

Fusarium wilt of canola



What is Fusarium wilt of canola?

Fusarium wilt (*Fusarium oxysporum* f. sp. *conglutinans*) is a soil-borne fungal disease that poses a serious threat to Australia's canola growers. It infects plants through the root system, often invading the plant through wounds in the roots. Once there, fusarium restricts the flow of water and nutrients up the stem.

Fusarium wilt of canola can persist in the soil for very long periods of time and once established in paddocks they are considered permanently infected.

It is not only a fungal disease of canola but can also threaten related plants such as vegetables like broccoli and cabbage and cruciferous weeds. These may be symptomless, so can harbour and spread the disease.

The disease has been found in other plant species in Queensland and the Northern Territory.

What does it look like?

Fusarium wilt causes a discolouration of the stem, often seen as purple, grey or brown streaks starting from the foot region and moving up the plant. These symptoms are visible in stems cut lengthwise. Symptoms are often found on only one side of the plant or on only a few branches.

The first symptoms are leaf yellowing followed by irregular, brown patches on the leaf margins. Later severe leaf loss occurs, beginning with the lower leaves.

Eventually all parts of the plant are affected. Plants wilt and are stunted, have small pods often with no seeds, they may ripen prematurely, shatter and then die.

What can it be confused with?

At a glance fusarium wilt can be confused with common stem and leaf diseases of canola such as blackleg or sclerotinia rot, although fusarium wilt does not have black spots. Fusarium wilt also differs from sclerotinia rot by the absence of bleaching and shredding of stems.



Leaves wilt and turn brown with no lesions, here cabbage leaves.

M.E. Bartolo, Bugwood.org



Canola stems are often discoloured down one side.

Canola Council of Canada

What should I look for?

Brown stems and leaves with no obvious lesions, while plants remain upright with roots intact. You might see bleached stems with a slight pinkish tinge, often only discoloured up one side of the stem.

How does it spread?

As with all soil-borne diseases, fusarium wilt spreads in contaminated soil and plant material, as well as machinery, equipment and clothing. Overland flood flows can also spread the disease. Seed can be infected.

Where is it now?

Initial reports of this disease came from Russia in 1996, though it may have been in canola crops as early as 1970. It has since been recorded in Canada and Argentina.

How can I protect my farm from fusarium wilt of canola?

Since fusarium wilt is soil-borne, implement good hygiene practices on your farm to prevent spread. Keep machinery, equipment and tools clean and control people and vehicle movement in production areas to minimise the risk. People returning from overseas can pose a threat, particularly if they have visited crops or farms.

GRAINS FARM BIOSECURITY PROGRAM

An initiative of Plant Health Australia and Grain Producers Australia



**IF YOU SEE ANYTHING UNUSUAL,
CALL THE EXOTIC PLANT PEST HOTLINE**

1800 084 881

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Always plant disease resistant canola varieties. Set up good farm hygiene practices to limit spread. Use 'break crops' and control weeds that could harbour the disease.

Early detection is crucial in stopping or slowing progress of a new pest. Monitor your crops regularly for anything unusual, and call in a specialist without delay to help identify anything unfamiliar.

Only bring in seed, feed and fertilizer from reputable suppliers.

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If you see anything unusual, call the **Exotic Plant Pest Hotline** on **1800 084 881**.



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