Monitoring mice in Australia – October 2019



Summary

- Mouse numbers are low in all areas (Figure 1) There is a low risk of damage to crops leading into harvest.
- Mice started breeding in early spring, but numbers are starting from a low base. Mice are unlikely to cause economic damage prior to harvest.
- Growers should 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* (www.mousealert.org.au) so other growers can see what mouse activity is being observed in their neighbourhood. Follow on twitter using *@MouseAlert*.

Management Recommendations

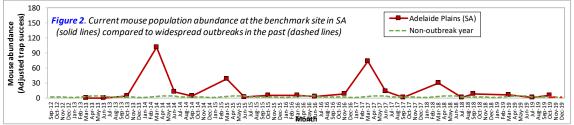
Mouse numbers are currently very low, but will increase through spring into summer. It is unlikely that economic damage will occur as crops mature. See GRDC <u>Mouse Control</u> website for more details about control options.

- 1. Harvest as cleanly as possible reduce mouse food availability. Food resources left in the paddock could sustain mouse breeding and lead to higher mouse numbers at sowing next year. Consider using livestock to remove potential food for mice in dry areas where crops will be left un-harvested.
- 2. **Baiting with zinc phosphide** is reasonably effective providing there is little alternative food available for mice. Once seeds have developed on heads, mice are reluctant to go for zinc phosphide baits, so if need be, bait well before seed set. Be aware of the 14-day withholding period before harvest.

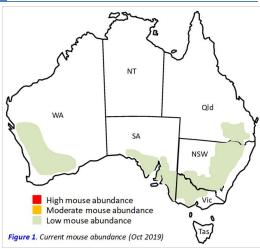
Current situation

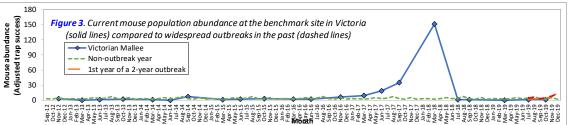
Mouse numbers remain low across all regions (Figure 1), largely because of the continuing dry conditions in northern and western regions. In southern regions (parts of SA and Vic) mouse numbers are still very low. Mice started to breed in early spring and will slowly increase through spring and summer to reach a peak in late autumn 2020. Growers should remain vigilant and act accordingly if damage is apparent. Because of patchy activity between paddocks, 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>Western Australia</u>: Mouse activity is low around Geraldton and Ravensthorpe areas. There was no mouse activity.
- <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 5.3% in July (which is Low for this time of year). There was some activity on some sites, but Low overall.

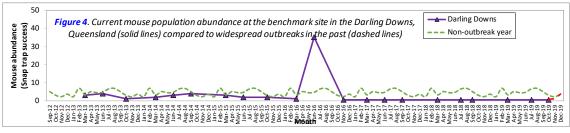


- <u>New South Wales (Northern, Central & Southern)</u>: Mouse numbers are low all regions. There was no mouse activity. A new Benchmark Site and a further 10 Rapid Assessment Sites were set up at Parkes by NSW DPI.
- <u>Victoria</u>: Mouse abundance are very low in all locations. There was some mouse activity on some sites, and Low across Mallee and Wimmera regions (Figure 3). Trap success was 1.3% at Walpeup in March (Very Low).





• <u>Queensland</u>: Mouse activity is very low: Mouse numbers and activity was Very Low throughout the Darling Downs and Goondiwindi (Figure 4). Because of very dry conditions, there are few crops. Nil mouse activity.



The 'Mouse Forecast'

Northwest Victoria: There is a low likelihood of an outbreak for autumn 2020. Peak abundance in autumn 2020 (sowing time) will be low (<30 mice/ha).

Central Darling Downs (Qld): The density index for the mouse populations is currently very low (<1%), and likely to remain low in May 2020. The most likely outcome will be for Very Low Density (probability 0.96) for May 2020.

Future activities

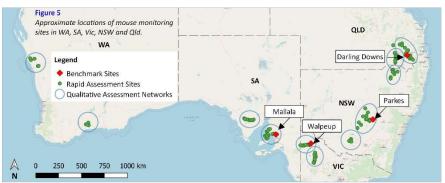
The next scheduled monitoring is set for December 2019 for Northern sites, and March 2020 for Southern and Western sites. Please continue to report mouse abundance on your farm (presence and absence!) using *MouseAlert* (*www.mousealert.org.au*) on your smart phone, tablet or computer and to check what 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> play (click on hyperlink to download). *MouseAlert Smartphone app*



Background

This is an update on mouse abundance and activity for October 2019 for all regions. Mouse populations were monitored in typical grains farming systems in WA, SA, Vic, NSW and Qld during winter 2019 (July) (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.

- Benchmark sites: live trapping data collected for use in models in Mallala (SA), Walpeup (Vic), Darling Downs (Qld), and Parkes (NSW).
- Quantitative rapid-assessment sites: mouse chew cards & active mouse burrows assessments (120 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

Dr Peter Brown – (<u>Peter.Brown@csiro.au</u>) CSIRO Health & Biosecurity, Canberra Steve Henry – (@MouseAlert) (<u>Steve.Henry@csiro.au</u>) CSIRO Health & Biosecurity, Canberra

Handy resources

GRDC Mouse Control website: <u>https://grdc.com.au/resources-and-publications/resources/mouse-control</u>
MouseAlert (hosted by FeralScan): <u>https://www.feralscan.org.au/mousealert/</u> Twitter: @MouseAlert
Monitoring of mouse populations across Australia – October 2019