

On-farm Corn Seed Treatment Trials

RFR-A1311

Several different types of seed treatments are available to protect seed and seedlings from nematodes, insect feeding, and diseases. Poncho 1250 Votivo® contains both an insecticide and a bacterium that impedes nematode feeding in corn. SabrEx™ is a seed treatment marketed as a root inoculant containing beneficial fungi that colonize corn roots.

Methods

Two corn seed treatment trials were conducted in Monona and Boone Counties in 2013. In Trial 1, corn planted with seed treated with SabrEx™ was compared with corn planted without the seed treatment. In Trial 2, corn planted with seed treated with Poncho 1250 Votivo® was compared with corn planted without the seed treatment. Treatments were replicated three or more times in both trials. See Table 1 for details on both trials.

Results

There was no significant response in corn grain yield to the Poncho 1250 Votivo® in Trial 2, which may indicate there were no damaging levels of nematodes that feed on corn roots or corn insect pests in this field (Table 2). There was a significant response in corn grain yield to the SabrEx™ seed treatment in Trial 1, although no effect on grain yield was seen in another trial with the product conducted in Monona County in 2012. Decisions on crop inputs should be based on more than one year's research.

Table 1. Hybrid, row spacing, planting date, planting population, and previous crop, and tillage practices in corn seed treatment trials.

Exp. No.	Trial	County	Hybrid	Row spacing (in.)	Planting date	Planting population (seeds/A)	Previous crop	Tillage practices
130317	1	Monona	LG Seeds 5541 STX RIB	30	5/14/13	32, 316	Soybean	No-till
130501	2	Boone	Pioneer 448 MM/LL/RR2	30	5/17/13	33,000	Corn	Conventional

Table 2. Yield from corn seed treatment trials.

Exp. No.	Trial	Treatment	Yield (bu/A)			
			Treatment	Control	Response	P-value
130317	1	SabrEx™ Inoculant	231.5	211.7	19.8	<0.01
130501	2	Poncho 1250 Votivo®	172.5	162.6	9.9	0.21