

Comparison of Effectiveness of Poncho 250 and Force 3G on First Year Corn

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Objective

To compare the efficacy of a soil applied insecticide and a seed applied insecticide against secondary soil pest in first year corn.

Background

Cooperator: Mike Bushelman
County: Hamilton
Township: Crosby
Drainage: Well drained to somewhat poorly drained
Soil types: Russell, Miamian, Shoals
Tillage: No Till
Previous Crop: Soybeans
Hybrid: Pioneer 33J24

Soil Test: pH 5.8, P46 ppm, K 150 ppm
Fertilizer (lbs./A): 172-13 -13 NPK;
Nitrogen side-dressed
Herbicide: Atrazine 1.5 lbs/A ,
Simazine .5 lbs/A, Exceed .75 oz/A.
Row width: 30 inches
Planting date: April 17
Planting rate(seeds/A): 31,000
Harvest Date: October 26

Methods

The treatments included Poncho 250 applied on the seed, Force 3G applied through the planter as a band on the seed furrow, and no treatment. Force 3G was applied at the rate of 4 ozs per 1000 foot of row. The treatments were randomized within the blocks. Each treatment was 4 rows wide and varied in length. There were four replications. Plots were harvested and weighed with weigh wagon. Populations were estimated in each plot five weeks after emergence by counting the plants in 1/1000 acre in 3 different areas within each replication.

Results

Table 1. Soil and Seed Insecticide Treatment Effect On Early Stand, Grain Moisture, and Grain Yield

Treatment	Population	Yield	Moisture
	Plants/A	Bu./A	%
Poncho 250	30063	216.4	15.0
Force 3G	29438	221.7	14.9
No Treatment	25752	205.1	15.0
<u>LSD (0.05)</u>	NS	7.1	NS

SUMMARY

The treatments using Force 3G and Poncho 250 were both significantly higher in yield than no treatment, but were not significantly different from each other. There was no significant difference in any of the other parameters tested with any treatment. There was a trend to lower populations in replications with no treatment. A white grub infestation was evident when the population counts were made in the fourth week in May, however no evaluation of the grub density or injury was made. There may have been some level of control of the grub population that perhaps led to a non-significant, numeric reduction in population. Since there was no significant difference between the yield of Force treatment and the Poncho treatment and the Poncho cost about half of the amount of Force, Poncho should be the best value.