CANOLA Solution

Canola is a crop of importance for Bayer and forms part of the global Bayer strategy to bring innovation to the market, through crop protection.

To ensure sustainable crop production in the Western Cape Canola has to form an important part of the grower's crop rotation practices.

Blackleg (Leptosphaeria maculans/Phoma lingam) and Sclerotinia are fungal diseases that can cause great yield losses in canola.

BLACKLEG

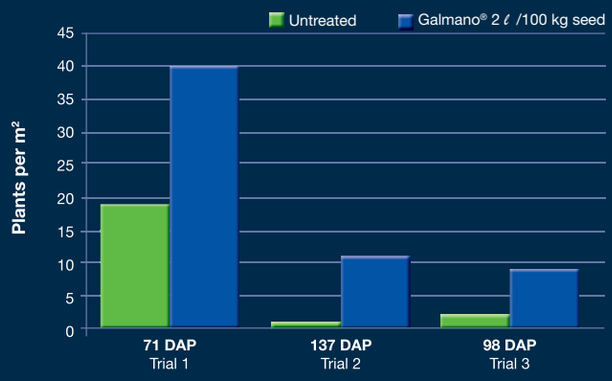
- *The fungi survives mostly in stubble.*
- *Spores are spread with rain or wind as well as contaminated seeds.*
- *Cultivars differ in their tolerance towards the disease.*
- *Can be caused by stem & leaf blotches.*
- *Stem scars cause rotting of the stem just above the soil surface.*
- *Advanced infection can cause the plant to lodge.*
- *Crop rotation and resistant cultivars play an important role towards controlling the disease.*

Sclerotinia STEMROT

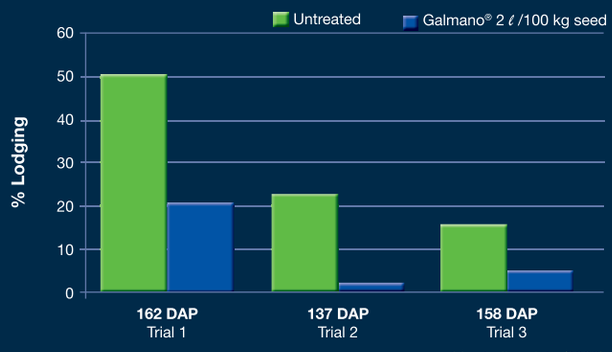
- *The fungi survives as sclerotia in the soil or in the stubble.*
- *The sclerotia germinates to form apothecia (mushrooms).*
- *After rain it can take up to 10 - 12 days to release ascospores (at temperatures of 11 - 15 °C).*
- *Wind spreads the spores, but ascospores cannot infect the plant directly.*
- *Dead plant material (e.g. flower petals) are required to complete the cycle.*
- *Dead (decomposing) flower petals provide ascospores the necessary energy to form mycelium, which in turn release oxalic acid, which is required for the fungi to penetrate the plant material and cause infection.*
- *When in the plant, the fungi will grow both up- and downwards in the stem, cutting off the movement of nutrients and water in the plant and eventually kills the plant.*

GALMANO®

*Effect on plant population**

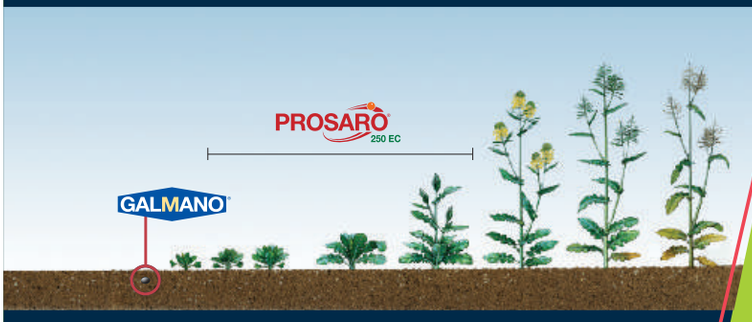


*Effect on lodging**



**Australian data (2000)*

Positioning within a spray program against Blackleg.



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PROSARO® 250 EC

Prosaro® is an effective as well as economical solution for the control of Blackleg and Stemrot in Canola.

Prosaro's success lies in the combination of two highly effective triasole active ingredients which offers the following:

- *Quick absorption with long-term protection.*
- *An excellent cost to benefit ratio.*
- *A low application rate per hectare.*

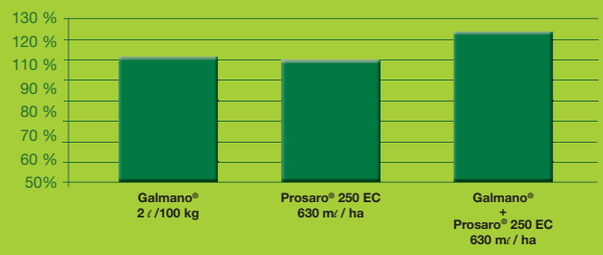
When do I apply Prosaro® for Blackleg control?

- *When the plant reaches 4 - 6 leave growth stage.*
- *The reason for early application is, infection can already take place at an early growth stage in the plant.*
- *The last window for application is at the rosette stage (greenbud stage)*
- ***Dose:** 630 mℓ / ha up until 760 mℓ / ha.*

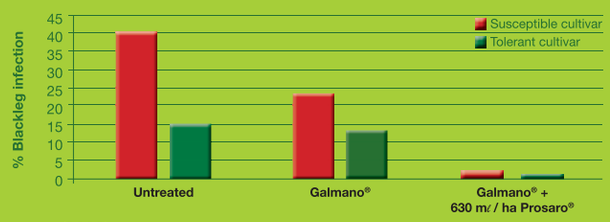
When do I apply Prosaro® for Sclerotinia stemrot control?

- *Timing of application will be determined by climatic conditions which differs from year to year.*
- *Optimum time of control: 20 - 30 % flowering.*
- *10 % change in flower percentage only takes 3 - 4 days.*
- ***Dose:** 630 mℓ / ha up until 760 mℓ / ha*

Percentage yield increase in comparison with an untreated control*



Effect of cultivar, seed treatment and foliar application on Blackleg infection*



**Australian data (2000)*

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