

Control of white mold of dry beans with foliar sprays in Jerome County, ID, 2004.

The experiment was conducted in a commercial sprinkler-irrigated, dry edible bean field, where white mold had been severe in previous years. The soil type was a medium silt loam (pH 7.8). Three of the treatments received early applications on the 14 Jul when 6% of the plants had at least one open bloom. Additional materials were applied on 21 Jul when 100% of the plants had at least one open bloom. Treatments were applied as dilute foliar sprays at 37 gal/A and 40 psi (measured at the boom) using a nitrogen gas pressurized sprayer with two hollow cone drop nozzles (facing the sides of the plants) per row. The mean number of plants per 10 ft of row was 34. Experimental units consisted of four rows spaced 22 in. apart and 25 ft long, and were arranged in a randomized complete block design with four replications. The crop was managed by the grower according to standard cultural practices. Disease incidence and severity data from two 10-ft-center row segments per experimental unit were recorded on 3 Sep, after which the same row segments were harvested. Each plant was placed in one of the following three categories for calculating disease severity: non-infected (NI), plants with pod infection or upper stem infection only (P), and plants with basal stem infection (B). After drying in burlap bags in the greenhouse, bean plants were threshed on 16 Sep with a belt thresher. Beans were screened through a 9/64 in. slotted screen to eliminate debris and culls and weighed to determine yield. Data were analyzed using the general linear models procedure (Proc GLM) in SAS. Fisher's Protected LSD was used for mean comparisons.

Yields were above average and not significantly different. There was very little disease pressure and therefore we were unable to establish significant differences for both disease incidence and severity. No phytotoxicity was observed.

Treatment and rate/A	Days after first application ^z	Disease incidence (%)	Disease severity ^y	Yield (lb/A)
Untreated check	Not applicable	12	8	3866
Topsin M 70WP 1.5 lb	7	0	0	3598
TD-2193-07 4.5F 30 fl oz	7	2	1	3585
Topsin M 70WP 1.0 lb	0,7	5	3	3451
TD-2470-02 70WDG 1.5 lb	7	3	2	3589
Headline F 8 fl oz + Syl-Tac 4 fl oz	0			
Endura 70WDG 10 oz + Syl-Tac 4 fl oz.....	7	3	2	3680
Endura 70WDG 10 oz + Syl-Tac 4 fl oz.....	0	1	1	3829
Endura 70WDG 10 oz + Syl-Tac 4 fl oz.....	7	4	3	3826
Endura 70WDG 10 oz + Syl-Tac 4 fl oz + In-Place 1.25 fl oz	7	3	2	3978
<i>P</i> > <i>F</i> ^x		0.3083	0.2141	0.3708
LSD (<i>P</i> ≤ 0.05).		NS	NS	NS

^z First fungicide application was 14 Jul when 6% of the plants had at least one open bloom (early treatments). On 21 Jul 100% of the plants had at least one open bloom (recommended application time).

^y Disease severity was determined using the following formula: $[(0)NI + (1)P + (2)B] / 2(NI + P + B) \times 100$ where NI = number of non-infected plants, P = number of plants with pod or upper stem infection only, and B = number of plants with basal stem infection.

^x *P* > *F* was the probability associated with the *F* value. LSD = Fisher's protected least significant difference value.
NS = not significantly different.