

# Cotton Variety Guide | 2014

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

<http://varietytrials.tennessee.edu>



## Roundup Ready Flex Varieties

Results of on-farm Roundup Ready Flex cotton variety test, average of all locations, 2013.

Yield Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Fiber Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Leaf Grade	Loan Value (¢/lb.)
1	ST 4946 GLB2	36.8	862	4.3	1.16	31.3	82.8	41-2	5	51.70
2	DP 0920 B2RF	37.7	841	4.3	1.11	28.2	80.6	41-2	4	53.35
3	DP 1321 B2RF	36.2	840	4.2	1.15	30.9	82.6	41-2	5	51.70
4	PHY 339 WRF	36.8	826	3.9	1.17	30.8	82.4	41-2	4	53.75
5	DP 0912 B2RF	35.0	822	4.2	1.10	29.4	82.1	41-2	5	50.95
6	DG 2570 B2RF	37.5	814	4.2	1.13	29.7	82.0	41-2	4	53.65
7	PHY 499 WRF	37.7	776	4.1	1.14	31.4	82.5	41-2	5	51.85
8	AM 1550 B2RF	36.4	775	4.0	1.11	28.4	81.7	41-2	4	53.50
9	NG 1511 B2RF	37.5	745	4.2	1.14	31.5	82.6	41-2	5	51.85
10	DP 1311 B2RF	37.1	736	3.8	1.12	28.3	80.6	41-2	5	51.50
11	PHY 375 WRF	36.5	720	3.7	1.13	29.3	82.3	41-2	5	51.65
12	FM 1944 GLB2	34.6	714	4.0	1.18	31.6	81.4	41-2	4	53.85
13	ST 6448 GLB2	33.9	663	3.7	1.19	30.3	81.6	41-2	5	51.65
<b>Mean</b>		<b>36.4</b>	<b>780</b>	<b>4.0</b>	<b>1.14</b>	<b>30.1</b>	<b>81.9</b>		<b>5</b>	<b>52.38</b>
<b>LSD</b>		<b>1.4</b>	<b>103</b>	<b>0.2</b>	<b>0.02</b>	<b>1.2</b>	<b>1.1</b>		<b>0.93</b>	

\*Mean and LSD values are based on data from 13 varieties planted at 9 locations

## Three Year Trial Averages

Results of three year yield and fiber quality, Tennessee cotton CST's 2011-2013

Yield Rank	Variety	Gin Turnout (%)	Lint Yield (lb./acre)	Mic	Fiber Length (inches)	Strength (g/tex)	Uniformity (%)	HVI Color	Loan Value (¢/lb.)
1	DG 2570 B2RF	38.7	919	4.6	1.12	31.2	82.5	3	54.35
2	PHY 499 WRF	39.6	897	4.5	1.13	32.8	86.1	4	53.95
3	DP 0920 B2RF	38.5	892	4.6	1.12	29.6	81.6	3	54.10
4	AM 1511 B2RF	39.0	883	4.6	1.11	31.9	82.6	4	53.70
5	DP 0912 B2RF	36.9	862	4.7	1.09	30.4	82.1	4	53.00
6	PHY 375 WRF	38.4	858	4.3	1.11	30.3	82.2	4	53.55
<b>AVERAGE</b>		<b>38.5</b>	<b>885</b>	<b>4.6</b>	<b>1.11</b>	<b>31.0</b>	<b>82.9</b>	<b>4</b>	
<b>LSD (0.05)</b>		<b>0.95</b>	<b>NS</b>	<b>0.19</b>	<b>NS</b>	<b>0.8</b>	<b>NS</b>		

\*Mean and LSD values are based on data from 6 varieties tested in 2011, 2012, and 2013.

## Commercial and Pre-Commercial Varieties

Lint yield, gin turnout, and fiber quality of 33 entries in the 2013 Tennessee Official Variety Trial averaged over all five locations, listed by yield rank.

Yield Rank	Variety	Gin Turnout %	Lint Yield lb/ac	Micronaire	Fiber Length in	Fiber	
						Strength g/tex	Uniformity %
1	PX 3750-01 WRF	40.1	1839	4.1	1.18	31.7	82.0
2	DP 1321 B2RF	37.5	1712	4.3	1.18	32.3	83.6
3	PHY 333 WRF	37.8	1685	4.0	1.19	30.9	82.9
4	DP 0912 B2RF	36.3	1666	4.4	1.13	31.4	82.7
5	PHY 339 WRF	36.3	1639	4.1	1.21	31.2	82.8
6	DG 2285 B2RF	36.3	1628	4.2	1.15	31.3	82.1
7	PX 4444-13 WRF	38.9	1628	3.4	1.27	32.6	82.9
8	PHY 375 WRF	37.5	1615	4.1	1.15	29.3	81.9
9	PX 4444-14 WRF	37.9	1593	3.7	1.18	31.7	83.0
10	BX 1347 GLB2	37.4	1592	4.2	1.17	29.7	80.5
11	NG 1511 B2RF	38.5	1589	4.4	1.17	31.3	83.3
12	ST 4946 GLB2	36.5	1569	4.4	1.17	32.2	83.2
13	DP 12R224 B2R2	36.5	1564	3.7	1.20	31.5	82.6
14	PHY 427 WRF	35.3	1550	3.8	1.17	32.4	82.5
15	PHY 499 WRF	38.7	1546	4.3	1.18	33.8	84.2
16	FM 1944 GLB2	35.4	1541	4.0	1.21	32.4	81.6
17	PX 3003-10 WRF	36.9	1541	4.0	1.14	31.4	82.3
18	SSG UA222	35.9	1540	3.9	1.24	31.4	83.2
19	DG 2570 B2RF	35.7	1526	4.4	1.14	29.7	82.4
20	AM 1550 B2RF	36.7	1524	4.1	1.14	28.6	82.0
21	NGX 3331 B2RF	35.1	1519	4.4	1.13	30.8	83.3
22	DP 12R242 B2R2	36.8	1517	4.4	1.16	29.5	82.5
23	DP 0920 B2RF	38.0	1513	4.3	1.15	29.3	81.8
24	CG 3787 B2RF	37.3	1512	4.4	1.16	30.0	82.4
25	PHY 417 WRF	37.3	1512	3.7	1.14	30.2	81.6
26	DP 1311 B2RF	37.9	1509	4.2	1.16	28.9	82.0
27	CT13414	38.1	1489	4.2	1.16	30.1	81.9
28	SSG HQ210CT	34.9	1428	4.2	1.14	32.8	81.8
29	ST 6448 GLB2	33.6	1407	4.0	1.20	30.5	81.5
30	CG 3428 B2RF	37.6	1400	4.4	1.20	29.9	82.5
31	ST 4145 LLB2	33.9	1391	4.3	1.13	31.1	81.5
32	NG 5315 B2RF	36.7	1370	4.2	1.17	30.2	82.6
33	NGX 01338 B2RF	35.5	1148	4.1	1.20	32.9	81.7
<b>Average</b>		<b>36.8</b>	<b>1539</b>	<b>4.1</b>	<b>1.17</b>	<b>31.0</b>	<b>82.4</b>
<b>LSD (0.05)</b>		<b>0.7</b>	<b>102</b>	<b>0.2</b>	<b>0.03</b>	<b>1.6</b>	<b>1.2</b>

\*Mean and LSD values are based on data from 33 varieties planted at 5 locations in 2013..

## Two Year Trial Averages

Results of two year yield and fiber quality, Tennessee cotton OVT's 2012-2013.

Yield Rank	Variety	Gin Turnout	Lint Yield	Micronaire	Fiber Length	Fiber Strength	Uniformity
		%	lb/ac		in	g/tex	
1	PHY 499 WRF	40.2	1501	4.5	1.16	33.4	83.9
2	DP 1321 B2RF	38.1	1481	4.6	1.16	32.0	83.3
3	PHY 339 WRF	37.8	1447	4.2	1.19	31.7	83.0
4	PHY 375 WRF	38.8	1426	4.3	1.14	29.8	82.2
5	DP 0912 B2RF	37.0	1414	4.7	1.12	31.4	82.7
6	NG 1511 B2RF	38.6	1405	4.5	1.15	31.2	82.9
7	ST 4946 GLB2	36.9	1378	4.4	1.17	32.5	83.1
8	DG 2570 B2RF	36.8	1368	4.5	1.14	30.2	82.7
9	AM 1550 B2RF	37.6	1362	4.4	1.14	29.9	82.3
10	CG 3787 B2RF	38.1	1347	4.4	1.16	29.9	82.7
11	FM 1944 GLB2	36.1	1344	4.2	1.19	32.4	82.0
12	DP 1311 B2RF	38.7	1332	4.4	1.14	29.6	82.2
13	SSG UA222	36.8	1330	4.2	1.22	31.8	83.4
14	DP 0920 B2RF	37.8	1322	4.5	1.15	29.8	82.3
15	ST 4145 LLB2	35.5	1308	4.3	1.14	31.1	82.3
16	ST 6448 GLB2	35.4	1273	4.2	1.19	30.7	82.1
<b>AVERAGE</b>		<b>37.5</b>	<b>1377</b>	<b>4.4</b>	<b>1.16</b>	<b>31.1</b>	<b>82.7</b>
<b>LSD (0.05)</b>		<b>0.7</b>	<b>NS</b>	<b>NS</b>	<b>0.02</b>	<b>1.3</b>	<b>0.9</b>

\*Mean and LSD values are based on data from 16 varieties tested in 2012-2013.

## Three Year Trial Averages

Results of three year yield and fiber quality, Tennessee cotton CST's 2011-2013

Yield Rank	Variety	Gin Turnout	Lint Yield	Micronaire	Fiber Length	Fiber Strength	Uniformity
		%	lb/ac		in	g/tex	
1	PHY 499 WRF	40.1	1455	4.7	1.17	34.0	83.9
2	DP 0912 B2RF	37.4	1419	4.8	1.12	31.7	82.9
3	NG 1511 B2RF	39.2	1375	4.6	1.14	31.9	83.2
4	DG 2570 B2RF	38.2	1370	4.5	1.14	31.0	83.1
5	PHY 375 WRF	38.5	1340	4.3	1.16	31.0	82.4
6	ST 4145 LLB2	36.4	1323	4.4	1.16	32.1	83.1
7	DP 0920 B2RF	38.4	1302	4.6	1.15	30.5	82.6
8	AM 1550 B2RF	38.1	1287	4.4	1.12	30.0	82.4
<b>AVERAGE</b>		<b>38.3</b>	<b>1359</b>	<b>4.5</b>	<b>1.15</b>	<b>31.5</b>	<b>83.0</b>
<b>LSD (0.05)</b>		<b>0.5</b>	<b>NS</b>	<b>0.21</b>	<b>0.02</b>	<b>1.1</b>	<b>0.9</b>

\*Mean and LSD values are based on data from 8 varieties tested in 2011-2013.

# Tennessee Cotton Variety Trials

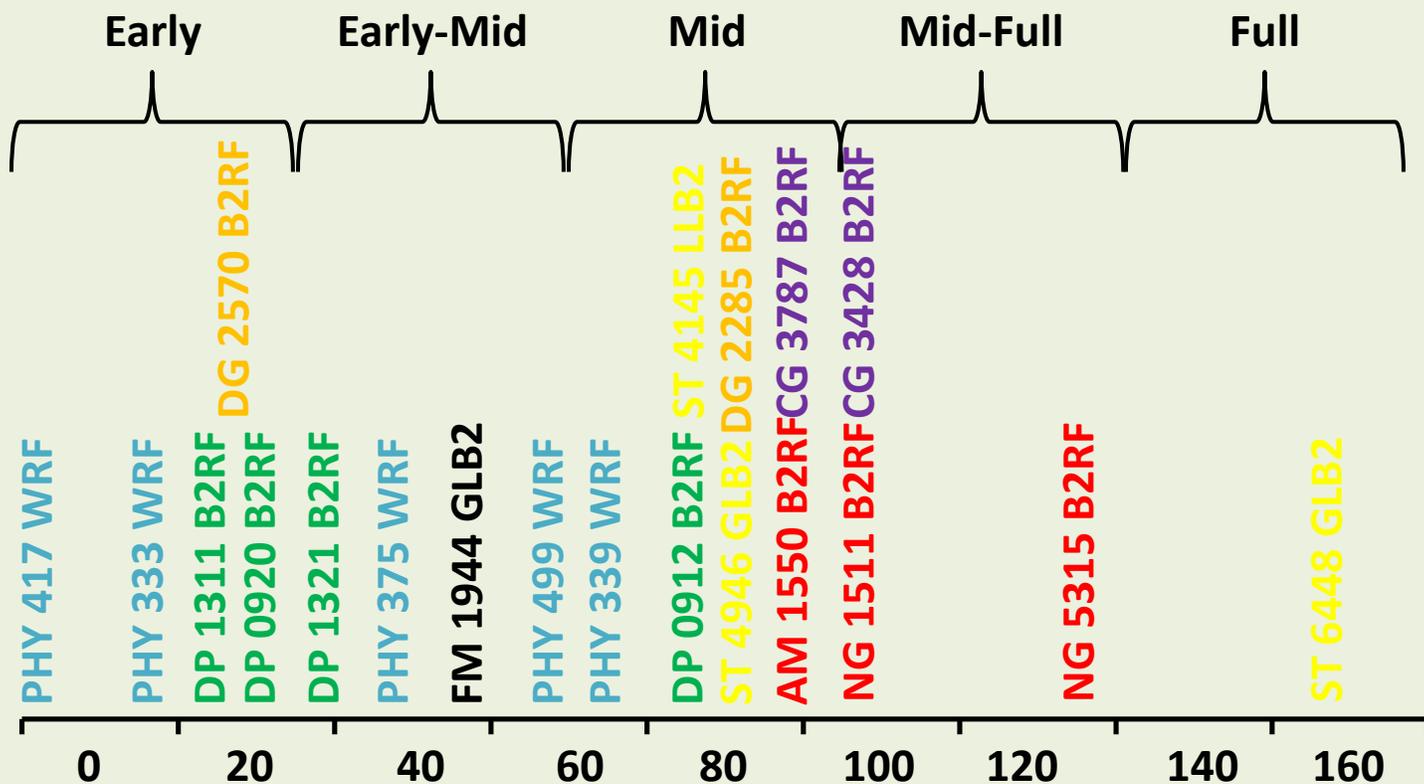
The University of Tennessee cotton variety testing program provides an unbiased evaluation of new varieties for commercial cotton production in Tennessee. Experimental strains are also tested, and major cultivars are grown in county variety demonstrations. Results are intended to help cotton producers 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.

## 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. 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. A systemic insecticide and fungicide were applied in-furrow while planting. UT-recommended weed and pest control measures were uniformly applied to all plots. At all locations, seed cotton 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. County Standard Trial demonstrations were conducted to evaluate commercial cultivar performance in multiple large plot environments. Each cultivar was planted in only one plot at each location and was maintained using the individual grower's production practices.

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 was analyzed by HVI 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.

## Relative Cotton Maturity



\*Relative difference in DD60's to reach 100% open



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