

**ECONOMICS OF STACKED GENE (BG/RR)
STRIPPER COTTON IN WEST TEXAS**

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Abstract

The West Texas sales territory for Monsanto consists of 131 counties which include counties in Southwest Oklahoma, and most counties in New Mexico. Cotton production in this area ranges between 4.5 and 5.5 million acres depending primarily upon rainfall and weather conditions. The majority of acres planted to cotton in the West Texas sales territory consists mainly of stripper cotton varieties which were developed to be highly storm resistant due to highly volatile weather patterns during harvest seasons. However, there are areas within this territory which have adopted and grown large acreage of picker cotton varieties. In 1999, stacked gene (Bollgard / Roundup Ready®) stripper cotton varieties were introduced for commercial sale in West Texas.

Large plot (10 - 65 acre) side by side grower trials were initiated the year of 1999 and 2000 to determine the economic benefits of the Bollgard® gene versus conventional insecticide treatments utilizing Bollgard / Roundup Ready® stripper cotton compared to Roundup Ready® stripper cotton varieties in the same maturity class. Twenty-two trials were conducted in 1999 followed by fourteen trials in the year 2000. In 1999, stacked gene cotton varieties yielded an average of 115 pounds more lint per acre while reducing worm insecticide control cost by \$2.79 per acre which resulted in an averaged net advantage of \$45.78 more return per acre. In comparison, stacked gene cotton varieties in 2000 yielded an average of 91 pounds more lint per acre. Worm insecticide control costs were reduced by \$10.01 per acre which resulted in an averaged net advantage of \$31.22 more return per acre. The overall summary for the thirty-six locations in 1999 and 2000 provided a net advantage of \$ 36.20 per acre for the stacked gene cotton varieties, worm insecticide control costs were reduced by an average of \$ 4.49 per acre, and stacked gene cotton varieties averaged 91.49 pounds more lint per acre.