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Aphids widely reported in South Australia

Green peach aphid (GPA) (*Mizus persicae*) and cowpea aphid (*Aphis craccivora*) are being widely reported in crops across South Australia, and cereal aphids are also active in crops in some areas. PestFacts South-Eastern is also reporting widespread aphid activity in crops in Victoria in the Mallee and Wimmera, and New South Wales in the Riverina and Northern Tablelands.

The warm weather conditions experienced in South-eastern Australia during autumn appear to have provided ideal conditions for aphid build-up and spread. Over coming weeks, we expect that aphid populations will stabilise or decline with cooler, wet conditions slowing development and causing mortality. Spray decisions should consider aphid population trends, crop health, forecast weather conditions and rates of parasitism (see below).

○ **Green peach aphid**

High populations of green peach aphid have been reported in canola crops across several regions. In the Mid North, high populations of GPA (up to 30 aphids per leaf) on the undersides of leaves are causing stress to canola crops within a 50 km radius around **Clare** (Craig Davis, AW Vater & Co) and have damaged a 4-leaf canola crop north of **Spalding** (Michelle Bammann, Ground Up Agronomy). In the SA Mallee, we observed 30-40% parasitism in GPA infesting 5-6 leaf canola east of **Mannum** (SARDI), indicating high beneficial parasitoid wasp activity. High populations of GPA, also heavily parasitized, are widespread in canola crops north-east, east and west of **Loxton**, from **Allawoona**, **Taplan** to **Waikerie**. Numbers appear to be higher on stressed plants (Richard Saunders, Dodgshun Medlin). In the Upper South East, GPA was confirmed from canola in the **Meningie** area (Matt Howell, Coorong Ag Services).

A number of agronomists have reported difficulties controlling GPA using synthetic pyrethroids, organophosphates and pirimicarb. This may be related to application issues, such as inadequate coverage (e.g. GPA on undersides of leaves) or conditions sub-optimal for spray efficacy (e.g. pirimicarb is less effective at cooler temperatures), or insecticide resistance. Australian populations of GPA are resistant to a range of insecticide groups

including synthetic pyrethroids, organophosphates and carbamates. Resistance to pirimicarb has been identified in a proportion of GPA populations from South Australia, Victoria, New South Wales, and Queensland. Transform™ insecticide (240 g/L sulfoxaflor) is now registered to control GPA in canola, and is relatively soft on beneficial insects. Several agronomists have reported good success controlling GPA with Transform™ this season. Rotate insecticide groups to manage resistance.

Over the next few weeks, we recommend basing spray decisions on whether the crop is likely to outgrow immediate aphid feeding damage. With the high levels of field parasitism presently observed, we expect that in many instances biological control will keep aphid populations in check later in the season if not disrupted by excessive use of insecticides. More information: [Aphid management in canola crops, DAFWA](#) (pdf), [Resistance management for green peach aphids, GRDC](#) and [PestFacts Issue 2, 2014](#) (pdf).

○ Cowpea aphid

Cowpea aphid (*Aphis craccivora*) are also being reported in pulse crops in the Mid North, upper South East and Yorke Peninsula regions. In the Mid North, cowpea aphid is causing concern in vetch and faba beans north of **Boomeroo Centre** and around **Murraytown**, and on faba beans at **Port Germain**, warranting spraying (Dustin Berryman, Northern Ag). Cowpea aphid are reportedly widespread across the Mid North (Craig Davis, AW Vater & Co), and have been confirmed from faba beans from **Roseworthy** in the Lower North (Chris Butler, Roseworthy Rural), near **Meningie** in the Upper South East (Matt Howell, Coorong Ag Services), and in pastures at **Maitland** on Yorke Peninsula. The sample from **Roseworthy** had extremely high levels of at least 80% parasitism.

Like other aphids, we expect that cowpea populations will now be stabilizing. Heavy frosts can cause significant aphid mortality. When making a decision to spray, consider whether the crop will outgrow immediate damage and assess levels of parasitism by searching for aphid mummies. Other beneficial insects, such as lacewing, ladybird larvae and hover flies, will become more prevalent in spring.

We have had a number of queries concerning the risk of virus spread by cowpea aphid in faba beans. Unfortunately, the benefits of foliar sprays at this time of year to control aphids and prevent virus spread in pulse crops are unclear. We expect that the cool and wetter weather will generally reduce aphid flight activity. More information: [Aphids and Viruses in Pulse Crops, GRDC](#) (pdf), [Virus management in pulses, Pulse Australia](#) (pdf) and [PestFacts Issue 5, 2013](#) (pdf).

○ Cereal aphids

Corn aphid (*Rhopalosiphum maidis*) was confirmed causing feeding damage to barley near **Crystal Brook** and at **Huddleston** in the Mid North (Chris Fogarty, Kerin Agencies). Very low numbers of aphids were seen on wheat at **Maitland** (Craig Wissell, Team Wiss) and near **Mannum** (SARDI). More information on cereal aphids: [PestFacts Issue 3, 2014](#) (pdf).

Diamondback moth damaging canola

A number of canola crops have been treated to control damaging populations of diamondback moth (DBM) (*Plutella xylostella*), which is highly unusual for this time of year. On Eyre Peninsula, at least two crops at **Mt. Hope** were treated with Affirm® (Nigel Myers, Cummins Ag), several crops were treated around **Streaky Bay**, and severe damage occurred to early sown canola at **Nundroo** (Andy Bates, Bates Ag Consulting). DBM larvae are being commonly found in volunteer canola, west of **Cummins** (Nigel Myers, Cummins Ag). In the SA Mallee, we

observed larvae damaging a 5-6 leaf canola crop at **Mannum** (SARDI). Populations required control in canola at **Sanderston** on the Murray Flats and low numbers were found in canola at **Freeling** in the Lower North (Tony Craddock, Rural Directions). In the Victorian Mallee, an outbreak of DBM was found in budding canola 15-20 km south of **Yamba**, requiring control (Matt Gready, Dodgshun Medlin).

Monitoring and control: DBM moth activity has been widespread in establishing canola across South Australia and western Victoria in recent weeks (Kym Perry). We recommend checking canola crops sown in the vicinity of volunteer canola and Lincoln weed for DBM larvae and damage. Spray decisions should be based on whether larval populations pose an immediate threat of yield loss to the crop. Growers should not be concerned with potential spring populations at this stage. Crops infested now should be regularly monitored from mid-winter (e.g. late July), particularly if conditions are relatively dry or warm. If control is needed, keep in mind that moderate to high levels of resistance to a range of synthetic insecticides is widespread in Australian DBM populations. Avoid synthetic pyrethroids or organophosphates for DBM as these are likely to be ineffective and will destroy beneficial insects, potentially leading to other problems (e.g. DBM or aphid resurgence).

Light traps: As part of his PhD research on the regional movement of DBM, Kym Perry is looking for growers or agronomists on **Eyre Peninsula**, **upper Yorke Peninsula**, **Lower North** or the **South East**, who are interested in assisting with operating an insect light trap on their property. Please contact Kym for details on 0421 788 357 or kym.perry@sa.gov.au. More information: [Diamondback moth in canola - SARDI](#) (pdf), [Diamondback moth in canola - GRDC](#) (pdf).

Earth mites and Lucerne flea

In the Mid North, Redlegged earth mite (RLEM) (*Halotydeus destructor*) are reportedly widespread throughout the district badly affecting cereals, 0-2 leaf canola, and 0-2 node lentils (Craig Davis, AW Vater & Co). On Eyre Peninsula, RLEM are now causing problems. *Bryobia* levels in some areas necessitated treatment of only selected paddocks as crops were growing vigorously (Andy Bates, Bates Ag Consulting), but elsewhere destroyed a paddock of medic near **Cleve** (Sarah Traeger, Cleve Rural Traders). On Yorke Peninsula RLEM in pastures required spraying at **Maitland** (Craig Wissell, Team Wiss), and are active on the Fleurieu Peninsula (Ryan Bateman, FPAG). RLEM, blue oat mite (*Penthaleus* spp.) and *Balaustium* were found in high numbers at **Murray Bridge** on weeds alongside pasture and cereal crops (SARDI). For assistance with mite identification download the [GRDC Back Pocket Guide - Crop Mites](#). More information on mites: [PestFacts Issue 1, 2014](#) (pdf). [Redlegged earth mite, DEPI](#), [Blue oat mites, DEPI](#), [Balaustium, SARDI](#), [Bryobia mite, DEPI Vic](#).

Lucerne flea (*Sminthurus viridis*) is active on Eyre Peninsula, (Andy Bates, Bates Ag Consulting), in the Mid North (Craig Davis, AW Vater & Co), near **Murray Bridge** (SARDI), in pasture at **Maitland**, and very active at **Mintaro** causing severe damage to lupins (Craig Wissell, Team Wiss). Very high numbers of Lucerne flea around **Booleeroo Centre** warranted spraying over 1000 hectares of crops, while a second farmer in the district initially spot sprayed but later needed to treat the entire crop (Dustin Berryman, Northern Ag). More information: [PestFacts Issue 2, 2014](#) (pdf).

Mandalotus weevil

In the SA Mallee, low numbers of Mandalotus weevils (*Mandalotus*, multiple spp.) found in 4-5 leaf wheat east of **Mannum** were causing minor damage to some plants (SARDI). In the Mid North, Mandalotus caused feeding damage and the stripping of leaves in a barley crop, and serious damage to canola between **Lochiel** and **Blyth**. On the Eyre Peninsula adult weevils were confirmed in cotyledon to 2-leaf canola north east of **Lock** (Chris Pearce,

Elders). More information on identification, biology and control: [Mandalotus weevil, SARDI \(pdf\)](#), [PestFacts Issue 3, 2014 \(pdf\)](#).

Cabbage centre grub

Larvae causing severe damage to a 2-3 leaf stage canola crop 90 km north of **Streaky Bay** (Andy Bates, Bates Ag Consulting), was identified as Cabbage centre grub (*Hellula* sp.) During the recent warm weather, larvae burrowed into leaves between the upper and lower surfaces while feeding, causing plants to dry off before dying. After good initial establishment, some plants died within a week, necessitating a partial re-sow of the crop. We observed low populations of Cabbage centre grub widespread on Lincoln weed on Lower Eyre Peninsula during March and April (SARDI). More information: [Cabbage Centre Grub, GRDC](#).

More Ryegrass mealybug

We have received more incidents of ryegrass mealybug (*Phenacoccus graminicola*). On the Murray Flats mealybug destroyed 5 hectares of barley at **Sedan**. On the Yorke Peninsula, the mealybug was found throughout 3-5 hectares of barley and were also present in lupins at **Alford** but with no indication of damage (Craig Davis, AW Vater & Co), and on one leaf barley mealybugs had not caused damage to the crop at **Yorketown** (Craig Wissell, Team Wiss). In the Mid North it was found on barley which was treated with chlorpyrifos reportedly with good results near **Crystal Brook** (Chris Fogarty, Kerin Agencies). More information: [PestFacts Issue 7, 2010 \(pdf\)](#), [PestFacts Issue 3, 2014 \(pdf\)](#).

Bronzed field beetle

In the Lower North, Bronzed field beetle (*Adelium brevicorne*) was confirmed as having destroyed 22 hectares of pasture at **Roseworthy**. The pasture has been partially re-sown to barley and will be monitored (Chris Butler, Roseworthy Rural). In the South East, where the pest caused severing of cotyledon stage canola and ringbarking of plants in crop edges near **Naracoorte**, unusually adults but no larvae were found (Adam Hancock, Elders). On Eyre Peninsula, the beetle was found on wheat at **Mangalo**, but not damaging (Cindy Martin, Cleve Rural Traders).

Bronzed field beetles are important pests of establishing canola. Larvae can be found within the top 1 cm of soil, and under plant material, clods of soil, rocks or wood and primarily feed on dead organic matter and may be present in the soil with little or no damage to plant seedlings. High numbers are required to cause serious crop damage. Usually feeding on plants at night, they can sometimes be seen during the day. More information: [Bronzed Field Beetle, GRDC](#), [PestFacts Issue 8, 2013 \(pdf\)](#).

Other pest activity

○ Spotted vegetable weevil

On the Eyre Peninsula, Spotted vegetable weevil (*Steriphus diversipes*) was collected at night from wheat in two separate paddocks at **Rudall**. Damage included leaves nipped off, feeding holes along the length of leaves, and snapping of leaves midway along their length (Cindy Martin, Cleve Rural Traders). More information: [Desiantha weevil, DAFWA](#).

○ Grass Anthelid

On the Lower Eyre Peninsula, [Grass anthelid](#) (*Pterolocera amplicornis*) was found on cereals (George Pedler, George Pedler Ag). Grass Anthelid larvae, a minor pest of cereals and pasture, are

about 50 mm long, brown with black and yellow markings and covered with thick hairs in tufts. Larvae attack pastures and cereals but are mainly associated with roadside vegetation usually moving into edges of cereal crops causing damage in late winter, early spring. [PestFacts Issue 7, 2013](#) (pdf).

○ Rutherglen bug

On the Fleurieu Peninsula, Rutherglen bug (*Nysius vinitor*) was confirmed on ryegrass pasture near **Victor Harbor** causing concerning levels of damage (Ryan Bateman, FPAG). More information: [Rutherglen bug, Qld DAFF](#) and [Plant bugs, NSW DPI](#) (pdf).

○ Little pasture cockchafer

In the Lower North, Little pasture cockchafer (*Australaphodius frenchi*) was confirmed from pasture at **Roseworthy** (Chris Butler, Roseworthy Rural). There is no evidence that Little pasture cockchafer cause damage to crops or pasture. More information: [Identifying soil beetle pests, DAFWA](#).

Resources

- ❖ **Insect diagnostics:** SARDI Entomology offers an insect diagnostic service for PestFacts subscribers. Please send at least two intact specimens in a non-crushable container along with host food, collection details, description of crop damage and contact details, to: NIPI diagnostics SARDI Entomology Unit GPO Box 397, Adelaide SA 5001.
 - ❖ **PestFacts map** is a new interactive service available on the SARDI website at www.sardi.sa.gov.au/pestfacts-map. The map allows users to search and view all historical pest reports across South Australia and Western Victoria. Search by crop, pest or beneficial invertebrate, and time period of interest. The map will be updated with each issue to include new reports.
 - ❖ **'Best Bet' IPM strategies** for major pests of grains crops are available in easy-to-use tables, downloadable from the [IPM workshops website](#).
 - ❖ **IPM guidelines for grains:** The new national [IPM guidelines for grains website](#) provides a comprehensive collection of tools and strategies to manage pests in grain cropping systems across Australia.
- [Previous issues of PestFacts](#) ● ● [PestFacts map](#) ● [Images of insects and damage](#) ● [I SPY manual](#) ● [Crop mites: back pocket guide](#) ● [Crop weevils: back pocket guide](#) ●

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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