

Arizona Upland Cotton Variety Testing Program, 2002

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Abstract

Each year the University of Arizona conducts variety trials across the state to evaluate the performance of upland cotton varieties. These tests provide unbiased data on the performance of varieties when tested side-by-side under typical production practices. In 2002, we planted a total of 9 trials, two in the Yuma region (Yuma County), four in the central region (Maricopa and Pinal counties), one in the southern region (Pima county), and two in the eastern region (Graham, Greenlee, and Cochise counties). We tested nine to twelve commercially available varieties at each test site. The purpose of this report is to present the results of the 2002 tests conducted in the Yuma, western, central, southern, and eastern regions of Arizona.

Introduction

Each year the University of Arizona conducts variety trials across the state to evaluate the performance of upland cotton varieties. These trials provide many segments of the cotton industry with unbiased data on yield, fiber quality, and agronomic performance of commercially available varieties when tested side-by-side under typical production practices.

The Arizona Upland Cotton Variety Trial is our most intensive testing program. The tests in this program are conducted at several locations throughout the cotton producing regions of the state, usually on grower's fields. The test plots are large-scale "strip plots" which are replicated and randomized using proper field-plot techniques. Several seed companies enter the varieties they feel have the best chance of producing high yields of good quality fiber. The results of these trials are the closest possible to obtaining "on-farm" experience with a particular variety.

The purpose of this report is to present the results of the 2002 tests conducted in the following regions: Yuma, central, southern, and Eastern, Arizona.

Materials and Methods

Locations and varieties: Trials were planted at nine locations in 2002 – two in the Yuma region (Somerton and Wellton), two in the western region (Cibola and Mohave), four in the central region (Buckeye, Stanfield, Maricopa, and Coolidge), one in the southern region (Marana), and two in the eastern region (Thatcher, and Kansas Settlement). Nine to twelve varieties were planted at each site. Varieties included in the 2002 tests were submitted to the university by the cooperating seed companies that included Deltapine, Stoneville, Buttonwillow Research, the Arizona Cotton Grower's Association, CPCSD, Fiber Max, and New Mexico State University.

Experimental design and test protocols: Most tests were conducted on grower-cooperator fields. All cultural practices, including planting date, fertilizer regimes, pest control, irrigation, defoliation, and harvest date were made by the cooperator. The tests at Maricopa and Marana were located on University of Arizona Experimental stations, but production practices typical for the area were used in making all cultural decisions. Insect control regimes were followed for conventional varieties in all tests. Plots were a minimum of 4 rows wide (38 to 40 inch spacing), and extended the full length of the irrigation run. All treatments (varieties) were arranged in a randomized complete block design with three or four replications. At least two rows per plot were machine harvested and the seed cotton from each plot was weighed at the field. Sub-samples of the harvested seed cotton were ginned for turnout and lint yield was calculated from the seed cotton and turnout data. Lint from the grab samples was sent to the USDA classing office for HVI fiber quality analysis. Average premium or discount on the lint for each variety was determined by applying the CCC loan schedule to the HVI data collected from each plot. Price was determined by using the base value for Arizona (52.0 cents per pound) and adding or subtracting the proper premium or discount to the base value. Value per acre was determined by multiplying lint yield by the price per pound.

Results

Variety selection within the last five years has become more complicated with the increasing importance of fiber quality in the market and with the advent of transgenic technology. In our tests, for example, the value of the crop depended on both lint yield and fiber quality. The highest yielding varieties did not always produce the highest value per acre (See Tables).

The introduction of high yielding varieties with transgenic traits has been a great benefit to Arizona growers. However, new conventional varieties are also being developed and released.

Many sources of information on variety performance are publicly available to the industry. The data presented in this report is a good source of information on the performance of these varieties, and they represent a solid starting point for determining the actual performance of a given variety on each individual farm. Other sources of information should be considered when selecting varieties. Seed companies also provide performance data for their varieties. Other growers in the area may have experience with a particular variety. If possible, more than one year of data should be considered in evaluating the performance of a particular variety.

Once the decision to try a new variety is made, incorporating that new variety into each cultural program should proceed in increments. Growers should test it on a limited scale at first to determine how the variety performs on their own farm and to gain experience on the cultural needs of the variety.

Acknowledgments

The valuable cooperation, land, and resources provided by the following cooperators are greatly appreciated: Barkley Seed Co., Marlatt Brothers, Bruce Heiden, Paul Ollerton, Lee Smith, Dennis Layton, Glen Schmidt, and the UofA Experiment stations at Maricopa and Marana. The support and cooperation provided by the participating seed companies – Delta and Pine Land Co., Stoneville, Buttonwillow Research, the Arizona Cotton Grower's Association, CPCSD, Fiber Max, and New Mexico State University is gratefully acknowledged.

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2002 Upland Cotton Variety Trial Results

Somerton, AZ

Planting Date 5 April
Total Number of Irrigations 8

Final Irrigation Date 16 August
Total N Applied 153 lbs N/acre

Harvest Date 7 September
General Soil Texture Sandy loam

Cooperator: Barkley Seed Co.				Fiber Quality						
Company	Variety	Lint Yield (lbs/Acre)	Percent Lint	Micronaire	Fiber Length (100ths)	Staple Length (32nds)	Fiber Strength (g/tex)	Uniformity Index	Premium/Discount ⁵ (points)	Value ⁶ (\$/acre)
Stoneville	ST4892BR	1495.2 a ¹	35.3 bcd	5.4 a	1.12 cde	36.3 cde	29.8 de	83.0 ab	-171	752
Deltapine	DP555BR	1305.0 ab	39.2 a	5.0 bcd	1.13 cde	36.5 cde	30.1 de	81.3 d	144	698
Deltapine	SG215BR	1266.3 abc	35.7 bc	5.2 abc	1.07 f	34.0 f	26.1 g	83.0 ab	-263	626
Stoneville	ST4793R	1212.7 bcd	33.6 bcdef	5.2 abc	1.11 ef	35.5 e	28.8 ef	82.0 bcd	-119	615
Buttonwillow	BR303	1207.3 bcd	32.8 cdef	4.8 e	1.23 a	39.5 a	32.7 bc	83.0 ab	230	604
Deltapine	DP388	1182.6 bcd	34.9 bcd	4.9 cde	1.11 de	35.8 de	30.0 de	82.5 abc	273	647
Fiber Max	FM658	1176.2 bcd	36.0 b	4.8 de	1.15 bcd	36.8 cd	32.4 bc	82.3 bcd	420	661
Fiber Max	FM989BR	1117.3 bcd	34.3 bcde	5.1 bc	1.12 cde	36.0 cde	31.0 cd	81.7 cd	67	592
Buttonwillow	BR9801	1094.6 bcd	32.9 bcdef	5.2 ab	1.19 ab	38.0 b	33.0 b	83.7 a	-50	569
Deltapine	DP451BR	1062.1 bcd	32.4 def	5.2 abc	1.13 cde	36.5 cde	29.4 de	81.8 cd	-68	545
Deltapine	DP20B	1044.3 cd	31.7 ef	4.8 de	1.11 de	35.7 de	27.1 fg	81.3 cd	137	560
ACGA	AG3601	982.0 d	31.2 f	5.1 bc	1.16 bc	37.0 bc	35.0 a	82.3 bcd	59	516
LSD _{0.05} ²		247	3.1	0.3	0.04	1.2	1.9	1.2	--	--
OSL ³		0.0126	0.0007	0.0008	0.0001	0.0001	0.0001	0.0115	--	--
CV (%) ⁴		13.5	5.9	3.2	2.3	2.1	3.9	1.0	--	--

¹Means followed by the same letter are not significantly different according to a Fisher's LSD means separation test.

²LSD: Least Significant Difference.

³OSL: Observed Significance Level.

⁴CV: Coefficient of Variation.

⁵Average premium or discount applied to the lint based on CCC loan schedule.

⁶Value of lint per acre based on CCC loan schedule of discounts and premiums and assuming a base value of 52.00 cents per pound.

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2002 Upland Cotton Variety Trial Results

Wellton, AZ

Planting Date 5 April
Total Number of Irrigations 7

Final Irrigation Date 3 August
Total N Applied 0 lbs N/acre

Harvest Date 13 September
General Soil Texture Silt loam

Cooperator: Marlatt Brothers				Fiber Quality						
Company	Variety	Lint Yield (lbs/Acre)	Percent Lint	Micronaire	Fiber Length (100ths)	Staple Length (32nds)	Fiber Strength (g/tex)	Uniformity Index	Premium/ Discount ⁵ (points)	Value ⁶ (\$/acre)
Stoneville	ST4892BR	1616.8 a ¹	34.7 ab	4.9 a	1.11 de	35.5 de	29.1 cd	81.3 bc	181	868
Deltapine	DP451BR	1554.6 a	32.1 cd	4.4 de	1.13 cd	36.5 c	27.8 d	80.8 cd	358	864
Buttonwillow	BR303	1528.2 a	30.8 de	4.4 cde	1.22 a	39.0 a	31.8 ab	81.8 abc	405	856
Deltapine	DP555BR	1523.3 a	35.6 a	4.2 e	1.12 cde	36.0 cd	29.7 c	79.7 e	370	808
Stoneville	ST4793R	1523.0 a	34.1 abc	5.0 a	1.10 ef	35.3 de	28.3 cd	82.3 ab	-44	787
Deltapine	SG215BR	1492.5 ab	34.7 ab	4.7 ab	1.08 f	34.7 e	25.3 e	81.3 bc	80	806
Deltapine	DP388	1366.3 bc	33.1 bc	4.2 e	1.12 cde	36.0 cd	29.5 c	80.8 cd	274	748
Buttonwillow	BR9801	1333.6 c	32.0 cd	4.7 abc	1.17 b	37.8 b	31.7 ab	82.5 a	409	747
Fiber Max	FM958	1306.3 c	34.2 abc	4.4 de	1.12 de	36.0 cd	29.8 c	80.0 d	363	726
Fiber Max	FM989BR	1083.2 d	32.4 cd	4.3 e	1.12 cde	36.0 cd	31.3 b	81.5 abc	393	605
ACGA	AG3601	1064.2 d	28.8 e	4.6 bcd	1.14 c	36.7 c	33.1 a	81.0 cd	415	597
LSD _{0.05} ²		337	2.2	0.3	0.03	1.0	1.5	1.0	--	--
OSL ³		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	--	--
CV (%) ⁴		6.7	4.6	4.0	1.5	1.8	3.4	0.8	--	--

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⁶Value of lint per acre based on CCC loan schedule of discounts and premiums and assuming a base value of 52.00 cents per pound.

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2002 Upland Cotton Variety Trial Results

Buckeye, AZ

Planting Date 1 April

Final Irrigation Date 17 September

Harvest Date 7 December

Total Number of Irrigations 20

Total N Applied 10 tons
manure/acre

General Soil Texture Silt loam

Cooperator: H4 Farms				Fiber Quality						
Company	Variety	Lint Yield (lbs/Acre)	Percent Lint	Micronaire	Fiber Length (100ths)	Staple Length (32nds)	Fiber Strength (g/tex)	Uniformity Index	Premium/ Discount ⁵ (points)	Value ⁶ (\$/acre)
Deltapine	DP555BR	2282.2 a ¹	37.1 a	4.6	1.08 d	34.7 c	30.9 bcd	80.7 b	227	1239
Deltapine	DP565	2242.2 a	34.4 bcd	4.8	1.14 a	36.7 a	32.3 bc	81.3 b	160	1203
Deltapine	DP449BR	2211.7 ab	36.3 ab	4.9	1.09 cd	35.0 bc	31.4 bcd	81.7 ab	173	1184
Stoneville	BXN49B	2083.7 bc	35.2 abcd	4.7	1.11 bcd	35.3 bc	29.7 d	81.7 ab	68	1097
ACGA	AG3601	2026.8 c	31.9 e	4.8	1.14 ab	36.7 a	37.2 a	81.7 ab	147	1083
Stoneville	ST4892BR	2021.9 c	35.5 abc	5.1	1.10 cd	35.3 bc	32.6 b	82.7 a	-543	941
Deltapine	DP33B	2001.0 cd	33.6 cde	4.8	1.10 cd	35.3 bc	31.3 bcd	81.0 b	125	1066
Deltapine	DP448B	1862.9 de	32.9 de	4.7	1.12 abc	36.0 ab	30.6 cd	81.7 ab	190	1005
Fiber Max	FM989BR	1766.7 e	34.7 bcd	4.8	1.09 cd	34.7 c	32.6 b	81.0 b	305	973
Fiber Max	FM966	1603.0 f	34.6 bcd	4.6	1.12 abc	36.0 ab	38.1 a	82.7 a	402	898
LSD _{0.05} ²		147.4	2.3	NS	0.03	1.2	1.9	1.2	--	--
OSL ³		0.0001	0.0065	0.0656	0.0072	0.0127	0.0001	0.0339	--	--
CV (%) ⁴		4.3	3.9	3.5	1.7	1.9	3.4	0.9	--	--

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2002 Upland Cotton Variety Trial Results

Stanfield, AZ

Planting Date 10 April
Total Number of Irrigations 10

Final Irrigation Date 1 September
Total N Applied 180 lbs N/acre

Harvest Date 21 October
General Soil Texture Sandy loam

Cooperator: Paul Ollerton				Fiber Quality						
Company	Variety	Lint Yield (lbs/Acre)	Percent Lint	Micronaire	Fiber Length (100ths)	Staple Length (32nds)	Fiber Strength (g/tex)	Uniformity Index	Premium/ Discount ⁵ (points)	Value ⁶ (\$/acre)
Deltapine	DP449BR	1870.0 a ¹	33.6 b	4.7 b	1.12 b	36.0 b	29.8	80.5 cd	231	1015
Stoneville	ST4892BR	1793.6 a	33.0 d	5.1 a	1.11 b	35.5 b	28.9	81.8 a	-398	808
Deltapine	DP565	1694.6 ab	32.1 g	4.5 bc	1.19 a	38.3 a	30.5	81.0 bc	333	938
Deltapine	DP555BR	1601.5 abc	34.6 a	4.3 c	1.13 b	36.0 b	30.1	79.5 d	271	876
ACGA	AG3601	1466.0 bcd	29.4 l	5.1 a	1.14 b	36.5 b	32.0	80.8 bc	-70	754
Deltapine	DP448B	1419.7 bcd	31.2 h	4.5 bc	1.12 b	36.3 b	29.3	80.0 cd	285	780
Stoneville	BXN49B	1333.6 cde	33.4 c	4.7 bc	1.13 b	36.3 b	28.5	80.0 cd	201	721
Fiber Max	FM989BR	1273.1 de	32.7 e	4.7 b	1.11 b	35.8 b	30.2	81.0 bc	314	702
Fiber Max	FM966	1137.8 e	32.6 f	4.8 ab	1.13 b	36.3 b	32.4	82.3 a	244	621
LSD _{0.05} ²		282	0.1	2.1	0.04	1.2	NS	1.1	--	--
OSL ³		0.0002	0.0001	0.0013	0.0044	0.0075	0.0636	0.0005	--	--
CV (%) ⁴		12.8	0.2	4.9	2.2	2.3	5.8	0.9	--	--

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⁵Average premium or discount applied to the lint based on CCC loan schedule.

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2002 Upland Cotton Variety Trial Results

Maricopa, AZ

Planting Date 1 April
Total Number of Irrigations 9

Final Irrigation Date 23 August
Total N Applied 180 lbs. N/acre

Harvest Date 25 October
General Soil Texture Sandy loam

Cooperator: Maricopa Ag. Center				Fiber Quality						
Company	Variety	Lint Yield (lbs/Acre)	Percent Lint	Micronaire	Fiber Length (100ths)	Staple Length (32nds)	Fiber Strength (g/tex)	Uniformity Index	Premium/ Discount ⁵ (points)	Value ⁶ (\$/acre)
Deltapine	DP565	1670.1 a ¹	33.0	4.7 bc	1.15 a	36.8 a	31.5 b	81.8 ab	381	932
Deltapine	DP448B	1666.4 a	32.4	4.7 bc	1.13 b	36.3 ab	29.8 cd	81.5 abc	345	924
Deltapine	DP449BR	1512.6 b	34.1	4.9 b	1.10 c	35.5 bcd	30.5 bc	80.5 cd	345	839
Deltapine	DP555BR	1477.5 b	35.9	4.7 bc	1.09 cd	35.3 cd	30.2 bc	80.0 d	331	817
Stoneville	BXN49B	1313.9 c	32.9	4.6 c	1.11 bc	35.5 bcd	28.7 d	81.3 bc	35	688
ACGA	AG3601	1265.1 c	31.2	4.9 b	1.13 b	36.3 ab	34.1 a	81.5 abc	274	692
Stoneville	ST4892BR	1173.1 d	33.6	5.1 a	1.09 cd	35.0 d	29.8 cd	82.5 a	-485	553
Fiber Max	FM966	1146.0 d	32.4	4.7 bc	1.12 b	36.0 abc	35.4 a	82.5 a	401	642
Fiber Max	FM989BR	941.2 e	31.5	4.8 b	1.08 d	34.8 d	30.4 bc	80.5 cd	195	507
LSD _{0.05} ²		72.7	--	0.2	0.02	0.8	1.3	1.2	--	--
OSL ³		0.0001	--	0.0026	0.0001	0.0002	0.0001	0.0020	--	--
CV (%) ⁴		3.7	--	2.7	1.1	1.5	2.8	1.0	--	--

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⁵Average premium or discount applied to the lint based on CCC loan schedule.

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2002 Upland Cotton Variety Trial Results

Coolidge, AZ

Planting Date 10 April
Total Number of Irrigations 11

Final Irrigation Date 1 September
Total N Applied 280 lbs N/acre

Harvest Date 9 October
General Soil Texture Clay loam

Cooperator: Lee Smith				Fiber Quality						
Company	Variety	Lint Yield (lbs/Acre)	Percent Lint	Micronaire	Fiber Length (100ths)	Staple Length (32nds)	Fiber Strength (g/tex)	Uniformity Index	Premium/ Discount ⁵ (points)	Value ⁶ (\$/acre)
Fiber Max	FM966	1649.5 a ¹	34.5	4.2 ab	1.15	37.0	34.0 a	83.3 a	461	934
Deltapine	DP449BR	1565.7 ab	35.2	3.7 cd	1.17	37.0	31.9 bc	82.0 ab	418	880
Deltapine	DP448B	1547.4 ab	32.9	3.6 d	1.16	37.0	28.7 efg	80.8 bc	318	854
Stoneville	ST4892BR	1486.1 bc	35.4	3.9 c	1.13	36.3	27.1 g	80.0 c	341	823
FiberMax	FM989BR	1483.9 bc	34.0	4.2 b	1.16	37.0	30.8 bcd	82.0 ab	420	834
Stoneville	BXN49B	1475.0 bc	34.2	4.4 a	1.13	36.3	27.9 fg	81.8 ab	326	815
Deltapine	DP565	1397.0 cd	33.4	3.5 d	1.16	37.3	30.4 cde	82.0 ab	335	773
Deltapine	DP555BR	1330.0 d	36.9	3.3 e	1.14	36.5	29.6 def	81.0 bc	128	709
ACGA	AG3601	932.2 e	30.7	3.8 c	1.17	37.3	32.6 ab	80.8 bc	421	524
LSD _{0.05} ²		138.9	--	0.2	NS	NS	2.0	1.6	--	--
OSL ³		0.0001	--	0.0001	0.0909	0.2500	0.0001	0.0176	--	--
CV (%) ⁴		6.6	--	3.6	1.9	1.8	4.5	1.4	--	--

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2002 Upland Cotton Variety Trial Results

Marana, AZ

Planting Date 12 April
Total Number of Irrigations 7

Final Irrigation Date 22 August
Total N Applied 87 lbs. N/acre

Harvest Date 16 October
General Soil Texture Clay loam

Cooperator: Marana Ag. Center				Fiber Quality						
Company	Variety	Lint Yield (lbs/Acre)	Percent Lint	Micronaire	Fiber Length (100ths)	Staple Length (32nds)	Fiber Strength (g/tex)	Uniformity Index	Premium/ Discount ⁵ (points)	Value ⁶ (\$/acre)
Stoneville	ST4892BR	1549.0 a ¹	37.8	4.9 a	1.09 d	35.0 d	26.6 e	82.0 ab	64	814
Stoneville	ST4793R	1474.2 ab	37.4	4.9 a	1.09 d	35.0 d	26.5 e	82.5 a	253	804
Deltapine	DP449BR	1461.8 ab	36.3	4.6 bc	1.13 bc	36.5 bc	29.4 c	82.3 ab	361	813
Deltapine	DP555BR	1460.3 ab	40.0	4.4 c	1.12 cd	36.0 c	27.6 de	79.5 d	305	804
Deltapine	DP565	1459.5 ab	36.5	4.5 bc	1.18 a	37.8 a	28.7 cd	82.0 ab	345	809
Deltapine	DP448B	1395.3 b	35.4	4.4 c	1.13 c	36.5 bc	27.2 e	81.3 bc	331	772
Fiber Max	FM958	1249.1 c	37.5	4.6 b	1.15 bc	37.0 ab	30.0 b	80.8 c	365	695
Fiber Max	FM966	1218.7 c	36.9	4.5 bc	1.15 bc	36.8 bc	33.4 a	82.3 ab	376	679
ACGA	AG3601	1213.5 c	34.1	4.4 bc	1.16 ab	37.0 ab	31.3 b	81.5 abc	374	676
LSD _{0.05} ²		106.7	--	0.2	0.03	1.0	1.4	1.0	--	--
OSL ³		0.0001	--	0.0001	0.0001	0.0001	0.0001	0.0001	--	--
CV (%) ⁴		5.3	--	2.7	1.7	1.9	3.3	0.9	--	--

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⁶Value of lint per acre based on CCC loan schedule of discounts and premiums and assuming a base value of 52.00 cents per pound.

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2002 Upland Cotton Variety Trial Results

Thatcher, AZ

Planting Date 15 April
Total Number of Irrigations 6

Final Irrigation Date 10 September
Total N Applied 77 lbs N/acre

Harvest Date 22 October
General Soil Texture Grabe Clay Loam

Cooperator: Layton Farms				Fiber Quality						
Company	Variety	Lint Yield (lbs/Acre)	Percent Lint	Micronaire	Fiber Length (100ths)	Staple Length (32nds)	Fiber Strength (g/tex)	Uniformity Index	Premium/ Discount ⁵ (points)	Value ⁶ (\$/acre)
Deltapine	DP555BR	1628.6 a ¹	38.3 a	4.2 bc	1.09 d	34.8 d	29.3 d	79.8 d	270	891
Deltapine	DP655BR	1585.6 ab	35.0 c	4.2 bc	1.13 bc	36.3 bc	31.1 c	81.8 bc	373	884
Fiber Max	FM991R	1532.9 b	35.6 bc	4.4 b	1.12 bc	36.0 bc	31.3 bc	81.8 bc	411	860
Fiber Max	FM989BR	1531.2 b	34.8 c	4.2 bc	1.10 cd	35.5 cd	31.4 bc	81.0 bcd	364	852
Stoneville	ST4793R	1459.8 c	36.2 b	4.7 a	1.08 d	34.8 d	28.2 d	82.0 b	-194	731
Stoneville	ST4892BR	1426.0 cd	36.1 b	4.4 b	1.10 cd	35.3 cd	29.5 d	81.8 bc	-95	728
Deltapine	SG215BR	1383.1 d	34.9 c	4.2 bc	1.04 e	33.7 e	25.9 e	80.7 cd	1.7	719
ACGA	AG3601	1318.4 e	32.7 d	4.3 b	1.14 b	36.8 b	32.6 ab	81.5 bc	361	733
NMSU	1517-99	1289.4 e	32.4 d	4.0 c	1.20 a	38.3 a	33.5 a	83.5 a	-209	644
LSD _{0.05} ²		59.2	0.76	0.3	0.03	1.1	1.4	1.2631	--	--
OSL ³		2.8	1.5	4.7	2.0	2.0	3.1	1.0	--	--
CV (%) ⁴		0.0001	0.0001	0.0066	0.0001	0.0001	0.0001	0.0006	--	--

¹Means followed by the same letter are not significantly different according to a Fisher's LSD means separation test.

²LSD: Least Significant Difference.

³OSL: Observed Significance Level.

⁴CV: Coefficient of Variation.

⁵Average premium or discount applied to the lint based on CCC loan schedule.

⁶Value of lint per acre based on CCC loan schedule of discounts and premiums and assuming a base value of 52.00 cents per pound.

University of Arizona Cooperative Extension

2002 Upland Cotton Variety Trial Results

Kansas Settlement, AZ

Planting Date <u>6 May</u>	Final Irrigation Date <u>9 September</u>	Harvest Date <u>6 November</u>
Total Number of Irrigations <u>5</u>	Total N Applied <u>53 lbs N/acre</u>	General Soil Texture <u>Sandy loam</u>

Cooperator: Glen Schmitt				Fiber Quality						
Company	Variety	Lint Yield (lbs/Acre)	Percent Lint	Micronaire	Fiber Length (100ths)	Staple Length (32nds)	Fiber Strength (g/tex)	Uniformity Index	Premium/ Discount ⁵ (points)	Value ⁶ (\$/acre)
NMSU	1517-99	789.0 a ¹	34.9 cd	4.4	1.17	37.0	34.0	84.0	465	447
CPCSD	Nova	679.4 b	35.6 bcd	4.5	1.11	36.0	31.7	84.0	440	383
NMSU	1517-95	675.0 b	33.4 def	5.0	1.09	35.0	30.0	84.0	365	376
Stoneville	ST4892BR	663.4 b	37.3 ab	4.9	1.04	33.0	26.3	84.0	-110	338
Deltapine	DP436BR	649.0 b	32.0 f	4.9	1.11	36.0	26.6	85.0	390	363
Deltapine	DP451BR	638.4 bc	32.2 f	4.5	1.07	34.0	23.9	82.0	45	335
Fiber Max	FM989R	625.1 bc	34.8 cd	4.1	1.08	35.0	28.5	80.0	310	344
Deltapine	SG215BR	608.3 bcd	35.9 abc	4.6	1.07	34.0	25.9	85.0	210	329
Stoneville	ST4793R	575.7 cd	35.7 abc	4.9	1.08	35.0	29.5	83.0	350	320
ACGA	AG3601	548.9 d	32.5 ef	4.4	1.08	35.0	28.4	83.0	320	303
CPCSD	Riata	547.2 d	37.9 a	4.3	1.11	36.0	30.0	83.0	405	307
Fiber Max	FM991R	543.5 d	34.7 cde	4.1	1.17	37.0	32.2	84.0	405	308
LSD _{0.05} ²		71.3	2.8	--	--	--	--	--	--	--
OSL ³		0.0004	0.0012	--	--	--	--	--	--	--
CV (%) ⁴		5.2	2.9	--	--	--	--	--	--	--

¹Means followed by the same letter are not significantly different according to a Fisher's LSD means separation test.

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