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2023 Cotton Variety Testing and On-Farm Results

Coordinators of Virginia Cotton Official Variety Testing in 2023
Dr. William "Hunter" Frame, Field Crops Agronomist/Associate Professor
Sean Cummings, Lab and Research Specialist, Tidewater Agricultural Research and Extension Center
William "Billy" Taylor, Field Research Specialist, Tidewater Agricultural Research and Extension Center

Other contributors:
Karl Jones, Agricultural Manager, Tidewater Agricultural Research and Extension Center

Producers Participating in the 2023 Cotton Variety On-Farm Testing:
Thomas and Greg Butler, Isle of Wight County
Brian and Adam Darden, Southampton County
Matt Drake, Southampton County
Michael Ellis, City of Suffolk
Clay and Jameson 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 2023. All locations were planted using a 2-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 fitted with two electronic scales. The 2023 OVT received 40 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) (0.05) 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 a 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 2023 USDA discount table and calculated using the Cotton Incorporated 2023 Loan Calculator for upland cotton. These values do not reflect actual discounts given during the Fall of 2023. Premiums and discounts are reported in points per pound.

2023 Agronomic Inputs for Locations

(Rates on a per acre basis)

Suffolk, VA - Tidewater AREC Location OVT Trial

Planted: May 12, 2023

Harvested: Nov 13, 2023

Seeding Rate: 46,464 seeds/acre

Fertilizer: 166 lb. of Potash (0-0-60) on Apr 3, 2023
30 lb. N ac^{-1}, 40 lb P_2O_5 ac^{-1}, and 10 lb S ac^{-1} in UAN32 + 11-37-0 + 12-0-0-26S blend in 2x2 band on May 12, 2023
90 lb. N ac^{-1} as 24-0-0-3S dribbled on Jul. 11, 2023
2 qt. Boron on Jul. 1, 2022

PGR: 2 fl. oz. Mepstar® 6X on Jul. 20, 2023

Herbicide: 1.5 pt. 2,4-D Ester on Apr. 3, 2023
1 qt. Roundup ® and 2 oz. Valor® on Apr. 19, 2023
1 pt. Prowl®, 1 qt. Cotoran 4L®, and 1 qt. Roundup® on May 12, 2023
1 qt. Roundup ® and 1 pt. Dual II Magnum® on Jun. 13, 2022

Insecticide: 10 oz. Orthene® 97 on May 31, 2023
12 oz. Orthene® 97 on Jul. 16, 2023
2 oz. Transform® and 8 fl. oz. Diamond® on Aug. 2, 2023
6 fl. oz. Brigade® and 9.6 fl. oz. Elevest® on Aug. 14, 2023
12 fl. oz. Besiege® and 8 fl. oz. Bidrin® on Jul. 29, 2022

Harvest Aid: 32 fl. oz. Finish 6 Pro®, 8 fl. oz. Setup®, 6 fl. oz. Folex®, 3 fl. oz. FreeFall SC® on Oct. 13, 2023

Plot Size: 2 rows – (6’ x 35’) 4 replications

Soil Type Nansemond fine sandy loam

Cooperator: Karl Jones

Southampton Co., VA - Drake Farm OVT Trial

Planted: May 24, 2023

Harvested: Dec 8, 2023

Population: 46,464 seeds/acre

Fertilizer: 200 lb. ac^{-1} K_2O preplant broadcast Apr. 2023
30 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 24, 2023
90 lbs. N per acre 24-0-0-3S at 1st square growth stage
2 qts. 10% Boron at 1st square growth stage applied with nitrogen

PGR: 6 fl. oz. Veto® on Jul 17, 2023
16 fl. oz. Veto® on Aug. 1, 2023
12 fl. oz. Veto® on Aug. 14, 2023

Herbicide: 1 qt. 2,4-D Amine 4, 1 qt. Roundup PowerMAX®, 2 oz. Valor SX® on Apr. 3, 2023
32 fl. oz. Fever® (glufosinate) on Jun. 8, 2023
32 fl. oz. Fever® + 24 fl. oz. Envy Six MAX® (Glyphosate) on Jul. 3, 2023
1 qt. Roundup PowerMAX® on Aug. 1, 2023

Insecticide: 12 oz./lb. Livid® 90 Prill + 1 qt/ac Fever® on Jun. 8, 2023
2 fl. oz. Provoke® on Jul 17, 2023
8 oz./lb. Livid® 90 Prill, 6.4 fl. oz. Reveal® on Aug. 1, 2023
8 oz./lb. Livid® 90 Prill, 6.4 fl. oz. Reveal® on Aug. 14, 2023

Harvest Aids: 43 fl. oz. Finish 6 Pro®, 2 fl. oz. Dropp SC®, and 8 fl. oz. Prep® on Oct. 6, 2023

Plot Size: 2 rows – (6’ x 35’) 4 replications

Soil Type Uchee, Slagle and Emporia

Cooperator: Matt Drake

Sussex Co., VA - Rogers Farm OVT Trial

Planted: May 24, 2023

Harvested: Nov 29, 2023

Population: 46,464 seeds/acre

Fertilizer: Variable rate 125-238 lb. ac^{-1} 0-0-62 preplant broadcast Apr. 11, 2023
Variable rate 80 lb. ac^{-1} 11-52-0 preplant broadcast Apr. 21, 2023
30 lb. N ac^{-1}, 40 lb. P_2O_5 ac^{-1}, 10 lb. S ac^{-1} in UAN32, 11-37-0, and 12-0-0-26S Blend in 2x2 band on May 24, 2023
90 lbs. N per acre 24-0-0-3S at 1st square growth stage
2 qts. 10% Boron at 1st square growth stage applied with nitrogen

PGR: 12 fl. oz. Mep 42® on Jul .19, 2023
10 fl. oz. Mep 42® at Aug. 2, 2023

Herbicide: 30 fl. oz. Roundup PowerMAX® 3, 16 fl.oz. 2,4-D ester, 4.8 fl. oz. Hel-fire ® (adjuvant) on Apr. 4, 2023
32 fl. oz. Roundup PowerMAX® 3 on Jun. 5, 2023
2.85 pts. Warrant® ac^{-1} on Jun. 28, 2023
32 fl. oz. Roundup PowerMAX® 3 on Jul. 4, 2023

Insecticide: 8 oz. Acephate on Jun. 13, 2023
8 oz. Acephate on Aug. 2, 2023
8 oz. Acephate + 6.4 fl. oz. Bifenthrin® on Aug. 16, 2023

Harvest Aids: 60 fl. oz. Prep®, 12 fl. oz. Folex®, and 2.4 fl. oz. Dropp® on Oct. 17, 2023

Plot Size: 2 rows – (6’ x 35’) 4 replications

Soil Type Slagle, and Emporia + Slagle

Cooperator: Bob Rogers

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

Planted: May 16, 2023

Harvested: Nov 29, 2023

Population: 46,464 seeds/acre

Fertilizer: 350 lb./acre 9-12-29 on May 1, 2023
30 gal of 24-0-0-3S on Jun. 30, 2023
4 fl. oz. 10% Boric acid on Jul. 2, 2023
4 fl. oz. 10% Boric acid on Jul. 18, 2023
4 fl. oz. 10% Boric acid on Jul. 28, 2023
4 fl. oz. 10% Boric acid on Aug. 3, 2023

PGR: 16 fl. oz. Mepex® on Jul. 18, 2023
2.6 fl. oz. Mepex® 6 on Jul. 28, 2023
1.33 fl. oz. Mepex® 6 on Aug. 16, 2023

Herbicide: 1 qt. Roundup® on Apr. 5, 2023
1.3 pt. Prowl® on May 1, 2023
14 fl. oz. Cotoran® on May 16, 2023
1 pt. Roundup® on May 16, 2023
1 qt. Interline® on Jun. 10, 2023
1.5 pt. Roundup® on Jul. 2, 2023

Insecticide: 8 fl. oz. Admire® Pro on May 16, 2023 applied in-furrow
8 oz. Acephate 97® on Jun. 10, 2023
8 fl. oz Diamond®, 8 oz. Acephate 97® on Jul. 18, 2023
1.5 oz. Transform® on Aug. 3, 2023
6.4 fl. oz. Battlion®, 5 oz. Acephate 97® on Aug. 3, 2023

Harvest Aids: 1.6 qts. Setup 6®, 8 fl. oz. Def®, 4 fl. oz. Freefall® on Oct. 12, 2023

Plot Size: 2 rows – (6’ x 35’) 4 replications

Soil Type Slagle and Yemassee

Cooperators: Thomas and Greg Butler

On-Farm Variety Trials

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

County	*Cooperator(s)*	*Planting Date*	*Harvest Date*
Isle of Wight (IOW)	Thomas and Greg Butler	5/16/2023	11/7/2023
Suffolk (SUFF)	Mike Ellis	5/20/2023	11/8/2023
Southampton #1 (SHC 1)	Brian and Adam Darden	5/17/2023	11/17/2023
Surry (SUR)	Clay and Jameson Lowe	5/25/2023	12/5/2023
Sussex (SUX)	Jared Webb	5/20/2023	11/13/2023

Agronomic Yield Data for 2023 OVT

Table 2: Lint yield, turnout, and relative yields for varieties entered at all locations in the 2023 Official Variety Testing (OVT) Program

Variety**	Sussex†			Isle of Wight			TAREC			Southampton			Average (4 Locations)		
	Turnout (%)	Lint Yield (lb/ac)	Relative Yield	Turnout (%)	Lint Yield (lb/ac)	Relative Yield	Turnout (%)	Lint Yield (lb/ac)	Relative Yield	Turnout (%)	Lint Yield (lb/ac)	Relative Yield	Turnout (%)	Lint Yield (lb/ac)	Relative Yield
PHY 400 W3FE	0.477	2,025	0.997	0.452	2,116	0.980	0.470	2,199	0.943	0.477	1,681	0.959	**0.469**	**2,005**	**0.970**
PHY 411 W3FE	0.482	2,002	0.986	0.459	2,045	0.947	0.489	2,244	0.963	0.471	1,642	0.937	**0.475**	**1,983**	**0.958**
ST 4595 B3XF	0.477	1,930	0.950	0.456	2,086	0.967	0.483	2,240	0.961	0.468	1,567	0.894	**0.471**	**1,956**	**0.943**
DP 2127 B3XF	0.480	1,872	0.922	0.460	2,140	0.992	0.487	2,247	0.964	0.468	1,564	0.892	**0.474**	**1,956**	**0.942**
ST 5091 B3XF	0.477	2,001	0.985	0.459	2,122	0.983	0.471	2,244	0.962	0.469	1,400	0.799	**0.469**	**1,942**	**0.932**
PHY 415 W3FE	0.472	1,779	0.876	0.448	1,962	0.909	0.470	2,318	0.994	0.465	1,567	0.894	**0.464**	**1,906**	**0.918**
DP 2115 B3XF	0.477	1,672	0.823	0.462	1,989	0.922	0.488	2,287	0.981	0.474	1,645	0.939	**0.475**	**1,898**	**0.916**
PX 1130B333-04 W3FE*	0.467	1,825	0.899	0.449	2,009	0.931	0.459	2,069	0.887	0.462	1,620	0.924	**0.459**	**1,881**	**0.910**
PX 1140D328-04 W3FE*	0.472	1,690	0.832	0.453	2,033	0.942	0.474	2,331	1.000	0.472	1,505	0.859	**0.468**	**1,890**	**0.908**
DP 2333 B3XF	0.483	1,804	0.888	0.468	1,980	0.917	0.480	2,154	0.924	0.472	1,556	0.888	**0.476**	**1,873**	**0.904**
PHY 332 W3FE	0.470	1,743	0.858	0.446	2,075	0.961	0.465	2,270	0.974	0.457	1,432	0.817	**0.460**	**1,880**	**0.903**
DG 3519 B3XF	0.468	1,739	0.856	0.449	1,976	0.916	0.477	2,304	0.988	0.462	1,489	0.849	**0.464**	**1,877**	**0.902**
PHY 360 W3FE	0.473	1,714	0.844	0.457	1,972	0.914	0.464	2,110	0.905	0.467	1,658	0.946	**0.465**	**1,863**	**0.902**
DP 2211 B3XTF	0.477	1,891	0.931	0.467	1,898	0.880	0.485	2,182	0.936	0.469	1,491	0.851	**0.475**	**1,866**	**0.899**
PX 1140B373-04 W3FE*	0.481	1,734	0.854	0.455	1,913	0.887	0.484	2,175	0.933	0.465	1,584	0.904	**0.471**	**1,852**	**0.894**
DG 3528 B3XF	0.473	1,734	0.854	0.449	2,060	0.955	0.469	2,210	0.948	0.462	1,408	0.803	**0.463**	**1,853**	**0.890**
DP 2012 B3XF	0.462	1,782	0.878	0.441	1,893	0.877	0.461	2,055	0.882	0.449	1,609	0.918	**0.453**	**1,835**	**0.889**
PX 1130D303-04 W3FE*	0.477	1,770	0.872	0.454	2,074	0.961	0.472	2,123	0.911	0.466	1,415	0.807	**0.467**	**1,846**	**0.888**
DP 2038 B3XF	0.509	1,724	0.849	0.476	2,088	0.968	0.506	2,140	0.918	0.499	1,415	0.807	**0.497**	**1,842**	**0.885**
PHY 443 W3FE	0.472	1,827	0.900	0.450	1,792	0.830	0.466	2,180	0.935	0.472	1,527	0.871	**0.465**	**1,831**	**0.884**
DP 2239 B3TXF	0.480	1,723	0.848	0.464	1,928	0.894	0.488	2,074	0.890	0.462	1,581	0.902	**0.474**	**1,827**	**0.883**
DP 2328 B3XTF	0.487	1,709	0.842	0.468	1,950	0.904	0.482	2,172	0.932	0.466	1,463	0.835	**0.476**	**1,824**	**0.878**
NG 4190B3XF	0.470	1,647	0.811	0.455	1,717	0.796	0.476	2,317	0.994	0.459	1,582	0.903	**0.465**	**1,816**	**0.876**
DP 2141NR B3XF*	0.479	1,776	0.874	0.456	1,916	0.888	0.476	2,218	0.951	0.456	1,379	0.787	**0.467**	**1,822**	**0.875**
DG 3425 B3XF	0.457	1,966	0.968	0.445	1,674	0.776	0.466	1,957	0.840	0.450	1,597	0.911	**0.455**	**1,799**	**0.874**

PX 1140A385-04 W3FE*	0.484	1,727	0.850	0.465	1,794	0.831	0.497	2,172	0.932	0.481	1,543	0.880	**0.482**	**1,809**	**0.873**
22R2222 B3TXF*	0.488	1,926	0.949	0.474	1,900	0.881	0.494	2,134	0.916	0.483	1,206	0.688	**0.485**	**1,792**	**0.858**
PX1150D490-04 W3FE*	0.484	1,845	0.908	0.445	1,218	0.564	0.487	2,140	0.918	0.474	1,753	1.000	**0.472**	**1,739**	**0.848**
NG 3195 B3XF	0.473	1,666	0.821	0.461	1,723	0.799	0.475	2,136	0.916	0.467	1,485	0.847	**0.469**	**1,753**	**0.846**
PX 1150B437-04 W3FE*	0.460	1,782	0.877	0.436	1,684	0.780	0.452	2,175	0.933	0.443	1,354	0.773	**0.448**	**1,749**	**0.841**
22R2112 B3TXF*	0.480	1,784	0.878	0.478	1,909	0.884	0.487	2,089	0.896	0.466	1,204	0.687	**0.478**	**1,746**	**0.837**
AMX20T079 B3XF*	0.471	1,538	0.757	0.446	1,858	0.861	0.462	2,084	0.894	0.466	1,459	0.832	**0.461**	**1,734**	**0.836**
NG 4343 B3TXF	0.468	1,640	0.808	0.450	1,791	0.830	0.461	2,037	0.874	0.441	1,444	0.824	**0.455**	**1,728**	**0.834**
21R4123 B3TXF*	0.474	1,638	0.807	0.459	1,881	0.872	0.480	2,019	0.866	0.450	1,297	0.740	**0.466**	**1,709**	**0.821**
AMX 160030-B B3XF*	0.467	1,703	0.839	0.448	1,599	0.741	0.469	2,105	0.903	0.452	1,304	0.744	**0.459**	**1,678**	**0.807**
AMX20T114 B3XF*	0.464	1,549	0.763	0.453	1,659	0.769	0.471	2,020	0.867	0.442	1,448	0.826	**0.457**	**1,669**	**0.806**
AMX20T157 B3XF*	0.470	1,448	0.713	0.451	1,732	0.802	0.457	1,961	0.841	0.451	1,413	0.806	**0.457**	**1,638**	**0.791**
DG 4484 B3TXF	0.478	1,506	0.741	0.466	1,645	0.762	0.495	2,082	0.893	0.484	1,305	0.744	**0.481**	**1,634**	**0.785**
NG 4335 B3TXF	0.463	1,383	0.681	0.447	1,882	0.872	0.458	1,925	0.826	0.445	1,259	0.718	**0.453**	**1,612**	**0.774**
AMX 160030-A B3XF*	0.480	1,320	0.650	0.464	1,546	0.717	0.486	1,999	0.858	0.470	1,297	0.740	**0.475**	**1,541**	**0.741**
NG 4936 B3XF	.	.	.	.	.	.	0.439	1,914	0.821	.	.	.	**0.439**	**1,914**	**0.821**
ARMOR 9371 B3XF	.	.	.	.	.	.	0.483	2,265	0.972	.	.	.	**0.483**	**2,265**	**0.972**
Average	0.475	**1,738**	0.856	0.456	**1,881**	0.872	0.476	**2,148**	0.921	0.464	**1,479**	0.844	**0.468**	**1,811**	**0.873**
LSD 0.05	0.012	308	0.15	0.011	217	0.1	0.01	196	0.08	0.01	373	0.213	.	.	.
CV	1.78	12.63	12.63	1.86	8.25	8.25	1.2	6.52	6.52	1.50	18.00	18.00	.	.	.

†TAREC = Tidewater Agricultural Research and Extension Center (Suffolk, VA), IOW = Isle of Wight County, VA, SHC = Southampton County, VA, and SUX = Sussex County, VA
* Indicates the variety is an experimental line and not available commercially.
**PHY = PhytoGen, Corteva Agriscience; DP = DeltaPine, Bayer Crop Science; NG = NexGen, Americot/NexGen; ST = Stoneville, BASF

Table 3: Two-year (2022-2023) relative yield averages for varieties tested each year

Variety	Two Year Average Relative Yield
PHY 400 W3FE	0.941
PHY 411 W3FE	0.924
ST 5091 B3XF	0.913
ST 4595 B3XF	0.901
DP 2115 B3XF	0.900
PHY 332 W3FE	0.889
DP 2127 B3XF	0.882
PHY 415 W3FE	0.880
DP 2038 B3XF	0.876
PHY 443 W3FE	0.875
NG 3195 B3XF	0.872
DG 3519 B3XF	0.870
PHY 360 W3FE	0.869
DP 2012 B3XF	0.866
PX 1140B373-04 W3FE*	0.866
PX 1130B333-04 W3FE*	0.858
DP 2239 B3XF	0.847
PX 1140A385-04 W3FE*	0.843
DP 2141NR B3XF	0.823
PHY 475 W3FE**	0.802
Average	**0.875**

*Experimental variety in 2023
** New variety for 2024

Table 4: Lint yield, turnout, average ranking, and relative yield for varieties entered into the 2023 Cotton On-Farm Variety Testing Network

Variety	Locations										Average Across Locations			
	Isle of Wight-Butler		Southampton-Darden		Suffolk-Ellis		Surry-Lowe		Sussex-Webb		Lint Yield (lb/ac)	Turnout (%)	Avg. Rank	Relative Yield
	Lint Yield (lb/ac)	*Turnout (%)*	*Lint Yield (lb/ac)*	*Turnout (%)*	*Lint Yield (lb/ac)*	*Turnout (%)*	*Lint Yield (lb/ac)*	*Turnout (%)*	*Lint Yield (lb/ac)*	*Turnout (%)*				
NG 3195 B3XF	**1,712**	0.459	**1,412**	0.467	**1,682**	0.480	**1,472**	0.460	**1,141**	0.468	**1,484**	0.467	5.0	**0.955**
ST 5091 B3XF	**1,823**	0.476	**1,552**	0.483	**1,648**	0.478	**1,465**	0.457	**984**	0.474	**1,494**	0.474	3.6	**0.951**
DP 2038 B3XF	**1,787**	0.494	**1,601**	0.514	**1,631**	0.520	**1,485**	0.487	**820**	0.519	**1,465**	0.507	5.0	**0.925**
DP 2333 B3XF	**1,793**	0.481	**1,499**	0.497	**1,600**	0.490	**1,438**	0.463	**881**	0.490	**1,442**	0.484	6.4	**0.915**
ST 4595 B3XF	**1,743**	0.459	**1,216**	0.479	**1,625**	0.488	**1,478**	0.462	**1,041**	0.484	**1,421**	0.474	6.4	**0.910**
PHY 411 W3FE	**1,744**	0.471	**1,533**	0.477	**1,561**	0.475	**1,456**	0.468	**856**	0.507	**1,430**	0.480	7.4	**0.907**
DG 3519 B3XF	**1,900**	0.481	**1,432**	0.472	**1,530**	0.472	**1,369**	0.435	**911**	0.470	**1,429**	0.466	7.0	**0.905**
PHY 360 W3FE	**1,789**	0.474	**1,330**	0.473	**1,623**	0.483	**1,420**	0.456	**903**	0.470	**1,413**	0.471	7.2	**0.897**
NG 4190 B3XF	**1,732**	0.489	**1,306**	0.469	**1,480**	0.473	**1,362**	0.444	**1,060**	0.465	**1,388**	0.468	9.8	**0.890**
PHY 400 W3FE	**1,801**	0.477	**1,354**	0.487	**1,459**	0.475	**1,468**	0.458	**867**	0.488	**1,390**	0.477	7.6	**0.882**
DG 3528 B3XF	**1,689**	0.461	**1,403**	0.475	**1,613**	0.471	**1,405**	0.440	**827**	0.475	**1,387**	0.465	9.8	**0.879**
DP 2115 B3XF	**1,836**	0.480	**1,253**	0.491	**1,684**	0.485	**1,416**	0.446	**778**	0.493	**1,393**	0.479	7.4	**0.877**
DP 2127 B3XF	**1,740**	0.475	**1,207**	0.488	**1,568**	0.474	**1,419**	0.449	**772**	0.480	**1,341**	0.473	11.0	**0.846**
ST 4550 GLTP	-	-	-	-	-	-	**1,565**	0.469	-	-	-		-	-
Average	**1,778**	**0.477**	**1,376**	**0.484**	**1,579**	**0.482**	**1,440**	**0.456**	**883**	**0.486**	**1,409**	**0.477**	-	**0.894**

Table 5: Lint quality and associated 2023 scheduled discounts for top 10 varieties in relative yield at the Tidewater AREC OVT location

Variety	Lint Quality ¶					Loan Premiums/Discounts ¶¶ (points per lb.)				
	Staple	Mic	Str	Uni	HVI Color	Mic	Str	Uni	Staple/ Color	TOTAL
	32nd		g/tex	%						
ST 4595 B3XF	38	4.7	30.8	85.9	21	0	20	20	590	**630**
ST 5091 B3XF	38	4.3	28.9	83.6	31	0	0	10	525	**535**
DP 2333 B3XF	37	4.7	30.0	83.7	31	0	20	10	520	**550**
DP 2115 B3XF	37	5.0	32.2	85.2	21	-240	35	20	580	**395**
DP 2127 B3XF	37	5.1	29.2	85.6	21	-240	5	20	580	**365**
PHY 400 W3FE	37	4.2	33.1	84.2	31	10	50	15	520	**595**
PHY 411 W3FE	35	5.1	30.9	84.2	21	-240	20	15	335	**130**
PHY 415 W3FE	38	4.6	31.0	83.9	31	0	35	10	525	**570**
PX 1130B333-04 W3FE	37	4.9	33.0	85.3	21	0	50	20	580	**650**
PX 1140D328-04 W3FE	38	4.5	32.8	84.3	21	0	35	15	590	**640**
Mean	**37.2**	**4.7**	**31.2**	**84.6**	**-**	**-71**	**27**	**16**	**535**	**506**

¶ 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 Rd and +b values.

¶¶ Discounted amounts taken from the Cotton Incorporated 2023 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

Table 6: Lint quality and associated 2023 scheduled discounts for top 10 varieties in relative yield at the Southampton Co. - Drake Farm OVT location

Variety	Lint Quality [¶]					Loan Premiums/Discounts [¶¶] (points per lb.)				
	Staple	Mic	Str	Uni	HVI Color	Mic	Str	Uni	Staple/ Color	TOTAL
	32nd		g/tex	%						
ST 4595 B3XF	37	5.1	29.8	84.4	51	-240	5	15	-230	**-450**
ST 5091 B3XF	36	5.3	30.5	84.2	51	-390	20	15	-235	**-590**
DP 2333 B3XF	36	5.4	27.8	83.2	51	-390	0	10	-235	**-615**
DP 2115 B3XF	37	5.4	30.7	83.9	51	-390	20	10	-230	**-590**
DP 2127 B3XF	36	5.5	29.6	83.4	51	-390	5	10	-235	**-610**
PHY 400 W3FE	36	5.1	30.4	82.9	51	-240	20	5	-235	**-450**
PHY 411 W3FE	39	4.9	31.5	85.5	41	0	35	20	255	**310**
PHY 415 W3FE	36	5.5	32.1	84.9	51	-390	35	15	-235	**-575**
PX 1130B333-04 W3FE	37	5.0	31.3	84.4	51	-240	35	15	-230	**-420**
PX 1140D328-04 W3FE	38	5.2	30.9	85.5	41	-240	20	20	255	**55**
Mean	**36.8**	**5.2**	**30.5**	**84.2**	**-**	**-291**	**20**	**14**	**-136**	**-394**

[¶] 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 Rd and +b values.

[¶¶] Discounted amounts taken from the Cotton Incorporated 2023 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

Table 7: Lint quality and associated 2023 scheduled discounts for top 10 varieties in relative yield at the Sussex Co. - Rogers Farm OVT location

Variety	Lint Quality ¶					Loan Premiums/Discounts ¶¶ (points per lb.)				
	Staple	Mic	Str	Uni	HVI Color	Mic	Str	Uni	Staple/ Color	TOTAL
	32nd		g/tex	%						
ST 4595 B3XF	36	5.4	30.8	83.7	31	-390	20	10	455	**95**
ST 5091 B3XF	36	4.7	30.3	83.3	31	0	20	10	455	**485**
DP 2333 B3XF	35	5.4	29.7	83.0	31	-390	5	10	270	**-105**
DP 2115 B3XF	36	5.4	32.4	84.0	31	-390	35	15	455	**115**
DP 2127 B3XF	34	5.7	29.2	83.6	31	-390	5	10	95	**-280**
PHY 400 W3FE	36	4.9	32.5	82.8	31	0	35	5	455	**495**
PHY 411 W3FE	33	5.4	31.5	83.1	31	-390	35	10	-125	**-470**
PHY 415 W3FE	37	5.2	35.1	84.7	41	-240	50	15	235	**60**
PX 1130B333-04 W3FE	36	5.1	33.4	84.6	31	-240	50	15	455	**280**
PX 1140D328-04 W3FE	37	5.1	34.3	84.6	31	-240	50	15	520	**345**
Mean	**35.6**	**5.2**	**31.9**	**83.7**	**-**	**-267**	**31**	**12**	**327**	**102**

¶ 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 Rd and +b values.

¶¶ Discounted amounts taken from the Cotton Incorporated 2023 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

Table 8: Lint quality and associated 2023 scheduled discounts for top 10 varieties in relative yield at the Isle of Wight Co.- Butler Farm OVT location

Variety	Lint Quality ¶					Loan Premiums/Discounts ¶¶ (points per lb.)				
	Staple	Mic	Str	Uni	HVI Color	Mic	Str	Uni	Staple/ Color	TOTAL
	32nd		g/tex	%						
ST 4595 B3XF	39	4.6	30.0	85.8	41	0	20	20	255	**295**
ST 5091 B3XF	38	4.4	31.2	84.7	31	0	35	15	525	**575**
DP 2333 B3XF	37	4.7	29.4	84.7	41	0	5	15	235	**255**
DP 2115 B3XF	37	4.9	29.2	85.3	31	0	5	20	520	**545**
DP 2127 B3XF	36	5.0	31.3	85.9	41	-240	35	20	215	**30**
PHY 400 W3FE	39	4.4	32.8	85.7	41	0	35	20	255	**310**
PHY 411 W3FE	36	5.0	30.7	85.0	41	-240	20	20	215	**15**
PHY 415 W3FE	38	4.6	33.4	86.1	41	0	50	25	255	**330**
PX 1130B333-04 W3FE	37	4.8	33.7	86.1	41	0	50	25	235	**310**
PX 1140D328-04 W3FE	37	4.8	32.8	85.9	41	0	35	20	235	**290**
Mean	**37.4**	**4.7**	**31.5**	**85.5**	**-**	**-48**	**29**	**20**	**295**	**296**

¶ 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 Rd and +b values.

¶¶ Discounted amounts taken from the Cotton Incorporated 2023 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

Table 9: Lint quality and associated 2023 scheduled discounts for varieties at the Isle of Wight Co.- Butler On-Farm location

Variety	Lint Quality ¶					Loan Premiums/Discounts ¶¶ (points per lb.)				
	Staple	Mic	Str	Uni	HVI Color	Mic	Str	Uni	Staple/ Color	TOTAL
	32nd		g/tex	%						
NG 3195 B3XF	37	4.3	30.1	86.4	41	0	20	25	-525*	**-480**
NG 4190 B3XF	38	4.0	28.7	85.3	51	0	0	20	-2000	**-1980**
ST 4595 B3XF	38	3.8	31.3	85.8	51	0	35	20	-2000	**-1945**
ST 5091 B3XF	37	3.9	29.2	84.1	51	0	5	15	-2000	**-1980**
DP 2333 B3XF	37	4.0	29.4	83.1	51	0	5	10	-2000	**-1985**
DP 2115 B3XF	37	4.6	29.3	84.8	51	0	5	15	-2000	**-1980**
DP 2127 B3XF	36	4.3	27.9	85.3	51	0	0	20	-2000	**-1980**
DP 2038 B3XF	36	4.5	31.7	83.2	41	0	35	10	-525	**-480**
PHY 360 W3FE	35	4.2	30.4	83.3	51	0	20	10	-2000	**-1970**
PHY 400 W3FE	37	3.3	31.7	84.8	51	-460	35	15	-2000	**-2410**
PHY 411 W3FE	36	4.2	31	84.1	51	0	35	15	-2000	**-1950**
DG 3519 B3XF	37	4.3	34.2	85.4	51	0	50	20	-2000	**-1930**
DG 3528 B3XF	38	3.7	29.1	85.6	51	0	5	20	-2000	**-1975**
Mean	**36.8**	**4.1**	**30.3**	**84.7**	**49.5**	**-35**	**19**	**17**	**-1773**	**-1773**

¶ 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 Rd and +b values.

¶¶ Discounted amounts taken from the Cotton Incorporated 2023 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

*Lint processing for table-top gin does not allow for lint cleaning prior to ginning resulting in artificial increase in leaf grade, therefore deductions may be higher than with a commercial gin.

Table 10: Lint quality and associated 2023 scheduled discounts for varieties at the Suffolk - Ellis On-Farm location

Variety	Lint Quality ¶					Loan Premiums/Discounts ¶¶ (points per lb.)				
	Staple	Mic	Str	Uni	HVI Color	Mic	Str	Uni	Staple/ Color	TOTAL
	32nd		g/tex	%						
NG 3195 B3XF	38	4.5	31.6	85.4	41	0	35	20	-85*	**-30**
NG 4190 B3XF	39	4.0	29.5	85.8	51	0	5	20	-2000	**-1975**
ST 4595 B3XF	37	4.4	30.9	85	41	0	20	20	-525	**-485**
ST 5091 B3XF	37	3.9	29.6	83.1	41	10	5	10	-380	**-355**
DP 2333 B3XF	37	4.1	29.1	82.9	41	10	5	5	-380	**-360**
DP 2115 B3XF	37	4.2	29.9	84.1	41	0	5	15	-525	**-505**
DP 2127 B3XF	37	4.4	30.5	86.1	51	0	20	25	-675	**-630**
DP 2038 B3XF	36	4.4	32.7	83.8	41	0	35	10	-380	**-335**
PHY 360 W3FE	37	4.3	28.8	83.7	51	0	0	10	-2000	**-1990**
PHY 400 W3FE	38	3.9	31.7	84.4	41	10	35	15	-380	**-320**
PHY 411 W3FE	36	3.9	31.6	85	41	10	35	20	-380	**-315**
DG 3519 B3XF	38	3.9	33.1	84.9	41	0	50	15	-525	**-460**
DG 3528 B3XF	37	4.3	30.4	83.4	41	0	20	10	-380	**-350**
Mean	**37.2**	**4.2**	**30.7**	**84.4**	**43.3**	**3**	**21**	**15**	**-663**	**-624**

¶ 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 Rd and +b values.

¶¶ Discounted amounts taken from the Cotton Incorporated 2023 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

*Lint processing for table-top gin does not allow for lint cleaning prior to ginning resulting in artificial increase in leaf grade, therefore deductions may be higher than with a commercial gin.

Table 11: Lint quality and associated 2023 scheduled discounts for varieties at the Southampton Co. - Darden On-Farm location

Variety	Lint Quality ¶					Loan Premiums/Discounts ¶¶ (points per lb.)				
	Staple	Mic	Str	Uni	HVI Color	Mic	Str	Uni	Staple/ Color	TOTAL
	32nd		g/tex	%						
NG 3195 B3XF	38	4.4	31.6	84.3	51	0	35	15	-625*	**-625**
NG 4190 B3XF	36	5.0	31	84.0	51	-240	35	15	-2000	**-2190**
ST 4595 B3XF	37	5.3	31.1	82.7	51	-390	35	5	-2000	**-2350**
ST 5091 B3XF	35	5.0	30.4	81.8	51	-240	20	0	-730	**-950**
DP 2333 B3XF	35	5.7	29.6	81.1	51	-390	5	0	-610	**-995**
DP 2115 B3XF	36	5.1	31.4	83.2	51	-240	35	10	-2000	**-2195**
DP 2127 B3XF	35	5.5	30.2	84.8	51	-390	20	15	-2000	**-2355**
DP 2038 B3XF	33	5.2	31.3	80.4	41	-240	35	0	-605	**-810**
PHY 360 W3FE	35	5.2	31.1	82.5	51	-240	35	5	-2000	**-2200**
PHY 400 W3FE	34	5.0	30.2	81.1	51	-240	20	0	-655	**-875**
PHY 411 W3FE	34	5.0	32.7	82.2	51	-240	35	5	-2000	**-2200**
DG 3519 B3XF	37	5.0	33	84.1	51	-240	50	15	-555	**-730**
DG 3528 B3XF	37	4.4	29.6	83.1	51	0	5	10	-2000	**-1985**
Mean	**35.5**	**5.1**	**31.0**	**82.7**	**50.2**	**-238**	**28**	**7**	**-1430**	**-1574**

¶ 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 Rd and +b values.

¶¶ Discounted amounts taken from the Cotton Incorporated 2023 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

*Lint processing for table-top gin does not allow for lint cleaning prior to ginning resulting in artificial increase in leaf grade, therefore deductions may be higher than with a commercial gin.

Table 12: Lint quality and associated 2023 scheduled discounts for varieties at the Surry Co. - Lowe On-Farm location

Variety	Lint Quality ¶					Loan Premiums/Discounts ¶¶ (points per lb.)				
	Staple	Mic	Str	Uni	HVI Color	Mic	Str	Uni	Staple/ Color	TOTAL
	32nd		g/tex	%						
NG 3195 B3XF	39	4.5	31.6	83.9	51	0	35	10	-675	**-630**
NG 4190 B3XF	38	4.0	30.3	84.1	51	0	20	15	-675	**-640**
ST 4595 B3XF	37	4.6	31.1	83.9	51	0	35	10	-2000	**-1955**
ST 5091 B3XF	37	4.0	33.4	83.4	51	0	50	10	-675	**-615**
DP 2333 B3XF	37	4.3	31.8	83.6	51	0	35	10	-675	**-630**
DP 2115 B3XF	38	3.8	32.6	85	51	0	35	20	-675	**-620**
DP 2127 B3XF	36	3.8	31.6	82.6	51	0	35	5	-2000	**-1960**
DP 2038 B3XF	38	3.8	28.8	82.1	51	0	0	5	-555	**-550**
PHY 360 W3FE	39	3.7	30.6	83.5	51	0	20	10	-2000	**-1970**
PHY 400 W3FE	39	3.9	34.6	85.1	51	0	50	20	-2000	**-1930**
PHY 411 W3FE	35	4.4	31.9	81.8	51	0	35	0	-730	**-695**
DG 3519 B3XF	37	4.3	30.2	83.6	51	0	20	10	-555	**-525**
DG 3528 B3XF	37	4.1	31.1	83.9	51	0	35	10	-555	**-510**
ST 4550 GLTP	38	4.1	29.5	83	51	0	5	10	-675	**-660**
Mean	**37.5**	**4.1**	**31.4**	**83.5**	**51.0**	**0**	**29**	**10**	**-1032**	**-992**

¶ 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 Rd and +b values.

¶¶ Discounted amounts taken from the Cotton Incorporated 2023 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

*Lint processing for table-top gin does not allow for lint cleaning prior to ginning resulting in artificial increase in leaf grade, therefore deductions may be higher than with a commercial gin.

Table 13: Lint quality and associated 2023 scheduled discounts for varieties at the Sussex Co. - Webb On-Farm location

Variety	Lint Quality ¶					Loan Premiums/Discounts ¶¶ (points per lb.)				
	Staple	Mic	Str	Uni	HVI Color	Mic	Str	Uni	Staple/ Color	TOTAL
	32nd		g/tex	%						
NG 3195 B3XF	36	4.8	29.7	84.8	51	0	5	15	-2000*	**-1980**
NG 4190 B3XF	35	4.1	31.7	83.2	41	10	35	10	-445	**-390**
ST 4595 B3XF	36	5.1	32.1	82.7	51	-240	35	5	-2000	**-2200**
ST 5091 B3XF	35	4.6	28.8	82.7	41	0	0	5	-180	**-175**
DP 2333 B3XF	34	5.1	28.6	82.4	51	-240	0	5	-770	**-1005**
DP 2115 B3XF	34	5.0	28.2	82.8	51	-240	0	5	-655	**-890**
DP 2127 B3XF	35	5.2	29.7	82.9	51	-240	5	5	-730	**-960**
DP 2038 B3XF	33	5.0	28.1	82.8	41	-240	0	5	-735	**-970**
PHY 360 W3FE	36	4.3	32	83.7	51	0	35	10	-2000	**-1955**
PHY 400 W3FE	34	4.3	31.6	81	51	0	35	0	-535	**-500**
PHY 411 W3FE	34	4.8	30.3	82.4	51	0	20	5	-2000	**-1975**
DG 3519 B3XF	37	4.5	31.7	84.1	51	0	35	15	-555	**-505**
DG 3528 B3XF	36	4.7	31.4	83.5	51	0	35	10	-2000	**-1955**
Mean	**35.0**	**4.7**	**30.3**	**83.0**	**48.7**	**-92**	**18**	**7**	**-1123**	**-1189**

¶ 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 Rd and +b values.

¶¶ Discounted amounts taken from the Cotton Incorporated 2023 CC Loan Schedule of Premiums and Discounts for Upland and ELS Cotton.

*Lint processing does not allow for lint cleaning prior to ginning- may result in artificial increase in leaf grade, therefore deductions may be higher than with a commercial gin.