

2012

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Recommended Citation

Robertson, Alison E.; Mueller, Daren S.; and Wiggs, Stith N., "Evaluation of Fungicides and Herbicides for Management of White Mold of Soybean" (2012). *Iowa State Research Farm Progress Reports*. 67.

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Abstract

Several new fungicide products are either available or will be available for management of white mold of soybean. This study was conducted at the Muscatine Island Research and Demonstration Farm, and one farmer's field in northeast Iowa.

Keywords

RFR A1157, Plant Pathology and Microbiology

Disciplines

Agricultural Science | Agriculture | Plant Pathology

Evaluation of Fungicides and Herbicides for Management of White Mold of Soybean

RFR-A1157

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Introduction

Several new fungicide products are either available or will be available for management of white mold of soybean. This study was conducted at the Muscatine Island Research and Demonstration Farm, and one farmer's field in northeast Iowa.

Materials and Methods

Asgrow 3231 was planted on May 12, 2011. Fungicides were either applied at growth stage R1 (July 13) or R3 (July 26). Disease was assessed on August 23 when soybeans were at growth stage R6. Harvest was completed on October 14. Moisture was measured and yields were adjusted to 13 percent moisture. Very little to no white mold was observed in every treatment. The experiment was located in a field equipped with center pivot irrigation and received regular irrigation to keep the lower canopy moist and conducive to formation of white mold infection. However,

unseasonably warm weather during July and early August provided poor conditions for white mold development.

Results and Discussion

There was a statistical difference between the non-treated control (77.7 bu/ac) and the fungicide treatment Proline at R1 + R3 at a rate of 5 oz/acre (83.4 bu/ac). All treatments except for a few exceeded 75 bushels/acre. Some phytotoxicity was observed in the Cobra- and Cobra then Domark-treated plots. Phytotoxicity was not observed in any other treatments. There was a statistical difference in moisture content between the non-treated control (9.37% moisture) and the fungicide treatment Proline at R1 + R3 at a rate of 5 oz/acre (10.05% moisture).

Acknowledgements

Appreciation is extended to Vince Lawson for day-to-day management of the experiment.

Table 1. Treatments, timings and rates of products evaluated for management of white mold^a and yield response.

Treatment	Timing	Rate (oz/ac)	GPA	Moisture (%)	Yield bu/acre
Non-treated control	---	---	---	13.9	77.8
Cobra	R1	6	33	13.3	75.0
Cobra then Domark	R1 + R3	6, 4	33	13.2	78.8
Ultra Blazer ^b	R1	8	33	13.1	77.1
Ultra Blazer ^b then Topsin	R1 + R3	8, 20	33	13.3	80.3
Topsin	R1	20	2	14.8	77.0
Topsin	R1	20	5	14.4	77.1
Topsin	R1	20	15	12.9	77.4
Topsin	R1	20	20	12.82	77.7
Topsin	R1	20	33	12.7	80.0
Incognito	R1	15	33	14.4	76.0
Alto	R1	5	33	15.1	74.0
Topguard	R3	10	33	12.9	81.4
Domark ^c	R1	4	33	13.4	77.5
Proline ^c	R1	3	33	13.6	76.4
Propulse	R1	10.3	33	13.4	79.6
Domark then Domark	R1 + R3	4, 4	33	12.7	79.9
Proline then Proline	R1 + R3	3, 3	33	13.4	76.9
Proline then Proline	R1 + R3	5, 5	33	13.3	83.4
Proline then Stratego YLD	R1 + R3	3, 4.65	33	13.7	76.9
Proline then Stratego YLD + Proline	R1 + R3	3, 4.65 + 1.5	33	13.1	80.9
Endura ^d	R1	4	33	12.9	78.9
Endura ^d	R1	6	33	13.2	78.7
Endura ^d	R1	8	33	12.8	77.0
Endura then Endura	R1 + R3	5.5, 5.5	33	13.6	77.7
Endura ^d then Endura ^d	R1 + R3	6, 6	33	13.3	80.8
Endura ^d then Endura ^d + Priaxor ^d	R1 + R3	6, 6 + 4	33	12.8	79.3
Endura ^d then Priazor ^c	R1 + R3	6, 4	33	14.6	80.9
Omega	R1	10	33	14.4	82.9
LSD (0.05)	---	---	---	0.64	5.3

^aWhite mold incidence was less than 0.5 percent for all treatments.

^bApplied with COC.

^cApplied with 0.25% NIS.

^dApplied with HSOC/Blend 0.50 percent.