

Chocolate spot has been found in some early sown vetch crops in the Northern Victorian Mallee. This disease develops in warm and humid canopies. Given suitable conditions this can be a damaging disease that may warrant control with fungicides, although growers should consider the economics of applying fungicides to vetch. Growers are encouraged to inspect their crops for symptoms (see below) and if conditions are favourable for disease development a fungicide spray may be beneficial. Ideally the first spray should be applied immediately before canopy closure, and additional sprays may be required if humid conditions are ongoing.

Key Management Recommendations

- Inspect crops for symptoms of chocolate spot and consider the economics of a fungicide control program,
- If fungicides are applied the first should be immediately before canopy closure,
- Consider rotating Mancozeb with Carbendazim if more than two fungicide applications are required,
- Grazing may be an option to open up the canopy and allow it to dry out, reducing chocolate spot and allowing penetration of a fungicide.

Carbendazim is the most effective fungicide for chocolate spot, however there is a limit of two applications per season per crop. If more applications are required rotate with Mancozeb. If a fungicide is not applied before canopy closure grazing may be an option to open the canopy. Opening the canopy will help the fungicide reach its target and reduce humidity and therefore should reduce disease intensity. It is important to observe fungicide withholding periods for grazing.

All vetch cultivars are susceptible to chocolate spot. Since this disease has a wide host range there are a range of potential sources of this disease. The main factor favouring disease development is the environmental conditions. There have been limited studies of chocolate spot control in vetch with much of the management advice based on disease control in lentils.

Symptoms

Chocolate spot, caused by *Botrytis spp.*, has a less-aggressive first stage where small, brown lesions develop on the leaves. The more aggressive stage begins when these lesions join together and darken into larger brown lesions covering large parts of the leaves.

Symptoms are varied, and range from small spots on leaves to complete blackening of the entire plant. The fungus can also produce grey sporulation similar to botrytis grey mould in lentils. Leaves are the main part of the plant affected, but under favourable conditions for the disease it also spreads to stems, flowers and pods.

Red legged earth mite damage may be confused with chocolate spot. Mite damage starts out a silvery colour on leaves, before turning reddish brown. The colour is similar to chocolate spot but lesions are large and irregularly shaped, generally occurring on the lower leaves at the seedling stage.



Botrytis spp. in vetch causing different symptoms - **A.** *Botrytis* grey mould in vetch, **B.** Chocolate spot in vetch. (Photos courtesy of Dr Jenny Davidson, SARDI)