DIVISION OF AGRICULTURE RESEARCH & EXTENSION University of Arkansas System | Cooperative Extension Service

Summary of variety performance of cotton cultivars containing multiple technologies† tested together in county large plot variety testing program.

Variety Name	Ashley County		Clay County		Craighead County		Jefferson County		Lee County		Lonoke County		Mississippi Basset		Mississippi County		Poinsett County		St. Francis County		Average Rank	
	Lint lb/A	R	Lint lb/A	R	Lint lb/A	R	Lint lb/ A	R	Lint lb/A	R	Lint lb/A	R	Lint lb/A	R	Lint lb/A	R	Lint lb/A	R	Lint lb/A	R	Lint lb/A	R
DP 1646 B2XF	1378	1	1473	5	1885	1	2038	1	1385	1	1206	1	1701	5	1739	6	1781	1	2002	1	1659	2.3
ST 5471 GLTP	1188	6	1606	1	1825	3	1784	2	1377	2	1087	2	1975	1	1837	2	1652	2	1872	3	1620	2.4
ST 5122 GLT	1102	9	1362	6	1786	5	1730	3	1385	1	1058	3	1858	2	1791	5	1558	4	1976	2	1561	4.0
NG 3729 B2XF	1221	3	1567	2	1751	7	1658	6	1299	5	969	9	1569	7	1855	1	1463	7	1754	4	1511	5.1
DG 3385 B2XF	1271	2	1565	3	1843	2	1662	5	1325	3	1043	4	1426	10	1644	10	1507	5	1619	10	1491	5.4
DP 1820 B3XF	1126	8			1710	9	1652	7	1104	10	1004	5	1747	3	1832	3	1447	8	1742	5	1485	6.4
DG 3214 B2XF	1205	4	1497	4	1681	10	1572	11	1195	8	970	8	1373	11	1817	4	1575	3	1680	8	1457	7.1
NG 5007 B2XF	1193	5	1357	7	1713	8	1684	4	1255	6	1000	6	1472	9	1701	7	1339	11	1167	11	1384	7.4
PHY 430 W3FE	1092	11			1800	4	1639	9	1192	9	978	7	1716	4	1670	8	1349	10	1701	6	1460	7.6
DP 1518 B2XF	1096	10			1758	6	1584	10	1316	4	861	11	1436	8	1651	9	1488	6	1684	7	1430	7.9
PHY 350 W3FE	1142	7					1649	8	1201	7	914	10									1227	8.0
PHY 330 W3FE					1533	11							1682	6	1496	11	1365	9	1674	9	1550	9.2

†Technology Key – Bt Traits:
Two gene – B2, W, T
Three gene – W3, B3, TP

Herbicide Tolerant Traits:
RF – tolerant to glyphosate
GL – tolerant to glyphosate, glufosinate
XF – tolerant to glyphosate, glufosinate, dicamba
FE – tolerant to glyphosate, glufosinate, 2,4-D choline

Table 1. Lint yield and fiber properties - Ashley county transgenic variety test.

Cooperator: Bruce Bond
Soil Type: Hebert Silt Loam
Irrigation: Furrow
Agent: Kevin Norton

Date Planted: 5/10/18
Date of Harvest: 11/2/18
Replications: 4

	Lint		Fiber properties							
Variety	yield	r	Micronaire	r	Length	r	UI[a]	r	Strength	r
	lb/a				in.		%		g/tex	
DP 1646 B2XF	1378	1	4.78	5	1.26	1	83.2	7	29.3	8
DG 3385 B2XF	1271	2	4.90	3	1.17	9	83.9	2	28.1	11
NG 3729 B2XF	1221	3	4.85	4	1.22	3	83.8	4	30.2	6
DG 3214 B2XF	1205	4	5.05	1	1.20	4	83.9	3	30.3	5
NG 5007 B2XF	1193	5	4.60	8	1.19	5	82.5	10	29.0	10
ST 5471 GLTP	1189	6	4.68	6	1.18	8	83.1	8	30.8	3
PHY 350 W3FE	1142	7	4.33	11	1.19	6	83.4	6	30.4	4
DP 1820 B3XF	1126	8	5.03	2	1.25	2	83.1	9	32.1	1
ST 5122 GLT	1102	9	4.40	10	1.15	11	81.9	11	30.2	7
DP 1518 B2XF	1096	10	4.63	7	1.19	7	83.5	5	29.2	9
PHY 430 W3FE	1093	11	4.58	9	1.17	10	84.2	1	31.2	2
Mean	1183		4.7		1.19		83.3		30.1	
Var. LSD 0.05	85		0.3		0.03		1.0		1.4	
C.V.%	5.0		3.8		1.9		0.9		3.2	
Prob (var)	0.0001		0.0001		0.001		0.0028		0.0002	

[a] UI = Fiber length uniformity Index

Table 2. Lint yield and fiber properties - Clay county transgenic variety test.

Cooperator: David Cagle
Soil Type: Fountain Silt Loam
Irrigation: Furrow
Agent: Allison Howell

Date Planted: 5/3/18
Date of Harvest: 10/9/2018
Replications:

	Lint		Fiber properties									
Variety	yield	r	Micronaire	r	Length	r	UI[a]	r	Strength	r	Leaf grade	r
	lb/a				in.				g/tex			
ST 5471 GLTP	1606	1	4.6	8	1.16	4	81.8	7	31.3	1	3.5	5
NG 3729 B2XF	1567	2	5.1	1	1.19	2	82.6	4	29.3	8	3.8	2
DG 3385 B2XF	1565	3	5.1	2	1.16	5	83.1	2	27.9	10	3.1	7
DP 1725 B2XF	1558	4	4.8	5	1.16	6	81.8	8	29.4	7	2.9	9
DG 3214 B2XF	1497	5	5.0	3	1.19	3	83.2	1	29.9	5	4.3	1
DP 1646 B2XF	1473	6	4.7	6	1.22	1	82.5	5	29.7	6	3.3	6
PHY 320 W3FE	1458	7	4.6	9	1.16	7	83.1	3	31.2	3	3.6	3
PHY 300 W3FE	1366	8	4.9	4	1.15	9	82.4	6	31.3	2	3.6	4
ST 5122 GLT	1362	9	4.7	7	1.13	10	81.0	10	30.6	4	3.1	8
NG 5007 B2XF	1357	10	4.5	10	1.16	8	81.8	9	28.1	9	2.8	10
Mean	1481		4.8		1.17		82.3		29.9		3.4	

[a] UI = Fiber length uniformity Index

Table 3. Lint yield and fiber properties - Craighead county transgenic variety test.

Cooperator: Brannon Qualls
Soil Type: Fountain Silt Loam
Irrigation: Furrow
Agent: Branon Thiesse
Chris Grimes

Date Planted: 5/7/18
Date of Harvest: 10/30/18
Replications: 2

	Lint		Fiber properties							
Variety	**yield**	**r**	**Micronaire**	**r**	**Length**	**r**	**UI[a]**	**r**	**Strength**	**r**
	lb/a				**in.**		**%**		**g/tex**	
DP 1646 B2XF	1886	1	4.85	6	1.25	2	82.4	9	29.8	8
DG 3385 B2XF	1843	2	5.25	2	1.17	9	83.7	6	27.4	12
ST 5471 GLTP	1826	3	4.85	7	1.19	7	83.8	5	30.7	4
PHY 430 W3FE	1800	4	5.05	3	1.16	12	84.2	1	29.6	9
ST 5122 GLT	1786	5	4.70	11	1.17	10	82.4	10	30.3	5
DP 1518 B2XF	1758	6	4.75	10	1.18	8	81.9	12	29.2	10
NG 3729 B2XF	1751	7	5.30	1	1.20	3	83.3	8	29.9	7
PHY 320 W3FE	1746	8	4.85	8	1.20	4	84.2	2	31.8	3
NG 5007 B2XF	1713	9	4.60	12	1.17	11	82.2	11	28.1	11
DP 1820 B3XF	1710	10	5.05	4	1.27	1	84.1	3	33.4	1
DG 3214 B2XF	1681	11	5.05	5	1.20	5	84.1	4	30.0	6
PHY 330 W3FE	1533	12	4.85	9	1.20	6	83.7	7	32.1	2
Mean	1753		4.9		1.19		83.3		30.2	
Var. LSD 0.05	157		0.5		0.03		1.5		2.0	
C.V.%	4.1		4.4		1.1		0.8		3.0	
Prob (var)	0.0313		0.1481		0.0001		0.0319		0.002	

[a] UI = Fiber length uniformity Index

Table 4. Lint yield and fiber properties - Jefferson county transgenic variety test.

Cooperator: David Sites
Soil Type: Rilla Silt loam
Irrigation: Furrow
Agent: Kurt Beaty

Date Planted: 5/8/18
Date of Harvest: 11/21/18
Replications: 1

	Lint		Fiber properties							
Variety	**yield**	**r**	**Micronaire**	**r**	**Length**	**r**	**UI[a]**	**r**	**Strength**	**r**
	lb/a				**in.**		**%**		**g/tex**	
DP 1646 B2XF	2038	1	4.5	5	1.24	1	81.7	7	29.8	7
ST 5471 GLTP	1784	2	4.5	6	1.19	5	83.1	1	31.6	2
ST 5122 GLT	1730	3	4.5	7	1.17	10	81.7	8	29.7	8
NG 5007 B2XF	1684	4	4.5	8	1.18	8	81.5	9	28.4	11
DG 3385 B2XF	1662	5	4.6	4	1.18	9	82.9	3	28.7	10
NG 3729 B2XF	1658	6	4.9	1	1.21	3	83.0	2	30.9	3
DP 1820 B3XF	1652	7	4.8	2	1.23	2	82.3	4	31.7	1
PHY 350 W3FE	1649	8	4.1	11	1.20	4	82.0	6	30.7	4
PHY 430 W3FE	1639	9	4.3	9	1.16	11	81.1	10	30.4	6
DP 1518 B2XF	1584	10	4.3	10	1.19	6	81.1	11	29.1	9
DG 3214 B2XF	1572	11	4.7	3	1.19	7	82.2	5	30.4	5
Mean	1696		4.5		1.19		82.0		30.1	

[a] UI = Fiber length uniformity Index

Table 5. Lint yield and fiber properties - Lee county transgenic variety test.

Cooperator: Trent Felton
Soil Type: Henry Silt Loam
Irrigation: Furrow
Agent: Stan Baker

Date Planted: 5/7/18
Date of Harvest: 10/29/18
Replications: 4

	Lint		Fiber properties							
Variety	**yield**	**r**	**Micronaire**	**r**	**Length**	**r**	**UI[a]**	**r**	**Strength**	**r**
	lb/a				**in.**		**%**		**g/tex**	
ST 5122 GLT	1386	1	4.5	10	1.16	9	81.8	10	30.5	1
DP 1646 B2XF	1385	2	4.8	5	1.23	1	82.3	7	28.9	9
ST 5471 GLTP	1377	3	4.6	8	1.17	7	81.9	9	29.6	5
DG 3385 B2XF	1325	4	5.1	2	1.15	10	83.4	2	27.6	10
DP 1518 B2XF	1316	5	4.7	7	1.20	3	82.6	4	29.9	3
NG 3729 B2XF	1299	6	5.0	3	1.21	2	82.8	3	29.8	4
NG 5007 B2XF	1255	7	4.6	9	1.17	8	82.1	8	27.4	11
PHY 350 W3FE	1201	8	4.5	11	1.19	5	82.6	5	30.0	2
DG 3214 B2XF	1195	9	5.2	1	1.19	6	83.5	1	29.4	6
PHY 430 W3FE	1192	10	4.8	6	1.11	11	82.6	6	29.4	7
DP 1820 B3XF	1104	11	4.9	4	1.20	4	81.6	11	29.3	8
Mean	1276		4.8		1.18		82.5		29.2	
Var. LSD 0.05	157		0.2		0.04		1.5		1.4	
C.V.%	8.5		2.9		2.1		1.3		3.3	
Prob (var)	0.0098		0.0001		0.0001		0.2447		0.0014	

[a] UI = Fiber length uniformity Index

Table 6. Lint yield and fiber properties - Lonoke county transgenic variety test.

Cooperator: Rick Bransford
Soil Type: Hebert Silt Loam
Irrigation: Furrow
Date Planted: 5/11/18
Date of Harvest: 11/3/18
Replications: 1

	Lint		Fiber properties							
Variety	**yield**	**r**	**Micronaire**	**r**	**Length**	**r**	**UI[a]**	**r**	**Strength**	**r**
	lb/a				**in.**		**%**		**g/tex**	
DP 1646 B2XF	1206	1	3.6	9	1.28	1	82.8	10	28.8	12
ST 5471 GLTP	1087	2	3.8	5	1.24	4	83.9	7	30.8	4
ST 5122 GLT	1058	3	3.8	6	1.20	9	82.4	11	31.5	1
DG 3385 B2XF	1043	4	4.0	1	1.24	5	84.9	1	29.2	8
DP 1725 B2XF	1033	5	3.9	3	1.22	7	84.8	2	30.3	6
DP 1820 B3XF	1004	6	3.4	11	1.18	10	83.2	8	30.9	2
NG 5007 B2XF	1000	7	.		.		.		.	
PHY 430 W3FE	978	8	4.0	2	1.28	2	84.0	6	30.9	3
DG 3214 B2XF	970	9	3.9	4	1.21	8	84.7	3	28.8	13
NG 3729 B2XF	969	10	3.8	7	1.24	6	84.2	5	28.9	10
PHY 350 W3FE	914	11	3.4	12	1.16	13	82.3	12	29.1	9
CPS 18827 B3XF	909	12	3.7	8	1.17	11	81.0	13	29.3	7
DP 1518 B2XF	861	13	3.4	13	1.28	3	84.3	4	30.5	5
DG 3433 B2XF	814	14	3.6	10	1.17	12	82.9	9	28.9	11
Mean	989		3.7		1.22		83.5		29.8	

[a] UI = Fiber length uniformity Index

Table 7. Lint yield and fiber properties - Mississippi county transgenic variety test.

Cooperator: Jason Bennett
Soil Type: Dundee Silt Loam
Irrigation: Furrow
Agent: Ray Benson
Shawn Lancaster

Date Planted: 5/10/18
Date of Harvest: 10/29/18
Replications: 1

	Lint		Fiber properties							
Variety	**yield**	**r**	**Micronaire**	**r**	**Length**	**r**	**UI[a]**	**r**	**Strength**	**r**
	lb/a				**in.**		**%**		**g/tex**	
ST 5471 GLTP	1975	1	3.9	8	1.19	6	83.0	10	30.9	5
ST 5122 GLT	1858	2	4.5	2	1.19	7	84.6	1	31.5	2
DP 1820 B3XF	1747	3	4.4	3	1.28	1	83.4	7	32.8	1
PHY 430 W3FE	1716	4	3.8	11	1.19	8	84.3	3	30.8	7
DP 1646 B2XF	1701	5	4.4	4	1.27	2	83.4	8	30.7	8
PHY 330 W3FE	1682	6	4.1	7	1.18	10	81.6	11	29.9	10
NG 3729 B2XF	1569	7	4.2	6	1.23	3	84.1	4	31.1	4
DP 1518 B2XF	1436	8	4.3	5	1.19	9	84.4	2	30.8	6
NG 5007 B2XF	1427	9	3.9	9	1.20	5	83.3	9	29.9	9
DG 3385 B2XF	1427	10	4.8	1	1.17	11	83.9	5	28.5	11
DG 3214 B2XF	1373	11	3.9	10	1.23	4	83.9	6	31.1	3
Mean	1628		4.2		1.21		83.6		30.7	

[a] UI = Fiber length uniformity Index

Table 8. Lint yield and fiber properties - Mississippi county transgenic variety test.

Cooperator: David Wildy
Soil Type: Routon-Dundee-Crevasse Complex
Irrigation: Pivot
Agent: Ray Benson
Shawn Lancaster

Date Planted: 5/16/18
Date of Harvest: 10/30/18
Replications: 4

	Lint		Fiber properties							
Variety	**yield**	**r**	**Micronaire**	**r**	**Length**	**r**	**UI[a]**	**r**	**Strength**	**r**
	lb/a				**in.**		**%**		**g/tex**	
DP 1614 B2XF	1857	1	4.6	3	1.20	4	83.9	4	29.7	6
NG 3729 B2XF	1855	2	4.6	4	1.22	2	84.3	2	30.7	4
ST 5471 GLTP	1838	3	4.0	12	1.20	5	83.0	11	30.9	3
DP 1820 B3XF	1832	4	4.9	2	1.22	3	84.1	3	31.9	1
DG 3214 B2XF	1817	5	5.1	1	1.18	8	83.5	6	29.1	9
ST 5122 GLT	1791	6	4.2	9	1.20	6	83.3	9	29.1	8
DP 1646 B2XF	1740	7	4.3	6	1.25	1	83.1	10	29.0	10
NG 5007 B2XF	1702	8	4.3	7	1.18	9	82.2	12	27.4	12
PHY 430 W3FE	1671	9	4.3	8	1.17	11	83.6	5	30.0	5
DP 1518 B2XF	1651	10	4.2	10	1.18	10	83.5	7	29.5	7
DG 3385 B2XF	1644	11	4.6	5	1.17	12	83.5	8	28.8	11
PHY 330 W3FE	1496	12	4.1	11	1.20	7	84.6	1	31.5	2
Mean	1741		4.4		1.20		83.5		29.8	
Var. LSD 0.05	237		0.5		0.04		1.0		1.4	
C.V.%	9.5		7.4		2.4		0.8		3.3	
Prob (var)	0.0902		0.0004		0.0056		0.0016		0.0001	

[a] UI = Fiber length uniformity Index

Table 9. Lint yield and fiber properties - Poinsett county transgenic variety test.

Cooperator: Marty White and Jesse Flye
Soil Type: Hayti Soil
Irrigation: Furrow
Agent: Craig Allen
Jeffery Works

Date Planted: 5/2/18
Date of Harvest: 10/3/18
Replications: 4

	Lint		Fiber properties							
Variety	**yield**	**r**	**Micronaire**	**r**	**Length**	**r**	**UI[a]**	**r**	**Strength**	**r**
	lb/a				**in.**		**%**		**g/tex**	
DP 1646 B2XF	1781	1	4.0	10	1.25	1	83.2	6	30.7	4
ST 5471 GLTP	1652	2	4.2	7	1.16	9	82.3	9	30.5	7
DG 3214 B2XF	1575	3	4.7	1	1.21	5	83.4	4	30.7	5
ST 5122 GLT	1558	4	4.4	4	1.16	10	81.6	11	30.6	6
DG 3385 B2XF	1507	5	4.3	6	1.17	8	83.0	7	28.3	11
DP 1518 B2XF	1488	6	4.0	11	1.22	4	83.6	3	30.1	9
NG 3729 B2XF	1463	7	4.6	2	1.23	3	83.4	5	30.4	8
DP 1820 B3XF	1447	8	4.6	3	1.25	2	83.8	1	33.7	1
PHY 330 W3FE	1365	9	4.2	8	1.21	6	83.8	2	33.7	2
PHY 430 W3FE	1349	10	4.4	5	1.15	11	82.8	8	30.8	3
NG 5007 B2XF	1339	11	4.1	9	1.20	7	82.0	10	29.0	10
Mean	1502		4.3		1.20		83.0		30.8	
Var. LSD 0.05	193		0.5		0.10		1.1		1.6	
C.V.%	8.9		8.8		1.7		0.9		3.6	
Prob (var)	0.0015		0.0998		0.0001		0.0062		0.0001	

[a] UI = Fiber length uniformity Index

Table 10. Lint yield and fiber properties - St Francis county transgenic variety test.

Cooperator: Joe Whittenton
Soil Type: Loring silt loam
Irrigation: Furrow
Agent: Cody Griffin

Date Planted: 5/6/18
Date of Harvest: 10/29/18
Replications: 4

	Lint		Fiber properties							
Variety	**yield**	**r**	**Micronaire**	**r**	**Length**	**r**	**UI[a]**	**r**	**Strength**	**r**
	lb/a				**in.**		**%**		**g/tex**	
DP 1646 B2XF	2002	1	4.9	4	1.24	1	83.2	6	29.5	8
ST 5122 GLT	1976	2	4.9	5	1.15	10	82.6	10	31.2	3
ST 5471 GLTP	1872	3	4.7	11	1.18	5	82.3	11	30.7	5
NG 3729 B2XF	1754	4	5.3	1	1.21	3	84.3	2	31.1	4
DP 1820 B3XF	1742	5	5.1	3	1.23	2	83.5	4	32.2	1
PHY 430 W3FE	1701	6	4.9	6	1.13	11	83.0	8	29.7	7
DP 1518 B2XF	1684	7	4.8	7	1.18	6	83.1	7	29.4	10
DG 3214 B2XF	1680	8	5.2	2	1.18	7	84.6	1	29.7	6
PHY 330 W3FE	1675	9	4.8	8	1.19	4	83.9	3	32.0	2
DG 3385 B2XF	1620	10	4.8	9	1.17	8	83.5	5	29.4	11
NG 5007 B2XF	1167	11	4.8	10	1.17	9	82.9	9	29.4	9
Mean	1716		4.9		1.18		83.3		30.4	
Var. LSD 0.05	347		0.3		0.02		1.0		1.6	
C.V.%	14.0		4.8		1.3		0.8		3.6	
Prob (var)	0.0045		0.0277		0.0001		0.0013		0.0018	

[a] UI = Fiber length uniformity Index

Table 11. Leaf Grade - Percent of bales in a full-sized module ginned in a commercial gin for Clay county transgenic variety test.

Variety	Leaf Grade 1-2 (%)	Leaf Grade 3 (%)	Leaf Grade 4 (%)	Leaf Grade 5 (%)
DG 3214 B2XF	0	0	73	27
DG 3385 B2XF	0	87	13	0
DP 1646 B2XF	0	73	27	0
DP 1725 B2XF	6	94	0	0
NG 3729 B2XF	0	19	81	0
NG 5007 B2XF	21	79	0	0
PHY 300 W3FE	0	36	64	0
PHY 320 W3FE	7	27	66	0
ST 5122 GLT	7	79	14	0
ST 5471 GLTP	0	53	41	6