

**ST 5599BR AND ST 5303R: TWO NEW TRANSGENIC VARIETIES FROM  
STONEVILLE PEDIGREED SEED COMPANY**

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**Abstract**

ST 5599BR is a new stacked-transgene product from Stoneville Pedigreed Seed Company for 2003. ST 5599BR was derived from a backcross population that used ST LA887 as the recurrent parent. ST 5599BR contains Monsanto's Roundup Ready® and Bollgard® genes, is mid-late maturing, demonstrates belt-wide adaptation with high yield potential, and has tolerance to root-knot nematodes.

ST 5303R is a new mid-late maturing variety that combines high yield potential with Monsanto's Roundup Ready® gene and is adapted across the cotton belt. ST 5303R was developed through backcrossing to the experimental strain, 6M021 (ST LA887/DP 5415). Preliminary results indicate ST 5303R has a good tolerance to root-knot nematodes.

Stoneville Pedigreed Seed Company evaluated ST 5599BR in replicated yield trials from 1997 through 2002. ST 5599BR was also included in university trials from 2000 through 2002 under the experimental designation STX9905. Forty-three beltwide trials conducted by Stoneville Pedigreed Seed from 2000 through 2002, demonstrate no statistical differences in yield between ST 5599BR, ST 4892BR, and DP 458BR (Table 1). The regional comparisons for yield show no differences between the varieties except in California, where ST 5599BR had a higher yield than the other varieties. The fiber of ST 5599BR is statistically longer and lower in micronaire than ST 4892BR.

ST 5303R has been evaluated in Stoneville replicated yield trials from 2001 to the present. ST 5303R was included in the university trials in 2002 under the experimental designation STX0003R. Twenty-two Stoneville beltwide trials conducted between 2001 and 2002 indicate that the lint yield of ST 5303R was not statistically different from either ST 4793R or DP 5415RR (Table 2). Fiber length and strength of ST 5303R were statistically equal to ST 4793R and DP 5415RR. Statistical differences were detected for micronaire with values from each variety being significantly different than the others.

Table 1. Performance of ST 5599BR compared to ST 4892BR and DP 458BR.

<b>Variety</b>	<b>SE<sup>1</sup></b>	<b>MS<sup>1</sup></b>	<b>THP<sup>1</sup></b>	<b>AZ<sup>1</sup></b>	<b>CA<sup>1</sup></b>	<b>Overall<sup>1</sup></b>	<b>Length<sup>2</sup></b>	<b>Strength<sup>2</sup></b>	
	<b>-----lbs./A-----</b>						<b>--UHM--</b>	<b>--g/tex--</b>	<b>Micro<sup>2</sup></b>
ST 5599BR	1397	1216	1704	2184	2365	1572	1.11	28.0	4.1
ST 4892BR	1262	997	1639	2181	2417	1453	1.09	28.0	4.4
DP 458BR	1174	927	1444	1919	2134	1317			
Diff.	NS	NS	NS	**	NS	NS	**	NS	**

<sup>1</sup> SE refers to the Southeastern US, MS refers to the Mid-South, THP refers to the Texas High Plains, AZ, refers to Arizona, CA refers to California, and Overall refers to all regions combined.

<sup>2</sup> Results from 2000-2001 combined analyses.

Table 2. Performance of ST 5303R compared to ST 4793R and DP 5415RR.

<b>Variety</b>	<b>SE<sup>1</sup></b>	<b>MS<sup>1</sup></b>	<b>THP<sup>1</sup></b>	<b>AZ<sup>1</sup></b>	<b>CA<sup>1</sup></b>	<b>Overall<sup>1</sup></b>	<b>Length<sup>1</sup></b>	<b>Strength<sup>1</sup></b>	
	<b>-----Lbs./A-----</b>						<b>--UHM--</b>	<b>--G/tex--</b>	<b>Micro<sup>1</sup></b>
ST 5303R	868	1013	1420	1983	2132	1483	1.07	29.7	5.0
ST 4793R	873	1050	1542	2156	2378	1600	1.08	29.0	5.1
DP 5415RR	853	865	1599	2014	2388	1544	1.11	29.4	4.9
Diff.	NS	NS	NS	NS	*	NS	NS	NS	*

<sup>1</sup> SE refers to the Southeastern US, MS refers to the Mid-South, THP refers to the Texas High Plains, AZ, refers to Arizona, CA refers to California, and Overall refers to all regions combined