

Effect of Soil Insecticide on Yields of First-Year Corn

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Objective

To evaluate the effect of soil insecticide on population and yield of first-year corn.

Background

| | | | |
|----------------|--------------------------------|----------------|--|
| Cooperator: | Tom Weiler | Fertilizer: | 246 lb/A N, 114 lb/A |
| County: | Morrow | | P ₂ O ₅ , 120 lb/ A K ₂ O |
| Nearest town: | Chesterville | Herbicide: | PRE: 2 lb/A Atrazine |
| Drainage: | Systematically tiled | | 1.3 pt/A Dual II Magnum |
| Soil Type: | Sloan silty clay loam | | 2 oz/A Balance Pro |
| Tillage: | Conventional | | POST: Distinct 4 oz/A |
| Previous Crop: | Soybeans | Planting Date: | May 20 |
| Variety: | Pioneer 34M94 | Planting Rate: | 40,000 seeds/A |
| Soil Test: | pH 6.0, P 49 ppm, K 253 ppm | Row Width: | 30-inch |
| | | Harvest Date: | October 22 |

Methods

The study was a split-planter design. Three rows of the six-row planter had Counter insecticide added. The rate used was 6 oz/ 1,000 foot of row. The treatments were sixrows wide and 600-foot long. The entire plot was harvested and weighed using a weigh wagon. The treatments were replicated six times.

Results

| Table 1. Corn Yields. | |
|-----------------------|--------------|
| Treatment | Yield (bu/A) |
| Counter | 191.9 |
| No Counter | 195.8 |
| LSD (0.05) | NS |
| F test | <1 |

Summary

Prior trapping at this location for biotype corn rootworm beetles has suggested that rootworms should be no problem on corn following soybeans in this field. Past studies conducted using insecticide on first-year corn have shown increased yields but seldom enough to cover the costs for the insecticide used. The results obtained this year actually showed no difference in yield when corn insecticide was used at planting. The insecticide added to the cost of production and decreased the profit per acre.

The author would like to thank Pioneer for providing the seed and Tom Weiler for being the cooperator for this study.

For additional information, contact:

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