

Fact sheet

Exotic leaf miners

What are leaf miners?

Leaf miners are small flies whose larvae feed internally on living plant tissue. They belong to the family Agromyzidae. Infestations can cause significant damage and yield losses. In severe infestations total crop losses can occur due to both larval mining and leaf puncturing caused by females ovipositing and feeding on host plants.

There are exotic species in the *Agromyza*, *Cerodontha*, *Chromatomyia*, *Liriomyza*, *Phytomyza* and *Pseudonapomyza* genera that could negatively impact the grains industry if they were to enter Australia.

Key exotic Agromyzidae species include American serpentine leaf miner (*Liriomyza trifolii*), Vegetable leaf miner (*Liriomyza sativae*) and Pea leaf miner (*Liriomyza huidobrensis*), which affect pulse crops, Cabbage leaf miner (*Phytomyza rufipes*), which affects canola and Pea leaf miner (*Chromatomyia horticola*), which affects pulses, canola and sunflowers. Cereals are also affected by exotic leaf miners such as the Black wheat leaf miner (*Agromyza albipennis*). Several of these species affect multiple crops and could be introduced and spread on various host plants.

What do they look like?

Adult leaf miners are up to 2 mm long, predominantly black/grey in colour and some have a conspicuous bright yellow marking on the base of the thorax.

Larvae are legless maggots up to 3 mm in length and cream-yellowish in colour. Larvae mostly feed internally on leaves and stems creating a tunnel or 'mine'. Mine shapes vary between species.

**EXOTIC PLANT PEST HOTLINE
1800 084 881**



Symptoms caused by exotic Pea leaf miner (*C. horticola*) on pea

Merle Shepard, Gerald R. Carner, and P.A.C. Ooi, Bugwood.org



Symptoms caused by Pea leaf miner (*C. horticola*) on mustard

Merle Shepard, Gerald R. Carner, and P.A.C. Ooi, Bugwood.org



Adult Pea leaf miner (*Liriomyza huidobrensis*)

Central Science Laboratory, Harpenden Archive, British Crown, Bugwood.org



Exotic Pea leaf miner (*Liriomyza huidobrensis*) larvae in tunnel

Plant Protection Service Archive, Plant Protection Service, Bugwood.org

What can they be confused with?

There are several species of endemic leaf miner in Australia. The endemic Cabbage leafminer (*Liriomyza brassicae*) may occasionally affect canola. All leaf miner symptoms should be investigated further.

What should I look for?

Leaf mining (tunnelling) is the most obvious symptom that can be seen in the field. Mine shapes vary depending on the species. If you see leaf mining symptoms on grain crops (including canola) contact an agronomist or the Exotic Plant Pest Hotline.



Adult American serpentine leafminer (*Liriomyza trifolii*)

Central Science Laboratory, Harpenden Archive, British Crown, Bugwood.org

How do they spread?

Adult flies can spread throughout a crop by flight, but most long distance transport occurs when plant material containing larvae is transported between areas.

Where is it now?

Individual species have unique distributions. Australia has some native species however others such as the American serpentine leaf miner are exotic to Australia but have a wide distribution overseas.

How can I protect my farm from Leaf miners?

Check crop leaves for signs of mining caused by the larvae. Make sure you are familiar with common pests so you can tell if you see something different.

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

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1800 084 881**



Adult Vegetable leaf miner (*Liriomyza sativae*)

Pest and Diseases Image Library, Bugwood.org



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