	495	**290**
PHY 330 W3FE	36	5.2	31.6	82.6	21-1	-230	45	5	425	**240**
ST 5020 GLT	37	5.0	32.1	83.3	21-2	-230	45	-75	485	**225**
PHY 320 W3FE*	35	5.2	29.7	83.4	21-1	-230	10	15	295	**90**
PHY 350 W3FE*	37	5.3	29.9	83.3	21-2	-385	10	15	485	**125**
PHY 300 W3FE	36	5.2	30.6	81.8	21-1	-230	30	0	425	**225**
DG 3605 B2XF	38	4.9	30.9	83.3	21-1	0	30	5	495	**530**
NG 3522 B2XF	35	5.0	27.9	81.6	11-2	-230	0	0	25	**65**
Mean	37	5.1	30.6	82.9	-	-223	25	-1	432	**233**

¶ *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 2018 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.*

** 2019 released variety.*

Table 12: Lint quality and associated 2018 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 1646 B2XF	38	4.7	28.9	81.4	41-1	0	0	0	240	**240**
PHY 330 W3FE	36	4.6	31.0	82.5	41-1	0	45	5	210	**260**
ST 5471 GLTP	36	4.7	29.2	81.2	41-2	0	10	0	210	**220**
NG 3522 B2XF	35	4.8	25.9	80.4	41-4	0	-155	0	60	**-95**
PHY 430 W3FE	35	4.5	29.9	81.8	42-1	0	10	0	-155	**-145**
ST 5517 GLTP	36	4.6	27.2	80.5	41-2	0	0	0	210	**210**
ST 5020 GLT	37	4.6	32.1	81.1	41-3	0	45	0	235	**280**
DP 1835 B3XF	37	4.6	29.8	81.2	51-1	0	10	0	-145	**-135**
NG 5007 B2XF	36	4.7	27.8	81.0	41-4	0	0	0	155	**155**
DP 1820 B3XF	37	2.0	33.2	80.4	51-1	-230	55	0	-145	**-320**
NG 4689 B2XF	36	5.0	28.6	81.3	51-3	-230	0	0	-150	**-380**
Mean	36	4.7	29.4	81.2	-	-42	2	0	66	**26**

¶ *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 2018 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.*

Table 13: Lint quality and associated 2018 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 1646 B2XF	39	4.3	31.6	82.9	31-4	0	45	5	250	**300**
PHY 330 W3FE	37	4.5	30.4	82.7	41-1	0	30	5	235	**270**
ST 5471 GLTP	37	4.4	31.8	82.4	41-1	0	45	5	235	**285**
NG 3522 B2XF	35	4.5	26.8	81.4	41-1	0	0	0	95	**95**
PHY 430 W3FE	35	4.5	32.2	82.6	31-4	0	45	5	90	**140**
ST 5517 GLTP	37	4.4	31.0	82.4	31-4	0	45	5	240	**290**
ST 5020 GLT	38	4.6	33.0	82.7	41-1	0	55	5	185	**245**
DP 1835 B3XF	38	4.7	32.5	83.4	31-4	0	45	15	250	**310**
NG 5007 B2XF	37	4..5	28.1	82.8	41-1	0	0	5	235	**240**
DP 1820 B3XF	38	4.8	34.0	81.4	41-1	0	55	0	185	**240**
NG 4689 B2XF	36	4.8	32.9	82.6	41-2	0	45	5	210	**260**
Mean	37	4.5	31.3	82.5	-	0	37	5	201	**243**

¶ *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 2018 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.*

Table 14: Lint quality and associated 2018 scheduled discounts for varieties at the Southampton Co. 1- Kitchen 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 1646 B2XF	38	4.6	28.2	81.4	41-1	0	0	0	180	**185**
PHY 330 W3FE	35	4.7	28.9	82.1	41-4	0	0	0	155	**155**
ST 5471 GLTP	36	4.6	28.6	80.6	41-4	0	0	0	155	**155**
NG 3522 B2XF	35	4.7	25.6	80.7	51-1	0	-155	0	-185	**-340**
PHY 430 W3FE	35	4.7	28.6	81.4	41-4	0	0	0	60	**60**
ST 5517 GLTP	35	4.4	26.6	78.3	41-1	0	0	-85	60	**-25**
ST 5020 GLT	38	4.7	31.0	82.0	51-1	0	45	5	-145	**-95**
DP 1835 B3XF	37	4.5	28.9	80.7	41-4	0	0	0	180	**180**
NG 5007 B2XF	36	4.6	26.2	80.6	41-3	0	0	0	210	**210**
DP 1820 B3XF	37	4.9	31.3	80.5	51-1	0	45	0	-145	**-100**
NG 4689 B2XF	35	4.8	27.8	81	51-4	0	0	0	-185	**-185**
Mean	36	4.7	28.3	80.8	-	0	-6	-7	31	**19**

¶ *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 2018 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.*

Table 15: Lint quality and associated 2018 scheduled discounts for varieties at the Southampton Co. 2- 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 1646 B2XF	39	4.5	30.1	83.0	41-1	0	30	15	240	**285**
PHY 330 W3FE	36	4.3	30.5	81.8	41-2	0	30	0	210	**240**
ST 5471 GLTP	37	43	30.9	81.5	41-2	0	30	0	235	**265**
NG 3522 B2XF	35	4.5	28.7	81.0	41-1	0	0	0	95	**95**
PHY 430 W3FE	34	4.6	31.4	82.1	41-3	0	45	5	30	**80**
ST 5517 GLTP	37	4.1	32.7	81.8	41-2	10	45	0	235	**290**
ST 5020 GLT	38	4.5	32.6	82.0	41-3	0	45	5	240	**290**
DP 1835 B3XF	37	4.5	32.5	81.9	31-4	0	45	0	240	**285**
NG 5007 B2XF	36	4.5	28.2	80.6	31-4	0	0	0	210	**210**
DP 1820 B3XF	38	4.6	34.9	82.0	41-2	0	55	5	240	**300**
NG 4689 B2XF	36	4.6	31.1	81.6	41-3	0	45	0	210	**255**
Mean	37	4.5	31.2	81.8	-	1	34	3	199	**236**

¶ *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 2018 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.*

Table 16: Lint quality and associated 2018 scheduled discounts for varieties at the Surry Co.- Pond 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 1646 B2XF	38	4.4	30.1	83.1	41-2	0	30	15	240	**285**
PHY 330 W3FE	37	4.5	31.9	81.7	41-1	0	45	0	235	**280**
ST 5471 GLTP	36	4.4	30.4	80.0	41-1	0	30	0	210	**240**
NG 3522 B2XF	34	4.7	25.3	80.1	41-1	0	-155	0	30	**-125**
PHY 430 W3FE	35	4.5	31.1	82.7	41-2	0	45	5	95	**145**
ST 5517 GLTP	36	4.5	29.8	80.9	41-2	0	10	0	210	**220**
ST 5020 GLT	37	4.4	33.3	82.7	51-1	0	55	5	-145	**-85**
DP 1835 B3XF	36	4.5	32	80.6	41-2	0	45	0	210	**255**
NG 5007 B2XF	37	4.4	28.4	82.3	41-1	0	0	5	235	**240**
DP 1820 B3XF	38	4.7	35	81.6	51-1	0	55	0	-145	**-90**
NG 4689 B2XF	36	4.8	29.9	82.3	42-2	0	10	5	-75	**-60**
Mean	36	4.5	30.7	81.6	-	0	15	3	100	**119**

¶ *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 2018 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.*

Table 17: Lint quality and associated 2018 scheduled discounts for varieties at the Sussex 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 1646 B2XF	37	4.3	28.8	80.2	51-1	0	0	0	-145	**-145**
PHY 330 W3FE	35	4.3	30.6	81.8	51-1	0	30	0	-185	**-155**
ST 5471 GLTP	34	4.3	26.0	80.5	51-2	0	0	0	-265	**-265**
NG 3522 B2XF	35	4.2	24.5	82.0	51-1	10	-180	5	-185	**-350**
PHY 430 W3FE	34	4.4	26.9	79.6	51-1	0	0	-75	-265	**-340**
ST 5517 GLTP	37	4.3	29.3	80.5	61-1	0	10	0	-380	**-370**
ST 5020 GLT	36	4.7	26.1	81.9	51-1	0	0	0	-150	**-150**
DP 1835 B3XF	35	4.6	27.8	80.2	51-1	0	0	0	-185	**-185**
NG 5007 B2XF	36	4.1	26.6	80.7	51-2	10	0	0	-150	**-140**
DP 1820 B3XF	35	4.9	30.0	78.9	51-1	0	30	-85	-185	**-240**
NG 4689 B2XF	34	4.6	28.1	79.9	61-1	0	0	-75	-465	**-540**
Mean	35	4.4	27.7	80.6	-	2	-10	-21	-233	**-262**

¶ *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 2018 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.*