# Monitoring mice in Australia – April 2019



# Summary

- Mouse numbers are moderate around Geraldton (WA) (Figure 1)
  There is a moderate risk of damage around Geraldton.
- Mouse numbers are low in all other areas (Figure 1) There is a low risk of damage to crops at sowing. Mouse numbers and activity will peak soon when breeding finishes.
- Growers should walk through paddocks and actively monitor mouse activity (mouse chew cards or active burrow counts). There is always a chance of isolated patches of higher mouse activity.
- Please report and map mouse activity using *MouseAlert* (<u>www.mousealert.org.au</u>) so other growers can see what mouse activity is being observed in their neighbourhood. Follow on twitter using *@MouseAlert*.

# **Management Recommendations**

Mouse numbers are currently very low, and are unlikely to increase further as breeding finishes. It is unlikely that economic damage will occur at sowing (except Geraldton area). See GRDC <u>Mouse Control</u> website for more details about control options.

- 1. **Reduce alternative food sources and cover** by livestock grazing, prickle chain, small disk chain, speed tilling etc if applicable for your cropping system. A light tillage will bury remaining food sources making it hard for mice to find food. Reducing cover (standing stubble) increases predation risk.
- 2. **Baiting with zinc phosphide** (at label rate of 1 kg/ha) if moderate to high mouse abundance is present. ZnP is reasonably effective providing there is little alternative food available for mice. Bait 4-6 weeks prior to sowing and again at sowing if warranted (if high numbers).
- 3. **Manage over large areas** (1,000 ha) by coordinating management with neighbours to reduce the chance of reinvasion by mice.

# **Current situation**

Mouse numbers remain low across Western, Southern and Northern regions, largely because of the continuing dry conditions (Figure 1). Mice have continued to breed through summer and will reach peak abundance in autumn. Given the widespread low numbers and activity we do not expect significant or widespread mouse damage at sowing. There is a chance of isolated patches of mouse activity that could not be picked up from our monitoring. Therefore, growers are advised to monitor their own farms and across multiple paddocks to gauge mouse numbers to inform their management decisions. Please continue to report activity on *MouseAlert* (www.mousealert.org.au).



<u>South Australia</u>: Mouse numbers are low in North Adelaide Plains, Mallee, Eyre and Yorke Peninsulas (Figure 2). Trap success at Mallala (north of Adelaide) was 6% in March (which is Low for this time of year). There was some activity on some sites, but Low overall.



- <u>Victoria</u>: Mouse abundance are very low in all locations. Mouse numbers are Very Low across Mallee and Wimmera regions (Figure 2). Trap success was 0% at Walpeup in March (Very Low). There was some activity on some sites, but Low overall.
- <u>Queensland</u>: Mouse activity is very low: Monitoring was conducted in December/January for the Northern sites. Activity was very low (no sign of activity from chew cards or from trapping on the Darling Downs. Monitoring does not normally occur in March/April, but mouse numbers considered very low.
- Northern, Central & Southern NSW: Mouse numbers are low in Southern, Central & Northern locations. There was no activity on any chew cards.
- <u>Western Australia</u>: Mouse activity is Low-Moderate around Geraldton area and Very Low in Ravensthorpe. There was some mouse activity over most of the Northern Ag Region, with some high activity to the north and east. Paddocks where there is good stubble cover and high levels of seed on the ground are worst affected. Growers are advised to monitor their paddocks to avoid seedling loss at sowing. Growers should walk suspect paddocks and look for signs of mouse activity and determine of paddocks would benefit from baiting at seeding.

#### The 'Mouse Forecast'

**Northwest Victoria: There was a low likelihood of an outbreak for autumn 2019.** The model will be re-run in September 2019 to estimate the likelihood of an outbreak in autumn 2020.

**Central Darling Downs (QLD): The density index for the mouse population is currently very low (<1%), but are likely to remain low in May 2019.** The probabilities for May 2019 are High (0.01-0.03), Moderate (0.04-0.34), Low (0.33-0.55) and Very Low (0.62-0.08).

#### **Future activities**

The next scheduled monitoring is set for June/July 2019 for all sites, and will be slightly later than in the past to ensure we have results at a time most beneficial to growers if control is required before crops mature. Please continue to report mouse abundance on your farm (presence and absence!) using **MouseAlert** (<u>www.mousealert.org.au</u>) on your smart phone, tablet or computer and to check what other mouse activity is being reported locally and regionally. We welcome any information at any time. You can also follow progress on **Twitter** (@MouseAlert). Download the **MouseAlert** App from <u>iTunes app store</u> or <u>Google</u> <u>play</u> (click on hyperlink to download). **Www.mousealert.org.au** 



# Background

This is an update on mouse abundance and activity for March/April 2019 for southern and eastern regions. Mouse populations were monitored in typical grains farming systems in WA, SA, Vic and NSW during early autumn 2019 (March/April). The monitoring provides data on the size (abundance) of mouse populations, their breeding status and overall activity. This information is used in models that have been developed progressively over the last 20-30 years to predict mouse outbreaks. Monitoring was conducted on a range of sites (Figure 3):

- Benchmark sites: live trapping data collected for use in models in Adelaide Plains (SA), Walpeup (Vic) & Darling Downs (Qld).
- Quantitative rapid-assessment sites: mouse chew cards & active mouse burrows assessments (110 transects, 11 areas).
- Qualitative monitoring networks: from farmers and agronomists in 11 local areas.

This is part of a study funded by the GRDC to monitor mouse populations and forecast the likelihood of mouse outbreaks. This project has been funded by GRDC until Dec 2021.



# **Further information**

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#### Handy resources

- GRDC Mouse Control website: <u>https://grdc.com.au/resources-and-publications/resources/mouse-control</u>
- O MouseAlert (hosted by FeralScan): <u>https://www.feralscan.org.au/mousealert/</u> Twitter: @MouseAlert