

Many producers are considering fungicide applications on canola because of tightening rotations, high commodity prices and wet growing conditions in recent years. Without third-party data, it is difficult for producers to distinguish which situations are most conducive to fungicide applications and which of the many available products will be the most effective under certain environmental conditions. The objective of this study was to evaluate the effects of six fungicide treatments on disease prevalence and canola seed yield.

The incidence (percentage of plants showing some level of infection) of sclerotinia was assessed prior to harvest using the rating scale developed by Kutcher and Wolf (2004). Intensive disease ratings were not completed when there were no observed disease symptoms prior to fungicide application or at maturity. Overall, sclerotinia stem rot severity was higher at Indian Head than Melfort or Scott in 2012. At Indian Head, treatments 3-6 (Lance, Lance + Headline, Proline, and Astound) resulted in significantly less severity of sclerotinia stem rot than where no fungicide was applied, while there were no observed differences between treatments at Melfort or Scott.

Treatment effects were not significantly different when averaged across sites. Within sites individually, differences among treatments were

only observed at Indian Head, where treatment 3 (Lance) yielded higher than the untreated check.

Treatment	Indian Head	Melfort	Scott	Swift Current
	2012			
		bu/ac		
Untreated check	35.3	60.1	75.8	27.6
Headline EC	37.2	60.9	73.9	26.1
Lance WDG	46.6	58.1	75.9	26.2
Lance WDG + Headline EC	43.8	62.5	77.6	27.0
Proline 480 SC	43.2	59.5	71.7	27.4
Astound	37.5	60.9	78.7	26.4
Vertisan	38.5	61.0	70.7	27.2

The results from this demonstration confirm that fungicides are an effective measure for minimizing the impact of sclerotinia stem rot on canola yield; however, benefits may only be realized when disease severity is sufficiently high to cause significant yield reductions. Our data suggests that annual, preventative applications of foliar fungicides to control sclerotinia stem rot in canola may not be economically viable over the long-term throughout much of Saskatchewan. Some of the most important factors for determining the extent to which sclerotinia stem rot will develop in canola are the temperature and humidity within the crop canopy through flowering and early pod filling and, consequently, the weather conditions encountered during this period. The decision to apply foliar fungicide can wait until environmental conditions are known and growers are in a position to assess the overall risk. An example of a disease forecasting checklist for assessing the risks of sclerotinia in canola, along with a guide to scouting for this disease is available online from the Canola Council of Canada.

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Treatment	Indian Head	Melfort	Scott
	% infected plants		
Untreated check	65.2	2.5	6.3
Headline EC	74.2	2.1	13.8
Lance WDG	35.3	3.3	1.9
Lance WDG + Headline EC	24.6	1.7	2.5
Proline 480 SC	35.2	2.9	1.9
Astound	32.5	3.3	2.5
Vertisan	57.3	2.9	7.5