Apron Maxx (mefenoxam and fludioxonil) Seed Treatment Comparison for Soybeans

Alan Sundermeier, Agriculture and Natural Resources Extension Agent

Objective

To evaluate the effect of fungicide seed treatment on soybean stand and yield.

Background

Cooperator: Ed and Howard Rosebrook Soil Test: pH 6.7, P 24 ppm,

County: K 153 ppm

Nearest Town: Deshler Fertilizer: None

Drainage: Tile, well-drained Planting Date: May 30, 2002 Soil type: Hoytville clay Planting Rate: 225,000 seed/acre

Tillage: No- till Row Width: 7-inch
Previous Crop: Corn Herbicides: Roundup

Variety: Rupp RS4230RR Harvest Date: September 24, 2002

Methods

Rupp RS4230RR soybean seed treated with Apron Maxx was compared to the same variety with no seed treatment. Seed treatment was applied at Rupp Seed Company at the recommended rate of 5 fl. oz. per 100 pounds of seed. The seed used was rated at 90 percent germination. The two treatments were replicated five times in a randomized complete block design. Individual soybean plot size was 30 feet wide by 930 feet long (0.64 A). A 20-foot wide strip was harvested from the center of the plot the length of the strip. The soybeans were harvested using a combine with a yield monitor at an average grain moisture of 13.7%.

Spring emergence population counts were taken using the hoop method. Harvest population was determined by counting the soybean plants in 3 feet of row for four rows per treatment.

Results

Table 1. Soybean Population and Yield^a

Seed Treatment	Population at Emergence (plants/A)	Population at V2 (plants/A)	Population at Harvest (plants/A)	Yield (bu/A)
Treated	220,362 a	281,860	181,860	60.4
Untreated	184,488 b	204,990	179,682	58.6
LSD (0.05)	17,425	NS	NS	NS
F-test	33.9	<1	<1	1.4

^a Means followed by the same letter in a column are not statistically different.

Summary

A uniform stand was achieved for both treatments. Weed control in all the plots was very good. A timely rain allowed crop yields to be near normal for this area.

There were no significant differences in yields among the treatments. The Apron Maxx treated soybeans had a significantly higher stand population at emergence, but final harvest stand populations were not statistically different.

Acknowledgment

Thanks to Rupp Seed Company for donating the seed used in this study. Thanks also to Ed and Howard Rosebrook for cooperating in this study.

For additional information, contact:

Alan Sundermeier

The Ohio State University sundermeier.5@osu.edu