

Wheat Fusarium Fungicide Trial

Objective: The purpose of the first project (Table 1) is to quantify the impact of fusarium head blight on the quality of harvested grain (Table 3) by comparing a farmer’s normal fungicide application at recommended timing to a fungicide application 3-5 days later. The purpose of the second project (Table 2) was to compare the use of a biological product EcoTea Foliar “HDI” versus fungicide to control fusarium head blight.

Summary:

Table 1: 3 site-years had a significant yield increase with fusarium fungicide application; both the recommended and late timing increased wheat yield above the control, but the two timings did not significantly differ from one another. Of the 17 site-years between 2018-2020 there were 5 site-years that showed a significant difference in yield.

Table 2: There was a significant yield difference using a fusarium fungicide versus a biological product.

Table 1: Fusarium Fungicide Timing

Trial ID	Rural Municipality	Variety	Yield			CV	P-Value	Statistically Significant @ 95%
			Late	Rec'd	Untreated			
			bu/ac			%		
2020-WFHB02	Roland	SY Rowyn	92.5	94.0	91.1	4.5	0.0037	Yes
2020-WFHB03	Grey	AAC Brandon	85.5	85.4		3.2	0.9420	No
2020-WFHB04	Grey	AC Cardale	74.7	71.3	72.7	3.1	0.0443	Yes
2020-WFHB05	Morris	AAC Brandon	75.0	74.7		4.2	0.8920	No
2020-WFHB06	Brokenhead	AAC Brandon	78.6	79.9	75.3	2.9	0.0006	Yes
2020-WFHB07	Cartwright-Roblin	AAC Brandon	52.8	51.6	47.4	5.6	0.4890	No

Indicates Statistical Difference at 95% confidence interval

Table 2: Fusarium Fungicide vs. Biological Stimulant

Trial ID	Rural Municipality	Variety	Yield		Difference	CV	P-Value	Statistically Significant @ 95%
			EcoTea Foliar "HDI"	Prosaro XTR				
			bu/ac		bu/ac	%		
2020-WFHB01	Cartier	AAC Brandon	65.9	69.9	-4.0	4.3	0.0076	Yes

Table 3: Quality Analysis

TrialID	Treatment	Protein	Don	Falling Number	TWT (lbs/bu)
2020-WFHB01	Prosaro XTR	12.8	< 0.3	339	79
	EcoTea Foliar "HDI"	12.8	< 0.3	345	80
2020-WFHB02	Recommended	13.7	<0.3	353	81
	Late	13.6	<0.3	352	81
	Untreated	13.9	<0.3	347	80
2020-WFHB03	Recommended	14.5	<0.3	349	81
	Late	14.6	<0.3	347	81
2020-WFHB04	Recommended	14.0	<0.3	354	77
	Late	13.8	<0.3	342	77
	Untreated	14.1	<0.3	349	77
2020-WFHB05	Recommended	13.5	<0.3	356	82
	Late	13.7	<0.3	350	81
2020-WFHB06	Recommended	13.4	<0.3	342	80
	Late	13.5	<0.3	349	80
	Untreated	13.5	<0.3	354	79
2020-WFHB07	Recommended	15.5	0.5	289	81
	Late	15.1	0.5	298	80
	Untreated (Reference)	15.1	0.5	325	80

