

Manitoba Agriculture Wheat Fusarium Head Blight Risk Model

Project duration May 2018 – August 2018
Objectives To increase understanding of resulting Fusarium Head Blight (FHB) infection for wheat and barley based on the current model.
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Results

Grain samples were sent away for Fusarium specific analysis, but no report for these results has yet been generated. PCDF will post a link when this report is available. Other collected data and yield results for the Carberry site are included below.

Figure 1: Yield by Location and Timing of Fungicide Application for AAC Brandon

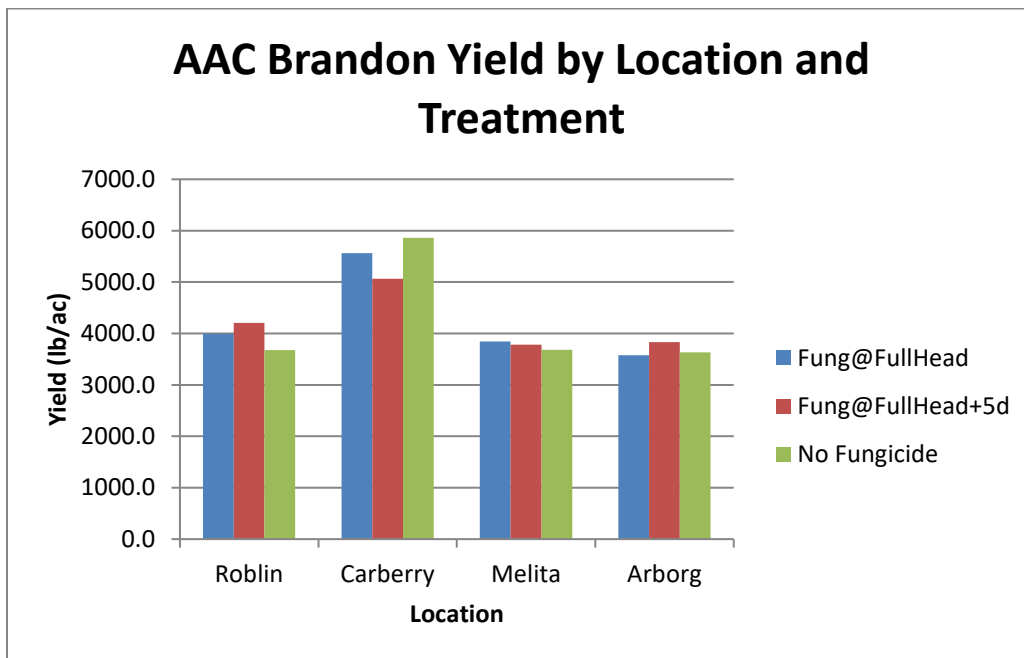


Figure 2: Yield by Location and Timing of Fungicide Application for AAC Tenacious

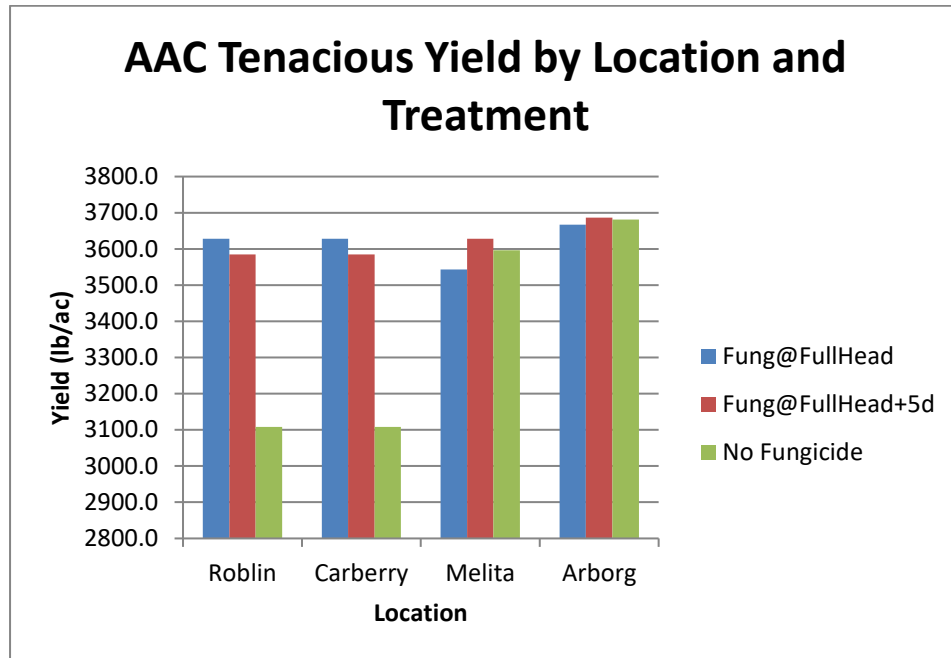
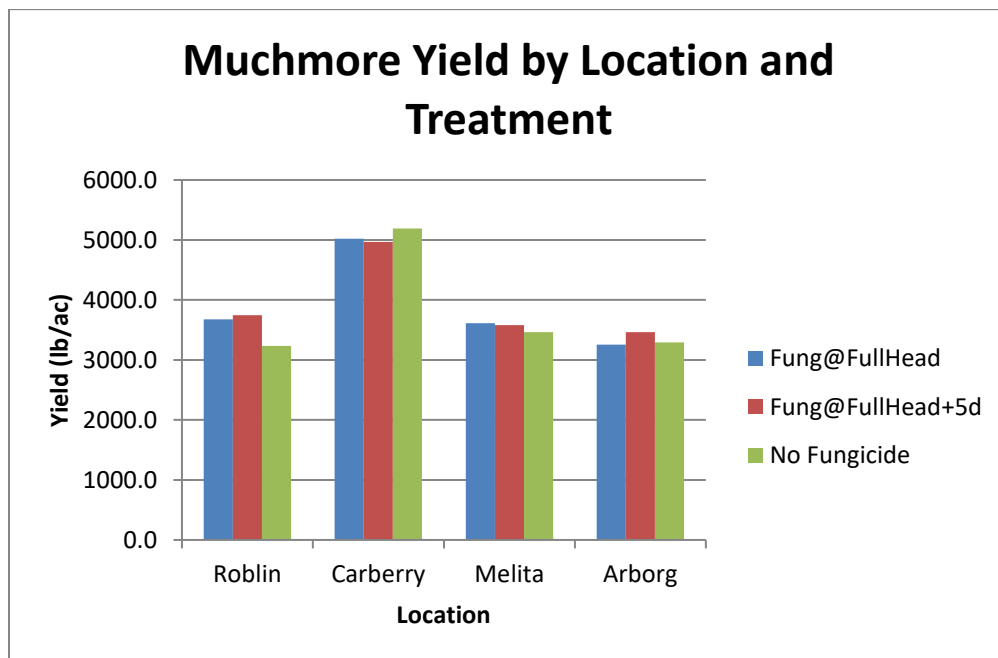


Figure 3: Yield by Location and Timing of Fungicide Application for Muchmore



Background

Farmers need improved decision-making tools in order to assess the local risk of Fusarium Head Blight (FHB). Better tools would improve judgement on whether or not to use fungicide and how to time application. The project recognizes that the current model for predicting the presence of FHB is

insufficient and is gathering data across the province for different treatment plans using known fusarium resistant or fusarium susceptible varieties.

Carberry Materials & Methods

Experimental Design	Random Complete Block Design
Entries	9 (3 varieties x 3 treatments)
Seeding	May 15
Harvest	Aug 30
Varieties	AAC Tenacious AAC Brandon Muchmore
Fertility:	132 lb/ac actual N (46-0-0)
In Crop Weed Control:	Tundra applied May 29, 2018 Achieve applied June 19, 2018 Roundup Applied August, 2018
Fungicide	Prosaro applied according to treatments
Target population	30 plants/ft ² assuming 15% seedling mortality
Treatments	No fungicide Fungicide at full head emergence/early anthesis Fungicide five days after full head emergence/early anthesis

Data collected	Date collected
Emergence	Jun 5
Yield	Sept 17
Moisture	Sept 17

Samples sent away to analyze for fusarium damaged kernels and kernel accumulation of DON

Table 1: Carberry Spring 2018 Soil Test

	Available	Needed for Wheat
N	18 lb/ac	150 lb/ac
P	10 ppm	20 lb/ac
K	257 ppm	0 lb/ac
S	24 lb/ac	0 lb/ac