Control of Southwestern Corn Borer in Corn (Field 5B)
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Objective: To evaluate Intrepid and DE225 (Proaxis) for southwestern corn borer control.

Methodoloy: A test to control southwestern corn borer was initiated on August 2, 2004. Egg counts in the field prior to this date had been far below threshold. At the time of application, which is somewhat later than normal, egg counts were around 20%. Inspections for eggs were not continued after this date, but egg lays continued based on the final infestations observed in the untreated plots. The following treatments were applied: DE-225 (Proaxis0 at 1.54 oz/a, Intrepid at 4 oz/a, 6 oz/a and 8 oz/a and an untreated check. All treatments had a nonionic surfactant added at 0.25% v/v. The nonionic surfactant used was Agri-Dex a product of Helena Chemical Co. Plots were 4 row by 30 feet with the center two rows treated. This allowed a 2 row buffer between each treated area to prevent drift across plots. Plots were placed in a randomized complete block design. Plots were rated for southwestern corn borer infestation and damage on September 9, 13, 16 and 17. Ten connectives plants in each plot were stripped of all leaves. Stalks were then cut off 6 inches above the ground and inspected for entrance holes and split to measure tunnel lengths in centimeters. Ear shanks were also inspected for tunneling. The remaining crown of the plant was removed from the soil and split to find overwintering larvae in the apex of the root. Data recorded included, length of each tunnel, number of tunnels, larval instar, 1st generation infestation (based on pupal cases in stalk), girdled plants and lodged plants.

Results: Intrepid a new insect growth regulator and Proaxis (DE-225) significantly reduced number of live larvae, number of tunnels and number of larvae per 10 plants. The % of plants with damage were similar for all treatments except that the Proaxis was significantly better than the 4 oz/a rate of Intrepid. This is the second year the 6 oz and 8 oz/a rate of Intrepid has performed as well as a pyrethroid. Intrepid may have an advantage over other products due to its low impact on beneficial arthropods which maintain spider mite populations in check; thus possibly preventing a secondary pest outbreak.