

Enhancing Cry 1Ac expression in Bt cotton by using a fragrant formulation

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An increase in Cry1Ac toxin expression in the terminal leaves of Bt cotton plants is facilitated through the use of a volatile exogenous inducer, namely, fragrant formulation. A method has been demonstrated for the use of a fragrant formulation in cotton fields so as to exploit its interplant and intraplant effects in Bt cotton.

Cry1Ac toxin expression can be enhanced by up to 671 percent over control during peak vegetative phase through the use of fragrant formulation on cloudy days.

Cry1Ac toxin expression can be enhanced by up to 260 percent over control 123 DAS through the use of fragrant formulation.

The terminal leaves of Bt cotton plants continue to produce Cry 1Ac above the threshold level of 1ug/g up to 123 DAS in fragrant formulation treated plots.



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