

NOVEL INSECT RESISTANCE TRAITS FROM DOWAGROSCIENCES

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Abstract

Dow AgroSciences is field-testing events of the Cry1F and Cry1Ac proteins from *Bacillus thuringiensis* to provide broad-spectrum lepidopteran insect control in cotton. Data presented here from trials in 2000 show the efficacy of one Cry1F event (MXB-9) and two Cry1Ac events (MXB-7 and MXB-10) against *Heliothis virescens* (TBW), *Helicoverpa zea* (CBW) and *Spodoptera exigua* (BAW). Data are also presented from trials in 2001 where two Cry1F/Cry1Ac stacked events (MXB-13 and MXB-14) were tested. It is demonstrated from these data that all single and stacked events are effective at controlling TBW. The Cry 1Ac and stacked events are effective at controlling CBW whereas the Cry1F (MXB-9) is less efficacious against this pest. The MXB-9 event shows good control of BAW. Control of these insects is demonstrated in both vegetative and reproductive plant parts. Control is also demonstrated to be effective during late season crop growth. Dow AgroSciences intends to launch the stack of Cry1F/Cry1Ac in 2004.