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2014 UGA On-Farm Cotton Variety Performance Evaluation Program

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The UGA Cotton Variety Performance Evaluation Program in 2014 encompassed lint yield data from 12 top-performing cotton varieties across 20 individual trials throughout Georgia's cotton belt. Producing such a large amount of information undoubtedly requires hard work and support from our UGA County Extension Agents, our 2014 industry partners (Americot, Bayer CropScience, Croplan Genetics, Dow AgroSciences, and Monsanto Company), the Georgia Cotton Commission, Cotton Incorporated, and cooperating growers. The implementation of this program has undoubtedly helped to address a primary need of Georgia cotton growers and will make an incalculable impact on the 2015 growing season and beyond. A special thanks to all who participated in, or contributed to this program including all cooperating growers!

Description of Program: The UGA Extension Cotton Agronomists established this variety testing program beginning in 2010. Each year our industry representatives are asked to provide commercially available cotton varieties that they consider to be their best-adapted varieties for Georgia. This uniform list of varieties is planted in replicated trials in growers fields throughout Georgia's cotton belt, as arranged by the county agents. The trials are replicated and managed/maintained by the grower with the assistance of participating county extension agents, in order to achieve realistic and statistically sound results. A seed cotton sample of each variety was collected at harvest and ginned at the UGA Microgin to provide a realistic value for lint percentage and fiber quality.

The design of this program allows for a much broader assessment of variety performance across a wide range of yield environments, ranging from under 450 to over 1671 lbs/A environments in 2014 alone. This approach allows assessment of varieties with respect to stability and performance across a wide range of yield environments, which encompasses factors such as planting date, harvest date, grower management, soil types, rainfall, degree of irrigation, etc. Additionally, this method provides evidence to support performance of a variety in particular situations, where some varieties may be less consistent performers across the entire host of environments, but may be competitive in certain situations or specific yield environments. In these cases, growers could justify planting such varieties, however it is very important to position these varieties only in similar environments where a variety is likely to be competitive.

Variety Selection Considerations: There are several factors a grower may consider when selecting a cotton variety to plant. Variety selection is extremely important to a grower's profitability, as this decision sets the maximum genetic yield potential for a particular field for a given year. Other practices primarily help to preserve that genetic potential throughout the season. In the 2014 UGA On-Farm Cotton Variety Performance Evaluation Program, the value of selecting the proper variety could be worth between $86 and $304 per acre depending upon error in variety selection. If a grower is committed to planting cotton in a particular field, then obviously seed is required, therefore variety selection decisions do not cost the grower anything to make the decision, however substantial losses could result from improper selection.

Growers should also consider the most yield-limiting factor in their fields when making variety decisions. Yield-limiting factors could include any agronomic or production practice, however some of these factors could influence how a particular variety performs relative to others. The most common yield-limiting factor in South Georgia is water, and 2014 was no exception. In Georgia, we often observe that some varieties are only competitive in high-yield potential or heavily irrigated situations where water can be applied at appropriate amounts and in a timely manner. These same varieties may not be the best performers in fields with larger pivots that struggle to apply appropriate rates in a timely manner. Yields in dryland environments largely depend on rainfall amounts, frequency and timing. Soil type also determines water availability to the crop, which could also influence which varieties are most competitive in these situations. Lastly, growers should always observe technology packages, seed quality information, and seed treatments of particular brands and varieties to ensure that these factors meet their needs.

Individual Trial Information: On-farm replicated variety trials were planted in grower's fields in each of the counties listed in Table 1. The county agents who implemented and conducted these trials with their local cooperating growers include the following: Brent Allen, Justin Ballew, Ronnie Barentine, Scott Carlson, Brian Cresswell, Shane Curry, Mike Dollar, Jason Edenfield, Mark Freeman, Mark Frye, Billy Griffin, Wes Harris, Jay Hathorn, Ray Hicks, Stephanie Hollifield, Justin Lanier, Nick McGhee, Jennifer Miller, Wade Parker, Jay Porter, Tucker Price, Cliff Riner, Pamela Sapp, Peyton Sapp, Ben Shirley, Chris Tyson, Bill Tyson, Larry Varnadoe, Tim Varnedore and Brock Ward

Additionally, Mr. Andy Knowlton (UGA Microgin Manager and Operator) managed the ginning and processing of all cotton samples in this program. The participation of all of the aforementioned was critical to the success of this program, and their cooperation was truly appreciated. Local county agents are a valuable resource when it comes to variety selection, and their expertise should be utilized by growers for these and other agronomic decisions. The varieties included in the 2014 program are listed in Table 2. Each of the trials presented in this report utilizes all of the entries listed in Table 2, and thus allow for clear and precise comparisons.

Interpretation of Results: The UGA On-Farm Cotton Variety Performance Evaluation Program illustrates variety performance in the environments represented in each respective year. This and other information is also represented in the online UGA Cotton Variety Performance Calculator, which can be found at www.ugacotton.com. The results illustrated in both of these resources only represent variety performance, and do not intend to predict variety performance in 2015 and beyond.

There are several ways to compare variety performance, and interpretation of the results can be varied depending upon the method used. Keep in mind that it is always better to observe variety performance with as much data, and with as many locations / years of data, as possible. It is difficult, and unwise, to make variety selections based on information derived from a single trial or only a few trials. Naturally, growers want to see which varieties performed best at the location(s) nearest to their farm. However, it is important to keep in mind that rainfall and weather variation from field-to-field and year-to-year can be quite large. An individual variety's performance can vary greatly between trials and can usually be related to rainfall or other yield-limiting or environmental factors. Most varieties, if placed in specific environments, can perform very well, however the frequency in which a variety performs at or near the top is the primary indicator of stability, which is the best predictor of how a variety may perform across planting dates, harvest dates, grower management, rainfall patterns or amounts, degree of irrigation, etc. Observing variety performance with consideration for consistency and stability over a range of environments will usually provide growers with better information from which to make their decisions. This program utilizes a wide range of environments, which provides a much more robust approach when analyzing variety performance.

When observing the data illustrated in this report, there are several things to consider. An initial response may be to look at overall average yields across all trials. This may be an indicator of overall performance; however there is a wide range of yield environments, even among the dryland environments in 2014. First look for varieties that suggest a high degree of stability (ones that frequently perform at or near the top in a wide range of yield environments). Secondly, some varieties may only perform well in particular similar environments, which may suggest the type of environment that a variety should be positioned in order to be competitive. Although the varieties that illustrated a high degree of stability in 2014 performed well across a wide range of environments, occasionally a variety may only consistently perform in higher yield environments which would indicate that that variety may be competitive when grown in

irrigated environments with higher yield potential. A similar effect has been observed in previous years for varieties that have better performance in lower yield environments, suggesting that these varieties may only be competitive in dryland environments with lower yield potential. Most growers have some fields that are very productive, which are usually irrigated (with little to no constraints for timely water application) and have better soils. These same growers may also have some fields that are less productive on average (sandier soils, dryland, etc). This is where variety positioning becomes more important. Typically, environments averaging less than 1000 lbs/A indicate that some level of drought stress was encountered during the season. Considering yield potential for a particular situation can be helpful when examining results of this program.

Results from the 2014 Program: In general, the 2014 season will be remembered as having an optimal start and ultimately ending with dry weather and drought stress. The biggest variation in weather was centered on when the dry conditions set in and in most cases yields were more likely affected in areas where it was drier earlier. Trial average yields ranged from 450 to 1671 lbs/A (Table 1). In irrigated environments and areas where rainfall was adequate later in the growing season produced great yields as five trials averaged over 1,500 lbs/A and in dryland environments where rainfall was limited yields were limited as nine trials averaged less than 1000 lbs/A.

Comparison of varieties based on average lint yield across all 20 trials revealed several significant differences amongst the entries (Table 3). Means were separated using Fisher's Protected LSD with a p-value of 0.1. The highest ranked variety based on average lint yield was DP 1252 B2RF. The next two ranked varieties were CG 3787 B2RF and PHY 333 WRF, which were statistically similar in yield to DP 1252 B2RF. Next in rank were DP 1137 B2RF and PHY 499 WRF and both had statistically similar yields as PHY 333 WRF. The next five varieties listed in order of highest to lowest average yield were NG 5315 B2RF, DP 1050 B2RF, ST 4946 GLB2, NG 1511 B2RF and ST 4747 GLB2. These five varieties all had statistically similar average yields. The lowest ranked varieties with regard to average lint yield were ST 6448 GLB2 and PHY 575 WRF which were statistically similar in yield and statistically lower than the other 10 entries.

It is important to remember that this program compares the top performing varieties which could be planted in Georgia. Therefore, one would expect that given the right situation most of the evaluated varieties can perform very well. In 2014 this situation was very apparent given the narrow range of average yields across all trials. From the top to the bottom, average yields only differed by 144 lbs per acre and current cotton prices even further minimize differences. Therefore, comparing varieties on a basis of consistency of performance gives another measure for growers to consider which has tremendous value given the variation across operations and farms based on soil type, weather, irrigation and other factors. The ability to perform consistently across varying environments may be the most important factor related to variety decisions in Georgia.

When considering consistency of top performance, based on performance statically similar to the top yielding variety (where possible, in five trials an on-board round module building picker was used and prevented harvesting each individual replication separately), DP 1252 B2RF, CG 3787 B2RF, and PHY 333 WRF were most consistent and had top yields in at least 60 percent of the trials (Table 3). Three varieties, DP 1137 B2RF, PHY 499 WRF, and NG 5315 B2RF had top yields in 33 to 47 percent of the trials. Additionally, DP 1050 B2RF, ST 4946 GLB2, NG 1511 B2RF and ST 4747 GLB2 had top yields in 20 to 27 percent of the trials.

When comparing variety performance based on frequency of a particular variety having a top four ranking yield among the 12 entries within all 20 trials, similar trends are noted (Table 4). The most consistent top performing varieties were DP 1252 B2RF, CG 3787 B2RF, and PHY 333 WRF which had top four ranking yields in at least 55 percent of the trials. Varieties DP 1137 B2RF and PHY 499 WRF were the next most consistent top performing varieties (between 40 and 45 percent) and all other varieties were in the top four less than 31 percent of the trials. Other methods to compare performance with regards to frequency of performance are presented in Table 5. When observing consistency of top performance by yield rank in all 20 trials, DP 1252 B2RF, CG 3787 B2RF, and PHY 333 WRF were most consistent and performed above the trial average in at least 70 percent of the trials, among the top four in at least 55 percent of trials, and among the top two in at least 35 percent of the trials. The varieties DP 1137 B2RF and PHY 499 WRF had performances above the trial average in 60 percent of the trials and were among the top four in at least 40 percent of the trial.

In summary, differences in consistency of top performance among varieties appear to be an important way to compare varieties evaluated in this program. For example, when considering consistency as how often a variety produces yields above the trial average some varieties were very consistent and some were much less consistent (ranging from 10 to 75 percent). The same trends appear when examining consistency with how often a particular variety has yields that rank among the top four as it ranges from 5 to 60 percent between varieties. It should also be noted that in general the differences in performance appear to be stable across yield environments, as top varieties were more consistent across all trials regardless of yield. However, there is evidence to suggest that a variety may be more or less consistent in lower and higher yielding environments. For example, ST 4747 GLB2 was among the top four varieties in only 20 percent of all trials, yet was in the top four in three of the highest six average yielding trials (Table 4). Another example involves the highest average yielding variety and most consistent top performer, DP 1252 B2RF, as it was in the top four in 60 percent of all trials and only in the top once in the lowest five yielding trials.

In additional to lint yield data, fiber quality information was collected in 17 of the 20 trials conducted during 2014 (data not collected in trials numbered 8, 12 and 20). Information on many of the fiber quality parameters is presented as averages across the 17 trials (Table 6). Additionally, loan values were calculated by using the 2014 Upland Cotton Loan Valuation Model (developed by Larry Falconer and Cotton Incorporated) which can be found on Cotton Incorporated's website at www.cottoninc.com. Specifically,

averaged loan value is presented and calculated by averaging loan value calculated at each location. It should be noted that there were no extraneous matter observations in any variety in any location. Average leaf grade varied between varieties from 1.7 to 3.3 and ST 4747 GLB2, PHY 333 WRF, and PHY 499 WRF had the highest average readings while DP 1050 B2RF NG 5315 B2RF, DP 1252 B2RF and DP 1137 B2RF were the varieties with the lowest average readings. Micronaire values varied between 4.1 and 4.7 when averaged across locations and PHY 575 WRF was statistically the lowest at 4.1. The variety DP 1252 B2RF had the highest average micronaire and DP 1137 B2RF and NG 1511 B2RF were statistically similar to DP 1252 B2RF. Fiber length averaged 1.12 across the entire study and ST 6448 GLB2, PHY 575 WRF, and ST 4747 GLB2 had the longest fiber length which averaged at least 1.15 inches. Fiber strength varied between 27.6 and 31.1 g/tex across varieties and the two varieties with the strongest fiber were PHY 499 WRF and ST 4946 GLB2. Uniformity varied between 81.0 and 82.3 percent among varieties and PHY 499 WRF had the highest average uniformity and ST 4946 GLB2, and NG 5315 B2RF were statistically at the top as well. Loan value averaged 53.3 cents/lb across the entire study and varied between 52.4 and 54.2 cents/lb between varieties. The variety PHY 575 WRF had the highest average loan value and NG 5315 B2RF and DP 1050 B2RF were statistically at the top as well.

Variety decisions can often be complex, but these decisions should be made using as many replicated trials, environments, and years as possible. Your local county agent is an excellent resource for more information about this program and when making variety selection decisions for 2014. Additionally, growers are strongly encouraged to observe data from the Official Variety Trials (OVT) which can be found at www.swvt.uga.edu. The OVT data is a tremendous resource because it compares many more varieties than this program and can compare varieties regardless of insect or herbicide technology since it is managed conventionally. Another tool which can be used to help compare varieties is the UGA Cotton Variety Performance Calculator which can be found at www.ugacotton.com. This tool allows for the user to compare varieties (as few as two and as many as five) by pulling information from a database of UGA trials (OVT and On-farm) where it uses only the trials were all selected varieties were test together. This tool also allows the user to narrow or widen the number of trials used to compile data by criteria such as irrigation, year, location, etc.

Table 1. List of on-farm trials included in the program during 2014. Locations listed in ascending order based on trial average lint yield (yield environment). Trial numbers correlate to those listed in the following tables.

Trial Number	County	Environment	Trial Average Lint Yield (lbs/A)
1	Crisp	Dryland	450
2	Toombs	Dryland	573
3	Jeff Davis	Dryland	628
4	Early	Dryland	699
5	Decatur	Dryland	786
6	Cook	Dryland	809
7	Burke	Dryland	864
8	Burke (Midville)	Dryland	883
9	Brooks	Dryland	911
10	Wayne	Dryland	1,029
11	Jeff Davis	Irrigated	1,062
12	Evans	Dryland	1,072
13	Bulloch	Irrigated	1,262
14	Evans	Irrigated	1,295
15	Dooly	Irrigated	1,338
16	Burke (Midville)	Irrigated	1,514
17	Pulaski	Irrigated	1,567
18	Tattnall	Dryland	1,580
19	Terrell	Irrigated	1,640
20	Tattnall	Irrigated	1,671

Table 2. List of varieties included in this program during 2014. Varieties listed in alphabetical order.

No.	Company – Brand	Variety
1.	Winfield Solutions - Croplan Genetics	CG 3787 B2RF
2.	Monsanto Company - Deltapine	DP 1050 B2RF
3.	Monsanto Company - Deltapine	DP 1137 B2RF
4.	Monsanto Company - Deltapine	DP 1252 B2RF
5.	Americot Inc.	NG 1511 B2RF
6.	Americot Inc.	NG 5315 B2RF
7.	Dow AgroSciences - Phytogen	PHY 333 WRF
8.	Dow AgroSciences - Phytogen	PHY 499 WRF
9.	Dow AgroSciences - Phytogen	PHY 575 WRF
10.	Bayer CropScience	ST 4747 GLB2
11.	Bayer CropScience	ST 4946 GLB2
12.	Bayer CropScience	ST 6448 GLB2

Table 3. Lint yields of varieties within each trial and averaged across all trials where top performance is presented as top statistical yields within a trial and across all locations.

Variety	Trial Number[a]																				Average Yield Over All Trials[c]		Top Yielding Variety[d]
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
	Lint Yield (lb/A)																						%
DP 1252 B2RF	418[b]	522	643	791	765	***847***	***901***	890	***983***	***1202***	1204	***1185***	***1402***	***1456***	1317	1396	1558	***1833***	***1704***	***1805***	***1,141***	A	***67***
CG 3787 B2RF	***545***	711	650	638	785	***904***	***936***	***962***	***929***	***1033***	1059	***1183***	1277	1279	1315	***1627***	1699	1613	***1756***	***1895***	***1,140***	A	***67***
PHY 333 WRF	***513***	534	***685***	754	865	***844***	860	***982***	***996***	1002	1058	***1149***	1277	1296	1395	***1705***	1707	1475	***1718***	***1776***	***1,130***	AB	***60***
DP 1137 B2RF	447	626	628	708	724	758	***915***	921	***974***	***1209***	1050	***1113***	1334	***1352***	1400	1512	1423	1662	1602	1568	1,096	BC	33
PHY 499 WRF	479	523	649	769	804	***884***	***890***	873	***948***	***1052***	1004	***1159***	1237	***1354***	1336	1512	1513	1643	1557	***1673***	1,093	BCD	47
NG 5315 B2RF	426	663	589	689	680	797	***911***	884	***904***	***1051***	1127	***1049***	1316	***1432***	1328	1434	1622	1621	1550	***1674***	1,087	CD	40
DP 1050 B2RF	428	621	609	709	739	***834***	861	846	840	***1143***	1147	***1120***	1227	1308	1238	1400	1657	1613	1674	1566	1,079	CD	20
ST 4946 GLB2	434	485	***661***	700	896	804	870	909	***911***	945	1000	973	***1438***	1232	***1470***	1574	1510	1398	1672	1580	1,073	CD	27
NG 1511 B2RF	459	534	638	663	831	784	803	***966***	849	941	988	965	1182	1331	***1427***	***1628***	1639	1499	1680	1544	1,068	CD	20
ST 4747 GLB2	413	540	566	667	770	737	805	840	876	1003	1079	958	1174	1245	***1452***	***1664***	1504	1484	***1777***	***1705***	1,063	D	27
ST 6448 GLB2	420	573	562	644	815	724	824	798	840	925	1022	1018	1218	1122	1264	1448	1518	1608	1543	1564	1,023	E	0
PHY 575 WRF	416	539	***653***	656	753	785	790	745	881	843	1011	989	1065	1133	1115	1462	1448	1509	1448	***1708***	997	E	13
Trial Avg.	450	573	628	699	786	809	864	885	911	1,029	1,062	1,072	1,262	1,295	1,338	1,530	1,567	1,580	1,640	1,671			
LSD (p ≤ 0.1)	47	--	35	--	--	96	55	47	102	179	--	149	65	115	68	97	--	121	80	223	39		

[a] Individual trials listed by number from left to right in ascending order based on trial average yield. Trial numbers correlate to locations described in Table 1.
[b] Variety yields within a column that are underlined in bold italic font are not significantly different from the top yielding variety (p ≤ 0.1).
[c] Average lint yield calculated across all 20 trials (means followed by same letter are not different according to Fisher's Protected LSD test at p ≤ 0.1).
[d] The percent of trials in which particular varieties were among top yielding varieties calculated among 15 of 20 trials where statistical analysis within trials could be completed.

Table 4. Lint yields of varieties within each trial and averaged across all trials where performance is compared by frequency of top four of 12 ranking within trials.

Variety	Trial Number[a]																				Average Yield Over All Trials[c]		Top Four Rank[d]
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
	Lint Yield (lb/A)																						%
DP 1252 B2RF	418[a]	522	643	***791***	765	***847***	***901***	890	***983***	***1202***	***1204***	***1185***	***1402***	***1456***	1317	1396	1558	***1833***	***1704***	***1805***	1,141	A	60
CG 3787 B2RF	***545***	***711***	***650***	638	785	***904***	***936***	***962***	929	1033	1059	***1183***	1277	1279	1315	***1627***	***1699***	1613	***1756***	***1895***	1,140	A	55
PHY 333 WRF	***513***	534	***685***	***754***	***865***	***844***	860	***982***	***996***	1002	1058	***1149***	1277	1296	1395	***1705***	***1707***	1475	***1718***	***1776***	1,130	AB	55
DP 1137 B2RF	447	***626***	628	708	724	758	***915***	***921***	***974***	***1209***	1050	1113	***1334***	***1352***	***1400***	1512	1423	***1662***	1602	1568	1,096	BC	45
PHY 499 WRF	***479***	523	649	***769***	804	***884***	890	873	***948***	***1052***	1004	***1159***	1237	***1354***	1336	1512	1513	***1643***	1557	1673	1,093	BCD	40
NG 5315 B2RF	426	***663***	589	689	680	797	***911***	884	904	1051	***1127***	1049	***1316***	***1432***	1328	1434	1622	***1621***	1550	1674	1,087	CD	30
DP 1050 B2RF	428	***621***	609	***709***	739	834	861	846	840	***1143***	***1147***	1120	1227	1308	1238	1400	***1657***	1613	1674	1566	1,079	CD	25
ST 4946 GLB2	434	485	***661***	700	***896***	804	870	909	911	945	1000	973	***1438***	1232	***1470***	1574	1510	1398	1672	1580	1,073	CD	20
NG 1511 B2RF	***459***	534	638	663	***831***	784	803	***966***	849	941	988	965	1182	1331	***1427***	***1628***	***1639***	1499	1680	1544	1,068	CD	30
ST 4747 GLB2	413	540	566	667	770	737	805	840	876	1003	***1079***	958	1174	1245	***1452***	***1664***	1504	1484	***1777***	1705	1,063	D	20
ST 6448 GLB2	420	573	562	644	***815***	724	824	798	840	925	1022	1018	1218	1122	1264	1448	1518	1608	1543	1564	1,023	E	5
PHY 575 WRF	416	539	***653***	656	753	785	790	745	881	843	1011	989	1065	1133	1115	1462	1448	1509	1448	***1708***	997	E	10
Trial Avg.	450	573	628	699	786	809	864	885	911	1,029	1,062	1,072	1,262	1,295	1,338	1,530	1,567	1,580	1,640	1,671			
LSD (p ≤ 0.1)	47	--	35	--	--	96	55	47	102	179	--	149	65	115	68	97	--	121	80	223	39		

[a] Individual trials listed by number from left to right in ascending order based on trial average yield. Trial numbers correlate to locations described in Table 1.
[b] Variety yields within a column that are underlined in bold italic font are among the top four of 12 varieties with regards to lint yield.
[c] Average lint yield calculated across all 20 trials (means followed by same letter are not different according to Fisher's Protected LSD test at p ≤ 0.1).
[d] The percent of trials in which particular varieties were among top four yielding varieties calculated as frequency of occurrence in all 20 trials.

Table 5. Consistency of performance among cotton varieties evaluated in 20 trials during 2014.

Variety	Average Lint Yield Over All Trials[a]	Above Trial Average[b]	Among Top 4[c]	Among Top 3[c]	Among Top 2[c]	Among Top 1[c]
	(lb/A)	%				[d]
DP 1252 B2RF	1,141	70	60	50	45	25
CG 3787 B2RF	1,140	75	55	45	40	25
PHY 333 WRF	1,130	75	55	50	35	25
DP 1137 B2RF	1,096	60	45	30	15	5
PHY 499 WRF	1,093	60	40	30	10	0
NG 5315 B2RF	1,087	45	30	20	10	0
DP 1050 B2RF	1,079	50	25	15	5	0
ST 4946 GLB2	1,073	50	20	20	20	15
NG 1511 B2RF	1,068	45	30	20	5	0
ST 4747 GLB2	1,063	25	20	15	15	5
ST 6448 GLB2	1,023	15	5	0	0	0
PHY 575 WRF	997	10	10	5	0	0

[a] Lint yield averaged across all 20 trials.
[b] Refers to performance of particular varieties above the trial average.
[c] Refers to performance among the top numerical yields.
[d] The percent of trials where a variety met the above mentioned criteria.

Table 6. Average lint yield, gin turnout and fiber quality of varieties averaged across 2014 trials.

Variety	Lint Yield[a]	Gin Turnout[a]	Fiber Quality Parameter[b]							
			Leaf Grade	Micronaire	Length	Strength	Uniformity	Rd	+ b	Loan Value[c]
	(lb/A)	(%)		(unit)	(inches)	(g/tex)	(%)	(grayness)	(yellowness)	(cents/lb)
DP 1252 B2RF	1,141 A[d]	42.4 A	1.8 DE	4.7 A	1.10 E	28.0 FG	81.7 CD	79.5 BC	8.3 ABC	52.7 DE
CG 3787 B2RF	1,140 A	40.9 BC	2.0 D	4.6 B	1.12 CD	28.2 EF	81.9 BCD	79.2 CD	8.3 AB	53.3 CD
PHY 333 WRF	1,130 AB	40.1 E	3.1 A	4.3 D	1.14 B	28.9 CD	81.6 DE	78.0 GH	8.4 AB	53.3 CD
DP 1137 B2RF	1,096 BC	40.5 CD	1.7 E	4.6 AB	1.11 DE	27.6 G	81.7 DE	79.8 AB	8.2 CD	53.0 CDE
PHY 499 WRF	1,093 BCD	40.2 DE	3.1 A	4.5 B	1.11 DE	31.1 A	82.3 A	77.8 H	8.3 BC	53.0 CDE
NG 5315 B2RF	1,087 CD	41.1 B	1.8 DE	4.6 B	1.12 CD	28.6 CDE	82.1 ABC	79.7 AB	8.3 AB	54.1 AB
DP 1050 B2RF	1,079 CD	41.2 B	1.9 DE	4.5 B	1.12 CD	28.1 EFG	81.5 DE	79.6 ABC	8.3 AB	53.7 ABC
ST 4946 GLB2	1,073 CD	38.5 F	2.7 B	4.6 B	1.12 BC	30.6 A	82.2 AB	78.6 EF	8.4 A	53.5 BC
NG 1511 B2RF	1,068 CD	40.4 DE	2.6 B	4.6 AB	1.09 F	29.6 B	81.7 CD	78.3 FG	8.3 AB	52.4 E
ST 4747 GLB2	1,063 D	37.9 G	3.3 A	4.3 D	1.15 A	28.6 CDE	81.0 F	79.0 DE	7.5 F	53.0 CDE
ST 6448 GLB2	1,023 E	37.8 G	2.5 BC	4.4 C	1.16 A	28.6 DEF	81.3 EF	80.1 A	7.8 E	53.4 BCD
PHY 575 WRF	997 E	37.4 H	2.3 C	4.1 E	1.16 A	29.2 BC	81.6 DE	79.8 AB	8.0 D	54.2 A
Average	1082	39.9	2.4	4.5	1.1	28.9	81.7	79.1	8.2	53.3

[a] Lint yield and Gin Turnout averaged across all 20 trials during 2014.
[b] Fiber quality parameters averaged across 17 trials during 2014. See Table 1 for information on specific trials which were not included.
[c] Loan value calculated by averaging individual trial loan values.
Calculations made utilizing the 2014 Upland Cotton Loan Valuation Model (developed by Larry Falconer and Cotton Incorporated).
[d] Means followed by same letter are not different according to Fisher's Protected LSD test at $p \leq 0.1$.