



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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MANDALOTUS WEEVILS

Mandalotus weevils (*Mandalotus* spp.) have been identified by senior technical officer, Ken Henry (SARDI), from a canola crop near Rupanyup in the Wimmera district of Victoria. The weevils were detected by agronomist, Adrian Tyler (Tyler's Hardware & Rural Supplies), who found them chewing on canola plants that were lying on the ground. Adrian estimates that about one third of a 40 ha paddock was affected, and several hectares of this were completely bare. Re-sowing the worst affected areas is being considered, despite the patchy nature of the infestation.

Mandalotus weevils have also been identified for agronomist, Rick Rundell-Gordon (Dodgshun Medlin), who reports finding them in several canola crops around Sea Lake, in the Mallee district of Victoria. Rick says numbers were variable across the affected paddocks, with one particular paddock almost completely wiped out. Both Adrian and Rick reported that the affected paddocks were either rubbly or lighter, calcareous soil types, which are known to be favoured by Mandalotus weevils.

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 are known to attack canola, cereals, beans and medic pastures. Adults actively feed during the night, whilst during the day they can be found hiding under clods of dirt and trash. Feeding damage is usually first noticed on the leaves of emerging crop plants. In severe cases the seedlings are often 'ring barked' just above ground level. This causes the plants to fall to the ground where the weevils continue feeding on the leaves.



Little is known about the biology of *Mandalotus* weevils so your observations and information are extremely valuable. The distribution and host range of *Mandalotus* weevils appear to have expanded in southern Australia in the past few years and population increases are probably the result of minimum tillage and stubble retention, which create a more favourable habitat. There are currently no chemicals registered for controlling *Mandalotus* weevils, however some growers have reported some success using high rates of bifenthrin or chlorpyrifos. Remember that healthy plants may be able outgrow damage caused by weevils.

Click [here](#) for images of *Mandalotus* weevils.

RUTHERGLEN BUGS

Immature [Rutherglen bugs](#) (*Nysius vinitor*) have recently been identified for agronomist, Laura Watson (Landmark), from a wheat crop near Corowa, in the Riverina district of New South Wales. Laura reports finding very high numbers across a 180 ha paddock and says plants appeared to be unthrifty and showed some evidence of feeding damage. Although Rutherglen bugs are more likely to be a problem in spring, they can be sporadic pests at this time of year under favourable conditions.

The Rutherglen bug is a common native insect that attacks a wide range of weed and crop hosts, including sunflowers, linseed, canola, wheat, sorghum, safflower and lucerne. In some seasons, Rutherglen bugs can reach plague proportions, typically when the senescence of weed hosts in spring and early summer forces adults and nymphs into nearby crops. Highest numbers of Rutherglen bugs are often observed along crop perimeters.

Adults are 4 mm long, have clear wings and are narrow bodied. They are grey-brown in colour, have two prominent black eyes and are very mobile. Immature Rutherglen bugs are dark red, more swollen in shape than adults and lack fully-developed wings. Both adults and nymphs are sap-suckers and damage to susceptible plants is similar to that caused by aphids. Feeding by high numbers of bugs can cause cupping of leaves and retardation of emerging seedlings.

Rutherglen bugs can be controlled by removing weeds they use as hosts and by ploughing a deep furrow around the crop, which prevents wingless individuals migrating from weeds. There are also several organophosphates and synthetic pyrethroids registered against Rutherglen bugs, although insecticide applications will not guarantee a clean crop as winged Rutherglen bugs can readily reinvade sprayed areas.

Click [here](#) for images of Rutherglen bugs.

BENEFICIAL CARABIDAE BEETLES

Agronomist, Rick Rundell-Gordon (Dodgshun Medlin), reports finding small black beetles in a newly sown canola crop about 30 km south-west of Swan Hill in the Victorian Mallee district. The beetles were caught in several pitfall traps, and have been identified as belonging to the Carabidae family. Researcher, Angelos Tsitsilas (CESAR), has also reported finding Carabidae beetles in an established pasture paddock north of Winchelsea in the Western district of Victoria. The beetles were easily found during a visual inspection of the paddock, which is about to be sown to canola.

Carabidae beetles are beneficial, eating a wide range of soft-bodied prey such as caterpillars, aphids, wireworms, earwigs and slugs. Both larvae and adults are predatory and have prominent mouthparts that protrude forward. Adult beetles are generally shiny black in colour,



have a characteristic flattened 'hot-water-bottle'-shaped body and large bulging eyes on the sides of the head. They are flightless nocturnal beetles.

Carabidae beetle larvae have a sclerotised (hardened) head and long-cylindrical shaped body. They are easily confused with true wireworm and false wireworm larvae. Carabidae beetle larvae can be distinguished by prominent mouthparts that are directed forward and the presence of well-developed legs. They also have two long processes projecting from the last segment.

There are several species of Carabidae beetles that attack many important pasture and crop pests. Click for images of the [greenlined ground beetle](#), [teropha beetle](#) and [carabid beetle](#).

TRUE WIREWORMS

Agronomist, Elissa Strong (Walkers AGnVET Services), has reported damage to several paddocks of wheat near Forbes, in the Central West Slopes and Plains district of New South Wales. Individual tillers have been attacked at the ground level, causing some plants to wither and die. Elissa says the damage is rather patchy, with low numbers of true wireworm (Family: Elateridae) larvae found in the affected areas. The paddocks have not had a history of wireworm problems in the past.

[Wireworms](#) are the larvae of several species of Australian native beetles, and are commonly called 'click' beetles. The beetles are small- to medium-sized beetles with elongated, flattened bodies that have blunt rounded ends. Larvae grow to 15-40 mm, are soft-bodied, flattened and slow moving grubs. Their body colour ranges from creamy yellow in the most common species to red brown; their head is dark brown and wedge-shaped.

Wireworms cause crop damage in some areas because they feed on underground roots, seeds, and stems. They attack pre- and post-emerging seedlings of all oilseeds, grain legumes and cereals. Fine seedling crops like canola and linola are most susceptible. Most damage occurs from April to August and adults emerge in spring. It is reported that wireworm problems are often associated with stubble retention and trash from previous crops, which is believed to provide a refuge that favours survival and breeding.

Wireworms are often confused with another group of beetles called false wireworms (Family: Tenebrionidae). True wireworm larvae can be distinguished from the larvae of false wireworms by a distinct flattened, serrated dorsal plate on the tail, which has two upturned spines. Wireworms are generally associated with wetter soils than that of false wireworms; requiring high soil moisture and organic matter for survival. Elissa says the dry weather conditions and slow crop growth appear to have exacerbated the feeding damage around Forbes.

Wireworms and false wireworms can only be controlled if they are detected before sowing. Insecticides can be applied to the soil with fertiliser, or seed can be treated. Control options are extremely limited post crop-emergence. In paddocks with a history of wireworm problems, cultivation before seeding may reduce the pest pressure. This creates a hostile environment for the larvae and few are likely to survive. Rotations, including continuous cropping or short pasture phases often limit population increases.

Click [here](#) for images of true wireworms.



BLUE OAT MITES

Agronomist, Mick Duncan (Northern Agriculture P/L), has reported finding [blue oat mites](#) (*Penthaleus* spp.) in various crops around Tamworth, in the North West Slopes and Plains district of New South Wales. Mick says the mites appear to have only recently hatched from their over-summering (diapause) eggs, as they are mostly small nymphs and have only been found in low numbers. At this stage chemical control is not necessary, however monitoring will continue with particular attention being paid to emerging pastures as these are particularly susceptible to earth mite attack. There have also been reports of blue oat mites in several emerging pasture and cereal crops around Bendigo, in Victoria's Northern Country district, and in a pasture paddock near Winchelsea, in the Western district of Victoria.

Blue oat mites are often mistaken for redlegged earth mites due to their similar appearance and sympatric life-cycle. They can be distinguished from other mites by their blue-black coloured body and characteristic red mark on their back. Click [here](#) for images of blue oat mites.

If chemical control is warranted, target blue oat mites within 2-3 weeks of mite emergence. This approach should protect newly germinated seedlings, which are most prone to mite attack. Be aware, continual monitoring of mite populations is needed and some damage to emerging pasture and crop plants may have already occurred by the time sprays are applied.

A reminder, non-chemical options are available for blue oat mites. For instance, pasture and crop rotations can limit the need for any pesticide spraying in a given year. Crops such as chickpeas and some lentil varieties are generally poor hosts of earth mites. As with redlegged earth mites, weed control can suppress the build-up of blue oat mites during the growing season.

For further information on blue oat mites, refer to [PestFacts Issue No. 2](#).

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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