



BAYER

BULLETIN

SCLEROTINIA STEM ROT IN CANOLA

SCLEROTINIA STEM ROT: WHAT IS IT?

Sclerotinia is caused by *Sclerotinia sclerotiorum*. This fungus survives as sclerotia (resting structures) in the soil or in the stubble on the soil surface. The following environmental conditions can lead to the development of Sclerotinia:

- /// 25 - 50 mm of rain 10 to 14 days before the start of flowering, so wet climatic conditions for 10 days at the soil surface during mid until late winter. Temperatures of 11 - 15 °C are required for the sclerotia to germinate and release spores.
- /// Prolonged wet periods during the flowering period, for petal infection.
- /// Prolonged wet periods during petal fall. The fall of petals on the stem which can consequently cause stem infection. Strain lesion development is favoured by humid / wet conditions and temperatures of between 20 - 25 °C.

Moisture is an important requirement in the development of Sclerotinia. Good soil moisture conditions two weeks prior to flowering and continuing until after flowering will benefit the risk of the development of Sclerotinia. Alternatively, low rainfall

and low humidity in this period will decrease the risk of disease development. Moisture could include rain, relative humidity of 80% and dew.

After appropriate rainfall and if conditions permit, it takes 10 to 12 days for the apothecia (fruiting bodies) to release the ascospores. The ascospores are spread by wind to nearby plants. Ascospores can't infect the plant directly, but need dead plant material (like petals) to develop. The dead petals enveloping the spores create an ideal micro climate for the disease to develop. They also supply the necessary energy to the ascospores to develop hyphae (mycelium) which release oxalic acid in order to penetrate the plant material. When the fungus is within the plant, it grows up- and downwards, which constricts the flow of moisture and nutrients in the plant and could lead to the death of the plant.

When do I treat sclerotinia?

The time of application depends on the climatic conditions and could vary year on year. As a general guideline, you have to spray between 20-30% of flowering. In years where the climatic conditions aren't favourable to disease development, a later spray (no later than 50% of flowering) will be more ideal. If the conditions are still unfavourable for the development of the disease (warm, dry conditions) after 50% of flowering, a fungicide application will be unnecessary. The reason being that after 50% of flowering (full bloom – brightest yellow) most of the flowers are on the side branches, meaning that the risk of petals falling on the main stem decreases.



Photos provided by Piet Lombard

% OF FLOWERING:

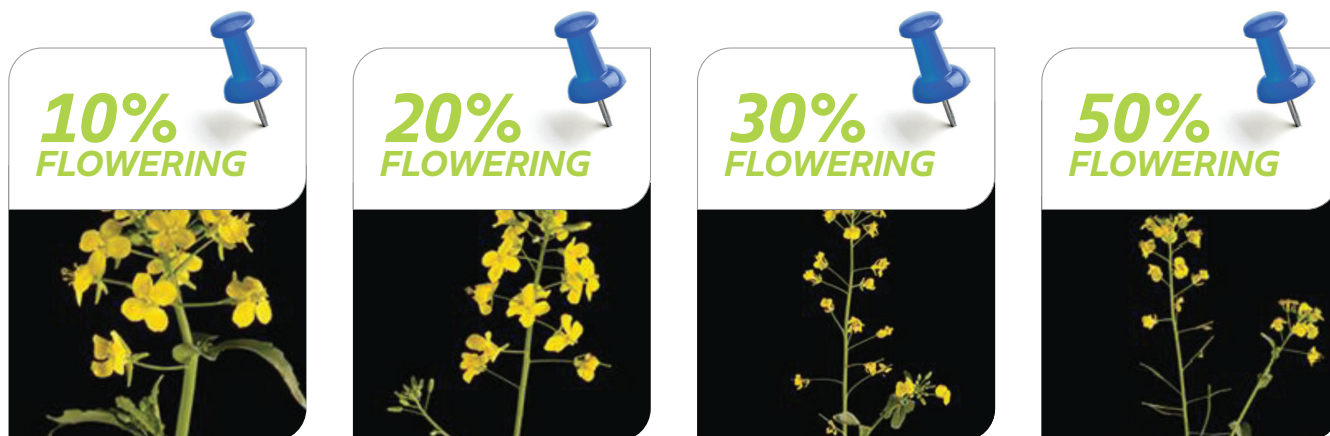
10% of flowering:
10 open flowers
on the main haulm.

20% of flowering:
14-16 open flowers
on the main haulm.

30% of flowering:
20 open flowers on
the main haulm.

50% of flowering:
30 or more open flowers
on the main haulm.

Newly formed pods and abscission flowers also counts as “open flowers”. A 10% change in flower percentage takes approximately three to four days. The time of application is critical to control the disease effectively.



Safeguard your canola against Sclerotinia with Aviator® Xpro™

Aviator® Xpro™ represents a new generation of fungicide solutions that deliver reliable, consistent control of Sclerotinia stem rot in canola. With its **Xpro™ technology** and **Leafshield™** formulation, **Aviator® Xpro™** provides you with a powerful, flexible tool to boost yield potential and maintain reliable performance throughout the season.

Xpro™ Technology: Two actives, one powerful solution

Aviator® Xpro™ features **Xpro™ Technology**, combining the two actives, Bixafen and Prothioconazole. These two fungicides work in different yet synergistic ways to stop disease development in its tracks.

XPRO™ TECHNOLOGY ALLOWS FOR:

- /// **Rapid, even spreading and penetration:**
Rapid spreading through the leaf cuticle and tissue to deliver inside-out protection.
- /// **Enhanced crop greening:** Its anti-ageing effect keeps plants greener for longer and extends the grain-filling period to boost yield potential.
- /// **Buffers against drought stress.**

THE POWER OF LEAFSHIELD™ TECHNOLOGY

Leafshield™ utilises the latest advancements in formulation technology. It has been designed with grower's flexibility in mind to provide rainfastness within an hour and deliver improved spreading and penetrating properties to ensure greater uptake of active ingredients for better results.

- /// **Triple adjuvant formulation:** Purpose-designed triple adjuvant formulation to maximise product performance.
- /// **Ensures high crop coverage.**
- /// **Rainfast within 60 minutes.**
- /// **Strong foliar retention to minimise wash-off.**



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READ LABEL BEFORE USE:

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