

PestFacts WA

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To spray or not to spray?

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Image 1: Chemicals being sprayed. Photo courtesy of: John Moore (DPIRD).

Aphid and diamondback moth (DBM) activity is being reported across the Western Australian (WA) grainbelt, and some growers may consider applying a prophylactic spray to prevent aphid colonisation and increases in caterpillar populations in spring.

Growers should consider the detrimental effects these sprays can have on beneficial insects that may also be present in crops, as well as the increased risk of redlegged earth mites developing resistance to synthetic pyrethroids (SPs) due to the additional insecticide applications.

Beneficial insects

Growers and consultants are urged to check crops for beneficial insects and insect fungal infections in crops before deciding to invest in an insecticide spray. Naturally occurring parasitoids and predators such as hoverflies, wasps, lacewings and ladybird beetles will also increase with warming weather. These predators can keep aphid populations below threshold levels, whereas parasitic wasps can suppress DBM populations to be below spray thresholds. Sprays such as 'anti-feed' synthetic pyrethroid sprays will kill any beneficial species present.

When spraying, consider spray options that are soft (for example pirimicarb) on predators. For more information, refer to the department's Know what beneficials look like in your crop and Cesar Australia's <u>Beneficial's chemical toxicity table</u> page.

Pest thresholds

Lab trials have shown prophylactic sprays of SPs do not stop cabbage aphids from colonising flowering canola. If more than 20% of canola plants are infested with colonies of cabbage or turnip aphids, control measures should be considered to avoid yield losses. The risk of economic yield losses to aphids is increased if canola crops are already under some degree of moisture stress. If spraying is required, a border spray may suffice for cabbage aphids, which are most commonly found within 20 to 30 metres of the crop edge.

Barley crops can suffer economic losses from corn and oat aphids. This is due to the possibility of downgrading the grain from malt to feed quality, as aphid feeding damage can cause grain shrivelling. If 50% of tillers have 15 or more aphids, then the feeding damage may cause reductions in yields by up to 10%. It may also reduce grain size. Yield loss is greater in crops that had aphid colonisation from early tillering. Russian wheat aphid (RWA) thresholds are dependent on the crop stage, the time until head emergence, predicted yield and cost of spraying. A RWA threshold calculator is available on the Grains Research and Development Corporation (GRDC) Russian wheat aphid page.

The following thresholds apply for DBM caterpillar control:

- pre-flowering (stressed crop): 30 or more DBM grubs per 10 sweeps
- pre-flowering (no stress): 50 per 10 sweeps
- early-mid flowering: 50 or more grubs per 10 sweeps
- mid-late flowering: 100 or more grubs per 10 sweeps.

If numbers warrant spraying then growers and consultants can refer to the Department of Primary Industries and Regional Development (DPIRD) <u>2024 winter spring insecticide guide</u>.

More information

For more information on sustainable pest management in crops refer to the GRDC <u>IPM</u> <u>Checklist</u> fact sheet.

For more information contact <u>Svetlana Micic</u>, Research Scientist in Albany on +61 (0)8 9892 8591.

Article author: Cindy Webster (DPIRD Narrogin) and Svetlana Micic (DPIRD Albany).

DPIRD's 2024 crop disease and insect identification workshop is fully booked



Image 2: Workshop attendees looking at insect specimens during a former training course. Photo courtesy of: Amber Balfour-Cunningham (DPIRD).

DPIRD staff have received numerous expressions of interest (EOIs) from consultants wanting to attend the 2024 Pest and Disease Identification workshop, which will take place from Tuesday 20 August to Thursday 22 August 2024, in Perth.

The workshop is now fully booked, and we are unable to register any more attendees for this year's event.

We will deliver this workshop again in 2025, with the date to be confirmed at a later time. Please stay tuned for updates on when EOIs will be accepted for that event.

These workshops are co-funded by GRDC through the "DPIRD Seasonal status of pests and diseases delivered to growers project" (DAW2404-005RTX).

Article author: Cindy Webster (DPIRD Narrogin).

DPIRD Diagnostics and Laboratory Services update

DPIRD's Diagnostics and Laboratory Services (DDLS) diagnostic services have been impacted by restricted site access at 3 Baron-Hay Court, South Perth due to results from asbestos testing.

Critical laboratory testing is continuing, however restrictions on access to key facilities and the number of personnel onsite have significantly reduced the range of testing available.

Testing continues to be prioritised based on:

- diagnostic testing to exclude notifiable pests and diseases
- responses to high-impact pest and disease threats and incursions

- surveillance for priority pests and disease
- diagnostic testing to support border biosecurity controls and market access.

DPIRD will continue to provide priority diagnostics services to protect Western Australia's biosecurity and market access, and to manage solutions for stakeholders for other diagnostics. Continuing to submit samples via DPIRD is important to maintain our ability to certify produce and to protect Western Australia's market access.

Current submission and reporting process

Growers and consultants with testing enquiries, or those wishing to submit animal or plant specimens to DDLS for testing, need to follow this process:

- 1. Email DDLS@dpird.wa.gov.au with details of the submission.
- DDLS will triage your submission and you will receive email instructions. Please ONLY send samples to South Perth once DDLS have responded to you to ensure sample integrity is maintained and testing can be best facilitated.

Please report any suspicion of emergency plant pests and diseases to the Pest and Disease Information Service (PaDIS) on +61 (0)8 9368 3080 and select option 2.

Please report any suspicion of emergency animal disease to your local DPIRD field veterinary officer or the Emergency Animal Disease hotline on 1800 675 888 and select option 5 for WA.

Further information and updates

DPIRD appreciates your ongoing support and cooperation as we work towards restoring full capacity of the services provided by DDLS.

Updates regarding DDLS will be published on the DDLS webpage and DDLS clients will be contacted directly via email.

Important Disclaimer

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