Monitoring mice in Australia – August 2024



Summary

- There is moderate-high mouse activity in parts of the Queensland Darling Downs (QLD) (Figure 1). Mouse activity is very patchy (moderate/high in one field, but low in the next). Growers should remain vigilant.
- Mouse activity is low in all other areas. Low numbers of mice are unlikely to cause significant crop damage.
- **Growers should actively monitor mouse activity** (mouse chew cards are useful at this time of year). There is always a chance of isolated patches of higher mouse activity.
- Please report and map mouse activity using *MouseAlert* (www.mousealert.org.au) so other growers can see what mouse activity is being observed in their neighbourhood. Follow on X (formerly Twitter) using @MouseAlert.

High mouse abundance Low mouse abundance Figure 1. Approximate location of current mouse abundance (Aug 2024)

Management Recommendations

Mouse numbers normally decline through winter, but can still cause economic damage if numbers are high. Crops will compensate for minor damage, but cannot compensate for heavy damage or damage that occurs in late stages of crop maturity. If concerned, **consider management before crop comes into head**. See GRDC <u>Mouse Control</u> website for more details about control options. Apply control over large areas if possible.

- 1. Monitor crops for signs of mouse activity. Use chew cards (find here) or a walk through crops.
- 2. **Bait**: If mouse damage is evident in maturing crops, **apply zinc phosphide mouse bait** (adhere to label/permit instructions and be aware of the 14-day withholding period before harvest). Once grains have developed on heads, mice may not go for zinc phosphide baits, so, if need be, **bait well before grain fill**.
- 3. **Be aware that only ZnP25 baits are currently available** (the Emergency Permit for ZnP50 has lapsed and this bait is <u>not available</u>). As with use of any agricultural chemical, use the product in accordance with conditions on the label, and report any <u>adverse or off target effects</u> via APVMA website.
- 4. Ensure a clean harvest so that there is minimal mouse food available.
- 5. Control weeds and grasses along fence lines and crop margins before seed set by spraying or slashing.
- 6. Mouse-proof houses and grain and stock feed storages.
- 7. Apply bait around buildings if necessary. Please check and comply with label conditions.

Current situation

Moderate or high mouse numbers are a concern for this time of year, especially on the Darling Downs where there is a mix of different crops at different stages combined with wet conditions (sorghum harvest was disrupted by heavy rains, leaving grain on the ground, and mice will move to adjacent barley and chickpea crops) (= high mouse food resources). Mouse numbers are generally low in all other areas, but there are localised areas of moderate activity in some regions (Moree, Victorian Mallee and Wimmera). Because of patchy activity from paddock to paddock, growers are advised to monitor across multiple paddocks to gauge mouse numbers and inform management decisions. Please report on *MouseAlert* www.mousealert.org.au.

• <u>South Australia</u>: Mouse activity is low throughout SA. Eyre Peninsula: mouse activity is low. <u>Adelaide Plains</u>: nil activity from 10 sites: 3 mice were caught on trapping grids at Benchmark site at Mallala (=1% trap success), which is very low (Figure 2) with low densities (<10 mice/ha). <u>Yorke Peninsula</u>: nil on 12 sites.



<u>Queensland</u>: Mouse activity highly variable on Darling Downs. <u>Darling Downs</u>: nil activity on 10 sites, low on 2 sites, moderate on 2 sites, and high on 6 sites (200-1000 active burrows/ha on the 6 sites) across southern, central and northern Downs. <u>Goondiwindi-Moonie</u>: nil on 5 sites, low on 4 sites.

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- <u>Western Australia</u>: Mouse activity is generally low across all regions (some areas very wet). <u>Albany</u>: nil on 9 sites, low on 1 site. <u>Geraldton</u> nil on 11 sites. <u>Kwinana West</u> nil activity on 7 sites, low on 2 and moderate on 1 site. <u>Kwinana East</u> low on 5 sites. <u>Esperance</u> nil on 4 sites, low on 4 sites, moderate on 2 sites (50-75 mouse burrows/ha). We thank <u>Farmanco</u> for coordinating monitoring.
- <u>Victoria</u>: Mouse abundance is generally low but moderate at a few sites. <u>Mallee</u>: nil activity on 10 sites, low on 1 site and moderate on 3 sites (up to 50 burrows/ha). Four mice were caught on trap grids at Benchmark site at Walpeup (<2% trap success = very low, Figure 3) with low density (<10 mice/ha). <u>Wimmera</u>: nil on 9 sites, moderate on 2 sites (up to 50 burrows/ha).



New South Wales (Northern, Central & Southern): Mouse activity low. Parkes: nil activity at 8 sites, low at 2. Two mice were captured at Benchmark site at Parkes (1% = very low) (Figure 4) with low densities (<5 mice/ha). Condobolin: nil on 7 sites. Trangie: nil activity on 2 sites. Northern Moree: nil activity on 6 sites, low on 1 and moderate on 2 sites. Gin Gin: no report. Liverpool Plains: nil on 8 sites, and low on 2 sites. Southern (Coleambally): nil on 3 site, moderate on 1 site. Riverina: nil on 6 sites, low on 2 sites. We thank North West Local Land Services, Central West Farming Systems and NSW DPIRD for mouse monitoring.



The 'Mouse Forecast'

Northwest Victoria and Adelaide Plains: The models will be next run in October once April-October in-crop rainfall data is available.

Central Darling Downs: The **"Long-term"** model is highly variable since there is currently high vaiability in mouse activity. If maximum mouse density is **very low**, then the potential for a problem next year (2025) is **"High"**. If maximum

density is "low" or "moderate", then the potential for a problem next year (2025) is "Inconclusive". Additional monitoring will be conducted.

Future activities

The next scheduled monitoring is set for September 2024 in all regions. Please continue to report mouse abundance on your farm (presence and absence!) using *MouseAlert* (<u>www.mousealert.org.au</u>). Download the *MouseAlert* App from <u>iTunes app store</u> or <u>Google play</u> (click on hyperlink to download). You can also follow progress on **Twitter** (<u>@MouseAlert</u>). Instructions on how to use *MouseAlert* are available <u>here</u>.



Background

MouseAlert Smartphone app → <u>www.mousealert.org.au</u>

This is an update on mouse abundance and activity for July/August for all regions. Mouse populations were monitored in typical grains farming systems in WA, SA, Vic, NSW and Qld during winter 2024 (Figure 5). The monitoring provides data on the size (abundance) of mouse populations, breeding status and overall activity. This information is used in models that have been developed over the last 20-30 years to predict mouse outbreaks. This project is funded by the GRDC (until Dec 2024) to monitor mouse populations and forecast the likelihood of mouse outbreaks.

- Benchmark sites (♦): live trapping data collected for use in models in SA, Vic, and NSW.
- Quantitative rapid-assessment sites (•): mouse chew cards & active mouse burrow counts (190 transects, 19 areas).
- Qualitative monitoring networks (\bigcirc): from farmers and agronomists in 19 local areas.

Further information & Handy resources

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- GRDC Mouse Control website: <u>https://grdc.com.au/resources-and-publications/resources/mouse-management</u>
- MouseAlert (hosted by FeralScan): <u>https://www.feralscan.org.au/mousealert/</u>
- Dept of Ag., Fisheries & Forestry (DAFF): <u>https://www.agriculture.gov.au/biosecurity-trade/pests-diseases-weeds/mouse-infestation</u>
- CSIRO rodent management: <u>https://research.csiro.au/rm/</u>

