



PESTFACTS South-Eastern



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PestFacts is a free service designed to keep you informed about invertebrate pest-related issues - and solutions - as they emerge during the winter growing season. The service is supported by the GRDC's National Invertebrate Pest Initiative, with a focus on pests of broad-acre grain crops in south-eastern Australia.

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PASTURE TUNNEL MOTH

Early instar pasture tunnel moth larvae (*Philobota productella*) have been identified for agronomist, Peter Spencer (IK Caldwell), from a wheat paddock near Cobram in the Northern Country district of Victoria. The grubs had caused significant damage to about half of a 40 hectare paddock and Peter estimates their density at approximately 6-10 per square foot. Larvae were found to be cutting off leaves at the base and dragging them back into their burrows to feed. Some plant litter was also being left on the ground. Peter says silk lined burrows with 'chimney' openings were found across the affected area, which are characteristic of pasture tunnel moth activity. These chimneys may be washed away after significant rain.

Pasture tunnel moths are native to Australia. They are normally found in higher rainfall districts and can cause significant damage to annual and perennial grasses, and clovers. They are not typically associated with cereal crops. The larvae are slender, grey in colour with a black head and grow up to 35 mm long. Larvae leave their burrows at night and feed nearby on crop or pasture plants. Adult moths are elongate, 20 mm long, creamy-white in colour and have a wingspan of approximately 25 mm.

Most damage by pasture tunnel moths occurs in July and August, and is often associated with blackheaded pasture cockchafers. Peter says cockchafers were present in the affected area but did not appear to be in as high numbers as the pasture tunnel moth larvae. Rain stimulates both of these pests to come to the surface and feed. Paddocks should be inspected now and throughout winter for signs of damage and formation of chimneys or silk-lined burrows. Densities of >70 pasture tunnel moth larvae per square metre appear to cause significant damage. There are no chemicals registered for the control of pasture tunnel moth, however some



growers have reported that similar products and rates used against blackheaded pasture cockchafers have provided satisfactory control.

Click [here](#) for images of pasture tunnel moths.

SMALL LUCERNE WEEVIL

Adult [small lucerne weevils](#) (*Atrichonotus taeniatulus*) have been identified for agronomist, Roger Garnsey (Roger Garnsey Agronomy), from an established lucerne paddock near Yass, in the Southern Tablelands district of New South Wales. This weevil is known to attack lucerne, pasture legumes, canola and some weeds, and in New South Wales are regarded as a minor, irregular pest.

Adult small lucerne weevils are grey in colour with some brownish mottling, and are up to 10 mm long. During the day they typically hide in the soil around the base of plants, though some may be found resting together in groups of 3-4 on a single leaf. The larvae are creamy white, legless grubs, up to 8 mm long, with small, pointed, brown jaws. Click [here](#) for images of the small lucerne weevil.

Infestations of small lucerne weevils spread slowly because they do not fly; they have to walk or be carried to spread through a paddock. Young larvae become active in spring and feed on plant roots until mid-January. Adults emerge from the soil from mid-February to March. Eggs are laid at the base of plants, and after hatching in winter, larvae burrow into the soil and begin feeding on roots.

Large numbers of adults can cause serious damage to subterranean clover pastures by chewing off cotyledons soon after germination. However, they are most damaging to Lucerne, where adults feeding on leaves can defoliate plants. Serious damage also occurs when larvae burrow into or chew furrows in the taproot. Eventually plants die, resulting in lucerne stands with dead patches that increase in size each year as the infestation spreads. Wilting and plant death is most noticeable in summer when larvae are nearly full-grown.

ARMYWORMS

Grower Josh Walter (Murnong Farming), reports finding significant damage to leaves and cotyledons of canola plants in a newly established crop west of Geelong, in the Western district of Victoria. No pests could be found in the affected area during the day, however upon visual inspection at night high numbers of small grubs were found feeding on the plants. Senior technical officer, Ken Henry (SARDI), has identified these as small [armyworm](#) caterpillars, which are members of the Noctuidae family. It is likely that some other unidentified caterpillars, possible loopers, were also contributing to the damage seen in this paddock.

Armyworms typically attack cereals and grass seed crops, and are most damaging when crops are close to harvest. They are not commonly known as pests of canola. Most damage generally occurs in ripening cereal crops, when armyworms chew through the last remaining green part of the plant stem, causing heads to fall to the ground. When crops are at this stage even relatively low numbers of caterpillars can cause significant losses. Assessing armyworm numbers in a crop can be difficult as they sometimes shelter on the ground beneath dead leaf material, making detection difficult. At other times they will be on the stems or heads of plants and easily found.



There are three main species of armyworms that occur in Australia: the common armyworm (*Leucania convecta*), the southern armyworm (*Persectania ewingii*) and the inland armyworm (*Persectania dyscrita*). All species have three parallel white stripes running from the 'collar' behind the head, along the body to the tail end, making them easily distinguishable from cutworms and native budworm, with which they are sometimes confused. Armyworms have large heads and smooth, fat bodies that are usually pinkish, green or brown in colour. They can grow up to 40 mm in length. Adult moths are grey-brown in colour and have a stout body with a wingspan of approximately 40 mm.

EARTH MITES

Research agronomist, Rohan Wardle (Southern Farming Systems), has reported high numbers of earth mites in paddocks in parts of the Western district of Victoria. [Redlegged earth mites](#) (*Halotydeus destructor*) were detected in various crops between Ballarat and Colac, and also around Dunkeld. Unusually high numbers of [bryobia mites](#) have also been reported by agronomist, Craig Drum (Tatyoan Rural), in one canola crop and an oat crop south of Ararat, also in the Western district of Victoria.

Redlegged earth mites are approximately 1 mm long with a globular shaped black body and eight orange-red legs. They are one of the most important establishment pests and attack a wide variety of crops and pastures, including cereals, oilseeds, legumes and fodder crops. Redlegged earth mites are active from autumn to spring, however they are most problematic when crops are just emerging from the ground. As crops develop they may be able to outgrow damage caused by earth mites.

Adult bryobia mites are less than 1 mm long with a fawn-orange coloured body and orange legs. Unlike redlegged earth mites and other pest mite species, bryobia mites are typically most active in autumn, spring and summer. Reports of bryobia mites at this time of year are somewhat unusual. There is some speculation that this may be a consequence of soil temperatures remaining relatively warm up until now. When chemical control is required, organophosphate based chemicals are likely to provide better control of bryobia mites than synthetic pyrethroids.

Click [here](#) for images of redlegged earth mites and click [here](#) for images of bryobia mites.

FALSE WIREWORMS

Agronomist, Terry Edis (Elders), reports finding [false wireworms](#) in a canola crop southeast of West Wyalong, in the South West Slopes district of New South Wales. False wireworms are the larval form of native beetles in the Tenebrionidae family. Larvae were detected after digging around the base of visibly affected canola plants, and it is assumed that they are responsible for the damage. The crop was sown into a long-term pasture paddock, and Terry says more grubs were found in areas of the paddock that were cultivated earlier than the rest of the paddock.

Adult and larval false wireworms normally live in grasslands or pastures and cause little damage in this situation. In crops, they are mostly found in paddocks with high stubble and crop litter contents. They may affect all winter-sown crops. There are a large and varied number of species, including the grey false wireworm, the eastern false wireworm and the southern false wireworm. The species are similar in appearance with larvae generally growing between 10-50 mm in length. Larvae are cylindrical, hard bodied, fast moving and golden brown to black-brown or grey in colour. They have a pair of prominent spines on the last body segment.



False wireworms chew into the seedling stem and roots, weakening the plant or ring-barking the stem. The injury to the seedlings makes them susceptible to dehydration and infection by disease. Feeding damage is often most severe when germination is slowed by continued dry weather. There is evidence suggesting that stubble retention and minimum tillage are contributing to the build-up of false wireworm populations in southeastern Australia.

MORE MANDALOTUS WEEVILS

Mandalotus weevils (*Mandalotus* sp.) have been identified causing damage to a canola crop near Young, in the South West Slopes district of New South Wales. Agronomist, David Crowley (Delta Agribusiness), says the affected area had suffered significant damage and control options were being considered. There are currently no chemicals registered for controlling Mandalotus weevils, however some growers have reported some success using high rates of bifenthrin or chlorpyrifos.

Adult Mandalotus weevils are 3-5 mm long and have a rounded, dull brown coloured body, which can easily be mistaken for a small clod of dirt. They actively feed during the night and can be extremely difficult to detect during the day. This season has seen numerous reports of Mandalotus weevils damaging canola crops across various regions of Victoria, New South Wales and South Australia. Occurrences of this pest appear to have increased in southern Australia in recent years. This may be reflective of an increased adoption of minimum tillage and stubble retention practices that create a more favourable habitat.

Click [here](#) for images of Mandalotus weevils and refer to [PestFacts Issue No. 3](#) for more information.

PESTFACTS SERVICE

PestFacts is sent directly to readers via e-mail (subscription free). This service is produced on an 'as-needs' basis in response to pest observations and reports. Your support and feedback are essential to the success of PestFacts. If you have recently observed invertebrate pests (or beneficials) in crops and pastures, contact Stuart McColl on (03) 9329 8816 or email stuart@cesarconsultants.com.au. A free pest identification service is available to all PestFacts subscribers.



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