Non-target Effects of a Seed Treatment Insecticide, Thiamethoxam, on Sweet Corn Hybrids. (A00-ochs161950-Oral)

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Abstract:

Corn flea beetles vector Erwinia stewartii which causes Stewart's wilt. Flea beetles and Stewart's wilt can be controlled by seed treated with selected insecticides. In a trial in 2000, sweet corn plants grown from seed treated with thiamethoxam were taller and they matured 1 to 2 days earlier than plants grown from non-treated seed. The purpose of this research was to evaluate if this seed treatment insecticide has non-target effects on seedling vigor, maturity, and growth of sh2 sweet corn hybrids. Thirty six supersweet hybrids were tested in four trials at two locations planted in May and June 2002. The treatment design was a 36 x 2 factorial of hybrids and seed treated with 200 g ai thiamethoxam per 100kg seed or not treated. The experimental design was a split-plot of an RCB with 4 replicates per trial. Hybrids were main plots and seed treatments were sub-plots. Each experimental unit was a 2-row plot about 3.81 m long with approximately 18 plants per row. Data collected included plant height and seedling vigor 2 to 3 wks after emergence, date of mid-silk growth stage, plant height after pollination, and ear characteristics. Treatments will be compared by ANOVA.

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