

HAVE YOU SEEN WHITE BLISTER ON BRASSICAS?

A STRAIN OF *ALBUGO CANDIDA* COULD SEVERELY IMPACT ON BRASSICA CROP PRODUCTION

BACKGROUND

White blister, caused by the fungal pathogen *Albugo candida*, was last detected on a few heads of broccoli in 2005.

This disease has been known in New Zealand for many years, but only rarely affects vegetable crops. However, a strain of white blister has caused severe problems in broccoli and cauliflower crops in Australia.

It is very important that you immediately report any new suspected outbreaks on brassicas (especially broccoli, cauliflower, cabbage and Brussels sprouts). Early warning assists in determining the disease distribution in New Zealand. It will also provide an opportunity for implementing timely and appropriate control.

WHAT TO LOOK FOR

Symptoms of *A. candida* infection may occur on all the above ground parts of infected plants (leaves, petioles, stems and flowers) at every growth stage.



Infected leaves can have yellow to brown discolourations on upper leaf surfaces, associated with round to oval white blister lesions on the undersides of leaves.



The blisters are almost paper white with smooth surfaces, but burst when mature to release chalky white masses of spores.



Severely infected broccoli inflorescences may be discoloured and surrounded by distorted leaves.



Young seedlings may have distorted stems.

HOW DOES IT SPREAD?

The disease can be spread by planting contaminated seed and by insect, wind and water-splash dispersal of spores from affected plants. Oospores (overwintering structures) of *A. candida* can also survive in the soil for many years and can therefore cause recurring white blister.

HOW CAN YOU CONTROL IT?

- » Use seed from a reputable source.
- » Remove crop debris (capable of harbouring oospores) and rotate with non-brassica crops.
- » Damp conditions enhance spore germination so appropriate irrigation (short periods, early in the day), wide row spacing and orientation towards prevailing winds assist rapid drying of leaves.
- » Crops can be protected with correct selection of fungicides, although there are none currently registered specifically for white blister control in New Zealand. Growers should be aware of regulations for off-label use of pesticides on brassicas.
- » Maintaining good crop nutrition (particularly adequate potassium and phosphorus) can reduce susceptibility of plants to the disease.

HOW CAN YOU HELP?

If you see symptoms similar to these photos of white blister please submit a sample or contact the Ministry for Primary Industries on **0800 80 99 66**.

Place samples in double plastic bags, seal in a non-breakable container and send to:
Freepost 120201
Ministry for Primary Industries
Plant Health and Environment Laboratory
PO Box 2095
Auckland 1140

Please include your contact details, date and location of collection, and the type of produce it was found on.



Individual florets can show white blister symptoms.

Photo: courtesy of
Robert Lamberts