

BLACKLEG DISEASE CYCLE

Leptosphaeria maculans



1 SPORES RELEASED

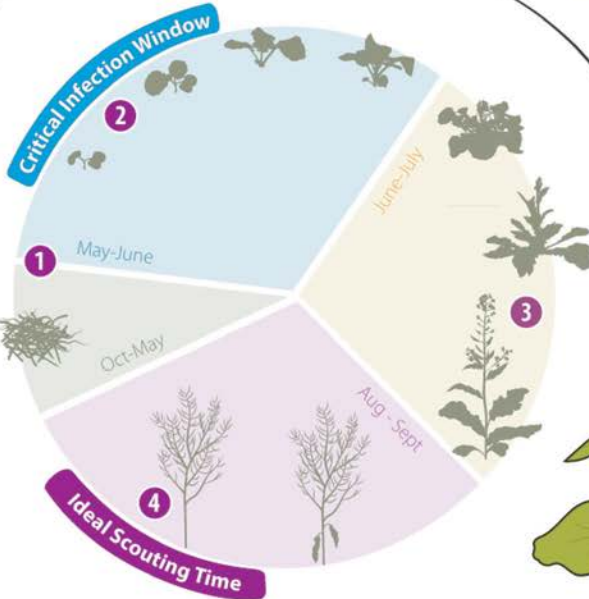
In the spring, ascospores are released from the infected stubble and infect plants through stomata and wounds.

Crop rotation allows residue to decompose, reducing the inoculum available to infect the next crop.

2+ years

6 BLACKLEG SURVIVES ON RESIDUE

Fungus overwinters for 2+ years on infected canola stubble, primarily as mycelium pycnidia, and pseudothecia. See **D** below.



2 PRIMARY INFECTION

Cotyledons and young leaves exhibit lesions with pycnidia. See **A** below.

3 SECONDARY INFECTION

The pycnidia release pycnidiospores which spread disease to other leaves and plants via rain splash and wind. Secondary infection has less impact on blackleg severity.

4 FUNGAL GROWTH TOWARD STEM

During mid-season flowering, infection from cotyledons/lower leaves spreads internally to the stem base. See **B** below.

5 STEM CANKERS AND PLANT LODGING

Lesions can cause root and stem cankers which lead to lodging under severe infection. See **C** below.

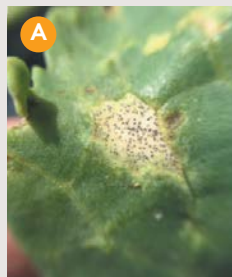


SCOUTING

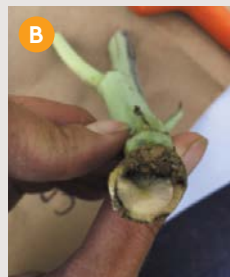
The main blackleg disease scouting periods are:

- 1 prior to planting
- 2 cotyledon to two-leaf stage
- 3 flowering stage
- 4 ripening stage to post-harvest

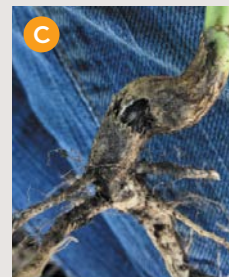
SYMPTOMS OF BLACKLEG DISEASE IN CANOLA PLANTS:



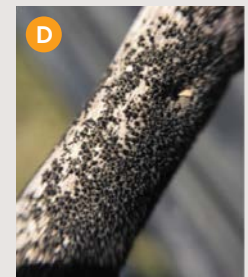
Early stages present as lesions with pycnidia (black specks) on the leaves.



The stem displays varying degrees of black, as seen in cross-section.



Late stages present with root and stem canker (shrunken, pinched areas).



Pseudothecia and pycnidia can be seen on old canola stubble.



BUMPER® 432 EC



GROUP 3

Active Ingredient:

Propiconazole 432 g/L = EC

Application Rates and Acres Treated:

Rate: 60 – 120 ml/ac

Acres Treated: 40 – 80 ac/jug

Packaging:

Case: 2 × 4.8 L jugs

Water Volume:

Ground: 80 L/ac
(20 US gal/ac)

Aerial: 16 – 20 L/ac
(4 – 5 US gal/ac)

Rainfastness:

1 hour

CROP STAGING	2 nd true leaf to 6 leaf.
KEY PESTS CONTROLLED	Blackleg
TANK MIX OPTIONS	SILENCER® 120 EC
RE-ENTRY PERIOD	24 hours
PRE-HARVEST INTERVAL	60 days
ADDITIONAL INFO	BUMPER® 432 EC will control blackleg and enhance yield potential during the early stages of canola growth. The disease may reappear later in the season, but with minimal effect on yield.

Low VOC

FORMULATION TECHNOLOGY

[CLICK HERE FOR FULL PRODUCT DETAILS.](#)

MAXENTIS®



GROUP 3 & 11

Active Ingredient:

Azoxystrobin 120 g/L + Prothioconazole 90 g/L = EC

Application Rates and Acres Treated:

Canola Rate: 253 ml/ac

Acres Treated: 33 ac/jug;
467 ac/drum

Packaging:

Case: 2 × 8.45 L jugs

Drum: 118.1 L

Water Volume:

Ground: 40 L/ac
(10 US gal/ac)

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

Rainfastness:

Avoid applying when rain is forecast.

CROP STAGING (NO TANK MIX)	Early application required, 2-6 leaf stage.
KEY PESTS CONTROLLED	Blackleg
HERBICIDE TOLERANT CANOLA TANK MIX OPTIONS	ARROW ALL IN® + Glufosinate + MAXENTIS®
	Glufosinate + LEOPARD® + MAXENTIS® + Surfactant
	MAXENTIS® + Glyphosate
TANK MIX OPTIONS	SILENCER® 120 EC and SILENCER® DUO
RE-ENTRY PERIOD	24 hours
PRE-HARVEST INTERVAL	36 days
ADDITIONAL INFO	Early application required 2-6 leaf. Based on the Canola Council recommendation early application of fungicide is required for best results. Infection prior to the 2 leaf stage is most detrimental.

POWERED BY

Asorbital®

FORMULATION TECHNOLOGY

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