

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.

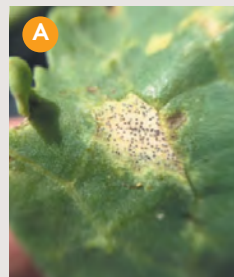


SCOUTING

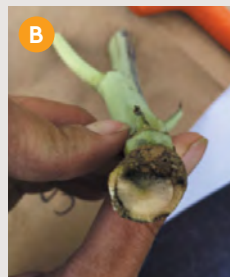
The main blackleg disease scouting periods are:

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

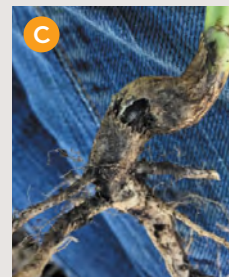
SYMPTOMS OF BLACKLEG DISEASE IN CANOLA PLANTS:



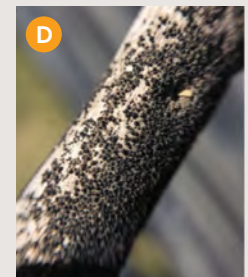
Early stages present as lesions with pycnidia (black specks) on the leaves.



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



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



Pseudothecia and pycnidia can be seen on old canola stubble.



BUMPER® 432 EC

GROUP 3



Low VOC

FORMULATION TECHNOLOGY

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

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

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| REPLACES | Tilt, Pivot, Fitness |
| CROP STAGING (NO TANK MIX) | Rosette stage, between 2 nd true leaf and bolting. |
| KEY PESTS CONTROLLED | Blackleg |
| PEST STAGING | N/A |
| TANK MIX OPTIONS | SILENCER® 120 EC or ZIVATA™ |
| 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. |

MAXENTIS®

GROUP 3 & 11



POWERED BY

Asorbital®

FORMULATION TECHNOLOGY

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

Active Ingredient:

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

Application Rates and Acres Treated:

Canola Rate: 422 ml/ac

Acres Treated: 20 ac/jug;
280 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.

| | |
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| REPLACES | Nexicor® |
| CROP STAGING (NO TANK MIX) | Early application required, 2-6 leaf stage. |
| KEY PESTS CONTROLLED | Blackleg |
| PEST STAGING | N/A |
| TANK MIX OPTIONS | Talk to your local area business manager. |
| 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. |