

# ASCOCHYTA SCORECARD

Ascochyta blight is the most destructive foliar disease of pea in western Canada and around the world. It is caused by a complex involving three fungal pathogens: *Ascochyta pisi*, *Mycosphaerella pinodes* and *Phoma pinodella*. Of the three, *M. pinodes* is by far the most abundant, causing 90% of Ascochyta blight infections. It is found in all commercial pea fields. It interferes with photosynthesis, causes the crop to lodge and reduces the weight, number and quality of the seed. All field pea cultivars are susceptible.

The Ascochyta Prediction Scorecard below is available to help producers make the “to spray or not to spray” decision for this disease. It considers four aspects related to disease spread:

- Crop canopy
  - Thin, moderate, or heavy
- Leaf wetness
  - None, low, moderate, or high
- Percent of plants showing symptoms
  - None, low (<20%), moderate (20-50%) or high (50-100%)
- Five-day weather forecast
  - Dry, unsettled, showers, wet

The Prediction Scorecard assigns values to each of these factors which when added up will help the producer determine the risk to the crop.

Using this chart, field inspections should be done twice a week and a score is added up for each factor.

If the score is above 65 points, a fungicide application is recommended. If the score is below 65 points, an application is not deemed necessary at the time, but field inspections should continue.

This prediction scorecard is only a tool to help make the decision easier and the producer must do what they feel would be best for their farm. Keep in mind that more than two sprays per season is not recommended and pre-harvest intervals need to be considered. Finally, the crop must be healthy to start with or a fungicide application will not save it.

**Ascochyta Scoring System**

Field ID \_\_\_\_\_ Time Period \_\_\_\_\_

Characteristic	Estimation Risk Scale				Prediction Score						
	1	2	3	4	5	6	7	8	9	10	
1. Crop canopy	Thin 0	Moderate 10	Mod/Heavy 15	Heavy 30							
2. Leaf wetness/humidity/dew at noon	None 0	Low 10	Moderate 20	High 40							
3. Percent of plants (crop), showing symptoms	None 0	Low (<20%) 15	Moderate (20-50%) 25	High (50-100%) 40							
4. 5 day weather forecast	Dry 0	Unset 10	Showers 15	Wet 20							
<b>TOTAL</b>											

The estimated risk value is 1+2+3+4= estimated risk value. If the estimated risk value is less than 65, no fungicide application is deemed necessary, but field inspections should continue on a bi-weekly basis. If the estimated risk value is +65, the fungicide spray application is recommended if disease is present. If no disease is present, no spraying is recommended until presence of disease is observed. This score card is for use on fields with good yield potential, which is high plant populations (minimum of seven plants ft<sup>2</sup>), very good weed control, even crop emergence and high rhizobium nodulation.

Source: K. J. Lopetinsky<sup>1</sup> and S. Strydhorst<sup>2</sup> 2002

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