



# Cotton Variety Test Results | 2012



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**Variety trial results are posted at  
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# **Tennessee Cotton Variety Test Results**

## **2012**

December 2012

Department of Plant Sciences  
UT Extension  
UT AgResearch  
The University of Tennessee  
Knoxville, Tennessee

This report is also available online at:  
<http://www.UTcrops.com>

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## INTRODUCTION

The University of Tennessee cotton variety testing program provides an unbiased evaluation of new varieties for commercial cotton production in Tennessee. Experimental strains are also tested, and major cultivars are grown in county variety demonstrations. Results are intended to help cotton producers identify varieties that are well adapted to Tennessee, produce high quality fiber, and are relatively stable in yield performance. Results are also used by the seed industry, crop consultants, and the UT extension service to assess varietal adaptation to field environments in Tennessee.

Information contained within this report covers the major components of the 2012 cotton variety testing program of the University of Tennessee. Information reported includes yield, fiber quality data, CCC loan values and selected growth characteristics from the Official Variety Trials (OVT). In addition to experiment station testing, the results from county standard test (CST) demonstrations of cotton varieties in West and Middle Tennessee are also included. A glossary is included at the end of this report to define technical terms and abbreviations used.

## GENERAL PROCEDURES

Seed of commercial cultivars was provided by the respective companies from commercial seed lots. Smaller quantities of seed of experimental strains were furnished by the respective entrants. Seed sources are listed on the next page.

For small plot testing, varieties were assigned to plots arranged in a randomized complete block design. Fertilizer and lime were applied according to soil test results and UT recommendations for cotton. Seedbeds were prepared with conventional tillage methods at the Agricenter International, Ames Plantation, and Kelly Enterprises while no-tillage methods were used at the West Tennessee Research and Education Center, Milan Research and Education Center, and Lindamood Planting Company. Seed were planted on raised beds at the Agricenter International and Kelly Enterprises and in flat seedbeds at the other locations. Varieties were planted in 2-row plots with row widths of 38 inches. A systemic insecticide and fungicide were applied in-furrow while planting. UT-recommended weed and pest control measures were uniformly applied to all plots. Supplemental irrigation was applied at Agricenter International. At all locations, seedcotton harvested from each plot was weighed at picking. Subsamples of seedcotton were collected from each plot, weighed, and air-dried, bulked by varietal entry for ginning. Gin turnout was determined for each sample using a 20-saw gin equipped with a stick machine, incline cleaners and two lint cleaners at the West Tennessee Research and Education Center. No heat was applied during ginning. Lint yields were calculated using seedcotton weights, gin turnouts, and harvested areas. A subsample of lint from each entry were analyzed by HVI procedures at the Fiber and Biopolymer Research Institute in Lubbock, TX.

County Standard Trial demonstrations were conducted to evaluate commercial cultivar performance in multiple large plot environments. County standard testing included Roundup Ready Flex cultivars. County standard tests were planted in 10 locations each containing 10 cultivars. County standard tests of Liberty Link cultivars were planted in 6 locations with each location containing 7 cultivars. Each cultivar was planted in only one plot at each location and was maintained using the individual grower's production practices. Seedcotton harvested from each plot was weighed and sampled at picking. Samples were weighed, air dried, and ginned at the West Tennessee Research and Education Center as described above. A sub sample of lint of each entry was analyzed by HVI and hand-classing procedures at the USDA Cotton Classing Office in Memphis, TN. Statistical analysis was not possible for each location but overall yield and fiber quality data were analyzed using SAS Proc MIXED with locations as replications.

## **ACKNOWLEDGMENTS**

The authors appreciate the technical and financial support provided by the seed companies listed below. Their contributions to the University of Tennessee gift fund for cotton research helped defray some costs of conducting this research in 2012: Bayer CropScience; Cropland Genetics, Monsanto; PhytoGen Seed Co.; Crop Production Services.

We gratefully acknowledge donations of agricultural chemicals used in conducting this research from Bayer CropScience, Dow AgroSciences, DuPont, FMC Corp., Monsanto, Syngenta Crop Protection, Inc., and Valent USA Corp.

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- Dr. Rick Carlisle, Research Director, Ames Plantation
- Dr. Blake A. Brown, Director, Research and Education Center at Milan
- Dr. Robert M. Hayes, Director, West Tennessee Research and Education Center

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Research at Ames Plantation was partially funded by the Hobart Ames Foundation under terms of the will of the late Julia Colony Ames.

We appreciate the cooperation of county extension agents and producers who conducted the county variety demonstrations in 2011. We also appreciate the technical cooperation of FBRI in Lubbock, TX, and the USDA-AMS Cotton Division Classing Office in Memphis, which provided the fiber quality data reported herein.

Special thanks to all who helped pick and gin cotton for these experiments.

## **SEED SOURCES**

Seeds for the 2011 University of Tennessee cotton variety tests and demonstrations were provided by:

- American Cotton Breeders, Inc. 5210 88th Street, Lubbock, TX 79424
- Arkansas Ag. Experiment Station, P.O. Box 48, Keiser, AR 72351
- Bayer CropScience, 311 Poplar View Lane West, Collierville TN 38017
- Cropland Genetics, 8700 Trail Lake Dr., Suite 100, Memphis, TN 38125
- Monsanto, P.O. Box 157, Scott MS 38772
- PhytoGen Seed Co., P.O. Box 27, Leland MS 38756
- Seed Source Genetics, 5159 FM 3354, Bishop, TX 78343
- Crop Production Services, 3005 Rocky Mountain Ave., Loveland, CO 80538

## OFFICIAL VARIETY TRIALS

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The University of Tennessee  
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Official Variety Trials (OVTs) of cotton were conducted at six locations in Tennessee during 2012. Conventional varieties, and varieties with Liberty-Link (LL), or Roundup Ready Flex (RF) genes, were tested at all locations. There were 33 entries from seven seed companies and a two lines from the University of Arkansas cotton breeding program. All OVTs were planted between 25 April and 15 May 2012 in 2-row plots arranged in a RCB design with four replications at each location. The row spacing was 38 inches at all locations. Planting dates, soil types, tillage and other details are listed in Table 1 below.

Between 120 and 130 days after planting (DAP), plant height, nodes, nodes above cracked boll (NACB) to the highest harvestable boll were counted in each plot. Relative maturity of the entries was estimated by assuming 50 DD60s (degree-days, base 60 F) per main-stem node to open successive first-position bolls, up to the highest harvestable boll. Plots were spindle-picked between 140 and 150 DAP. Seedcotton from each plot was weighed, and two grab samples of each variety were ginned to calculate gin turnout. Two lint samples of each variety from each location were analyzed by HVI at the Fiber and Biopolymer Research Institute in Lubbock, TX.

**Table OVT1** Average yield and gin turnout data for 33 entries tested across six locations in 2012.

**Table OVT2 – OVT6** Lint yield, gin turnout, and fiber data from the six different OVT locations.

**Table OVT7** Relative maturity, nodes, and final plant height of the 33 OVT entries.

**Table OVT8-9** presents two, and three year averages for varieties common to all years.

**Table 1.** OVT plot management details 2012.

Location	Planting Date	Soil Type	Tillage	Fertility	Irrigation	Harvest Date
Ames Plantation	5/7/2012	Memphis Silt Loam	No-Tillage	80-30-90	None	11/1/2012
Chic	5/3/2012	Commerce Silt Loam	No-Tillage	80- var P&K	None	10/4/2012
Gift	5/1/2012	Commerce Silt Loam	Conv.	80- var P&K	None	10/15/2012
Milan	5/4/2012	Collins Silt Loam	No-Tillage	80-0-80	None	10/19/2012
Ridgely	5/21/2012	Reelfoot Silt Loam	No-Tillage	80- var P&K	None	10/26/2012
Jackson	4/27/2012	Collins Silt Loam	No-Tillage	80-0-100	None	9/26/2012



**Table OVT1.** Lint yield, gin turnout, and fiber quality of 33 entries in the 2012 Tennessee Official Variety Trial averaged over four locations, listed by yield rank.

Yield		Fiber					
Rank	Variety	Gin Turnout	Lint Yield	Micronaire	Fiber Length	Strength	Uniformity
		%	lb/ac		in	g/tex	%
1	PHY 499 WRF-LL <sup>1</sup>	41.3	1465	4.8	1.15	32.7	83.4
2	PHY 499 WRF	41.4	1464	4.8	1.14	32.9	83.4
3	PHX 4339-CB WRF	39.6	1345	4.4	1.17	31.8	83.3
4	PHX 4339-15 WRF	39.8	1315	4.5	1.19	32.3	83.5
5	BX 1346GLB2-LL	37.4	1280	4.4	1.19	30.2	82.8
6	PHX 4339-6 WRF	39.6	1278	4.4	1.18	32.2	83.2
7	FM 1944GLB2-LL	36.8	1276	4.4	1.20	33.6	82.9
8	BX 1348GLB2-LL	37.4	1268	4.8	1.14	29.5	81.9
9	PHY 375 WRF	40.1	1268	4.6	1.14	31.1	82.8
10	11R112B2RF	38.4	1266	4.8	1.14	31.8	83.0
11	ST 4145LLB2-LL	36.8	1252	5.0	1.17	33.7	83.0
12	NG 1511 B2RF	38.5	1251	4.7	1.12	31.4	82.7
13	ST 5445LLB2-LL	37.6	1244	4.5	1.16	31.4	83.1
14	DG 2570 B2RF	37.9	1242	4.7	1.13	30.8	83.2
15	PHY 367 WRF	38.9	1213	4.5	1.15	32.6	82.7
16	AM 1550 B2RF	38.1	1208	4.7	1.13	31.0	82.9
17	BX 1346GLB2	37.1	1204	4.6	1.17	33.1	83.0
18	DP 0912 B2RF	37.8	1194	5.0	1.11	31.4	82.9
19	11R124B2RF	39.3	1186	4.6	1.12	30.3	82.6
20	CG 3787 B2RF	38.5	1186	4.6	1.16	30.2	83.2
21	FM 1944 GLB2	36.6	1175	4.5	1.18	32.4	82.3
22	DP 1034 B2RF	38.7	1167	4.6	1.14	30.5	82.5
23	DP 1133 B2RF	39.5	1158	4.7	1.17	33.6	84.0
24	ARK0222-15	37.2	1157	4.5	1.17	33.1	82.8
25	BX 1348GLB2	36.9	1150	4.5	1.17	31.3	82.7
26	ARK0206-21	38.0	1139	4.7	1.17	31.8	83.7
27	DP 1028 B2RF	38.5	1139	4.6	1.14	30.9	83.2
28	DP 0920 B2RF	37.4	1110	4.7	1.15	30.2	82.7
29	DP 1219 B2RF	36.7	1098	4.5	1.17	34.5	82.7
30	SSG UA222	37.1	1089	4.5	1.21	32.6	83.8
31	11R136B2RF	36.9	1062	4.4	1.23	33.5	84.2
32	SSG 110 CT	36.9	1047	5.0	1.13	33.0	82.6
33	AM UA48	34.8	1004	4.8	1.24	35.3	84.1
<b>Average</b>		<b>38.1</b>	<b>1209</b>	<b>4.6</b>	<b>1.16</b>	<b>32.7</b>	<b>83.1</b>
<b>LSD (0.05)</b>		<b>1.3</b>	<b>79</b>	<b>0.3</b>	<b>0.03</b>	<b>1.0</b>	<b>1.8</b>

<sup>1</sup> Varieties with the -LL designation were treated with Liberty herbicide two times at the 29 oz/ac Tennessee AgResearch data of Main et al. (2012). HVI data furnished by USDA, Memphis, TN.

**Table OVT2.** Lint yield, gin turnout, and fiber quality of 33 entries in the 2012 Tennessee Official Variety Trial conducted at Ames Plantation, LaGrange, TN listed by yield rank.

Yield		Fiber						
Rank	Variety	Gin Turnout	Lint Yield	Micronaire	Fiber Length	Strength	Uniformity	Color Grade
		%	lb/ac		in	g/tex	%	
1	PHY 499 WRF	43.5	883	3.8	1.11	32.7	82.5	41-1
2	CG 3787 B2RF	42.1	814	3.8	1.13	29.1	82.2	41-1
3	PHX 4339-CB WRF	40.6	809	4.0	1.15	32.7	82.3	41-1
4	PHX 4339-6 WRF	40.0	777	3.8	1.16	31.6	82.1	41-1
5	NG 1511 B2RF	40.5	772	4.0	1.10	31.4	81.6	41-1
6	PHY 367 WRF	41.2	748	3.7	1.11	29.5	81.8	41-1
7	11R124B2RF	42.6	743	3.9	1.10	29.8	81.6	41-1
8	DP 0912 B2RF	38.4	729	4.8	1.07	29.3	81.3	41-1
9	DP 1133 B2RF	40.1	729	4.1	1.11	31.7	82.4	41-1
10	PHX 4339-15 WRF	40.7	724	3.7	1.14	30.3	81.8	41-1
11	11R112B2RF	39.7	722	4.1	1.09	30.5	81.2	41-1
12	AM 1550 B2RF	39.4	712	4.0	1.07	27.8	81.4	41-1
13	DP 1034 B2RF	39.2	707	3.8	1.15	30.0	81.8	41-1
14	11R136B2RF	38.9	704	3.8	1.19	32.4	82.9	41-1
15	PHY 375 WRF	40.9	702	3.8	1.10	28.6	81.4	41-2
16	BX 1346GLB2	40.5	691	3.7	1.10	31.7	81.7	41-1
17	DP 1028 B2RF	38.9	690	3.9	1.12	29.8	81.9	41-2
18	BX 1348GLB2-LL <sup>1</sup>	38.1	688	4.0	1.17	30.1	81.3	41-1
19	ARK0222-15	39.2	685	3.4	1.16	32.5	82.0	41-1
20	BX 1348GLB2	38.1	664	3.8	1.16	29.1	81.7	41-1
21	SSG 110 CT	39.5	657	5.2	1.12	32.6	82.9	41-1
22	PHY 499 WRF-LL	43.0	655	3.8	1.13	32.9	82.6	41-1
23	DG 2570 B2RF	35.4	643	3.7	1.11	29.4	83.0	41-1
24	AM UA48	35.1	628	4.2	1.22	34.3	83.4	41-1
25	FM 1944 GLB2	38.8	604	3.9	1.11	30.4	81.1	31-2
26	DP 1219 B2RF	36.6	598	3.4	1.16	32.7	81.1	41-1
27	ARK0206-21	41.5	593	4.1	1.12	30.4	82.0	41-1
28	FM 1944GLB2-LL	38.1	592	3.9	1.14	31.2	82.4	31-1
29	DP 1219 B2RF	39.0	584	3.8	1.11	31.9	81.9	41-1
30	DP 0920 B2RF	38.0	582	3.8	1.10	28.4	81.2	41-1
31	SSG UA222	38.0	561	4.7	1.20	32.0	83.8	41-2
32	ST 5445LLB2-LL	38.9	560	5.0	1.16	33.9	82.4	41-1
33	ST 4145LLB2-LL	38.2	544	3.4	1.11	27.8	80.1	41-1
<b>Average</b>		<b>39.5</b>	<b>682</b>	<b>4.0</b>	<b>1.13</b>	<b>30.9</b>	<b>82.0</b>	
<b>LSD (0.05)</b>			<b>104</b>					

<sup>1</sup> Varieties with the -LL designation were treated with Liberty herbicide two times at the 29 oz/ac Tennessee AgResearch data of Main et al. (2012). HVI data furnished by USDA, Memphis, TN.

**Table OVT3.** Lint yield, gin turnout, and fiber quality of 33 entries in the 2012 Tennessee Official Variety Trial conducted at Hollingsworth Farms, Chic, TN listed by yield rank.

Yield		Fiber						
Rank	Variety	Gin Turnout	Lint Yield	Micronaire	Fiber Length	Strength	Uniformity	Color Grade
		%	lb/ac		in	g/tex	%	
1	PHY 499 WRF	42.8	2499	5.0	1.15	32.3	83.2	41-2
2	PHY 499 WRF-LL <sup>1</sup>	41.9	2339	4.9	1.16	32.0	83.1	41-1
3	PHX 4339-15 WRF	39.8	2162	4.6	1.21	31.4	83.1	41-2
4	PHY 375 WRF	41.3	2155	4.9	1.15	30.7	82.5	51-3
5	NG 1511 B2RF	37.6	2123	4.7	1.12	29.9	82.6	41-1
6	PHX 4339-CB WRF	40.1	2116	4.7	1.18	31.3	82.8	41-1
7	AM 1550 B2RF	37.9	2104	5.2	1.24	37.5	83.7	41-1
8	SSG UA222	39.0	2093	4.5	1.21	32.1	83.6	41-2
9	ST 4145LLB2-LL	36.7	2067	5.0	1.16	32.3	83.1	41-2
10	DG 2570 B2RF	38.9	2064	5.2	1.12	31.8	82.3	41-1
11	ST 5445LLB2-LL	37.4	2049	4.9	1.14	33.8	82.5	41-1
12	DP 1133 B2RF	41.0	2042	5.2	1.17	36.4	84.8	41-1
13	ARK0222-15	37.4	2040	5.0	1.15	32.8	82.5	41-1
14	DP 1028 B2RF	38.7	2036	5.0	1.14	32.2	83.6	41-1
15	FM 1944GLB2-LL	36.6	2029	4.9	1.20	32.1	82.0	41-1
16	CG 3787 B2RF	38.1	2024	4.8	1.17	30.5	83.2	41-3
17	BX 1346GLB2-LL	37.9	2024	4.8	1.19	34.2	84.3	41-1
18	11R124B2RF	39.8	2023	4.8	1.11	29.8	82.8	41-2
19	ARK0206-21	39.2	2006	4.6	1.17	31.5	84.0	41-2
20	BX 1348GLB2-LL	38.6	1998	5.0	1.16	30.2	82.6	41-1
21	DP 1034 B2RF	40.1	1994	5.0	1.14	30.7	81.9	41-3
22	PHX 4339-6 WRF	40.8	1980	4.5	1.18	31.8	83.2	41-1
23	11R112B2RF	37.6	1952	5.2	1.17	33.1	83.5	41-2
24	DP 1219 B2RF	36.3	1936	4.7	1.17	35.9	81.7	41-1
25	DP 0912 B2RF	37.0	1928	5.3	1.09	30.7	81.8	31-4
26	FM 1944 GLB2	36.1	1926	4.8	1.19	32.2	82.1	41-1
27	BX 1348GLB2	35.7	1917	5.0	1.18	30.3	82.7	41-2
28	11R136B2RF	36.5	1909	4.6	1.25	34.3	84.8	41-2
29	DP 1219 B2RF	38.1	1903	5.1	1.13	32.5	83.0	41-1
30	PHY 367 WRF	39.5	1897	4.9	1.16	34.1	83.2	41-3
31	DP 0920 B2RF	37.2	1808	5.0	1.17	30.9	82.2	41-2
32	BX 1346GLB2	36.2	1792	4.7	1.17	34.5	84.5	41-1
33	AM UA48	33.4	1723	5.2	1.13	30.4	82.0	41-1
<b>Average</b>		<b>38.3</b>	<b>2020</b>	<b>4.9</b>	<b>1.16</b>	<b>32.3</b>	<b>82.9</b>	
<b>LSD (0.05)</b>			<b>198</b>					

<sup>1</sup> Varieties with the -LL designation were treated with Liberty herbicide two times at the 29 oz/ac Tennessee AgResearch data of Main et al. (2012). HVI data furnished by USDA, Memphis, TN.

**Table OVT3.** Lint yield, gin turnout, and fiber quality of 33 entries in the 2012 Tennessee Official Variety Trial conducted at Kelly Enterprises, Gift, TN listed by yield rank.

Yield						Fiber		
Rank	Variety	Gin Turnout	Lint Yield	Micronaire	Fiber Length	Strength	Uniformity	Color Grade
		%	lb/ac		in	g/tex	%	
1	PHY 499 WRF-LL <sup>1</sup>	40.5	1547	5.1	1.13	33.1	83.2	41-1
2	PHX 4339-CB WRF	39.6	1513	4.9	1.16	32.1	83.7	41-1
3	PHY 499 WRF	40.2	1488	5.2	1.12	33.3	83.0	41-1
4	DG 2570 B2RF	37.7	1480	5.1	1.13	31.0	83.5	31-2
5	PHX 4339-15 WRF	39.4	1467	5.0	1.17	33.3	84.1	41-1
6	11R124B2RF	38.1	1432	4.8	1.11	30.3	83.5	41-1
7	FM 1944GLB2-LL	35.3	1432	4.8	1.20	34.0	82.4	41-1
8	BX 1348GLB2-LL	36.0	1430	5.0	1.15	30.6	82.3	41-1
9	PHY 375 WRF	39.7	1415	5.0	1.12	31.0	82.9	41-1
10	BX 1346GLB2-LL	35.0	1406	4.9	1.18	34.2	83.1	41-1
11	NG 1511 B2RF	37.7	1402	5.2	1.13	33.1	83.4	41-1
12	PHX 4339-6 WRF	40.8	1388	4.8	1.17	33.6	83.0	41-1
13	ST 4145LLB2-LL	35.5	1387	5.1	1.15	32.6	83.2	41-1
14	DP 0912 B2RF	38.7	1352	5.1	1.11	31.6	83.8	41-1
15	11R112B2RF	36.9	1351	5.1	1.13	32.5	83.5	41-1
16	ARK0222-15	37.2	1337	4.9	1.18	33.8	82.6	41-1
17	FM 1944 GLB2	35.3	1318	4.9	1.19	34.1	82.5	41-1
18	ST 5445LLB2-LL	36.5	1313	5.4	1.16	32.7	82.8	42-1
19	DP 1034 B2RF	38.5	1304	5.0	1.14	31.1	84.0	41-1
20	BX 1346GLB2	35.5	1288	5.0	1.17	34.3	82.9	41-1
21	AM 1550 B2RF	36.4	1252	4.9	1.11	29.7	83.8	31-2
22	DP 1133 B2RF	38.6	1203	5.0	1.18	34.2	83.7	41-1
23	PHY 367 WRF	36.3	1201	4.6	1.17	33.6	83.5	41-1
24	CG 3787 B2RF	36.9	1199	5.1	1.15	32.3	84.0	31-2
25	BX 1348GLB2	36.3	1198	5.1	1.14	30.1	82.2	41-1
26	DP 1028 B2RF	37.1	1162	5.1	1.12	31.6	83.5	31-1
27	DP 1219 B2RF	36.1	1155	4.9	1.16	35.4	82.9	31-2
28	DP 0920 B2RF	36.0	1116	5.2	1.13	29.8	83.0	31-2
29	DP 1219 B2RF	34.5	1088	4.7	1.24	33.8	84.7	41-1
30	ARK0206-21	35.8	1087	5.1	1.16	31.6	83.8	31-2
31	AM UA48	34.5	1020	4.7	1.24	36.7	84.2	41-1
32	SSG UA222	34.0	986	4.2	1.23	34.8	84.5	41-1
33	SSG 110 CT	33.9	965	5.1	1.13	33.4	82.0	31-2
<b>Average</b>		<b>37.0</b>	<b>1293</b>	<b>5.0</b>	<b>1.16</b>	<b>32.7</b>	<b>83.5</b>	
<b>LSD (0.05)</b>			<b>148</b>					

<sup>1</sup> Varieties with the -LL designation were treated with Liberty herbicide two times at the 29 oz/ac Tennessee AgResearch data of Main et al. (2012). HVI data furnished by USDA, Memphis, TN.

**Table OVT4.** Lint yield, gin turnout, and fiber quality of 33 entries in the 2012 Tennessee Official Variety Trial conducted at the Research and Education Center at Milan, TN listed by yield rank.

Yield		Fiber						
Rank	Variety	Gin Turnout	Lint Yield	Micronaire	Fiber Length	Strength	Uniformity	Color Grade
		%	lb/ac		in	g/tex	%	
1	PHY 499 WRF-LL <sup>1</sup>	39.9	1351	4.7	1.14	32.8	83.2	41-1
2	PHX 4339-6 WRF	38.7	1286	4.4	1.19	32.3	83.8	31-1
3	PHX 4339-15 WRF	40.2	1238	4.5	1.17	31.5	83.2	41-1
4	PHY 499 WRF	39.7	1217	4.7	1.13	32.9	83.4	41-1
5	PHX 4339-CB WRF	39.9	1177	4.5	1.19	31.3	83.6	41-1
6	BX 1346GLB2	36.2	1167	4.4	1.20	30.4	81.8	41-1
7	BX 1348GLB2-LL	37.0	1137	4.7	1.15	32.0	83.2	41-1
8	ST 4145LLB2-LL	36.5	1136	4.5	1.15	31.1	84.5	41-1
9	11R112B2RF	38.9	1123	4.9	1.17	32.8	83.6	31-2
10	ST 5445LLB2-LL	37.4	1120	4.8	1.15	32.2	82.5	41-1
11	PHY 375 WRF	38.6	1074	4.6	1.13	29.9	82.2	41-1
12	BX 1346GLB2-LL	36.2	1062	4.5	1.21	30.6	81.9	41-1
13	11R124B2RF	38.1	1061	4.9	1.14	31.3	83.2	41-1
14	FM 1944GLB2-LL	36.8	1052	4.5	1.20	32.6	82.1	41-1
15	DP 1034 B2RF	38.3	1048	4.6	1.11	28.9	81.1	31-2
16	CG 3787 B2RF	38.1	1025	4.5	1.17	30.0	83.9	41-1
17	FM 1944 GLB2	36.5	1018	4.5	1.19	32.9	82.4	41-1
18	DP 0912 B2RF	36.4	1015	4.9	1.13	31.6	82.9	41-1
19	DP 1133 B2RF	38.6	990	4.7	1.16	31.4	83.9	41-1
20	ARK0206-21	36.8	981	4.7	1.16	32.4	83.2	31-2
21	BX 1348GLB2	37.0	977	4.7	1.14	32.2	83.0	41-1
22	NG 1511 B2RF	38.7	958	4.6	1.12	33.0	83.7	41-1
23	DP 1219 B2RF	37.6	949	4.6	1.18	33.2	83.3	41-1
24	ARK0222-15	36.4	947	4.4	1.17	32.7	82.8	41-1
25	DP 1028 B2RF	39.7	947	4.6	1.14	29.8	82.6	41-1
26	PHY 367 WRF	37.9	942	4.2	1.16	33.6	82.8	41-1
27	SSG 110 CT	36.8	936	5.0	1.13	33.0	82.5	41-1
28	DP 0920 B2RF	37.1	935	4.8	1.15	28.9	83.7	41-1
29	DP 1219 B2RF	37.8	928	4.7	1.13	30.2	83.5	31-2
30	AM 1550 B2RF	37.1	927	4.6	1.11	29.1	82.6	41-1
31	SSG UA222	38.9	885	4.3	1.20	31.1	83.6	41-1
32	AM UA48	35.3	809	4.7	1.27	35.7	84.4	41-1
33	11R136B2RF	38.0	791	4.4	1.21	32.7	84.1	41-1
<b>Average</b>		<b>37.8</b>	<b>1037</b>	<b>4.6</b>	<b>1.16</b>	<b>31.7</b>	<b>83.3</b>	
<b>LSD (0.05)</b>			<b>104</b>					

<sup>1</sup> Varieties with the -LL designation were treated with Liberty herbicide two times at the 29 oz/ac Tennessee AgResearch data of Main et al. (2012). HVI data furnished by USDA, Memphis, TN.

**Table OVT5.** Lint yield, gin turnout, and fiber quality of 33 entries in the 2011 Tennessee Official Variety Trial conducted at Lindamood Planting Company, Ridgely, TN listed by yield rank.

Yield		Fiber						
Rank	Variety	Gin Turnout	Lint Yield	Micronaire	Fiber Length	Strength	Uniformity	Color Grade
		%	lb/ac		in	g/tex	%	
1	PHY 499 WRF-LL <sup>1</sup>	41.0	1564	4.6	1.20	34.1	84.1	31-1
2	BX 1346GLB2-LL	38.5	1459	4.2	1.20	33.2	83.1	31-1
3	PHY 499 WRF	40.5	1430	4.6	1.19	34.2	84.3	41-1
4	ST 5445LLB2-LL	37.9	1425	4.9	1.20	36.3	84.3	41-3
5	PHY 367 WRF	38.8	1406	4.6	1.14	32.2	81.7	31-2
6	FM 1944GLB2-LL	36.9	1385	4.2	1.20	32.2	83.3	31-1
7	11R112B2RF	39.1	1382	4.6	1.14	28.9	82.4	31-2
8	PHX 4339-CB WRF	38.3	1312	4.1	1.22	32.8	83.9	31-1
9	ST 4145LLB2-LL	37.3	1311	4.0	1.19	31.5	82.6	31-1
10	BX 1346GLB2	37.5	1291	4.3	1.19	33.3	83.3	31-1
11	DG 2570 B2RF	39.1	1282	4.4	1.17	30.2	83.7	41-1
12	SSG UA222	36.0	1270	4.2	1.22	32.9	83.7	21-2
13	BX 1348GLB2-LL	37.4	1259	4.1	1.20	31.6	82.8	31-1
14	DP 0920 B2RF	38.5	1249	4.6	1.16	30.7	82.9	31-1
15	PHX 4339-15 WRF	38.9	1235	4.2	1.23	32.1	84.5	31-2
16	NG 1511 B2RF	38.4	1222	4.6	1.16	30.6	84.0	41-1
17	FM 1944 GLB2	36.5	1188	4.1	1.21	32.0	83.1	31-1
18	PHY 375 WRF	39.4	1180	4.4	1.16	31.0	83.0	31-1
19	ARK0206-21	37.7	1170	4.3	1.21	32.5	84.8	31-1
20	AM 1550 B2RF	39.1	1166	4.4	1.13	30.0	82.5	31-1
21	PHX 4339-6 WRF	37.9	1127	4.2	1.19	33.2	83.2	31-1
22	BX 1348GLB2	37.4	1109	4.0	1.20	31.2	82.6	31-2
23	DP 0912 B2RF	38.6	1099	4.8	1.14	31.9	84.5	31-1
24	DP 1219 B2RF	36.9	1069	4.1	1.19	35.4	83.7	31-1
25	CG 3787 B2RF	37.6	1056	4.0	1.19	30.5	83.9	31-1
26	SSG 110 CT	37.3	1055	4.3	1.16	33.4	82.7	31-1
27	AM UA48	34.9	1044	4.6	1.30	36.3	85.6	31-1
28	DP 1034 B2RF	37.8	1020	4.3	1.17	30.6	83.8	31-1
29	DP 1219 B2RF	37.3	1003	4.0	1.25	34.1	84.6	31-1
30	DP 1028 B2RF	38.1	983	4.1	1.15	30.6	83.3	31-1
31	ARK0222-15	35.7	941	4.2	1.19	32.7	83.6	31-1
32	DP 1133 B2RF	39.4	929	3.9	1.21	33.4	84.3	31-1
33	11R124B2RF	38.9	830	4.1	1.16	31.5	83.0	31-2
<b>Average</b>		<b>38.0</b>	<b>1195</b>	<b>4.3</b>	<b>1.19</b>	<b>32.3</b>	<b>83.9</b>	
<b>LSD (0.05)</b>			<b>117</b>					

<sup>1</sup> Varieties with the -LL designation were treated with Liberty herbicide two times at the 29 oz/ac Tennessee AgResearch data of Main et al. (2012). HVI data furnished by USDA, Memphis, TN.

**Table OVT6.** Lint yield, gin turnout, and fiber quality of 33 entries in the 2011 Tennessee Official Variety Trial conducted at the West Tennessee Research and Education Center, Jackson, TN listed by yield rank.

Yield		Fiber						
Rank	Variety	Gin Turnout	Lint Yield	Micronaire	Fiber Length	Strength	Uniformity	Color Grade
		%	lb/ac		in	g/tex	%	
1	PHY 499 WRF-LL <sup>1</sup>	41.2	1331	5.2	1.14	32.5	84.2	41-2
2	PHY 499 WRF	41.7	1266	5.2	1.15	32.7	84.3	41-3
3	FM 1944GLB2-LL	37.0	1163	4.8	1.21	34.0	83.3	41-1
4	BX 1346GLB2-LL	37.9	1146	5.0	1.18	34.0	83.3	41-1
5	PHX 4339-CB WRF	39.1	1145	4.7	1.18	33.6	83.9	41-1
6	PHX 4339-6 WRF	39.2	1109	4.7	1.18	32.2	83.9	41-1
7	BX 1348GLB2-LL	37.3	1096	4.8	1.19	32.0	83.4	41-1
8	AM 1550 B2RF	38.9	1088	4.9	1.10	31.7	83.2	41-3
9	PHY 367 WRF	39.9	1081	4.8	1.17	33.2	83.8	41-4
10	PHY 375 WRF	40.6	1080	4.9	1.15	31.1	83.5	41-1
11	ST 4145LLB2-LL	36.6	1069	4.9	1.17	33.1	85.2	41-4
12	11R112B2RF	38.1	1067	5.1	1.15	32.9	83.8	42-1
13	PHX 4339-15 WRF	39.7	1062	4.8	1.19	33.0	84.0	41-3
14	DG 2570 B2RF	38.3	1059	4.9	1.14	32.4	83.1	41-3
15	DP 1133 B2RF	39.0	1055	5.2	1.16	34.5	84.7	41-3
16	DP 0912 B2RF	37.7	1039	5.3	1.10	33.2	83.2	42-1
17	BX 1348GLB2	37.0	1032	4.7	1.20	31.9	83.3	41-1
18	11R124B2RF	38.2	1027	5.1	1.10	29.3	81.6	31-2
19	NG 1511 B2RF	38.3	1027	4.9	1.08	30.3	81.0	32-2
20	DP 1028 B2RF	38.8	1014	5.1	1.16	31.2	84.1	41-3
21	CG 3787 B2RF	38.1	998	5.1	1.12	28.9	81.7	41-3
22	ST 5445LLB2-LL	37.7	998	4.7	1.21	33.4	83.7	31-2
23	FM 1944 GLB2	36.6	995	4.8	1.20	34.2	83.2	41-1
24	ARK0206-21	36.9	994	5.4	1.17	32.3	84.4	41-3
25	ARK0222-15	37.3	994	5.0	1.18	33.9	83.4	41-3
26	BX 1346GLB2	36.6	994	4.9	1.17	34.1	83.5	41-1
27	DP 0920 B2RF	37.4	974	5.0	1.17	32.7	83.4	41-1
28	DP 1034 B2RF	38.3	930	5.0	1.15	31.5	82.2	41-3
29	DP 1219 B2RF	36.6	879	5.1	1.16	34.5	83.2	41-1
30	11R136B2RF	36.4	876	4.8	1.22	33.7	84.3	41-1
31	AM UA48	35.6	797	5.1	1.25	38.4	84.7	41-3
32	SSG 110 CT	36.0	769	5.4	1.13	33.3	82.4	31-2
33	SSG UA222	36.5	737	4.9	1.19	32.6	83.7	41-3
<b>Average</b>		<b>38.0</b>	<b>1027</b>	<b>5.0</b>	<b>1.16</b>	<b>32.8</b>	<b>83.5</b>	
<b>LSD (0.05)</b>			<b>103</b>					

<sup>1</sup> Varieties with the -LL designation were treated with Liberty herbicide two times at the 29 oz/ac Tennessee AgResearch data of Main et al. (2012). HVI data furnished by USDA, Memphis, TN.

**Table OVT7.** Plant height (inches), total number of nodes, height to node ratio, node of first fruiting branch (NFFB) nodes above cracked boll, and estimated DD60's remaining to maturity of 33 entries in the 2012 Tennessee Official Variety Trial, listed in alphabetical order.

Variety	Height	Nodes	Height:Node	NFFB <sup>1</sup>	NACB <sup>2</sup>	DD60 <sup>3</sup>
	in	no.	ratio	no.	no.	units
11R112B2RF	34.3	16.6	2.1	6.2	4.9	245
11R124B2RF	37.1	16.6	2.2	6.5	6.1	305
11R136B2RF	36.3	17.2	2.1	6.4	6.0	300
AM 1550 B2RF	34.2	16.9	2.0	6.3	5.2	260
AM UA48	33.3	16.7	2.0	6.2	5.0	250
ARK0206-21	38.4	16.9	2.3	6.4	5.2	260
ARK0222-15	34.4	17.0	2.0	6.4	5.1	255
BX 1346GLB2	33.7	16.3	2.1	6.3	5.2	260
BX 1346GLB2-LL <sup>4</sup>	34.0	16.6	2.0	6.0	5.1	255
BX 1348GLB2	33.8	16.1	2.1	6.0	5.3	265
BX 1348GLB2-LL	35.3	17.6	2.0	6.1	5.3	265
CG 3787 B2RF	36.8	16.1	2.3	6.1	5.6	280
DG 2570 B2RF	36.1	16.8	2.1	6.1	5.4	270
DP 0912 B2RF	33.8	16.5	2.0	6.2	5.1	255
DP 0920 B2RF	33.4	16.0	2.1	5.9	5.3	265
DP 1028 B2RF	36.4	16.9	2.2	6.2	6.2	310
DP 1034 B2RF	34.9	16.6	2.1	6.0	6.6	330
DP 1133 B2RF	35.7	16.8	2.1	6.1	6.1	305
DP 1219 B2RF	36.6	16.6	2.2	6.2	7.2	360
FM 1944 GLB2	33.3	16.6	2.0	6.3	5.1	255
FM 1944GLB2-LL	33.6	16.8	2.0	6.1	5.0	250
NG 1511 B2RF	34.7	16.8	2.1	6.1	5.1	255
PHX 4339-15 WRF	35.8	16.7	2.1	6.0	5.1	255
PHX 4339-6 WRF	34.6	17.5	2.0	6.2	5.0	250
PHX 4339-CB WRF	36.9	17.3	2.1	6.2	5.0	250
PHY 367 WRF	36.9	16.9	2.2	6.0	5.1	255
PHY 375 WRF	34.6	16.8	2.1	6.0	5.3	265
PHY 499 WRF	34.9	16.6	2.1	6.0	6.1	305
PHY 499 WRF-LL	36.3	16.6	2.2	6.2	6.0	300
SSG 110 CT	32.1	16.6	1.9	6.2	5.1	255
SSG UA222	33.6	16.5	2.0	5.8	5.2	260
ST 4145LLB2-LL	33.7	16.8	2.0	6.4	4.9	245
ST 5445LLB2-LL	32.4	16.0	2.0	5.9	6.2	310
<b>Average</b>	<b>34.9</b>	<b>16.7</b>	<b>2.1</b>	<b>6.2</b>	<b>5.5</b>	<b>268</b>

<sup>1</sup>NFFB = Mode number of first fruiting (sympodial) branch.

<sup>2</sup>NACB = nodes above highest 1st position cracked boll to the highest harvestable boll.

<sup>3</sup>DD60 = degree-days, base 60 F. DD60 to maturity = NACB x (50 DD60/node) to open highest harvestable boll.

<sup>4</sup>Varieties with the -LL designation were treated with Liberty herbicide two times at the 29 oz/ac

Tennessee AgResearch data of Main et al. (2012).



**Table OVT8.** Gin turnout and lint yield of varieties common to Tennessee OVT's from 2011 and 2012 averages, listed by yield rank.

Rank	Variety	Gin		Micronaire	Fiber Length	Fiber Strength	Uniformity	Height	Nodes	NACB
		Turnout %	Lint Yield lb/ac							
1	PHY 499 WRF	39.7	1438	4.8	1.15	33.6	83.4	39.8	17.5	5.8
2	NG 1511 B2RF	39.4	1315	4.7	1.13	32.4	83.1	38.2	17.6	5.4
3	DP 0912B2RF	37.6	1306	5.0	1.10	31.5	82.5	36.7	17.2	5.4
4	ST 4145LLB2	36.5	1286	4.7	1.16	33.4	83.2	36.8	17.4	5.3
5	DG 2570 B2RF	38.1	1277	4.6	1.13	31.9	83.4	38.3	17.5	5.5
6	PHY 367 WRF	38.4	1255	4.5	1.15	32.4	82.5	39.4	17.7	5.3
7	PHY 375 WRF	38.4	1246	4.5	1.16	32.4	82.7	36.2	17.2	5.4
8	DP 1133 B2RF	39.7	1235	4.7	1.18	34.0	84.2	39.0	17.7	6.0
9	ST 5445LLB2	37.9	1232	4.6	1.16	33.0	82.7	35.3	16.8	5.9
10	AM 1550 B2RF	38.2	1218	4.6	1.13	31.3	82.9	36.7	17.2	5.1
11	DP 0920 B2RF	38.0	1184	4.7	1.14	30.6	82.6	35.9	16.9	5.3
12	DP 1028 B2RF	39.6	1149	4.6	1.15	30.9	83.4	39.8	17.5	5.9
13	AM UA48	35.7	996	4.8	1.26	37.0	84.3	35.0	18.5	5.3
<b>AVERAGE</b>		<b>38.2</b>	<b>1241</b>	<b>4.7</b>	<b>1.15</b>	<b>32.6</b>	<b>83.1</b>	<b>37.4</b>	<b>17.4</b>	<b>5.5</b>
<b>LSD (0.05)</b>		<b>ns</b>	<b>132</b>	<b>ns</b>	<b>0.03</b>	<b>2.1</b>	<b>0.7</b>	<b>2.7</b>	<b>ns</b>	<b>ns</b>

Tennessee AgResearch data of Main et al. (2011, 2012).

**Table OVT9.** Gin turnout and lint yield of varieties common to Tennessee OVT's from 2010, 2011 and 2012 averages, listed by yield rank.

Rank	Variety	Gin		Micronaire	Fiber Length	Fiber Strength	Uniformity	Height	Nodes	NACB
		Turnout %	Lint Yield lb/ac							
1	PHY 499 WRF	39.8	1457	4.8	1.14	33.2	83.4	40.8	17.4	5.6
2	DG 2570 B2RF	38.3	1348	4.6	1.13	31.6	83.3	39.3	17.4	5.0
3	NG 1511 B2RF	39.1	1345	4.7	1.13	32.1	83.2	38.0	17.6	5.1
4	DP 0912 B2RF	37.4	1343	4.9	1.11	31.1	82.8	37.3	17.3	5.6
5	PHY 375 WRF	38.8	1330	4.6	1.15	31.7	82.9	37.6	17.2	5.1
6	PHY 367 WRF	38.0	1302	4.4	1.15	32.1	82.5	38.9	17.3	5.3
7	DP 1219 B2RF	39.2	1272	4.7	1.17	33.6	84.2	39.4	17.6	5.8
4	AM 1550 B2RF	38.4	1264	4.6	1.12	30.5	82.7	38.4	17.3	5.4
9	DP 1028 B2RF	39.3	1248	4.6	1.15	30.6	83.3	40.1	17.1	5.5
10	DP 0920 B2RF	37.6	1238	4.7	1.14	30.2	82.5	36.7	17.0	5.1
11	AM UA48	35.7	1055	4.7	1.27	36.7	84.5	35.8	18.2	5.2
<b>AVERAGE</b>		<b>38.3</b>	<b>1291</b>	<b>4.7</b>	<b>1.15</b>	<b>32.1</b>	<b>83.2</b>	<b>38.4</b>	<b>17.4</b>	<b>5.3</b>
<b>LSD (0.05)</b>		<b>1.8</b>	<b>104</b>	<b>0.1</b>	<b>0.02</b>	<b>1.2</b>	<b>0.6</b>	<b>2.5</b>	<b>ns</b>	<b>ns</b>

Tennessee AgResearch data of Main et al. (2010, 2011, 2012).

## **COUNTY STANDARD TEST DEMONSTRATIONS**

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The University of Tennessee

County Standard Trial demonstrations were conducted to evaluate commercial cultivar performance in multiple large plot environments. County standard testing included Roundup Ready Flex cultivars. County standard tests were planted in 10 locations each containing 10 cultivars. County standard tests of Liberty Link cultivars were planted in 6 locations with each location containing 7 cultivars. Each cultivar was planted in only one plot at each location and was maintained using the individual grower's production practices. Seedcotton harvested from each plot was weighed and sampled at picking. Samples were weighed, air dried, and ginned at the West Tennessee Research and Education Center as described above. A sub sample of lint of each entry was analyzed by HVI and hand-classing procedures at the USDA Cotton Classing Office in Memphis, TN. Statistical analysis was not possible for each location but overall yield and fiber quality data were analyzed using SAS Proc MIXED with locations as replications. All locations were produced without irrigation except the Shelby county trial which had both irrigated and non-irrigated trials.

**Table CST1.** Results of Roundup Ready Flex cotton variety test, all locations average, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	PHY 499 WRF	42.3	976	4.9	1.11	82.6	32.2	41-2	4	53.25
2	DG 2570 B2RF	39.7	951	4.9	1.10	82.6	31.3	41-2	3	53.45
3	AM 1550 B2RF	39.6	944	4.8	1.08	81.8	28.6	41-2	3	53.45
4	PHY 375 WRF	40.2	936	4.8	1.09	81.9	29.6	41-2	4	52.85
5	AM 1511 B2RF	40.7	919	5.0	1.09	82.6	31.6	41-2	4	50.55
6	DP 0912 B2RF	38.8	909	5.1	1.08	82.1	30.0	41-2	4	50.55
7	DP 0920 B2RF	39.2	909	4.9	1.12	82.0	29.7	41-2	3	53.90
8	DP 1028 B2RF	40.4	908	5.0	1.11	82.5	30.0	41-2	3	51.60
9	DP 1133 B2RF	40.6	832	5.0	1.12	82.8	31.8	41-2	3	51.60
10	DP 1034 B2RF	39.6	807	4.9	1.12	82.6	30.6	41-2	3	53.90
	<b>Mean</b>	<b>40.1</b>	<b>909</b>	<b>4.9</b>	<b>1.10</b>	<b>82.4</b>	<b>30.5</b>		<b>4</b>	<b>52.51</b>
	<b>LSD</b>	<b>1.1</b>	<b>105</b>	<b>0.2</b>	<b>0.02</b>	<b>ns</b>	<b>1.1</b>		<b>1</b>	

**Table CST2.** Results of Liberty Link cotton variety test, all locations average, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	PHY 499 WRF	42.5	1419	4.7	1.13	31.6	84.2	41-2	4	54.45
2	BX 1346GLB2	41.5	1338	4.7	1.14	30.9	83.7	41-2	4	54.30
3	PHY 375 WRF	41.2	1293	4.4	1.14	29.1	83.4	41-2	4	54.10
4	BX 1348GLB2	40.1	1286	4.6	1.20	28.3	83.2	41-2	4	54.00
5	FM 1944GLB2	39.4	1259	4.6	1.20	31.2	83.1	41-2	4	54.40
6	ST 5445LLB2	40.5	1247	4.8	1.17	30.7	82.7	41-2	4	54.20
7	ST 4145LLB2	39.8	1238	4.5	1.16	30.1	83.4	41-2	4	54.30
	<b>Mean</b>	<b>40.7</b>	<b>1297</b>	<b>4.6</b>	<b>1.16</b>	<b>30.3</b>	<b>83.4</b>		<b>4</b>	<b>54.25</b>
	<b>LSD</b>	<b>1.2</b>	<b>80</b>	<b>0.2</b>	<b>0.03</b>	<b>1.0</b>	<b>ns</b>		<b>ns</b>	

**Table CST3.** Results of Glytol, Liberty Link, Twin Link cotton variety test, all locations, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	BX 1332GLT	40.5	1453	4.6	1.23	31.6	84.3	41-2	4	54.50
2	BX 1335GLT	41.2	1355	4.8	1.20	30.0	82.9	41-2	4	54.20
3	BX 1333GLT	42.8	1353	4.5	1.12	29.2	83.2	41-2	4	54.05
4	BX 1334GLT	39.7	1225	4.6	1.16	30.7	83.4	41-2	4	54.30
	<b>Mean</b>	<b>41.1</b>	<b>1347</b>	<b>4.6</b>	<b>1.18</b>	<b>30.4</b>	<b>83.5</b>		<b>4</b>	<b>54.26</b>
	<b>LSD</b>	<b>1.6</b>	<b>ns</b>	<b>ns</b>	<b>0.03</b>	<b>1.2</b>	<b>ns</b>		<b>ns</b>	

**Table CST4.** Results of Roundup Ready Flex cotton variety test, Carroll County, 2012.

<b>Rank</b>	<b>Variety</b>	<b>Gin Turnout (%)</b>	<b>Lint Yield (lb./acre)</b>	<b>Mic</b>	<b>Length (inches)</b>	<b>Strength (g/tex)</b>	<b>Uniformity (%)</b>	<b>HVI Color</b>	<b>Leaf Grade</b>	<b>Loan Value (¢/lb.)</b>
1	PHY 499 WRF	40.8	1142	4.9	1.09	32.4	82.3	41-1	4	53.85
2	DP 1034 B2RF	37.1	1081	4.7	1.13	30.9	83.4	31-1	3	57.10
3	AM 1550 B2RF	37.8	994	4.7	1.08	26.9	81.5	31-1	3	55.90
4	DG 2570 B2RF	38.7	892	4.9	1.08	29.3	82.4	31-1	3	56.10
5	DP 0920 B2RF	37.9	830	5.0	1.12	29.5	83.3	31-2	4	53.10
6	AM 1511 B2RF	41.6	818	5.2	1.06	29.6	81.3	31-2	2	51.90
7	DP 1133 B2RF	39.7	790	5.1	1.10	33.6	82.7	31-2	3	54.15
8	PHY 375 WRF	37.1	726	4.7	1.10	28.5	81.5	31-2	3	55.90
9	DP 1028 B2RF	39.4	714	5.1	1.08	29.1	81.8	31-1	3	53.70
10	DP 0912 B2RF	36.9	692	4.9	1.07	29.9	82.8	31-2	4	51.10
	<b>Mean</b>	<b>38.7</b>	<b>868</b>	<b>4.9</b>	<b>1.09</b>	<b>30.0</b>	<b>82.3</b>		<b>3</b>	<b>54.28</b>

**Grower:** David Renfro

**Agent:** Steve Burgess

**Table CST5.** Results of Liberty Link cotton variety test, Crockett County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Leng (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Loan Value (¢/lb.)
1	BX 1346GLB2	40.0	1231	4.9	1.18	31.6	84.1	51-2	54.50
2	BX 1348GLB2	40.4	1145	4.7	1.21	28.6	83.4	61-1	54.00
3	ST 5445LLB2	38.2	1106	4.4	1.21	30.3	83.6	61-1	54.30
4	FM 1944GLB2	38.3	1091	4.8	1.24	30.4	83.1	61-2	54.30
5	ST 4145LLB2	39.0	1018	4.4	1.18	30.4	83.3	51-2	54.30
6	PHY 375 WRF	40.8	1015	4.7	1.13	29.1	83.4	51-2	54.05
<b>Mean</b>		<b>39.5</b>	<b>1101</b>	<b>4.6</b>	<b>1.19</b>	<b>30.1</b>	<b>83.5</b>		<b>54.24</b>

**Grower:** Henry Fincher

4.6

**Agent:** Richard Buntin

**Table CST6.** Results of Roundup Ready Flex cotton variety test, Dyer County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	AM 1511 B2RF	41.5	1099	5.3	1.07	30.9	81.3	41-1	4	49.40
2	DP 1028 B2RF	39.8	1019	5.4	1.05	28.9	81.0	41-1	4	49.10
3	PHY 375 WRF	41.6	1018	5.1	1.03	27.0	80.8	41-1	4	48.05
4	AM 1550 B2RF	41.8	977	5.5	1.01	26.5	80.4	41-3	3	46.15
5	DG 2570 B2RF	40.3	969	5.2	1.08	29.5	82.2	31-2	3	53.80
6	PHY 499 WRF	43.7	911	5.2	1.05	30.9	82.5	41-1	5	48.55
7	DP 1034 B2RF	43.1	898	4.9	1.12	29.7	83.5	31-2	4	55.40
8	DP 0912 B2RF	42.8	854	5.5	1.03	28.2	80.5	41-1	5	45.85
9	DP 0920 B2RF	41.0	774	4.9	1.14	32.3	83.4	31-1	4	55.80
10	DP 1133 B2RF	42.8	762	5.2	1.08	31.2	81.9	41-1	5	48.00
<b>Mean</b>		<b>41.8</b>	<b>928</b>	<b>5.2</b>	<b>1.07</b>	<b>29.5</b>	<b>81.8</b>		<b>4</b>	<b>50.01</b>

**Grower:** John Gregory  
**Agent:** Tim Campbell

**Table CST7.** Results of Liberty Link cotton variety test, Dyer County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	PHY 499 WRF	42.3	2037	4.8	1.16	31.5	84.4	41-2	4	54.50
2	PHY 375 WRF	39.9	1784	4.4	1.20	30.5	85.2	41-2	4	54.50
3	BX 1348GLB2	39.0	1770	4.8	1.24	29.0	83.4	41-2	4	54.10
4	BX 1346GLB2	42.6	1729	5.2	1.14	29.8	83.4	41-2	4	51.80
5	FM 1944GLB2	41.3	1704	5.0	1.23	32.3	84.3	41-2	4	52.20
6	ST 5445LLB2	41.2	1658	5.3	1.14	29.4	80.0	41-2	4	50.50
7	ST 4145LLB2	39.2	1591	4.9	1.14	30.7	82.8	41-2	4	54.20
<b>Mean</b>		<b>40.8</b>	<b>1753</b>	<b>4.9</b>	<b>1.18</b>	<b>30.5</b>	<b>83.4</b>		<b>4</b>	<b>53.11</b>

**Table CST8.** Results of Glytol, Liberty Link, Twin Link cotton variety test, Dyer County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	BX 1335GLT	40.8	1684	5.2	1.18	30.3	82.2	41-2	4	51.90
2	BX 1332GLT	40.2	1628	5.0	1.20	32.4	83.6	41-2	4	52.10
3	BX 1333GLT	43.6	1599	4.8	1.11	29.9	81.8	41-2	4	53.85
4	BX 1334GLT	39.2	1288	4.8	1.16	31.0	82.7	41-2	4	54.30
<b>Mean</b>		<b>41.0</b>	<b>1550</b>	<b>4.9</b>	<b>1.16</b>	<b>30.9</b>	<b>82.6</b>			<b>53.04</b>

**Grower:** George Hollingsworth  
**Agent:** Tim Campbell

**Table CST9.** Results of Roundup Ready Flex cotton variety test, Fayette County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	DG 2570 B2RF	37.6	1400	5.1	1.07	29.3	81.3	32-2	3	49.85
2	PHY 375 WRF	39.5	1172	4.8	1.08	29.0	81.2	31-3	5	53.40
3	DP 1133 B2RF	38.7	1165	5.0	1.11	31.5	82.7	31-4	4	53.30
4	DP 0920 B2RF	38.4	1155	5.0	1.09	29.8	81.8	31-4	4	52.20
5	AM 1511 B2RF	37.5	1146	5.0	1.11	33.9	83.5	32-2	5	48.55
6	PHY 499 WRF	42.0	1132	5.0	1.08	31.3	82.3	31-4	5	51.50
7	DP 0912 B2RF	39.0	1114	5.1	1.09	29.8	81.5	31-4	4	52.20
8	AM 1550 B2RF	38.5	1104	4.9	1.07	28.9	82.0	31-4	5	51.60
9	DP 1028 B2RF	39.9	1042	4.9	1.09	30.1	82.5	31-4	3	56.30
10	DP 1034 B2RF	38.8	962	5.0	1.08	27.9	81.6	31-3	3	53.60
	<b>Mean</b>	<b>39.0</b>	<b>1139</b>	<b>5.0</b>	<b>1.09</b>	<b>30.2</b>	<b>82.0</b>		<b>4</b>	<b>52.25</b>

**Grower:** Mark McNabb  
**Agent:** Jeff Via

**Table CST10.** Results of Liberty Link cotton variety test, Fayette County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
5	PHY 499 WRF	43.6	974	4.7	1.10	31.6	82.9	41-2	4	53.85
4	PHY 375 WRF	43.4	965	4.4	1.12	28.0	81.5	41-2	4	53.75
2	BX 1348GLB2	42.2	926	5.0	1.12	26.7	80.9	41-2	4	51.45
1	BX 1346GLB2	42.4	880	4.8	1.11	31.7	82.0	41-2	4	54.25
6	ST 4145LLB2	41.2	878	4.7	1.14	30.0	83.3	41-2	4	54.30
7	ST 5445LLB2	42.3	858	4.8	1.15	31.7	82.2	41-2	4	54.30
3	FM 1944GLB2	41.0	850	4.7	1.14	29.6	82.2	41-2	4	54.00
	<b>Mean</b>	<b>42.3</b>	<b>904</b>	<b>4.7</b>	<b>1.13</b>	<b>29.9</b>	<b>82.1</b>		<b>4</b>	<b>53.70</b>

**Grower:** Joseph McNabb  
**Agent:** Jeff Via

**Table CST11.** Results of Roundup Ready Flex cotton variety test, Gibson County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	PHY 499 WRF	40.3	786	5.1	1.14	33.5	82.8	41-2	4	52.05
2	DP 0912 B2RF	36.5	739	5.1	1.12	31.1	84.0	41-2	3	52.80
3	PHY 375 WRF	36.8	731	4.6	1.14	30.8	82.6	41-1	4	54.20
4	DG 2570 B2RF	37.3	716	4.8	1.13	32.7	83.3	41-1	5	52.15
5	DP 0920 B2RF	36.2	711	4.8	1.18	31.1	83.5	41-1	3	55.05
6	DP 1028 B2RF	39.6	709	4.7	1.18	31.2	84.8	31-2	2	57.95
7	AM 1550 B2RF	36.4	675	4.5	1.13	31.0	83.6	41-1	3	55.00
8	AM 1511 B2RF	40.4	674	5.2	1.12	32.5	83.9	41-1	4	52.05
9	DP 1034 B2RF	37.5	665	4.8	1.16	31.1	84.1	41-1	3	55.15
10	DP 1133 B2RF	38.8	641	4.8	1.19	34.0	85.6	41-1	3	53.00
	<b>Mean</b>	<b>38.0</b>	<b>705</b>	<b>4.8</b>	<b>1.15</b>	<b>31.9</b>	<b>83.8</b>		<b>3</b>	<b>53.94</b>

Grower: Jason Luckey

Agent: Philip Shelby

**Table CST12.** Results of Liberty Link cotton variety test, Gibson County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
	BX 1346GLB2	40.6	1236	4.4	1.14	29.7	84.6	41-2	4	54.20
	BX 1348GLB2	40.4	1073	4.3	1.19	27.8	82.6	41-2	4	53.90
	FM 1944GLB2	37.6	1157	4.4	1.22	31.5	82.8	41-2	4	54.30
	PHY 375 WRF	40.9	1080	4.2	1.13	28.0	82.7	41-2	4	54.00
	PHY 499 WRF	41.5	1214	4.7	1.15	30.0	83.9	41-2	4	54.30
	ST 4145LLB2	39.6	1051	4.2	1.15	29.8	82.4	41-2	4	54.15
	ST 5445LLB2	39.8	977	4.7	1.20	31.0	84.5	41-2	4	54.50
	<b>Mean</b>	<b>40.1</b>	<b>1113</b>	<b>4.4</b>	<b>1.17</b>	<b>29.7</b>	<b>83.4</b>		<b>4</b>	<b>54.19</b>

**Table CST13.** Results of Glytol, Liberty Link, Twin Link cotton variety test, Gibson County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	BX 1332GLT	40.8	1503	4.3	1.26	32.4	84.8	41-2	4	54.50
2	BX 1334GLT	39.5	1326	4.2	1.18	30.3	83.3	41-2	4	54.45
3	BX 1333GLT	42.1	1254	4.1	1.15	29.3	84.5	41-2	4	54.35
4	BX 1335GLT	40.2	1176	4.1	1.24	30.1	84.1	41-2	4	54.55
	<b>Mean</b>	<b>40.7</b>	<b>1315</b>	<b>4.2</b>	<b>1.21</b>	<b>30.5</b>	<b>84.2</b>		<b>4</b>	<b>54.46</b>

Grower: Blake Brown

Agent: Philip Shelby



**Table CST14.** Results of Roundup Ready Flex cotton variety test, Haywood County, 2012.

<b>Rank</b>	<b>Variety</b>	<b>Gin Turnout (%)</b>	<b>Lint Yield (lb./acre)</b>	<b>Mic</b>	<b>Length (inches)</b>	<b>Strength (g/tex)</b>	<b>Uniformity (%)</b>	<b>HVI Color</b>	<b>Leaf Grade</b>	<b>Loan Value (¢/lb.)</b>
1	PHY 499 WRF	43.9	793	5.1	1.08	33.3	82.1	41-1	5	49.25
2	DG 2570 B2RF	42.2	728	5.0	1.07	31.2	82.5	41-1	3	51.20
3	AM 1511 B2RF	40.6	574	5.1	1.06	30.0	82.1	41-1	4	50.60
4	AM 1550 B2RF	44.9	564	5.1	1.02	27.6	80.6	31-4	3	49.90
5	DP 1133 B2RF	42.1	512	5.3	1.07	30.3	80.2	41-1	3	49.90
6	PHY 375 WRF	41.6	501	5.1	1.03	28.3	81.6	41-1	4	48.05
7	DP 1028 B2RF	41.5	489	5.2	1.07	29.3	81.2	41-1	2	50.80
8	DP 0920 B2RF	42.0	480	5.2	1.01	26.4	79.4	31-2	1	47.80
9	DP 0912 B2RF	39.7	476	5.4	1.02	27.7	81.7	41-1	3	47.60
10	DP 1034 B2RF	39.1	467	5.2	1.10	31.0	82.7	41-1	3	52.15
	<b>Mean</b>	<b>41.8</b>	<b>558</b>	<b>5.2</b>	<b>1.05</b>	<b>29.5</b>	<b>81.4</b>		<b>3</b>	<b>49.73</b>

**Grower:** Chester King  
**Agent:** Walter Battle

**Table CST15.** Results of Roundup Ready Flex cotton variety test, Lauderdale County, 2012.

<b>Rank</b>	<b>Variety</b>	<b>Gin Turnout (%)</b>	<b>Lint Yield (lb./acre)</b>	<b>Mic</b>	<b>Length (inches)</b>	<b>Strength (g/tex)</b>	<b>Uniformity (%)</b>	<b>HVI Color</b>	<b>Leaf Grade</b>	<b>Loan Value (¢/lb.)</b>
1	PHY 499 WRF	43.6	1219	4.9	1.13	33.6	82.9	41-1	5	52.10
2	AM 1550 B2RF	39.2	1187	4.7	1.11	28.6	81.8	31-2	4	55.10
3	PHY 375 WRF	41.2	1160	4.9	1.11	29.7	82.3	41-1	3	54.60
4	DP 0912 B2RF	37.0	1049	4.9	1.12	31.4	82.8	41-2	5	52.05
5	AM 1511 B2RF	41.9	1044	5.0	1.11	32.8	82.5	41-1	4	51.95
6	DP 1034 B2RF	41.7	1032	4.6	1.17	31.4	83.3	31-2	4	55.80
7	DP 1028 B2RF	41.7	1003	4.8	1.16	31.5	83.3	41-1	3	55.05
8	DG 2570 B2RF	39.6	997	4.9	1.13	32.1	82.7	31-2	3	57.10
9	DP 0920 B2RF	38.5	996	4.7	1.12	29.8	81.9	41-1	4	53.85
10	DP 1133 B2RF	39.9	829	4.8	1.14	34.2	84.0	31-2	4	53.65
	<b>Mean</b>	<b>40.4</b>	<b>1052</b>	<b>4.8</b>	<b>1.13</b>	<b>31.5</b>	<b>82.8</b>		<b>4</b>	<b>54.13</b>

**Grower:** Leslie Crook

**Agent:** J.C. Dupree

**Table CST16.** Results of Roundup Ready Flex cotton variety test, Lincoln County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	DP 0912 B2RF	37.2	1268	4.2	1.12	83.9	31.6	41-1	4	53.40
2	DP 1028 B2RF	38.7	1228	4.1	1.18	84.0	30.1	41-1	1	54.10
3	DP 0920 B2RF	36.5	1152	4.2	1.20	82.9	30.2	41-1	3	54.10
4	PHY 375 WRF	36.3	1101	3.7	1.18	84.3	30.8	41-1	3	54.10
5	AM 1550 B2RF	35.2	1061	4.0	1.19	84.8	30.9	31-1	3	56.35
6	AM 1511 B2RF	38.9	1049	4.0	1.17	84.7	32.3	31-2	4	54.85
7	DP 1133 B2RF	39.0	1007	4.3	1.21	86.1	31.7	41-1	4	53.30
8	PHY 499 WRF	39.5	958	3.7	1.21	84.8	33.0	41-1	5	51.20
9	DG 2570 B2RF	36.0	922	3.4	1.20	84.4	34.0	31-2	3	54.35
10	DP 1034 B2RF	35.5	457	4.0	1.17	82.5	30.9	31-2	4	51.20
	<b>Mean</b>	<b>37.3</b>	<b>1020</b>	<b>4.0</b>	<b>1.18</b>	<b>84.2</b>	<b>31.6</b>		<b>3</b>	<b>53.70</b>

**Grower:** JBH Farms

**Agent:** David Qualls

**Table CST17.** Results of Roundup Ready Flex cotton variety test, Madison County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	PHY 499 WRF	41.8	716	4.5	1.12	32.7	82.8	31-1	4	55.60
2	DP 1028 B2RF	39.7	650	4.8	1.10	30.3	81.9	31-1	3	56.20
3	DP 0912 B2RF	38.0	645	5.1	1.07	29.3	81.5	31-1	3	51.80
4	DP 1034 B2RF	37.8	635	4.8	1.09	30.0	81.5	31-1	2	56.50
5	PHY 375 WRF	40.2	625	4.9	1.10	31.4	82.0	31-1	3	56.40
6	DP 1133 B2RF	40.8	620	4.9	1.11	31.5	81.9	31-1	2	57.55
7	DG 2570 B2RF	39.6	613	4.9	1.07	31.4	82.2	31-3	2	54.60
8	AM 1550 B2RF	39.1	606	4.4	1.08	28.7	81.3	31-1	4	54.40
9	DP 0920 B2RF	38.3	595	4.8	1.09	29.7	80.9	31-1	3	56.00
10	AM 1511 B2RF	39.9	582	4.8	1.07	32.9	81.6	31-1	5	51.90
<b>Mean</b>		<b>39.5</b>	<b>629</b>	<b>4.8</b>	<b>1.09</b>	<b>30.8</b>	<b>81.8</b>		<b>3</b>	<b>55.10</b>

**Grower:** Matt Griggs  
**Agent:** Jake Mallard

**Table CST18.** Results of Liberty Link cotton variety test, Madison County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	PHY 499 WRF	41.8	1264	4.1	1.14	32.3	83.8	41-2	4	54.55
2	PHY 375 WRF	41.9	1248	4.2	1.15	29.3	83.1	41-2	4	54.25
3	ST 5445LLB2	39.8	1248	4.3	1.19	31.2	82.7	41-2	4	54.30
4	BX 1346GLB2	40.0	1205	4.0	1.17	32.2	84.6	41-2	4	54.65
5	ST 4145LLB2	38.5	1203	4.0	1.22	30.5	84.8	41-2	4	54.55
6	BX 1348GLB2	38.6	1176	4.0	1.24	29.3	83.7	41-2	4	54.25
7	FM 1944GLB2	39.4	1147	4.1	1.21	31.7	82.7	41-2	4	54.45
<b>Mean</b>		<b>40.0</b>	<b>1213</b>	<b>4.1</b>	<b>1.19</b>	<b>30.9</b>	<b>83.6</b>		<b>4</b>	<b>54.43</b>

**Grower:** Bob Hayes  
**Agent:** Jake Mallard

**Table CST19.** Results of Roundup Ready Flex cotton variety test, Shelby County, 2012; Dryland.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	DP 1028 B2RF	41.8	1061	5.1	1.05	29.1	81.7	41-1	6	46.35
2	AM 1511 B2RF	41.8	1047	5.2	1.04	29.5	81.7	31-3	4	49.00
3	DP 0920 B2RF	41.8	1042	5.2	1.06	27.1	80.2	31-4	2	51.80
4	DP 1133 B2RF	41.6	957	5.1	1.03	26.9	80.0	31-1	2	50.00
5	DP 0912 B2RF	42.0	928	5.5	1.05	29.7	80.3	41-1	3	49.70
6	DG 2570 B2RF	42.2	918	5.3	1.04	31.1	81.6	31-3	3	49.20
7	PHY 375 WRF	43.9	909	5.2	1.05	30.6	81.1	41-3	4	50.50
8	PHY 499 WRF	43.9	898	5.1	1.05	28.3	80.3	31-3	3	51.70
9	AM 1550 B2RF	41.8	896	5.2	1.03	27.4	80.0	31-3	2	50.00
10	DP 1034 B2RF	42.6	760	5.2	1.08	30.4	81.8	31-1	2	54.20
	<b>Mean</b>	<b>42.3</b>	<b>942</b>	<b>5.2</b>	<b>1.05</b>	<b>29.0</b>	<b>80.9</b>		<b>3</b>	<b>50.25</b>

Grower: Ray Sneed

Agent: Becky Muller

**Table CST20.** Results of Roundup Ready Flex cotton variety test, Shelby County, 2012; Irrigated.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	PHY 375 WRF	43.9	1416	5.1	1.11	30.0	81.3	31-2	3	54.60
2	AM 1550 B2RF	41.5	1371	5.0	1.10	29.3	82.3	31-1	4	52.30
3	DG 2570 B2RF	43.8	1359	5.2	1.12	32.2	83.5	31-2	3	54.90
4	DP 0920 B2RF	41.5	1354	5.2	1.15	30.8	83.0	31-1	4	53.40
5	DP 0912 B2RF	38.9	1325	5.4	1.12	31.1	82.4	31-2	4	52.20
6	PHY 499 WRF	43.0	1208	5.0	1.11	33.0	83.3	31-2	4	53.45
7	DP 1028 B2RF	41.8	1162	5.2	1.12	30.0	82.4	31-1	3	54.70
8	AM 1511 B2RF	42.5	1154	5.1	1.11	31.7	83.2	31-2	5	52.00
9	DP 1034 B2RF	42.7	1108	5.0	1.10	32.2	81.4	31-2	4	52.50
10	DP 1133 B2RF	42.5	1039	5.1	1.13	33.4	82.9	31-2	4	53.35
	<b>Mean</b>	<b>42.2</b>	<b>1250</b>	<b>5.1</b>	<b>1.12</b>	<b>31.4</b>	<b>82.6</b>		<b>4</b>	<b>53.34</b>

Grower: Ray Sneed

Agent: Becky Muller

**Table CST21.** Results of Liberty Link cotton variety test, Tipton County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	PHY 499 WRF	44.2	1780	5.0	1.10	32.5	86.0	41-2	4	51.95
2	BX 1346GLB2	43.1	1746	5.1	1.07	30.3	83.6	41-2	4	50.70
3	ST 4145LLB2	41.4	1687	5.1	1.12	29.2	83.6	41-2	4	51.75
4	PHY 375 WRF	40.3	1663	4.6	1.11	29.5	84.2	41-2	4	54.15
5	ST 5445LLB2	41.6	1637	5.4	1.14	30.8	83.2	41-2	4	50.90
6	BX 1348GLB2	39.8	1627	5.0	1.22	28.4	84.9	41-2	4	51.80
7	FM 1944GLB2	38.9	1605	4.8	1.17	31.8	83.2	41-2	4	54.40
	<b>Mean</b>	<b>41.3</b>	<b>1678</b>	<b>5.0</b>	<b>1.13</b>	<b>30.4</b>	<b>84.1</b>		<b>4</b>	<b>52.24</b>

5.0

**Table CST22.** Results of Glytol, Liberty Link, Twin Link cotton variety test, Tipton County, 2012.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	BX 1332GLT	40.5	1229	4.5	1.22	30.1	84.6	41-2	4	54.40
2	BX 1334GLT	42.6	1206	4.5	1.11	28.4	83.2	41-2	4	53.95
3	BX 1335GLT	42.6	1206	5.1	1.17	29.6	82.5	41-2	4	51.70
4	BX 1333GLT	40.4	1062	4.8	1.13	30.7	84.1	41-2	4	54.35
	<b>Mean</b>	<b>41.5</b>	<b>1176</b>	<b>4.7</b>	<b>1.16</b>	<b>29.7</b>	<b>83.6</b>		<b>4</b>	<b>53.60</b>

Grower: Kelley Enterprises

Agent: Booker Leigh

**Table CST23.** Gin turnout and lint yield of varieties common to Tennessee Roundup Ready Flex CST's from 2011 and 2012 year averages, listed by yield rank.

Rank	Variety	Gin							Leaf	Loan
		Turnout	Lint	Mic	Length	Strength	Uniformity			
		%	lb/ac		(inches)	(g/tex)	(%)		(¢/lb.)	
1	DG 2570 B2RF	39.3	971	4.8	1.11	32.0	82.8	3	54.93	
2	PHY 499 WRF	40.9	971	4.7	1.13	33.5	83.0	4	54.28	
3	AM 1511 B2RF	39.8	959	4.8	1.10	32.2	82.6	4	52.03	
4	PHY 375 WRF	39.4	928	4.7	1.11	30.8	82.1	4	53.28	
5	DP 0920 B2RF	39.0	918	4.8	1.13	30.4	82.1	3	54.05	
6	DP 0912 B2RF	37.9	883	5.0	1.09	30.9	82.1	4	51.93	
7	DP 1028 B2RF	39.7	855	4.8	1.13	30.8	82.7	3	54.05	
8	DP 1133 B2RF	39.3	841	4.8	1.14	32.9	83.0	3	53.00	
9	DP 1034 B2RF	39.4	806	4.6	1.13	31.2	82.7	3	55.20	
<b>AVERAGE</b>		<b>39.4</b>	<b>904</b>	<b>4.8</b>	<b>1.12</b>	<b>31.6</b>	<b>82.5</b>	<b>3</b>	<b>53.64</b>	
<b>LSD (0.05)</b>		<b>1.04</b>	<b>63</b>	<b>0.2</b>	<b>0.02</b>	<b>0.9</b>	<b>0.4</b>	<b>1</b>		

Tennessee AgResearch data of Main et al. (2011).

**Table CST24.** Gin turnout and lint yield of varieties common to Tennessee Roundup Ready Flex CST's from 2010, 2011 and 2012 year averages, listed by yield rank.

Rank	Variety	Gin							Leaf	Loan
		Turnout	Lint	Mic	Length	Strength	Uniformity			
		%	lb/ac		(inches)	(g/tex)	(%)		(¢/lb.)	
1	DG 2570 B2RF	39.2	986	4.7	1.10	31.5	82.6	3	55.13	
2	PHY 375 WRF	39.6	962	4.6	1.10	30.2	81.9	4	53.97	
3	DP 0920 B2RF	39.3	957	4.7	1.12	29.7	81.9	3	54.40	
4	DP 0912 B2RF	38.0	932	4.9	1.08	30.3	81.9	4	52.20	
5	DP 1028 B2RF	40.1	908	4.8	1.12	30.3	82.5	3	54.48	
6	DP 1034 B2RF	39.6	853	4.6	1.12	30.7	82.4	3	55.25	
<b>AVERAGE</b>		<b>39.3</b>	<b>933</b>	<b>4.7</b>	<b>1.11</b>	<b>30.5</b>	<b>82.2</b>	<b>3</b>	<b>54.24</b>	
<b>LSD (0.05)</b>		<b>0.78</b>	<b>54</b>	<b>0.2</b>	<b>0.01</b>	<b>0.5</b>	<b>0.2</b>	<b>1</b>		

Tennessee AgResearch data of Main et al. (2011).

## GLOSSARY OF TERMS

**Bt cotton:** A variety containing genes from the bacterium, *Bacillus thuringiensis*, that confer resistance to certain lepidopterous insect pests such as tobacco budworm. Abbreviated **B** or **BG** in a variety name. **BII** or **B2** indicates that the variety carries a second *Bt* gene.

**CCC:** Commodity Credit Corporation, an entity administered by the Farm Services Agency of the USDA.

**Color:** See *HVI Color Grade*.

**Conventional tillage:** Systems in which the entire surface layer of soil is mixed or inverted by plowing, power tilling, or multiple disking before planting. Conventional tillage systems may also involve inter-row cultivation after planting.

**CST:** County Standard Test of cotton.

**CV:** Coefficient of variation. It is a statistical estimate of experimental variability, calculated as the standard deviation divided by the mean, and expressed as a percentage. A relatively low CV indicates greater experimental precision.

**DAP:** Days after planting.

**Earliness:** A measure of how rapidly a cotton crop reaches maturity. Relative earliness of varieties can be measured by the heat units needed to mature the highest harvestable boll. Earliness is under genetic control but is strongly influenced by crop management.

**Gin turnout:** Weight of lint as a percent of seedcotton weight, which is composed of lint, seed, trash, and excess moisture.

**Heat Units:** A measure of thermal time used to describe crop growth and development. Also abbreviated as **GDD** (growing degree days) or **DD60s** (degree-days above a threshold of 60 F).

**HVI:** High Volume Instrument measurement of fiber length, strength, Micronaire, length uniformity, trash, and color.

**HVI Color Grade:** Cotton color grade is a function of white reflectance (Rd) and yellowness (+b) of the lint sample. The HVI color code identifies the quadrant of the Nickerson-Hunter cotton colorimeter diagram in which Rd and +b values intersect (USDA, 1999). Color may be affected by moisture and temperature after boll opening, during harvest, ginning or storage.

**HNR:** Height-to-node ratio of the main stem, a measure of vegetative vigor.

**Leaf Grade:** The classer's leaf grade is a visual estimate of the amount of cotton plant leaf particles in a sample of lint. There are seven leaf grades represented by physical standards, plus a below grade designation. See *Trash*.



**Length:** Average fiber length of the longer one-half of the fibers sampled, in hundredths of an inch. Fiber length is under strong genetic control, but may be reduced by environmental stress, nutrient deficiency, or fiber breakage. Staple expresses fiber length in 32nds of an inch.

Length (32nds)	Length (Inches)	Length (32nds)	Length (Inches)
24	0.79 & shorter	36	1.11 – 1.13
26	0.80 – 0.85	37	1.14 – 1.17
28	0.86 – 0.89	38	1.18 – 1.20
29	0.90 – 0.92	39	1.21 – 1.23
30	0.93 – 0.95	40	1.24 – 1.26
31	0.96 – 0.98	41	1.27 – 1.29
32	0.99 – 1.01	42	1.30 – 1.32
33	1.02 – 1.04	43	1.33 – 1.35
34	1.05 – 1.07	44 & +	1.36 & +
35	1.08 – 1.10		

Source: USDA (1999)

**Lint yield:** Weight of lint harvested per unit ground area.

**Liberty Link:** Designation in a variety name that indicates resistance to glufosinate herbicide.

**LSD:** Least significant difference. It is a statistical estimate of the smallest difference between two means that are significantly different at a fixed *P*-value (usually 0.05).

**Micronaire:** A measure of fiber fineness or maturity. An airflow instrument measures the air permeability of a given mass of cotton lint compressed to a fixed volume. Low "mike" values indicate finer or less mature fibers. Mike is strongly influenced by boll load, leaf retention and environmental conditions (especially moisture supply) during boll maturation. Abbreviated **Mike** or **Mic**. No decimal point is used by the USDA (1999) in reporting micronaire values, while others report values in tenths of units.

Market Value	HVI Micronaire
Low discount range	34 and below
Base range	35 – 36
Premium range	37 – 42
Base range	43 – 49
High discount range	50 and above

Source: USDA (1999)

**NACB:** Nodes above cracked boll. A measure of plant maturity measured by the number of nodes from the highest first-position cracked boll to the node of the highest harvestable boll.

**NAWF:** Nodes above white flower. A measure of the number of main-stem nodes above the uppermost white flower at first position, indicating relative crop maturity. An average NAWF count of 5 is used as a reference point of physiological cutout or last effective boll population.

**No-till:** A system in which a crop is planted directly into a seedbed not tilled since the previous crop, and only the immediate seed zone is disturbed during planting. Other surface residues are not moved, and weed control is accomplished primarily with herbicides.

**OVT:** Official variety trial. A replicated small-plot test conducted at several locations to evaluate the adaptation of the most promising commercial cultivars for Tennessee.

**P-value:** Observed significance level in an analysis of variance. It estimates the probability of error in concluding that differences truly exist among treatments (varieties).

**RCB:** Randomized complete block. An experimental design in which all treatments (varieties) are randomly assigned to plots in separate blocks (replications) in the field.

**Rd and +b:** Measures of white reflectance (%) and of yellow pigmentation (Hunter's scale), respectively, in a sample of lint. Lower Rd values indicate grayer samples, while higher +b values indicate yellower samples. Field weathering can decrease reflectance, while excess moisture in storage can cause yellowing.

**Roundup Ready®:** A variety containing genes that confer resistance to glyphosate herbicide that may be sprayed topically until the fifth true leaf reaches the size of a quarter. Subsequent glyphosate applications must be directed towards the base of the plant. Usually abbreviated **R** or **RR** in a variety name.

**Roundup Ready Flex®:** A variety containing genes that confer resistance to glyphosate herbicide that may be sprayed topically beyond the fifth true leaf stage. Usually abbreviated **F** or **RF** in a variety name.

**Seedcotton:** Lint plus seed, trash and excess moisture.

**Staple:** A traditional term applied to lengths of fiber that require spinning or twisting in the manufacture of yarn. Staple also refers to the average length of the bulk fibers measured in 32nds of one inch. Cotton fiber considered with regard to its length.

- short staple : less than 25 mm (<0.98 inches)
- medium staple : 25 to 30 mm (0.98–1.18 inches)
- long staple : 30 to 37 mm (1.18-1.46 inches)
- extra long staple : 37mm and above (>1.46 inches)

**Strength:** Force required to break a bundle of fibers one tex unit in size. A tex is the weight in grams of 1,000 meters of fiber. HVI clamp jaw spacing is  $\frac{1}{8}$  inch. Fiber strength is under strong genetic control, but may be reduced by nutrient deficiency or stress.

Strength category	HVI Strength (grams per tex)
Very strong	31 and above
Strong	29 – 30
Intermediate	26 – 28
Weak	24 – 25
Very weak	23 and below

Source: USDA (1999)

**Transgenic variety:** A variety containing genes from dissimilar species or other foreign sources that confer desirable traits such as insect or herbicide resistance.

**Trash:** Percentage of the sample surface area covered by non-lint materials, as determined by a video scanner. Typical sources of trash include leaf fragments and bark. HVI trash measurement is correlated to a hand classer's leaf grade:

Classer's leaf grade	HVI Trash Measurement	
	4-year avg <sup>1</sup> %	1996 crop <sup>2</sup> reading
1	0.12	01
2	0.20	02
3	0.33	03
4	0.50	05
5	0.68	06
6	0.92	08
7	1.21	10
8	--	13

Sources: <sup>1</sup> (USDA, 1999). <sup>2</sup> (USDA, 1997).

**Uniformity:** Length uniformity is the ratio between the mean length and the upper-half mean length of the fibers, expressed as a percentage. Also referred to as the length uniformity index.

Uniformity group	Length uniformity index
Very high	86 and above
High	83 – 85
Intermediate	80 – 82
Low	77 – 79
Very low	76 and below

Source: USDA (1999)

**Widestrike:** A variety containing a pair of genes from the bacterium, *Bacillus thuringiensis*, that confer resistance to certain lepidopterous insect pests such as tobacco budworm. Sometimes abbreviated **W** in a variety name.

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