

Fact sheet

Fusarium wilt of chickpea

What is Fusarium wilt of chickpea?

Fusarium wilt of chickpea (*Fusarium oxysporum* f. sp. *ciceris*) is considered a major exotic disease of chickpeas causing wilting at any time from the seedling stage to podding. This pathogen can cause severe yield losses of up to 60%. The disease is caused by a soil-borne fungus, which can survive in the soil without a host for many years. Chickpea is the primary host of this disease, but other legumes such as pigeon pea, lentil and field pea can also be affected

What does it look like?

The disease causes infected plants to wilt. This can occur from the seedling stage up to the reproductive and podding stages of the plant's lifecycle. Infected seedlings may collapse and lie flat on the ground. When examined the roots can appear healthy but when split vertically they show a brown discolouration of the internal tissue. When mature plants are infected the upper parts of the plant droop and the foliage becomes a pale green colour. The entire plant can become affected in 2-3 days and when examined roots show the same internal discolouration. Sometimes wilting does not occur and symptoms instead involve yellowing and drying of the lower leaves, plant stunting and discolouration of the roots internal tissues.

What can it be confused with?

Wilting can be caused by a number of seedling and root diseases of chickpeas, however the combination of symptoms described above (especially the discolouration of the internal tissues of the root) are likely to be caused by this pathogen.



Typical yellowing symptoms of a chickpea plant affected by Fusarium wilt

Dr. Bassam Bayaa, ICARDA Syria



Vascular damage on infected plant (left) compared to healthy plant (right)

M.P. Haware, Y.L. Nene & S.B. Muthur (ICRISAT (Padi))



Kurt Lindbeck, NSW DPI

Cross section of a chickpea tap-root showing internal discoloration



Kurt Lindbeck, NSW DPI

Typical distribution of infected chickpea plants under field conditions.

If you see anything unusual, call the Exotic Plant Pest Hotline

**EXOTIC PLANT PEST HOTLINE
1800 084 881**

What should I look for?

To protect your crop you should look for wilting, leaf discoloration and stunting which are signs of the disease. If you see any unusual symptoms in your crop please contact the Exotic Plant Pest Hotline on 1800 084 881.

How does it spread?

This pathogen can be spread with infected seed and soil. Once in the soil the pathogen can survive without a host for many years.

Where is it now?

Fusarium wilt of chickpea has been found in several countries in Asia, Africa, Europe and North America. This pathogen is not known to occur in Australia. If it enters Australia leguminous crops, such as chickpeas, could be at risk.

How can I protect my farm from Fusarium wilt of chickpea?

You can protect your farm from Fusarium wilt of chickpea by checking your property frequently for the presence of new pests and unusual symptoms (especially wilting, leaf discoloration and stunting). Make sure you are familiar with the symptoms of common pathogens so you can tell if you see something different.



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