

**ST 2454R—STONEVILLE'S NEW ROUNDUP
READY VARIETY FOR THE STRIPPER MARKET**

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Abstract

ST 2454R is a new Roundup Ready® variety that will be marketed under the Stoneville Texas brand. The variety was developed through a backcross program using 'ST 132' (two backcrosses) and 'ST 239' (one backcross) as recurrent parents. In 1999-2000 trials, lint yield of ST 2454R was similar to ST 239 and the Paymaster check varieties, PM2326RR and PM2200RR in the Texas High Plains. Lint yield in other parts of Texas was similar to Deltapine check varieties DP420RR and DP436RR. Fiber quality of ST 2454R was similar to the Paymaster checks except that micronaire was lower than PM 2326RR and length was slightly shorter than PM2200RR. ST 2454R was significantly early earlier maturing than the Paymaster checks.

Breeding History

ST 2454R was developed through a backcross program using 'ST 132' (two backcrosses) and 'ST 239' (one backcross) as recurrent parents. ST 239 is a direct selection out of ST 132. The backcross process occurred during 1995-97. During 1997-98, homozygous Roundup Ready, BC3 progeny rows that were agronomically similar to ST 239 were identified. Nine component lines of this type were bulked to constitute ST 2454R.

Field Performance

Agronomic evaluations of ST 2454R, both internal and in the Texas Agricultural Experiment Station (TAES) system, were conducted in 1999 and 2000 under the experimental designation X9904. In internal tests, averaged across 15 year-location combinations during 1999-2000, ST 2454R produced lint yields statistically equal to the recurrent parent, ST 239, and the check varieties PM2326RR and PM2200RR. Averaged across four locations in TAES tests in the Texas High Plains during 1999, ST 2454R produced lint yields that were not statistically different from the Paymaster check varieties above. Averaged across seven locations in TAES tests in other parts of Texas in 2000, ST 2454R produced lint yields equal to the check varieties, Deltapine DP420RR and Deltapine DP436RR. Bronze wilt was observed in ST 2454R in Mississippi during 2000. Therefore, growers should use caution if planting this variety in areas where Bronze wilt is common.

In internal tests in 2000, fiber length and strength of ST 2454R were equal to PM2326R while micronaire was lower than this check. Fiber length of ST 2454R was slightly shorter than PM2200RR while strength and micronaire of these two varieties were similar. Fiber properties of ST 2454R and ST 239 were nearly identical.

ST 2454R was significantly early maturing than these Paymaster checks. Averaged across seven internal tests in 2000, ST 2454R was 59% open, compared to 51% open for both PM2326RR and PM2200RR (LSD 0.05 = 5%).

ST 2454R shows great promise as a high yielding, early maturing, Roundup Ready variety for the stripper market.