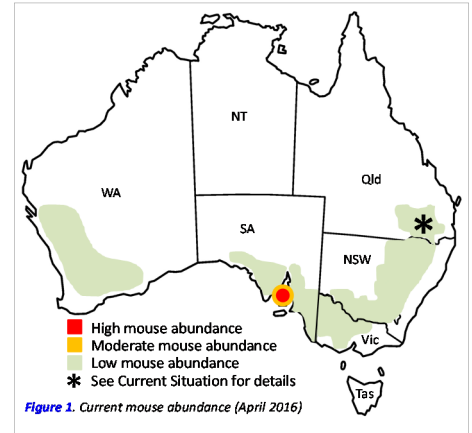


Monitoring mice in Australia – April 2016

Summary

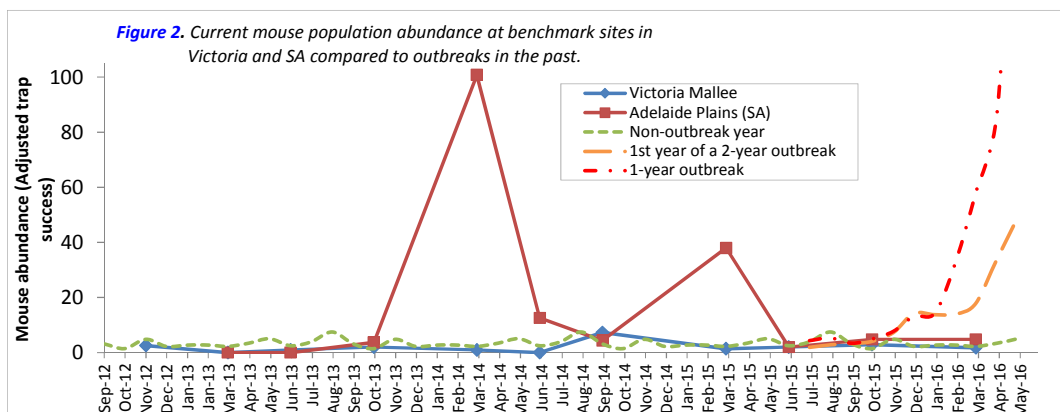
- GRDC have funded additional monitoring across the Australian grain belt until June 2017.
- Mouse numbers are generally low in all locations, except moderate/high activity in Yorke Peninsula (SA) and reports of activity in Queensland (see below) (Figure 1) – Mice are still breeding and abundance will peak around sowing. Growers need to monitor mouse activity before sowing and manage mice to protect their crops. Please use *MouseAlert* so that others can see the scale and extent of mouse activity.
- Check mouse activity on your own farm before sowing. Some damage might occur at sowing of winter crops. To improve bait uptake, bait at sowing if damage is likely (rather than 2-3 days later when damage has already occurred).
- Please continue to use *MouseAlert*. 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.



Current situation

Mouse abundance remains relatively low across all monitoring sites (Figure 1), except moderate activity on Yorke Peninsula (SA) and reports of activity in Queensland. Mice are still breeding and populations normally peak in autumn, coinciding with sowing of winter crops. Growers should be vigilant for signs of activity or damage leading up to sowing in early autumn 2016 and take appropriate action. Please report activity on *MouseAlert*.

- **South Australia** Mouse numbers are moderate/high in Yorke Peninsula (active burrows), but low elsewhere. Growers in YP should be aware of potential damage at sowing and act accordingly. Report mouse activity on *MouseAlert* so others can see the extent and scale of the problem. Mouse abundance remained low on benchmark sites in Adelaide Plains and Eyre Peninsula in March (Figure 2), but growers should remain vigilant and act accordingly if damage is likely.
- **Victoria:** Mouse abundance is generally low. Mouse numbers are low across Mallee and Wimmera regions (Figure 2). Growers should remain vigilant and act accordingly if damage is likely



- **Queensland:** No recent monitoring has been conducted in Queensland (next scheduled monitoring is June), but there are reports (on Twitter and through some local contacts) of increased mouse activity in some areas across the Darling Downs. Growers should undertake their own monitoring and report it on *MouseAlert*.
- **Northern, Central & Southern NSW:** Generally low activity. Low activity on most sites. Data for Central NSW were collected as part of the Central West Farming Systems “Rain Grain and Stubble” GRDC project.
- **Western Australia:** Mouse activity is low, Ravensthorpe: Nil or low activity reported. Geraldton: Nil or low activity reported.

The 'Mouse Forecast'

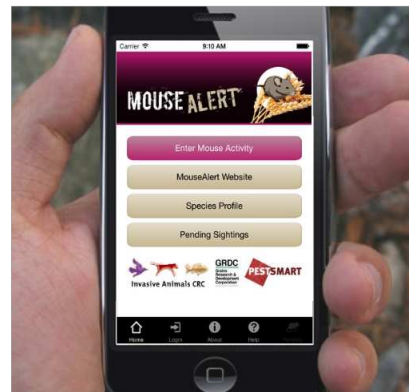
Northwest Victoria: There is a low likelihood of an outbreak in autumn 2016 (probability of 0.17). The model was re-run using rainfall in December 2015 (5.6 mm, which was low), and the likelihood of an outbreak in Northwest Victoria remained low.

Central Darling Downs (QLD): The model has not been run because no recent monitoring has been conducted.

Future activities

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. You can now download the App for *MouseAlert* from the App Store or iTunes <https://itunes.apple.com/au/app/feralscan-pest-mapping/id975407187>. There are now more than 340 records despite low mouse numbers. We welcome any information at anytime. You can also follow progress on **Twitter** (@*MouseAlert*).

MouseAlert Smartphone app
www.mousealert.org.au

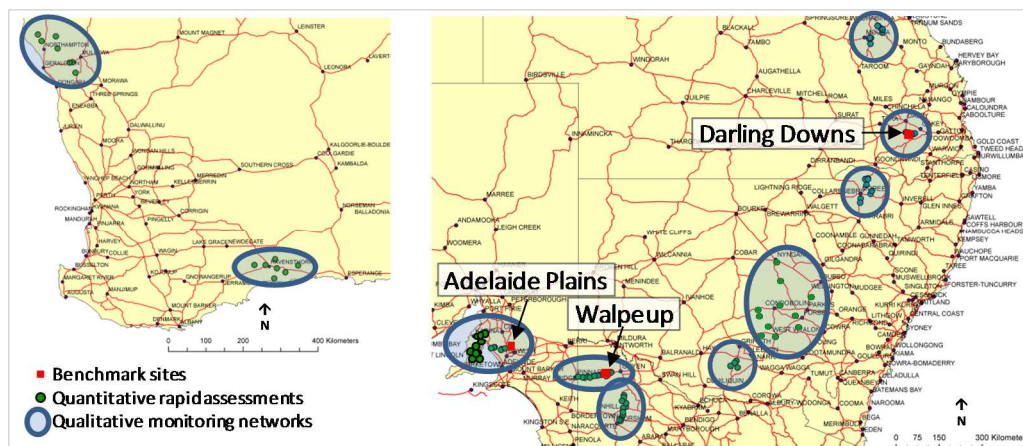


Background

This is an update on surveillance of mice across the grain-belt of Australia for March/April 2016. Mouse populations were monitored in typical grains farming systems in WA, SA, Vic, and NSW and during early autumn 2016 (Mar/Apr). 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 (Figure 3):

- **Benchmark sites:** live trapping data collected for use in models in Adelaide Plains (SA), Walpeup (Vic) and the Darling Downs (Qld).
- **Quantitative rapid-assessment sites:** using mouse chew cards and active mouse burrows assessments on 86 transects across 11 sites.
- **Qualitative monitoring networks:** using data from farmers and agronomist in 11 sites.

Figure 3. Approximate locations of mouse monitoring occurring in WA, SA, Vic, NSW and Qld.



This is part of an 18 month extension to a 3-year study funded by the GRDC to monitor mouse populations and forecast the likelihood of mouse outbreaks. The project is a collaboration between Landcare Research (New Zealand), CSIRO Agriculture and the Invasive Animals Cooperative Research Centre. The project will finish in June 2017.

Further information

For further information about the monitoring or models, or if you have observed mouse activity in your area, please contact the people below, or see www.mousealert.org.au.

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