

# Canola Staging Guide

For Sclerotinia  
Risk Assessment  
& Management

 **BASF**

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## Early flowering

Less than 10 open flowers on the main stem.

**Too early for fungicide application.**





## **10% flowering**

10 open flowers on the main stem.

**Too early for fungicide application.**





## **20% flowering**

**15 open flowers on the main stem.**

**Fungicide applications should begin.**





## **30% flowering**

20 open flowers on the main stem.

**Optimal fungicide application timing.**





## **50% flowering**

**More than 20 open flowers on the main stem.  
Side branches starting to flower.**

**The optimal fungicide  
application window is closing.**

The field will be at its most yellow.





**60%+ flowering**

Significant petal drop occurring and pods forming.



# Understanding sclerotinia.

## Cause

- *Sclerotinia sclerotiorum* fungus

## Overwintering of sclerotinia

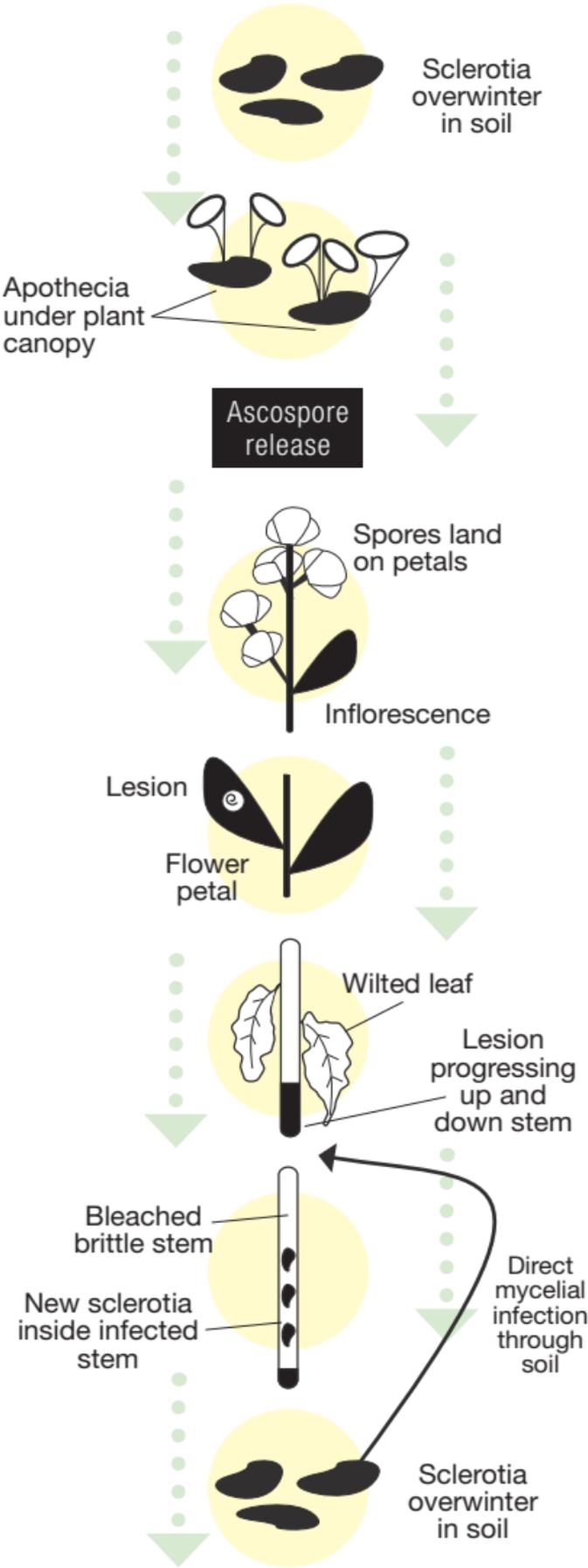
- Overwinters as small black bodies called sclerotia in soil and field stubble
- Can remain in the field for up to 5 years
- Germinates when conditions are ideal
- Forms spore-bearing structures called apothecia

## Facts about apothecia

- Small, golf-tee shaped mushrooms
- Typically appear in June, coinciding with flowering
- Apothecia require prolonged moist soil conditions and moderate temperatures
- May be difficult to find in the field
- Can release millions of tiny ascospores
- Ascospores are carried several kms by wind and begin plant infection
- These spores can result in infection creating lesions on the plant that can spread down into the plant



# Sclerotinia Disease Cycle



# Contributing risk factors.

## Thick canopy.

- Creates the perfect microclimate for disease
- Moisture is trapped inside canopy and soil, along with inoculum

## Tight rotations in broadleaf crops.

- Sclerotinia infects crops like beans, lentils, peas and flax
- Can also be found in broadleaf weeds like chickweed, stinkweed, shepherd's purse, hempnettle and thistles
- Shorter rotations can lead to greater sclerotia levels in soil

## Early-season moisture.

- Can increase the risk of sclerotinia
- 10 days (not necessarily consecutive) of moist soil can initiate apothecia production

# Reducing your risk.

## Use recommended seeding rates.

- Seed at rates that target optimal plant population of 5 to 7 plants/ft<sup>2</sup>
- Higher plant populations can result in a denser canopy
  - *Can lead to increased lodging*
  - *Can also increase sclerotinia risk and infection*

## Rotate to non-susceptible crops.

- Avoid planting susceptible crops consecutively – *canola, pulses and soybeans*
- Use cereals and grasses in rotation

## Scout for conditions that encourage sclerotinia.

- Scout field at first flower around mid-day
- If canopy is moist/damp, sclerotinia spores may germinate and spread
- The fuller your canopy, the higher the risk

*continued...*

# Reducing your risk.

## Assess disease risk and crop potential.

- Scout fields several times during the season
- Look for sclerotia bodies in the fall

## Keep detailed records of moisture and disease.

- Carefully monitor in-season moisture and disease incidence in previous host crops

## Use a foliar fungicide preventatively.

- Spray preventatively at 20% to 50% flowering
- The optimal application timeframe is 30% flowering

# Your sclerotinia cheat sheet.

Here's a quick overview of the key factors in successful sclerotinia management.

<b>Pathogen</b>	<i>Sclerotinia sclerotiorum</i>
<b>Plant symptoms</b>	<p>Bleached stems with whitish appearance.</p> <p>Soft, watery rot on leaves or stems.</p> <p>Split stems reveal round or cylindrical, seed-like black sclerotia bodies.</p>
<b>Crop symptoms</b>	<p>Severely infected, girdled stems wilt, ripen early and are straw-coloured in a crop that is otherwise green.</p>
<b>Scouting</b>	<p>Scout for moist conditions within the crop canopy and soil surface. Assess the crop's yield potential and moisture level in the canopy. If the yield potential is above 35 bu/ac and moist conditions are present at flowering, a fungicide application is recommended.</p>
<b>Fungicide application</b>	<p>Before symptoms appear. 20% to 50% flowering.</p>
<b>BASF solution</b>	<p>Cotegra® fungicide (240 ml/ac)</p>

TECH SPECS.

# Cotegra®

Fungicide

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## Active ingredients

Boscalid – Group 7

Prothioconazole – Group 3

## Formulation

Suspension concentrate (SC)

Liquid pre-mix

## One case contains

2 x 9.8 L jugs

## Crop staging

20 to 50% flowering

## Disease controlled:

Sclerotinia stem rot (*Sclerotinia sclerotiorum*)

## Application rates

240 to 280 mL/ac (0.6 to 0.7 L/ha)

One case treats 80 acres at the recommended rate of 240 mL/ac

## Water volume

Ground application<sup>1</sup>: 40 to 80 L/ac  
(10 to 20 gal/ac)

Aerial application: 20 L/ac (5 gal/ac)

## Pre-harvest interval

36 days after application for canola,  
oriental mustard and rapeseed

<sup>1</sup> Higher water volumes recommended for optimal coverage.

To learn more about Cotegra visit [agsolutions.ca/Cotegra](https://agsolutions.ca/Cotegra) or call **AgSolutions**<sup>®</sup> Customer Care at 1-877-371-2733 (BASF).

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Fungicide

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