

Soybean White Mold Fungicide Trial Results

CARL BRADLEY

URBANA, ILL.

A soybean foliar fungicide trial focused on white mold (*Sclerotinia stem rot*, caused by *Sclerotinia sclerotiorum*) was conducted at the University of Illinois Northern Illinois Agronomy Research Center in DeKalb County this year. Results are presented in Table 2.

The treatments included products currently registered for white mold control in soybean (Topsin, Domark, and Endura) and those registered for control of other soybean diseases (Proline, Headline, Quadris, and Stratego).

grains infected with the white mold fungus were spread throughout the entire experimental area one day after fungicides were applied at the R1 stage.

Keep in mind that one can't jump to conclusions when a field trial is conducted at only one location in only one year. The results observed in this trial will thus not be the same ones observed every time these treatments are applied. White mold disease pressure was very high in this trial. The incidence ratings collected approximately 3 weeks after the R1 treatment applications give an indication of product efficacy, but most of the treatments applied only once



Link Directly To: **AMERICOT**

Table 2. Results of a soybean foliar fungicide trial focused on white mold conducted in 2009 at the University of Illinois Northern Illinois Agronomy Research Center (DeKalb County).

Treatment ^a	Rate/A	Incidence (%) ^b 8-11-09	Incidence (%) 9-14-09	Severity (0-3) ^c 9-14-09	DSI (0-100) ^d 9-14-09	Yield (bu/A)
Untreated check	—	75	95	2.5	77	23.9
Topsin M 4.5 FL	20 fl oz	43	96	2.4	78	24.4
Proline	3 fl oz	38	95	2.3	70	23.9
Headline + 0.25% NIS	6 fl oz	73	100	2.6	84	21.6
Domark	5 fl oz	68	98	2.2	70	22.8
Quadris	6 fl oz	63	99	2.5	83	24.2
Stratego	10 fl oz	35	98	2.5	81	23.0
Cobra + 1 pt COC	12.5 fl oz	15	51	0.7	13	42.1
Experimental 1	—	18	95	2.2	69	27.7
Experimental 2	—	35	83	1.7	47	32.4
Experimental 3	—	23	80	1.6	45	34.1
Experimental 4 (2x)	—	45	93	2.3	73	23.3
Experimental 5 (2x)	—	38	96	2.4	78	26.2
Experimental 6 (2x)	—	35	80	1.4	37	40.1
Experimental 7 (2x)	—	45	88	1.7	50	37.5
Experimental 8 (2x)	—	18	70	1.4	33	41.4
Endura (2x)	8 oz	38	86	1.6	45	38.8
P > F		0.0067	0.0001	0.0001	0.0001	0.0001
LSD 0.05		33	15	0.5	20	7.5
CV %		57.2	11.6	18.1	23.6	17.9

Data courtesy of L. Paul and C. Bradley, Department of Crop Sciences, University of Illinois.

^aAll treatments were applied at the R1 soybean stage (July 20, 2009). Treatments followed by "(2x)" were applied again 9 days later. All plots were inoculated with the white mold fungus one day following the R1 application.

^bIncidence: percentage of plants that had white mold symptoms.

^cWhite mold severity was rated on a 0 to 3 scale, where 0 = no symptoms; 1 = lesions on lateral branches only; 2 = lesions on main stem, no wilt, and normal pod development; and 3 = lesions on main stem resulting in plant death and poor pod fill.

^dDisease severity index: (severity x % incidence) / 3.

Some experimental treatments not registered on soybean were included. In addition, Cobra herbicide, which has white mold suppression listed on its label was included. In our trial, Cobra herbicide was applied at 12.5 fl oz/A; however, Valent's recommendation is 6 to 8 fl oz/A for white mold suppression in soybean. All treatments were applied at the R1 soybean growth stage (July 20), and a few experimental treatments were applied again nine days later.

The trial was conducted in a manner that would promote high disease pressure. Seed was planted in narrow (7-1/2-inch) rows at a high seeding rate. In addition, sterilized oat

did not provide a long enough window of protection as observed by the incidence and severity ratings collected later in the season.

Overall in this trial, Cobra herbicide did a good job of suppressing white mold, which resulted in a yield benefit. For more information on Cobra and Topsin M for control of white mold, see a report from the University of Wisconsin (Adobe PDF), where these treatments were evaluated for white mold control in their trials in the 1990s. Δ

CARL A. BRADLEY: Extension Plant Pathologist, University of Illinois