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PB1742 Tennessee Cotton Variety Test Results 2011

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Cotton Variety Test Results | 2011



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**Variety trial results are posted at
<http://utcrops.com>**

<http://varietytrials.tennessee.edu>

Tennessee Cotton Variety Test Results

2011

December 2011

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 2011 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 15 locations each containing 16 cultivars. County standard tests of Liberty Link cultivars were planted in 6 locations with each location containing 8 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

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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

We thank Dr. Bruce Kirksey, director of research and his farm crew at the Agricenter International in Memphis, for his collaboration in conducting trials at that location in 2011.

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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
- Croplan 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

C. L. Main, T. D. Bush, M. B. Ross and R. C. Dunagan
West Tennessee Research & Education Center
The University of Tennessee
Jackson, TN

Official Variety Trials (OVTs) of cotton were conducted at six locations in Tennessee during 2011. Conventional varieties, and varieties with Liberty-Link (LL), or Roundup Ready Flex (RF) genes, were tested at all locations. There were 48 entries from seven seed companies and a line from the University of Arkansas cotton breeding program. All OVTs were planted between 5 May and 26 May 2011 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 45 entries tested across six locations in 2011.

Table OVT2 – OVT7 Lint yield, gin turnout, and fiber data from the six different OVT locations.

Table OVT8 Overall yield average and yield at each OVT location for all 48 varieties tested in 2011.

Table OVT10 Relative maturity, nodes, and final plant height of the 48 OVT entries.

Table OVT11 presents two, and three year averages for varieties common to all years.

Table 1. OVT plot management details 2011.

Location	Planting Date	Soil Type	Tillage	Fertility	Irrigation	Harvest Date
Agricenter Int.	5/12/2011	Falaya Silt Loam	Conv.	80-30-90	None	-----
Ames Plantation	5/10/2011	Memphis Silt Loam	Conv.	80-30-90	None	9/21/2011
Gift	5/18/2011	Commerce Silt Loam	Conv.	80- var P&K	None	10/6/2011
Milan	6/2/2011	Collins Silt Loam	No-Tillage	80-40-80	None	10/25/2011
Ridgely	5/17/2011	Reelfoot Silt Loam	No-Tillage	80- var P&K	None	10/2/2011
Jackson	5/5/2011	Collins Silt Loam	No-Tillage	80-45-90	None	9/15/2011

Table OVT1. Lint yield, gin turnout, and fiber quality of 27 entries in the 2011 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	Color Grade
		%	lb/ac		in	g/tex	%	
1	DP 0912 B2RF	37.3	1418	4.9	1.09	31.5	82.1	41
2	PHY 499 WRF	37.9	1412	4.8	1.15	34.2	83.3	31
3	AM 1511 B2RF	40.2	1378	4.6	1.13	33.3	83.5	31
4	ST 5288B2F	37.2	1359	4.8	1.13	32.0	82.4	41
5	BX 1262B2F	37.2	1328	4.4	1.16	34.2	83.0	41
6	ST 4145LLB2	36.2	1319	4.3	1.15	33.0	83.3	41
7	DG 2570 B2RF	38.2	1312	4.5	1.13	33.0	83.5	31
8	DP 1133 B2RF	39.9	1312	4.6	1.18	34.4	84.3	31
9	10R020B2R2	37.9	1307	4.6	1.13	31.6	83.4	31
10	ST 5458B2RF	37.4	1300	4.6	1.15	34.4	82.6	31
11	BCSX 1150 B2F	33.8	1300	4.3	1.20	36.6	83.2	31
12	PHY 367 WRF	37.8	1297	4.4	1.14	32.2	82.3	31
13	BX 1252LLB2	36.4	1277	4.4	1.18	34.8	83.1	31
14	FM1740B2F	37.8	1262	4.4	1.12	33.1	81.0	31
15	DP 0920 B2RF	38.6	1257	4.6	1.13	31.0	82.4	31
16	DP 1137 B2RF	39.0	1240	4.5	1.16	31.8	83.6	31
17	AM 1550 B2RF	38.3	1228	4.5	1.12	31.5	82.8	31
18	10R013B2R2	36.2	1226	4.4	1.17	33.9	82.5	31
19	PHY 375 WRF	36.7	1224	4.4	1.17	33.7	82.5	31
20	BX 1254LLB2	38.1	1219	4.7	1.16	34.5	82.2	31
21	10R011B2R2	38.1	1213	4.3	1.18	36.2	82.3	31
22	DP 1028 B2RF	40.6	1158	4.5	1.15	30.9	83.5	31
23	ST 4288B2F	34.2	1151	4.4	1.18	33.8	82.7	31
24	BX 1261B2F	33.8	1124	4.2	1.17	33.2	82.9	31
25	SSG 210 CT	34.9	1077	4.5	1.14	34.1	82.3	31
26	AM 003 B2RF	38.6	1061	4.6	1.15	32.1	82.4	41
27	UA 48	36.5	987	4.7	1.28	38.7	84.4	31
	Average	37.4	1250	4.5	1.15	33.5	82.9	
	LSD (0.05)	1.3	79	0.3	0.03	1.4	1.5	

Tennessee AgResearch data of Main et al. (2011). HVI data furnished by USDA, Memphis, TN.

Table OVT2. Lint yield, gin turnout, and fiber quality of 22 entries in the 2011 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	40.6	1038	4.4	1.02	32.5	78.6	42
2	ST 5458B2RF	38.4	1035	4.3	1.11	32.8	81.4	41
3	DG 2570 B2RF	38.1	1021	4.2	1.09	30.8	82.6	41
4	AM 1511 B2RF	38.7	1003	4.4	1.08	31.5	82.2	41
5	10R011B2R2	38.2	994	3.9	1.15	33.9	82.1	41
6	PHY 367 WRF	38.8	990	4.5	1.02	28.5	79.1	41
7	BX 1262B2F	37.4	965	3.9	1.10	32.5	81.8	41
8	10R020B2R2	38.1	889	3.9	1.08	29.9	81.4	31
9	BCSX 1150 B2F	38.3	887	3.9	1.12	33.7	81.6	42
10	10R013B2R2	37.1	885	4.2	1.11	32.3	83.0	41
11	FM1740B2F	37.9	878	3.9	1.09	31.7	80.8	41
12	DP 0912 B2RF	37.4	864	4.1	1.06	30.5	81.1	41
13	ST 4288B2F	37.9	844	4.1	1.11	32.0	81.3	41
14	DP 1137 B2RF	38.8	833	4.2	1.10	29.4	82.4	41
15	DP 1028 B2RF	39.3	824	4.0	1.08	31.6	79.2	41
16	AM 1550 B2RF	40.0	814	4.1	1.15	32.6	83.5	31
17	PHY 375 WRF	38.8	810	3.7	1.11	33.3	81.9	41
18	DP 1133 B2RF	40.0	749	3.9	1.15	35.0	83.8	41
19	AM 003 B2RF	38.7	747	4.7	1.06	29.6	81.2	41
20	ST 5288B2F	38.5	739	4.6	1.09	30.0	81.0	41
21	BX 1261B2F	38.1	718	3.8	1.11	32.2	81.7	41
22	DP 0920 B2RF	38.7	677	4.1	1.11	29.4	81.6	41
Average		38.5	873	4.1	1.10	31.6	81.5	
LSD (0.05)		1.1	150					

Tennessee AgResearch data of Main et al. (2011). HVI data furnished by USDA, Memphis, TN.

** Trial at Ames Plantation displayed damage from glyphosate drift, only varieties tolerant to glyphosate are reported and data is not included in calculating the overall mean.

Table OVT3. Lint yield, gin turnout, and fiber quality of 27 entries in the 2011 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	DP 0912 B2RF	38.3	1428	5.1	1.07	30.3	80.6	41
2	ST 5288B2F	38.3	1418	5.1	1.11	31.8	82.9	41
3	PHY 499 WRF	40.2	1411	4.7	1.11	31.3	82.7	41
4	ST 5458B2RF	38.8	1395	5.3	1.11	31.6	82.4	41
5	BX 1262B2F	38.1	1332	5.0	1.10	31.9	81.6	41
6	AM 1511 B2RF	40.3	1309	4.8	1.09	31.9	83.9	41
7	DG 2570 B2RF	38.5	1297	4.7	1.11	33.4	83.1	31
8	BCSX 1150 B2F	37.8	1289	4.8	1.15	34.3	80.4	41
9	ST 4145LLB2	38.1	1278	4.7	1.12	31.8	82.6	41
10	10R011B2R2	37.2	1268	4.3	1.17	35.2	82.5	41
11	10R013B2R2	37.9	1254	4.7	1.17	33.9	84.4	41
12	FM1740B2F	38.0	1253	5.0	1.06	34.0	78.0	41
13	BX 1252LLB2	38.0	1250	5.0	1.16	33.3	83.2	41
14	10R020B2R2	37.8	1244	4.8	1.10	31.8	82.6	31
15	DP 0920 B2RF	38.4	1211	4.7	1.10	30.1	82.8	41
16	AM 1550 B2RF	38.1	1211	4.9	1.11	31.5	82.1	31
17	PHY 367 WRF	38.6	1209	4.7	1.11	31.7	81.8	41
18	BX 1254LLB2	38.1	1205	5.0	1.14	34.7	82.5	41
19	PHY 375 WRF	39.1	1191	4.9	1.15	33.5	82.5	41
20	BX 1261B2F	37.2	1184	4.4	1.18	33.0	83.7	41
21	SSG 210 CT	36.9	1136	4.9	1.15	34.3	83.0	41
22	ST 4288B2F	38.0	1107	4.6	1.17	33.7	83.0	41
23	DP 1133 B2RF	38.0	1075	4.4	1.16	33.2	83.6	31
24	DP 1137 B2RF	37.8	1042	4.5	1.15	31.2	82.9	31
25	DP 1028 B2RF	40.2	1031	4.5	1.15	31.1	84.1	31
26	UA 48	37.8	873	4.9	1.24	40.0	82.8	41
27	AM 003 B2RF	37.5	858	4.9	1.14	31.3	82.3	51
Average		38.3	1213	4.8	1.13	32.8	82.5	
LSD (0.05)		2.1	176					

Tennessee AgResearch data of Main et al. (2011). HVI data furnished by USDA, Memphis, TN.

Table OVT4. Lint yield, gin turnout, and fiber quality of 27 entries in the 2011 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	AM 1511 B2RF	42.0	1061	4.3	1.14	34.5	83.7	31
2	DP 0912 B2RF	39.3	1037	4.5	1.11	32.3	82.5	31
3	DP 1133 B2RF	41.1	1025	4.4	1.19	37.1	84.2	31
4	ST 5288B2F	38.8	1024	4.2	1.14	33.3	81.9	31
5	PHY 499 WRF	40.3	975	4.9	1.15	34.3	83.0	31
6	PHY 375 WRF	38.4	967	3.9	1.17	33.5	82.2	31
7	BX 1262B2F	38.4	958	3.8	1.19	35.8	83.5	31
8	DG 2570 B2RF	39.8	946	4.3	1.14	33.4	82.2	31
9	10R020B2R2	40.3	936	4.3	1.14	32.1	82.7	31
10	AM 1550 B2RF	40.1	909	4.2	1.12	32.6	82.5	31
11	PHY 367 WRF	38.2	907	4.0	1.14	32.6	82.9	31
12	FM1740B2F	40.4	905	3.8	1.09	32.2	78.4	31
13	BCSX 1150 B2F	38.2	902	3.7	1.18	38.8	83.2	31
14	DP 1137 B2RF	40.1	884	4.3	1.16	33.2	83.2	31
15	ST 4145LLB2	38.7	882	3.9	1.16	33.8	83.4	41
16	BX 1252LLB2	38.5	875	3.8	1.16	35.5	82.2	31
17	ST 4288B2F	38.1	843	4.2	1.17	34.4	82.2	31
18	DP 0920 B2RF	38.4	841	4.1	1.14	31.6	81.6	31
19	BX 1261B2F	38.3	818	3.7	1.15	33.3	82.2	31
20	DP 1028 B2RF	42.0	803	4.3	1.14	31.7	82.8	31
21	10R013B2R2	37.7	771	4.0	1.14	34.9	80.2	31
22	BX 1254LLB2	39.7	763	4.3	1.15	34.3	81.9	31
23	10R011B2R2	39.6	742	4.3	1.15	34.8	80.6	31
24	UA 48	37.1	738	4.7	1.33	39.4	85.3	31
25	ST 5458B2RF	38.2	724	4.1	1.14	36.1	81.6	31
26	SSG 210 CT	37.8	639	4.4	1.13	34.5	81.9	31
27	AM 003 B2RF	38.1	526	4.2	1.16	32.4	81.8	41
Average		39.2	867	4.2	1.15	34.2	82.4	
LSD (0.05)								

Tennessee AgResearch data of Main et al. (2011). HVI data furnished by USDA, Memphis, TN.

Table OVT5. Lint yield, gin turnout, and fiber quality of 27 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	DP 0912 B2RF	38.6	1882	4.9	1.14	31.3	83.7	41
2	AM 1511 B2RF	39.8	1875	4.6	1.14	33.5	82.9	31
3	PHY 499 WRF	40.1	1870	4.6	1.18	36.2	83.7	31
4	ST 5458B2RF	38.7	1857	4.3	1.19	34.3	82.7	31
5	DP 1133 B2RF	39.8	1839	4.6	1.20	34.0	84.8	31
6	DP 1137 B2RF	39.1	1833	4.5	1.20	32.4	84.7	31
7	ST 4145LLB2	38.8	1824	4.5	1.19	32.9	84.4	41
8	10R020B2R2	37.4	1815	4.7	1.16	30.9	83.8	31
9	PHY 367 WRF	39.5	1804	4.6	1.16	32.0	83.0	31
10	ST 5288B2F	38.9	1796	4.9	1.15	30.9	81.6	41
11	BX 1252LLB2	37.2	1748	4.5	1.21	35.0	83.4	31
12	BX 1262B2F	38.1	1741	4.6	1.22	34.8	83.5	41
13	BCSX 1150 B2F	38.1	1740	4.4	1.26	36.1	84.5	41
14	10R011B2R2	38.0	1701	4.0	1.21	38.2	81.4	31
15	AM 003 B2RF	39.6	1686	4.6	1.17	31.8	83.4	41
16	10R013B2R2	37.0	1686	4.5	1.19	32.3	84.1	31
17	DG 2570 B2RF	37.2	1680	4.4	1.16	32.2	84.0	31
18	BX 1254LLB2	37.8	1631	4.9	1.19	33.9	83.1	41
19	DP 0920 B2RF	38.3	1627	4.7	1.17	31.0	83.4	31
20	FM1740B2F	37.6	1623	4.4	1.18	33.4	83.7	31
21	DP 1028 B2RF	39.5	1617	4.6	1.20	31.6	84.3	31
22	AM 1550 B2RF	38.2	1608	4.5	1.13	30.5	82.7	31
23	PHY 375 WRF	39.9	1546	4.4	1.23	34.1	84.6	31
24	ST 4288B2F	37.8	1528	4.4	1.22	34.4	83.5	31
25	BX 1261B2F	38.2	1500	4.3	1.19	32.4	82.9	31
26	SSG 210 CT	37.5	1340	4.4	1.18	34.0	83.1	31
27	UA 48	38.0	1201	4.5	1.31	37.6	85.0	31
Average		38.5	1689	4.5	1.19	33.4	83.6	
LSD (0.05)		3.2	201					

Tennessee AgResearch data of Main et al. (2011). HVI data furnished by USDA, Memphis, TN.

Table OVT6. Lint yield, gin turnout, and fiber quality of 27 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	40.2	1390	4.8	1.16	35.0	83.9	31
2	DP 0920 B2RF	40.3	1350	4.9	1.12	31.2	81.6	31
3	DG 2570 B2RF	38.4	1327	4.6	1.12	32.8	84.7	31
4	DP 0912 B2RF	36.6	1325	4.9	1.05	32.1	81.6	31
5	DP 1133 B2RF	40.8	1310	4.8	1.15	33.4	84.6	31
6	ST 4145LLB2	38.1	1294	4.2	1.14	33.5	82.8	41
7	BX 1262B2F	36.6	1280	4.1	1.14	34.1	83.4	31
8	BX 1254LLB2	38.0	1276	4.7	1.15	35.0	81.3	31
9	BCSX 1150 B2F	37.6	1271	4.1	1.19	37.2	84.6	42
10	AM 1511 B2RF	38.6	1267	4.6	1.13	33.2	83.5	31
11	PHY 367 WRF	38.9	1266	4.3	1.13	32.6	81.4	31
12	FM1740B2F	37.2	1266	4.4	1.15	32.6	83.7	31
13	10R020B2R2	37.6	1235	4.6	1.13	31.5	84.4	21
14	BX 1252LLB2	37.1	1235	4.3	1.19	35.2	83.4	31
15	ST 5458B2RF	38.5	1225	4.6	1.17	35.5	83.5	32
16	DP 1137 B2RF	39.9	1202	4.6	1.11	30.4	83.4	21
17	ST 5288B2F	38.2	1199	4.9	1.13	32.0	83.0	31
18	SSG 210 CT	37.9	1192	4.4	1.10	33.5	81.2	31
19	10R013B2R2	36.0	1191	4.5	1.16	34.3	81.4	31
20	PHY 375 WRF	38.9	1191	4.2	1.12	33.8	80.8	31
21	AM 1550 B2RF	38.3	1185	4.5	1.12	31.2	83.7	31
22	DP 1028 B2RF	40.6	1181	4.7	1.12	29.0	82.9	21
23	AM 003 B2RF	39.0	1174	4.7	1.13	32.9	82.1	41
24	10R011B2R2	37.7	1142	4.4	1.17	36.4	84.5	31
25	UA 48	37.2	1136	4.7	1.23	37.9	84.5	31
26	ST 4288B2F	38.0	1126	4.2	1.16	32.8	82.2	31
27	BX 1261B2F	38.1	993	4.3	1.15	34.2	82.9	31
Average		38.3	1230	4.5	1.14	33.5	83.0	
LSD (0.05)			222					

Tennessee AgResearch data of Main et al. (2011). HVI data furnished by USDA, Memphis, TN.

Table OVT7. Plant height (inches), total number of nodes, height to node ratio, nodes above cracked boll, and estimated DD60's remaining to maturity of 27 entries in the 2011 Tennessee Official Variety Trial, listed in alphabetical order.

Variety	Height	Nodes	Height:Node	NACB¹	DD60²
	in	no.	ratio	no.	units
10R011B2R2	45.1	19.7	2.3	6.3	314.4
10R013B2R2	38.9	17.5	2.2	5.6	280.0
10R020B2R2	44.8	18.8	2.4	5.5	276.3
AM 003 B2RF	40.1	19.0	2.1	5.4	271.3
AM 1511 B2RF	41.7	18.3	2.3	5.6	281.9
AM 1550 B2RF	39.1	17.5	2.2	5.0	251.9
BCSX 1150 B2F	41.2	18.0	2.3	5.3	264.4
BX 1252LLB2	40.2	17.8	2.3	5.4	271.9
BX 1254LLB2	38.2	17.6	2.2	5.5	276.9
BX 1261B2F	40.1	17.8	2.2	5.4	270.6
BX 1262B2F	41.2	18.6	2.2	5.5	275.6
DG 2570 B2RF	40.4	18.2	2.2	5.5	274.4
DP 0912 B2RF	39.5	17.9	2.2	5.6	277.5
DP 0920 B2RF	38.4	17.7	2.2	5.2	259.4
DP 1028 B2RF	43.2	18.1	2.4	5.5	273.1
DP 1133 B2RF	42.2	18.5	2.3	5.8	288.8
DP 1137 B2RF	44.5	17.3	2.6	5.3	266.3
FM1740B2F	39.6	18.0	2.2	5.5	275.0
PHY 367 WRF	41.9	18.4	2.3	5.5	273.8
PHY 375 WRF	37.7	17.5	2.2	5.4	271.3
PHY 499 WRF	44.6	18.4	2.4	5.4	268.8
SSG 210 CT	36.0	19.1	1.9	5.5	275.0
ST 4145LLB2	39.9	17.9	2.2	5.6	278.1
ST 4288B2F	38.0	19.6	1.9	5.7	286.7
ST 5288B2F	39.5	18.1	2.2	5.5	273.4
ST 5458B2RF	41.2	18.1	2.3	5.8	288.1
UA 48	36.6	20.2	1.8	5.6	277.5
Average	40.5	18.3	2.2	5.5	275.6

¹NACB = nodes above highest 1st position cracked boll to the highest harvestable boll.

²DD60 = degree-days, base 60 F. DD60 to maturity = NACB x (50 DD60/node) to open highest harvestable boll.

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

Table OVT8. Gin turnout and lint yield of varieties common to Tennessee OVT's from 2010 and 2011 averages, listed by yield rank.

Rank	Variety	Gin		Micronaire	Fiber Length	Fiber		Height	Nodes	NACB
		Turnout %	Lint Yield lb/ac			Strength	Uniformity			
1	PHY 499 WRF	39.0	1453	4.8	1.15	33.4	83.4	43.8	17.9	5.3
2	DP 0912 B2RF	37.2	1418	4.9	1.11	31.0	82.8	39.0	17.8	5.9
3	DG 2570 B2RF	38.5	1401	4.6	1.13	32.0	83.3	40.9	17.8	4.9
4	AM 1511 B2RF	39.5	1392	4.7	1.14	32.5	83.4	41.8	17.9	5.9
5	PHY 375 WRF	38.1	1362	4.6	1.16	32.0	82.9	39.2	17.4	5.0
6	ST 5458B2RF	36.9	1347	4.7	1.15	32.7	82.6	39.4	17.6	5.9
7	PHY 367 WRF	37.6	1346	4.4	1.15	31.9	82.4	40.0	17.5	5.4
8	ST 5288B2F	37.2	1337	4.9	1.14	30.8	82.4	39.0	17.8	5.1
9	DP 1133 B2RF	39.0	1329	4.8	1.18	33.6	84.3	41.3	18.0	5.7
10	FM 1740B2F	38.1	1315	4.5	1.13	32.0	81.8	37.8	17.2	5.2
11	DP 1137 B2RF	38.7	1310	4.7	1.15	30.6	83.3	43.5	16.8	5.0
12	DP 1028 B2RF	39.8	1303	4.7	1.15	30.4	83.4	42.0	17.3	5.2
13	DP 0920 B2RF	37.8	1302	4.7	1.14	30.2	82.5	38.4	17.5	5.1
14	AM 1550 B2RF	38.5	1293	4.6	1.12	30.2	82.6	38.4	17.6	4.9
15	ST 4288B2F	34.7	1223	4.5	1.17	32.0	82.9	37.9	18.2	5.2
16	SSG 210 CT	35.3	1147	4.6	1.14	32.8	82.5	36.5	18.7	5.7
17	UA 48	36.1	1081	4.7	1.28	37.5	84.8	37.1	18.9	5.3
AVERAGE		37.7	1315	4.6	1.15	32.1	83.0	39.7	17.7	5.3
LSD (0.05)		1.9	131	0.2	0.02	1.3	0.9	2.8	ns	ns

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

Table OVT9. Gin turnout and lint yield of varieties common to Tennessee OVT's from 2009, 2010 and 2011 averages, listed by yield rank.

Rank	Variety	Gin		Micronaire	Fiber Length	Fiber		Height	Nodes	NACB
		Turnout %	Lint Yield lb/ac			Strength	Uniformity			
1	DP 0912 B2RF	37.5	1285	4.5	1.11	30.4	82.7	40.9	19.5	5.5
2	PHY 375 WRF	37.7	1242	4.1	1.15	30.8	82.6	41.9	19.6	5.2
3	ST 5458 B2RF	36.6	1234	4.3	1.16	31.8	82.1	41.0	19.0	5.9
4	FM 1740B2F	37.9	1225	4.2	1.14	31.1	81.9	41.7	19.5	5.8
5	DG 2570 B2RF	37.8	1221	4.2	1.13	31.2	82.9	42.2	20.2	5.4
6	PHY 367 WRF	37.3	1212	4.0	1.15	31.2	82.2	42.3	19.3	5.5
7	ST 5288B2F	37.0	1208	4.4	1.15	30.3	82.2	41.2	19.8	6.1
8	ST 4288B2F	35.3	1178	4.2	1.17	31.5	82.8	39.9	19.8	5.9
9	AM 1550 B2RF	38.1	1177	4.2	1.12	29.6	82.3	40.4	19.4	5.1
10	DP 0920 B2RF	37.8	1174	4.3	1.14	29.5	82.2	40.9	19.3	5.2
11	UA 48	36.1	1048	4.4	1.28	36.0	84.5	39.4	20.3	5.0
12	SSG 210 CT	35.0	1009	4.1	1.14	31.7	82.3	40.0	20.8	6.0
AVERAGE		37.0	1184	4.3	1.15	31.3	82.6	41.0	19.7	5.5
LSD (0.05)		1.4	138	0.2	0.02	1.2	0.7	ns	ns	ns

Tennessee AgResearch data of Main et al. (2009, 2010, 2011).

Table OVT10. Preliminary lint yield and gin turnout of 27 entries in the 2011 Tennessee Official Variety Trial averaged over all four* locations, listed by overall yield rank.

Yield Rank	Variety	OVERALL		Ames Plantation*		Gift		Jackson		Milan		Ridgley	
		Gin		Gin		Gin		Gin		Gin		Gin	
		Turnout	Lint Yield	Turnout	Lint Yield	Turnout	Lint Yield	Turnout	Lint Yield	Turnout	Lint Yield	Turnout	Lint Yield
		%	lb/ac	%	lb/ac	%	lb/ac	%	lb/ac	%	lb/ac	%	lb/ac
1	DP 0912 B2RF	38.2	1418	37.4	864	38.3	1428	36.6	1325	39.3	1037	38.6	1882
2	PHY 499 WRF	40.2	1412	40.6	1038	40.2	1411	40.2	1390	40.3	975	40.1	1870
3	AM 1511 B2RF	40.2	1378	38.7	1003	40.3	1309	38.6	1267	42.0	1061	39.8	1875
4	ST 5288B2F	38.6	1359	38.5	739	38.3	1418	38.2	1199	38.8	1024	38.9	1796
5	BX 1262B2F	37.8	1328	37.4	965	38.1	1332	36.6	1280	38.4	958	38.1	1741
6	ST 4145LLB2	38.4	1319	.	.	38.1	1278	38.1	1294	38.7	882	38.8	1824
7	DG 2570 B2RF	38.5	1312	38.1	1021	38.5	1297	38.4	1327	39.8	946	37.2	1680
8	DP 1133 B2RF	39.9	1312	40.0	749	38.0	1075	40.8	1310	41.1	1025	39.8	1839
9	10R020B2R2	38.3	1307	38.1	889	37.8	1244	37.6	1235	40.3	936	37.4	1815
10	ST 5458B2RF	38.5	1300	38.4	1035	38.8	1395	38.5	1225	38.2	724	38.7	1857
11	BCSX 1150 B2F	37.9	1300	38.3	887	37.8	1289	37.6	1271	38.2	902	38.1	1740
12	PHY 367 WRF	38.8	1297	38.8	990	38.6	1209	38.9	1266	38.2	907	39.5	1804
13	BX 1252LLB2	37.7	1277	.	.	38.0	1250	37.1	1235	38.5	875	37.2	1748
14	FM1740B2F	38.3	1262	37.9	878	38.0	1253	37.2	1266	40.4	905	37.6	1623
15	DP 0920 B2RF	38.9	1257	38.7	677	38.4	1211	40.3	1350	38.4	841	38.3	1627
16	DP 1137 B2RF	39.2	1240	38.8	833	37.8	1042	39.9	1202	40.1	884	39.1	1833
17	AM 1550 B2RF	38.7	1228	40.0	814	38.1	1211	38.3	1185	40.1	909	38.2	1608
18	10R013B2R2	37.2	1226	37.1	885	37.9	1254	36.0	1191	37.7	771	37.0	1686
19	PHY 375 WRF	39.1	1224	38.8	810	39.1	1191	38.9	1191	38.4	967	39.9	1546
20	BX 1254LLB2	38.4	1219	.	.	38.1	1205	38.0	1276	39.7	763	37.8	1631
21	10R011B2R2	38.1	1213	38.2	994	37.2	1268	37.7	1142	39.6	742	38.0	1701
22	DP 1028 B2RF	40.6	1158	39.3	824	40.2	1031	40.6	1181	42.0	803	39.5	1617
23	ST 4288B2F	38.0	1151	37.9	844	38.0	1107	38.0	1126	38.1	843	37.8	1528
24	BX 1261B2F	38.0	1124	38.1	718	37.2	1184	38.1	993	38.3	818	38.2	1500
25	SSG 210 CT	37.5	1077	.	.	36.9	1136	37.9	1192	37.8	639	37.5	1340
26	AM 003 B2RF	38.6	1061	38.7	747	37.5	858	39.0	1174	38.1	526	39.6	1686
27	UA 48	37.5	987	.	.	37.8	873	37.2	1136	37.1	738	38.0	1201
Average		38.6	1250	38.5	873	38.3	1213	38.3	1230	39.2	867	38.5	1689
LSD (0.05)		1.3	212		111		112.0		122		84		150

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

* Trial at Agricenter International not reported due to excessive deer damage. Trial at Ames Plantation displayed damage from glyphosate drift, only varieties tolerant to glyphosate are reported and data is not included in calculating the overall mean.

COUNTY STANDARD TEST DEMONSTRATIONS

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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 15 locations each containing 16 cultivars. County standard tests of Liberty Link cultivars were planted in 6 locations with each location containing 8 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.

Table CST1. Results of Roundup Ready Flex cotton variety test, all locations average, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	AM 1511 B2RF	38.7	985	35	4.6	1.10	32.7	82.5	41	4	53.50
2	DG 2570 B2RF	38.0	957	36	4.7	1.12	32.6	82.9	31	3	56.40
3	ST 5458B2RF	37.0	950	36	4.5	1.13	33.7	81.8	41	4	53.70
4	PHY 499 WRF	38.9	940	37	4.5	1.14	34.7	83.3	31	4	55.30
5	DP 0920 B2RF	38.0	932	36	4.7	1.13	31.0	82.1	41	3	54.20
6	PHY 375 WRF	37.7	914	36	4.5	1.12	31.9	82.3	41	4	53.70
7	ST 5288B2F	37.6	901	36	4.8	1.10	30.5	82.1	41	4	53.30
8	CG 3220 B2RF	37.0	889	36	4.5	1.12	31.6	82.2	31	3	56.20
9	DP 0912 B2RF	36.5	880	35	4.8	1.10	31.7	82.0	41	4	53.30
10	FM 1740B2F	37.0	875	36	4.6	1.13	33.0	82.5	31	3	56.40
11	CG 3787 B2RF	37.5	865	37	4.5	1.16	31.4	82.8	31	3	56.50
12	ST 4288B2F	35.1	855	37	4.6	1.14	31.9	82.3	41	4	53.70
13	DP 1133 B2RF	37.6	847	37	4.6	1.16	34.0	83.1	41	3	54.40
14	PHY 367 WRF	36.2	824	37	4.3	1.15	33.7	82.7	41	4	53.90
15	DP 1028 B2RF	38.7	818	37	4.6	1.14	31.5	82.9	31	3	56.50
16	DP 1034 B2RF	38.3	805	37	4.5	1.14	31.8	82.7	31	3	56.50
	Mean	37.5	890	36	4.6	1.13	32.4	82.5		3	54.84
	LSD	1.0	84	1	0.2	0.02	0.8	0.7			

Table CST2. Results of Liberty Link cotton variety test, all locations average, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	Loan Value (¢/lb.)
1	ST 4145LLB2	39.0	1293	4.3	1.18	32.7	83.8	54.06
2	ST 4145LLB2-PV	38.7	1275	4.1	1.18	32.9	84.1	54.10
3	PHY 375 WRF	41.5	1247	4.2	1.15	30.7	83.3	53.56
4	BX 1244GLB2	40.0	1241	4.5	1.19	32.7	83.9	53.70
5	BX 1252LLB2	39.2	1169	4.3	1.19	33.4	84.2	54.16
6	FM 1773LLB2	36.7	1118	4.6	1.21	34.3	83.7	53.53
7	BX 1254LLB2	40.7	1045	4.3	1.18	32.9	83.7	53.37
8	FM 1845LLB2	37.3	982	4.4	1.22	35.2	84.8	54.18
	Mean	39.1	1171	4.3	1.19	33.1	83.9	53.83
	LSD	1.2	214	ns	0.03	1.7	0.8	

Table CST3. Results of Roundup Ready Flex cotton variety test, Carroll County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	DG 2570 B2RF	38.9	1093	37	4.0	1.16	33.4	83.4	31	3	56.65
2	DP 1028 B2RF	40.5	1092	38	4.6	1.18	31.7	83.8	31	2	57.05
3	ST 5288B2F	39.7	1086	37	4.6	1.17	31.9	83.4	41	5	51.95
4	CG 3787 B2RF	38.4	1063	38	4.2	1.19	32.2	84.5	21	3	57.35
5	ST 4288B2F	36.2	1062	37	4.5	1.16	34.7	82.5	31	3	56.50
6	AM 1511 B2RF	38.5	1038	36	4.0	1.13	33.6	81.8	31	3	56.35
7	DP 1034 B2RF	38.0	1035	37	4.4	1.17	32.8	82.8	31	2	56.95
8	DP 0912 B2RF	35.3	1005	36	4.6	1.11	33.9	80.7	31	3	56.20
9	PHY 375 WRF	38.8	1002	37	4.2	1.16	36.6	82.2	31	3	56.45
10	PHY 499 WRF	37.8	982	37	3.9	1.17	35.7	83.6	31	4	55.55
11	DP 0920 B2RF	37.9	951	36	4.0	1.12	29.9	80.8	31	2	56.60
12	CG 3220 B2RF	36.7	919	37	3.9	1.16	34.3	82.8	31	3	56.65
13	PHY 367 WRF	36.7	893	37	3.9	1.17	34.0	82.6	31	3	56.65
14	ST 5458 B2RF	35.3	892	37	3.8	1.16	34.9	81.7	31	4	55.25
15	DP 1133 B2RF	37.7	874	36	4.4	1.13	33.0	81.6	41	5	51.75
16	FM 1740B2F	36.8	840	36	4.0	1.11	32.1	80.8	31	4	55.15
Mean		37.7	989	37	4.2	1.15	33.4	82.4		3	55.82

Grower: David Renfro

Agent: Steve Burgess

Table CST4. Results of Roundup Ready Flex cotton variety test, Crockett County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	ST 5458 B2RF	37.3	1019	37	3.9	1.17	32.9	82.0	41	5	51.90
2	CG 3220 B2RF	40.3	997	37	4.1	1.17	33.3	82.8	41	5	52.10
3	DP 0920 B2RF	40.5	971	38	4.5	1.18	30.9	83.9	41	3	54.50
4	AM 1511 B2RF	40.5	909	37	4.4	1.16	33.4	81.8	41	5	51.75
5	DP 0912 B2RF	38.6	837	38	3.9	1.18	33.1	82.9	41	4	54.05
6	FM 1740B2F	38.5	806	37	4.0	1.16	32.5	82.5	31	4	55.45
7	ST 4288B2F	36.3	757	38	4.4	1.18	34.2	83.8	41	5	52.05
8	PHY 499 WRF	42.6	737	37	4.6	1.15	34.3	83.7	41	5	52.05
9	PHY 367 WRF	36.9	716	38	3.6	1.18	31.5	81.5	31	4	55.10
10	PHY 375 WRF	39.8	710	38	4.2	1.19	31.7	82.7	41	4	54.05
11	CG 3787 B2RF	41.1	704	37	4.4	1.15	30.3	82.0	41	3	54.00
12	DP 1133 B2RF	38.1	700	39	4.2	1.21	33.9	83.5	31	4	55.55
13	DG 2570 B2RF	39.5	695	37	5.0	1.14	30.6	82.9	31	4	53.10
14	ST 5288B2F	39.0	561	38	4.3	1.19	32.2	83.5	51	4	51.00
15	DP 1028 B2RF	41.1	512	38	4.6	1.19	32.7	83.8	31	3	56.60
16	DP 1034 B2RF	39.7	512	37	4.0	1.16	32.1	82.8	41	4	54.05
Mean		39.4	759	38	4.3	1.17	32.5	82.9		4	53.58

Grower: Henry Fincher
Agent: Richard Buntin

Table CST5. Results of Roundup Ready Flex cotton variety test, Dyer County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	ST 5288B2F	38.2	1556	33	5.6	1.04	29.2	81.8	41	4	46.70
2	DG 2570 B2RF	38.8	1518	35	5.5	1.10	33.3	82.1	31	2	52.50
3	ST 5458 B2RF	37.6	1459	36	5.2	1.12	33.6	82.5	41	4	51.70
4	AM 1511 B2RF	42.0	1416	34	5.2	1.05	28.4	81.9	31	3	51.30
5	CG 3220 B2RF	38.5	1369	35	5.1	1.09	33.2	82.9	31	3	53.60
6	DP 1028 B2RF	39.8	1367	36	4.8	1.11	31.1	82.9	31	3	56.40
7	ST 4288B2F	35.6	1362	35	5.0	1.09	31.0	82.6	31	3	53.60
8	DP 1034 B2RF	40.1	1346	36	5.1	1.12	30.5	82.8	31	2	54.65
9	PHY 375 WRF	38.5	1339	35	5.0	1.10	31.9	83.4	41	4	51.30
10	PHY 499 WRF	38.4	1339	37	5.2	1.16	36.4	84.9	31	5	52.15
11	DP 0920 B2RF	38.5	1334	35	5.3	1.08	29.8	82.7	31	3	52.25
12	DP 0912 B2RF	37.4	1290	34	5.4	1.06	32.4	82.6	31	4	50.05
13	CG 3787 B2RF	38.5	1212	37	4.9	1.15	32.9	83.1	31	2	56.95
14	FM 1740B2F	39.4	1191	37	5.1	1.15	34.2	84.3	31	3	54.40
15	PHY 367 WRF	37.0	1173	37	4.9	1.16	36.1	83.2	31	4	55.30
16	DP 1133 B2RF	35.7	1055	37	5.1	1.14	36.0	82.8	31	4	53.10
Mean		38.4	1333	36	5.2	1.11	32.5	82.9		3	52.87

Grower: John Gregory
Agent: Tim Campbell

Table CST6. Results of Roundup Ready Flex cotton variety test, Dyer County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	ST 5288B2F	35.0	1203	38	4.0	1.19	33.9	82.6	31	2	57.10
2	DP 1028 B2RF	36.8	1153	37	3.7	1.15	32.3	82.7	31	3	56.65
3	DG 2570 B2RF	34.7	1041	38	3.8	1.18	33.7	83.3	31	3	56.65
4	ST 4288B2F	36.5	990	37	4.1	1.16	31.8	82.9	31	4	55.45
5	AM 1511 B2RF	34.0	978	37	3.7	1.14	31.8	82.4	31	3	56.45
6	DP 1133 B2RF	33.5	972	37	3.7	1.17	31.2	81.2	31	4	55.25
7	CG 3220 B2RF	34.2	957	37	3.8	1.15	30.9	82.1	31	3	56.45
8	FM 1740B2F	34.1	948	37	3.8	1.14	31.9	83.1	21	2	57.80
9	DP 0920 B2RF	34.3	908	35	3.3	1.10	28.5	81.0	31	2	53.65
10	PHY 367 WRF	36.7	905	37	3.4	1.17	30.5	83.3	31	3	54.75
11	ST 5458 B2RF	32.9	884	38	3.6	1.19	33.9	83.2	31	2	56.95
12	DP 0912 B2RF	31.2	864	38	3.8	1.19	32.1	82.3	31	4	55.25
13	DP 1034 B2RF	35.1	862	38	3.7	1.19	31.5	83.3	31	2	57.10
14	PHY 499 WRF	34.0	853	34	3.8	1.05	29.7	80.9	31	2	54.05
15	PHY 375 WRF	34.5	838	37	3.7	1.16	32.4	82.5	31	3	56.65
16	CG 3787 B2RF	33.3	789	36	3.4	1.13	29.8	82.1	21	3	54.70
	Mean	34.4	947	37	3.7	1.15	31.6	82.4		3	55.93

Grower: Steve North
Agent: Tim Campbell

Table CST7. Results of Roundup Ready Flex cotton variety test, Fayette County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	PHY 499 WRF	40.7	1239	36	4.8	1.12	34.6	83.3	41	5	51.95
2	DP 0920 B2RF	40.3	1206	37	5.1	1.14	31.4	83.4	31	3	54.30
3	CG 3220 B2RF	39.5	1138	34	5.0	1.07	30.7	80.0	32	3	49.80
4	AM 1511 B2RF	41.7	1131	35	5.0	1.09	31.5	83.2	32	4	49.90
5	DP 1133 B2RF	40.8	1126	36	5.1	1.13	35.0	83.0	32	3	51.30
6	DG 2570 B2RF	39.4	1102	36	5.1	1.12	35.0	83.3	32	3	51.30
7	ST 5288B2F	40.7	1079	35	5.4	1.08	30.1	81.5	41	5	47.65
8	FM 1740B2F	40.5	1076	35	5.3	1.09	31.5	82.3	31	3	52.25
9	CG 3787 B2RF	41.4	1073	35	5.1	1.09	29.2	81.9	31	3	52.95
10	ST 5458 B2RF	41.3	1065	35	5.2	1.09	32.6	81.9	42	4	48.85
11	PHY 375 WRF	40.7	1001	35	4.9	1.09	31.2	82.2	42	4	51.05
12	PHY 367 WRF	39.1	985	35	4.7	1.09	32.7	82.9	32	4	52.10
13	DP 0912 B2RF	39.7	965	34	5.3	1.05	30.9	80.2	32	4	47.70
14	ST 4288B2F	35.2	916	36	4.8	1.11	31.3	82.6	42	5	49.75
15	DP 1034 B2RF	40.2	916	36	4.8	1.12	31.4	82.6	31	3	56.40
16	DP 1028 B2RF	41.6	818	36	4.8	1.13	32.7	83.2	31	3	56.40
	Mean	40.2	1052	35	5.0	1.10	32.0	82.3		4	51.48

Grower: Mark McNabb

Agent: Jeff Via

Table CST8. Results of Roundup Ready Flex cotton variety test, Fayette County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	AM 1511 B2RF	38.4	1008	37	5.2	1.14	36.3	83.6	31	4	53.20
2	DG 2570 B2RF	35.7	1001	37	4.7	1.14	34.4	82.8	31	3	56.50
3	DP 0912 B2RF	37.3	949	37	5.2	1.14	32.5	82.9	31	4	53.10
4	PHY 367 WRF	34.8	925	38	4.8	1.19	36.0	84.1	31	4	55.40
5	PHY 375 WRF	37.9	913	37	4.8	1.15	34.3	83.3	31	4	55.30
6	ST 5458 B2RF	36.2	902	37	5.0	1.15	36.2	83.1	41	5	49.75
7	PHY 499 WRF	36.5	898	38	4.7	1.18	35.5	84.4	31	4	55.40
8	DP 1133 B2RF	36.9	882	38	4.8	1.20	36.7	84.5	31	3	56.70
9	FM 1740B2F	35.5	839	37	4.7	1.17	34.8	83.8	31	4	55.40
10	CG 3220 B2RF	34.5	839	38	4.9	1.19	32.9	83.6	31	2	57.05
11	DP 0920 B2RF	35.1	761	37	4.7	1.16	31.8	83.1	31	3	56.50
12	DP 1034 B2RF	37.2	727	38	4.6	1.18	34.0	84.4	31	4	55.40
13	CG 3787 B2RF	34.1	718	40	4.4	1.25	34.7	84.4	21	3	57.10
14	ST 5288B2F	35.4	707	36	4.6	1.13	32.0	82.1	41	5	51.75
15	ST 4288B2F	31.9	657	37	4.5	1.16	32.9	82.8	31	4	55.30
16	DP 1028 B2RF	35.3	619	38	4.7	1.18	32.8	84.5	31	3	56.70
	Mean	35.8	834	38	4.8	1.17	34.2	83.6		4	55.03

Grower: Joseph McNabb

Agent: Jeff Via

Table CST9. Results of Liberty Link cotton variety test, Fayette County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	Loan Value (¢/lb.)
1	PHY 375 WRF	42.0	1002	4.2	1.18	31.5	83.8	54.20
2	BX 1244GLB2	42.0	965	4.7	1.18	32.1	83.7	54.05
3	ST 4145LLB2-PV	39.0	924	4.5	1.18	32.6	84.7	54.15
4	ST 4145LLB2	37.0	870	4.5	1.21	33.7	84.2	54.05
5	BX 1254LLB2	40.0	818	4.3	1.22	34.6	84.5	54.15
6	BX 1252LLB2	39.0	766	4.3	1.19	35.3	83.9	54.05
7	FM 1773LLB2	38.0	730	4.8	1.23	32.6	85.0	54.15
8	FM 1845LLB2	38.0	719	4.5	1.23	36.1	85.3	54.15
	Mean	39.4	849	4.5	1.20	33.6	84.4	54.12

Grower: Joseph McNabb

Agent: Jeff Via

Table CST10. Results of Roundup Ready Flex cotton variety test, Fayette County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	DG 2570 B2RF	38.6	1037	37	4.6	1.14	32.6	83.5	31	3	56.60
2	DP 1137 B2RF	34.9	990	38	4.2	1.19	34.2	81.0	41	5	51.90
3	ST 5288B2F	39.8	923	35	4.7	1.10	29.7	81.5	51	5	49.10
4	DP 1028 B2RF	38.8	916	36	4.3	1.13	31.1	82.1	31	4	55.00
5	CT11212B2R2	38.1	909	37	3.9	1.14	29.6	80.3	31	3	56.25
6	DP 0920 B2RF	37.7	879	35	4.6	1.08	30.5	78.7	41	5	50.45
7	ST 4288B2F	39.9	874	36	4.7	1.12	30.8	81.1	41	6	49.15
8	FM 1740B2F	38.8	854	35	4.2	1.09	32.3	80.2	31	5	53.60
9	CT1061B2R2	33.4	820	36	3.8	1.13	30.0	80.3	31	3	56.15
10	DP 1034 B2RF	38.8	819	37	4.5	1.15	32.5	82.9	31	3	56.50
11	AM 1511 B2RF	38.0	803	35	4.7	1.08	32.9	81.6	41	6	48.95
12	DP 1133 B2RF	36.9	791	37	4.5	1.14	32.6	82.9	31	5	54.15
13	CG 3787 B2RF	36.8	771	37	4.4	1.15	30.6	81.4	31	3	56.30
14	CG 3220 B2RF	36.9	767	34	4.7	1.05	28.9	79.1	31	4	52.00
15	DP 0912 B2RF	37.2	759	35	4.3	1.08	30.5	80.4	41	6	48.95
16	ST 5458 B2RF	38.6	714	36	4.8	1.11	32.9	81.2	41	5	51.75
17	PHY 367 WRF	38.9	684	36	4.0	1.11	31.5	81.3	41	5	51.90
18	PHY 499 WRF	38.4	640	36	4.5	1.11	33.4	82.7	41	6	49.35
19	PHY 375 WRF	38.8	591	35	3.9	1.09	30.7	81.1	41	4	53.45
	Mean	37.9	818	36	4.4	1.12	31.4	81.2		5	52.71

Grower: Craig Massey

Agent: Jeff Via

Table CST11. Results of Roundup Ready Flex cotton variety test, Gibson County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	AM 1511 B2RF	40.5	941	35	4.7	1.09	31.9	82.3	41	4	53.30
2	DG 2570 B2RF	39.5	939	38	4.3	1.18	31.5	83.5	31	3	56.60
3	CG 3220 B2RF	40.3	938	38	4.4	1.20	33.0	83.2	31	3	56.50
4	PHY 499 WRF	42.6	931	37	4.6	1.14	34.4	83.1	41	5	51.95
5	PHY 375 WRF	39.8	888	36	4.5	1.13	31.2	83.0	41	4	53.90
6	ST 5288B2F	39.0	881	35	4.8	1.08	28.8	81.0	41	5	50.75
7	DP 0920 B2RF	40.5	876	37	4.6	1.15	32.6	82.8	41	3	54.40
8	CG 3787 B2RF	41.1	872	37	4.4	1.16	31.6	82.9	31	4	55.30
9	DP 1028 B2RF	41.1	864	37	4.6	1.14	30.9	82.8	31	3	56.50
10	DP 1034 B2RF	39.7	831	36	4.1	1.13	32.7	81.9	41	3	54.35
11	ST 4288B2F	36.3	817	37	4.5	1.14	33.1	81.3	31	3	56.30
12	ST 5458 B2RF	37.3	807	37	4.5	1.17	33.8	82.0	41	6	49.15
13	DP 0912 B2RF	38.6	786	35	4.9	1.09	30.3	81.8	41	4	53.10
14	FM 1740B2F	38.5	761	37	5.0	1.14	35.3	82.2	31	3	54.10
15	PHY 367 WRF	36.9	740	37	4.5	1.16	33.4	82.2	41	4	53.70
16	DP 1133 B2RF	38.1	705	37	5.0	1.14	33.8	83.4	41	3	52.20
Mean		39.4	849	37	4.6	1.14	32.4	82.5		4	53.88

Grower: Jason Luckey

Agent: Philip Shelby

Table CST12. Results of Liberty Link cotton variety test, Gibson County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	Loan Value (¢/lb.)
1	BX 1252LLB2	39.0	962	3.9	1.22	33.5	84.7	54.30
2	BX 1254LLB2	42.0	931	4.1	1.19	31.7	84.9	54.30
3	BX 1244GLB2	41.0	926	4.0	1.18	30.5	84.8	54.30
4	ST 4145LLB2	40.0	916	3.8	1.19	32.0	84.2	54.20
5	FM 1773LLB2	38.0	825	4.2	1.25	34.4	85.0	54.30
6	FM 1845LLB2	38.0	795	3.8	1.24	35.5	85.0	54.30
7	PHY 375 WRF	41.0	793	3.6	1.15	29.1	82.7	53.50
8	ST 4145LLB2-PV	38.0	697	3.6	1.22	33.3	84.9	54.15
Mean		39.6	856	3.9	1.21	32.5	84.5	54.17

Grower: Blake Brown

Agent: Philip Shelby

Table CST13. Results of Roundup Ready Flex cotton variety test, Haywood County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	ST 5458 B2RF	34.8	911	36	4.5	1.11	32.6	81.8	41	4	53.70
2	DG 2570 B2RF	36.6	881	35	4.8	1.10	31.5	82.4	31	2	55.85
3	PHY 499 WRF	37.6	827	35	4.6	1.09	34.5	81.9	41	4	53.30
4	CG 3787 B2RF	35.8	809	36	4.7	1.12	29.7	82.3	31	2	56.45
5	DP 0920 B2RF	35.5	770	36	4.7	1.11	29.7	81.5	41	3	54.00
6	AM 1511 B2RF	35.7	742	36	4.8	1.12	32.7	83.3	41	3	54.40
7	DP 1028 B2RF	36.0	714	36	4.4	1.12	30.3	82.1	31	3	56.00
8	FM 1740B2F	33.6	701	36	4.6	1.11	32.8	82.2	31	3	56.20
9	CG 3220 B2RF	35.6	698	35	4.4	1.10	30.9	82.0	31	3	55.60
10	ST 4288B2F	32.7	697	35	4.7	1.09	30.3	81.0	31	3	55.40
11	DP 1034 B2RF	34.2	693	36	4.3	1.12	30.0	81.9	31	3	56.00
12	PHY 375 WRF	37.4	686	34	4.6	1.07	29.9	80.9	41	4	52.25
13	ST 5288B2F	35.7	627	33	5.0	1.03	29.3	81.0	41	3	48.45
14	DP 0912 B2RF	34.5	623	35	4.7	1.10	31.4	83.0	41	4	53.50
15	PHY 367 WRF	34.0	529	36	4.2	1.11	32.5	82.3	41	3	54.35
16	DP 1133 B2RF	35.5	309	36	4.2	1.13	33.0	82.3	41	3	54.35
Mean		35.3	701	35	4.6	1.10	31.3	82.0		3	54.36

Grower: Chester King
Agent: Walter Battle

Table CST14. Results of Roundup Ready Flex cotton variety test, Lake County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	ST 5458 B2RF	40.8	1359	36	4.9	1.13	33.4	82.0	31	2	56.65
2	DP 0920 B2RF	38.4	1306	37	4.6	1.15	31.8	82.9	31	3	56.50
3	PHY 499 WRF	39.4	1294	37	4.7	1.15	36.2	83.9	41	5	52.05
4	PHY 375 WRF	38.8	1247	37	4.5	1.14	31.9	82.1	31	4	55.10
5	AM 1511 B2RF	39.1	1216	35	4.4	1.09	33.6	83.0	31	4	54.55
6	DP 1133 B2RF	39.2	1202	38	4.7	1.19	34.0	83.8	41	4	54.00
7	DP 0912 B2RF	37.5	1136	36	4.6	1.13	32.2	83.1	31	4	55.20
8	ST 5288B2F	39.2	1111	36	5.2	1.11	30.5	82.7	41	4	51.70
9	FM 1740B2F	37.7	1105	37	4.8	1.14	35.4	82.8	41	4	53.90
10	CG 3220 B2RF	37.7	1104	36	4.4	1.13	31.1	82.2	31	3	56.20
11	DG 2570 B2RF	38.3	1095	35	4.7	1.10	32.6	82.1	31	3	55.60
12	ST 4288B2F	34.4	1059	38	4.7	1.18	33.5	83.0	31	3	56.50
13	PHY 367 WRF	36.6	1046	37	4.5	1.17	34.6	82.7	41	4	53.90
14	CG 3787 B2RF	32.9	1005	37	4.7	1.17	31.9	83.6	31	3	56.60
15	DP 1034 B2RF	39.7	1002	37	4.6	1.15	32.0	83.1	31	2	56.95
16	DP 1028 B2RF	38.8	943	37	4.4	1.17	32.4	83.4	31	2	56.95
Mean		38.0	1139	37	4.7	1.14	32.9	82.9		3	55.15

Grower: Tony Bargery

Agent: Greg Allen

Table CST15. Results of Liberty Link cotton variety test, Lake County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	Loan Value (¢/lb.)
1	BX 1244GLB2	38.0	1770	3.8	1.25	35.3	84.2	54.20
2	PHY 375 WRF	41.0	1693	3.8	1.18	30.7	84.5	54.30
3	BX1 252LLB2	39.0	1597	4.2	1.18	31.5	83.8	54.20
4	ST 4145LLB2-PV	38.0	1536	4.2	1.24	33.5	85.1	54.30
5	ST 4145LLB2	39.0	1487	4.3	1.22	34.6	84.5	54.15
6	BX 1254LLB2	41.0	1475	3.7	1.19	31.5	83.9	54.20
7	FM 1773LLB2	35.0	1426	4.7	1.18	32.1	83.7	54.05
8	FM 1845LLB2	37.0	1363	4.5	1.18	32.6	84.7	54.15
Mean		38.5	1543	4.2	1.20	32.7	84.3	54.19

Grower: John Lindamood

Agent: Greg Allen

Table CST16. Results of Roundup Ready Flex cotton variety test, Lauderdale County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	PHY 375 WRF	38.9	1097	36	4.7	1.11	30.7	83.1	41	3	54.40
2	ST 5458 B2RF	42.6	1072	37	4.7	1.16	34.6	81.7	31	4	55.10
3	ST 5288B2F	39.5	1054	37	5.2	1.10	32.2	82.3	41	3	51.65
4	PHY 367 WRF	39.7	1016	37	4.6	1.16	35.4	82.8	31	3	56.50
5	CG 3787 B2RF	38.6	1011	37	4.9	1.14	30.9	83.2	31	2	56.95
6	DP 0920 B2RF	40.5	1010	37	4.7	1.16	31.4	84.3	31	3	56.60
7	DG 2570 B2RF	39.1	1010	36	4.8	1.12	31.8	82.9	31	2	56.85
8	DP 1028 B2RF	41.1	998	37	4.9	1.16	30.8	83.7	31	3	56.60
9	DP 1133 B2RF	40.3	993	37	4.8	1.16	33.8	83.8	31	3	56.60
10	PHY 499 WRF	42.2	969	36	4.5	1.12	33.9	83.3	41	4	53.90
11	AM 1511 B2RF	40.0	967	34	4.5	1.07	32.0	82.7	31	3	54.15
12	CG 3220 B2RF	37.9	927	35	4.5	1.10	31.2	82.0	31	2	55.85
13	DP 0912 B2RF	38.0	909	36	4.9	1.11	31.6	83.0	41	5	51.95
14	ST 4288B2F	35.8	906	37	4.6	1.15	31.5	83.0	31	3	56.50
15	DP 1034 B2RF	38.3	866	36	4.8	1.11	32.2	81.9	41	5	51.75
16	FM 1740B2F	38.0	848	35	4.3	1.10	30.8	83.0	31	3	55.80
	Mean	39.4	978	36	4.7	1.13	32.2	82.9		3	55.07

Grower: Leslie Crook

Agent: J.C. Dupree

Table CST17. Results of Roundup Ready Flex cotton variety test, Lincoln County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	DP 1133 B2RF	37.6	766	36	4.3	1.13	33.7	82.0	41	4	53.70
2	FM 1740B2F	35.9	735	35	4.2	1.08	31.6	81.7	31	4	54.50
3	AM 1511 B2RF	36.9	681	34	4.4	1.06	33.6	82.8	41	4	52.65
4	CG 3787 B2RF	37.3	667	36	4.1	1.11	30.5	79.7	41	3	54.35
5	DP 0912 B2RF	35.1	666	33	4.8	1.03	30.4	82.8	41	4	50.50
6	ST 5458 B2RF	34.6	635	35	3.6	1.10	33.3	81.6	41	4	53.30
7	PHY 499 WRF	35.3	632	37	3.7	1.14	35.4	82.8	41	5	52.10
8	PHY 367 WRF	33.7	622	37	4.1	1.14	34.1	80.5	41	4	53.85
9	DP 0920 B2RF	37.3	608	35	4.9	1.10	31.1	80.7	41	4	53.30
10	PHY 375 WRF	34.8	605	36	3.8	1.12	32.4	82.2	41	4	53.85
11	DG 2570 B2RF	36.2	603	35	4.7	1.08	32.0	82.3	41	3	53.85
12	ST 4288B2F	33.3	590	35	4.7	1.09	30.2	82.8	41	4	53.30
13	DP 1034 B2RF	36.9	577	36	4.3	1.11	32.5	80.6	41	3	54.20
14	CG 3220 B2RF	35.0	572	35	4.1	1.10	31.8	82.7	41	4	53.65
15	DP 1028 B2RF	40.1	563	35	4.5	1.09	30.5	82.2	41	2	53.85
16	ST 5288B2F	35.2	551	34	4.9	1.05	29.6	81.5	41	4	52.25
	Mean	36.0	630	35	4.3	1.10	32.0	81.8		4	53.33

Grower: JBH Farms

Agent: David Qualls

Table CST18. Results of Roundup Ready Flex cotton variety test, Madison County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	AM 1511 B2RF	36.1	1049	35	5.2	1.09	32.7	82.9	31	4	52.35
2	PHY 375 WRF	34.0	1007	36	5.0	1.11	31.4	83.2	41	4	51.70
3	ST 5458 B2RF	34.4	947	35	4.9	1.09	33.6	81.0	31	4	54.35
4	PHY 499 WRF	38.5	944	35	5.1	1.08	33.3	81.6	31	4	52.15
5	ST 4288B2F	37.8	933	37	5.1	1.14	31.8	81.6	31	3	54.10
6	DP 1028 B2RF	38.9	932	36	4.9	1.13	31.2	83.2	31	3	56.40
7	CG 3220 B2RF	34.6	915	35	5.1	1.10	30.8	82.9	31	3	53.60
8	DG 2570 B2RF	38.4	883	36	4.8	1.12	31.9	82.7	31	2	56.85
9	DP 1034 B2RF	41.3	883	36	5.1	1.12	31.7	85.0	31	3	54.40
10	DP 0920 B2RF	37.1	872	35	5.3	1.09	28.7	81.1	41	3	50.05
11	ST 5288B2F	36.1	871	36	5.3	1.11	30.2	83.4	41	4	50.35
12	FM 1740B2F	34.7	866	36	5.1	1.13	33.2	83.5	31	4	53.10
13	CG 3787 B2RF	37.3	823	36	5.0	1.12	31.9	82.4	31	2	54.45
14	DP 0912 B2RF	34.3	752	34	5.4	1.05	30.3	80.6	31	4	49.65
15	DP 1133 B2RF	34.8	750	37	4.9	1.15	34.0	84.6	31	3	56.70
16	PHY 367 WRF	32.8	579	37	4.7	1.14	33.4	83.4	41	3	54.40
	Mean	36.3	875	36	5.1	1.11	31.9	82.7		3	53.41

Grower: Matt Griggs

Agent: Jake Mallard

Table CST19. Results of Liberty Link cotton variety test, Madison County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	Loan Value (¢/lb.)
1	BX 1244GLB2	39.0	1753	4.5	1.17	32.3	83.0	53.95
2	PHY 375 WRF	41.0	1687	4.0	1.12	31.5	83.5	54.15
3	ST 4145LLB2	36.0	1386	3.7	1.19	31.5	83.9	54.20
4	BX 1252LLB2	37.0	1376	3.8	1.18	30.7	84.5	54.30
5	FM 1773LLB2	33.0	1189	3.8	1.25	35.3	84.2	54.20
6	FM 1845LLB2	34.0	1164	4.2	1.24	33.5	85.1	54.30
7	BX 1254LLB2	37.0	1114	3.7	1.22	32.3	83.4	54.10
	Mean	36.7	1381	4.0	1.20	32.4	83.9	54.17

Grower: Bob Hayes

Agent: Jake Mallard

Table CST20. Results of Roundup Ready Flex cotton variety test, Madison County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	PHY 499 WRF	41.7	959	36	4.6	1.11	34.6	83.8	41	4	54.00
2	PHY 375 WRF	39.4	848	35	4.7	1.08	30.4	82.2	41	3	53.65
3	DP 0912 B2RF	38.4	808	34	4.9	1.05	30.5	81.6	41	3	52.95
4	PHY 367 WRF	39.7	794	36	4.5	1.11	32.1	83.0	41	4	53.90
5	DP 0920 B2RF	42.5	790	36	5.2	1.11	31.5	82.1	41	3	52.00
6	ST 5458 B2RF	38.9	761	34	4.8	1.07	32.0	81.1	41	3	52.95
7	AM 1511 B2RF	40.9	729	35	4.8	1.08	32.2	81.4	41	3	53.85
8	FM 1740B2F	41.0	721	34	4.5	1.07	30.2	80.9	41	3	52.75
9	DP 1133 B2RF	43.3	687	36	4.9	1.13	32.3	83.8	52	3	49.35
10	DG 2570 B2RF	42.7	683	34	4.8	1.05	31.0	82.0	31	2	54.10
11	DP 1028 B2RF	42.9	680	34	5.0	1.06	31.5	79.1	31	3	51.00
12	ST 5288B2F	39.5	640	34	5.0	1.07	28.7	82.2	41	4	49.80
13	CG 3787 B2RF	40.9	634	36	4.7	1.13	30.7	82.8	31	2	56.85
14	ST 4288B2F	39.1	533	34	5.0	1.07	28.7	81.2	41	3	50.30
15	CG 3220 B2RF	41.6	494	34	4.6	1.06	29.0	81.3	31	2	53.65
16	DP 1034 B2RF	40.3	437	35	4.8	1.08	30.6	80.3	31	2	55.85
	Mean	40.8	700	35	4.8	1.08	31.0	81.8		3	52.93

Grower: Philip Shelby

Agent: Jake Mallard

Table CST21. Results of Roundup Ready Flex cotton variety test, Shelby County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Staple	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	AM 1511 B2RF	36.6	1032	35	4.8	1.10	32.9	81.2	31	3	55.60
2	ST 5288B2F	35.7	930	36	4.5	1.11	31.7	82.3	31	4	55.00
3	ST 5458 B2RF	33.1	911	37	4.4	1.15	35.6	80.9	31	4	55.10
4	DG 2570 B2RF	36.5	904	37	4.8	1.14	34.9	83.2	31	2	56.95
5	PHY 375 WRF	35.4	857	36	4.4	1.12	33.0	80.1	31	3	56.20
6	ST 4288B2F	32.6	836	37	4.7	1.16	32.4	82.5	41	4	53.90
7	CG 3220 B2RF	34.2	835	37	4.7	1.16	32.2	83.6	21	2	57.75
8	PHY 367 WRF	34.3	806	37	4.5	1.16	33.6	83.5	31	3	56.60
9	CG 3787 B2RF	35.1	782	38	4.7	1.20	32.4	83.9	21	2	57.75
10	DP 0920 B2RF	35.6	776	37	4.5	1.15	34.2	82.1	21	3	56.80
11	FM 1740B2F	32.9	775	37	4.9	1.16	33.4	82.9	31	3	56.50
12	DP 0912 B2RF	33.0	774	35	4.9	1.09	33.7	81.9	31	3	55.60
13	PHY 499 WRF	36.9	750	37	4.4	1.14	36.5	83.0	31	3	56.50
14	DP 1133 B2RF	36.0	694	37	4.5	1.15	34.2	82.0	21	3	56.80
15	DP 1034 B2RF	34.9	570	37	5.0	1.16	30.9	83.4	31	3	54.30
16	DP 1028 B2RF	33.6	494	38	4.6	1.19	31.9	84.6	31	2	57.15
Mean		34.8	795	37	4.6	1.15	33.3	82.6		3	56.16

Grower: Ray Sneed

Agent: Becky Muller

Table CST22. Results of Liberty Link cotton variety test, Shelby County, 2011.

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	Loan Value (¢/lb.)
1	ST 4145LLB2	42.0	1855	4.8	1.11	31.5	81.6	53.70
2	ST 4145LLB2-PV	41.0	1815	4.7	1.10	33.0	82.9	53.50
3	FM 1773LLB2	39.0	1679	5.3	1.15	33.9	81.5	50.50
4	BX 1252LLB2	41.0	1226	4.8	1.15	33.1	83.9	54.05
5	PHY 375 WRF	43.0	1220	5.1	1.11	30.1	82.3	51.30
6	BX 1244GLB2	41.0	1204	5.0	1.16	32.0	82.4	51.55
7	FM 1845LLB2	39.0	1130	4.8	1.21	35.7	84.7	54.15
8	BX 1254LLB2	43.0	1123	5.2	1.13	33.2	82.7	51.70
Mean		41.1	1407	5.0	1.14	32.8	82.8	52.56

Grower: Bruce Kirksey

Agent: Becky Muller

Table CST23. Results of Liberty Link cotton variety test, Tipton County, 2011..

Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	Loan Value (¢/lb.)
1	ST 4145LLB2	40.0	1241	4.6	1.14	32.7	84.1	54.05
2	ST 5145LLB2-PV	40.0	1188	4.0	1.16	32.7	82.9	54.10
3	BX 1252LLB2	40.0	1089	4.6	1.20	36.4	84.3	54.05
4	PHY 375 WRF	41.0	1084	4.4	1.13	31.4	82.7	53.90
5	FM 1773LLB2	37.0	860	4.6	1.19	37.5	82.9	53.95
6	BX 1244GLB2	39.0	826	4.9	1.19	34.1	85.0	54.15
7	BX 1254LLB2	41.0	811	5.0	1.14	34.0	83.0	51.75
8	FM 1845LLB2	38.0	720	4.5	1.21	38.0	84.2	54.05
	Mean	39.5	977	4.6	1.17	34.6	83.6	53.75

Grower: Kelley Enterprises

Agent: Booker Leigh

Table CST25. Gin turnout and lint yield of varieties common to Tennessee Roundup Ready Flex CST's from 2010 and 2011 year averages, listed by yield rank.

Rank	Variety	Gin						Leaf	Loan
		Turnout %	Lint lb/ac	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)		
1	ST 5458B2RF	37.6	993	4.7	1.12	32.4	81.5	4	53.93
2	DG 2570 B2RF	38.5	986	4.7	1.11	31.7	82.6	3	55.98
3	DP 0920 B2RF	39.0	985	4.7	1.12	29.8	81.8	3	54.65
4	PHY 375 WRF	38.9	973	4.6	1.11	30.6	82.0	4	54.53
5	CG 3220 B2RF	37.8	957	4.6	1.11	30.6	81.8	3	55.78
6	DP 0912 B2RF	37.4	956	4.9	1.08	30.4	81.8	4	53.03
7	PHY 367 WRF	37.5	930	4.4	1.13	32.5	82.4	4	54.03
8	ST 5288B2F	38.1	923	4.8	1.10	29.7	81.7	5	52.20
9	ST 4288B2F	35.7	919	4.6	1.13	31.0	82.0	4	53.93
10	DP 1028 B2RF	39.9	916	4.7	1.12	30.5	82.5	3	55.93
11	FM 1740B2F	37.5	897	4.6	1.11	31.5	81.9	3	55.88
AVERAGE		38.0	948	4.6	1.11	30.9	82.0	4	54.53

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

Table CST26. Gin turnout and lint yield of varieties common to Tennessee Roundup Ready Flex CST's from 2009, 2010 and 2011 year averages, listed by yield rank.

Rank	Variety	Gin						Leaf	Loan
		Turnout %	Lint lb/ac	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)		
1	DP 0920 B2RF	39.3	1013	4.5	1.12	29.3	81.9	3	54.70
2	DP 0912 B2RF	37.3	1008	4.7	1.09	29.9	81.9	4	53.35
3	PHY 375 WRF	38.8	1003	4.3	1.11	29.8	81.8	4	54.20
4	DG 2570 B2RF	38.5	989	4.4	1.11	30.9	82.2	3	56.05
5	ST 5458B2RF	37.5	988	4.5	1.12	31.7	81.2	4	53.87
6	FM 1740B2F	37.8	972	4.4	1.11	30.5	81.9	3	55.52
7	ST 4288B2F	36.2	970	4.5	1.13	30.5	81.9	4	53.75
8	ST 5288B2F	38.2	954	4.6	1.11	29.2	81.6	5	52.58
9	CG 3220 B2RF	37.4	937	4.3	1.12	30.2	81.6	3	55.57
AVERAGE		37.9	981	4.5	1.11	30.2	81.8	4	54.40

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

Table CST27. Gin turnout and lint yield of varieties common to Tennessee Liberty Link CST's from 2010 and 2011 year averages, listed by yield rank.

Rank	Variety	Gin							
		Turnout %	Lint lb/ac	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	Leaf	Loan (¢/lb.)
1	ST 4145LLB2	39.5	1292	4.7	1.14	31.8	83.1	3	52.38
2	FM 1773LLB2	36.1	1124	4.8	1.19	32.9	83.3	4	53.70
3	FM 1845LLB2	36.8	1022	4.8	1.20	34.0	84.1	4	53.80
AVERAGE		37.4	1146	4.8	1.18	32.9	83.5	4	53.29

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

Table CST28. Gin turnout and lint yield of varieties common to Tennessee Liberty Link CST's from 2009, 2010 and 2011 year averages, listed by yield rank.

Rank	Variety	Gin							
		Turnout %	Lint lb/ac	Mic	Length (inches)	Strength (g/tex)	Uniformity (%)	Leaf	Loan (¢/lb.)
1	FM 1773LLB2	35.5	980	4.5	1.20	32.7	83.0	3	53.12
2	FM 1845LLB2	36.2	910	4.5	1.19	32.8	83.5	4	53.80
3	ST 4145LLB2	38.8	1165	4.3	1.14	31.3	82.8	4	52.72
AVERAGE		36.8	1018	4.4	1.18	32.3	83.1	4	53.21

Tennessee AgResearch data of Main et al. (2009, 2010, 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 ¹ %	1996 crop ² 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: ¹ (USDA, 1999). ² (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.

REFERENCES CITED

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