

The University of Arizona
2023 Cotton Variety Testing Program

UArizona Cooperative Extension and
Arizona Experiment Station and
Participating Grower/Cooperators

Trial Results

Funded in part by the Arizona Cotton Growers Association,
Cotton Incorporated, and Participating Seed Companies

Prepared by:
Dr. Randy Norton
and
Kaleb Bryce and Jose Ornelas

Introduction

Variety selection is one of the most important decisions a grower will make contributing to the success of a cotton crop. It is critical, that a grower have as much information as possible in order to make an informed decision regarding variety selection. In an effort to help supply reliable variety performance information, the University of Arizona conducts a statewide cotton variety testing program. This program consists of a few different types of trials. The first is a small plot evaluation of commercially available varieties along with experimental varieties and is conducted in 3 locations across Arizona including Yuma, Maricopa, and Safford. This testing program is called the University of Arizona Upland Cotton Advanced Strains Testing Program.

Another type of university sponsored trial is a large plot, replicated strip trial conducted on grower-cooperator farms in a wide variety of locations across Arizona. These large plot strip trials consist of replicated plots extending the full length of the irrigation run at each location. This program is titled the University of Arizona Upland Cotton Variety Testing Program (UCVT). Six locations across the state were conducted in 2023.

Testing of commercial and experimental ELS (Pima) varieties was also conducted in 4 locations in 2023. Three of the locations were small plot trials (Pima Cotton Advanced Strain Testing Program, PCAST – Yuma, Maricopa, and Safford), while the fourth location was a strip trial conducted on a grower cooperator field (Pima Cotton Variety Testing Program, PCVT – Thatcher).

Each trial is summarized in this publication with a series of tables and graphs. The first table contains location, planting date, along with various other location characteristics for each of the trials conducted across Arizona in 2023. The second table for each location contains early season data collected including early season stand count (plants per foot) and plant vigor rating (1-9 low-high) along with mid-season data including node of first fruiting branch (FFB) and nodes above white flower (NAWF). The third table for each location contains yield and fiber quality data. Statistical analysis for all parameters is also presented at the bottom of each table. Finally, for each Upland cotton location a figure plotting lint yield as a function of fiber premium/discount is presented. The vertical line in the figure represents the average of the trial for fiber premium and the horizontal line represents the trial average for yield. Any varieties falling in the upper right quadrant performed better than average for both lint yield and fiber quality at that location.

If you have any questions regarding these trials or this publication please direct them to Dr. Randy Norton, Regional Extension Specialist and Director of the Safford Ag Center at rnorton@arizona.edu.

The work performed over the course of the 2023 cotton season to produce the results contained in this booklet was funded in part by Cotton Incorporated through the Arizona Cotton Growers Association and also by participating seed companies. A special Thank You is extended to the Grower-Cooperators who participate in these testing programs. This program would not be successful without them.

2023 Upland Cotton Variety Testing Program

University of Arizona
Cooperative Extension
Participating Grower/Cooperators

Trial Results

Funded in part by the Arizona Cotton Growers Association,
Cotton Incorporated, and Participating Seed Companies

Prepared by:
Dr. Randy Norton
and
Kaleb Bryce and Jose Ornelas

UArizona Upland Cotton Variety Trial Results, Yuma, AZ.

Yuma, AZ	
County	Yuma
City	Yuma
Soil Type	Loam
Previous Crop	Vegetables
Irrigation	Furrow/flood
Tillage	Conventional
Seeding Rate	52,000
Planting Date	3/9/23
Defoliation Date	8/21/23
Harvest Date	9/8/23
Lat/Long	32.7782,-114.5385

Seed Company	Variety	Plant Population (plants/foot)	Vigor Rating (0-9 - L-H)	Nodes Above White Flower (early bloom)
Deltapine	DP2127B3XF	3.0	7.0	7.2
Deltapine	DP2211B3TXF	3.2	7.0	6.3
Deltapine	DP2317B3TXF	4.0	7.0	7.1
Phytogen	PHY350W3FE	3.8	8.0	6.5
Phytogen	PHY400W3FE	3.8	8.0	6.0
Stoneville	ST4595B3XF	3.6	7.0	7.0
Stoneville	ST5091B3XF	3.2	6.0	7.6
Mean		3.5	7.1	6.8

Seed Company	Variety	Lint Yield (lbs/acre)*	Percent Lint	Color Grade	Staple (32nds)	Mic	Strength (g/tex)	Length (in)	Leaf Grade	Uniformity (%)	Premium (cents/lb)	Value** (\$/acre)	
Stoneville	ST5091B3XF	2397.2	a	40.1	21	35	4.7	27.2	1.11	2	79.6	3.4	\$1,328.22
Deltapine	DP2127B3XF	2360.2	ab	40.5	21	34	5.4	26.8	1.08	2	80.5	-1.9	\$1,182.00
Deltapine	DP2317B3TXF	2299.3	abc	39.4	21	35	4.5	25.7	1.10	2	79.1	-0.8	\$1,179.25
Phytogen	PHY400W3FE	2218.4	bc	38.3	21	35	4.4	29.2	1.10	3	79.2	2.9	\$1,218.65
Deltapine	DP2211B3TXF	2186.5	c	39.3	21	36	4.6	26.2	1.11	1	79.2	2.7	\$1,194.90
Stoneville	ST4595B3XF	2166.8	c	40.4	21	37	4.7	29.7	1.15	3	80.5	4.7	\$1,228.39
Phytogen	PHY350W3FE	1936.6	d	36.1	21	37	4.2	30.3	1.16	2	80.7	5.7	\$1,117.14
Mean		2223.6		39.2	---	36	4.7	27.9	1.11	2	79.8	2.4	\$1,206.94
LSD§		160.2		1.6	---	1.3	0.3	1.2	0.03	1	1.2	4.3	\$136.15
OSL†		0.0008		0.0008	---	0.0099	<0.0001	<0.0001	0.0024	0.0279	0.0281	0.0219	0.1254
CV‡		4.1		2.3	---	2.0	3.4	2.5	1.7	28.2	0.8	102.2	6.3

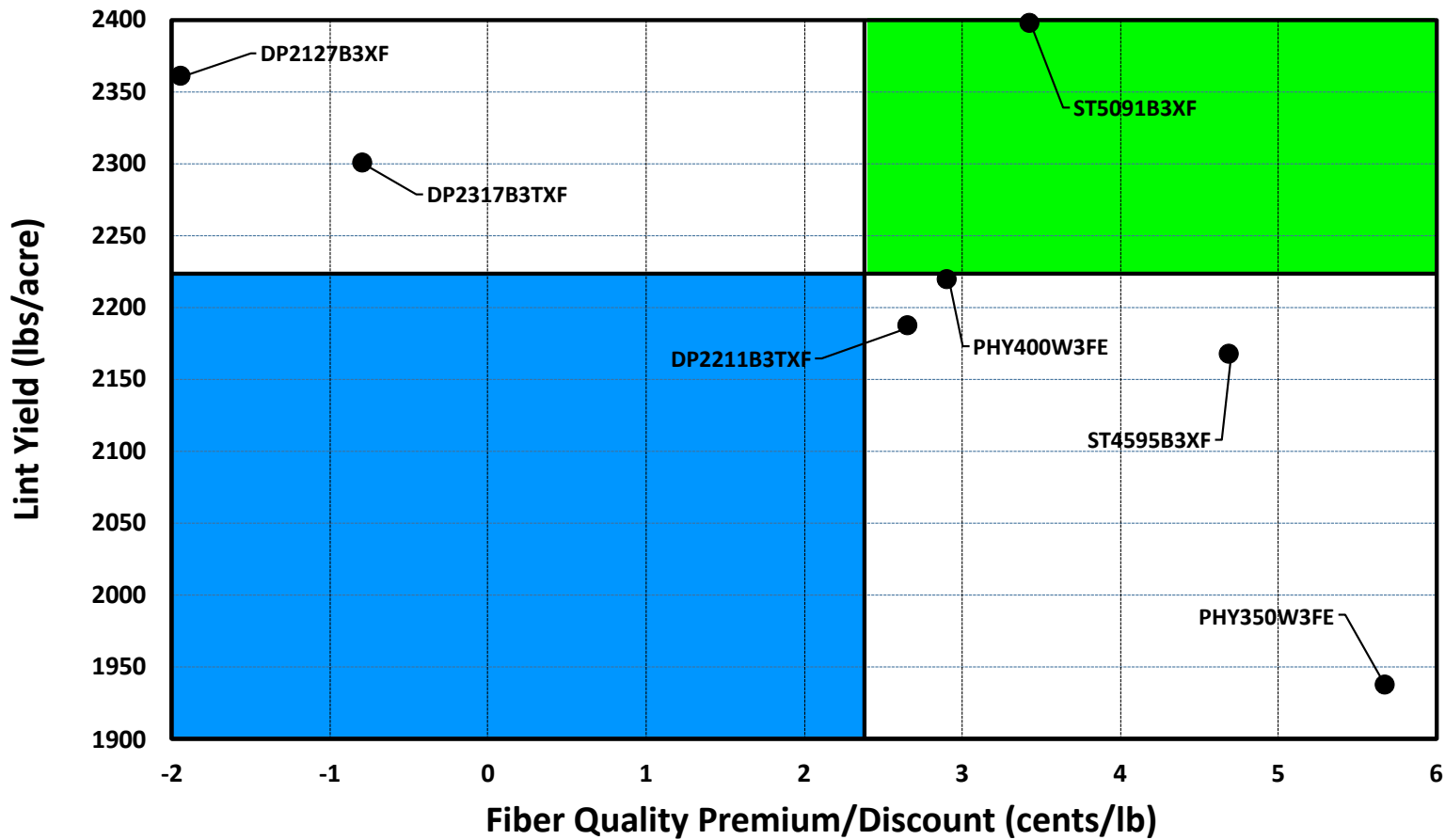
*Lint yield means followed by the same letter are not statistically different according to Fisher's LSD (Least Significant Difference) means separation (alpha = 0.05)

** Value calculated from CCC loan schedule base price of \$0.52/lb + premium/discount

§Least Significant Difference

†Observed Significance Level

‡Coefficient of Variation



Lint yield (lbs./acre) plotted as a function of fiber quality premium/discount (cents/lb) for each variety. Vertical and horizontal lines represent the mean value for the two parameters. Varieties that fall in the upper right quadrant formed by the mean lines produced higher than average lint yield and fiber quality. Each entry for the Upland Cotton evaluation is plotted for the Yuma, AZ location in 2023.

UArizona Upland Cotton Variety Trial Results, Goodyear, AZ.

Goodyear, AZ	
County	Maricopa
City	Goodyear
Soil Type	Loam
Previous Crop	Wheat
Irrigation	Flat/flood
Tillage	Minimum
Seeding Rate	56,000
Planting Date	5/18/23
Defoliation Date	11/5/23
Harvest Date	12/6/23
Lat/Long	33.4029, -112.3845

Seed Company	Variety	Plant Population (plants/foot)	Vigor Rating (0-9 - L-H)	First Fruiting Branch (early bloom)	Nodes Above White Flower (early bloom)
DynaGro	DG3215B3XF	1.0	2.3	6.8	7.6
DynaGro	DG3425B3XF	0.7	1.7	6.8	7.8
Deltapine	DP2311B3TXF	1.1	4.7	6.6	7.4
Deltapine	DP2317B3TXF	1.5	5.3	6.2	7.6
Phytogen	PHY350W3FE	2.6	6.3	--	--
Phytogen	PHY400W3FE	2.4	7.0	--	--
Stoneville	ST4595B3XF	1.2	5.0	6.4	7.6
Stoneville	ST5091B3XF	1.3	5.3	6.2	8.0
Mean		1.5	4.7	6.5	7.7

Seed Company	Variety	Lint Yield (lbs/acre)*		Percent Lint	Color Grade	Staple (32nds)	Mic	Strength (g/tex)	Length (in)	Leaf Grade	Uniformity (%)	Premium (cents/lb)	Value** (\$/acre)
Deltapine	DP2317B3TXF	1875.6	a	35.4	21	37	4.5	27.9	1.14	1	80.7	5.4	\$1,076.94
Stoneville	ST4595B3XF	1478.7	b	34.6	21	37	5.1	29.2	1.14	2	80.3	3.1	\$814.76
Deltapine	DP2311B3TXF	1098.5	c	35.6	21	36	4.4	26.3	1.12	1	79.9	4.0	\$613.93
Stoneville	ST5091B3XF	1013.7	c	33.3	21	35	4.8	26.2	1.09	2	79.5	0.0	\$527.16
DynaGro	DG3215B3XF	849.8	c	32.5	31	37	4.6	27.9	1.14	2	79.9	4.9	\$483.02
DynaGro	DG3425B3XF	448.6	d	31.9	31	37	4.8	31.0	1.14	1	81.8	5.2	\$256.22
Mean		1185.0		34.0	---	36	4.7	28.1	1.13	1	80.4	3.9	\$663.16
LSD§		265.5		NS	---	NS	0.3	2.2	NS	NS	NS	NS	\$183.55
OSL†		0.0003		0.1179	---	0.4309	0.0102	0.0182	0.2179	0.2944	0.3458	0.4632	0.0008
CV‡		8.9		3.6	---	2.4	2.3	3.2	1.6	34.2	1.2	69.6	11.1

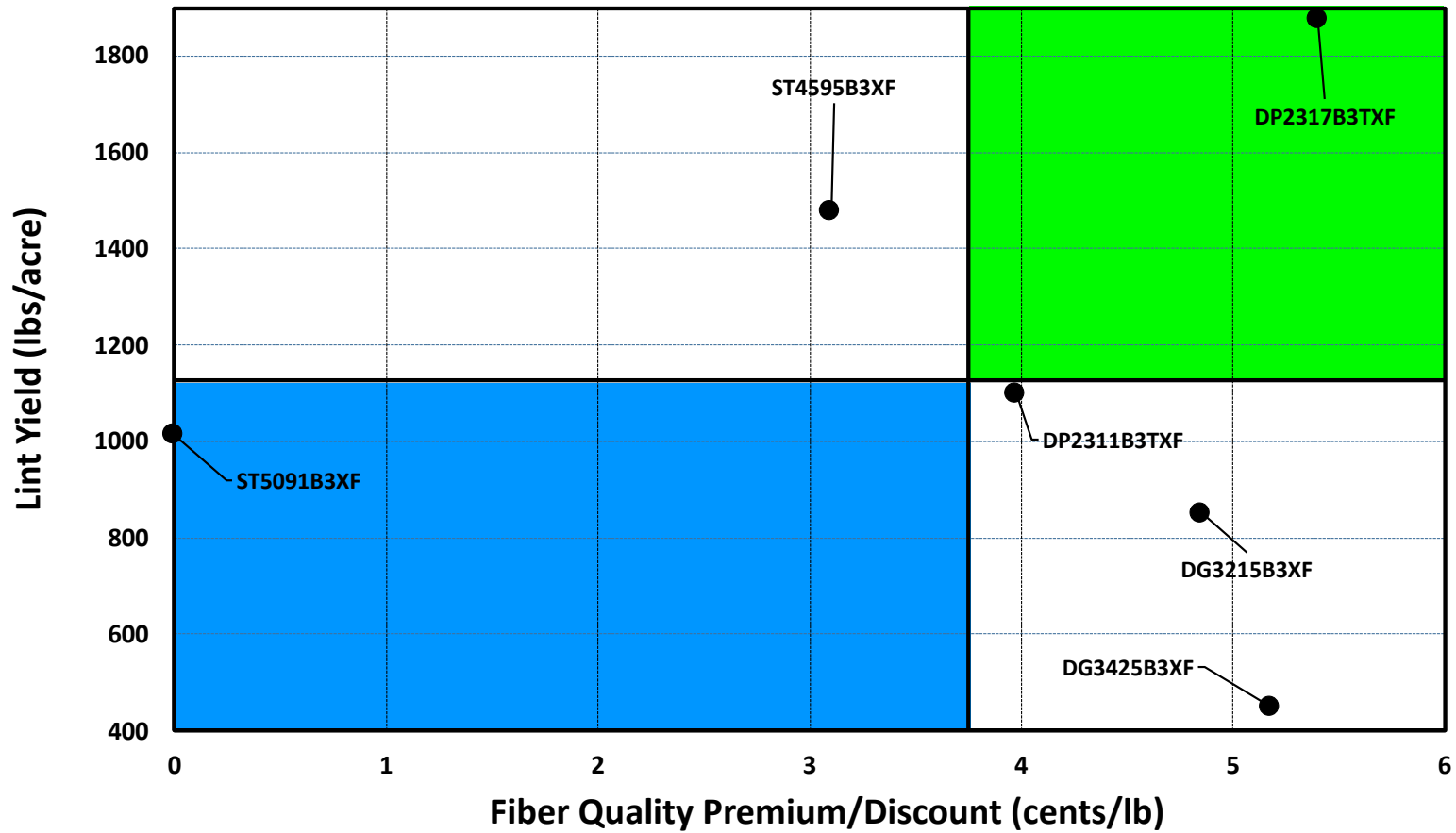
*Lint yield means followed by the same letter are not statistically different according to Fisher's LSD (Least Significant Difference) means separation (alpha = 0.05)

** Value calculated from CCC loan schedule base price of \$0.52/lb + premium/discount

§Least Significant Difference

†Observed Significance Level

‡Coefficient of Variation



Lint yield (lbs./acre) plotted as a function of fiber quality premium/discount (cents/lb) for each variety. Vertical and horizontal lines represent the mean value for the two parameters. Varieties that fall in the upper right quadrant formed by the mean lines produced higher than average lint yield and fiber quality. Each entry for the Upland Cotton evaluation is plotted for the Goodyear, AZ location in 2023.

UArizona Upland Cotton Variety Trial Results, Eloy, AZ.

Eloy, AZ	
County	Pinal
City	Eloy
Soil Type	Silty loam
Previous Crop	Cotton
Irrigation	Furrow/flood
Tillage	Conventional
Seeding Rate	50,000
Planting Date	4/28/23
Defoliation Date	9/16/23
Harvest Date	11/4/23
Lat/Long	32.7858, -111.5599

Seed Company	Variety	Plant Population (plants/foot)	Vigor Rating (0-9 - L-H)	First Fruiting Branch (early bloom)	Nodes Above White Flower (early bloom)
DynaGro	DG3215B3XF	2.2	5.0	7.0	7.7
DynaGro	DG3425B3XF	2.4	6.5	7.5	7.5
Deltapine	DP2211B3TXF	2.6	6.0	6.6	6.9
Deltapine	DP2233B3XF	2.5	5.5	6.9	7.4
Phytogen	PHY400W3FE	3.9	7.5	6.4	6.5
Phytogen	PHY580W3FE	3.5	6.0	7.4	7.2
Stoneville	ST4595B3XF	3.0	5.5	6.8	7.7
Stoneville	ST5091B3XF	2.2	5.5	6.7	7.2
Mean		2.8	5.9	6.9	7.3

Seed Company	Variety	Lint Yield (lbs/acre)*	Percent Lint	Color Grade	Staple (32nds) Mic	Strength (g/tex)	Length (in)	Leaf Grade	Uniformity (%)	Premium (cents/lb)	Value** (\$/acre)		
Stoneville	ST5091B3XF	1978.0	a	35.5	21	36	4.7	28.5	1.13	2	79.8	4.3	\$1,115.35
Deltapine	DP2211B3TXF	1846.6	ab	35.0	21	37	4.7	27.7	1.13	1	79.7	5.2	\$1,055.32
Stoneville	ST4595B3XF	1746.7	bc	34.2	31	38	4.9	30.0	1.17	2	81.6	5.7	\$1,007.96
Deltapine	DP2233B3XF	1715.0	bcd	34.0	21	36	4.8	29.5	1.12	1	80.1	3.8	\$955.24
Phytogen	PHY400W3FE	1712.2	bcd	33.4	21	37	4.5	33.4	1.14	2	80.7	6.0	\$992.10
DynaGro	DG3425B3XF	1639.1	cd	31.1	21	39	4.5	33.2	1.22	2	82.2	6.4	\$956.83
Phytogen	PHY580W3FE	1601.1	cd	31.7	21	37	4.5	31.3	1.14	1	80.1	5.5	\$919.53
DynaGro	DG3215B3XF	1527.0	d	30.8	21	37	4.2	29.1	1.16	2	81.0	5.9	\$883.72
	Mean	1720.7		33.2	---	37	4.6	30.3	1.15	1	80.6	5.3	\$985.76
	LSD§	207.3		2.7	---	2.0	NS	2.8	0.06	NS	NS	NS	NS
	OSL†	0.0219		0.0263	---	0.0540	0.1759	0.0125	0.0598	0.5000	0.3523	0.3510	0.0697
	CV‡	5.0		3.4	---	1.9	4.8	3.9	2.1	36.4	1.4	20.3	5.9

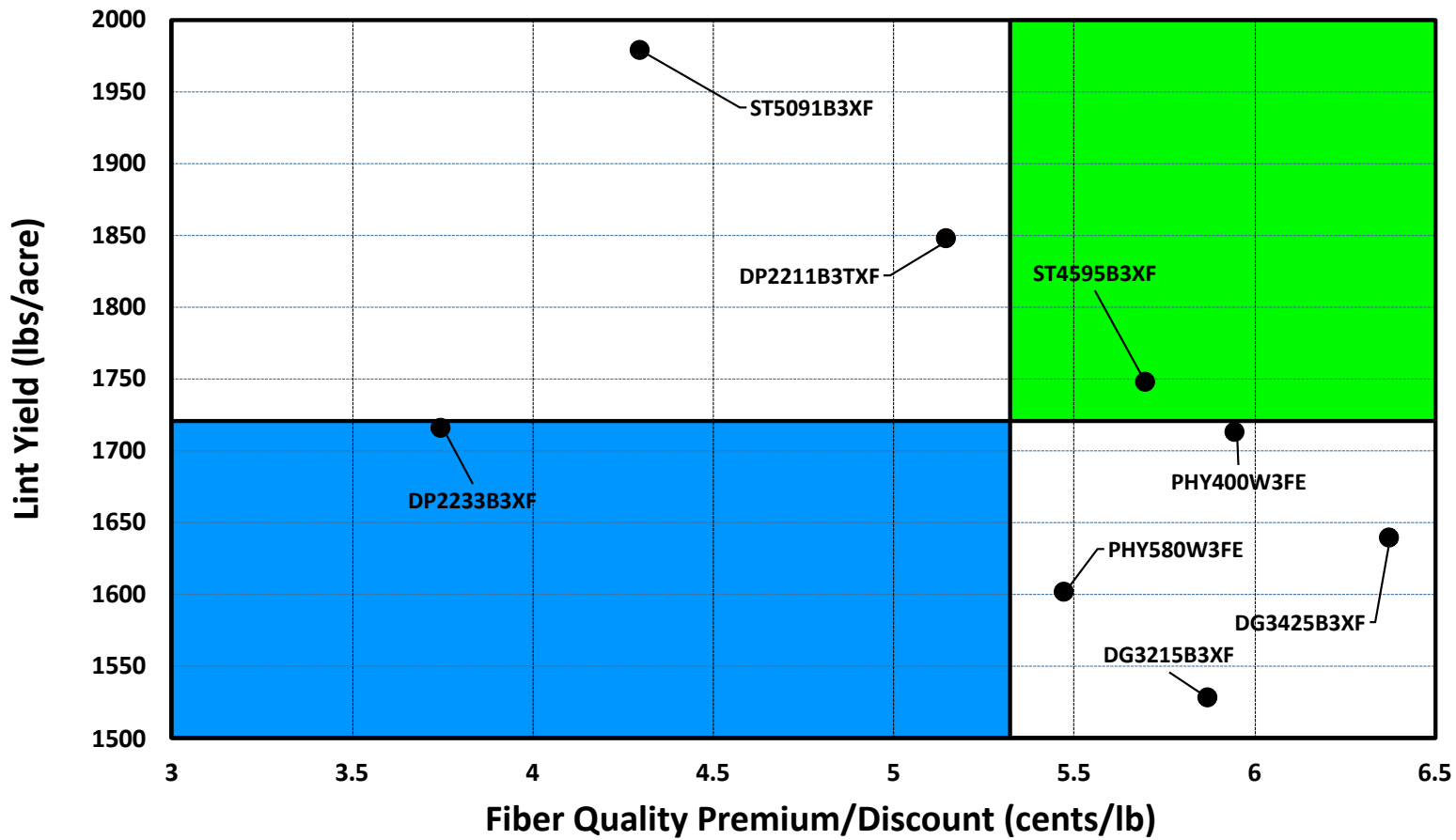
*Lint yield means followed by the same letter are not statistically different according to Fisher's LSD (Least Significant Difference) means separation (alpha = 0.05)

** Value calculated from CCC loan schedule base price of \$0.52/lb + premium/discount

§Least Significant Difference

†Observed Significance Level

‡Coefficient of Variation



Lint yield (lbs./acre) plotted as a function of fiber quality premium/discount (cents/lb) for each variety. Vertical and horizontal lines represent the mean value for the two parameters. Varieties that fall in the upper right quadrant formed by the mean lines produced higher than average lint yield and fiber quality. Each entry for the Upland Cotton evaluation is plotted for the Eloy, AZ location in 2023.

UArizona Upland Cotton Variety Trial Results, Marana, AZ.

Marana, AZ	
County	Pima
City	Marana
Soil Type	Loam
Previous Crop	Corn
Irrigation	Furrow/flood
Tillage	Conventional
Seeding Rate	42,000
Planting Date	5/23/23
Defoliation Date	10/19/23
Harvest Date	11/29/23
Lat/Long	32.4855, -111.2875

Seed Company	Variety	Plant Population (plants/foot)	Vigor Rating (0-9 - L-H)	First Fruiting Branch (early bloom)	Nodes Above White Flower (early bloom)
DynaGro	DG3469B3XF	2.9	6.3	6.9	7.9
DynaGro	DG3519B3XF	2.6	5.0	7.8	8.2
Deltapine	DP2328B3TXF	2.6	6.3	7.0	7.5
Deltapine	DP2333B3XF	2.2	5.3	7.9	7.9
Phytogen	PHY400W3FE	3.2	8.0	--	--
Phytogen	PHY415W3FE	3.7	7.7	--	--
Stoneville	ST4595B3XF	3.1	6.7	8.7	7.9
Stoneville	ST5091B3XF	2.8	5.3	6.6	7.1
Mean		2.9	6.3	7.5	7.8

Seed Company	Variety	Lint Yield (lbs/acre)*	Percent Lint	Color Grade	Staple (32nds)	Mic	Strength (g/tex)	Length (in)	Leaf Grade	Uniformity (%)	Premium (cents/lb)	Value** (\$/acre)	
Stoneville	ST4595B3XF	1944.4	a	35.2	21	38	4.7	30.3	1.20	1	81.1	6.1	\$1,088.86
Stoneville	ST5091B3XF	1913.4	a	36.0	21	36	4.6	28.3	1.14	1	79.7	5.0	\$1,070.76
Deltapine	DP2333B3XF	1896.5	a	38.2	21	37	5.0	29.0	1.13	1	80.7	4.0	\$1,001.25
DynaGro	DG3469B3XF	1815.3	ab	35.8	21	36	4.9	28.9	1.13	1	80.9	4.6	\$994.70
Deltapine	DP2328B3TXF	1742.3	ab	35.3	21	36	4.6	28.4	1.13	1	80.1	5.2	\$959.60
DynaGro	DG3519B3XF	1647.4	b	32.8	21	38	4.2	28.4	1.19	2	80.9	6.0	\$945.35
Phytogen	PHY400W3FE***	1156.8	c	32.0	21	37	3.7	31.4	1.16	2	80.1	5.8	\$674.90
Phytogen	PHY415W3FE***	1095.6	c	28.4	21	37	3.2	30.1	1.17	2	80.5	0.1	\$569.45
Mean		1651.3	34.2	---	37	4.4	29.3	1.16	1	80.5	4.6	\$913.11	
LSD§		212.0	1.5	---	1.0	0.2	1.6	0.03	1	1.3	1.7	\$152.54	
OSL†		<0.0001	<0.0001	---	0.0010	<0.0001	0.0084	0.0010	<0.0001	0.2510	<0.001	<0.0001	
CV‡		8.7	3.1	---	1.4	2.9	3.1	1.5	20.2	0.9	21.5	9.5	

*Lint yield means followed by the same letter are not statistically different according to Fisher's LSD (Least Significant Difference) means separation (alpha = 0.05)

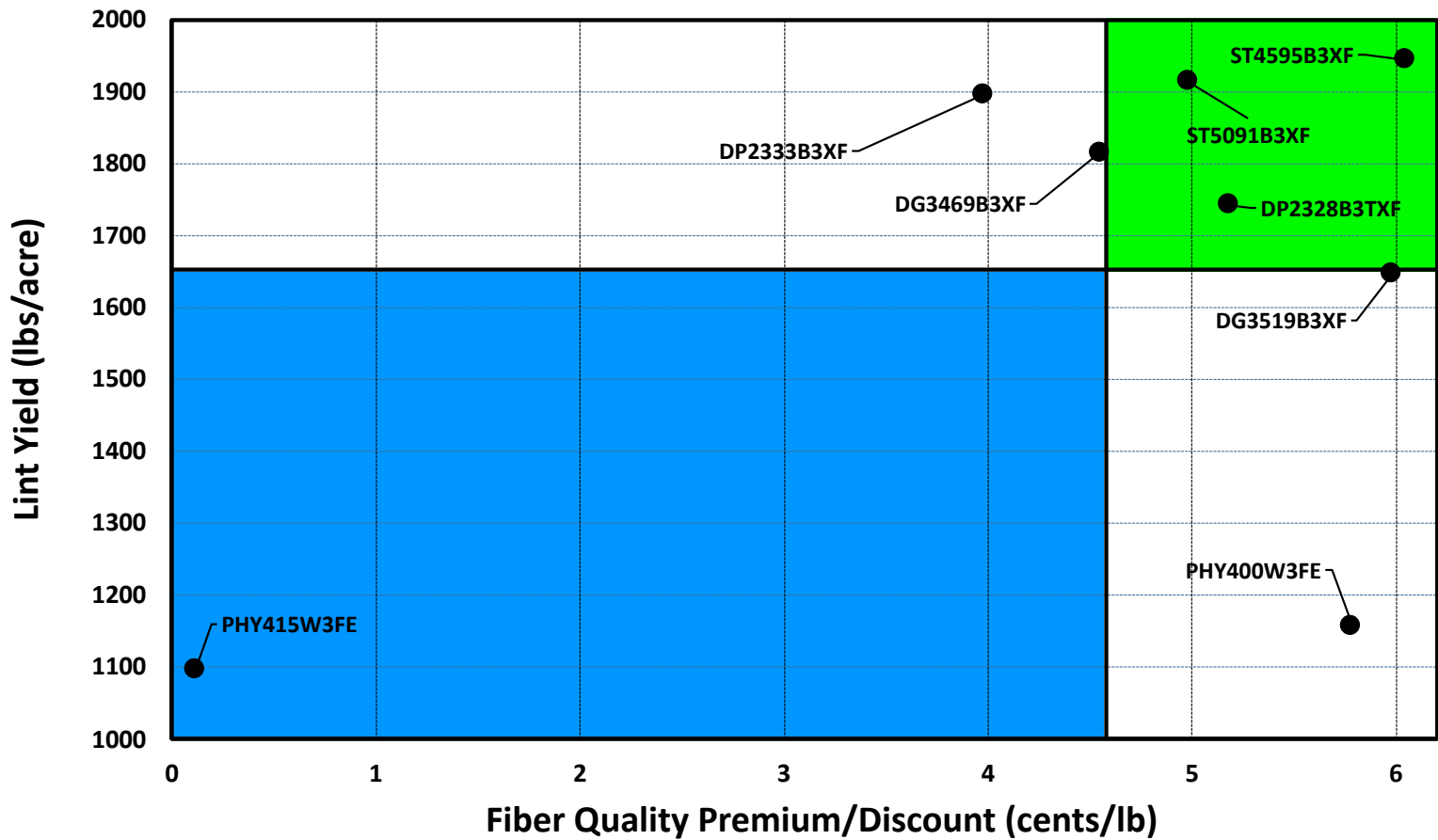
** Value calculated from CCC loan schedule base price of \$0.52/lb + premium/discount

§Least Significant Difference

†Observed Significance Level

‡Coefficient of Variation

*** Phytogen cotton varieties had overspray of dicamba very early (2-3 nodes) due to tank contamination



Lint yield (lbs./acre) plotted as a function of fiber quality premium/discount (cents/lb) for each variety. Vertical and horizontal lines represent the mean value for the two parameters. Varieties that fall in the upper right quadrant formed by the mean lines produced higher than average lint yield and fiber quality. Each entry for the Upland Cotton evaluation is plotted for the Marana, AZ location in 2023.

UArizona Upland Cotton Variety Trial Results, Thatcher, AZ.

Thatcher, AZ	
County	Graham
City	Thatcher
Soil Type	Clay loam
Previous Crop	Cotton
Irrigation	Sub-surface drip
Tillage	Minimum
Seeding Rate	70,000
Planting Date	5/11/23
Defoliation Date	10/10/23
Harvest Date	11/3/23
Lat/Long	32.8602, -109.7724

Seed Company	Variety	Plant Population (plants/foot)	Vigor Rating (0-9 - L-H)	First Fruiting Branch (early bloom)	Nodes Above White Flower (early bloom)
DynaGro	DG3469B3XF	3.2	5.0	6.4	8.4
DynaGro	DG3519B3XF	3.1	4.7	7.2	6.6
Deltapine	DP2317B3TXF	3.7	6.3	6.0	8.8
Deltapine	DP2335B3XF	3.5	6.3	6.4	8.2
FiberMax	FM1621GL	3.6	7.0	7.6	8.4
FiberMax	FM1730GLTP	4.0	6.3	6.6	7.2
Phytogen	PHY332W3FE	3.8	5.7	6.4	7.4
Phytogen	PHY415W3FE	4.1	7.7	6.4	8.2
Mean		3.6	6.1	6.6	7.9

Seed Company	Variety	Lint Yield (lbs/acre)*	Percent Lint	Color Grade	Staple (32nds)	Mic	Strength (g/tex)	Length (in)	Leaf Grade	Uniformity (%)	Premium (cents/lb)	Value** (\$/acre)	
Deltapine	DP2335B3XF	1259.5	a	39.7	21	34	5.0	28.8	1.06	1	78.4	-1.6	\$635.32
DynaGro	DG3469B3XF	1256.3	a	39.4	21	34	5.3	28.5	1.06	1	79.2	-2.2	\$626.25
Deltapine	DP2317B3TXF	1137.2	b	38.1	21	35	5.0	27.6	1.10	2	80.0	1.4	\$607.76
FiberMax	FM1830GLT	1077.3	bc	38.0	21	36	5.3	28.5	1.11	1	79.2	0.7	\$567.72
Phytogen	PHY332W3FE	1069.1	bc	35.5	21	36	5.0	30.1	1.13	2	80.1	3.5	\$593.52
Phytogen	PHY415W3FE	1062.7	c	35.0	21	36	5.0	31.2	1.11	2	80.6	4.0	\$594.65
DynaGro	DG3519B3XF	1010.7	c	34.9	21	37	4.9	31.7	1.15	2	81.5	4.3	\$569.20
FiberMax	FM1730GLTP	1002.5	cd	36.2	21	35	5.3	33.4	1.10	1	81.7	0.8	\$528.61
FiberMax	FM1621GL	927.7	d	35.3	31	35	5.4	29.3	1.09	2	80.5	-0.9	\$471.94
	Mean	1090.2		36.8	---	35	5.1	30.0	1.10	2	80.2	1.2	\$577.98
	LSD§	78.5		1.6	---	NS	NS	2.2	NS	NS	1.3	NS	\$53.88
	OSL†	<0.0001		<0.0001	---	0.1470	0.1689	0.0011	0.1214	0.2239	0.0010	0.0817	0.0002
	CV‡	4.0		2.5	---	3.1	4.8	4.2	3.1	34.5	0.9	252.2	5.2

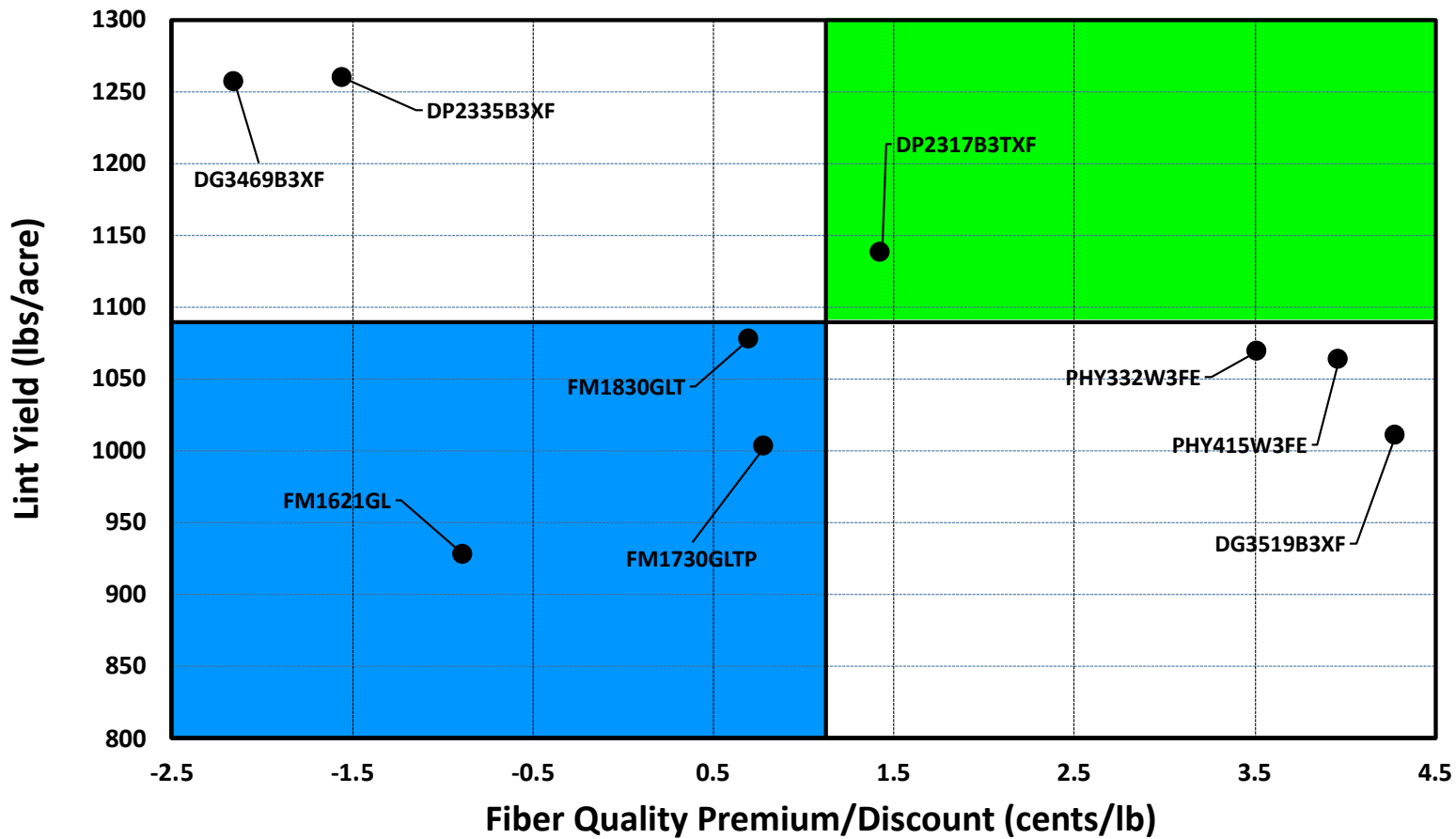
*Lint yield means followed by the same letter are not statistically different according to Fisher's LSD (Least Significant Difference) means separation (alpha = 0.05)

** Value calculated from CCC loan schedule base price of \$0.52/lb + premium/discount

§Least Significant Difference

†Observed Significance Level

‡Coefficient of Variation



Lint yield (lbs./acre) plotted as a function of fiber quality premium/discount (cents/lb) for each variety. Vertical and horizontal lines represent the mean value for the two parameters. Varieties that fall in the upper right quadrant formed by the mean lines produced higher than average lint yield and fiber quality. Each entry for the Upland Cotton evaluation is plotted for the Thatcher, AZ location in 2023.

UArizona Upland Cotton Variety Trial Results, Bonita, AZ.

Bonita, AZ	
County	Cochise
City	Bonita
Soil Type	Sandy loam
Previous Crop	Corn
Irrigation	Center Pivot
Tillage	Conventional
Seeding Rate	52,000
Planting Date	4/24/23
Defoliation Date	10/4/23
Harvest Date	10/27/23
Lat/Long	32.4379, -109.9365

Seed Company	Variety	Plant Population (plants/foot)	Vigor Rating (0-9 - L-H)	First Fruiting Branch (early bloom)
DynaGro	DG3215B3XF	2.9	5.7	6.5
DynaGro	DG3385B2XF	2.7	6.0	7.0
Deltapine	DP2211B3TXF	2.8	8.0	5.5
Deltapine	DP2317B3TXF	3.5	7.7	5.5
Deltapine	DP2335B3XF	3.3	6.0	7.7
DynaGro	P224B3XF	2.4	6.0	7.1
Stoneville	ST4595B3XF	3.3	6.3	7.8
Stoneville	ST5091B3XF	2.8	7.3	6.2
Mean		3.0	6.6	6.7

Seed Company	Variety	Lint Yield (lbs/acre)*	Percent Lint	Color Grade	Staple (32nds)	Mic	Strength (g/tex)	Length (in)	Leaf Grade	Uniformity (%)	Premium (cents/lb)	Value** (\$/acre)	
Stoneville	ST4595B3XF	1583.4	a	39.9	21	36	5.1	28.2	1.13	1	80.2	2.8	\$866.98
Stoneville	ST5091B3XF	1436.4	b	40.6	21	35	4.8	27.0	1.09	1	79.3	0.3	\$751.01
DynaGro	DG3385B2XF	1397.9	bc	39.4	21	35	5.0	29.4	1.10	1	81.0	1.0	\$740.91
DynaGro	DG3519B3XF	1393.7	bc	38.5	21	38	4.6	31.0	1.19	2	81.6	0.3	\$728.26
Deltapine	DP2317B3TXF	1392.9	bc	38.4	11	35	4.5	26.6	1.10	1	78.8	3.4	\$770.47
Deltapine	DP2211B3TXF	1387.7	bc	39.7	21	36	4.7	27.3	1.12	1	79.9	4.4	\$784.16
DynaGro	DG3469B3XF	1379.7	bc	38.8	11	35	4.7	27.5	1.09	1	79.7	3.0	\$759.17
DynaGro	DG3215B3XF	1335.7	bc	38.7	11	36	4.6	27.1	1.12	1	80.9	5.1	\$762.70
Deltapine	DP2335B3XF	1276.5	c	40.7	11	36	4.3	28.8	1.11	1	78.3	3.8	\$712.32
DynaGro	P224B3XF	988.3	d	34.6	21	49	3.7	32.6	1.44	2	84.6	6.5	\$578.36
Mean		1370.5		39.1	---	37	4.6	28.4	1.14	1	80.2	2.9	\$751.10
LSD§		137.5		1.6	---	1.6	0.5	1.4	0.04	NS	1.7	2.9	\$90.65
OSL†		<0.0001		<0.0001	---	<0.0001	0.0008	<0.0001	<0.0001	0.1417	<0.0001	0.0036	0.0017
CV‡		4.7		1.9	---	2.1	4.7	2.4	1.6	28.5	1.0	46.1	5.7

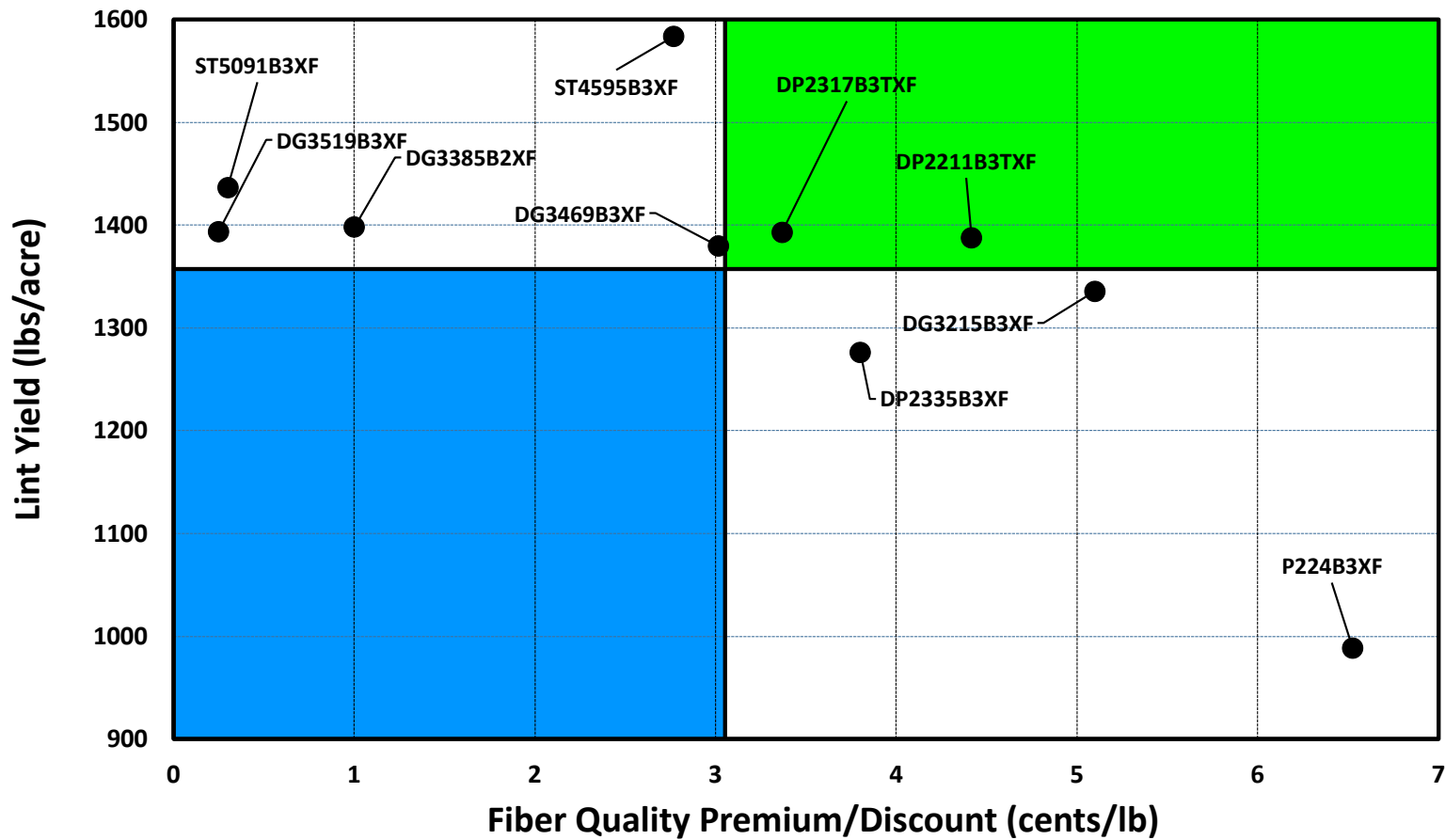
*Lint yield means followed by the same letter are not statistically different according to Fisher's LSD (Least Significant Difference) means separation (alpha = 0.05)

** Value calculated from CCC loan schedule base price of \$0.52/lb + premium/discount

§Least Significant Difference

†Observed Significance Level

‡Coefficient of Variation



Lint yield (lbs./acre) plotted as a function of fiber quality premium/discount (cents/lb) for each variety. Vertical and horizontal lines represent the mean value for the two parameters. Varieties that fall in the upper right quadrant formed by the mean lines produced higher than average lint yield and fiber quality. Each entry for the Upland Cotton evaluation is plotted for the Bonita, AZ location in 2023.

2023 Upland Cotton Advanced Strain Testing Program

University of Arizona

Cooperative Extension
Arizona Experiment Station

Trial Results

Funded in part by the Arizona Cotton Growers Association,
Cotton Incorporated, and Participating Seed Companies

Prepared by:

Dr. Randy Norton

and

Kaleb Bryce and Jose Ornelas

Significant crop management dates and soil classification for each Advanced Strain evaluation location conducted during the 2023 production season.

	Yuma, AZ	Maricopa, AZ	Safford, AZ
County:	Yuma	Pinal	Graham
City:	Yuma	Maricopa	Safford
GPS Coordinates:	32.7093, -114.7093	33.0619, -111.9707	32.8131, -109.6786
Planting Date:	27 March 2023	2 May 2023	8 May 2023
Defoliation Date:	25 September 2023	23 October 2023	10 October 2023
Harvest Date:	16 November 2023	4 December 2023	6 November 2023
Tillage:	Conventional	Conventional	Conventional
Soil Classification:	Holtville clay	Casa Grande sandy loam	Grabe clay loam
Irrigation System:	Furrow/Flood	Furrow/flood	Furrow/flood
Harvester Type:	Plot harvester	Plot harvester	Plot harvester
Gin Type:	Table-top gin	Table-top gin	Table-top gin

Summary of all varieties/strains entered at each of the three locations, 2023.

Seed Company	Variety/Strain	Yuma Agricultural Center	Maricopa Agricultural Center	Safford Agricultural Center
BASF	BX2359GLXTP		X	X
BASF	BX2362GLXTP		X	X
BASF	BX2451GLIXTP		X	X
BASF/Fibermax	FM1621GL			X
BASF/Fibermax	FM1730GLTP	X		X
BASF/Fibermax	FM2398GLTP	X		X
BASF/Fibermax	FM2423AXTP		X	X
BASF/Fibermax	FM868AXTP		X	X
BASF/Stoneville	ST4595B3XF	X	X	
BASF/Stoneville	ST4990B3XF	X	X	
BASF/Stoneville	ST4993B3XF	X		
BASF/Stoneville	ST5091B3XF	X	X	
BASF/Stoneville	ST6000AXTP		X	X
Bayer/Deltapine	21R4123B3TXF	X	X	X
Bayer/Deltapine	21R4334B3TXF	X	X	X
Bayer/Deltapine	22R138B3XF		X	X
Bayer/Deltapine	22R2140B3TXF	X	X	X
Bayer/Deltapine	23R9122B3TXF	X	X	X
Bayer/Deltapine	23R9134B3TXF	X	X	X
Bayer/Deltapine	23R9915B3TXF	X	X	X
Bayer/Deltapine	23R9929B3TXF	X	X	X
Bayer/Deltapine	DP2127B3XF	X		
Bayer/Deltapine	DP2211B3TXF	X	X	X
Bayer/Deltapine	DP2317B3TXF	X	X	X
Brownfield Seed and Delinting	4X		X	X
Brownfield Seed and Delinting	9X		X	X
Brownfield Seed and Delinting	TBM		X	X
Corteva/Phytogen	PHY400W3FE	X	X	X
Corteva/Phytogen	PHY411W3FE	X	X	X
Corteva/Phytogen	PHY415W3FE	X	X	X
Corteva/Phytogen	PX1130B33304	X	X	X
Corteva/Phytogen	PX1130D30304	X	X	X
Corteva/Phytogen	PX1140A38504	X	X	X
Corteva/Phytogen	PX1140B37304	X	X	X
Corteva/Phytogen	PX1140D32804	X	X	X
Corteva/Phytogen	PX1150B43704	X	X	X
Corteva/Phytogen	PX1150D49004	X	X	X
International Seed Technology	BRS1294	X	X	X
International Seed Technology	BRS1299	X	X	X
International Seed Technology	BRS1382	X	X	X
International Seed Technology	BRS1754	X	X	X
International Seed Technology	BRS2353	X	X	X
International Seed Technology	BRS286			X
International Seed Technology	BRS293			X
International Seed Technology	BRS335		X	X
NexGen/Americot	AMX160030AB3XF	X	X	X
NexGen/Americot	AMX160030BB3XF	X	X	X
NexGen/Americot	AMX20T079B3XF	X	X	X
NexGen/Americot	AMX20T114B3XF	X	X	X
NexGen/Americot	AMX20T157B3XF	X	X	X
NexGen/Americot	AMX21C005B3TXF	X	X	X
NexGen/Americot	AMX4190B3XF	X	X	X
NexGen/Americot	NG4335B3TXF	X	X	X
NexGen/Americot	NG4343B3TXF	X	X	X
NexGen/Americot	NG4350B3TXF	X	X	X
Total Entries		41	48	50

Early season emergence (plants/foot) and vigor evaluations (1-9, L-H) and mid-season data including nodes above white flower (NAWF) for each entry in the Upland Advanced Strain evaluation, Yuma, AZ, 2023.

Seed Company	Variety	Plant Population (plants/foot)	Vigor Rating (0-9 - L-H)	Nodes Above White Flower (early bloom)
Deltapine	21R4123B3TXF	1.7	6.0	7.9
Deltapine	21R4334B3TXF	3.0	8.0	8.9
Deltapine	22R2140B3TXF	3.2	7.0	8.7
Deltapine	23R9122B3TXF	3.0	6.0	8.5
Deltapine	23R9134B3TXF	1.4	5.5	9.2
Deltapine	23R9915B3TXF	3.0	7.0	8.4
Deltapine	23R9929B3TXF	1.7	7.0	8.2
Deltapine	DP2127B3XF	2.2	6.0	9.4
Deltapine	DP2211B3TXF	2.9	6.0	8.3
Deltapine	DP2317B3TXF	3.9	7.0	9.0
FiberMax	FM1730GLTP	2.3	6.0	8.3
FiberMax	FM2398GLTP	2.4	7.0	8.7
IST	BRS1294	3.6	7.0	9.0
IST	BRS1299	1.8	7.0	9.3
IST	BRS1382	2.3	6.0	9.8
IST	BRS1754	2.0	7.0	8.9
IST	BRS2353	2.0	7.0	9.3
NexGen	160030AB3XF	1.5	6.5	8.2
NexGen	160030BB3XF	1.7	6.0	8.5
NexGen	20T079B3XF	1.7	6.0	9.2
NexGen	20T114B3XF	1.4	7.0	10.1
NexGen	20T157B3XF	1.5	7.0	8.1
NexGen	21C005B3TXF	2.1	6.0	9.5
NexGen	AMX4190B3XF	2.6	6.0	8.8
NexGen	NG4335B3TXF	2.3	6.5	9.2
NexGen	NG4343B3TXF	3.3	7.0	9.1
NexGen	NG4350B3TXF	2.1	7.0	9.0
Phytogen	1130B33304	3.3	8.0	8.6
Phytogen	1130D30304	4.3	7.0	7.5
Phytogen	1140A38504	2.2	7.0	7.9
Phytogen	1140B37304	2.8	7.0	8.1
Phytogen	1140D32804	2.1	7.0	8.6
Phytogen	1150B43704	1.8	6.0	9.4
Phytogen	1150D49004	2.9	7.0	9.5
Phytogen	PHY400W3FE	3.3	7.5	8.7
Phytogen	PHY411W3FE	3.2	8.0	8.9
Phytogen	PHY415W3FE	4.3	7.0	8.3
Stoneville	ST4595B3XF	3.1	8.0	9.1
Stoneville	ST4990B3XF	2.3	8.0	7.3
Stoneville	ST4993B3XF	2.5	6.0	8.5
Stoneville	ST5091B3XF	2.2	7.0	9.2
	Mean	2.5	6.7	8.7

Yield and fiber quality data along with statistical analysis for each entry in the Upland Advanced Strain evaluation, Yuma, AZ, 2023.

Seed Company	Variety	Lint Yield (lbs/acre)*		Percent Lint	Staple (32nds)	Mic	Strength (g/tex)	Length (in)	Uniformity (%)	Premium (cents/lb)	Value** (\$/acre)
Deltapine	DP2317B3TXF	2435.1	a*	39.1	37	4.2	29.0	1.14	81.5	1.8	\$1,287.13
Deltapine	21R4334B3TXF	2405.6	ab	42.5	36	4.1	31.3	1.12	81.9	2.0	\$1,304.10
NexGen	NG4343B3TXF	2323.7	abc	39.3	37	4.3	31.6	1.16	82.4	2.0	\$1,231.40
Deltapine	DP2211B3TXF	2217.6	abcd	41.0	36	4.5	28.6	1.13	81.5	1.4	\$1,171.56
Deltapine	22R2140B3TXF	2192.4	bcde	42.0	36	4.1	28.0	1.14	81.3	1.7	\$1,165.32
NexGen	NG4335B3TXF	2160.9	cdef	39.6	37	4.0	32.0	1.17	83.6	2.3	\$1,152.09
Deltapine	DP2127B3XF	2031.3	defg	40.7	36	5.1	31.3	1.13	82.9	-1.0	\$1,039.01
Stoneville	ST4993B3XF	2016.7	defgh	41.9	37	5.1	35.2	1.16	83.8	0.2	\$1,053.00
NexGen	AMX4190B3XF	1996.6	defghi	40.1	37	4.5	30.8	1.16	82.5	2.1	\$1,083.06
Stoneville	ST4595B3XF	1996.4	defghi	40.7	37	4.7	30.1	1.15	82.0	1.8	\$1,114.57
Stoneville	ST4990B3XF	1983.4	efghij	39.0	38	4.5	31.2	1.18	82.4	2.1	\$1,072.93
Stoneville	ST5091B3XF	1972.3	efghij	41.4	37	4.6	29.8	1.13	81.0	1.8	\$1,061.43
Deltapine	21R4123B3TXF	1961.2	fghij	42.0	37	4.6	29.8	1.16	81.9	1.9	\$1,052.82
Phytogen	PHY400W3FE	1957.1	fghijk	39.5	36	4.3	32.4	1.13	81.2	1.9	\$1,024.51
Deltapine	23R9915B3TXF	1943.6	fghijk	39.7	36	4.2	28.5	1.10	81.4	1.2	\$1,033.78
NexGen	21C005B3TXF	1841.5	ghijklm	38.5	37	3.8	30.7	1.14	82.4	2.0	\$1,026.10
Fibermax	FM1730GLTP	1811.9	ghijklmn	38.7	37	4.3	33.5	1.16	83.4	2.3	\$988.87
Phytogen	1140D32804	1793.0	hijklmno	39.8	37	3.9	32.6	1.17	81.1	2.3	\$988.81
NexGen	20T157B3XF	1787.9	ijklmno	42.1	38	4.8	30.9	1.17	82.2	2.1	\$958.03
Phytogen	1150B43704	1763.2	ijklmno	39.4	36	4.6	33.2	1.13	82.1	2.0	\$926.40
NexGen	20T079B3XF	1736.3	klmnop	40.0	37	4.6	31.3	1.16	82.6	1.3	\$920.64
Phytogen	1140A38504	1724.2	lmnop	41.4	36	4.1	34.7	1.12	82.9	1.8	\$873.97
Phytogen	PHY411W3FE	1685.1	mnopq	40.5	36	4.2	33.9	1.12	82.8	1.5	\$876.61
Phytogen	1140B37304	1681.9	mnopqr	39.3	36	4.5	32.0	1.13	82.7	1.6	\$928.18
NexGen	20T114B3XF	1680.3	mnopqr	41.1	38	4.6	32.2	1.20	83.6	2.2	\$911.35
Deltapine	23R9122B3TXF	1642.5	mnopqr	39.3	35	3.8	30.4	1.10	80.7	1.1	\$847.57
Deltapine	23R9929B3TXF	1633.4	mnopqr	43.0	37	4.3	30.1	1.15	82.3	1.9	\$972.38
Phytogen	1130D30304	1588.3	nopqrs	40.4	35	4.5	31.2	1.10	82.5	1.3	\$857.62
Deltapine	23R9134B3TXF	1578.6	opqrs	39.1	36	4.3	27.7	1.14	81.1	1.4	\$816.88
Phytogen	PHY415W3FE	1525.6	pqrst	38.7	37	3.8	32.5	1.15	82.4	2.3	\$842.28
NexGen	NG4350B3TXF	1516.1	pqrst	35.1	38	3.3	33.6	1.20	82.1	-2.8	\$745.95
Phytogen	1130B33304	1475.7	qrst	37.7	37	4.0	33.0	1.14	83.3	2.3	\$760.32
Phytogen	1150D49004	1464.5	qrst	39.3	36	4.0	32.4	1.12	81.7	2.1	\$792.07
Fibermax	FM2398GLTP	1458.1	rstu	37.7	37	4.8	32.3	1.15	82.6	2.1	\$767.42
IST	BRS1382	1378.4	stu	39.1	35	5.0	32.3	1.10	82.8	-1.1	\$710.76
NexGen	160030AB3XF	1373.6	stu	42.4	39	4.5	31.3	1.21	82.9	2.3	\$755.48
IST	BRS1754	1306.5	tu	38.6	38	4.6	35.4	1.21	83.3	2.5	\$640.24
NexGen	160030BB3XF	1235.2	uv	38.1	37	4.8	33.3	1.15	83.0	2.2	\$655.30
IST	BRS1299	1068.9	vw	40.1	35	4.8	29.9	1.11	82.2	1.1	\$578.13
IST	BRS2353	1001.3	w	36.3	39	4.0	33.7	1.22	82.8	2.4	\$552.83
IST	BRS1294	884.0	w	37.9	35	4.9	30.5	1.11	82.6	0.3	\$467.72
	Mean	1737.3		39.8	37	4.4	31.6	1.15	82.3	1.5	\$927.04
	LSD§	223.8		1.9	1.2	0.4	2.3	0.04	1.1	0.9	\$135.19
	OSL†	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	CV‡	9.2		3.4	1.9	5.3	4.5	2.0	0.8	35.9	9.0

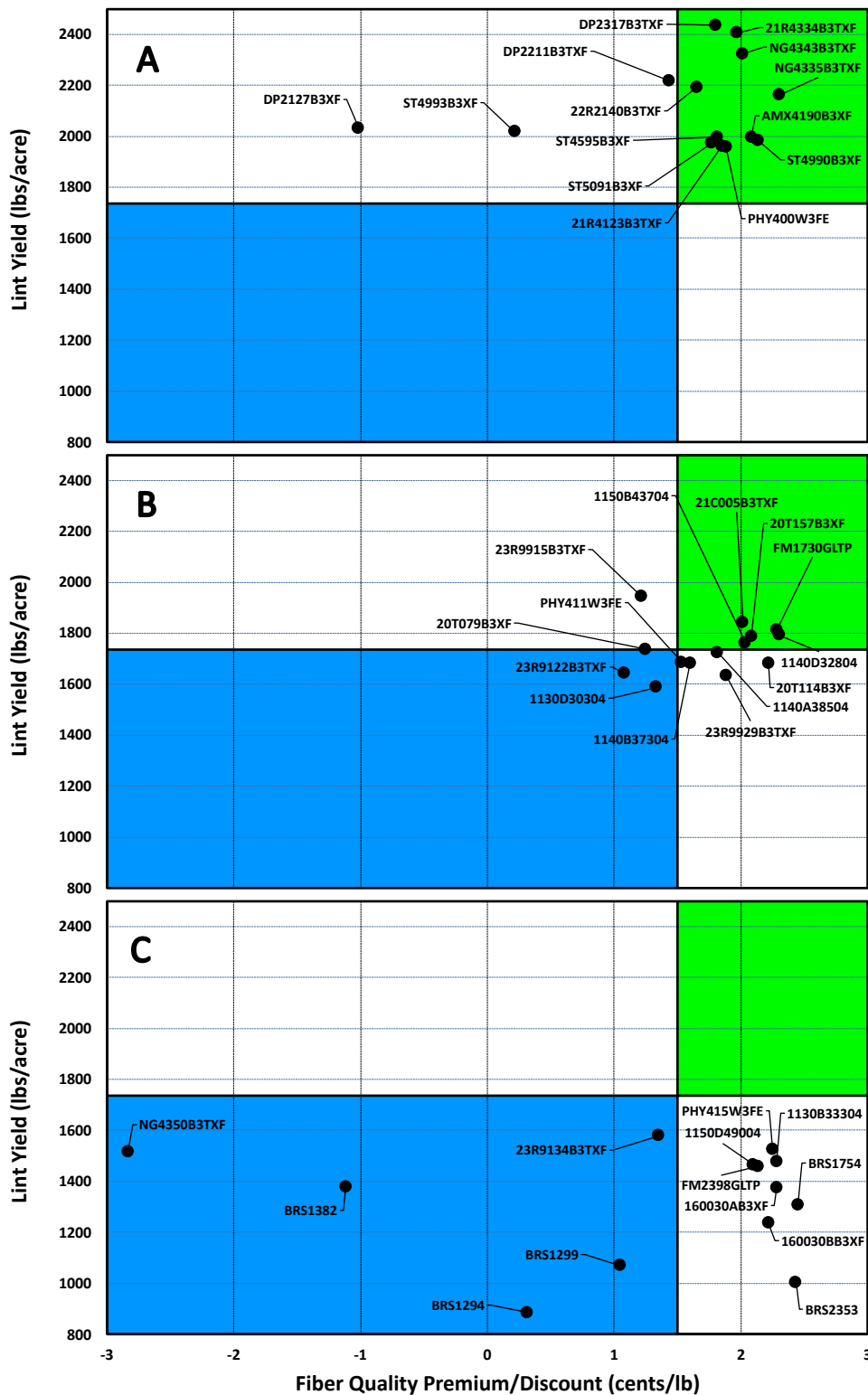
*Lint yield means followed by the same letter are not statistically different according to Fisher's LSD (Least Significance Difference) means separation ($\alpha = 0.05$)

**Value calculated from CCC loan schedule base price of \$0.52/lb + premium/discount

§Least Significant Difference

†Observed Significance Level

‡Coefficient of Variation



Lint yield (lbs./acre) plotted as a function of fiber quality premium/discount (cents/lb) for the top third (A), middle third (B), and bottom third (C). Vertical and horizontal lines represent the mean value for the two parameters. Varieties that fall in the upper right quadrant formed by the mean lines produced higher than average lint yield and fiber quality. Each entry for the Upland Advanced Strain evaluation is plotted for the Yuma, AZ location in 2023.

Early season emergence (plants/foot), vigor evaluations (1-9, L-H) and mid-season data including first fruiting branch (FFB) and nodes above white flower (NAWF) for each entry in the Upland Advanced Strain evaluation, Maricopa, AZ, 2023.

Seed Company	Variety	Plant Population (plants/foot)	Vigor Rating (0-9 - L-H)	First Fruiting Branch (early bloom)	Nodes Above White Flower (early bloom)
BASF	BX2359GLXTP	3.8	5.8	6.7	5.3
BASF	BX2362GLXTP	4.2	5.5	7.2	6.0
BASF	BX2451GLIXTP	3.7	6.3	6.8	6.2
BSD	4X	3.7	5.8	7.5	4.5
BSD	9X	4.3	6.0	7.7	5.5
BSD	TBM	3.6	6.0	6.5	5.5
Deltapine	21R4123B3TXF	3.1	5.3	7.5	4.8
Deltapine	21R4334B3TXF	3.8	6.8	6.8	5.7
Deltapine	22R138B3XF	3.7	6.0	7.7	5.8
Deltapine	22R2140B3TXF	4.7	7.3	6.0	5.5
Deltapine	23R9122B3TXF	3.8	5.0	7.2	6.2
Deltapine	23R9134B3TXF	3.8	6.3	6.7	6.0
Deltapine	23R9915B3TXF	4.1	6.3	6.7	4.3
Deltapine	23R9929B3TXF	3.1	6.0	6.8	4.5
Deltapine	DP2211B3TXF	3.4	6.3	6.7	5.5
Deltapine	DP2317B3TXF	4.0	7.5	6.8	5.5
FiberMax	FM2423AXTP	3.4	6.0	8.7	4.8
FiberMax	FM868AXTP	4.2	6.5	8.3	5.7
IST	BRS1294	3.4	6.3	7.2	7.0
IST	BRS1299	3.7	6.0	6.8	6.5
IST	BRS1382	2.9	4.8	7.0	7.5
IST	BRS1754	3.1	5.8	7.7	5.2
IST	BRS2353	2.8	4.8	7.0	6.0
IST	BRS335	3.8	5.5	7.2	5.5
NexGen	160030AB3XF	2.5	4.5	6.7	5.2
NexGen	160030BB3XF	3.2	5.8	7.8	5.5
NexGen	20T079B3XF	3.5	6.0	6.2	5.0
NexGen	20T114B3XF	2.6	5.3	7.2	5.3
NexGen	20T157B3XF	3.3	5.0	8.5	5.7
NexGen	21C005B3TXF	2.9	5.5	7.3	6.3
NexGen	AMX4190B3XF	3.9	6.8	7.8	6.0
NexGen	NG4335B3TXF	2.8	5.5	6.7	5.0
NexGen	NG4343B3TXF	3.3	5.8	7.7	5.3
NexGen	NG4350B3TXF	3.3	5.8	6.8	4.7
Phytogen	1130B33304	3.7	5.3	7.0	5.2
Phytogen	1130D30304	4.3	6.0	6.3	5.2
Phytogen	1140A38504	3.1	5.8	8.7	5.0
Phytogen	1140B37304	4.3	7.3	7.5	5.2
Phytogen	1140D32804	4.0	6.8	8.0	4.8
Phytogen	1150B43704	3.2	5.3	7.8	5.5
Phytogen	1150D49004	4.2	6.5	7.0	5.7
Phytogen	PHY400W3FE	4.3	5.8	6.7	5.2
Phytogen	PHY411W3FE	3.8	6.3	7.0	6.0
Phytogen	PHY415W3FE	4.3	7.8	7.3	5.0
Stoneville	ST4595B3XF	3.9	6.8	7.8	5.2
Stoneville	ST4990B3XF	4.0	6.3	6.8	5.3
Stoneville	ST5091B3XF	3.6	5.5	6.7	5.0
Stoneville	ST6000AXTP	3.3	5.5	8.8	6.0
	Mean	3.6	5.9	7.2	5.5

Yield and fiber quality data along with statistical analysis for each entry in the Upland Advanced Strain evaluation, Maricopa, AZ, 2023.

Seed Company	Variety	Lint Yield (lbs/acre)*	Percent Lint	Staple (32nds)	Mic	Strength (g/tex)	Length (in)	Uniformity (%)	Premium (cents/lb)	Value** (\$/acre)	
Deltapine	21R4334B3TXF	2910.5	a*	43.2	38	4.4	33.5	1.17	2.4	\$1,514.50	
Stoneville	ST4595B3XF	2825.9	ab	41.0	39	4.6	32.8	1.22	2.4	\$1,565.72	
Deltapine	22R2140B3TXF	2814.4	ab	42.5	38	4.5	29.8	1.19	1.9	\$1,518.90	
Stoneville	ST5091B3XF	2736.6	abc	41.6	37	4.9	32.1	1.16	1.3	\$1,436.26	
Deltapine	23R9134B3TXF	2704.5	abcd	40.6	40	4.5	30.8	1.23	2.2	\$1,446.40	
Deltapine	DP2317B3TXF	2699.6	abcd	40.6	38	4.4	32.5	1.20	2.4	\$1,442.12	
Phytogen	PHY415W3FE	2681.2	abcde	40.5	39	4.4	36.5	1.22	2.4	\$1,414.17	
NexGen	NG4335B3TXF	2621.1	bcdef	40.1	39	4.3	34.4	1.22	2.5	\$1,465.60	
Phytogen	1140D32804	2602.2	bcdef	41.4	40	4.5	35.6	1.25	2.5	\$1,439.66	
Phytogen	1150D49004	2564.4	cdefg	40.9	38	4.3	32.3	1.19	2.2	\$1,401.47	
BASF	BX2362GLXTP	2541.9	cdefgh	41.3	39	4.8	33.8	1.22	2.4	\$1,390.60	
Stoneville	ST4990B3XF	2533.1	cdefghi	38.7	39	4.6	32.6	1.21	2.3	\$1,394.98	
FiberMax	FM868AXTP	2520.9	cdefghij	40.4	40	4.4	35.7	1.25	2.5	\$1,376.31	
Stoneville	ST6000AXTP	2491.2	defghijk	44.9	40	5.0	36.8	1.25	0.9	\$1,274.65	
NexGen	AMX4190B3XF	2489.1	defghijk	41.3	38	4.9	32.2	1.19	1.5	\$1,301.69	
NexGen	20T157B3XF	2475.3	defghijk	41.8	39	4.6	33.3	1.21	2.3	\$1,338.25	
Deltapine	DP2211B3TXF	2452.1	efghijkl	41.6	38	4.6	32.3	1.20	1.6	\$1,281.13	
NexGen	NG4343B3TXF	2445.7	fghijkl	39.6	39	4.4	32.3	1.23	2.3	\$1,348.20	
Deltapine	23R9915B3TXF	2444.7	fghijkl	39.3	37	4.1	32.2	1.16	2.2	\$1,258.39	
Deltapine	22R138B3XF	2430.3	fghijklm	40.8	38	4.6	34.8	1.20	2.4	\$1,296.36	
IST	BRS1382	2410.0	fghijklmn	41.5	37	5.1	33.9	1.17	-0.2	\$1,243.98	
Phytogen	1140A38504	2393.1	fghijklmn	41.5	39	4.7	36.8	1.21	1.7	\$1,268.00	
NexGen	21C005B3TXF	2369.3	ghijklmn	38.4	38	4.3	33.3	1.20	2.5	\$1,257.24	
Phytogen	PHY411W3FE	2326.4	hijklmno	40.8	37	4.6	35.4	1.16	2.3	\$1,248.55	
IST	BRS335	2320.5	hijklmnop	37.3	37	4.1	30.8	1.15	2.1	\$1,242.66	
Deltapine	23R9122B3TXF	2308.3	ijklmnopq	41.8	38	4.0	34.0	1.19	2.5	\$1,217.73	
NexGen	160030BB3XF	2301.8	ijklmnopq	40.5	39	4.6	34.3	1.22	2.4	\$1,236.85	
NexGen	20T079B3XF	2295.0	jklmnopq	38.2	38	4.3	32.3	1.20	2.3	\$1,220.15	
Deltapine	21R4123B3TXF	2274.7	klmnopqr	39.4	40	4.7	33.6	1.24	2.4	\$1,244.93	
Deltapine	23R9929B3TXF	2241.7	lmnopqr	41.5	39	4.2	32.7	1.23	2.4	\$1,202.42	
Phytogen	1140B37304	2225.5	lmnopqrs	38.9	38	4.7	35.5	1.19	2.5	\$1,226.69	
Phytogen	1130D30304	2204.3	mnopqrs	40.2	38	4.7	36.0	1.19	2.4	\$1,186.84	
NexGen	160030AB3XF	2202.2	mnopqrs	43.3	39	4.6	32.8	1.22	2.4	\$1,232.07	
Phytogen	PHY400W3FE	2191.8	nopqrs	41.6	38	4.5	34.9	1.20	2.5	\$1,171.27	
Phytogen	1150B43704	2186.8	nopqrs	41.2	37	5.1	34.6	1.15	-0.6	\$1,068.41	
BASF	BX2359GLXTP	2132.0	opqrs	41.0	38	4.5	34.0	1.20	2.4	\$1,176.21	
BASF	BX2451GLIXTP	2104.2	opqrst	41.1	38	4.2	33.1	1.20	2.4	\$1,088.87	
Phytogen	1130B33304	2089.3	pqrstu	38.1	39	4.2	35.9	1.23	2.6	\$1,171.51	
NexGen	20T114B3XF	2087.3	qrstu	39.6	38	4.9	31.4	1.20	1.5	\$1,056.54	
BSD	TBM	2052.9	rstuv	34.6	37	4.4	32.3	1.15	2.1	\$1,094.37	
BSD	9X	1998.4	stuvw	36.0	38	4.8	34.4	1.20	2.4	\$1,099.02	
IST	BRS1754	1894.9	tuvwxy	40.3	40	4.3	35.5	1.24	2.5	\$1,028.98	
IST	BRS1299	1867.7	vwxy	42.6	36	4.7	31.2	1.13	1.9	\$975.53	
NexGen	NG4350B3TXF	1860.3	vwxy	36.5	40	3.6	35.0	1.26	1.0	\$1,001.02	
IST	BRS1294	1825.2	vwx	39.5	38	4.6	33.9	1.19	2.5	\$985.31	
BSD	4X	1779.6	wx	35.8	37	3.9	32.7	1.17	2.2	\$975.30	
FiberMax	FM2423AXTP	1679.9	xy	41.7	38	4.7	34.5	1.19	2.4	\$865.22	
IST	BRS2353	1532.8	y	38.2	42	3.8	37.4	1.32	2.6	\$816.60	
	Mean	2315.4		40.3	38	4.5	33.7	1.20	2.1	\$1,239.74	
	LSD§	245.7		1.2	1.3	0.3	1.5	0.04	1.1	\$147.50	
	OSL†	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
	CV‡	7.2		2.1	2.1	4.4	2.9	1.9	0.9	30.8	7.3

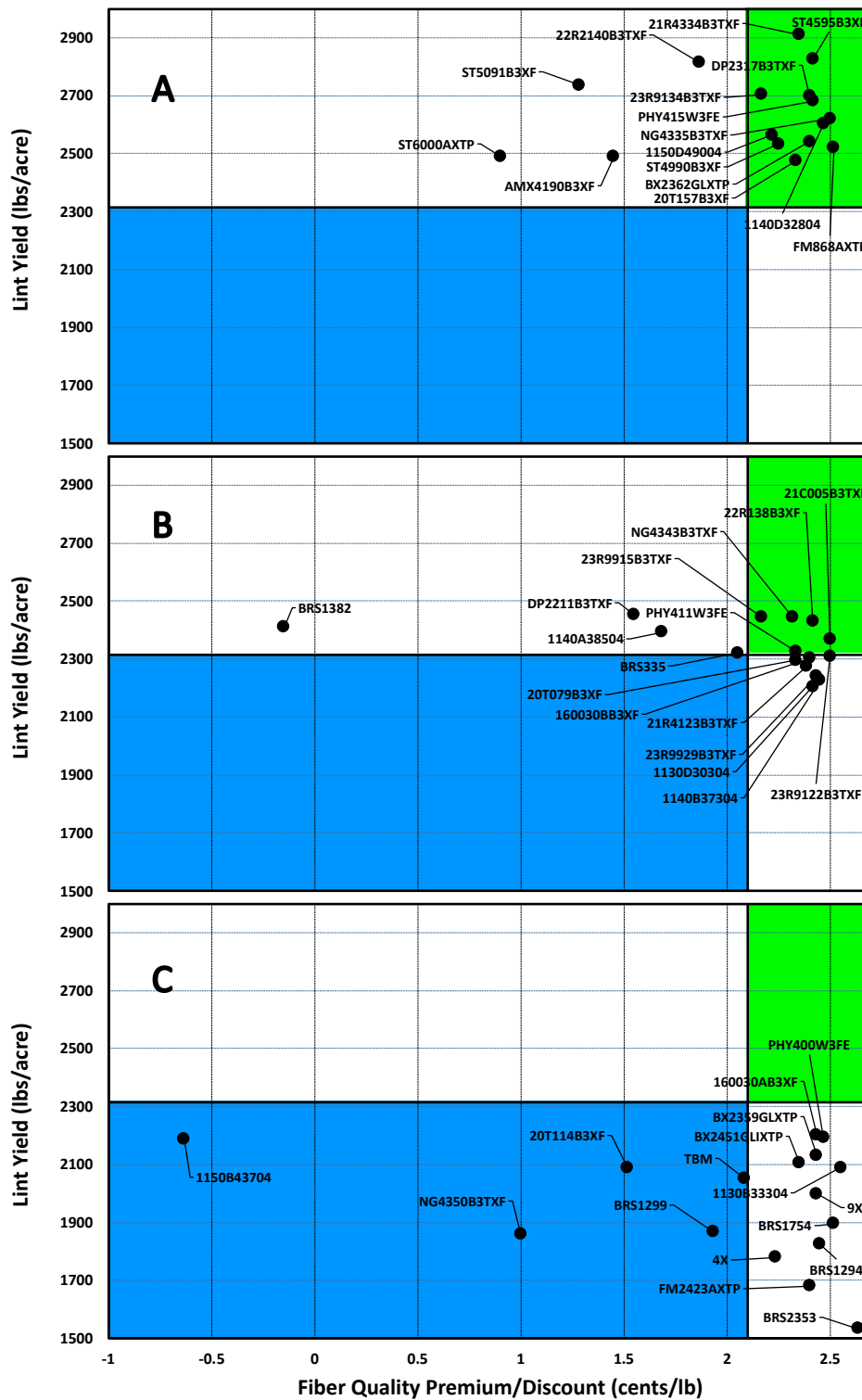
*Lint yield means followed by the same letter are not statistically different according to Fisher's LSD (Least Significance Difference) means separation ($\alpha = 0.05$)

**Value calculated from CCC loan schedule base price of \$0.52/lb + premium/discount

§Least Significant Difference

†Observed Significance Level

‡Coefficient of Variation



Lint yield (lbs./acre) plotted as a function of fiber quality premium/discount (cents/lb) for the top third (A), middle third (B), and bottom third (C). Vertical and horizontal lines represent the mean value for the two parameters. Varieties that fall in the upper right quadrant formed by the mean lines produced higher than average lint yield and fiber quality. Each entry for the Upland Advanced Strain evaluation is plotted for the Maricopa, AZ location in 2023.

Early season emergence (plants/foot) and vigor evaluations (1-9, L-H) and mid-season data including first fruiting branch (FFB) and nodes above white flower (NAWF) for each entry in the Upland Advanced Strain evaluation, Safford, AZ, 2023.

Seed Company	Variety	Plant Population (plants/foot)	Vigor Rating (0-9 - L-H)	First Fruiting Branch (early bloom)	Nodes Above White Flower (early bloom)
BASF	BX2359GLXTP	2.8	4.7	6.0	6.7
BASF	BX2362GLXTP	3.4	6.0	8.3	6.7
BASF	BX2451GLIXTP	3.2	5.0	7.0	6.3
BSD	4X	2.7	5.7	6.7	7.3
BSD	9X	3.7	5.7	8.3	5.7
BSD	TBM	2.3	3.7	6.0	6.0
Deltapine	21R4123B3TXF	3.2	5.0	6.3	6.0
Deltapine	21R4334B3TXF	3.1	5.3	6.0	5.7
Deltapine	22R138B3XF	3.0	5.3	8.7	6.7
Deltapine	22R2140B3TXF	3.1	5.0	5.7	6.7
Deltapine	23R9122B3TXF	3.2	6.0	6.3	7.2
Deltapine	23R9134B3TXF	2.9	6.0	6.0	6.7
Deltapine	23R9915B3TXF	3.1	4.7	6.3	4.7
Deltapine	23R9929B3TXF	3.3	5.7	7.0	6.0
Deltapine	DP2211B3TXF	2.9	5.0	5.7	5.3
Deltapine	DP2317B3TXF	2.7	5.7	6.3	6.0
FiberMax	FM1621GL	2.5	5.0	6.8	6.3
FiberMax	FM1730GLTP	4.1	6.7	6.0	4.7
FiberMax	FM2398GLTP	2.9	5.3	6.7	8.0
FiberMax	FM2423AXTP	3.6	6.3	7.0	6.7
FiberMax	FM868AXTP	3.7	6.0	7.0	6.0
IST	BRS1294	3.2	6.0	7.0	7.7
IST	BRS1299	3.6	7.0	6.7	7.7
IST	BRS1382	3.8	7.0	6.7	7.3
IST	BRS1754	2.7	4.7	7.0	5.3
IST	BRS2353	3.0	5.0	5.5	4.3
IST	BRS286	2.9	3.7	7.7	6.7
IST	BRS293	3.9	6.0	7.3	6.3
IST	BRS335	3.1	5.3	7.7	6.0
NexGen	160030AB3XF	3.7	6.7	6.0	6.0
NexGen	160030BB3XF	3.2	6.0	5.7	7.0
NexGen	20T079B3XF	3.3	5.0	6.0	6.7
NexGen	20T114B3XF	3.0	6.0	6.3	7.7
NexGen	20T157B3XF	3.0	6.3	7.3	7.7
NexGen	21C005B3TXF	3.5	5.3	6.7	7.3
NexGen	AMX4190B3XF	3.1	5.7	7.3	8.3
NexGen	NG4335B3TXF	3.6	6.3	6.7	6.0
NexGen	NG4343B3TXF	2.9	4.3	7.0	7.7
NexGen	NG4350B3TXF	4.0	7.3	6.7	5.0
Phytogen	1130B33304	3.1	6.0	6.7	6.7
Phytogen	1130D30304	2.4	4.3	5.3	6.7
Phytogen	1140A38504	2.5	4.7	8.0	7.0
Phytogen	1140B37304	3.1	6.0	7.0	6.3
Phytogen	1140D32804	3.7	6.0	7.8	6.2
Phytogen	1150B43704	3.3	5.7	8.0	6.3
Phytogen	1150D49004	2.6	4.7	7.7	7.3
Phytogen	PHY400W3FE	3.2	6.3	6.7	5.0
Phytogen	PHY411W3FE	3.5	4.7	7.3	7.0
Phytogen	PHY415W3FE	2.9	5.3	9.3	6.0
Stoneville	ST6000AXTP	3.5	5.7	7.3	8.0
	Mean	3.2	5.5	6.8	6.5

Yield and fiber quality data along with statistical analysis for each entry in the Upland Advanced Strain evaluation, Safford, AZ, 2023.

Seed Company	Variety	Lint Yield (lbs/acre)*	Percent Lint	Staple (32nds)	Mic	Strength (g/tex)	Length (in)	Uniformity (%)	Premium (cents/lb)	Value** (\$/acre)	
Deltapine	21R4334B3TXF	2043.3	a*	45.9	37	4.3	31.1	1.15	81.4	2.0	\$1,116.14
IST	BRS1382	2000.2	ab	45.3	35	5.3	32.5	1.09	82.1	-2.6	\$950.71
Phytogen	1140A38504	1902.1	bc	44.0	36	4.6	34.6	1.12	82.6	1.7	\$1,013.77
NexGen	AMX4190B3XF	1880.7	bcd	44.5	38	4.7	29.9	1.18	83.4	1.2	\$1,011.62
Phytogen	PHY415W3FE	1818.3	cde	43.3	38	4.6	35.0	1.19	83.2	2.4	\$993.41
Deltapine	22R138B3XF	1810.8	cde	44.4	37	5.0	32.8	1.16	82.0	-0.2	\$941.39
Phytogen	1150D49004	1774.8	cdef	42.8	37	4.5	30.8	1.14	80.9	1.7	\$953.32
Phytogen	1140B37304	1773.0	cdef	41.4	37	4.6	34.6	1.15	83.2	1.5	\$949.97
BASF	BX2362GLXTP	1760.5	defg	41.6	39	4.5	32.6	1.22	83.8	2.4	\$962.60
Deltapine	22R2140B3TXF	1726.4	efgh	46.4	36	5.0	27.7	1.12	82.0	-0.1	\$893.33
Deltapine	DP2317B3TXF	1721.8	efgh	42.7	37	4.4	30.0	1.15	81.7	1.9	\$939.26
BSD	9X	1706.1	efghi	39.3	36	5.0	32.1	1.13	82.5	0.1	\$887.18
Deltapine	23R9915B3TXF	1682.6	efghij	44.5	36	4.5	29.9	1.11	81.3	1.4	\$924.31
IST	BRS293	1663.7	fghijk	39.1	36	5.1	32.5	1.12	82.5	-0.6	\$856.07
Deltapine	23R9122B3TXF	1646.7	fghijkl	43.7	36	4.2	31.4	1.12	81.9	1.9	\$878.07
NexGen	20T157B3XF	1642.4	fghijklm	44.8	37	5.1	31.2	1.14	82.9	0.5	\$863.20
IST	BRS286	1623.8	ghijklmn	38.5	35	4.7	30.7	1.10	81.5	1.1	\$877.21
Fibermax	FM1730GLTP	1617.2	hijklmnop	42.3	38	4.9	35.5	1.17	84.2	2.5	\$884.63
Fibermax	FM2398GLTP	1614.3	hijklmnop	43.2	37	5.2	31.5	1.14	83.0	-1.4	\$822.36
Fibermax	FM1621GL	1599.4	hijklmnopq	46.1	36	5.2	32.6	1.11	82.3	-1.5	\$798.39
BASF	BX2359GLXTP	1577.1	ijklmnopqr	43.0	38	5.0	31.4	1.17	83.5	1.5	\$823.77
IST	BRS1299	1571.2	ijklmnopqr	46.0	35	5.4	29.0	1.10	82.2	-2.4	\$772.73
Phytogen	PHY400W3FE	1563.1	ijklmnopqrs	44.4	36	4.6	31.9	1.12	81.5	2.0	\$848.96
IST	BRS335	1558.0	ijklmnopqrs	39.6	36	4.8	30.3	1.12	81.7	1.4	\$829.79
Fibermax	FM2423AXTP	1548.5	ijklmnopqrs	44.4	37	4.9	32.8	1.15	82.7	0.6	\$783.84
NexGen	21C005B3TXF	1544.9	ijklmnopqrs	42.6	36	4.3	30.4	1.13	82.7	1.8	\$844.25
NexGen	NG4335B3TXF	1534.8	klmnopqrs	44.8	37	4.6	32.3	1.15	83.4	2.1	\$841.05
Phytogen	PHY411W3FE	1521.9	lmnopqrst	44.8	34	4.9	31.7	1.07	81.8	-1.1	\$779.28
Phytogen	1130B33304	1520.7	lmnopqrst	40.6	37	4.7	33.1	1.14	83.2	2.2	\$829.75
Stoneville	ST6000AXTP	1507.3	mnopqrstu	46.4	38	4.7	33.9	1.18	83.1	2.3	\$818.97
NexGen	160030BB3XF	1497.7	nopqrstu	44.6	37	5.0	31.5	1.14	82.8	0.5	\$810.24
Deltapine	DP2211B3TXF	1488.5	nopqrstuv	45.8	36	5.0	29.1	1.13	82.5	0.1	\$768.97
IST	BRS1294	1484.7	opqrstuv	43.4	36	5.4	31.5	1.11	82.9	-2.0	\$727.79
Deltapine	21R4123B3TXF	1478.1	pqrstuv'	44.1	38	4.7	32.5	1.20	83.3	2.3	\$818.79
Phytogen	1130D30304	1478.0	pqrstuv'	41.2	36	4.9	32.8	1.11	82.2	0.3	\$775.82
Fibermax	FM868AXTP	1471.4	qrstuv	42.3	36	4.8	32.9	1.12	81.7	0.9	\$784.42
Deltapine	23R9929B3TXF	1471.4	qrstuv	44.4	37	4.5	30.5	1.16	82.9	2.1	\$797.58
NexGen	NG4343B3TXF	1469.8	qrstuv	44.2	37	4.6	31.6	1.16	82.9	2.2	\$798.53
Phytogen	1140D32804	1457.9	rstuvw	41.8	37	4.6	32.6	1.15	82.5	2.1	\$788.13
Deltapine	23R9134B3TXF	1443.8	rstuvw	44.7	37	4.8	29.4	1.17	82.1	1.8	\$775.32
BSD	4X	1428.3	stuvw	40.5	36	4.5	31.3	1.12	81.8	1.6	\$777.78
BSD	TBM	1387.0	tuvwxy	38.0	36	4.7	29.7	1.11	81.2	1.3	\$747.84
BASF	BX2451GLIXTP	1382.7	vwxyz	43.5	37	5.0	30.8	1.15	82.3	0.3	\$704.88
NexGen	NG4350B3TXF	1376.7	vwxyz	40.6	38	4.3	34.4	1.19	82.8	2.4	\$753.63
Phytogen	1150B43704	1353.1	wxyz	44.3	34	5.2	32.0	1.06	81.2	-2.6	\$645.46
NexGen	20T079B3XF	1329.5	wxyz	44.2	36	5.3	29.3	1.13	82.4	-1.7	\$613.93
NexGen	160030AB3XF	1287.3	xyz	46.8	38	4.7	31.0	1.19	82.3	2.1	\$701.74
IST	BRS2353	1244.9	yz	39.6	40	4.2	37.2	1.24	83.7	2.5	\$674.37
NexGen	20T114B3XF	1239.4	z	43.1	37	5.2	31.2	1.16	83.6	-0.8	\$639.62
IST	BRS1754	1220.1	z	40.5	39	5.0	36.4	1.21	83.1	0.8	\$653.94
	Mean	1568.9		43.2	37	4.8	31.9	1.14	82.5	0.8	\$828.96
	LSD§	137.9		1.3	1.1	0.3	1.6	0.03	1.4	1.9	\$92.15
	OSL†	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	CV‡	6.3		2.1	1.8	4.2	3.2	1.9	1.0	138.3	6.8

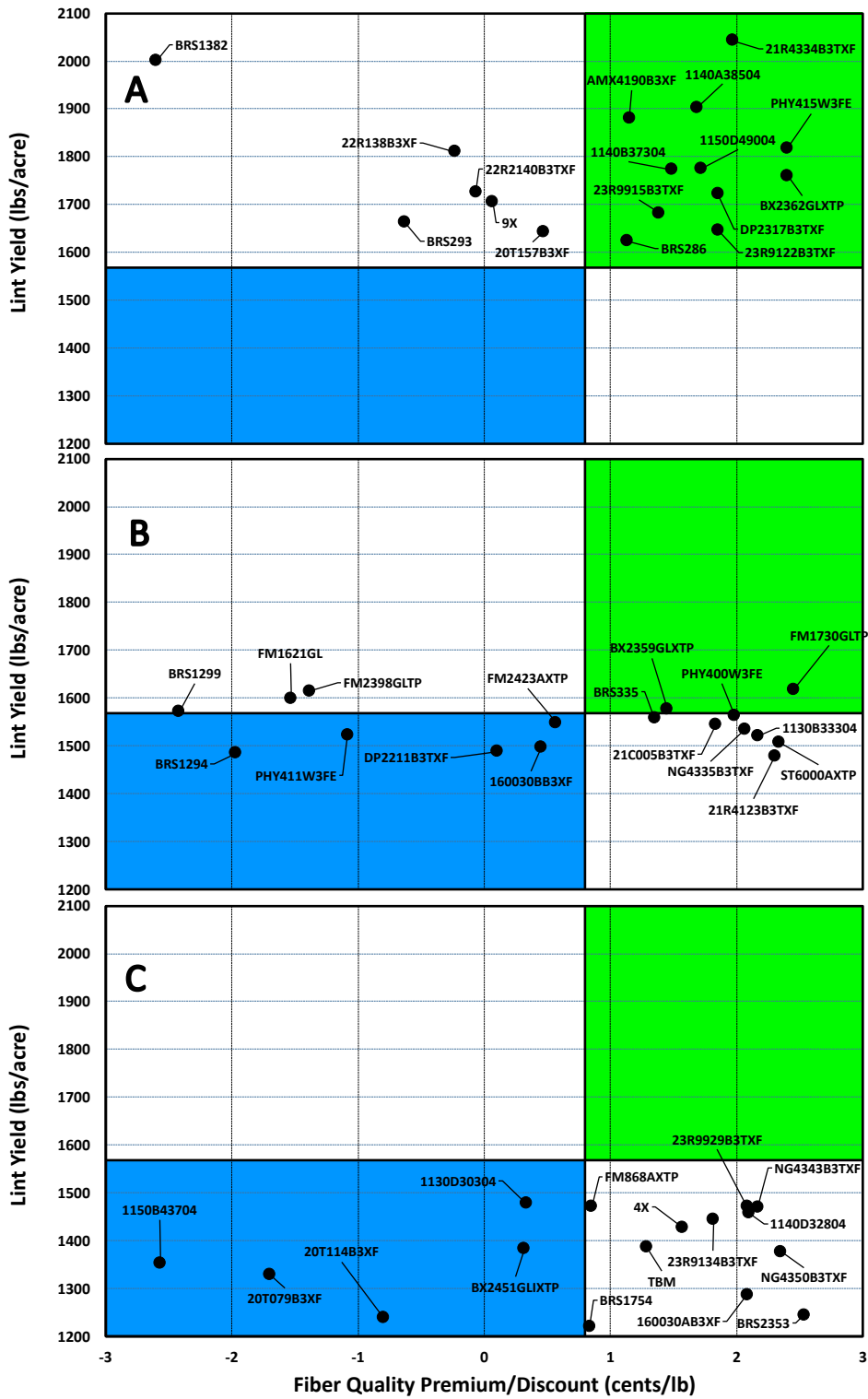
*Lint yield means followed by the same letter are not statistically different according to Fisher's LSD (Least Significance Difference) means separation ($\alpha = 0.05$)

**Value calculated from CCC loan schedule base price of \$0.52/lb + premium/discount

§Least Significant Difference

†Observed Significance Level

‡Coefficient of Variation



Lint yield (lbs./acre) plotted as a function of fiber quality premium/discount (cents/lb) for the top third (A), middle third (B), and bottom third (C). Vertical and horizontal lines represent the mean value for the two parameters. Varieties that fall in the upper right quadrant formed by the mean lines produced higher than average lint yield and fiber quality. Each entry for the Upland Advanced Strain evaluation is plotted for the Safford, AZ location in 2023.

2023 Pima Cotton Variety Testing Program

University of Arizona

Cooperative Extension

Arizona Experiment Station

Grower/Cooperators

Trial Results

Funded in part by Participating Seed Companies

Prepared by:

Dr. Randy Norton

and

Kaleb Bryce and Jose Ornelas

UArizona Pima (ELS) Cotton Variety Trial Results, Thatcher, AZ.

Thatcher, AZ	
County	Graham
City	Thatcher
Soil Type	Clay loam
Previous Crop	Cotton
Irrigation	Furrow/flood
Tillage	Conventional
Seeding Rate	68,000
Planting Date	4/11/23
Defoliation Date	10/4/23
Harvest Date	11/8/23
Lat/Long	32.8312, -109.7439

Seed Company	Variety	Plant Population (plants/foot)	Vigor Rating (0-9 - L-H)	First Fruiting Branch (early bloom)	Nodes Above White Flower (early bloom)
American Pima	APS347RF	3.4	6.0	7.8	5.2
American Pima	APS356RF	4.1	8.0	7.6	3.4
American Pima	APSX7_47RF	3.6	6.3	9.4	6.2
DynaGro	DGP224B3XF	2.6	4.7	6.6	5.6
Phytogen	1180A103-02	3.9	7.3	7.8	5.2
Phytogen	PHY807RF	3.6	6.7	8.4	4.4
Phytogen	PHY861RF	3.6	6.7	8.2	5.4
Mean		3.5	6.5	8.0	5.1

Seed Company	Variety	Lint Yield (lbs/acre)*	Percent Lint	Color Grade	Staple (32nds)	Mic	Strength (g/tex)	Length (in)	Leaf Grade	Uniformity (%)	Premium (cents/lb)	Value** (\$/acre)	
American Pima	APS347RF	1306.5	a	37.0	2	49	4.5	40.1	1.43	4	87.6	0.0	\$1,247.71
American Pima	APSX7_47RF	1277.8	ab	37.1	2	49	4.5	42.5	1.43	4	88.1	0.0	\$1,220.28
American Pima	APS356RF	1229.8	abc	34.5	3	49	4.2	45.2	1.43	4	87.6	0.0	\$1,174.48
Phytogen	1180A103-02	1227.0	abc	33.9	2	52	4.3	43.5	1.51	5	89.0	0.0	\$1,171.80
Phytogen	PHY861RF	1213.7	bc	33.9	3	50	4.3	43.5	1.46	5	88.2	0.0	\$1,159.05
Phytogen	PHY807RF	1178.6	c	34.0	2	49	4.4	43.7	1.43	5	87.6	0.0	\$1,125.52
DynaGro	DGP224B3XF	1156.8	c	35.4	3	47	4.4	35.8	1.39	7	85.8	-8.5	\$1,036.82
Mean		1227.2		35.1	---	50	4.4	42.0	1.44	5	87.7	-1.2	\$1,162.24
LSD§		85.6		1.7	---	1.8	NS	3.5	0.04	1	1.1	5.0	NS
OSL†		0.0459		0.0021	---	0.0051	0.7384	0.0015	0.0006	0.0007	0.0010	0.0217	0.0797
CV‡		2.9		2.7	---	2.0	6.0	4.7	1.5	13.5	0.7	232.4	4.5

*Lint yield means followed by the same letter are not statistically different according to Fisher's LSD (Least Significant Difference) means separation (alpha = 0.05)

** Value calculated from CCC loan schedule base price of \$0.955/lb + premium/discount

§Least Significant Difference

†Observed Significance Level

‡Coefficient of Variation

UArizona Pima (ELS) Cotton Advanced Strain Trial Results, Yuma, AZ.

Yuma, AZ	
County	Yuma
City	Yuma
Soil Type	Clay
Previous Crop	Vegetables
Irrigation	Furrow/flood
Tillage	Conventional
Seeding Rate	68,000
Planting Date	3/27/23
Defoliation Date	9/25/23
Harvest Date	11/16/23
Lat/Long	32.7093, -114.7093

Seed Company	Variety	Plant Population (plants/foot)	Vigor Rating (0-9 - L-H)	Nodes Above White Flower (early bloom)
American Pima	APS356RF	2.8	7.5	8.8
American Pima	DP347RF	3.3	8.0	9.2
American Pima	OA21113	3.2	7.5	8.8
American Pima	OA21116	3.1	8.0	8.8
American Pima	OA21117	3.3	8.0	8.5
American Pima	OA21131	3.2	8.0	8.2
American Pima	OA2116	3.1	8.0	8.9
American Pima	OA2128	2.7	7.0	9.3
American Pima	OA21347	2.9	7.5	9.1
American Pima	OA2138	2.7	7.5	9.3
Phytogen	1180A10302	3.5	7.5	9.1
Phytogen	PHY807RF	3.7	7.5	7.4
Phytogen	PHY861RF	3.6	8.0	9.2
Phytogen	PHY881RF	3.0	7.5	9.3
Mean		3.1	7.7	8.9

Seed Company	Variety	Lint Yield (lbs/acre)*	Percent Lint	Staple (32nds)	Mic	Strength (g/tex)	Length (in)	Uniformity (%)	Premium (cents/lb)	Value** (\$/acre)	
American Pima	APS356RF	1123.7	a*	32.5	46	4.4	41.4	1.35	86.3	0.0	\$1,068.60
Phytogen	1180A10302	1029.1	ab	34.7	47	4.2	40.3	1.37	86.4	0.0	\$949.05
Phytogen	PHY861RF	1013.5	abc	34.0	47	4.2	40.1	1.38	86.4	0.0	\$994.96
American Pima	OA21131	988.7	bcd	34.5	47	4.5	40.1	1.36	86.7	0.0	\$872.11
Phytogen	PHY881RF	961.3	bcde	35.0	47	4.5	41.8	1.37	87.0	0.0	\$960.23
American Pima	DP347RF	941.7	bcde	35.3	47	4.1	40.8	1.37	86.5	0.0	\$871.33
American Pima	OA2128	922.5	bcdef	36.3	45	4.4	38.8	1.34	86.5	0.0	\$903.13
American Pima	OA21347	912.4	bcdef	35.2	48	4.1	40.6	1.38	86.7	0.0	\$833.59
American Pima	OA21113	890.7	cdef	33.2	46	4.1	39.3	1.35	86.2	0.0	\$850.59
American Pima	OA21116	875.6	def	34.2	46	4.3	40.1	1.35	86.3	0.0	\$837.48
American Pima	OA21117	855.4	def	34.2	47	4.4	40.7	1.36	85.9	0.0	\$827.49
Phytogen	PHY807RF	845.9	ef	32.9	47	4.2	40.9	1.35	86.7	0.0	\$811.97
American Pima	OA2116	834.8	ef	32.8	47	4.0	38.3	1.38	87.0	-0.3	\$791.63
American Pima	OA2138	801.7	f'	33.9	47	4.3	40.9	1.36	86.4	0.0	\$792.40
Mean		928.4		34.2	47	4.3	40.3	1.36	86.5	-0.02	\$883.18
LSD§		134.0		2.2	NS	NS	NS	NS	NS	NS	\$129.69
OSL†		0.0010		0.0560	0.1430	0.2484	0.4995	0.3181	0.9965	0.4766	0.0038
CV‡		10.1		4.5	2.0	5.4	4.2	1.6	1.3	47.8	8.7

*Lint yield means followed by the same letter are not statistically different according to Fisher's LSD (Least Significant Difference) means separation (alpha = 0.05)

** Value calculated from CCC loan schedule base price of \$0.955/lb + premium/discount

§Least Significant Difference

†Observed Significance Level

‡Coefficient of Variation

UArizona Pima (ELS) Cotton Advanced Strain Trial Results, Maricopa, AZ.

Maricopa, AZ	
County	Pinal
City	Maricopa
Soil Type	Sandy loam
Previous Crop	Fallow
Irrigation	Furrow/flood
Tillage	Conventional
Seeding Rate	65,000
Planting Date	5/2/23
Defoliation Date	10/23/23
Harvest Date	12/4/23
Lat/Long	33.0635, -111.9652

Seed Company	Variety	Plant Population (plants/foot)	Vigor Rating (0-9 - L-H)	First Fruiting Branch (early bloom)	Nodes Above White Flower (early bloom)
American Pima	APS356RF	3.2	5.3	8.2	7.3
American Pima	DP347RF	3.2	5.0	6.8	7.2
American Pima	OA21113	3.6	5.5	8.5	7.5
American Pima	OA21116	3.2	5.5	9.0	6.8
American Pima	OA21117	3.2	5.3	6.8	8.0
American Pima	OA21131	3.5	5.5	7.5	6.8
American Pima	OA2116	3.3	4.8	8.2	7.7
American Pima	OA2128	3.0	5.0	7.2	8.2
American Pima	OA21347	3.6	6.3	8.8	6.5
American Pima	OA2138	3.5	5.8	6.8	8.0
DynaGro	DGP224B3XF	3.1	4.5	7.2	6.3
Gowan	1432	2.5	4.0	6.7	7.3
Phytogen	1180A10302	4.7	6.5	7.0	8.7
Phytogen	PHY807RF	3.2	5.3	8.0	6.5
Phytogen	PHY861RF	3.8	5.3	7.3	7.5
Phytogen	PHY881RF	3.0	5.0	7.8	7.2
Mean		3.3	5.3	7.6	7.3

Seed Company	Variety	Lint Yield (lbs/acre)*	Percent Lint	Staple (32nds)	Mic	Strength (g/tex)	Length (in)	Uniformity (%)	Premium (cents/lb)	Value** (\$/acre)	
Gowan	1432	1430.6	a*	31.0	48	4.1	39.6	1.39	86.7	0.0	\$1,351.89
American Pima	OA2128	1273.8	b	35.0	51	4.1	43.2	1.47	88.4	0.0	\$1,252.35
American Pima	OA21116	1117.2	c	34.9	51	4.3	43.5	1.46	87.7	0.0	\$1,149.60
DynaGro	DGP224B3XF	1097.6	c	33.3	49	4.2	39.2	1.44	86.9	0.0	\$1,072.29
Phytogen	1180A10302	1043.8	cd	34.3	52	4.1	42.5	1.50	87.1	0.0	\$1,035.57
American Pima	APS356RF	1038.2	cd	33.2	52	4.2	41.5	1.52	88.3	0.0	\$1,006.40
Phytogen	PHY861RF	1035.8	cd	33.8	52	4.1	42.1	1.51	87.3	0.0	\$1,009.23
American Pima	OA21131	1035.8	cd	35.0	52	3.8	43.0	1.51	87.5	0.0	\$1,019.89
American Pima	OA21113	966.6	de	35.3	51	3.9	42.5	1.45	87.2	0.0	\$950.10
American Pima	OA2138	958.3	def	34.5	52	4.2	41.0	1.49	88.1	0.0	\$951.11
Phytogen	PHY881RF	896.5	efg	33.5	51	4.1	44.3	1.50	87.9	0.0	\$909.07
Phytogen	PHY807RF	881.3	efgh	34.0	51	4.1	43.2	1.50	88.0	0.0	\$877.34
American Pima	OA21347	853.7	fgh	36.2	51	4.4	41.4	1.49	87.8	0.0	\$790.63
American Pima	OA2116	838.7	gh	34.3	51	4.1	42.3	1.48	87.1	0.0	\$852.96
American Pima	DP347RF	824.0	gh	35.6	50	4.2	44.1	1.47	88.1	0.0	\$837.74
American Pima	OA21117	785.0	h	34.1	51	4.3	42.7	1.46	87.4	0.0	\$838.41
Mean		1004.8		34.2	51	4.1	42.3	1.48	87.6	0.0	\$994.04
LSD§		108.8		1.2	1.5	0.2	1.9	0.05	1.1	---	\$89.02
OSL†		<0.0001		<0.0001	0.0002	0.0020	<0.0001	0.0027	0.0572	---	<0.0001
CV‡		7.6		2.5	1.7	3.6	2.6	2.1	0.7	---	5.4

*Lint yield means followed by the same letter are not statistically different according to Fisher's LSD (Least Significant Difference) means separation (alpha = 0.05)

** Value calculated from CCC loan schedule base price of \$0.955/lb + premium/discount

§Least Significant Difference

†Observed Significance Level

‡Coefficient of Variation

UArizona Pima (ELS) Cotton Advanced Strain Trial Results, Safford, AZ.

Safford, AZ

County	Graham
City	Safford
Soil Type	Clay loam
Previous Crop	Cotton
Irrigation	Furrow/flood
Tillage	Conventional
Seeding Rate	65,000
Planting Date	5/8/23
Defoliation Date	10/10/23
Harvest Date	11/6/23
Lat/Long	32.8131, -109.6786

Seed Company	Variety	Plant Population (plants/foot)	Vigor Rating (0-9 - L-H)	First Fruiting Branch (early bloom)	Nodes Above White Flower (early bloom)
American Pima	APS356RF	4.2	6.3	8.0	3.5
American Pima	DP347RF	4.0	6.8	8.7	4.0
American Pima	OA21113	4.2	7.3	9.0	3.5
American Pima	OA21116	4.3	5.3	9.7	3.7
American Pima	OA21117	4.1	6.0	10.2	4.0
American Pima	OA21131	4.6	6.0	8.8	4.2
American Pima	OA2116	4.3	6.5	8.2	4.5
American Pima	OA2128	4.1	5.3	8.0	4.3
American Pima	OA21347	4.3	6.0	9.5	4.2
American Pima	OA2138	4.1	6.8	9.8	4.3
DynaGro	DGP224B3XF	3.1	5.5	7.0	4.7
Gowan	1432	2.4	6.3	6.7	4.0
Phytogen	1180A10302	4.7	6.3	8.5	3.5
Phytogen	PHY807RF	3.6	6.5	8.8	4.0
Phytogen	PHY861RF	4.2	7.0	9.0	4.2
Phytogen	PHY881RF	3.6	5.8	8.5	4.2
Mean		4.0	6.2	8.6	4.0

Seed Company	Variety	Lint Yield (lbs/acre)*	Percent Lint	Staple (32nds)	Mic	Strength (g/tex)	Length (in)	Uniformity (%)	Premium (cents/lb)	Value** (\$/acre)	
American Pima	OA21347	1312.3	a*	38.2	51	4.6	45.3	1.47	88.6	0.0	\$1,174.68
American Pima	OA2138	1221.3	ab	35.1	51	4.6	45.4	1.46	88.5	0.0	\$1,126.72
Gowan	1432	1154.8	bc	33.2	47	4.4	38.8	1.35	87.7	0.0	\$1,075.26
American Pima	OA21113	1132.0	bcd	38.8	51	4.6	43.9	1.47	88.3	0.0	\$1,071.22
American Pima	OA21117	1103.3	bcd	35.7	50	4.8	45.7	1.45	88.3	0.0	\$1,064.27
American Pima	DP347RF	1072.7	cd	37.3	51	4.5	45.2	1.48	88.8	0.0	\$984.85
American Pima	OA21131	1071.3	cd	36.6	51	4.7	47.4	1.46	88.5	0.0	\$984.89
American Pima	OA21116	1070.6	cd	37.5	50	4.5	46.4	1.45	87.9	0.0	\$1,049.62
American Pima	OA2128	1061.9	cd	36.9	49	4.6	47.2	1.43	87.9	0.0	\$1,021.95
Phytogen	PHY807RF	1044.6	cd	35.5	51	4.5	47.1	1.48	89.2	0.0	\$1,005.25
American Pima	APS356RF	1041.7	cd	34.7	50	4.5	46.8	1.46	88.6	0.0	\$1,017.74
Phytogen	PHY881RF	1041.6	cd	34.3	52	4.5	45.3	1.52	89.0	0.0	\$998.15
American Pima	OA2116	1037.6	cd	36.3	50	4.3	43.8	1.47	89.0	0.0	\$993.38
Phytogen	PHY861RF	1008.8	de	35.2	51	4.4	45.6	1.49	87.8	0.0	\$915.47
DynaGro	DGP224B3XF	993.3	de	34.4	49	4.5	38.6	1.42	86.8	0.0	\$927.01
Phytogen	1180A10302	883.8	e	35.5	52	4.5	46.5	1.53	89.5	0.0	\$866.25
Mean		1078.2		35.9	50	4.5	45.0	1.46	88.4	0.0	\$1,017.30
LSD§		140.3		1.6	1.9	NS	2.9	0.04	1.2	---	\$147.05
OSL†		0.0002		<0.0001	0.0007	0.2592	<0.0001	<0.0001	0.0133	---	0.0234
CV‡		9.1		3.0	2.3	3.5	3.8	1.8	0.8	---	8.6

*Lint yield means followed by the same letter are not statistically different according to Fisher's LSD (Least Significant Difference) means separation (alpha = 0.05)

** Value calculated from CCC loan schedule base price of \$0.955/lb + premium/discount

§Least Significant Difference

†Observed Significance Level

‡Coefficient of Variation