

**ST 3990BR: A NEW EARLY-MID SEASON
VARIETY FROM STONEVILLE**

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Abstract

ST 3990BR is a new Stoneville brand stacked transgene product developed for 2004. ST 3990BR is derived from a back-cross population that incorporated Monsanto's Bollgard® and Roundup Ready® technologies. ST 3990BR is a smooth leaf variety that is adapted to the northern section of the Mid-South Region.

Emergent Genetics evaluated ST 3990BR in replicated trials in 2002 and 2003 and ST 3990BR was entered into university trials in 2003 using the experimental nomenclature STX3990BR. Three internal Mid-South trials conducted in 2002 demonstrated that ST 3990BR was statistically equal in lint yield to DP 451 B/RR, PM 1218 BG/RR, and ST 4892BR (Table 1). ST 3990BR was statistically equal to PM 1218 BG/RR for fiber length. ST 3990BR was statistically lower for fiber strength and micronaire from the other varieties. Although our initial expectation for adaptation of this variety was in the northern area of the Mid-South region, we continued with our normal evaluation scheme. Results are presented in Table 2. Lint yield of ST 3990BR was statistically equal to ST 4892BR and PM 1218 BG/RR in the Southeast region and PM 1218 BG/RR on the Texas High Plains. ST 3990BR had lower lint yield than ST 4892BR and PM 1218 BG/RR in the Mid-South and Arizona regions, and across all 16 locations. ST 3990BR had a shorter fiber length and lower strength when compared to ST 4892BR and PM 1218 BG/RR. ST 3990BR had a significantly lower micronaire value than the other comparison varieties. The results were as expected in 2003 because we evaluated ST 3990BR in a diverse range of environments. A grower should consult their local state variety trials for comparisons in their area.

Table 1. Agronomic performance of ST 3990BR compared to DP 451 B/RR, PM 1218 BG/RR, and ST 4892BR in 2002.

Variety	Yield lbs/A	Length UHM	Strength g/tex	Micronaire
ST 3990BR	966	1.11	27.4	4.1
DP 451 B/RR	948	1.14	29.3	4.5
PM 1218 BG/RR	939	1.12	29.0	4.7
ST 4892BR	933	1.13	29.7	4.6
LSD _(.05)	66	0.01	0.8	0.1

Table 2. Agronomic performance of ST 3990BR compared to ST 4892BR, and PM 1218 BG/RR in 2003.

Variety	SE ¹ (6)	MS ¹ (5)	TX ¹ (2)	AZ ¹ (3)	OV ¹ (16)	Length ² UHM	Strength ² g/tex	Micronaire ²
	lbs/A							
ST 3990BR	1201	1406	1390	1275	1317	1.07	25.0	4.1
ST 4892BR	1187	1677	1614	1697	1544	1.10	27.3	4.7
PM 1218 BG/RR	1242	1721	1288	1405	1415	1.09	26.5	4.7
LSD _(.05)	73	118	142	109	64	0.01	0.5	0.1

¹Number in parenthesis indicates number of locations within region.

²Results from 2003 combined location analysis.