

**A Final Report to the Seed Industry
Concerning
The 2005 Texas Cooperative Extension
Upper Gulf Coast Cotton Variety
Performance Tests**



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2005**

**UPPER GULF COAST REGIONAL COTTON VARIETY PERFORMANCE TEST
CONDUCTED BY
TEXAS COOPERATIVE EXTENSION,
D-9 AND D-11, CORPUS CHRISTI, TEXAS**

PARTICIPATING SEED COMPANIES AND VARIETIES ENTERED IN 2005:

Bayer Crop Science: FM800B2R, FM960B2R, FM989BR, FM991B2R

Delta & Pine Land: DP444BG/RR, DP445BG/RR, DP455BG/RR, DP488BG/RR,
DP543BG/RR, DP555BG/RR

Monsanto/Stoneville: ST5242BR, ST4575BR, ST5599BR

Phytogen: PSC470WR, PSC480WR

LOCATION COOPERATORS

County	Town	Agent	Producer
Calhoun	Port Lavaca	Zan Matthies	Danny May
Fort Bend	Rosenberg	Joe Mask	Stasney Farm
Victoria	Victoria	Joe Janak	Book/Moreno Farm
Wharton	Wharton	Peter McGuill	WCYF

**2005 Upper Gulf Coast Cotton Variety Performance Test
D-9 and 11 Cooperating, Texas A&M Research and Extension Center, Corpus Christi,
Texas**

Variety	Calhoun May	Fort Bend Stasney	Victoria Book/Moreno ^{AT}	Wharton WCYF ^{FAT}	Average
DP 488BG/RR	372	563	884	802	655
ST 4575BR	415	517	960	726	655
ST 5599BR	359	468	944	823	649
PSC 480WR	334	502	1,020	725	645
FM 800B2R	332	493	1,118	577	630
DP 444BG/RR	--	517	920	737	628
DP 555BG/RR	402	488	856	748	624
DP 455BG/RR	377	410	923	749	615
DP 445BG/RR	353	410	998	678	610
PSC 470WR	295	408	935	792	608
ST 5242BR	288	370	919	738	579
FM 960B2R	286	448	865	--	572
DP 543BG/RR	314	421	936	588	565
FM 989BR	289	492	850	586	554
FM 991B2R	296	493	824	372	496
Average	337	467	930	689	606

¹ Cotton yields reported as pounds of lint per acre.

(1) Spaces indicated by -- reflect loss of data or the variety was not included at that location. Location averages were used as artificial data to avoid weighting by location. **TWO THIRDS RULE:** Two-thirds of varieties must be present in two-thirds of all locations.

(2) Data compiled by Steve Livingston, Agronomy Specialist, in cooperation with Extension Agents in Coastal Bend Extension Districts 9 and 11, Texas A&M University Agricultural Research and Extension Center, 10345 Agnes, Corpus Christi, TX, 78406-1412.

(3) All locations were machine harvested except the Calhoun plots, which were hand harvested. Locations with an (AT) denotes accuracy testing was used.

(4) Standardized cotton variety performance tests were not conducted in Jackson, Matagorda, or Brazoria counties.

Micronaire values for 15 commercial cotton varieties, 2005 Upper Gulf Coast Regional Cotton Variety Performance Test, Texas Cooperative Extension, D-9 and 11, Corpus Christi, Texas.

Variety	Calhoun May	Fort Bend Stasney	Victoria Book/Moreno ^{AT}	Wharton WCYF ^{AT}	Average
DP 488BG/RR	4.3	5.4	5.1	5.9	5.2
ST 4575BR	4.7	5.3	5.5	5.3	5.2
ST 5599BR	4.4	5.8	5.3	5.7	5.3
PSC 480WR	4.9	5.4	5.2	5.3	5.2
FM 800B2R	4.8	5.4	5.4	5.3	5.2
DP 444BG/RR	--	4.8	4.6	4.9	4.8
DP 555BG/RR	5.2	5.5	5.2	5.5	5.4
DP 455BG/RR	4.5	5.4	4.7	5.1	4.9
DP 445BG/RR	4.3	4.9	5.1	5.2	4.9
PSC 470WR	4.9	5.3	5.2	5.5	5.2
ST 5242BR	4.9	5.3	5.2	5.3	5.2
FM 960B2R	4.6	5.5	5.7	--	5.3
DP 543BG/RR	4.8	5.4	5.2	5.6	5.3
FM 989BR	4.9	5.5	5.2	5.4	5.3
FM 991B2R	4.9	5.4	5.3	5.3	5.2
Average	4.7	5.4	5.2	5.4	5.2

Fiber length values for 15 commercial cotton varieties, 2005 Upper Gulf Coast Regional Cotton Variety Performance Test, Texas Cooperative Extension, D-9 and 11, Corpus Christi, Texas

Variety	Calhoun May	Fort Bend Stasney	Victoria Book/Moreno ^{AT}	Wharton WCYF ^{AT}	Average
DP 488BG/RR	1.09	1.03	1.09	1.07	1.07
ST 4575BR	1.01	1.00	1.02	1.03	1.02
ST 5599BR	1.04	1.00	1.05	1.10	1.05
PSC 480WR	1.04	1.01	1.04	1.06	1.04
FM 800B2R	1.11	0.98	1.12	1.13	1.09
DP 444BG/RR	--	1.02	1.05	1.05	1.04
DP 555BG/RR	1.00	1.08	1.02	1.03	1.03
DP 455BG/RR	1.06	1.07	1.06	1.07	1.07
DP 445BG/RR	1.04	0.99	1.06	1.06	1.04
PSC 470WR	1.03	1.00	1.03	1.06	1.03
ST 5242BR	1.04	1.07	1.03	1.07	1.05
FM 960B2R	1.09	1.09	1.05	--	1.08
DP 543BG/RR	1.05	1.15	1.03	1.06	1.07
FM 989BR	1.07	1.01	1.03	1.04	1.04
FM 991B2R	1.03	1.08	1.06	1.11	1.07
Average	1.05	1.04	1.05	1.07	1.05

Fiber strength values for 15 commercial cotton varieties, 2005 Upper Gulf Coast Regional Cotton Variety Performance Test, Texas Cooperative Extension, D-9 and 11, Corpus Christi, Texas

Variety	Calhoun May	Fort Bend Stasney	Victoria Book/Moreno ^{AT}	Wharton WCYF ^{FAT}	Average
DP 488BG/RR	32.9	28.2	29.4	28.6	29.78
ST 4575BR	29.8	26.6	28.1	29.8	28.58
ST 5599BR	30.3	27.6	28.3	28.8	28.75
PSC 480WR	30.9	27.8	29.1	28.5	29.08
FM 800B2R	32.0	26.5	30.5	31.3	30.08
DP 444BG/RR	--	26.6	27.4	26.4	27.71
DP 555BG/RR	27.0	28.3	26.6	28.1	27.50
DP 455BG/RR	30.6	26.8	29.2	31.5	29.53
DP 445BG/RR	30.1	26.2	29.9	30.5	29.18
PSC 470WR	30.1	27.6	29.8	28.5	29.00
ST 5242BR	28.9	28.2	26.7	28.0	27.95
FM 960B2R	32.1	31.6	27.9	--	30.25
DP 543BG/RR	28.2	30.5	28.2	28.9	28.95
FM 989BR	32.9	26.8	29.0	30.6	29.83
FM 991B2R	30.5	31.5	28.8	31.8	30.65
Average	30.5	28.1	28.6	29.4	29.12

Table 1. Lint yields and performance factors for 14 Roundup Ready cotton varieties, Texas Cooperative Extension, Danny May Farm, Calhoun County, Texas, 2005.

Variety	Turn-Out (%)	Yield ¹ (lbs/A)	Length	Strength (g/tex)	Mic	UR (%)	Elong
ST 4575BR	41.7	414.6	1.01	29.8	4.7	83.6	5.3
DP 555 BG/RR	44.9	401.6	1.00	27.0	5.2	80.7	2.6
DP 455 BG/RR	42.5	377.4	1.06	30.6	4.5	83.4	3.4
DP 488 BG/RR	40.5	371.5	1.09	32.9	4.3	83.3	3.8
ST 5599BR	41.3	358.8	1.04	30.3	4.4	82.5	2.9
DP 445 BG/RR	43.3	352.6	1.04	30.1	4.3	83.6	4.9
PSC 480WR	40.6	333.8	1.04	30.9	4.9	83.8	5.4
FM 800B2R	41.3	332.1	1.11	32.0	4.8	83.5	3.9
DP 543 BG/RR	40.9	314.2	1.05	28.2	4.8	81.3	2.9
FM 991B2R	39.0	296.0	1.03	30.5	4.9	81.5	3.1
PSC 470WR	40.7	295.0	1.03	30.1	4.9	84.2	4.9
FM 989BR	40.7	289.1	1.07	32.9	4.9	82.7	3.4
ST 5242BR	41.7	288.4	1.04	28.9	4.9	82.1	3.1
FM 960B2R	39.8	286.2	1.09	32.1	4.6	83.4	3.0
Average	41.4	336.5	1.10	30.5	4.7	82.8	3.8

¹ Plots were hand-harvested taking multiple 1/1000th acre samples from 4 rows plots. Lint yields were also adjusted using accuracy testing to compensate for field variation. DP 444 BG/RR was the tester cotton variety.

Planting date: 4 April 2005
 Row width: 38 inches
 Fertilizer: 275 lbs/A 32-0-0 (preplant)
 Herbicide: 1.5 pt/A Prowl (December)
 20 oz/A RU OM (April)
 20 oz/A RU OM under hood (May)
 20 oz/A RU OM under hood (June)
 Planting rate: 51,000 (hill-drop method) w/12-row planter
 Soil type: Lake Charles Clay
 Previous crop: Cotton
 Rainfall: 8.78 inches (NW Calhoun Weather Station)
 Harvest date: 8 August 2005

Table 2. Lint yields and performance factors of 19 Roundup Ready cotton varieties, Texas Cooperative Extension, Stasney Farms, Fort Bend County, Texas, 2005.

Variety	Turn-Out (%)	Yield ¹ (lbs/A)	Length	Strength (g/tex)	Mic	UR (%)	Elong
DP 488 BG/RR	45.1	563.4	1.03	28.2	5.4	81.5	4.5
ST 4575BR	45.6	516.9	1.00	26.6	5.3	81.9	5.4
DP 444 BG/RR	45.6	516.5	1.02	26.6	4.8	79.7	3.9
PSC 480WR	45.5	501.8	1.01	27.8	5.4	81.3	5.3
DP 455 BG/RR	47.4	499.8	1.07	26.8	5.4	80.4	3.0
FM 800B2R	47.9	493.1	0.98	26.5	5.4	79.4	3.0
FM 991B2R	42.9	492.8	1.08	31.5	5.4	81.5	2.6
FM 989BR	44.7	491.6	1.01	26.8	5.5	79.6	2.9
DP 555 BG/RR	45.0	488.4	1.08	28.3	5.5	82.1	3.6
FM 800RR	44.9	487.2	1.01	29.3	5.7	81.5	5.2
FM 310RR	44.9	472.5	1.09	29.9	5.3	80.6	3.5
ST 5599BR	44.8	467.6	1.00	27.6	5.8	81.2	3.3
FM 960RR	46.8	462.8	0.96	27.9	5.5	80.7	4.7
PSC 410RR	45.7	451.9	1.03	28.3	5.6	82.2	5.2
FM 960B2R	41.8	448.1	1.09	31.6	5.5	82.4	3.4
DP 543 BG/RR	43.9	420.6	1.15	30.5	5.4	83.1	3.9
DP 445 BG/RR	45.6	410.2	0.99	26.2	4.9	80.7	4.0
PSC 470WR	44.9	408.1	1.00	27.6	5.3	82.0	5.5
ST 5242BR	42.6	370.0	1.07	28.2	5.3	80.7	3.3
Average	45.0	471.8	1.00	26.8	5.4	81.2	4.0

¹ Plots were machine harvested and grab samples were taken for turn-out. This was a nonreplicated strip test.

Planting date: 8 April 2005
 Row width: 36 inches
 Fertilizer: 150 lbs/A 0-26-26
 + 120 lb/A actual N.
 Herbicide: 1 pt/A Cotoran (at planting)
 22 oz/A RU OT
 Two 22 oz/A RU applications under the hood
 (Second application included Suprend treatment)
 Planting rate: 53,200 plants per acre
 Soil type: Bernard-Edna and Lake Charles Clay
 Previous crop: Cotton
 Rainfall: 16.08 inches
 Harvest date: 11 September 2005

Table 3. Lint yields and performance factors for 21 Roundup Ready cotton varieties, Texas Cooperative Extension, Howard Book/Stephen Moreno Farm, Victoria County, Texas, 2005.

Variety	Turn-Out (%)	Yield ¹ (lbs/A)	Length	Strength (g/tex)	Mic	UR (%)	Elong
FM 800B2R	42.1	1064.5	1.10	30.6	5.4	82.7	3.8
PSC 480WR	41.6	1019.5	1.04	29.1	5.2	83.1	5.2
FM 800B2R ^{2/}	41.7	1118.2	1.12	30.5	5.3	83.1	3.9
DP 445 BG/RR	43.5	997.5	1.06	29.9	5.1	82.3	5.3
ST 4575BR (Cruiser)	43.3	959.9	1.02	28.1	5.5	81.8	5.5
ST 5599BR	42.9	944.2	1.05	28.3	5.3	81.9	3.3
PSC 310RR	43.1	936.5	1.01	28.3	5.2	80.9	4.5
DP 543 BG/RR	41.9	936.1	1.03	28.2	5.2	81.3	2.9
PSC 470WR	42.2	935.1	1.03	29.8	5.2	83.6	5.6
DP 455 BG/RR	43.6	923.0	1.06	29.2	4.7	81.8	3.4
DP 444 BG/RR	42.8	919.9	1.05	27.4	4.6	82.1	3.8
ST 5242BR	41.5	919.3	1.03	26.7	5.2	82.2	3.9
DP 488BG/RR	42.6	883.8	1.09	29.4	5.1	81.6	3.7
PSC 410RR	40.9	871.1	1.02	29.7	5.2	82.4	4.6
FM 960B2R	41.1	865.2	1.05	27.9	5.7	81.2	2.5
DP 555 BG/RR	43.2	856.3	1.02	26.6	5.2	79.4	3.0
FM 989BR	40.5	849.6	1.03	29.0	5.2	80.7	3.8
FM 960RR	42.2	840.3	1.05	30.0	5.2	81.6	2.9
FM 800RR	41.2	824.4	1.06	31.2	5.4	83.0	3.7
FM 991B2R	39.9	823.8	1.06	28.8	5.3	81.0	3.1
FM 989BR (Gaucho)	42.2	781.2	1.02	28.3	5.1	80.9	3.0
Average	42.1	917.6	1.05	28.9	5.2	81.9	3.8

¹ Plots were stripper-harvested taking 8 rows from 575 to 585 in length (.267± acre). Lint yields are adjusted using accuracy testing to compensate for field variation.

² The second FM800B2R listed in this demonstration was the compiled results of the check which was planted throughout the field for accuracy testing.

Planting date: 4 April 2005
 Row width: 30 inches
 Fertilizer: 23-50-15 (fall applied)
 85-0-0 (side-dressed)
 Herbicide: 1 qt/A Caparol; 17 oz/A Dual Magnum; 1 pt/ac Grounded
 2X applications of 1 qt/ac Roundup Original Max (post emergence)
 1 qt/ac Roundup (hooded sprayers)
 Planting rate: 52,000 plt/ac
 Soil type: DaCosta-Contee Complex
 Previous crop: Corn
 Rainfall: 14 inches
 Harvest date: 25 August 2005

Table 4. Lint yields and performance factors for 14 Roundup Ready cotton varieties, Texas Cooperative Extension, Wharton County Youth Fair, Wharton County, Texas, 2005.

Variety	Turn-Out (%)	Yield ¹	Length (lbs/A)	Strength	Mic (g/tex)	UR	Elong (%)
ST 5599BR	42.7	823.3	1.10	28.8	5.7	82.3	3.4
DP 488 BG/RR	42.6	801.7	1.07	28.6	5.9	82.0	3.6
PSC 470WR	42.9	792.4	1.06	28.5	5.5	83.2	6.1
DP 455 BG/RR	42.7	749.4	1.07	31.5	5.1	81.6	3.7
DP 555 BG/RR	45.8	747.9	1.03	28.1	5.5	82.3	2.9
ST 5242BR	42.9	737.9	1.07	28.0	5.3	83.1	3.8
DP 444 BG/RR	42.4	736.5	1.05	26.4	4.9	81.1	4.2
ST 4575BR	42.5	725.9	1.03	29.8	5.3	81.5	5.9
PSC 480WR	41.3	724.8	1.06	28.5	5.3	84.0	5.5
DP 445 BG/RR	40.8	677.7	1.06	30.5	5.2	82.6	6.0
DP 543 BG/RR	41.8	587.7	1.06	28.9	5.6	81.4	3.0
FM 989BR	39.3	585.6	1.04	30.6	5.4	79.9	3.4
FM 800B2R	41.9	576.5	1.13	31.3	5.3	84.2	3.7
FM 991B2R	38.0	372.4	1.11	31.8	5.3	83.8	3.7
Average	42.0	688.6	1.10	29.4	5.4	82.4	4.2

¹ Plots were machine harvested taking 4 rows, 801 feet in length (0.49 acres). Lint yields were not adjusted using accuracy testing. This was a non-replicated strip test.

Planting date: 5 April 2005
 Row width: 40 inches
 Fertilizer: 450 lbs/A 22-6-2 + 6.75 S + 1.75 Zn
 Herbicide: 1 pt/A DualMag
 0.65 oz/A Staple
 1 application of glyphosate OT @ 22 oz/A
 Planting rate: -
 Soil type: Caney Clay
 Previous crop: Corn
 Rainfall: 17.96 inches (Wharton WS I Weather Station)
 Harvest date: 15 August 2005

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