

## Canola Response to Foliar Fungicide

2011

### Rationale and Objective

- Foliar fungicides have traditionally been employed in canola crops in Western Canada for the management of fungal pathogens, especially sclerotinia stem rot (*Sclerotinia sclerotiorum*).
- Recently, some foliar fungicide products have received registration on canola for the management of the blackleg pathogen (*Leptosphaeria maculans*); one of these fungicides is Headline® (pyraclostobin).
- The objective of this study was to evaluate the effect of Headline fungicide on canola yields in grower managed field trials when applied at the in-crop herbicide spray timing (2-6 leaf) versus an untreated check (no fungicide).

### Study Description

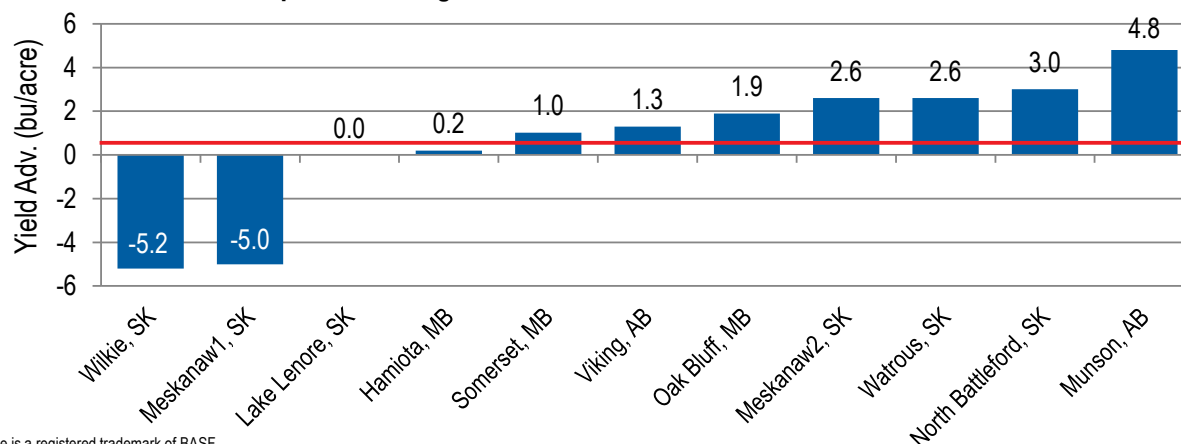
- Field scale strip trials were conducted at 11 locations across Western Canada under natural disease infestation and grower practices.
- Hybrid:** Grower's choice of Pioneer® brand canola hybrid
- Treatments:** (20-40 acres per treatment)
  - Treatment 1: Untreated check
  - Herbicide system alone applied at 2-6 leaf stage.
  - Treatment 2: Headline fungicide treatment
  - Herbicide system + Headline sprayed at 2-6 leaf stage.
- A minimum of a 1000 ft. strip from each treatment was taken to yield.

### Results

- The application of fungicide at spray timing resulted in an average yield increase of 0.66 bu/acre.
- Yield responses at individual locations ranged from -5.2 bu/acre to +4.8 bu/acre, however a positive yield response was observed at 73 percent of the locations.

Treatment	Yield Advantage over Untreated	Consistency	Average Yield
Headline	0.66 bu/acre	73%	44.7 bu/acre

Yield Response to Fungicide Treatment at 11 Locations across Western Canada

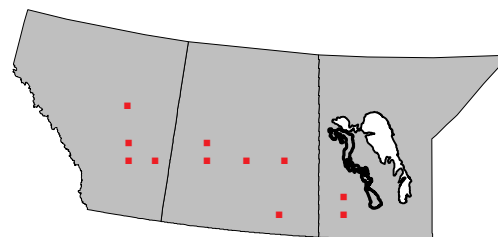


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2011 data are based on average of all comparisons made in 11 locations through Nov 18, 2011. Multi-year and multi-location is a better predictor of future performance. Do not use these or any other data from a limited number of trials as a significant factor in product selection. Product responses are variable and subject to a variety of environmental, disease, and pest pressures. Individual results may vary.

### Canadian Agronomy Research



### Blackleg Agronomic Information

- Blackleg is a seed and soil borne fungal pathogen that can infect a canola plant throughout its entire lifecycle. Yield losses due to this disease vary depending upon the level of infection; however, this pathogen is found in many of the canola growing areas of Western Canada.
- Genetic resistance is the main method of managing this disease. Using canola hybrids with an R rating for blackleg (the highest rating for resistance) can minimize the impact of blackleg on canola yield; however, even the most resistant hybrids are not immune to disease development.
- In addition to genetic resistance, crop rotation (i.e. use of non-host crops) and fungicides have been shown to reduce disease and protect overall crop yield.