EVALUATING FUNGICIDES FOR SOYBEAN ASIAN RUST CONTROL

Duane Kainer, Cooperator, (2009)
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SUMMARY:

In a demonstration evaluating various fungicides for their efficacy in controlling soybean diseases particularly Asian Soybean Rust, there was minimal or no disease pressure seen in this soybean demonstration and there was no significant difference in yields realized by the fungicide applications.

OBJECTIVE:

To determine which fungicide can effectively control Asian soybean rust if the disease does show up in Texas.

MATERIALS and METHODS:

Hornbeck HBK 5425 soybeans were planted on March 25, 2009 at the seeding rate of 10 seeds per foot. Seeds were inoculated with Nitragin inoculant. No fertilizer was applied to this demonstration. The following herbicides were applied: Pursuit at 4 oz/ac was applied at planting and Cobra at 12.5 oz/ac was applied as the season progressed. The soybeans were treated with 2 oz/ac of Baythroid insecticide for stink bugs on June 5, 2009. Grain sorghum was planted as last year's crop. No soybeans have ever been planted on this land.

Ten different fungicide treatments were applied to two row twenty foot plots in a randomized plot design. Treatments were replicated three times and compared to an untreated check. The plots were evaluated for disease on June 15, June 25 and July 8, 2009. The plots were harvested with a research combine. See Table 1 for treatments and results.

RESULTS and DISCUSSIONS:

The soybeans grew well from planting on throughout production. No Asian soybean rust was detected in this demonstration. Additionally, minimal or no other disease pressure was found and although some yields were above the untreated control, none were statistically significant.

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DISCLAIMER CLAUSE:

Trade names of commercial products used in this report are included only for better understanding and clarity. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Texas A&M University System is implied. Readers should realize that results from one experiment do not represent conclusive evidence that the same response would occur where conditions vary.

Table 1. Treatment of soybeans with various fungicides for control of Asian Soybean Rust. Duane Kainer, Cooperator, Victoria County, TX 2009.

[1/] Application Code/Description: Applied at soybean growth stage noted, days after planting

Trt #	Treatment Name	Conc	Unit	Type	Rate/ Acre	Rate Unit	Appl [1/] Code	Appl [1/] Description	Yield [2/] Bu/acre
1	UNTREATED CONTROL								24 a
2	STRATEGO	250	G/L	EC	10	FL OZ/A	A B	R4 [68 DAP]; R6 [92 DAP]	29 a
	GEM	500	G/L	SC	1	FL OZ/A			
3	STRATEGO	500	G/L	EC	10	FL OZ/A	A B	R4 [68 DAP]; R6 [92 DAP]	28 a
	PROLINE	480	G/L	SC	1	FL OZ/A			
4	USF 0731			SC	5	FL OZ/A	A B	R4 [68 DAP]; R6 [92 DAP]	27 a
5	GEM	500	G/L	SC	3.5	FL OZ/A	A B	R4 [68 DAP]; R6 [92 DAP]	27 a
6	STRATEGO	500	G/L	SC	10	FL OZ/A	A B	R4 [68 DAP]; R6 [92 DAP]	27 a
	LEVERAGE	2.7	LB/GAL	SE	3.8	FL OZ/A			
7	FOLICUR	3.6	LB/GAL	F	4	FL OZ/A	A B	R4 [68 DAP]; R6 [92 DAP]	28 a
8	PROLINE	480	G/L	SC	3	FL OZ/A	A B	R4 [68 DAP]; R6 [92 DAP]	27 a
9	HEADLINE	2.09	LB/GAL	EC	6	FL OZ/A	A B	R4 [68 DAP]; R6 [92 DAP]	26 a
10	QUILT	1.67	LB/GAL	SC	14	FL OZ/A	A B	R4 [68 DAP]; R6 [92 DAP]	28 a
11	DOMARK	230	LB/GAL	ME	4	FL OZ/A	A B	R4 [68 DAP]; R6 [92 DAP]	27 a
	HEADLINE	2.09	LB/GAL	EC	6	FL OZ/A			
LSD (P=.05)									6.1
Standard Deviation									3.6
CV									13.24

(DAP) A = R4 (68DAP) stage and B = R6 (92DAP) stage.

[2/] Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)