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Armyworm

We have received and confirmed several reports of armyworm activity in crops in the mid north and on Eyre Peninsula. Armyworm has also been reported (PestFacts South-Eastern Edition) in the western districts, mallee and Wimmera regions of Victoria.

Agronomist Michelle Boulton reported armyworms attacking a number of wheat and barley crops near the Cleve hills. Larger larvae were causing significant damage by cutting off plants near ground level and chewing the leaves, with some crops bared out in areas and requiring treatment. Crops on heavier soils and in areas with high levels of stubble were worst affected. Consultant Bill Long reported severe damage to a barley crop (25ha) in the mid north, with large larvae cutting off plants near ground level. Agronomist Michael Brougham also reported finding armyworms in the mid north, in a wheat crop at Owen and a barley crop at Rhynie. The presence of this winter generation of armyworm larvae would have resulted from significant moth flights and egg laying activity earlier in the season (autumn), probably due to favourable conditions.

Growers should now be on the alert for armyworm activity in cereal crops, particularly on heavier soils and in areas with high levels of stubble retention.

Armyworm larvae attack cereal crops and grass pastures, and are usually most damaging toward the end of spring when crops are close to harvest. However, in some seasons a winter generation occurs which can cause significant damage to young crops. Larvae climb up plant stems and extensively chew the leaves, with larger larvae able to completely defoliate plants or cut through stems. The later spring generation of armyworms can cause severe damage to ripening cereal crops, with barley crops most susceptible. The larvae chew through the last remaining green part of the plant stems (just below the head), causing the heads to drop off. Mature larvae can lop many heads within a short period.

There are three armyworm species commonly found in southern Australia: common armyworm (*Leucania convecta*), southern armyworm (*Persectania ewingii*) and inland armyworm (*Persectania dyscrita*). They are difficult to distinguish apart, however correct species identification in the field is not critical as their habits, type of damage and control are similar. Armyworm larvae grow up to 40 mm long, are distinctly striped and can be distinguished from cutworms and native budworm by three prominent white stripes on the 'collar' behind the head running along the body to the tail end.

Armyworms can be difficult to detect in a crop as they sometimes shelter on the ground beneath dead leaf material, particularly during the day. At other times they can be easily found on the stems or heads of plants. The first sign of armyworms is often the presence of frass (droppings) at the base of plants. Treatment (if warranted) should be carried out in late afternoon or early evening, as they are nocturnal feeders. Refer to the insecticide spray chart for registered products and rates. For more information on armyworm, refer to [Armyworms - Vic DPI](#) (pdf), [Armyworm control in cereals - SARDI](#) (pdf), [Armyworm in cereal crops - DAFWA](#) (pdf), and Crop Insects, the Ute guide (pp. 21-22).

Yellowheaded cockchafer

[Yellowheaded cockchafer](#) (*Sericesthis* sp.) larvae have been found in barley crops on Yorke Peninsula. Consultant Bill Long reported significant feeding damage to a barley crop at Warooka, which resulted in a large bare area. Larvae were found within the affected area feeding on plant roots close to the soil surface. The damaged area was treated with chlorpyrifos, which is usually not effective in controlling yellowheaded (or redheaded) cockchafers due to their subterranean feeding habits. However, some control was achieved in this instance due to the light and fluffy soil type, the proximity of the larvae to the surface and the occurrence of a significant rain event soon after treatment, which helped 'percolate' the treatment through the upper layers of soil. Agronomist Steve Richmond also reported finding yellowheaded cockchafer larvae in a barley crop sown into pasture at Yorketown. Plants in the affected area could easily be pulled out and some were turning yellow, or missing. Steve reports that other agronomic factors were also contributing to the reduced vigour of this crop.

Yellowheaded cockchafer is a pest of pastures and cereal crops in southern Australia. Crops sown into long-term pasture are most vulnerable to attack. Larvae are present in the soil from late autumn through winter. They feed on plant roots causing weakening, wilting and eventually plant death, resulting in bare patches. Yellowheaded cockchafer larvae are "C" shaped, creamy-grey

in colour with a yellow head capsule, and grow to 25-30 mm long when fully mature in winter.

Control of yellowheaded (and redheaded) cockchafer is difficult due to their subterranean feeding habits; insecticides are not effective. Re-sowing affected areas with a higher seeding rate or the use of a seed dressing are often the best strategies for reducing damage. Cultivating affected areas prior to sowing, or rotating pastures with a cereal (particularly oats), can help to reduce larval numbers. Predatory invertebrates and insectivorous birds also help keep cockchafer populations in check. To monitor paddocks for cockchafers, dig in the affected areas or look on the soil surface for tunnel entrances. For more information on yellowheaded cockchafer, refer to Crop Insects, the Ute Guide (pg. 63) or [Cockchafer larvae - DAFWA](#).

Start monitoring now for aphid activity

Growers should now commence monitoring crops for signs of increased aphid activity, as reports have been increasing with recent mild and warmer conditions in several areas. On Eyre Peninsula, agronomist Tim Moyle reported finding [cowpea aphids](#) (*Aphis craccivora*) on medic and oat pasture at Pinkawillinie. Aphids were present in reasonably high numbers in the pasture but were not causing any visible damage. [Bluegreen aphids](#) (*Acyrtosiphon kondoi*) were also found in lower numbers. Agronomist Dustin Sparrow also reported that aphids were active in a canola crop and a clover pasture near Wudinna.

In the Murraylands, agronomist Steve Hein reported cowpea aphids feeding on a barley crop (Flagship) near Mannum and Palmer. They were present in very high numbers with 50% of plants infested within 100 ha of crop. Steve commented that this was a highly unusual occurrence as cowpea aphids normally favour legume hosts. For more information on cowpea aphid, refer to [PestFacts Issue 3, 2009](#) (pdf).

With the approach of spring and the onset of warmer temperatures, aphids will develop more rapidly through their life cycle and populations will start to increase. Growers should closely monitor in crop edges and consider applying an early border treatment if numbers are high. The use of an aphid-specific insecticide, such as pirimicarb, will provide good control of aphids and conserve beneficial insects which also help to reduce aphid numbers. Aphids will be covered in more detail in the next issue.

Grass antherid

We identified grass antherid (*Pterolocera amplicornis*) larvae for agronomist Andy Bates who reported early-mid instar larvae (25mm long) damaging a wheat crop at Buckleboo on upper Eyre Peninsula. Larvae were present in high numbers (up to 7 per plant) and were widespread throughout two large paddocks (over 130 ha each). Feeding damage included extensively chewed or lopped leaves, and more severely damaged plants were turning yellow. The source of infestation was not immediately obvious, as most volunteer grasses (potential hosts) had been controlled over summer. However, this crop was sown early and adult moths may have flown in from nearby pastoral country in autumn and laid eggs directly onto newly emerging wheat seedlings. Further feeding damage was considered likely as larvae were not yet fully mature (up

to 50mm long) and were therefore treated. For more information on grass antherid, refer to [PestFacts Issue 5, 2009](#) (pdf).

Sawfly larvae in wheat

We identified sawfly larvae for agronomist Michelle Boulton, who reported them damaging a wheat crop at Darke Peak on Eyre Peninsula. High numbers of larvae (up to 8 per plant) were present but did not appear to be causing significant damage to the wheat. The previous edition of PestFacts also reported sawfly larvae in lupin crops near Kimba. Records from previous years have shown that sawfly larvae have been active on central and upper Eyre Peninsula around this time of year. Growers in this area should now monitor crops for the presence of sawfly larvae, as high numbers have been known to cause significant damage. For more information on sawfly larvae, refer to [PestFacts Issue 6, 2009](#) (pdf).

Brown pasture looper and other pasture moth pests

Agronomist Steve Richmond reported high numbers of [brown pasture looper](#) (*Ciampa arietaria*) larvae damaging a medic pasture near Curramulka on Yorke Peninsula. Feeding damage was holding back growth of the medic and treatment was warranted. Ken Henry has also found them in pasture paddocks on upper Eyre Peninsula.

We also confirmed brown pasture looper, along with [pasture webworm](#) (*Hednota* sp.) and [pasture tunnel moth](#) (*Philobota productella*) larvae, for agronomist Chris Pearce who found them damaging a barley crop (several paddocks) near Cleve. This crop was sown into pasture, which would have harboured these pests before crop emergence. Feeding damage included extensive chewing of leaves (holes and leaf margins), or lopping of leaves which could be seen scattered within the crop. Tunnel entrances were also observed on the soil surface, which are characteristic of pasture webworm and pasture tunnel moth activity. Further information on pasture tunnel moth and pasture webworm can be found in [PestFacts Issue 5, 2009](#) (pdf) and [PestFacts Issue 6, 2009](#) (pdf).

Brown pasture looper attacks canola and lupin crops, as well as pastures and broadleaf weeds. They have one generation per year with adult moths laying eggs in autumn. Larvae are present from July to October and are most damaging on newly emerging seedlings when present in high numbers. Larvae vary in size, growing up to 35mm long when mature. They are greyish to dark brown in colour with two dotted yellow lines running along the back on either side of a distinct dark band, and have a red colouration surrounding the breathing holes (spiracles) on the sides of the body. Younger larvae move using a series of back arches, which results in a characteristic looping motion (hence the name 'loopers').

Monitor crop edges for brown pasture looper activity, particularly those adjacent to pastures or areas with high levels of broadleaf weeds (particularly capeweed). Often spot or border spraying will provide good control of this pest. Refer to the insecticide spray chart for registered products and rates. For more information on brown pasture looper, refer to [Brown pasture looper - DAFWA](#).

Insect diagnostics and online reporting form

SARDI Entomology Unit offers a **FREE insect diagnostic service for PestFacts subscribers**. For identification, please send at least 2 undamaged specimens in a non-crushable container along with some food (host material). Also please provide collection date, district, host-plant, description of damage caused and contact details.

Specimens can be forwarded to:
Kym Perry
Entomology Unit SARDI
GPO Box 397, Adelaide 5001

PestFacts relies on valuable field observations of pest occurrences. Your contributions make your newsletter more informative and helpful for the management of invertebrate pests. Please provide regular information on your observations and pest occurrences using the [online NIPi observational reporting form](#) or contact a coordinator directly.

Crop diseases diagnostics

SARDI, Field Crop Pathology Unit offers a range of diagnostic services refer to: [SARDI Crop pathology diagnostic services](#). Crop watch is an electronic newsletter service provided by SARDI. If you would like to receive Crop Watch please send your email address to Jon Lamb, Jon Lamb Communications jlcom@chariot.net.au titled "Crop Watch request".

Useful links

[SARDI Fact Sheets](#)
[Farm Biosecurity - free newsletter and website](#)
[Previous PestFacts issues](#)

PestFacts is a FREE service providing updates throughout the growing season on an "as-needed" basis of the latest information on invertebrate pests in broad acre crops in South Australia and western Victoria. It is supported by GRDC's National Invertebrate Pest Initiative (NIPi). All information is sent by email to subscribers. Please email a coordinator to be placed on the circulation list. Your support and feedback are essential to the success of PestFacts.

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