5 management strategies to control white blister in brassicas

Vegetables
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Due to the wide ranging weather conditions we’ve been experiencing this summer, a disease that I have continually been asked about is White Blister (Albugo candida).

White blister is a fungal-like disease of brassicas that can be devastating if left untreated. After first being identified during the 2001-02 summer, white blister has rapidly spread across Australia.

White blister appears as yellow-to-brown spots on the upper leaf surface and white round-to-oval blisters which develop on the matching under leaf surface. These blisters consist of masses of white dust-like spores. The disease can also cause swellings on roots and stems, and distortions of flowers and leaves.

Sources for white blister infection can include diseased plants or crops, volunteer crucifers, wild crucifers, cruciferous weeds and crop debris. White blister can be spread by wind, rain or by insects dispersing aerial spores.
General conditions for white blister infection include:

- Rain splash of spores from soil onto the plant
- Free water (dew, fog, irrigation or rain) on leaves and stems
- Spores germinate at temperatures between 1 and 20 ºC, with the optimum range being 10 and 14 ºC
- The best conditions for infection by spores are after 3 hours of leaf wetness at 20 ºC
- Disease development can occur at temperatures ranging from 10 to 25 ºC
- The blisters can become visible from 6 to 10 days after infection

There are several management strategies that can be used to control white blister. The best approach is to adopt a number of these strategies in an integrated manner:

**Controlled watering**

- A short, heavy watering is preferable to a long, light watering.
- Avoid night irrigations if possible.

**Ventilation**

- Maintain good air-flow within the crop to allow leaves to dry off quickly and minimise ideal infection conditions.

**Nutrition**

- Maintain a balanced nutrition program to reduce any stress on the plant.
Hygiene

- Remove any sources for infection, such as volunteer radish, cruciferous weeds and crop debris.
- Ensure all equipment (bins, crates etc.) and machinery entering the farm has been thoroughly cleaned prior to arriving at the farm, preferably with a high pressure washer.
- Ensure that all staff and visitors entering the farm do not have soil and organic matter on their shoes and equipment.

Fungicides

- Many of fungicides that are effective against white blister are protectant fungicides and therefore need to be applied prior to the infection occurring.
- Rotating fungicide modes of action is also key in order to prevent the development of fungicide resistance.

For more information, please call the Syngenta Technical Product Advice Line on 1800 067 108 or visit www.syngenta.com.au

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